PRE-CONTACT ARCHAEOLOGY AT THE WILLIAM TRENT HOUSE: A SITE-SPECIFIC ANALYSIS AND REGIONAL SYNTHESIS OF NATIVE AMERICAN OCCUPATION IN TRENTON, NJ

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This paper has been modified from its original version to be published online for the general public. Information about the nature and location of archaeological sites, including maps, have been removed to protect these resources and comply with Section 9 of the Archaeological Resources Protection Act (16 U.S. Code § 470hh). Please disregard missing figure numbers.

Abstract

In 2019, Monmouth University's summer archaeological field school was conducted at the William Trent House in Trenton, NJ in collaboration with Hunter Research, Inc. This project supplemented earlier work by Hunter Research. These investigations revealed a robust prehistoric component that remains largely intact beneath layers of historic fill. An analysis of Native American material recovered from disturbed fills and natural soils reveals a primarily Late Archaic - Transitional Period transient camp situated along the Delaware River near common Native American travel routes. The site's focus was on seasonal terrestrial and aquatic resource procurement and processing. Limited evidence of Middle Archaic occupation has been recovered, and Woodland and Contact period components have also been identified. The site demonstrates a great diversity of activities represented by the relatively limited amount of material recovered from a small geographic area. The Trent House site was likely part of the Douglas Gut Archaeological Complex to the south and maintained a peripheral relationship with the Abbott Farm. Intact, stratified deposits were encountered and retain great interpretive potential for further work on the property.

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Chapter 1: Introduction

Project Background

In the summer of 2019, Monmouth University completed a graduate-level archaeological field school at the William Trent House in Trenton, New Jersey. The Trent House is an 18th-century manor that is currently used as a museum. Monmouth worked in collaboration with Hunter Research, Inc., a cultural-resource management firm based in Trenton that had conducted several previous investigations on the property. Monmouth and Hunter were invited to conduct the study by the Trent House Museum and the city of Trenton with the goal of enhancing our understanding of the property's history.

Prior to fieldwork, a ground-penetrating radar survey was conducted to identify potential cultural features beneath the surface (Leech 2016). A rectangular anomaly in the south yard of the Trent House was targeted as a potential structure foundation, possibly the remains of the 17th century Dorehouse, the former home of proprietor Mahlon Stacy. The 2019 fieldwork had two primary foci: to investigate this potential structure in the south yard and to revisit the east wing, where the remains of the late 18th century kitchen wing addition and later foundations were previously identified.

During fieldwork, it was revealed that the potential Dorehouse structure was actually a remarkably regular rectangular outcropping of bedrock. The south yard trench was brought down to intact subsoil, where in situ prehistoric cultural material was encountered. While the primary purpose of the Trent House field school was to investigate historic-period features, the wealth of prehistoric material recovered presents an excellent opportunity to learn more about Trenton's prehistoric landscape. The purpose of this thesis is to analyze the prehistoric component of the Trent House

site, utilizing the artifacts from the 2019 fieldwork as the primary data source and synthesizing with the data from previous excavations at the Trent House and nearby prehistoric sites in the Trenton area. The Trent House site sits within the larger Trenton Complex with relation to the Abbott Farm National Historic Landmark, which define a series of Native American sites clustered just south of the falls of the Delaware River. These sites hold a great deal of significance to New Jersey archaeology, and understanding the Trent House site's function within the greater prehistoric landscape is a fruitful addition to the literature. For more detailed information on this paper's research goals and design, refer to Chapter 7.

Acknowledgements

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Association is also appreciated. I would like to thank the New Jersey State Museum and Greg Lattanzi for his research help. I'd also like to thank the New Jersey Historic Preservation Office, especially Taylor Napoleon for her aid. The Monmouth University Library, Mercer County Community College Library, and Penn Museum Library staffs were all helpful during my research. I'd like to thank Richard Grubb and Associates for their flexibility and understanding while I worked on this project, especially Allison Gall, who helped me with my research as well. My family and friends were especially invaluable, supporting me and doing little favors just to help me keep writing. Justin Burkett helped me finish the artifact catalog. And finally, last but absolutely not least, I would like to thank Sadie Dasovich. A colleague and a friend, Sadie's help, support, advice, guidance, and overall positivity has kept me working until this project's completion. She helped me finish the artifact catalog, stitched together historic maps, encouraged me to keep working, and spent time with me when we needed to relax. She validated my ideas and challenged me when necessary. To her and all of these wonderful people, thank you for helping me finish this research endeavor.

Chapter 2: Environmental Context

Waterways and Drainage

The William Trent House site lies within the Delaware River drainage basin and is considered to be within the Lower Delaware water region. The site is located on the eastern bank of the Delaware River, not far from the river's modern shoreline. This area of the river is referred to as the "falls of the Delaware." It is the head of the tide and a shallow point in the river that was fordable in prehistoric and historic times. The abrupt change in depth caused migrations of fish, a key resource, to gather in the area (Hunter and Burrow 2014:326-327; Kraft 2001:187-188). The Assunpink Creek empties into the Delaware northwest of the site. Prehistoric occupation along the Delaware River throughout the state is well-documented, as is occupation near the Assunpink Creek within downtown Trenton. The confluence of these waterways was a critical factor in the region's prehistoric settlement pattern.

Topography

Urban development within the city of Trenton has erased much of the city's original topography, however, some general patterns are still visible on the landscape today. The site itself sits on a small knoll-like landform overlooking the Delaware River, on top of a subtle terrace that runs south from the Assunpink Creek along the Delaware (Butchko, Burrow, and Hunter 2016:3-15; White et al. 2003:1-1). The site sits approximately 23 feet above mean sea level, and the property consists of primarily level terrain. The bluff edge that ultimately defines the topography of Abbott Farm begins a few miles south of the Trent House (Hunter et al. 2009:2-2).

Geology and Soils

The William Trent House property is located within the Inner Coastal Plain physiographic region, just south of the border with the Piedmont region (see Figure 2.2) (Dalton 2003; Wolfe 1977:245). The Inner Coastal Plain is dominated by relatively flat and low-relief terrain that is underlain by unconsolidated silts, sands, clays, and marls of Late Cretaceous and Tertiary age, occasionally capped by Pleistocene interglacial gravels. The land generally slopes less than 5 to 10 feet per mile, although it can slope as much as 10 to 15 feet per mile near the inland border (Wolfe 1977:276). The Coastal Plain segment of central Mercer County is specifically underlain by the continental deposits of the Late Cretaceous Raritan Formation, which lies on top of Paleozoic and Precambrian rocks in the Trenton vicinity (Wolfe 1977:98-100). These Raritan deposits are capped in places by the Pleistocene interglacial gravels of the Pennsauken Formation. This formation is considered to have been deposited partly during the Illinoian glacial stage, with the major deposition taking place during the Yarmouth interglacial (Wolfe 1977:138). Because of subsequent erosion, the sands and gravels of the Pennsauken Formation are generally restricted to the divides between streams (Wolfe 1977:287).

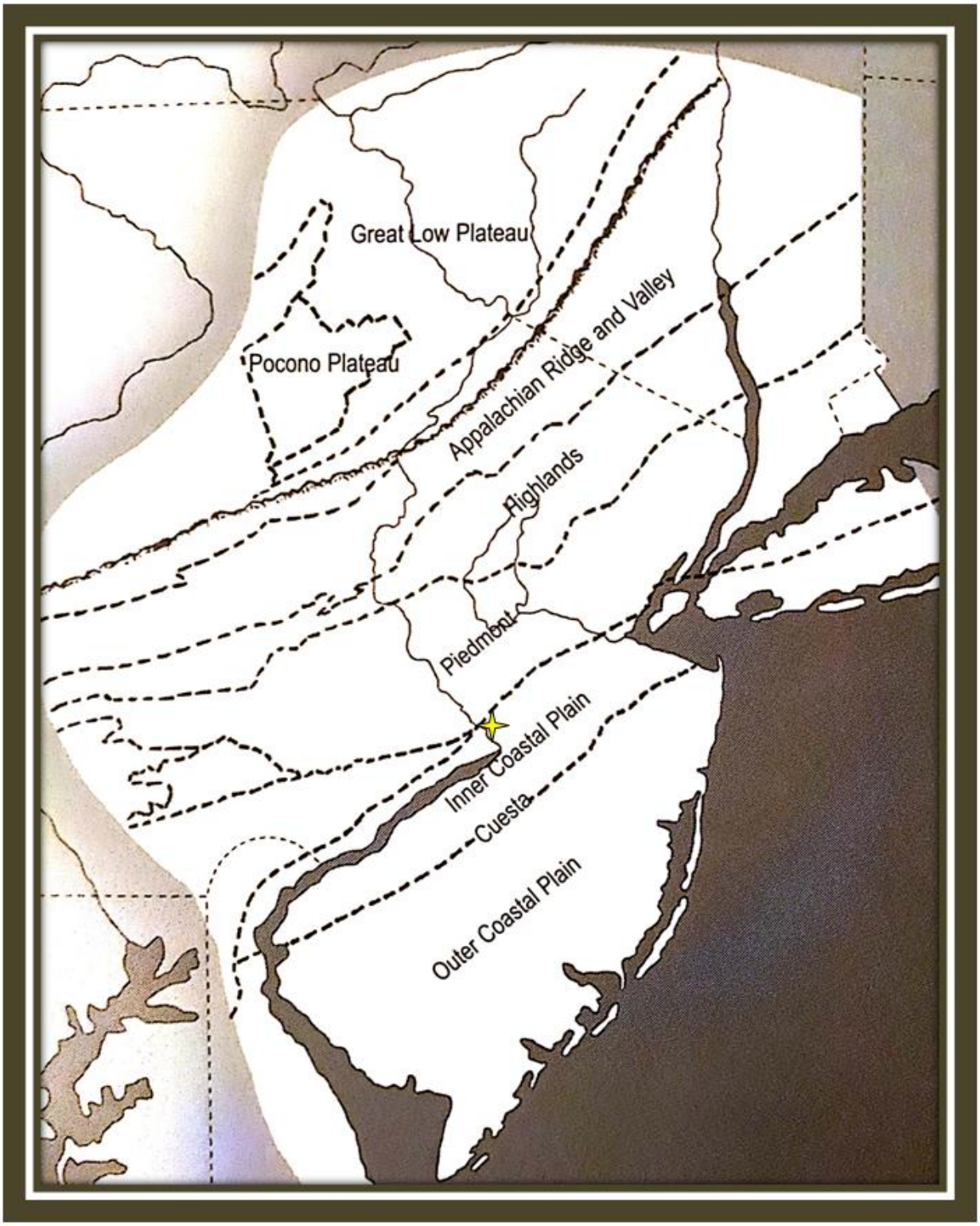

Figure 2.1 Physiographic Provinces of New Jersey, star indicates Trent House location (Source: Kraft 2001:38)

The Web Soil Survey online application provided by the Department of Agriculture defines the project area's soils simply as "Urban land" (NRCS 2019). However, natural soils have been identified on the property, located beneath layers of historic and modern fills. Recent and past (White et al. 2003) archaeological fieldwork at the site revealed the following typical soil profile preserved under the variable historically disturbed fill layers:

A horizon: 7.5YR 3/2 very dark brown silty loam, ~2.0-2.5 feet below surface

B1 horizon: 10YR 4/4 dark yellowish brown silty loam, ~2.5-4.0 feet below surface

B2 horizon: 10YR 4/6 dark yellowish brown silty sand with lamellae, ~4.0-4.8 feet below surface

R bedrock: ~4.8 feet below surface

R. Michael Stewart visited the Trent House site during the 2019 excavations and provided his assessment of the natural stratigraphy (presented in Figure 2.3).

