ABSTRACT

Lori Kay Gross. **AN ANALYSIS OF A STONE ARTIFACT CACHE FROM THE SHELOR SITE (31MG2051) IN MONTGOMERY COUNTY, NORTH CAROLINA.** (Under the direction of Dr. I. Randolph Daniel, Jr.) East Carolina University, Department of Anthropology, April 2016.

Prehistoric artifact cache discoveries are poorly understood archaeological phenomena. A few such occurrences consisting of groups of stone artifacts buried in forgotten underground pits are known in North Carolina. This research presents the results of an analysis of the accidental discovery of a cache of 81 stone artifacts during landscaping activities by a Montgomery County resident. Referred to as the Shelor cache this analysis places the artifacts in their prehistoric temporal and spatial context.

A typological comparison using existing collections focused on a quantitative analysis of artifact dimensions including length, width, thickness, and weight. A qualitative analysis focused on an analysis of flaking patterns and stone type. The result of these analyses supports a consistent artifact form with little variation in size and shape that appear to represent a collection of unfinished spear points. Moreover, a visual inspection of the stone texture, groundmass color, and the presence/absence of mineral inclusions suggest the artifacts are made from a single type of aphyric rhyolite that is distinguished by its dark gray colored groundmass and homogeneous fine-grained texture as well as its distinctive flow banding (Daniel 1998). This material was probably obtained from a nearby stone quarry in the Uwharrie Mountains.

Results support that this artifact cache represents a group of stone tools manufactured and deposited during the Middle Archaic period (8900–5800 BP). The intended purpose of the

cache is still unclear. Typically artifact caches are located some distance from known stone sources and were probably intended to supply items for later use where time or materials were in short supply. However, the fact that these artifacts appear to be located close to their probable stone source is somewhat unexpected. While it may not be possible to know with certainty the intended purpose of the cache, hypotheses are developed for future testing.

Overall, this research contributes to the existing knowledge of cache discoveries in North Carolina and provides valuable information for future research regarding this rare archaeological phenomenon.

AN ANALYSIS OF A STONE ARTIFACT CACHE FROM THE SHELOR SITE (31MG2051) IN MONTGOMERY COUNTY, NORTH CAROLINA.

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By

Lori Kay Gross

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“It’s not what you find, it’s what you find out” - David Hurst Thomas

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It is with great sadness and joy that this chapter in my life is ending but I know that the future holds other challenging and rewarding experiences for me and I will embrace them!

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Chapter 1: Introduction and North Carolina Prehistory

Stone artifact caches are rare occurrences in North Carolina. The caches that have been discovered across the state span the state's prehistory. Most have been found by accident and few have been professionally excavated and reported. Thus, artifact caches remain a poorly understood archaeological phenomenon.

This thesis presents the results of an artifact cache analysis of 83 stone artifacts—referred to here as the Shelor cache—accidently uncovered in 2014 in Montgomery County. In particular, this thesis presents the circumstances of the cache's discovery, subsequent archaeological salvage work and the analysis that addresses several questions related to the age and possible function of the cache.

In this chapter I will provide a brief overview of the region's prehistory in order to understand the temporal context of the artifacts. Chapter 2 will describe the discovery, excavation, and features of the cache. Chapter 3 will discuss theoretical frameworks of caching and previous cache discoveries in North Carolina. Chapter 4 will provide a detailed discussion of the analyses of the artifacts, and chapter 5 will summarize the conclusions as well as provide suggestions regarding future research.

The Piedmont of North Carolina is defined by over 51,800 square kilometers, encompassing thirty-nine modern counties, and is topographically demarcated by the Blue Ridge Mountain escarpment to the west and the Coastal Plain to the east (Ward et al. 1993:2). The landscape consists of fairly uniform topography with elevations ranging from approximately 122 to 610 meters above sea level, traversing east to west respectively. Rolling ridges and rounded

hills are occasionally interrupted by more prominent peaks such as the Uwharrie Mountain range stretching through Montgomery, Stanley and Randolph counties forming a portion of what is referred to as the Carolina Slate Belt (Daniel 1998:39). This mountain range provides an abundance of igneous, sedimentary and metamorphic rocks, some of which was prehistorically quarried for tool stone (Daniel and Butler 1991; Daniel 1998; Steponaitis et al. 2006).

Paleo-Indian period (14,500 – 11,500 BP)

The Paleoindian Period is generally considered to be the time when the first groups of hunter-gatherers arrived in North America some point after the last Glacial Maximum, around 21,000 BP (Anderson and Sassaman 2012:36). While there is still considerable debate as to the nature of the initial settlement (e.g., Bradley and Stanford 2004, Meltzer 2009) there is no doubt, that at 12,000 – 10,500 BP a technological radiation occurred across North America in the form of fluted projectile points (Anderson and Sassaman 2012:49).

Social organization within the Piedmont of North Carolina is assumed to be in the form of bands, seasonally moving around the landscape to exploit available resources. Patterns of adaptation have been proposed asserting that populations were 'technology oriented' rather than 'place oriented', relying on portable tool kits to exploit plant and animal resources (Anderson 1995; Kelly and Todd 1988). When viewed on the macro-regional scale, it is clear there were defined Clovis occupations in the Piedmont, likely linked to sources of high quality tool stone (Daniel and Goodyear 2015:322). Late Paleoindian artifacts are present in North Carolina at locations like The Hardaway Site (Coe 1964; Daniel 1994; 1998) and the Haw River Sites (Cable 1996), which also provide context for the onset of the Holocene and the beginning of the Archaic period.

The Archaic Period (11,550 – 3500 BP)

The Archaic period coincides with the onset of Holocene climatic conditions and is characterized by sites interpreted to represent relatively small camps, generally found near water sources. There is evidence of technological continuity with the prior Paleo-Indian period (Phelps 1983; Ward and Davis 1999:32; Anderson and Sassaman 2012:71).

Commonly, the Archaic period is divided into three sub-periods: Early, Middle and Late. The Early Archaic (11,500-8900 BP) in the Piedmont (Anderson & Sassaman 2012:66) is represented by the emergence of the Palmer Corner Notched and Kirk Corner Notched points (Coe 1964; Ward and Davis 1999). Decreased point size and form changes from lanceolate to notched points suggest subsistence strategies adapted to killing and processing smaller game (Anderson and Sassaman 2012:72). Warming temperatures during the Early Archaic are thought to have been central to increased population levels and implementation of generalist foraging strategies (Anderson and Sassaman 2012:72). Populations likely consisted of social groups organized into small bands that moved within defined territories to take advantage of resources available both seasonally and geographically (Ward and Davis 1999) or tethered to certain raw material sources within the Piedmont (Daniel 1998; 2001).

The Middle Archaic (8900-5800 BP) (Anderson and Sassaman 2012:66), witnessed a general increase in the number of sites and presumably population across the Southeast. Warmer and drier climatic conditions during this time may have made the riverine areas more favorable than the upland location by human populations (Anderson and Sassaman 2012:73-74). Subsistence strategies consisted of a continuation of the foraging strategies of the Early Archaic and living in relatively small communities (Anderson and Sassaman 2012).

Introduction of a stemmed biface technology within the Piedmont is represented by the emergence of Morrow Mountain, Stanley Stemmed and Guildford Lanceolate projectile points (Coe 1964; Ward and Davis 1999). Certain stemmed forms are believed to be derived from Early Archaic forms (Coe 1964). Organized foraging groups are still present but become increasingly geographically bound to prescribed areas within the Piedmont suggestive of interpersonal violence or warfare (Anderson and Sassaman 2012:74).

The Late Archaic (5800-3200 BP) (Anderson and Sassaman 2012:66) sees a general trend towards increasingly sedentary camps located around resource-abundant mouths of rivers (Ward and Davis 1999). Savannah River Stemmed projectile points are associated with the onset of the Late Archaic period in North Carolina (Coe 1964; Ward and Davis 1999). The beginning of the shift in settlement patterns toward more sedentary lifestyles is also indicative of this culture period (Ward and Davis 1999).

Late Archaic Piedmont settlements become more permanent although relatively mobile groups remain present for subsistence and resource procurement (Anderson and Sassaman 2012:75). Common traits of the Piedmont Savannah River Stemmed projectile point are identified in hafted biface forms across the region indicating cultural diversification of ideas (Anderson and Sassaman 2012:75). The emergence of vessels carved from soapstone become a major item of exchange originating from quarries in the Piedmont (Anderson and Sassaman 2012:75)

The Woodland Period (1200 BC – AD 1600)

The Woodland Period sees the introduction of ceramics and an economy based on a mixture of horticulture and hunting and gathering (Ward and Davis 1999). The Woodland period

includes larger and more permanent settlements than in the Archaic period (Anderson and Sassaman 2012).

In the Early Woodland (1200 - 300 B.C.) hunting and gathering are still prevalent subsistence strategies. While there is no direct evidence for agriculture dating to this period, inferences about horticulture are made by the locations of the settlements in areas of rich soil conditions (Ward and Davis 1993:3). Pottery use is widespread, and the presence of many surface treatments and patterns are present (Anderson and Sassaman 2012).

Within the Piedmont of North Carolina conical pottery vessels tempered with sand and crushed quartz emerge (Ward and Davis 1999:83-84). Identified as Badin and Yadkin phase ceramics, stratigraphy suggests they support two distinct periods of development within the same ceramic tradition (Ward and Davis 1999:85). Badin Crude and Yadkin Large Triangular projectile point typologies are present exhibiting a diversion in form and use (Coe 1964; Ward and Davis 1999:80-85).

The Middle Woodland Period (300 BC - AD 800) sees intensification of horticultural practices within settlements (Ward and Davis 1999). Also, the presence of mortuary rituals centered on mounds and mound building becomes prevalent across the Southeast (Anderson and Sassaman 2012).

In the North Carolina Piedmont external cultural traditions marginally influenced the Woodland culture (Ward and Davis 1999). Gradual incorporation of small villages and scattered hamlets developed to support agricultural dependence but hunting and gathering continued to provide a near equal contribution (Ward and Davis 1999: 78). Burial practices were simplistic pit

features with few grave goods and typically interred within close proximity to houses (Ward and Davis 1999: 78-79).

The Late Woodland (AD 800 - 1600) sees an increase in population size and settlements. Mississippian culture traits were present in the North Carolina Piedmont, evidenced at the Town Creek Mound site (Boudreaux 2007). Around AD 1200 corn and beans had become dietary staples throughout North Carolina (Ward and Davis 1999).

Chapter 2: Cache Discovery and Excavation

The Shelor Site is a lithic artifact cache of eighty-one chipped stone bifaces of comparable size, shape and raw material, excavated on private property located near Badin Lake in Montgomery County North Carolina in 2014 (Figure 1). The property had originally been in its natural state until the building of a single family dwelling and installation of surrounding landscaping which was completed in 2002. During this process no archaeological materials had been identified.

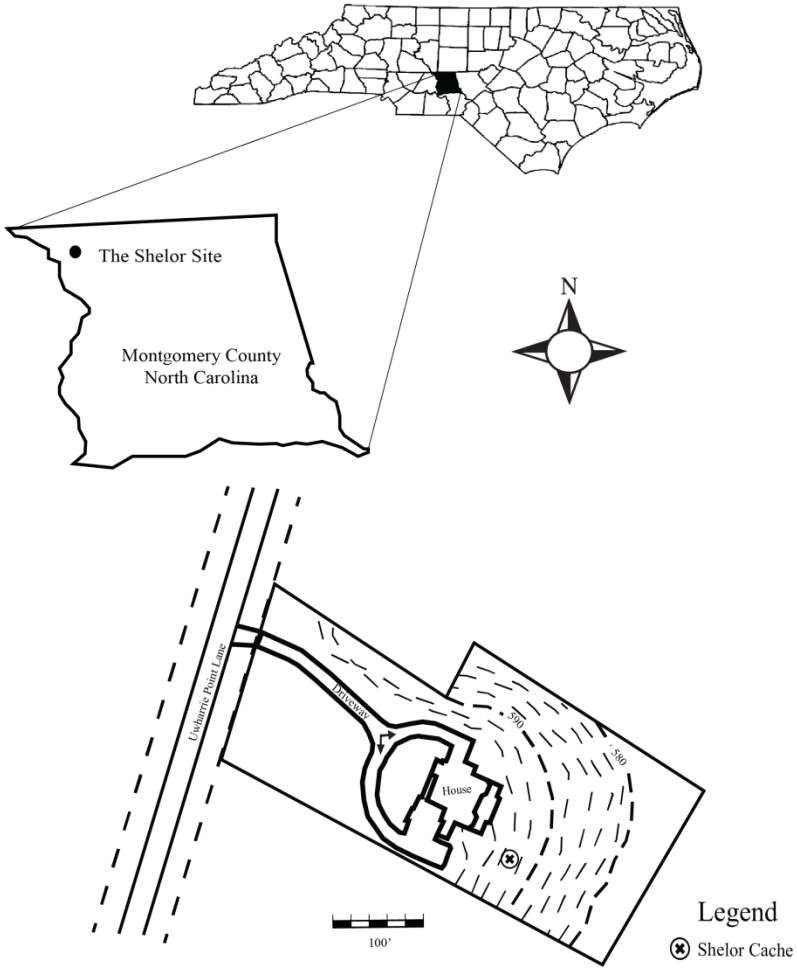


Figure 1: The Shelor Cache Location Map

The majority of the artifacts were inadvertently excavated by the property owner on February 22, 2014, sixty-five in total, while landscaping (Appendix A). While planting a bush, the property owner uncovered a shaped piece of stone material that he recognized as an 'arrowhead.' Upon further inspection he determined that numerous similar stone artifacts were contained within the soil he had originally removed to plant the shrub. On April 20, 2014 investigation of the area by visiting relatives revealed an additional nine stone artifacts bringing the total to seventy-four. The owner collected the artifacts and finished planting the bush.

Recognizing the potential significance of the discovery, the Shelor family contacted Dr. I. Randolph Daniel, Jr. of East Carolina University seeking his advice regarding the artifacts. In May of 2014 Dr. Daniel travelled to the Shelor residence to examine the artifacts and yard to determine if additional investigation was warranted. Given that several dozen stone artifacts were recovered from the excavation of one small hole, it was apparent that Mr. Shelor had inadvertently discovered a subsurface artifact cache. Daniel's cursory examination of the artifacts suggested two tentative conclusions. First, the artifacts likely represented a group of unfinished projectile points all at the same unfinished state of manufacture. Second, the artifacts were probably all fashioned from the same stone source. Given that the artifacts were unfinished the age or typology classification of the artifacts was uncertain. Based on his conversation with the Shelors and his inspection of the yard Daniel thought that further archaeological work in the area of the bush was warranted. Fortunately, the Shelors agreed and granted him permission to return and conduct his work.

Later that fall Daniel returned with graduate students from East Carolina University. From October 11-12, 2014 three graduate students, under the direction of Dr. Daniel, systematically excavated and evaluated the feature. Standard archaeological methods were used.

Goals of the excavation included documenting the nature of the presumed subsurface feature and systematically search for additional artifacts (Figure 2).

Figure 2: Shelor Cache Location under the bush to the left of the scale and North arrow

A datum was established from the southwest corner of the backyard patio. Using a hand held compass and tape measure the northwest corner datum was placed at 332 degrees west of north at a distance of 8.21 meters. The bush was removed and a single 2x2 meter unit was centered on the bush hole which was designated as Feature 1 Surface (Figure 3).

Figure 3: Feature 1 Surface.

The surface of the unit was flat shoveled and all material recovered was dry screened utilizing 1/8 inch mesh (Figure 4). The stone material was bagged and labeled as 'FS# 1 Surface: Test Unit 1' to maintain provenience.

During the screening process two tertiary flakes were recovered and labeled as 'FS# 2.1 and 2.2'. The presence of only two flakes indicates that reduction was not performed on site. An additional flat circular stone measuring approximately 10cm X 11cm was recovered, bagged and, labelled 'FS# 86'.

The surface soil composition was identified as loose sandy clay. Feature excavation was accomplished using trowels, brushes, and other small tools. Screening feature fill through 1/8 inch mesh was abandoned in favor of using 1/4 inch mesh due to the high clay content of the soil. Even then it took considerable effort to screen the fill. Excavators took notes on

standardized data forms. After excavation the feature was documented with digital photographs and scale drawings in profile and plan view.

Figure 4: Feature 1 - Mapping and dry screening.

Within the unit two sub-features were identified. Feature 1A represents the original feature location where the hole was dug for the bush. Feature 1B represents a subsequent excavation performed by family members looking for additional artifacts (Figure 5; Appendix D).

Figure 5: Plan view Feature 1A (left) and 1B (right) during excavation.

***Feature 1A*:**

Feature 1A, identified as the bush hole, was roughly circular in shape measuring 63cm N/S by 61cm W/E. Upon excavation it measured 55.2 cmbs deep (Appendix D). Feature 1A was bisected east to west and the north portion was excavated first. Particular attention was paid to recovering additional artifacts in the bush hole fill that were overlooked during the bush planting and to finding potentially undisturbed feature fill with in-situ remains. One biface was recovered in the disturbed fill lying flat with the tip oriented northeast at 43.2 cmbs, labeled FS# 4 (Figure 6).

Figure 6: Feature 1A - Biface FS# 4.

No additional artifacts were recovered within the northern portion of Feature 1A. An abundant amount of apparent natural stone was recovered during the screening process which was bagged and labeled FS# 2 Feature 1A.

Within the southern portion of Feature 1A, two partially stacked bifaces were identified that appeared to be in situ against the pit wall at a depth of 48.7 cmbs. One biface was oriented northwest lying at an angle and the second was oriented vertically with the base up. These were labeled FS# 6 and FS# 7 respectively, (Figure 7). A biface tip, FS# 8, was recovered within the fill disturbance in the southwest corner of Feature 1A and is a refit to a partial biface recovered by Mr. Shelor during the initial cache discovery.

In sum, it is difficult to know how much, if any, of the pit we excavated represents the original pit feature. Given that Mr. Shelor noted he dug a hole about 2 feet in diameter

(Appendix A), that dimension corresponds quite closely to the width of the feature we excavated. It may be the case that digging the bush hole may have obliterated the original feature. On the other hand, the hole Mr. Shelor dug may correspond closely to the original pit width as he noted his surprise at how easy it was to dig the hole given its location on the hill slope that consists of red clay subsoil with no topsoil (Appendix A). As to pit depth, the discovery of two bifaces at about 50 cmbs is about 20 cm deeper than the one foot depth (ca. 30.5 cm) that Mr. Shelor dug. Moreover, as noted above, the pair appeared to by lying against undisturbed pit wall. Thus, at least a portion of our excavations appears to have encountered original pit fill.

Figure 7: Feature 1A - In situ bifaces FS# 6 and FS# 7.

***Feature 1B*:**

Feature 1B measured 66cm N/W by 51 cm W/E. Upon excavation it measured 53 cm deep. It was excavated in a similar manner to Feature 1A. Three additional artifacts were

recovered from Feature 1B fill including one biface at 27.5 cmbs identified as FS# 3; two portions of a recently broken biface identified as FS# 9 and FS# 9.1. A biface tip, FS# 10 was recovered during dry screening and determined to refit with FS# 9, 9.1 and 9.2 which resulted in reconstruction of an entire biface.

All data from the excavation including the artifacts that were loaned by the Shelor family were taken to Phelps Archaeology Laboratories at East Carolina University for analysis.

Figure 8: Feature 1A (left) and Feature 1B (right) excavated.

After the excavation (Figure 8) two additional artifacts including one complete biface labeled as FS# 87 and one biface missing a portion of the tip labeled FS# 88 were recovered by the homeowner on October 27, 2014. Mr. Shelor notified Dr. Daniel of these additional discoveries. Dr. Daniel forwarded a copy of the excavation surface map to Mr. Shelor who sent the artifacts, depth measurements and the location noted on the map. These artifacts were not

found within the perimeter of the originally excavated feature and presumed representative of disturbance and redistribution of soil from the original discovery. These were cataloged, bagged, labeled and added to the existing maps to ensure accuracy and completeness of the collection

Chapter 3: Caching Behaviors and Previous Cache Discoveries in North Carolina

In this chapter I provide some theoretical and empirical context for interpreting the Shelor cache. First, I define caches and the theoretical approaches to understanding the behaviors associated with caching. Second, I provide a brief review of some previous cache discoveries in North Carolina.

Theoretical Frameworks for Caching Behaviors:

Strictly speaking, a cache describes material that is placed aside for future use within a discrete deposit that tends to be hidden from view (Kilby 2008:26). Archaeologically, the term cache is assigned to a variety of artifact types that are placed together with the intent of future retrieval (Kilby 2008:26). In part, because of stone's durable properties, caches of stone artifacts are typically found archaeologically in subsurface pits. Such caches can include a cluster of items such as tool blanks, blades or ordinary cobbles that can be reworked into a variety of items (e.g., Green 1963:150; Tunnel 1978) or an assemblage of tools needed for of a specific task such as hunting and butchering (e.g., Walthall and Holley 1997). While cached materials tend to be stored for their economic value, researchers examining caching behavior also include the potential use of caches as burial offerings or other ceremonial uses (Miller 1993:1). Cache content can range in size from a few to several hundred items (Greiser 1985:303). Thus, the behavior that produces caches varies widely including practical subsistence, other economic functions or ceremonial/ritual needs.

Ethnographic and ethnoarchaeological observations of caching provide useful analogies for archaeologists attempting to interpret caches. In this regard the ethnoarchaeological work of Lewis Binford has been particularly influential (Binford 1979, 1980).

Ethnographic explanation for caches asserted by Lewis Binford (1979, 1980) was based upon his observations of contemporary hunter-gatherer groups. Binford considered caches to be places where items were temporarily stored in a manner and location specific to the intended use by identifying two cache types he termed "seasonal" or "insurance". Seasonal caches are usually reserved for items such as sleds or boats that were only needed during certain times of the year (Binford 1979:256). Insurance caches are defined as caches that are generally required at a certain location in the future, such as near a frequented hunting area and cached at a known landscape marker (Binford 1979:256-258). As Binford (1979) stated "Through this planned activity, the Nunamiut modify their effective environment by distributing resources in terms of anticipated future needs. This is accomplished at very little cost, since the dispersion is made as part of other activities: items are transported when one is moving for other reasons." The above framework is relevant to the Shelor cache as it appears to represent a collection of stone artifacts that is not associated with any nearby prehistoric habitation. In that regard, the artifact assemblage would seem to fit Binford's notion of an insurance cache.

Previous Cache Discoveries in North Carolina:

Although rare, artifact caches have been documented in North Carolina. Cache discoveries are found in two different contexts including residential occupations and isolated occurrences apart from habitation sites. Below, I provide a brief review of artifact caches that have been reported in the state.

Residential Site Cache Discoveries:

In this section I will briefly describe the cache discoveries I identified through research that have been recorded within residential occupational sites. These are professionally excavated sites utilizing standard archaeological practices.