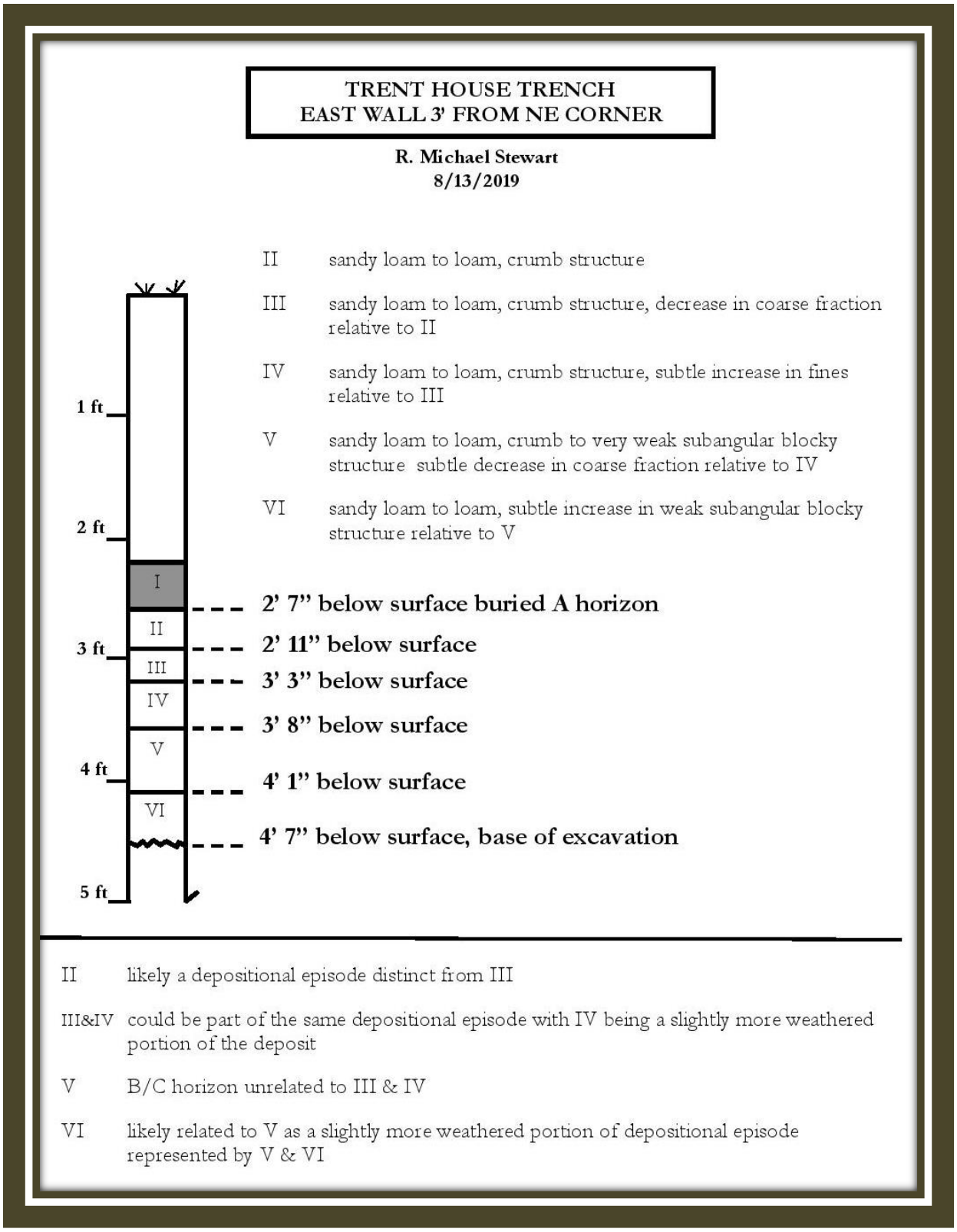

Figure 2.2 Geomorphological Assessment of South Yard Trench, by R. Michael Stewart

Current Land Use

The Trent House is located at 15 Market Street in Trenton, New Jersey (Figure 2.4). The property is bounded by Market Street to the north, N.J. Route 29 on the west, William Trent Place on the east, and by parking lots to the south. The property itself consists of the historic William Trent House and its surrounding lawn and gardens. The area is landscaped and well-maintained, a small island of greenery within the urban landscape of downtown Trenton. The Trent House is currently used as a historic house museum owned by the City of Trenton and operated by the Trent House Association. These entities have been inviting and cooperative with the continued archaeological investigations conducted by Hunter Research, Inc. and Monmouth University.

Figure 2.3 Modern satellite imagery of Trent House property (Source: Google Maps, accessed December 2, 2019)

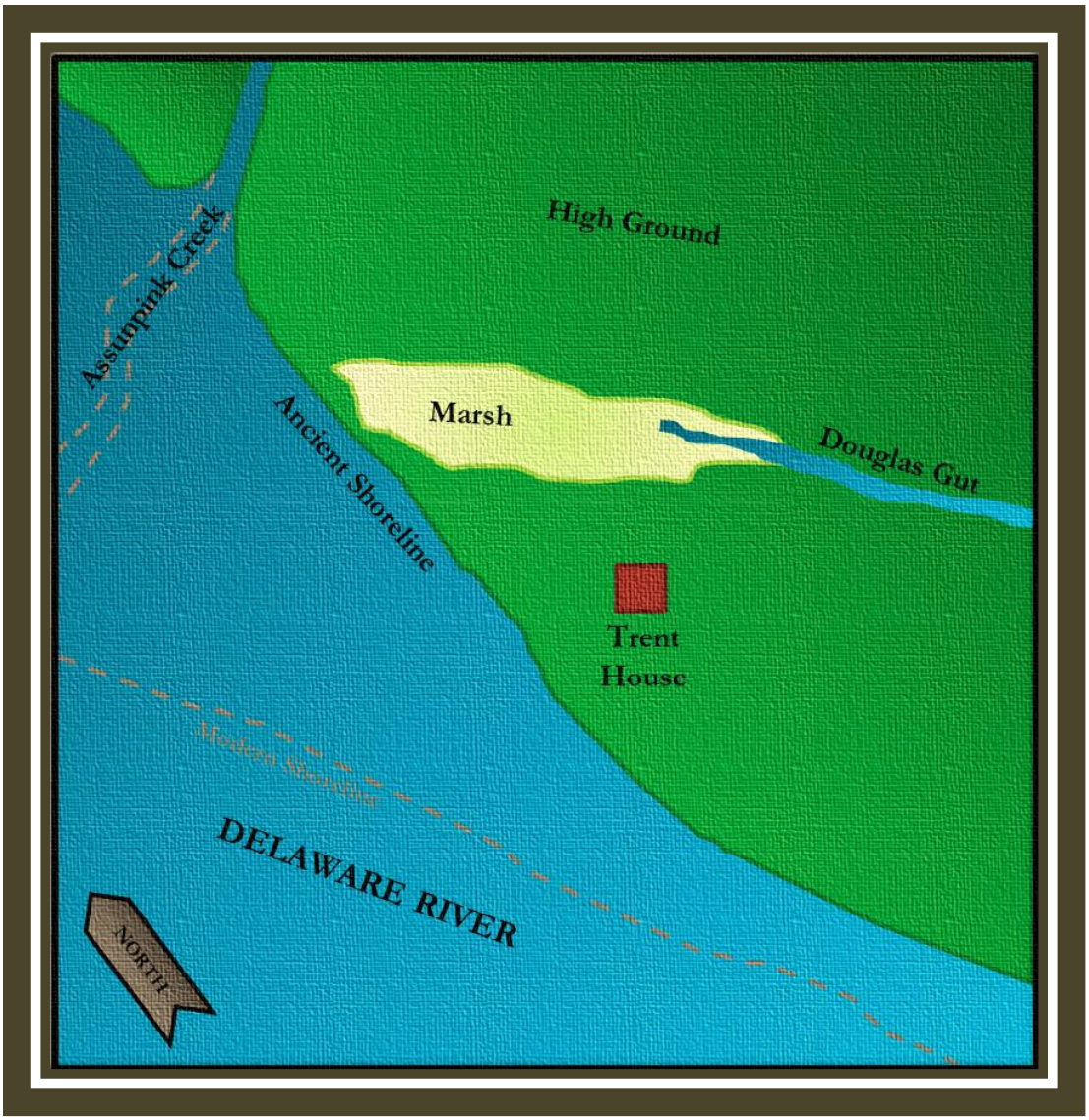

Figure 2.4 Prehistoric Shoreline of the Delaware River near the Trent House (Recreated from exhibit map, 1719 William Trent House Museum)

Chapter 3: General Prehistoric Background

Native American prehistory in New Jersey and the Middle Atlantic region spans a vast period of time, extending at least as far back as 10,000 BCE Archaeologists organize chronological and cultural information about Native American groups into three general time periods: the Paleoindian period, the Archaic period, and the Woodland period. The Archaic and Woodland periods are also subdivided further into early, middle, and late distinctions. There are no sharp divides between these stages; the designations are merely imposed by archaeologists to categorize our prehistoric past and facilitate its study.[1] This chapter aims to summarize the current understanding of eastern woodlands prehistory, narrowing in focus to specifically cover the New Jersey region as later, regional cultural groups are addressed. This chapter relies heavily on traditional resources for compiled information on the prehistory of this area (Chesler 1982; Kraft 1986, 2001; Grossman-Bailey 2001a; Mounier 2003).[2]

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[1] Note: Against popular convention, radiometric dates described in the background chapters of this thesis have been converted from years before present (BP) to calendar dates, utilizing the Common Era and Before Common Era (CE/BCE) notation system. This is done for clarity, consistency, and to provide better temporal context for Native American prehistory when compared to the rest of humanity's past. The calendar dates presented are to be considered imperfect because they are estimated conversions based on multiple sources providing calibrated and uncalibrated radiometric dates. Later chapters that cite the dates of specific artifacts, features, and sites will present both the radiocarbon date in years BP (for accuracy) and an estimated calendar date (CE/BCE).

[2] Disclaimer: A recent comprehensive research effort by R. Michael Stewart has revealed multiple problematic assumptions that have persisted through the prehistoric archaeology of the Upper Delaware Valley, challenging point typologies and culture histories that have been widely used for years (2018). In summary, Stewart's review of projectile point and ceramic styles found in datable contexts has revealed that many types are not as constrained to particular periods as traditionally believed. Cultural histories can over-generalize time periods, while radiocarbon dating methods are much more precise. The information presented regarding archaeological cultures and period-specific point types should be considered with a healthy skepticism.

The Paleoindian Period

The Paleoindian period represents the earliest occupation in the Americas. Although the dates vary across the continent, in New Jersey the Paleoindian period is generally dated to about 10,000 to 8,000 BCE (Kraft 2001:45). The first humans that came to North America appeared during the conclusion of the Pleistocene epoch, an age that was characterized by great sheets of ice covering the northern extents of the continent (Kraft 2001:50). The environment was mostly tundra, and Pleistocene megafauna such as the mastodon, mammoth, giant beaver, and more wandered the landscape. The Native Americans that lived during this time were mostly small, mobile bands of hunter-gatherers that subsisted on Pleistocene vegetation and fauna (Kraft 2001:56-57; Mounier 2003:18).

The appearance of the first Americans is surrounded by a degree of uncertainty and controversy, primarily regarding the route taken and the time of arrival. Prevailing theory has typically suggested that the first Americans crossed into North America from Siberia. During the late Pleistocene, when the sea level was much lower, a land bridge was exposed from Siberia to North America known as the Bering land bridge. Further migration south is believed to have passed between the Cordilleran and Laurentian ice sheets, large glaciers that covered modern Canada and the northern U.S. during this period. An alternate theory suggests that migration continued south along the Pacific coast, prior to the ice sheets dividing and allowing passage (Fagan 2000:79-80). This theory is gaining credence as evidence from sites such as Triquet Island, located along the Pacific coast in Canada, demonstrate early dates. A hearth from Triquet Island has been dated to about 12,000 BCE (Mackie, Fedje, and McLaren 2018).