Hammocks Beach, a Woodland period occupation site in Onslow County contained three cache deposits of stone cobbles (Daniel 1999:79-95). All of these were recovered from subsurface pits. The largest cache contained 72 small cobbles tightly stacked together. The cobbles were largely unmodified and interpreted as raw material stored for future use (Daniel 1999:79).

The Garden Creek Site located in Haywood County along the Pigeon River included three mounds and two villages. One subsurface pit cache deposit was identified and recorded as Feature 35. It was discovered on the eastern side of Mound 1 and contained seven chlorite schist cobbles, of which three were cut and pecked. This cache was interpreted as ceremonial (Keel 1987:85).

The Warren Wilson Site in Buncombe County included two artifact caches. The first is a cache of twenty-five Otarre stemmed stone projectile points interpreted as an economic cache within a subsurface pit dating to the Mississippian period (Keel 1987:168). The second cache was identified as a ceremonial cache consisting of an unfinished gorget, burned clay, pebbles, Swannanoa series ceramic sherds and yellow and red ochre within a subsurface pit (Keel 1987:179).

The Wilmore cache was named after Jim Wilmore, the forester grader operator who found it in the fall of 2011 at Fort Bragg. The cache contained approximately 180 pieces of stone

described as hand-size or smaller flakes. (Brooks 2013). The artifacts were not temporally diagnostic but the assemblage was interpreted as an Archaic period collection of stone preforms or blanks.

The Neuse River cache was found within a subsurface pit during an initial survey of the upland portion of the Falls Lake Reservoir in the Holly Point Recreation area (Hargrove et al. 1986). This cache contained eighty-two quarry preform blanks and flake blades identified as dating to the Archaic period occupation of the Falls Site (Hargrove et al. 1986).

Two caches of bifaces have also been reported on the Haw River Site (Claggett and Cable 1982:381-382). These biface caches were located within subsurface pits presumed to date to the Archaic period (Claggett and Cable 1982: 381-382). The first cache contained six biface preform specimens. The second contained fifteen biface preform specimens and both features are interpreted by the excavators as stone cores stored for future use (Claggett and Cable 1982: 381-382).

The above discoveries illustrate that cache deposits have been identified within residential sites. Moreover, they typically contain unmodified and/or unfinished raw materials such as cobbles, preform bifaces as well as finished artifacts. Thus caches in North Carolina include items stored for future economic needs or as ceremonial/ritual artifacts. The ritual/ceremonial cache deposits could indicate evidence of possible grave goods that were placed within a burial and that upon discovery the organic material decomposed and was no longer identifiable within the feature.

Isolated Cache Discoveries:

The following paragraphs include brief descriptions of previously discovered isolated cache discoveries in North Carolina. These caches primarily represent accidental discoveries that were not professionally excavated and received limited analysis. As such they appear to be isolated caches but given the context of their recovery, this is a tentative interpretation. These subsurface cache deposits often receive limited professional analysis and are frequently not reported upon initial discovery. The descriptive accounts of these amateur cache discoveries within North Carolina often lack specific context and are seldom maintained as complete collections.

For example Coe (1964) describes a cache reported near the Uwharrie River, ten miles east of the Doerschuk Site, containing 1,026 blades and an additional cache found near the Yadkin River fifteen miles north of the Doerschuk Site containing 815 blades (Coe 1964:50). Although Coe does not provide details of the site or the geographic context of the caches, Coe asserts that they closely resemble specimens excavated from the Doerschuk Site (Coe 1964:50). These cache deposits are representative of cache discoveries by amateur artifact hunters that have not been studied by professional archaeologists or published independently. Therefore, placing these cache discoveries within the context of isolative or occupational is not entirely possible.

The Dan River Cache was reported to consist of fifteen rhyolite lance shaped biface preforms discovered in North Carolina (Hranicky 1992:178). Hranicky asserts that the entire cache numbered close to 300 artifacts but that access was limited to the fifteen analyzed preforms (Hranicky 1992:178). This cache location was reported to have been found near a

modern water source, assumed to be the Dan River, without mention of prehistoric habitation indicators (Hranicky 1992:178). Without additional non-cache artifacts Hranicky (1992:178) states that the cultural context cannot be identified.

The Mount Olive Cache reported to be located near the city of Mount Olive consists of three stone bifaces which collectively were initially identified as a cache (Hranicky 2008:108). Upon further analyses Hranicky asserts that these items were most likely an individual tool kit or potentially grave goods that remained following the decomposition of human remains within the pit feature (Hranicky 2008:108).

The Right's Cache located in Stokes County contained four bifaces in a subsurface pit and reported by Hranicky (2012:119-129). Although asserted as possible pre-Clovis biface tools, limited evidence is presented within this publication to support these findings (Hranicky 2012:119-129).

The Rankin Cache located in Rockingham County was accidentally discovered by the late Dr. Pressley Rankin and reported by Hranicky (2013:151). A total of six biface stone tools were recovered; however, the context of their discovery was unreported. Hranicky (2013:151-156), who reported the cache, suggests the artifacts are Paleoindan in age but they are morphologically ambiguous in that regard. Moreover, it can only be assumed that this discovery represents an isolated cache given the very limited analysis it received.

The Nelson Cache found in the 1950s was recovered by Samuel L. Nelson on his family farm and reported by Patch (2014:99) several decades later. This accidental discovery was described as primarily preform biface points by the landowner who recollected they were unearthed during a private road improvement project (Patch 2014:99). Patch reports that eighty-

one bifaces and two small stone tools were analyzed but acknowledges that the size of the original cache is unknown due to artifact loss or distribution over the years (Patch 2014:99-121). Patch asserts the cache is Archaic but admits placing anything more specific would be conjecture (Patch 2014:118).

In summary, this brief review of the archaeological literature with respect to artifact caching provides some theoretical and empirical frameworks for interpreting the Shelor cache. First, while artifact caches are known in the state, they are rare. Moreover, most of those that are known archaeologically have not received detailed analyses. In any case, reported examples of caches appear to occur in two contexts, either within an archaeological site per se as part of a residential occupation or as isolated occurrences seemingly not associated with any other habitation.

Second, ethnoarchaeological research offers a theoretical framework for interpreting the function of caches. That is, artifact caches tend to represent either an "economic" function occurring as a collection of artifacts including preforms, raw material, and/or finished tools required for future use or a "ceremonial/ritual" function that may or may not have been associated with human remains.

In North Carolina the majority of the reported cache discoveries, are representative of economic caches occurring both within residential sites and as isolated occurrences. Moreover, most of the known caches are difficult to date because of the absence of temporally diagnostic artifacts but they appear to date throughout most of the prehistory of North Carolina.

The analysis and interpretation of the Shelor cache are presented in the following chapters. To place the Shelor cache in the context of the background presented in this chapter

and to anticipate my results, my analysis suggests that the cache of 81artifacts recovered from a subsurface pit near the Uwharrie Mountains represents an isolated occurrence of unfinished stone points stored for future economic purposes that for whatever reasons was never retrieved.

Chapter 4: Artifact Analysis

In this chapter I will present the results of the artifact analysis. Analysis focused on four interrelated questions: 1) identifying the cultural-historical association of the artifacts; 2) identifying the production stage of completion; 3) identifying the stone raw material used to produce the artifacts and 4) identifying the use potential of the cache.

Research Problems:

The biface artifacts (*n*=81) within the Shelor cache are all morphologically similar exhibiting a remarkable similarity in size, form, and raw material type. A total of seventy-two of the artifacts are complete. An additional sixteen broken pieces can be refit to form seven complete specimens. Unweathered surfaces on the broken surfaces of these artifacts suggest these breaks occurred during the initial discovery of the cache. One biface exhibits an old break. Quantitative and qualitative analyses described below provide evidence of their morphological similarity.

First, however, brief mention should be made of three non-biface artifacts that were also recovered including two stone flakes and a possible unifacially flaked piece of stone. Two medium size biface thinning flakes were recovered during our excavations. They are slightly weathered and appear to be of similar stone type as the bifaces. They could possibly be flaking debris from one or two or the cache artifacts but an unsuccessful attempt at refitting them to any of the bifaces cannot confirm that possibility. A palm-sized somewhat disc-shaped piece of stone approximately 10cm by 11cm in diameter and approximately 2cm thick was recovered by Mr. Shelor and was presumably associated with the bifaces. It is a highly weathered piece of what

appears to be metavolcanic stone. As such, it is difficult to know if it is of the same stone type as the bifaces. It also appears to have been roughly flaked unifacially around half of its circumference. Although speculative, the overall morphology of the artifact suggests it could represent a hand-held tool used to dig the pit. In any case, no further consideration is given these artifacts and I turn to the remainder of the analysis.

Research Problem 1: What is the cultural historical type(s) represented in the cache?

Morphologically, the Shelor artifacts do not appear to correspond to any known North Carolina projectile point type (Coe 1964). Rather, the bifaces appear to be unfinished points (i.e., preform stage). If so, they most closely resemble either a Guilford Lanceolate or Morrow Mountain Stemmed type (Coe 1964:37-43), although their elongated triangular shape does not preclude them from representing an unfinished triangular point type. Assuming the preform observation is correct, a series of metric analyses were done comparing the dimensions of the Shelor artifacts to the dimensions of the known point types of the Piedmont (Coe 1964) to determine what possible unfinished point type(s) the Shelor artifacts might represent. That is, if the Shelor artifacts represent an unfinished point type, then given that stone tool manufacture is a reductive process, their artifact dimensions must be larger than or roughly equal to the type that was intended to be produced. Since some existing point types have dimensions larger than the dimensions of the Shelor bifaces, the Shelor artifacts cannot represent preforms for those types and those point types can be eliminated from further consideration.

Research Methods: This analysis involved several steps. First, it was necessary to characterize the Shelor assemblage both quantitatively and qualitatively. With respect to artifact form, all of the bifaces are roughly lanceolate in shape with predominately flat bases and

symmetrical bilateral reduction to form the tip (Figure 9).

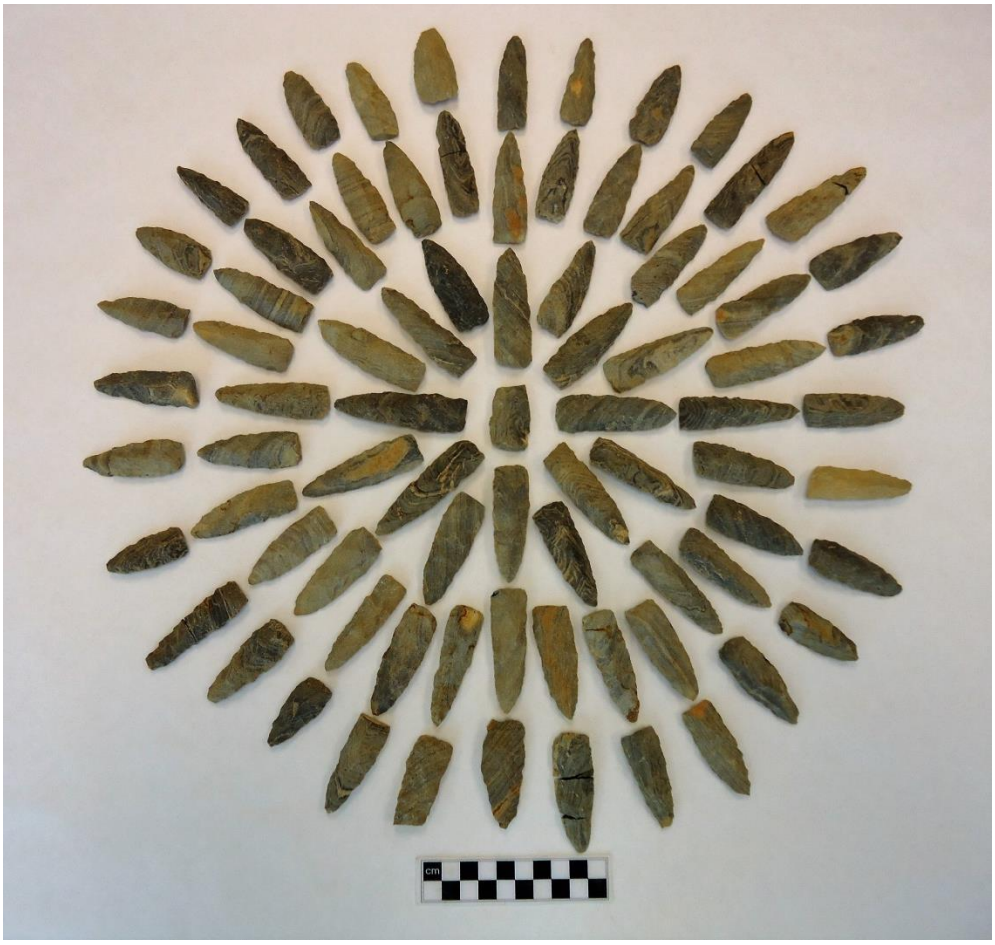


Figure 9: Shelor Biface Points.