While there are some controversial suggestions of even earlier occupation, the earliest widely-accepted evidence for human presence in the New World comes from a site in Chile called Monte Verde, which dates to about 12,000 - 10,500 BCE or earlier (Fagan 2000:82; Meltzer 2009:13,

121). Meadowcroft Rockshelter in southwestern Pennsylvania is considered the oldest North American site, with a widely-accepted date of at least 10,000 BCE and possible older occupation reaching as far back as 12,000 - 14,000 BCE or earlier (Adovasio et al. 1989; Fagan 2000:82; Meltzer 2009:111). Additional examples of early occupation have been documented at the Topper site in South Carolina and Cactus Hill in southern Virginia, both of which may predate 13,000 BCE (Goodyear 2005; Hranicky 2010; Fagan 2000:84). New discoveries at the Cooper's Ferry site in Idaho suggest occupation as early as 14,000 BCE (Davis et al. 2019). These sites are just a couple of examples of "Pre-Clovis" occupation in the Americas.

The Clovis culture was a widespread Paleoindian culture that has been documented across North America. Dated between about 11,500 and 8,200 BCE (depending on location), Clovis was originally believed to represent the earliest American occupation (Meltzer 2009:254; Fagan 2000:81, 85). However, the discovery of reputable Pre-Clovis sites such as Monte Verde and Meadowcroft changed the narrative. The name "Clovis" comes from one of the first well-documented sites discovered in Clovis, New Mexico, and the term is used to describe both the culture and the distinctive fluted, lanceolate-shaped projectile point that dominates their toolkit. Clovis sites typically occur on low terraces along rivers and streams, and subsistence on Pleistocene megafauna such as mammoth and bison has been documented on numerous sites throughout the Plains and the Southwest (Fagan 2000:85-87). In the eastern U.S., Clovis sites appear to be slightly younger. The oldest Clovis occupation in the east is found at the Shawnee-Minisink site in northeastern Pennsylvania, dated to about 8,990 BCE (Meltzer 2009:254). There are a number of Paleoindian archaeological traditions that post-date Clovis, most notably the Folsom tradition in the west. However, many of these derivative fluted projectile points vary based on region. In the east, fluted points reflect enough similarity to the Clovis and Folsom traditions that they are considered to be of the same approximate age (Fagan 2000:102).

Eastern Paleoindian groups lived in small mobile groups, similar to their western relatives, with a low-density population utilizing fluted lanceolates and subsisting on both large and small game (Fagan 2000:101-102; Kraft 2001:55). The environment was most likely an open spruce/pine tundra with a cool and moist climate. Paleoindian groups of the New Jersey region would have been attracted to choice landforms in proximity to fresh water and abundant floral and faunal resources, which occurred along streams, floodplains, marshes, and meadows (Kraft 2001:55). The Shawnee-Minisink camp, located on a terrace above the Delaware River in Pennsylvania, has yielded evidence for fishing and foraging of foods such as hackberry, wild plum, grape, blackberry, ground cherry, and goosefoot (Fagan 2000:104). Paleoindian sites in the east include base camps, procurement and processing sites, quarry sites, and stone tool manufacture locations. In the Mid-Atlantic, these sites were primarily restricted to small, temporary hunting locations (Fagan 2000:103-104). Sites within New Jersey are almost exclusively small hunting camps, although base camps may exist outside the state or underwater on the continental shelf, established before post-Pleistocene sea level rise (Pagoulatos 2004a:123). Although Paleoindian sites in New Jersey are typically very small, the Plenge site in Warren County has yielded a large amount of Paleoindian material, more than a thousand artifacts from the period, suggesting a more intensively occupied site (Mounier 2003:195).

Exotic, fine-grained stone material was favored for tool manufacture during the Paleoindian period, and was acquired through long distance travel and trade (Fagan 102-103). This stone was fashioned with expert care into distinctive implements, evidence of which has been located at site 28OC100. Debitage from Paleoindian tool manufacture, including channel flakes, was encountered, demonstrating the unique styles of Paleoindian stone tool production (Mounier 2003:195-197). In addition to their signature projectile points, Paleoindian artifacts also include endscrapers, sidescrapers, knives, perforators, and both utilized and non-utilized flakes (Marshall 1982:13; Mounier 2003:19).

The Archaic Period

The Archaic period is marked by the end of the Pleistocene epoch and the subsequent development of varied new environments throughout North America. Archaic peoples adapted to these post-Pleistocene environments and primarily subsisted on foraged resources. As different types of environments developed throughout the continent, different U.S. regions describe unique Archaic patterns. These include the Desert Archaic of the Great Basin and Southwest regions, the Shell Mound Archaic of the lower Mississippi Valley, the Lake Archaic of the Great Lakes Area, and the Maritime Archaic of Maine and eastern Canada (Fagan 2000, Kraft 2001:89). In the eastern U.S., Archaic peoples adapted to woodland environments.

The Archaic period in New Jersey dates roughly from 8,000 to about 1,000 BCE (Kraft 2001:89; Mounier 2003:18). After the Pleistocene ice sheets retreated, sea level began to rise toward modern levels, and productive woodland and wetland environments developed. Rivers such as the Delaware slowed and became tidal, allowing for anadromous fish runs (Hunter Research 2002:2-4). The Archaic is characterized by relatively small bands of hunter-gatherers subsisting through the seasonal exploitation of productive post-Pleistocene landscapes (Kraft and Mounier 1982:52, Mounier 2003:20). The artifacts used by Archaic peoples reflect this lifestyle. They include stone projectile points for hunting, bannerstones that may have been used as atlatl weights, net sinkers for fishing, axes, celts, and gouges for woodworking, as well as a variety of knives, scrapers, choppers, perforators, drills, hammerstones, and abraders (Mounier 2003:20).

As the climate continued to change and time progressed, more subtle cultural and technological changes developed throughout the Archaic period. To describe these differences, the Archaic is traditionally subdivided into the Early, Middle, and Late Archaic.

The Early Archaic Period

The Early Archaic (ca. 8,000 – 6,000 BCE) is characterized by the adaptations to the changing environments of the new Holocene epoch (Kraft 2001:90; Pagoulatos 2003:15). Artifacts of this period typically consist of broad-bladed bifaces, sometimes with stems, notches, or bifurcated bases (Mounier 2003:21). Throughout the eastern woodlands, a general continuum of Early Archaic points can be observed, which includes Dalton (or Hardaway), Big Sandy, and Kirk points. The Dalton form continued from the Paleoindian period, which was further modified with side-notched styles. Projectile point forms also developed corner-notched designs, then bifurcated bases, and finally stemmed forms (Fagan 2000:355-356). In New Jersey, the most common Early Archaic projectile point types are the Palmer, Kirk-Stemmed, and Corner-Notched types. Many of these Early Archaic bifaces demonstrated serrated edges (Mounier 2003:21). In general, people of the Early Archaic moved away from the specific, curated tools of high-quality stone that were characteristic of the Paleoindian period while demonstrating an increase in the diversity of projectile point styles (Fagan 2000:365).

Early Archaic sites typically shift between coastal/estuary sites and interior riverine zones. Like the Paleoindian period, people of the Early Archaic represent highly mobile lifestyles subsisting on foraged resources (Pagoulatos 2003). The environment was in a state of transition from Late Pleistocene coniferous forests and tundra into forests of pine, oak, beech, and hemlock, which would have provided floral and faunal resources for Native American consumption. Foods such as acorns, nuts, deer, elk, black bears, turkeys, squirrels, and more, would have been available. There is little evidence for marine resource utilization during this period, and terrestrial resources lacked diversity, resulting in a relatively low carrying capacity (Kraft 2001:92). Like Paleoindian sites in New Jersey, Early Archaic sites tend to be rare and represent smaller populations (Kraft 2001:103; Mounier 2003:197).

The Middle Archaic Period

During the Middle Archaic (ca. 6,000 – 3,000 BCE), post-Pleistocene sea level rise continued and the environment started to reach modern conditions (Kraft 2001:103; Mounier 2003:18). Deciduous forests abundant with nuts, animals, and other foods resources sustained slightly larger populations (Kraft 2001:103-104).

Projectile points introduced during this period include Stanley Stemmed/Neville points, found as far south as the Carolina Piedmont and as north to New Hampshire (Custer 2001:45; Kraft 2001:104). Other Middle Archaic types include bifurcated LeCroy points and long, slender, contracting-stemmed points in the Morrow Mountain – Poplar Island – Rossville continuum that persists into the Woodland period (Mounier 2003:21; Custer 2001:27, 43; Ritchie 1971:44-46). Netsinkers have also been found in Early/Middle Archaic strata at the Harry's Farm site in the upper Delaware River Valley and in upper Susquehanna River Valley sites, suggesting riverine adaptations and the utilization of fishing as a foraging strategy (Kraft 2001:110). Pecking and grinding technology also appeared during the Middle Archaic, which was used to produce ground stone tools such as grooved axes, adzes, and gouges (Kraft 2001:106). These durable tools were used to modify the environment and better utilize its resources, acquiring and modifying lumber for the construction of shelters, canoes, and tools. Various food processing tools made their appearance and gained popularity in the Late Archaic. Bannerstones also make their appearance during this time and are used into later periods; bannerstones are enigmatic artifacts that are most frequently interpreted as weights for spear-throwers (atlatls) (Kinsella 2013; Kraft 2001:104, 124).

The Late Archaic Period

During the Late Archaic (ca. 3,000 – 1,000 BCE), projectile point and knife styles developed great variety (Mounier 2003:18). The numerous Late Archaic point types include narrow, stemmed,

or gently side-notched styles called fishtail bifaces, long and slender points of the Lackawaxen style, straight-stem points such as the Bare Island type, tapered-stem styles like Poplar Island points, notched-base points of the Brewerton varieties, teardrop-shaped points, and flared-base points such as Lamoka and Normanskill, among many others (Ritchie 1971; Custer 2001; Kraft 2001:120-123; Mounier 2003:22). Large broad-bladed bifaces called broadspears also appear during this period, and they mostly disappear in the Woodland period (Mounier 2003:22; Kraft 2001:152; Custer 2001:65). A variety of food processing tools also became increasing popular during the Late Archaic, including mortars, pestles, grinding stones, pitted stones, nutting stones, sinewstones, shaftsmoothers, and semilunar knives (or ulus) (Kraft 2001: 111-119). During the Terminal Archaic (a term used to denote the transitional period between the Late Archaic and the Early Woodland period, circa 2,000-1,000 BCE), vessels made of soapstone and talc began to appear, foreshadowing the development of ceramic technology during the Woodland period (Kraft and Mounier 1982:55; Mounier 2003:21-22; Kraft 2001:137).

Populations increased steadily during the Late Archaic, and the occurrence of Late Archaic sites is much more frequent than those of earlier periods. More efficient exploitation of the environment and an expanded toolkit allowed for population growth and the settlement of more seasonally revisited sites (Kraft and Mounier 1982:67). A greater emphasis was placed on small game, shellfish, nuts, and wild cereal grains (as evidenced by greater numbers of food processing tools). Larger, principal settlements were located along major river networks, though interior sites near smaller water sources were also prevalent (Kraft 2001:111). Fishing became a more prominent subsistence strategy during this period, evidenced by artifacts such as netsinkers and plummets, as well as features such as shell middens at certain coastal sites (Kraft 2001:128-130; Mounier 2003:141). Native American cemeteries have also been found that date to this period. In Burlington County, the Savich Farm and Koens-Crispin sites represent major Late Archaic cremation

cemeteries. These sites have yielded both functional and ceremonial artifacts, including bannerstones (Kraft 2001:133-136, 156). The Koens-Crispin and Savich Farm sites are examples of the Koens-Crispin burial complex, which emphasizes cremation burials, use of red ochre to decorate and/or mark the remains, and exotic grave goods (Mounier 2003:168-169).