Quantitatively, metric data on the Shelor assemblage was recorded on each artifact including maximum length, maximum width, maximum thickness, and weight (Appendix B). The Shelor artifacts are remarkably similar in length, width, and thickness with mean dimensions of 62.33 mm in length, 21.09 mm in width, 9.47 mm in thickness, and a mean weight of 12.83 gm (Table 1).

Table 1: Shelor data of length, width, thickness, and weight.

	Maximum Length (mm)			Maximum Width (mm)			Maximim Thickness (mm)			Total Weight (g)		
Typology	Mean	s.d.	*n*	Mean	s.d.	*n*	Mean	s.d.	*n*	Mean	s.d.	*n*
Shelor	62.33	6.80	77	21.09	1.35	81	9.47	0.86	81	12.83	2.25	77

Second, the Shelor artifact dimensions were then compared to the dimensions of the known Archaic stemmed and Woodland triangular point types of the Carolina Piedmont as defined by Coe (1964). Earlier point types such as the eared Hardaway complex (Coe 1964:67) and the corner-notched Early Archaic types including Palmer and Kirk (Coe 1964:67-69) were excluded from comparison as the morphology of the Shelor bifaces, particularly their relatively narrow bases, precluded them from being finished into any of those eared or notched forms. Thus, this initial comparison included gathering data on ten point types spanning the Middle Archaic to Late Prehistoric periods of the Piedmont. Particular attention was given to the Guildford Lanceolate and Morrow Mountain point types which visually appeared to be most similar to the Shelor bifaces. These data were gathered from the type definitions in Coe including the maximum, minimum and average measurements of the length and width of each point type (Coe 1964: 35-49; 70).[1] Utilizing the Shelor artifacts, corresponding measurements (Appendix B) were obtained for comparison (Figures 10 and 11).

Length and width data including maximum, minimum, and mean dimensions indicates that the size of the Shelor bifaces overlap to some degree with most of the ten point types (Figures 10-11). Exceptions to this observation include the Caraway Triangular whose length measurements are significantly less than the Shelor bifaces. While the Savannah River stemmed and Kirk stemmed point lengths are significantly greater than those of the Shelor cache there is a

[1] Coe did not list the sample size he used to derive these measurements, nor did he include artifact thickness in his type definitions.

slight overlap although the majority of the range lies outside that of the Shelor biface lengths exclusion based solely on length cannot be asserted. It is possible that the Shelor bifaces are representative of the shortest examples of Savanah River stemmed or Kirk stemmed points.

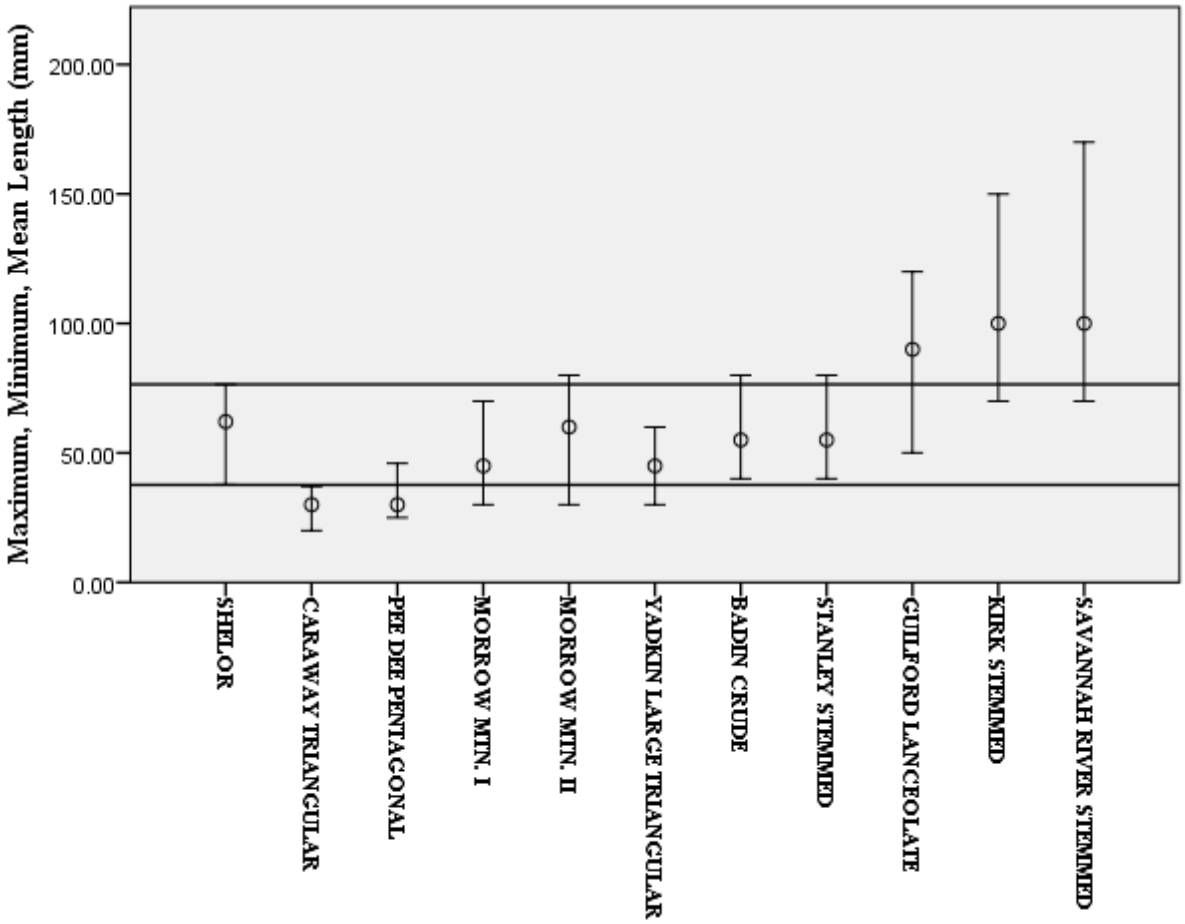


Figure 10: High-Low Length Comparison of Shelor Cache and Coe's Piedmont Typology.

Comparison of width ranges also indicates that the Shelor artifacts overlap with several point types excluding the Savannah River stemmed and Kirk stemmed (Figure 11). The Badin Crude and Stanly stemmed types only slightly overlap the width range of the Shelor bifaces. The

Shelor artifacts can be excluded as Badin and Stanly stemmed preforms as there is minimal overlap between the lower width ranges.

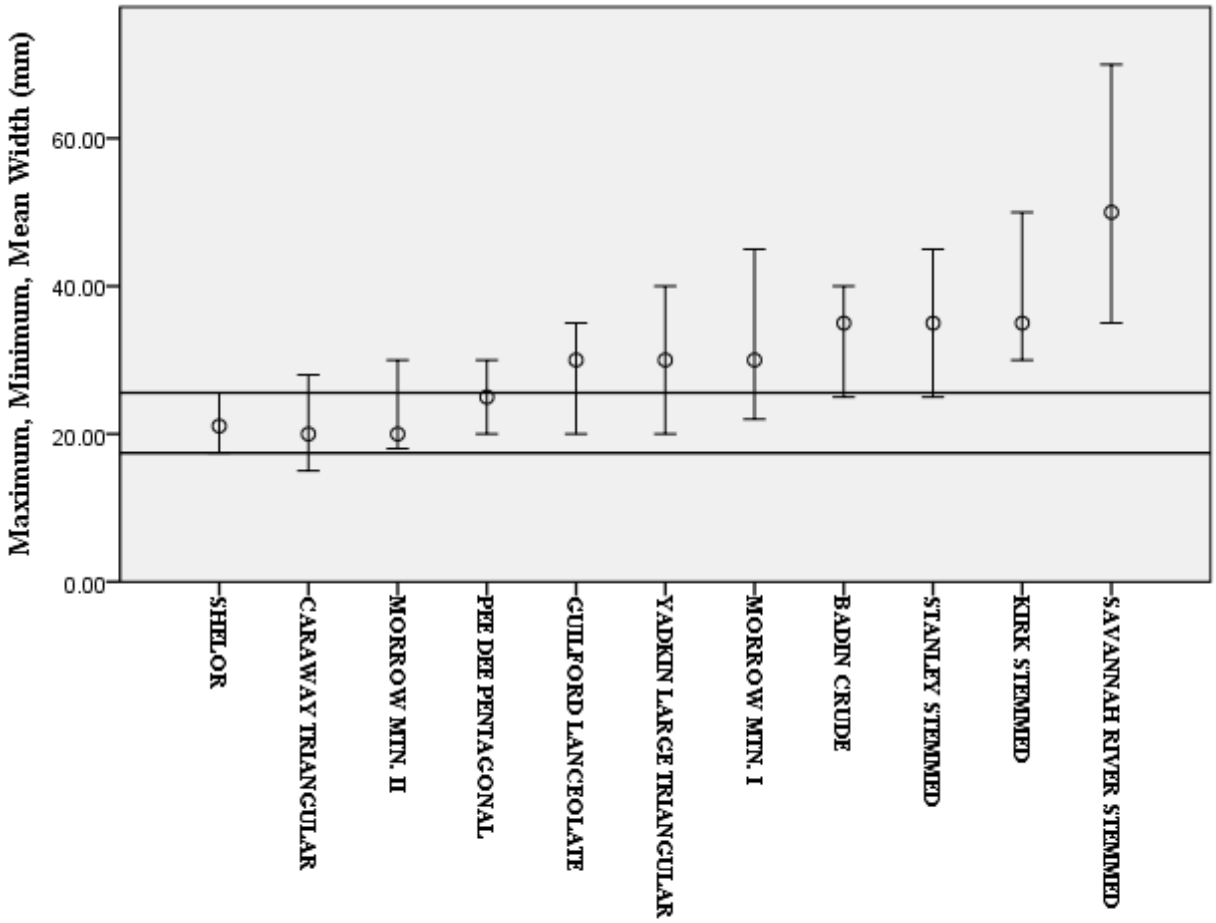


Figure 11: High-Low Width Comparison of Shelor Cache and Coe's Piedmont Typology.