The Woodland Period

The Woodland period in New Jersey lasted from about 1,000 BCE to about 1,600 CE, when Europeans first made contact with the Native American groups of the region. Archaeologists mark the beginning of the Woodland period with the appearance of ceramics (Williams and Thomas 1982:107; Mounier 2003:22). Alongside this technology, the period is predominantly characterized by increased settlement in village life and the advent of agriculture (Kraft 1986:89). These groups likely mixed foraging activity with early agriculture to sustain ever-growing populations and settle in more permanent camps and villages (Mounier 2003:28). Increased settlement led to the expression of many different archaeological cultures as mobility decreased and territories were drawn. The Woodland period is traditionally divided into Early, Middle, and Late designations.

The Early Woodland Period

The Early Woodland (ca. 1,000 BCE – 0 CE) shares most of its characteristics with the Terminal Archaic, with the primary difference being the replacement of soapstone bowls with true pottery (Kraft 2001:151; Mounier 2003:18, 23). The transition from steatite to earthenware was not immediate nor necessarily linear; ceramics have been found in the same context as soapstone bowls and Late Archaic points. Populations were still rising, and semi-sedentary lifestyles were developing. More permanent, seasonally-occupied settlements dotted the landscape (Stewart 1995:182-183). The Early Woodland demonstrates a variety of stemmed, notched, and fishtail points and bifaces, celts,

axes, and more. Prominent point types include Hellgrammite and Meadowood styles (Mounier 2003:24-25; Custer 2001: 33, 38; Ritchie 1971:35).

One of the first Early Woodland cultures to manifest in the New Jersey area is the Orient culture, which lasted from about 1,200 to 600 BCE. One of the prominent markers of the tradition is the Orient Fishtail point, a long, slender biface with a fishtail-like stem (Kraft 2001:152; Custer 2001:30; Ritchie 1971:39). Soapstone and ceramic pottery has been found associated with the culture as well (Kraft 2001:159). Orient sites tend to be located near the coast and along rivers, demonstrating a heavy reliance on shellfish. It is unclear where the Orient culture originated, but sites have been found north of the Potomac River extending as far as New England, and as far west as the Susquehanna River. The type was originally identified at the Orient Point site on Long Island, New York (Kraft 2001:152-153).

The Meadowood culture (ca. 1,250 BCE – 500 BCE) is a burial complex that spread from the New York area into New Jersey, manifesting as a small number of short-term campsites and burial sites, bringing cache blades made from exotic Onondaga chert (Williams and Thomas 1982:112; Kraft 2001:160-162). Expressions of Meadowood culture include diagnostic Meadowood points and cache blades, gorgets, and pendants (Mounier 2003:24; Kraft 2001:161-163). Another artifact type to note are birdstones: rare, well-crafted stones shaped like a bird, often formed from slate, and with possible functionality as atlatl decorations or weights. Meadowood sites are often located along streams and lakes, and different types of netsinkers suggest a reliance on fishing alongside other foraging strategies (Kraft 2001:164). The Meadowood burial complex is focused on cremation, and burials have been found with burned foods and freshly-made tools as grave goods (Kraft 2001:165). Meadowood site patterns appear to correlate with abundant fishing grounds as well as likely trade routes for Onondaga chert. The Meadowood propensity for fishing as a

subsistence strategy likely ties to the stabilization of shorelines around lakes and riverine environments, allowing for the increased abundance of aquatic resources (Taché 2011:173-175).

Another tradition attributed to the Early Woodland is the Middlesex phase, which dates to around 800 – 300 BCE. Herbert Kraft noted that the Adena people from the Ohio River valley appear to have visited the New Jersey region (2001:168). New Jersey has no known evidence of Adena ceremonial centers, village sites, or mounds; however, smaller Adena-related burials and camps have been found and designated "Middlesex" or "Adena-Middlesex" to distinguish them from the parent groups in the Ohio and Mississippi River Valleys. These Middlesex occurrences have been identified throughout New Jersey and the Northeast, including parts of eastern Canada. Similar Adena-related manifestations have been identified in Delaware, Maryland, and Virginia, where they are referred to as the Delmarva Adena (Kraft 1986:98-99; 2001:168). One of the most prominent expressions in New Jersey is the Rosenkrans Ferry site, a burial site overlooking the Delaware River that has yielded gorgets, pentagonal pendants, copper adornments, and a mutilated skull that some interpret to represent a wolf shaman (Kraft 1974).

The Middle Woodland Period

Middle Woodland (ca. 1 CE – 900 CE) cultures include the Fox Creek culture, defined by a prominence of Fox Creek/Steubenville projectile points often accompanied by net-impressed ceramics (Kraft 2001:184; Mounier 2003:18, 25; Custer 2001:32; Ritchie 1971:50-52). Bola stones have also been found in association with these artifacts (Kraft 1986:105). Perhaps the most well-known reflection of Fox Creek culture is the Abbott Farm complex of sites in Mercer County, New Jersey. These sites are a concentration of primarily Middle Woodland villages located near the falls of the Delaware River around Trenton and Hamilton. Much of our information on the Middle

Woodland is derived from studies of the Abbott Farm complex, which will be covered in much greater detail in the following chapter.

Generally, the Middle Woodland period is characterized by an expansion of new ceramic types and decorations throughout the region (Kraft 2001:184). Fishing was also an important component of Middle Woodland adaptation and its use intensified during this period; multiple artifacts such as netsinkers, fishhooks, setlines, and harpoons reflect this behavior (Stewart 1995:186; Kraft 1986:107; Kraft 2001:188-189). The Kipp Island culture (ca. 300 – 850 CE) and Webb phase (ca. 410 – 1,180 CE) are other Middle Woodland cultural complexes that are both identified with Jack's Reef corner notched points, corded or cross-corded pottery, and high-quality jasper bifaces (Mounier 2003:26-27; Kraft 2001:193; Custer 2001:34; Ritchie 1971:26-28).

The Late Woodland Period

The Late Woodland period (ca. 900 CE – 1600 CE) is characterized by increased populations, increased sedentism, and the introduction/expansion of horticulture as a component of the Native American subsistence strategies (Kraft 2001:205; Mounier 2003:18, 27). Cultivation of maize in New Jersey is first documented at the Old Barracks prehistoric site in Trenton, around 940 CE (Stewart 1993:167). Possible earlier dates were noted in Gloucester City (Adam Heinrich, personal communication). Late Woodland settlements clustered around the coast and along major rivers, demonstrating a mix of villages with extended occupation and seasonal camps. There was less trade during the Late Woodland compared to earlier periods, and most groups utilized local stone materials to produce their tools (Mounier 2003:28). The utilization of local stones could be a reflection of a more sedentary lifestyle, with less travel, increased territoriality, and an increased reliance on one specific region from which to derive all subsistence resources. Late Woodland occupation is often marked by the presence of small, triangular projectile points, such as the

Levanna and Madison points (Custer 2001:48; Ritchie 197131-34; Kraft 2001:258). These artifacts were used as arrowheads and indicate the introduction of bow-and-arrow technology. During the Late Woodland, ungrooved celts largely replaced axes as the woodworking tool of choice (Kraft 2001:206). Ceramic styles developed more intricate designs and varieties as well (Kraft 2001:205-206, 291-306). The period is characterized by a great deal of technological diversity that developed to most efficiently utilize environmental resources, using many specific tools for different tasks.

Herbert Kraft identified two Late Woodland cultural traditions in northern New Jersey and the Upper Delaware Valley, classifying them based them on differences in ceramic production. The Pahaquarra complex produced ceramics that resemble pre-Iroquoian Owasco pottery, which were collarless with carefully cord or fabric impressed decoration. The Minisink cultural complex produced pottery with decorated collars and incised designs instead of pressed (Mounier 2003:29). Pahaquara settlement generally consisted of small, seasonally occupied hamlets surrounded by supporting resource procurement sites, a trend that is also seen in southern New Jersey by about 1,200 or 1,300 CE (Stewart 1993:169). The first Europeans to explore the New Jersey region encountered Late Woodland cultures, which were historically known as the Lenape. The Lenape were culturally and linguistically divided between the north and south of New Jersey. Although both groups spoke Algonquin languages, the northern people spoke a Munsee dialect, while people in the southern region spoke an Unami dialect. These linguistic divisions likely coincided with social and political divisions as well (Kraft 2001:206). Our current understanding of New Jersey's Native American past assumes that all people from previous periods are ancestors to the Lenape.

The Contact Period

It is generally believed that the first Europeans to make contact with the Lenape were Giovanni da Verrazano and Henry Hudson, around 1550/1600 CE. Initial contact with these

foreigners provided a variety of trade goods that the Native Americans were previously unable to acquire, such as iron, brass, glass, and cloth. (Kraft 2001:353). Certain Contact period artifacts are a result of this cross-cultural trade. For example, traded brass kettles have been found broken down and refashioned into projectile points and ornaments. Iron axes and other tools were also very useful to the Native Americans. Trade beads were valued for their decorative aesthetic, and the Lenape accepted glass beads and wampum shell beads in their commercial interactions (Kraft 2001:376-387).

Contact period sites can be identified through some of these artifacts, as well as other Late Woodland period materials mixed with common late 17th/early 18th century historic artifacts, such as tobacco pipes, early ceramics, etc. (Kraft 2001:390-391). At the Gravelly Run site in Atlantic County, evidence has been found of interaction between Native Americans and early Dutch traders. The large, mostly Late Woodland, site has yielded a reworked brass projectile point, fragments of 17th century Bellarmine stoneware, and early coins including a late medieval jeton (Stanzeski 2018:89). A later Contact period component has also been identified in Ocean County at the West Creek site. The early 18th century house at the site appears contemporary with the Late Woodland component and has yielded a mix of Native American and British/European material culture, including gunflints crafted bifacially from local chert (Stanzeski 2012). Contact period burials at the Lenhardt-Lahaway Hill and West Long Branch sites in Monmouth County have yielded trade goods of beads, wampum, shell effigies and ornaments, spoons, tobacco pipes, turtle shells, and bracelets. The burials demonstrated a greater proportion of personal items and items of adornment when compared to the historical documentation of traded goods, which described a greater proportion of items such as currency, kettles, firearms, knives, and glass bottles of alcoholic beverages. This is likely due to a Lenape propensity to inter their dead with items of personal adornment (Veit and Bello 2002).

Europeans had explored most of New Jersey by the middle of the seventeenth century. Historical documents suggest that on most occasions, the Lenape people were peaceful and welcoming to the Dutch, Swedish, and English traders that first came to their land. However, most submitted to English occupation by the mid- to late 17th century following losses due to epidemic and intertribal warfare (Grumet 1995:234, 236). Widespread European settlement began around the end of the 17th century, and most Native Americans were displaced within an 80-year span (Mounier 2003:30). Some moved west into Pennsylvania and Ohio, while many others perished due to disease and conflict. A small number of Native people remained, adopting some English traditions into their material culture and living spaces (Sansevere 2011). A later 18th century treaty established a reservation in southern New Jersey called Brotherton, which eventually failed, and Native American people either moved west or into Euro-American communities (Veit 2002:58-59; Grumet 1995:240). The colonization of the Americas ultimately robbed native populations of their land and led to relocation, enslavement, abuse, illness, and death. Today, many Lenape live in Oklahoma, Wisconsin, and Canada, and only a small population remains in New Jersey (NJSM 2012:33-34).

Chapter 4: Regional Prehistoric Background –

The Middle Delaware Valley, Abbott Farm, and Trenton

The Mercer County, New Jersey area has produced prehistoric remains from all periods of prehistory. Many of the finds in the region represent the utilization of waterways such as the Delaware River, its tributaries, and their surrounding environments. Because of these waterways, the Middle Delaware Valley was a central point of prehistoric travel. The falls of the Delaware were fordable and Native Americans could use this area to cross into New Jersey. Indigenous trails converged at this point and ran along floodplain terraces leading away from the Delaware along its tributaries: Assunpink Creek, Watson's Creek, and Crosswicks Creek. The seasonal exploitation of anadromous fish, such as sturgeon and shad, below the falls was also a key factor in resource procurement in the area (Hunter and Burrow 2013:327). In Hunterdon County, just north of Mercer, abundant deposits of argillite were mined and traded for stone tool production throughout the region and most of New Jersey (Mounier 2003:36). Argillites, cherts, and jaspers were available in the Piedmont region to the north, as well as on the Pennsylvania side of the river (Stewart 2015:20). Prehistoric sites in this region consist of larger villages, seasonal camps, peripheral hunting/resource procurement sites, and specialized work stations (Mounier 2003:127-159).

The prehistoric cultural landscape of the Middle and Lower Delaware Valley is dominated by the Abbott Farm complex. The Abbot Farm National Historic Landmark in Trenton and Hamilton consists of multiple Native American village and mortuary sites near the falls of the Delaware River, and is the largest complex of its kind on the entire eastern seaboard. The primary temporal occupation extended from the Late Archaic until European contact, although remains have been found going as far back as the Paleoindian period. Geographically, the complex of sites is oriented

around the Delaware River, its tributaries, and tidal wetlands. Abbott Farm is the most prominent archaeological complex in the state, and it holds great significance to the prehistory of the entire East Coast (Skinner and Schrabisch 1913:63-64; Cross 1956; Williams and Thomas 1982; Mounier 2003:26; Veit, Stewart, and Obermeyer 2015).

History of Archaeology in Abbott Farm

The Abbott Farm complex played a prominent role during 19th century debates about Native American antiquity in the Americas. Charles Conrad Abbott, a New Jersey physician and antiquarian, spearheaded the argument for an American Paleolithic reaching back deep into the Pleistocene. Abbott based his argument on an assemblage of artifacts recovered from his Trenton property, Three Beeches (which would become known as the Abbott Farm and the namesake of the whole complex). Based on morphology, Abbott likened these artifacts to European paleoliths and assumed a similar age (Meltzer 2009:68-69; Abbott 1872:146). His collection from the Abbott Farm environs and subsequent publications brought fame to Trenton archaeology, despite disagreement on the site's age by a number of his contemporaries (Hunter 2015:50-52; NJSM 2012:12; Aiello 1967). Frederick Ward Putnam of the Harvard Peabody Museum had hired Abbott to curate a New Jersey collection and supported his research, although he too began to question some of his theories after opposition began to mount against him. Abbott's greatest detractors were William Henry Holmes of the United States Natural History Museum and Aleš Hrdlička, a physical anthropologist from the Smithsonian. These men questioned Abbott's methods and evidence, disagreed with his correlation of the Trenton artifacts to European paleoliths, and they challenged his assumptions of incredibly early dates for humanity in the Americas (Meltzer 2009:69-82; Kraft 1993:5-7; Veit 2001:75). Even G. Frederick Wright, a geologist that advocated for a Pleistocene age to the Trenton gravels and the artifacts within, conceded that they could be less than 10,000 years old (Kraft

1993:7). Although Abbott's theories have been largely disproven, his contributions to New Jersey archaeology are undeniable. His identification of and publication on the Abbott Farm complex was critical to establishing a foundation for later researchers to unearth more information about the prominent site. Abbott's argument for a Pleistocene-era presence in the New World was revolutionary, and although he was incorrect about the exact expanse of time and other details, he helped to change the narrative of Native American presence as a purely recent phenomenon.

Investigation of the Abbott Farm complex was continued in the late 19th/early 20th century by Ernest Volk of the Peabody Museum at Harvard. Volk led extensive excavations at the Lalor Fields site, west of the original Abbott Farm site (yet still within the larger Abbott Farm National Historic Landmark). He also investigated the Wright fields, Rowan farm, and near the Isaac Watson House. Volk respected Abbott and searched for evidence of his ancient "glacial man," but with limited success. Similarly, Henry Chapman Mercer, Abbott's successor at the University of Pennsylvania Museum, critiqued Abbott's theories and highlighted some of the issues with his work (Grossman-Bailey 2001b:24 Veit 2001:75; Kraft 1993:9). Ultimately, Volk unearthed a wealth of cultural material attributable to Abbott's so-called argillite culture, which today would be considered part of the Middle Woodland period (Hunter 2015:52, 56-59). Volk published his 22 years of work within the Abbott Farm complex in one major volume, *The Archaeology of the Delaware Valley* (1911). In 1913, finds from the Abbott Farm and its vicinity were also noted in an extensive report on Native American sites in New Jersey as part of a statewide geological survey (Skinner and Schrabisch 1913:63-64).

A few years after Volk's excavations, the Three Beeches property became slated for development. At the behest of Abbott, Alanson Skinner, Assistant Curator of Anthropology at the American Museum of Natural History, and his student Leslie Spier, conducted their own fieldwork in 1914 preceding the sale of the property. Their research, while confined to a smaller area, was done

with a greater emphasis on scientific method and statistical analysis. Afterward their investigation, no major research endeavors were conducted within Abbott Farm until the start of the New Jersey State Museum's Indian Site Survey in 1936 (Hunter 2015:60).

During the Great Depression, President Franklin D. Roosevelt's New Deal created the Works Progress Administration (WPA), a government spending initiative that sought to provide job opportunities for the unemployed. One of the WPA projects was the Indian Site Survey of New Jersey (ISS), which was tasked with identifying and excavating prehistoric sites across the state. The project lasted from 1936 to 1941, and the Abbott Farm was a major target of their research. The ISS was directed by Dorothy Cross of the New Jersey State Museum, New Jersey's first state archaeologist (NJSM 2012:12). Cross's excavations in Abbott Farm and her subsequent reporting were masterfully conducted. She reviewed the work of Abbott, Volk, and others, led twenty of her own excavations within the complex, and synthesized the results of the fieldwork into a complete scientific volume (Cross 1956) that is still relevant today (Hunter 2015:62-64).

Save for a few smaller research projects, most archaeology conducted within the Abbott Farm National Historic Landmark is done through the cultural resource management industry. During the 1960s, a national push for the protection of historic properties led to the creation of new laws designed to regulate the impact that development has on the nation's cultural resources. The most prominent of these laws is the National Historic Preservation Act of 1966, specifically Section 106. This piece of legislation, alongside numerous other federal, state, and county regulations, requires certain undertakings to be preceded by a cultural resource survey to identify properties and archaeological sites that may be eligible for the State or National Registers of Historic Places. If such sites are identified and their destruction is imminent, the loss of data is typically mitigated through excavation and analysis. To help developers comply with these historic preservation laws, private cultural resource management (CRM) firms were created. The CRM industry employs professional

archaeologists, historians, and architectural historians to identify, research, document, and analyze historic properties that are threatened with destruction. Numerous CRM projects have been conducted within the Abbott Farm complex, and the resulting collections and reports contribute to our understanding of the area. Survey work was conducted by Janet Pollak preceding the construction of the I-195, I-295, Route 29, and Route 129 interchange, which led to the formal designation of the Abbott Farm National Historic Landmark in 1976 (Hunter 2015:67-69). Subsequent work on this massive highway project was conducted by Louis Berger and Associates, Inc. throughout the late 1970s and early 1980s, which was reported in a 15-volume technical report published in 1996 (1996a; Hunter 2015:71-72). Smaller CRM projects have also taken place within the landmark more recently by R. Alan Mounier, the Cultural Resource Consulting Group, Richard Grubb and Associates, and Hunter Research, Inc. (Hunter 2015:74).

Summary of the Abbott Farm Complex

The geography of the Abbott Farm complex is generally focused around a long bluff that runs along the east bank of the Delaware River between Trenton and Bordentown (Hunter et al. 2009:2-2 and 2-3). The complex is generally divided into upland sites and floodplain sites; upland sites tend to hug the bluff edge, while floodplain sites lie within the lowland marshes closer to the river (Louis Berger 1996b). The bluffs provided potable water, sheltered and well-drained camping spots, and firewood, while the lowland marshes provided a variety of fauna and flora for consumption (Kraft 2001:188). A geological fault in the Abbott Farm area causes the Delaware River to abruptly change from a deep tidal stream to a relatively shallow one just north of Trenton, which results in migrations of fish suddenly slowing and congregating in the area (Kraft 2001:187-188). This makes the region a prime location for the exploitation of anadromous fish as a food resource. The Delaware River and its riverside wetland environments were able to provide other

diverse food resources as well, supporting multi-seasonal activities; this was a primary factor in the region's intensive occupation (Stewart 2015:17). The Abbott Farm sites demonstrate a variety of temporal components covering almost the entire span of New Jersey prehistory.

The Paleoindian and Early Archaic Periods. Native American existence within the Abbott Farm National Historic Landmark has been documented as far back as the Paleoindian period. However, early occupation was of a distinctly lower density than later periods. During her massive excavations, Dorothy Cross found just four fluted projectile points that suggest Paleoindian presence. She interpreted the Paleoindian occupation to be relatively scant, with no additional evidence of repeated settlement (Cross 1956:79, 169, 192). Later CRM surveys demonstrated a similar rare incidence of diagnostic Paleoindian artifacts, such as a fluted point found at the Abbott-DeCou Prehistoric Site (28ME257) (Pagoulatos 1993; Bello and Pagoulatos 1995:82; Hunter et al. 2009:5-29). The highly mobile lifestyle of Paleoindian and Early Archaic groups may account for the lack of regular encampments (Stewart 2015:16).

The Middle Archaic Period. Consistent occupation at the Abbott Farm began during the Middle Archaic, around 5,000 – 4,000 BCE (Stewart 2015:16; Hunter et al. 2009:3-18). The majority of Middle Archaic finds within the district were at the Area D Site (28ME1-D) with some evidence found at the Carney Rose Site (28ME106) and the White Horse West Site (28ME119) (Louis Berger 1996b:18, 36, 106; Hunter et al. 2009:3-2). Middle Archaic deposits at the Area B Site were identified by diagnostic triangular points and associated debitage, and the occupation is interpreted as the remains of seasonal fishing camps (Louis Berger 1996b:39). Middle Archaic points from Carney Rose and White Horse West were found in disturbed or poor contexts (Louis Berger 1996b:106). Evidence for Middle Archaic occupation elsewhere in the landmark is lacking.

The Late Archaic Period. By the Late Archaic, seasonal occupation throughout the landmark was well established, and almost every site in the complex demonstrates a component from this period (Stewart 2015:17; Louis Berger 1996b:11). The Late Archaic demonstrates an intensification of settlement, a greater number of sites, more activities represented, and longer annual stays (Stewart 2015:16). However, no Late Archaic components have demonstrated evidence of year-round occupation (Stewart 2015:17). Different portions of the Abbott Farm area were the focus of specific economic or social activities based on the season. Fishing and shell-fishing grew in importance during this period, due in part to the stabilization of marine, estuarine, and riverine habitats around 3,000-2,500 BCE (Stewart 2015:16). Sites were primarily simple hearth-focused encampments ranging in size from stations to transient camps, with the occasional base camp established for longer periods of time. These base camps would likely have been occupied during seasons of abundant resource availability in that area, such as anadromous fish runs, demonstrating the predictable cyclical use of seasonal resources and landscapes (Louis Berger 1996b:150-151; Hunter et al. 2009:3-4; Stewart 2015:17).