Analyses of the literature eliminate the likelihood that the Shelor points represent preforms for Pee Dee Pentagonal, and Yadkin Large Triangular. Moreover, while other point types are not eliminated the analysis is most consistent with the idea that the Shelor artifacts represent preforms of either Morrow Mountain or Guilford Lanceolate points (Figure 12).

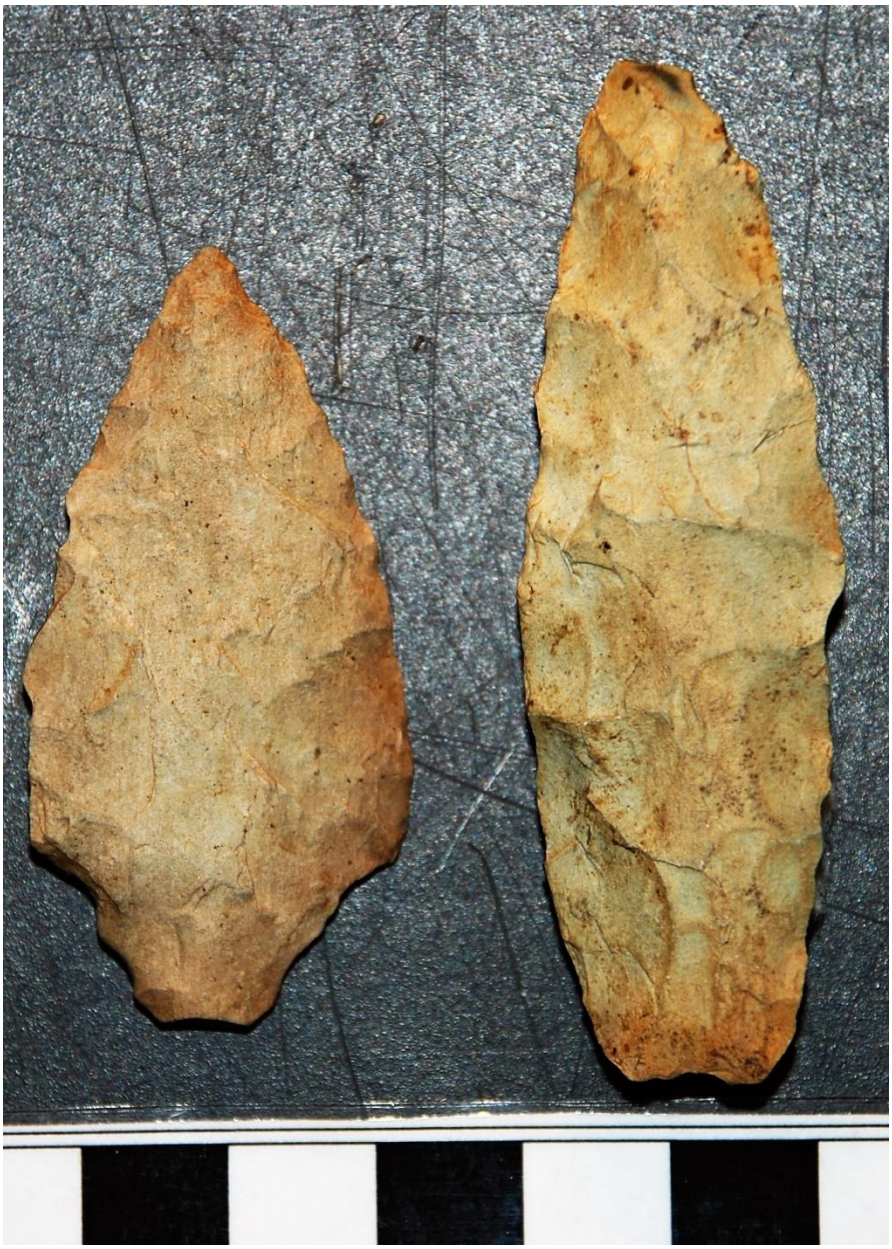


Figure 12: Morrow Mountain (left) and Guilford Lanceolate points from RLA collection.

The second phase of the analysis included gathering dimensions on a sample of Guilford Lanceolate (*n*=24) and Morrow Mountain (*n*=29) points curated in the artifact collections housed by the Research Laboratory of Archaeology (RLA) at UNC Chapel Hill. Attributes including maximum length, width, thickness and artifact weight as well as raw material type were recorded

for each point. Only attributes from complete points were chosen for recording. These points were all recovered from sites near the Shelor site including the Hardaway site (Stanly County) and Doerschuk site (Montgomery County). Moreover, all the points were manufactured from metavolcanic stone, the general raw material type from which the Shelor points were manufacture (described below). Note that while this sample of points cannot be claimed to have been chosen randomly from their respective sites in a statistical sense, their dimensions do correspond to the range of variation cited by Coe (1964:37 & 43) and do appear representative of the type as he defined.

Analyses of these data are presented in the following simple dot plot graphs (Figures 13 & 14). Comparisons of length, width, thickness, and weight show considerable overlap with Morrow Mountain and Guilford Lanceolate points.

Guilford Lanceolate points are similar in size to the Shelor bifaces with a few specimens being slightly longer, wider, thicker, and heavier than those from Shelor. Morrow Mountain points are no more than half as long as the Shelor bifaces (if not shorter), and are similar in width and thickness to the Shelor bifaces with several specimens being greater in width and thinner than the Shelor artifacts. Finally, with a single exception the Morrow Mountain points tend to weigh nearly half the weight of the Shelor points and many are much less in weight (Figures 13 & 14; Table 2).

In summary, this analysis of artifact dimensions indicates that the Shelor bifaces most closely resemble an unfinished Guilford Lanceolate. Minor retouching of the blade and base could result in a finished Guilford Lanceolate point. On the other hand, based on this analysis one cannot eliminate the possibility that the Shelor bifaces represent an unfinished Morrow

Mountain either. Minor retouching of the base of the Shelor bifaces to form a stem could result in a Morrow Mountain point.

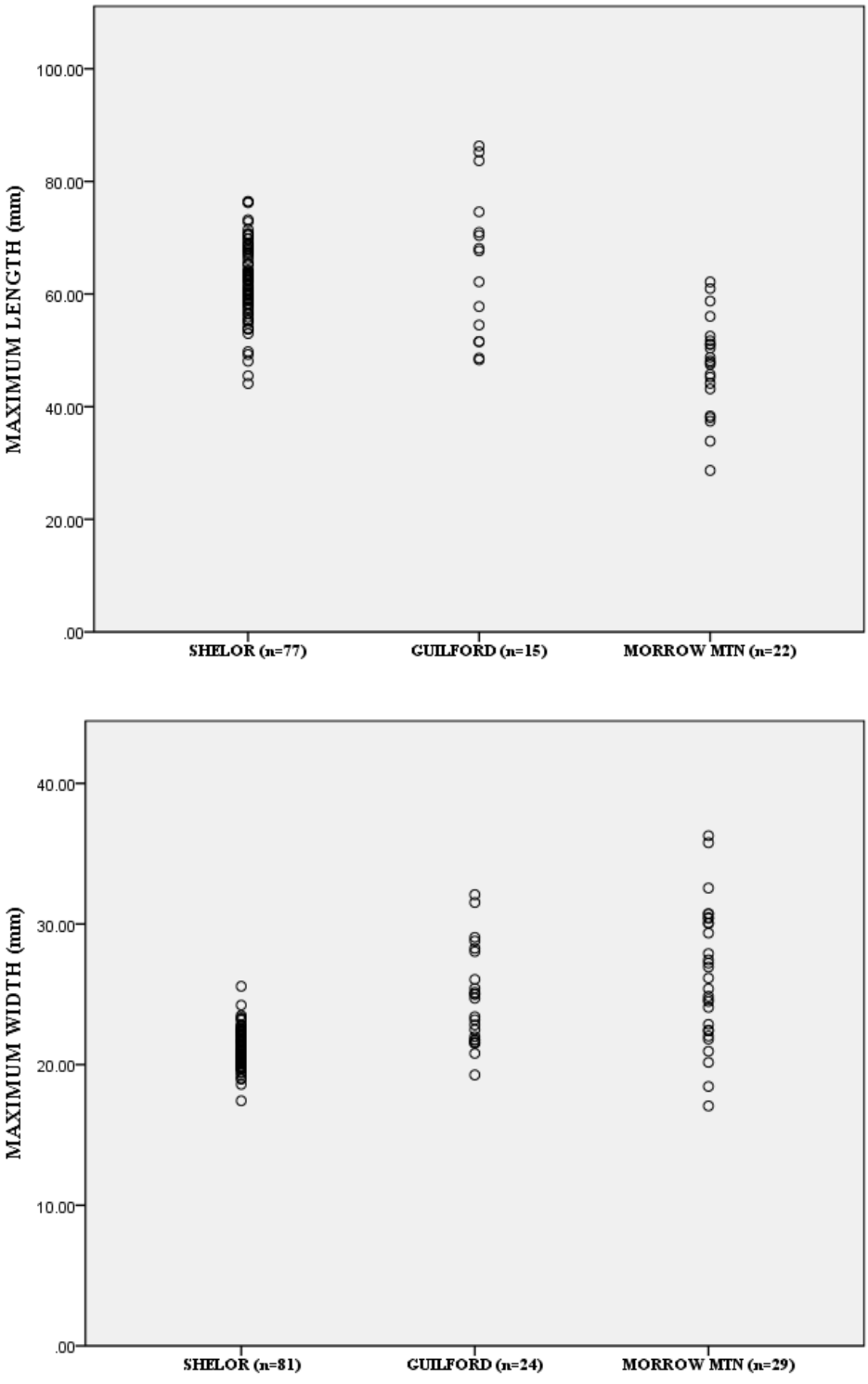


Figure 13: Simple Dot Plot Graphs of Length and Width Comparisons of Shelor bifaces with Guilford Lanceolate and Morrow Mountain Stemmed points.