Artifacts attributed to this period include plummets, semi-lunar knives, a notched axe and full-grooved axes, grooved adzes, bannerstones, a variety of diagnostic points, scrapers, drills, hammerstones, abrading stones, and netsinkers (Cross 1956:169-170). Argillite was the dominant material used, while after this period cryptocrystalline materials are more favored (Louis Berger 1996b:138). Northern Mercer County is underlain by Lockatong argillite, which was a major source of the material, and secondary deposits from river cobbles were also utilized (Louis Berger 1996b:136).

The Early Woodland Period. Entering the Early Woodland period, settlement patterning was consistent with the Late Archaic. These components express continued use and reuse of a broad range of upland resources and the wetlands in the floodplain, demonstrating larger macro and microsocial unit camps and resource procurement sites. However, the intensive use of these sites increased from the Archaic, and populations continued to rise (Louis Berger 1996b:156, 159). There were no year-round residents at the Abbott Farm during the Early Woodland; there was only seasonal occupation of local settlements (Stewart 2015:17). Many deposits from this period show evidence of generalized exploitation of environmental resources with low densities of occupational debris, suggesting consistent reuse of sites but not necessarily long-term sedentism (Louis Berger 1996b:159). Use of the Abbott Farm area appears to represent an extended fall settlement with a return during the spring and summer (Stewart 2015:17).

Similar to the Late Archaic, many Early Woodland sites had a seasonal resource focus. Warm season sites were primarily used for hunting and gathering plant resources, such as the Shady Brook Site (28ME20 and 99). Other sites focused on seasonal abundance of nut masts (Louis Berger 1996b:158). Food resources were primarily focused on specific highly available foods such as anadromous fish, nuts, shellfish, large mammals, and seed and tuber producing plants (Hunter et al. 2009:3-7). There is no direct evidence for domesticated plants in this region at this time (Hunter et al. 2009:3-8).

Regarding lithic resources, the Terminal Archaic and Early Woodland people demonstrated a continued preference for argillite (Louis Berger 1996b:206). Quarried argillite from the Piedmont region was a major source of stone material, although there was also great emphasis on the utilization of local cobbles (Louis Berger 1996b:159, 206). The lack of reworked tools suggests that stone material was easily obtained (Louis Berger 1996b:159). Jasper was also well-represented during

this period, signaling a slight increase in the usage of cryptocrystalline materials (Louis Berger 1996b:206).

Early Woodland contexts demonstrate low densities of ceramics, indicating that the technology was adopted relatively slowly (Hunter et al. 2009:3-6). Soapstone-tempered pottery is characteristic of this period (Louis Berger 1996b:153). The Terminal Archaic and Early Woodland periods also saw the first evidence of mortuary features on Abbott Farm sites (Stewart 2015:17).

The Middle Woodland Period. The primary occupation of the Abbott Farm complex is the Middle Woodland component. By about 200 CE and extending into the Late Woodland, this region of the Delaware Valley was a focal point of prehistoric settlement, demonstrating increased sedentism and more restrictive territorial confinement (Louis Berger 1996b:232). Middle Woodland sites within the landmark represent long term encampments and satellite activity areas during the fall and then again during spring and summer. Many of these sites were reused from the Late Archaic and Early Woodland. Middle Woodland people in Abbott Farm were connected to those of the Outer Coastal Plain of New Jersey, areas of coastal New York, southeastern Pennsylvania, and upriver Piedmont sections of New Jersey, as evidenced by potential sources of raw stone materials and the spatial distribution of pottery styles (Stewart 2015:18). No macrosocial or microsocial unit camps have been identified in the Abbott Farm sites; the site types identified only include transient camps and stations that provide support to the larger base camps along the Delaware River and in upland environments (Louis Berger 1996b:219). Nearby macrosocial unit camps include Savich Farm and Koens-Crispin, both along the Rancocas Creek in Burlington County. These sites have the potential to pair well with the supportive site types demonstrated at Abbott Farm (Louis Berger 1996b:336).

The Abbott Farm complex demonstrates the strongest expression of Fox Creek culture in the New Jersey area. The Fox Creek culture is an archaeological culture dating to the Middle Woodland period, and their sites are mainly on river and coastal sites on the Chesapeake Bay, north into the Delaware, Susquehanna, and Hudson River drainages. Fish appears to be a staple of the culture, with multiple Fox Creek artifacts suggesting the use of fish as a food resource. For example, Fox Creek Petalas blades have been found in direct association with sturgeon remains (Kraft 2001:185).

The most intensive fishing occurred during the Middle Woodland, with the greatest emphasis on that particular subsistence strategy between 200 and 800 CE. The exploitation of anadromous fish runs has been interpreted as evidence of an immense reorganization of labor, as the large-scale effort to gather the resource and its potential for massive amounts of both immediately available and stored food demonstrates a cooperative effort that requires more than just an extended family. (Stewart 2015:17). Petalas blades, important tools associated with the Fox Creek culture, are considered to be butchering tools for fish processing (Cavallo 1984). They have been found in association with sturgeon remains on Hudson River sites (Kraft 2001:185). They are often made from local argillite or chert, sometimes jasper, and are occasionally found in caches at Abbott Farm (Kraft 2001:187; Cross 1956:68-71). These caches may have fulfilled the need for many butchering knives during large fish spawning runs. Manufacturing hundreds of Petalas blades to keep on hand during this important resource procurement period would ensure that the group was adequately prepared to process the massive amounts of fish recovered (Kraft 2001:187). Burying the tools may have also made them easier to knap by introducing moisture to the stone (Veit, personal communication). Other fishing-related artifacts from Abbott Farm include antler harpoons, which were likely used to spear the powerful sturgeon that would have damaged fishing nets (Kraft 2001:188). Needles, like the copper and bone needles Dorothy Cross recovered (1956), may have

been used to string up fish for drying or smoking over a fire (Kraft 2001:189). These fishing-related artifacts, other materials associated with the Fox Creek fishing culture, and the complex's location along the Delaware River all support the argument that the area was an especially favored fishing location during the Middle Woodland (Kraft 2001:187).

Other evidence for food resources has been found in the form of charred seeds and calcined bone. Ecofacts from the Shady Brook Site and Lister Site (28ME1-A) have revealed information about Middle to Late Woodland subsistence, demonstrating evidence of fall occupation with a focus on hickory nuts and walnuts while hunting primarily small mammals that could include muskrat, beaver, squirrel, woodchuck, rabbit, and dog. Only limited evidence of deer-sized animals has been recovered (Louis Berger 1996b:287-288).

By 800 CE, argillite fell off as the dominant material for biface production, being replaced by jasper and chert (except in the largest of bifacial tool forms) (Louis Berger 1996:233, 291). Diagnostic artifacts of this period include Fox Creek Stemmed and Fox Creek Lanceolate points. Atlatl weights are not typically found in Fox Creek contexts. Bolas were used for hunting and fowling, celts were used for chopping, and pitted stones, hammerstones, anvil-stones, and pestles were used as domestic food-processing tools (Kraft 2001:185). Cross attributed large triangular points to the Middle Woodland period, and found thumbnail scrapers, straight drills, non-steatite pendants and gorgets, sinewstones, whetstones, and sharpeners in Middle Woodland contexts (1956:181).

The Middle Woodland saw the rise of more complex and sophisticated ceramic types compared to previous periods (Kraft 2001:184; Cross 1956:180). Perhaps the most well-known ceramic decoration from the area is the Abbott-Zoned type (Pollak 1970; Stewart 1998; Lattanzi, Stewart, and Pevarnik 2015). This particular type has been documented primarily within the Abbott Farm, as well as other parts of the Delaware Valley and Middle Atlantic Region, although it has also

been noted on certain sites in coastal Virginia (Lattanzi, Stewart, and Pevarnik 2015:30; Stewart 1995:190-191). Although this particular type is considered characteristic of the Fox Creek culture and Abbott Farm, it only comprises seven percent of the total ceramics recovered from the area (Cross 1956:145-149; Kraft 2001:192). In addition to Abbott-Zoned pottery, ceramics from the landmark are net-marked, dentate-stamped, rocker-stamped, incised, and cord-marked (Kraft 2001:192; Cross 1956:180). Herbert Kraft has argued that all pots appear to be utilitarian, although Gregory Lattanzi, R. Michael Stewart, and George Pevarnik have posited that the Abbott-zoned ceramics were used in feasting rituals and social gatherings (Kraft 2001:192; Lattanzi, Stewart, and Pevarnik 2015).

There was also a great increase in mortuary features during this period, suggesting longer habitation periods within the landmark and an increased significance ascribed to the area (Stewart 2015:18). Burials at Abbott Farm were rarely accompanied by grave goods and often only included only skulls or skull and leg bones, suggesting that maybe these were secondary burials brought back to the area for interment when someone died away from home (Cross 1956:195). Individuals with full burials have been found in a flexed position (Cross 1956:182).

The Late Woodland Period. Essentially, the Late Woodland continues patterns from the Middle Woodland regarding foraged resources, lithic material use, and mortuary patterns (Stewart 2015:19). The Late Woodland develops even greater sedentism, decreased territory size, the introduction of the bow and arrow, and the supplementation of diets using horticulture. Farming first appeared around 900 CE, during the Late Woodland. Farming began with the cultivation of maize (squash and beans added after 1,300 CE) and led to a slight shift in the location of major settlements. Settlements began to focus on farming, looking toward Delaware River floodplain farming hamlets (Stewart 2015:18). The northern portion of the Abbott Farm landmark demonstrates this pattern;

Late Woodland settlements on the high terrace bluff may be linked to lowland farm plots. Farming does not lead to the abandonment of other subsistence practices, as the lure of Abbott Farm is its diverse environments that allow for multiple resource procurement activities. However, farming does lead to the most sedentary settlements of all prehistory, and these sites demonstrate evidence of relatively permanent structures. Sites were likely occupied year round, with possible movement toward hunting camps during the winter. However, Abbott Farm and New Jersey settlements never developed into the nucleated, often stockade villages seen in other places in the Middle Atlantic region (Stewart 2015:19).

Lithic tool forms continue from the Middle Woodland, with the addition of triangular and irregular-flake drills, discoidals, and grooved netsinkers, all in small quantities (Cross 1956:184). Diagnostic Late Woodland point types are also introduced or increase in prominence, such as small triangular projectile points (Cross 1956:185). Ceramic decorations from the Middle Woodland are all present during the Late Woodland, and they are supplemented with new, diversified decorative types as well (Cross 1956:184, 185).

The Contact Period. Native American sites from the historic period have been identified within the Abbott Farm landmark as well, and it appears that traditional subsistence pursuits continued after Europeans arrived. Reliance on farming and fishing continued, as did the manufacture of stone tools and pottery. European goods were obtained through trade and used alongside traditional tools and implements. Contact period sites within the landmark are often interpreted as Late Woodland period sites due to the continuity of previous cultural expressions and the low density of Contact period artifacts. The most prominent expression of Contact period material culture has been found in Native American burials, reflecting a shift in mortuary practices that originated with European interaction (Stewart 2015:19-20).

Summary of Prehistoric Trenton

While lying outside the legal boundaries of the Abbott Farm National Historic Landmark, a number of sites identified within the downtown area of Trenton represent a continuation of the prehistoric landscape. These sites at least had a peripheral relationship with Abbott Farm, although an argument can be made that the modern Abbott Farm boundary simply fails to include the entire complex. Sites identified in downtown Trenton could very well be considered part of the same general prehistoric entity. Louis Berger and Associates referred to this greater regional site pattern as the "Trenton Complex" (Louis Berger 1996a). The vast amount of urban disturbance has reduced the inner city's archaeological potential, however, small "islands" of cultural deposits have survived and provide great insight into the region's prehistory (Hunter Research 1993; Hunter and Burrow 2013:327). The prehistoric component of the William Trent House site is one such island.