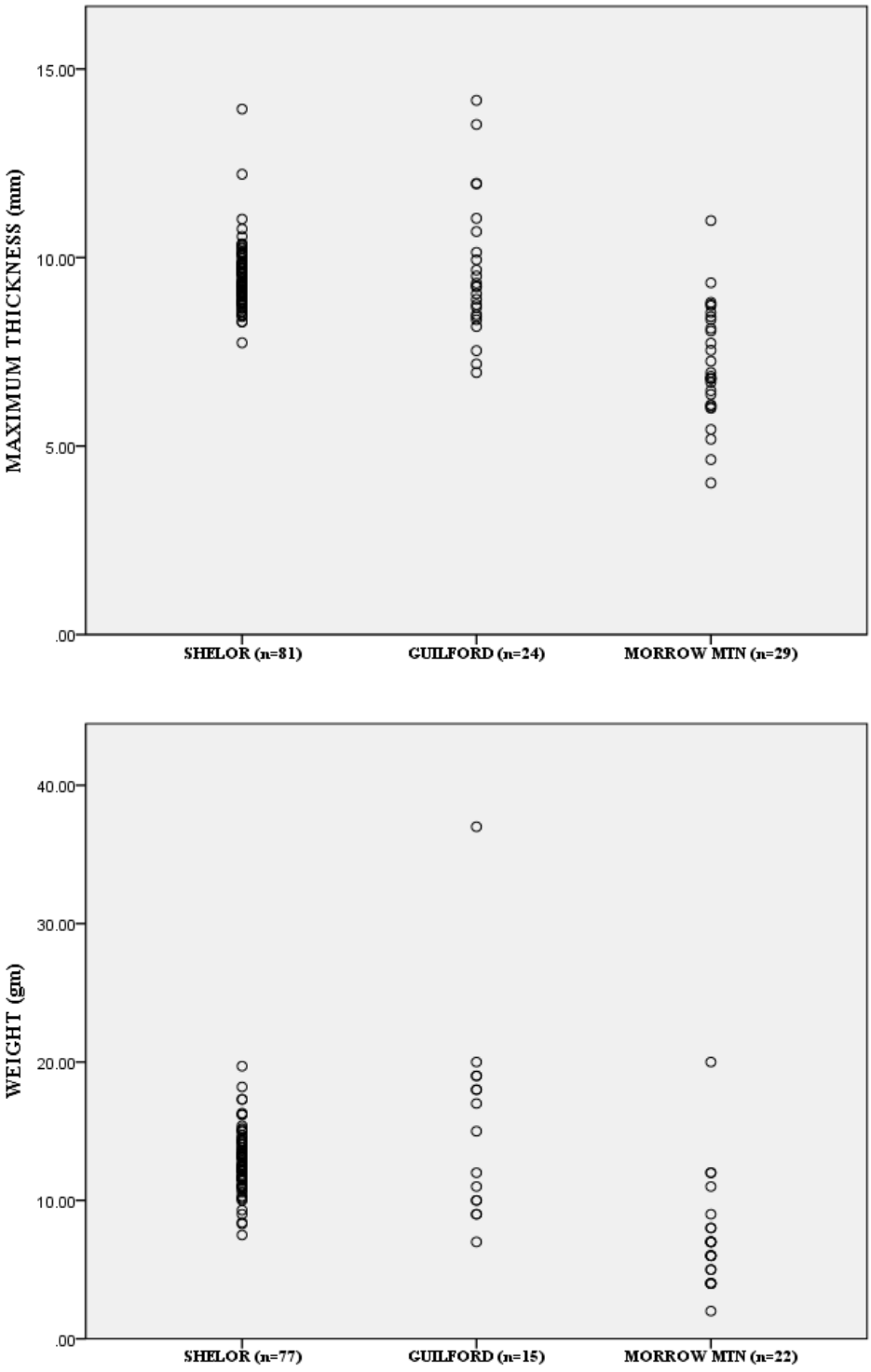


Figure 14: Simple Dot Plot Graphs of Thickness and Weight Comparisons of Shelor bifaces with Guilford Lanceolate and Morrow Mountain Stemmed points

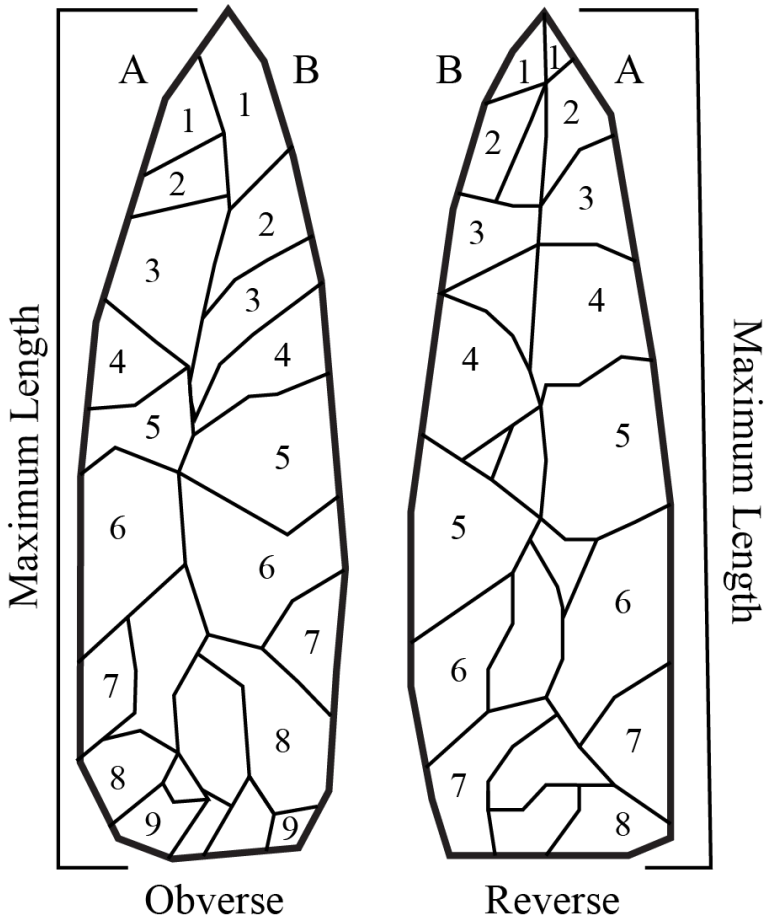
Table 2: Artifact Dimensions comparing Shelor cache, Guilford and Morrow Mountain.

	Maximum Length (mm)			Maximum Width (mm)			Maximim Thickness (mm)			Total Weight (g)		
Typology	Mean	s.d.	*n*	Mean	s.d.	*n*	Mean	s.d.	*n*	Mean	s.d.	*n*
Shelor	62.33	6.80	77	21.09	1.35	81	9.47	0.86	81	12.83	2.25	77
Guilford	65.42	13.26	15	24.64	3.46	24	9.62	1.83	24	15.40	7.42	15
Morrow Mtn.	47.34	8.53	22	26.34	4.83	29	7.16	1.51	29	7.23	3.93	22

Research Problem 2*:* What is the production stage of completion of the artifacts?

The above analyses suggest that the Shelor artifacts represent a preform near the final stage of either a Guilford or Morrow Mountain point type. However, do the individual artifacts within the group represent one or more stages in the manufacturing continuum? A flaking index calculation (Miller and Smallwood 2012) was done to address this question (Figure 15). This ratio models the reduction process by monitoring the average number of flake scars per length of biface edge. If all the artifacts in the assemblage were reduced to the same stage in manufacture then it would indicate a unimodal pattern in the ratio distribution. If there is more than one stage represented in the assemblage then a multimodal pattern would be present.

Research Methods: This flaking index includes taking the ratio of two measurements. First biface length measurements of the obverse and reverse sides of each stone projectile point were taken in millimeters. Second a flake scar count including all flake scars that intersect each bifacial edge of the reverse and obverse sides that measure a minimum of 2mm in width are totaled. Then the total length of all bifacial edge measurements are divided by the total number of flake scars equals the flaking ratio (Figure 15).



$$FI = \frac{\Sigma \text{ S (flake scar)}}{\Sigma \text{ L (biface edge length)}}$$

Figure 15: Calculation of the Flaking Index (Example) after Miller and Smallwood (2012).

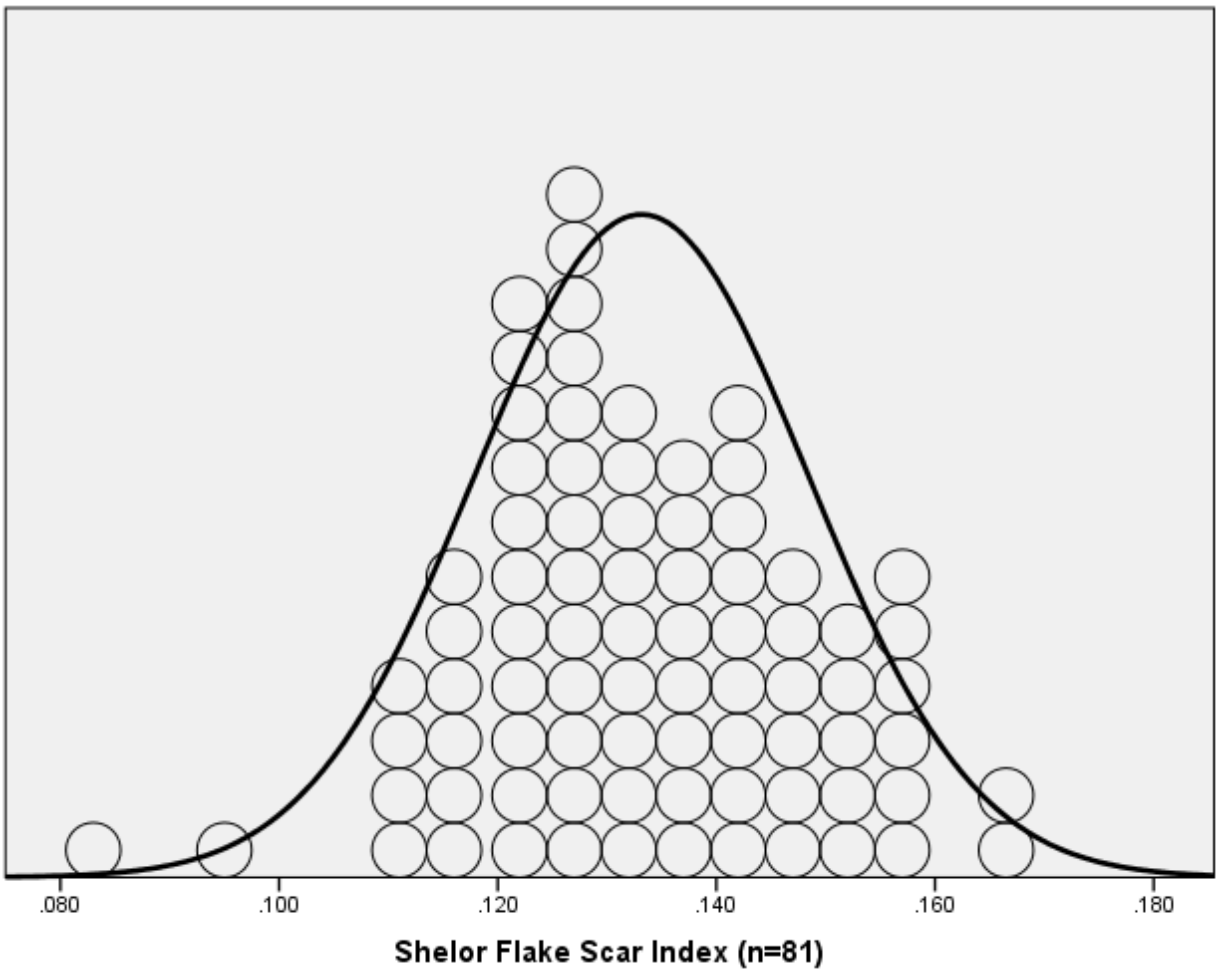


Figure 16: Histogram of flake scar index with superimposed normal distribution (each circle represents the ratio of one artifact).

Figure 16 presents a histogram of the distribution of the flake scar index of each biface. The resulting unimodal distribution of the ratios strongly suggests that the Shelor bifaces were all manufactured to the same production stage (Figure 16). Moreover, the consistency of these results suggests that the Shelor cache is representative of a singular event of tool production and when combined with the results of the previous analyses, it suggests that the Shelor artifacts were all probably stored near the end of the manufacturing sequence. Speculating further, the cache of artifacts probably represents the work of a single knapper.

Research Problem 3*:* What is the type or types of stone raw material used to produce the artifacts?

The identification of raw material types in stone tool assemblages has long been of interest to archaeologists in North Carolina (e.g., Daniel 1998; 2001). With respect to caching of stone artifacts, the identification of the stone source from which the artifacts were made is of particular interest as it relates to identifying cache function. For example, if the source or sources of stone present in an artifact cache are far removed from the cache location, then this might suggest a function of the cache was to provision stone in an area with few stone raw material options.

Research Methods: For the purposes of this study raw material identification was based on a macroscopic examination of each artifact. More detailed characterization of stone raw materials is possible through petrographic and chemical analyses (e.g., Steponaitis et al 2006) but those analyses were beyond the purview of this study. In this case, stone type was identified based on the visual characteristics of groundmass color, texture, and flow banding as well as the presence or absence of mineral phenocrysts in the stone (Daniel 1998; Daniel and Butler 2001; Steponaitis et al 2006). This level of analysis has proven to provide a reasonable level of accuracy with respect to the general identification of metavolcanic stone types among artifacts which also corresponds to a relatively restricted area of geological origin.

In North Carolina, the Uwharrie Mountains have been identified as a significant source area for the prehistoric quarrying of knappable stone (Daniel and Butler 1996; Daniel 1998). Several dozen quarries have been recorded in this mountain range that straddles the Yadkin and

Pee Dee rivers principally occurring in Stanly and Montgomery counties. This is of particular significance here as the Shelor site is located at the southern edge of this mountain range.

Raw Material Types:

Five stone classes were identified in the Guilford and Morrow Mountain point types from the RLA collection and in the Shelor assemblage (Table 3). Each of these stone types is described in Appendix C. All of these types are a metamorphosed igneous rock generically referred as metavolcanic stone. Its abundant outcrops in the Uwharrie Mountains of the Carolina Slate Belt along with its conchoidal fracture made it the predominate stone choice throughout the prehistory of North Carolina (McReynolds 2005). Within this category several subtypes of stone can be identified and have been geologically sourced (Daniel 1998, Steponaitis 2006). Several of these stone types identified in the assemblages analyzed here probably come from the Uwharrie Mountains. Of particular interest is that the artifacts in the Shelor assemblage all appear to have been made from a single stone type probably from the well-known quarry on Morrow Mountain (Daniel 1998; Daniel and Butler 1996) lying only 9.5 km across the Yadkin River southwest of the Shelor site. The additional specimens of Guilford and Morrow Mountain points examined from the RLA collection exhibited a variation of stone types many of which probably also had their origins in the Uwharrie Mountain region.

Table 3: Raw Material Types.

TYPOLOGY	Aphyric Rhyolite	Plagioclase Porphyritic Rhyolite	Plagioclase Quartz Porphyritic Rhyolite	Quartz Porphyritic Rhyolite	Metavolcanic Stone
SHELOR (*n* =81)	81	0	0	0	0
GUILFORD (*n* -24)	4	3	3	1	13
MORROW MTN. (*n* =29)	9	1	2	0	17

The Shelor artifacts present with fine grained aphoritic dark gray ground mass with the absence of phenocrysts. In addition they exhibit varying degrees of visible flow banding. These distinctively similar features throughout the cached material indicate that the stone source for the cache was obtained during one procurement episode and therefore consistent with one stone source location within the Uwharrie Mountains.

Research Problem 4: What is the potential purpose of the Shelor cache?

As discussed previously caches can be broadly grouped into two functional categories: economic and ritual. The relatively rare discoveries of caches in North Carolina are similar to the Shelor assemblage in that the majority of them appear to contain unfinished stone artifacts and were probably stored underground with the intent of retrieval at a later time. As such, I submit that the Shelor cache likely served an economic role supplying a reserve of nearly complete tools that could be accessed on an ad hoc basis. If so, it is interesting to note that the pit dimensions appear greater than necessary to store the collection of bifaces. Although speculative, two possible explanations may account for this fact. First, it is possible that the cache may have originally numbered more than the 81 bifaces recovered here. As noted in Chapter 3, other North Carolina caches have been reported numbering in the hundreds of artifacts. So it is entirely possible that the pit originally contained many more bifaces some of which were retrieved prehistorically by the owner. For whatever reasons, the artifacts described here were never reclaimed. Alternately, the additional space in the pit could have been necessary to store other items made of organic materials (e.g., wood, bone, or antler) that decomposed over time. Of course, these are but two possibilities; we may never know if these or other interpretations are correct.

Chapter 5: Conclusions

The accidental discovery of a cache containing 74 biface preforms by the Shelors while landscaping in 2014 was certainly unexpected and exciting. After being contacted by the Shelors, Dr. Daniel inspected the group of artifacts and felt additional investigation of the feature location was warranted. Subsequent systematic excavation in the location of the reported discovery identified two pit features, the largest of which measured 63 cm by 61 cm with a depth of 55.2 cm and resulted in the recovery of seven more artifacts in the backfill of the hole, two of which appeared to be in-situ lying along the southern edge of the pit. A smaller secondary pit was identified apparently intruding into the large pit and was likely the result of additional digging by family members. All total, the recovered artifacts included 81 complete or nearly complete preforms, two stone flakes, and a disk-shaped partially unifacially flaked piece of stone that may have been a digging tool.

The analyses reported here focused on the 81 bifaces attempting to place them in their temporal and spatial context. Quantitative and qualitative analyses of the artifacts demonstrate they are morphologically similar in size, form, and raw material type. These results suggest the bifaces represent unfinished Middle Archaic points most likely Guilford Lanceolate or Morrow Mountain stemmed points. Moreover, these preforms were all reduced to the same unfinished state and made from the same stone type—probably acquired from one of the known prehistoric stone quarries in the nearby Uwharrie Mountain. Taken together, this evidence suggests that the production and burial of these artifacts was the work of one individual.

The analysis here raises additional questions for future research. First, there is the question of pit size. Given the nature of the cache discovery there is some ambiguity with respect

to the original size of the cache pit. But assuming for the moment that the pit dimensions we identified are relatively close to the original pit size, then the pit appear larger than necessary to store a few dozen artifacts. This could be interpreted in a couple of ways. First the pit may have originally held additional bifaces only some of which were retrieved prehistorically. In addition, the feature may have also contained tools or weapons made of organic materials that perished over time. While it is difficult to know if either (or alternative explanations) account for pit size, the location and professional excavation of additional caches may provide some insight into this question.

Second, the location of the cache relatively close to the stone source—about 9.5 km north of Morrow Mountain as the crow flies—is somewhat unexpected. Typically artifact caches are located some distance from known stone sources and are interpreted to represent supply items for later use where time or materials were in short supply. Clearly, the cache was not situated in the shadows of the Uwharrie Mountains due to a lack of knappable stone in the area. Rather, I suggest that its location just east of the Yadkin River may have something to do with the river itself. That is, if one is traveling from the east to acquire stone from the southern Uwharries, it requires crossing the river. Thus, crossing the river may have presented something of a logistical concern particularly if returning with an abundance of unfinished tools. Caching a supply of nearly finished stone tools east of the river may have been a logistical consideration to minimize the number of trips across the river to acquire knappable stone. If so, the unusual location of the Shelor cache near the source location may be telling us that there are additional considerations to be made with respect to the provisioning of stone resources during the Middle Archaic than just the source of the stone itself. Time and effort needed to cross the river to quarry and reduce the stone to biface form may have been an important consideration as well.

Finally, future research should also focus on confirming the stone source. While Morrow Mountain is a likely stone source for the Shelor artifacts, this quarry identification needs to be confirmed by elemental analysis of the stone itself (e.g. Steponaitis et al 2006).

In summary the Shelor cache represents a rare opportunity to professionally analyze an isolated cache deposit within North Carolina. These unusual phenomena have been under reported when initially discovered by property owners, and are rarely professionally excavated, analyzed and published.

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Appendix A: Shelor Statement

Discovery Of Projectile Points

On the afternoon of Saturday Feburary 22, 2014 my wife and I were relocating some shrubs from our front yard to our back yard. The day was balmy for February and the soil was moist from recent rains. I had dug up 6 Spirea bushes and was going to move 3 at a time in my wheelbarrow. I took the first 3 around back and dug the first hole. The soil was red clay, with little to no topsoil, and was fairly easy to dig with my round point shovel. The hole was about 2 feet in diameter and about a foot deep. I proceeded to plant the first shrub without incident.

I then moved about 6 feet Northeast of the first hole and dug a second hole. This hole was also about 2 feet in diameter and again about a foot deep. I piled the dirt from the hole over to one side in order to backfill around the shrub. I then put about 2 gallons of store bought topsoil in the bottom of the hole and placed the Spirea bush in the center of the hole and adjusted its depth so the top of the root ball was level with the ground. I then began to rake the red clay, which was moist, fairly loose and crumbly, into the hole around the root ball.

I was about half way done in backfilling when I noticed a rock that looked suspicious. It was about 3 inches long and tapered in shape. My wife had joined me then and I said 'if I didn't know better I'd think this was an arrowhead'. I cleaned the dirt off the rock and saw that it had fluted edges. About that time my wife said 'look, here's another'. She was on the other side of the hole and noticed the second one on top of the backfilled dirt, all covered with red clay. As I continued to rake the dirt into the hole it was obvious that there were a multitude of these odd shaped rocks. They were scattered randomly throughout the dirt I had piled up. At that point I pulled the shrub out of the hole and set it to one side. I then started raking the loose dirt back out of the hole and looking at it closely. I put all the dirt from the hole and the remainder from the side of the hole into the wheelbarrow and my wife and I took it a handful at a time and looked for more odd shape rocks. When all the dirt had been gone through we had accumulated a total of 65 of the clay covered rocks.

I again put the shrub in the hole and finished planting it, using the loose dirt from the wheelbarrow as back fill.

My wife took the rocks inside to a garage sink and washed them off with water. We were amazed at what we saw. We had found some sort of projectile points that were in pristine condition. They didn't appear to be traditional arrowheads I was accustomed to seeing over the years. My wife set the points out to dry and then put them in a shallow box for safekeeping.

Unfortunately, 6 of the points were damaged from my initial digging. Not knowing that there were points in the area to be dug I was intent on making a hole, not looking for artifacts. The soil in our area is very rocky and it's not uncommon to hit all kinds of rocks when digging. I was surprised, however, at how easily I was able to dig a hole as big as I did with very little effort.

The hole I dug was in an area that had not been excavated when we built out home 11 years ago. The surface was plain red clay with no humus on the surface. It was basically bare soil that was exposed to the elements. In hot weather it is almost inpenetrable as the red clay hardens and feels like brick.

I would estimate that the points were at a depth of 4 to 12 inches in the soil. There really wasn't a cluster of them that I could tell, but they may well have been in a small group. As I dug and piled the dirt off to the side it all looked loose and full of clods. Evidently some of the clods were the points, covered with the sticky red clay. There were a few other rocks in the hole, one of which looked interesting. In doing some looking on the internet I saw an ancient tool called a 'scraper'. The shape of the one on the internet was similar to the one from the hole. I kept it and put it with the points. The other rocks from the hole were left on the surface of the hole and remain there.

We called our neighbor, David Ford, who has a big interest in local artifacts and grew up in this area. He had a number of books on archaeology and indian culture. He came right up to see what we'd found and was astounded. In looking through his books it appeared that the points might possibly be 'Guilford Points'.

I proceeded to plant the remainder of the shrubs, going through every shovelful of dirt carefully, and saw no other signs of artifacts.

What did we find? How old are the points and who made them? Why were they all in one place? What else is here just below the surface???

Sunday April 20, 2014

On Easter Sunday my son, my daughter and my grandson Austin couldn't resist taking a shovel and digging a few scoops of dirt on the East side of the hole where the original cache was found. They immediately found a couple of points and spread the remainder of the dirt out and sifted through it. In total they found 9 more points. They also unearthed a stone about the size of my hand that looked like something that could have been used for digging. The points and the stone were all about 6 inches down in the red clay. The stone was flat on the bottom with a rounded fairly thin edge that looks like it may have been flaked to sharpen. A tip of a point was also found. The tip didn't match up with any of the points we'd found, so it indicates that there is at least one more point hiding somewhere in the dirt. The hole was backfilled and smoothed over.
I don't want to disturb it further until I get some expert guidance on how we should proceed.