North of the Trent House, a zone of Native American presence in downtown Trenton existed along the Delaware River, extending slightly farther east along the Assunpink Creek corridor. This area would have demonstrated a multifaceted environment of tributary drainage, wetlands, patches of fast land, floodplain terraces, and bluffs (Hunter and Burrow 2013:327-328). Possibly the most significant complex of sites in this area existed around the mouth of Assunpink Creek and the Petty's Run channel. This downtown Trenton complex currently includes about four identified sites. These deposits likely have relation to the Abbott Farm sites downstream along the Delaware (Hunter Research 1989a; 1993).

This downtown Trenton complex is generally divided on an upper and lower terrace, both sloping southwest. Along the upper terrace, a trend of Archaic and Woodland occupation is demonstrated (Hunter and Burrow 2014; Hunter Research 1993). This occupation zone appears to conform to the bluff rim overlooking the Assunpink Creek (Hunter and Burrow 2014:2-5). A trend

of Woodland occupation is displayed on the lower terrace. (Mounier 1996; Hunter and Burrow 2014).

Another complex of prehistoric occupation lays south of the Trent House, which is referred to as the Douglas Gut Archaeological Complex. The area is named after a small stream, the Douglas Gut, which once ran through the northern section. This zone lies on the Valley Heads Terrace, about 20 feet above sea level. The complex has yielded a vast quantity of prehistoric artifacts and features, including burials. The primary occupation appears to date to the Late Woodland period, which has yielded evidence of sedentary occupation such as waste material disposal pits, middens, maize macrobotanicals, and burials. Evidence of Late Archaic and Early Woodland occupation is also prolific, and these occupations tend to reflect transient camps seen along the bluff edge in Abbott Farm. Contact period manifestations have also been documented throughout the complex (Hunter Research 2002).

The William Trent House site itself appears to sit atop a low knoll-like landform within the floodplain of the Delaware and the Assunpink. Early work on the site revealed a Late Archaic presence (White et al. 2003; Hunter and Burrow 2014:2-5). The Trent House site likely demonstrates a direct relation to the Douglas Gut complex, as well as the greater Trenton complex and the Abbott Farm.

Chapter 5: Historic Background

The history of the William Trent House property has been summarized in previous reports regarding the site's documentation and preservation. These reports primarily consist of Susan Maxman Architects' 1997 William Trent House Historical Documentation and Planning Study and the previous archaeological reports prepared by Hunter Research, Inc. (White et al. 2003:2-1 to 2-2; Butchko, Burrow, and Hunter 2016:2-1 to 2-37). This brief summary of the site's history is drawn from these documents unless otherwise noted. The purpose of this chapter is to provide context for the field investigations that were conducted in the summer of 2019; detailed information on the site's history and historic resources should refer to the abovementioned reports and later publications on the 2019 field efforts by Hunter Research, Inc.

In March 1664, King Charles II of England granted all of New Jersey to his brother, James Duke of York, who conveyed it to Lord John Berkeley and Sir George Carteret. In 1696, the Province Line was drawn, dividing the colony into East and West Jersey. East Jersey belonged to Sir Carteret, while West Jersey became the property of men that had acquired Lord Berkeley's interest through deed or survey (Lurie 2012:35-36; Nash 1976). One of these proprietors was Mahlon Stacy, who had arrived in the colony in 1679 and became vested in the lands around modern-day Trenton. He is known as one of the most prominent early settlers in the region. Stacy eventually acquired 500 acres of land in the Trenton area. He constructed a home called "Dorehouse", and his surrounding plantation was named "Ballifield." The location of Dorehouse was likely on the Trent House property, as evidenced by a 1714 survey conducted when Stacy's son sold the land to William Trent.

Trent was a wealthy Philadelphian that constructed his country estate near the falls of the Delaware around 1719. In 1720, he laid out the settlement of Trenton and had it incorporated; at

this point, Trenton was an emerging market settlement tied to Philadelphia by the Delaware River (Trent House Association 2019; Hunter and Burrow 2013:323). The Trent House was renovated in 1742 to satisfy a new tenant, Lewis Morris, the first governor of New Jersey. These renovations included the construction of a kitchen wing and a connecting covered passageway. While the kitchen wing does not stand today, evidence of the addition has been identified archaeologically (Butchko, Burrow, and Hunter 2016).

The Trent House property saw a great deal of inhabitants and changes throughout the rest of its history. Colonel John Cox, a Revolutionary War patriot, acquired the house and used the land as a supply depot for the Continental Army after the famous Battle of Trenton. The estate passed in and out of the Cox family in the late 18th and early 19th century. During the early 19th century, the development of the city began to surround the property with a grid of streets, and by 1840 the property had shrunk to about its current size. The property passed through a number of owners during this period. The kitchen wing was reconfigured in the 1840's, it was expanded to the north in 1859, and a greenhouse was added to the south in 1870. The last private owner of the property, Edward Stokes, donated the structure to the City of Trenton in 1929, stipulating that it must be returned to its original construction and used as a museum, library, or gallery (Trent House Association 2019). From 1933 to 1936, the Works Progress Administration worked to restore the house to its original construction, removing most of its additions in an attempt to reclaim the building's 1719 appearance. The museum was opened in 1939 and the property is used to support its educational mission today (Trent House Association 2019).

Chapter 6: Previous Fieldwork Results

Archaeological Research at the William Trent House

Project Year	Project Type	Results	Reference
1995	Limited excavation along tunnel	Demonstrated early historic and intact Native American deposits exist on the property	Burrow and Cress 1995
2001-2002	Limited excavation/monitoring of perimeter drain	Located foundations of the 18th and 19th century additions to the east side of the 1719-20 house	White et al. 2003
2000-2003	Excavation (public outreach), shovel test grid	Covered most of the property with shovel test pits, found pre-20th century and Middle Archaic-Woodland material	White et al. 2003
2005	Monitoring, ADA lift installation	Trenching took place in previously disturbed soils	Hunter Research 2005
2007	Monitoring, tree planting	Revealed historic pit/midden feature, circular brick feature, and very small quantity of prehistoric material	Hunter Research 2007
2014-2015	Excavation (public outreach), kitchen wing investigation	Uncovered stone foundations of 18th century kitchen wing and 19th century east wing additions, small quantity of prehistorics recovered	Butchko, Burrow, and Hunter 2016
2019	Excavation (Monmouth University field school), kitchen wing and south yard	Revisited kitchen wing foundations, trench in south yard encountered 18th century and intact prehistoric deposits	Currently unpublished

Table 6.1 Summary of Fieldwork at the Trent House

Detailed Prehistoric Findings from Previous Investigations at the William Trent House Site

All previous archaeological fieldwork conducted at the Trent House was performed by Hunter Research, Inc. In 1995, Hunter Research conducted investigations around the Trent House tunnel, digging trenches that demonstrated intact prehistoric deposits suggesting Late Archaic through Early Woodland occupation of the site. Their investigation recovered 1,248 prehistoric artifacts, 1,087 of which were found in natural soils, including a large "Genesee" projectile point, dated between 3,000 and 1,700 BCE. Other diagnostics included Bare Island, Brewerton, and Poplar Island projectile points from the Late Archaic period. Woodland period ceramics were also found. In addition, a variety of tools were recovered, including scrapers, a hammerstone, a chopper, and a teshoa (Burrow and Cress 1995). In 2000-2003, Hunter excavated 235 shovel test pits across the property and recovered 165 prehistoric artifacts from a mix of historic fills and natural subsoil. No prehistoric features were encountered. It was determined that all lithic materials present in the assemblage were locally available as river cobbles or from quarry sites upriver. The collection was over 63% debitage and 23% thermally-altered quartzite. The other materials recovered were 8 cores, 6 projectile points, 2 unifacial tools, 5 sherds of prehistoric ceramic, and a pipe stem fragment. The projectile points included: a Morrow Mountain point (Middle Archaic, 6,000-4,000 BCE), two Fox Creek points (Middle Woodland, ca. 1 – 1,000 CE), and a Levanna triangle point (Late Woodland, ca. 1,000-1,350 CE). Prehistoric material appeared to be widely distributed across the property, with a particular concentration in the western section (White et al. 2003).

Material	Type	Total	Percent
Argillaceous shale	debitage	9	5.66
Argillite	core	1	0.63
	debitage	35	22.01
	projectile point	4	2.52
	uniface	1	0.63
Chert	core	3	1.89
	debitage	17	10.69
Jasper	core	3	1.89
	debitage	18	11.32
	projectile point	1	0.63
	tested cobble	1	0.63
Quartz	core	1	0.63
	debitage	16	10.06
	projectile point	1	0.63
	raw material	1	0.63
Quartzite	cobble-based tool	4	2.52
	debitage	6	3.77
	thermally-altered rock	36	22.64
	uniface	1	0.63
Totals		**159**	100.00

Table 6.2 Prehistoric Lithics Summary, 2000-2003 Investigations (Source: White et al. 2003:5-3, Figure 5.1)

Excavations conducted in 2004-05 took place in previously disturbed soils and recovered no artifacts (Butchko, Burrow, and Hunter 2016:1-6). The 2007 monitoring of tree planting activities in the south yard recovered one chalcedony core, 1 argillite flake, 1 jasper utilized flake, and 2 thermally-altered rock (1 chert and 1 quartzite). All artifacts came from mixed contexts with historic material (Hunter Research 2007).

The 2014-2015 investigation of the kitchen wing and other additions on the east side of the Trent House yielded 23 prehistoric artifacts from five 5x2.5-foot excavation units. They include: an untyped argillite projectile point fragment, 5 argillite flakes, 1 chalcedony flake, 6 chert flakes, 2 jasper flakes, 2 quartz debitage, and 5 fragments of thermally-altered rock (4 quartzite, 1 sandstone). All prehistoric artifacts were recovered in low densities from historic fill layers (Butchko, Burrow, and Hunter 2016).

Chapter 7: Research Methodology

Goals of the 2019 Monmouth University/Hunter Research, Inc. Archaeological Field School

In the summer of 2019, Hunter Research, Inc. and Monmouth University ran a joint-effort archaeological investigation of the William Trent House property at the invitation of the Trent House Association. This project was conducted as a graduate-level archaeological field school taught by Professor Richard F. Veit, PhD, RPA of Monmouth University. Key personnel from Hunter Research included Principal Investigator Joshua J. Butchko, MA, RPA, Principal Investigator Andrew C. Martin, MA, and Vice Principal James S. Lee, MA, RPA. The field crew consisted of Monmouth graduate students (the author included) and Hunter Research staff.

The 2019 excavations were divided into two primary areas of focus: the kitchen area on the east side of the house and the south yard. Joshua Butchko directed fieldwork on the east side to complete the excavation and interpretation of the complex historic deposits and features identified in the 2014-2015 investigation, primarily the 18th century kitchen wing. The goal of this investigation was "to identify, examine and record structural remains… and to characterize the sequence of cultural deposits both within and outside any buildings that were identified" (Butchko, Burrow, and Hunter 2016:3-1). Richard Veit and Andrew Martin supervised the excavation of four new 5x5-foot square excavation units lined together in a trench that extended south from the front of the Trent House. The south yard trench was dug to investigate a rectangular ground-penetrating radar (GPR) anomaly that was originally interpreted as a potential building foundation (Leech 2016). The hypothesis was that the GPR anomaly could possibly represent a remnant foundation from Dorehouse, Mahlon Stacy's late 17th century home and one of the first Euro-American structures built on the property. The goals for the 2019 fieldwork were primarily focused on investigating these

historic features; the relatively large quantity of prehistoric material ultimately recovered was encountered incidentally.