Leonard Shelor
10-11-14

Leonard & Karen Shelor
2351 Southpoint Lane
New London, NC 28127

Appendix B: Maximum Length, Width, Thickness, and Weight Data for Shelor Cache

Field Specimen Number	Maximum Length	Maximum Width	Maximum Thickness	Weight grams	Field Specimen Number	Maximum Length	Maximum Width	Maximum Thickness	Weight grams
3	59.67	21.66	9.01	12.40	45	64.10	21.43	10.05	13.20
4	64.10	21.61	9.37	13.60	46	59.08	20.57	8.85	12.10
5; 77	70.76	23.50	9.62	15.20	47	56.47	22.58	9.25	11.70
6	67.22	19.40	9.35	11.60	48	58.26	20.20	8.82	11.60
7	62.38	22.36	9.14	13.20	49	72.83	22.77	12.21	19.70
8; 76	73.20	20.24	9.10	14.50	50	67.99	21.66	9.84	13.40
9; 9.1 ;9.2; 10	63.72	21.86	8.76	13.10	51	70.59	21.34	10.31	16.20
11	67.46	23.25	9.86	14.70	52	52.98	22.73	8.29	10.20
12	60.04	21.75	9.75	12.60	53	56.64	20.18	9.05	11.00
13	65.15	20.06	9.82	15.00	54	60.09	22.14	8.64	12.40
14	66.24	21.00	10.17	14.30	55	55.34	19.68	9.56	10.80
15	58.11	22.17	9.28	13.40	56	60.62	20.44	9.98	12.20
16	62.58	22.47	8.47	12.40	57	60.40	18.59	9.30	11.10
17	58.85	20.10	9.22	11.70	58	71.45	20.61	9.30	14.10
18	68.50	20.82	8.80	14.50	59	60.96	21.38	13.94	14.20
19	68.13	20.70	9.20	13.20	60	65.40	22.35	10.26	16.20
20	60.22	21.28	9.90	13.30	61	63.44	20.95	9.71	12.60
21	63.39	20.77	9.24	12.20	62	60.70	21.59	8.95	12.10
22	62.50	19.48	9.79	12.20	63	55.85	20.30	9.82	10.90
23	69.76	20.28	10.23	15.10	64	62.40	22.84	9.09	14.00
24	76.35	20.75	9.28	16.30	65	68.65	20.39	9.65	13.80
25	76.45	22.52	9.58	18.20	66	54.81	22.36	9.56	12.20
26	62.76	20.40	8.99	11.60	67	63.65	19.22	9.49	10.60
27	66.84	22.04	9.43	13.80	68	63.24	22.05	8.54	12.20
28	63.06	17.43	8.83	10.30	69	53.82	21.05	9.08	11.00
29	61.53	21.08	9.34	12.17	70	53.88	20.38	7.74	10.10
30	59.25	21.64	9.85	12.50	71	58.95	21.18	9.71	12.80
31	67.79	19.72	9.57	11.60	72	45.49	19.81	8.43	8.40
32	59.74	20.62	10.36	12.40	73	50.71	25.57	10.08	13.40
33	53.75	19.02	11.02	11.40	74	57.65	24.23	10.76	15.00
34	49.77	20.09	8.66	8.30	75	61.48	19.74	8.89	11.10
35	57.27	19.79	8.77	9.30	78; 78.1	68.97	18.96	9.05	13.40
36	44.10	19.79	9.25	7.50	79; 79.1	76.22	19.81	9.01	15.40
37	49.26	22.25	8.48	10.00	80	47.73	21.92	10.10	13.50
38	63.00	19.90	8.72	11.90	81; 81.1	65.37	19.72	10.13	13.00
39	68.88	20.61	9.71	17.30	82	37.66	23.16	8.58	9.80
40	69.87	22.47	10.36	17.30	83	51.58	19.90	8.80	9.70
41	55.32	23.35	9.15	11.60	84	48.08	20.05	8.30	9.00
42	70.45	20.54	8.77	13.60	87	63.33	21.03	8.90	11.80
43	62.50	20.72	10.56	14.30	88; 88.1	58.36	21.76	9.30	11.50
44	64.16	20.68	9.70	13.10					

Appendix C: Raw Material Descriptions

Aphyric Rhyolite: This stone has a distinctive flow banding and distinguished by a dark gray groundmass color consisting of a homogeneous fine grained texture (Daniel 1998). Aphyric rhyolite lacks phenocrysts and is entirely aphanitic and is rare in the Uwharrie Mountains (Daniel and Butler 1996).

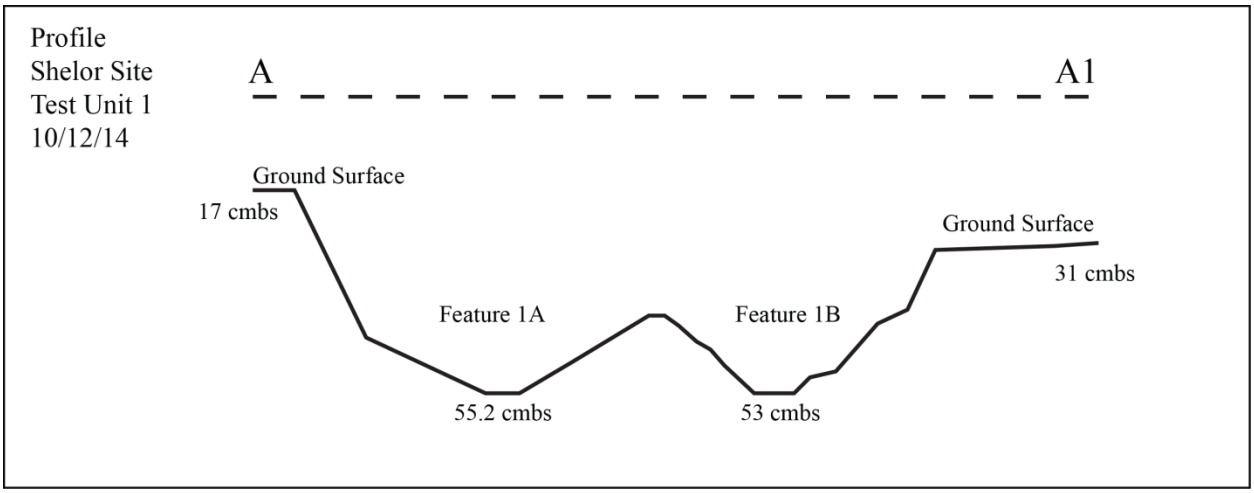
Plagioclase Porphyritic Rhyolite: This stone exhibits a dark gray to medium dark gray groundmass with scattered white phenocrysts of plagioclase feldspar in an aphanitic matrix (Daniel and Butler 1996).

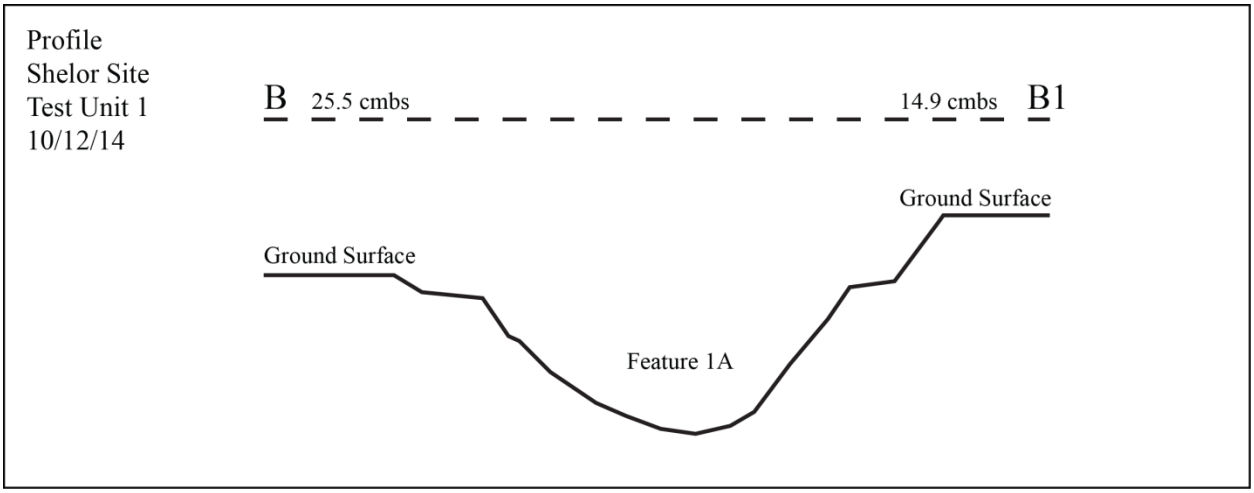
Plagioclase Quartz Porphyritic Rhyolite: This stone is a dark gray porphyritic rhyolite with scattered phenocrysts of white plagioclase feldspar and glassy quartz.

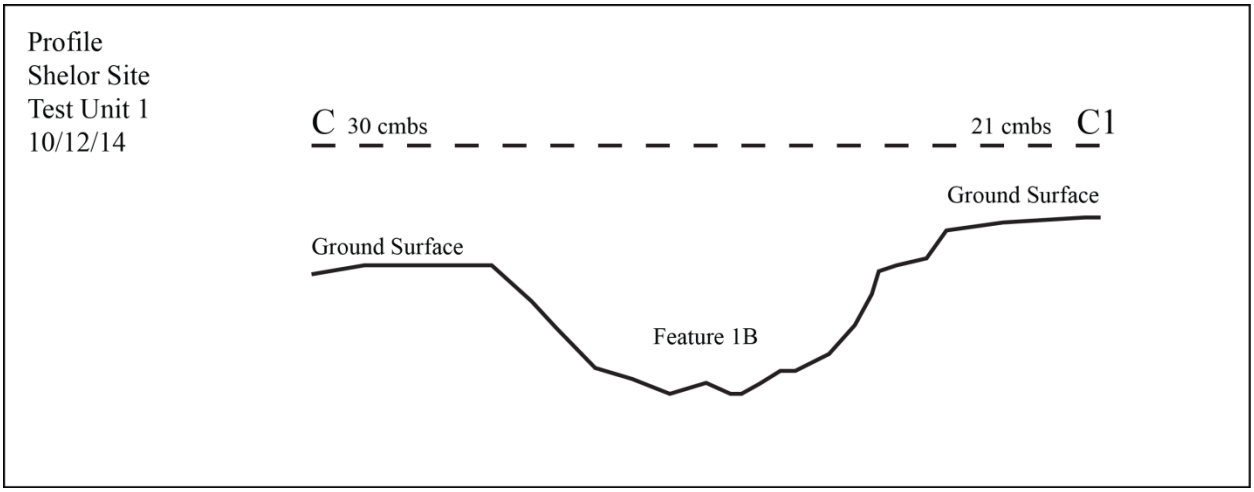
Quartz Porphyritic Rhyolite: This stone is characterized by medium gray color with sparse glassy phenocrysts of quarts that are primarily less than 1mm in size (Daniel 1996).

Metavolcanic Stone: Metavolcanic stone is a residual class in this typology that refers to the general class of metamorphosed igneous rock that subsumes all the above stone types which occurs naturally as cobbles in the Piedmont and in natural outcroppings in the North Carolina Slate Belt (Daniel and Butler 1996). Is a general category that is created through volcanic activity that does not exhibit significant identifying features that places it within a specific category of rhyolite although it can be a form of rhyolite (Daniel 1998).

Appendix D: Profile Maps of Shelor Site Features







Shelor Site
Test Unit 1
Excavated Plan View
10/12/14

Feature 1A - Bush Hole
Feature 1B - Secondary Disturbance