Fieldwork Methodology

The archaeological field school was conducted in late May through June 2019 and concluded in August 2019 with additional fieldwork by Hunter Research. In the south yard, four 5x5-foot excavation units were placed extending south away from the Trent House. These units were designated EUs 1901-1904 (the first two digits denoting the year, 2019; the last two being in numerical sequence). The northernmost unit was designated 1901, while each adjacent unit to the south was numbered sequentially. The units were placed so that the northern edge of the GPR anomaly would fall close to the southern wall of unit 1901; this would allow the investigators to catch the northern edge of the supposed house foundation and dig the rest of the trench within the structure. In the kitchen area on east side of the house, three excavation units from the 2014-2015 investigation (1402-1404) were re-excavated and completed to better understand the complex stratigraphy of historic deposits and features. Three new 5 x 2.5-foot units were also excavated in this area (1905-1907). Each unit's location was recorded using a Total Station surveying unit. All fieldwork was conducted by Monmouth graduate students and Hunter Research staff for the duration of the field school, which took place on Fridays and Saturdays starting May 31 and ending July 6. Excavation was then completed by Hunter Research, ending on August 7. The units were backfilled and the ground was restored as closely as possible to its pre-excavation condition.

All units were excavated manually using standard flat-blade shovels and trowels. Excavated soils were screened through ¼-inch mesh and examined for cultural materials. Fill layers were excavated by natural stratigraphy. Intact subsoil was excavated in 0.25-foot arbitrary levels to better understand the vertical distribution of artifacts and more easily identify features. Details of the

stratigraphy of each unit (soil color, type and any observations) were recorded on standard forms. Identified soil strata and features were all assigned separate context numbers, and arbitrary levels were designated by a letter following the context number (ex. Context 11A is the first arbitrary level of Context 11, 11B is the second, and so on). An overarching context numbering system was employed across all excavation units in each area wherever possible; separate context systems were used in the kitchen area and the south yard. In the south yard, a total of 45 contexts were identified within the four units. In the kitchen area, 65 contexts were identified within the six units. Artifacts found during the course of excavation or soil screening were bagged and tagged according to the stratigraphic context in which they were found. A catalog of prehistoric artifacts recovered is provided in Appendix A and summarized in Tables 9.1 and 9.2.

Research Goals for this Thesis

Archaeological fieldwork to date at the William Trent House property has identified intact prehistoric deposits ranging from the Archaic into the Woodland periods. The following research questions are posed to guide the investigation of the Trent House site's prehistoric occupation:

1. During fieldwork, no samples of charcoal or other materials suitable for radiocarbon dating were encountered. To understand the temporal range of the site's occupation, an analysis of projectile point types and ceramic typologies is proposed instead. Classic resources for typology (Ritchie 1971, Stewart 1998, Custer 2001, Kraft 2001) will be used, although R. Michael Stewart's recent research on point typology in the Delaware Valley will also be considered (2018).

2. What function(s) did this particular site serve? An analysis of artifact and feature types, classes, and frequencies, along with their geographic distribution across the site, can help to inform the duration of occupation, social group size, types of activities performed at the site, etc.

3. Does the Trent House prehistoric site fit into a broader complex of nearby prehistoric sites? A comparison of artifact types, classes, and frequencies between this site and nearby sites will be conducted to understand cultural distribution along the Delaware River and its watershed, as well as how the Trent House site fits into the broader prehistoric landscape. Settlement pattern models and subsistence practices will be considered on a regional scale.

4. The Trent House site is located within a mile from the Abbott Farm Historic District. The Abbott Farm is a large complex of primarily Middle Woodland village sites, the largest of its kind on the east coast. It holds great significance to New Jersey and Mid-Atlantic archaeology. The Trent House assemblage will be analyzed based on its potential association with the culture that occupied Abbott Farm. Is there any representation of Fox Creek culture in the assemblage? Is there any Abbott-zoned pottery? Does the site's function suggest any peripheral relationship to the Abbott Farm complex?

5. Lithic artifacts can provide information on stone tool production and utilization. What kinds of materials are represented in the lithic assemblage, and where are they sourced? Do they reveal any information about regional trade networks? What type of lithic production activities are represented? What types of tools were recovered, and what do they tell us about site activity and cultural representation?

6. What can be understood from the site's small ceramic assemblage? Are there any distinct decorations, patterns, or tempering agents present? Do these artifacts represent any particular cultural expressions or provide a means for dating the site? The artifacts will be compared with assemblages at the New Jersey State Museum and literature regarding Abbott Farm (Cross 1956; Louis Berger 1996a; Stewart 1998; etc.) will be referenced.

7. How does site size/function relate to its geographic location and regional topography? Can our understanding of the Trent House prehistoric site contribute to the discussion of land use and settlement patterns for prehistoric sites in the region?

Research Methods for this Thesis

Research for this thesis was conducted in part at the New Jersey State Museum (NJSM) and the New Jersey Historic Preservation Office (HPO). Resources that have been referenced include archaeological site forms filed at the NJSM and cultural resource management reports accessioned at the HPO. Further research has been conducted at the Trenton office of Hunter Research, Inc., which has conducted a great deal of relevant work in the Trenton area including all previous work at the William Trent House site. All additional background research referenced standard literature regarding the prehistoric archaeology of New Jersey published in multiple academic papers and books (Cross 1956; Chesler 1982; Kraft 1986, 2001; Grossman-Bailey 2001a; Mounier 2003; etc.) as well as journals including the *Bulletin of the Archaeological Society of New Jersey, Archaeology of Eastern North America,* and more. The assemblage was cataloged and analyzed using standard references (Ritchie 1971; Stewart 1998; Custer 2001; Kraft 2001; Andrefsky 2005; Stewart 2018).

Chapter 8: Fieldwork Results

This chapter details the fieldwork results from the 2019 excavations conducted by Hunter Research and Monmouth University that are relevant to the analysis of the prehistoric component. Natural soils and prehistoric deposits will be described completely. Historic fill layers, deposits, and features are summarized briefly if relevant and omitted if not. The full details of each excavation unit will be included in the final report.

South Yard

A single datum was used to take depth measurements across all units in the south yard. This datum was located 0.6 feet east of unit 1901's southeast corner. The datum was 0.5 feet above the ground surface. All depths are provided in feet below datum (BD). The depths provided were taken from the unit corner closest to the datum.

Unit 1901. The first stratum in excavation unit (EU) 1901, which was consistent across the entire trench, was Context 1. Context 1 is a 10YR 3/3 silty loam layer located 0.5 to 0.8 feet BD. It represents the O-horizon, or sod layer. It was not screened to keep the sod intact. Context 1 overlies Context 2, a 10YR 3/4 clayey loam with gravel. It extended from 0.8 to 1.65 feet BD and interpreted as a historic fill layer, consisting primarily of historic material with some prehistoric flakes. Context 2 overlies Context 3. Context 3 is a 10YR 4/4 sandy silt loam layer located 1.65 to 2.5 feet BD. This layer is interpreted as redeposited subsoil that was upcast onto the yard when the Trent House basement was excavated in the early 18th century. This context included a lower quantity of historic material compared to overlying layers and a much higher density of prehistoric material, including larger pieces of thermally-altered rock and an argillite axe. Underlying Context 3 is Context 10.

Context 10 is a 10YR 3/2 sandy silt loam layer located 2.5 to 3.0 feet BD. This natural stratum is a buried A-horizon and interpreted as the pre-1720 ground surface. No historic material was recovered, and prehistoric material consisted primarily of small jasper, chert, argillite, and quartz flakes, as well as fragments of thermally-altered rock. Underneath was Context 11, the intact subsoil, or B1 horizon. Context 11 is a 7.5YR 4/4 silty sand loam located 3.0 to 4.9 feet BD. It was excavated in 0.25-foot arbitrary levels to understand the vertical distribution of artifacts. Small amounts of historic material, such as very small brick fragments, a fragment of tin glaze, and a creamware sherd, were recovered from Context 11 but they are assumed to have come from wall cleanings, to have fallen into small probe holes that were created while probing for the bedrock, or to be the result of bioturbation. Being a B1 horizon, context 11 predates any historic occupation of the property. The context contained almost entirely prehistoric material. The first arbitrary level, 11A, contained argillite flakes, a small amount of jasper flakes, one hammerstone, and thermally-altered rock. Context 21 (fill of Context 20, its cut) was identified within 11A and 11B, a mottled 10YR 3/2 and 7.5YR 4/3 sand. This is a small pit feature with a top diameter of 0.5 feet that tapers toward the bottom, which had a diameter of 0.3 feet. The pit was identified at 3.1 feet BD and ended at 4.15 feet BD. It contained bone fragments and a single argillite flake. The second level of subsoil, 11B, contained an argillite knife, thermally-altered rock, and primarily quartz flakes. 11C contained flakes, a quartz core, and thermally-altered rock. 11D contained smaller quantities of quartz and jasper flakes. Beneath Context 11 was Context 45. Context 45 is a 10YR 4/6 silty sand with lamellae banding located 4.9 to 5.3 feet BD. It represents the B2 horizon, is slightly more compact than the B1 (Context 11), and contains a greater concentration of cobbles and cobble piles. The first arbitrary level contained a few small flakes, and the second was culturally sterile. The unit was then augered down to bedrock (Context 12) using a bucket auger; the auger test did not contain any artifacts. Excavation was terminated due to culturally sterile soil and encountering bedrock.

Bedrock was encountered along the southern wall of the unit before Context 45 was encountered, but it dove straight down, allowing the rest of the unit to reach a greater depth.

Unit 1902. Context 1 in EU 1902 was located from 0.45 to 0.6 feet BD. Context 2 was 0.6 to 1.4 feet BD, and it contained a heat-treated jasper flake as well as historic material. Context 3 was 1.4 to 2.4 feet BD. It contained argillite flakes as well as fragments of plaster and brick, as well as tin-glazed earthenware. Context 10, the buried A-horizon, was located from 2.4 to 2.7 feet BD and contained chert, argillite, and jasper debitage. A possible prehistoric feature was identified at 2.95 feet BD, a possible pit feature that was designated Context 24 (fill of Context 23). The 7.5YR 2.5/3 silty sand loam pit has steep sides with a slightly undulating, primarily flat bottom at 3.25 feet BD. It contained a single fragment of quartz shatter. Context 11 was encountered at 2.7 feet BD and was excavated in two arbitrary levels. 11A contained argillaceous shale, argillite, chert, jasper, quartz, and quartzite flakes, thermally-altered rock, an argillite bifurcate point, and an untyped jasper point. 11B contained more debitage. Excavation ended at 4.1 feet BD, where Context 12 was encountered. Context 12 is bedrock; the bedrock is much higher in 1902 than it was in 1901. The outcropping of bedrock dives straight down just north of EU 1902's northern wall. This dive is what the ground-penetrating radar survey picked up as the edge of a rectangular anomaly. Rather than representing a historic structure foundation, as originally hypothesized, it represents a rectilinear geometric outcropping of bedrock. The entire unit was brought down onto bedrock, which is relatively flat on top of the outcrop.

Unit 1903. Context 1 was located at 0.35 to 0.65 feet BD. Context 2 was 0.65 to 1.55 feet BD, containing only historic material. Context 3 was 1.55 to 2.4 feet BD and contained a jasper flake and an argillite biface, as well as mixed historic artifacts. Context 10, the buried A-horizon, is 2.4 to 2.8 feet BD and contained thermally-altered rock as well as jasper, argillite, and quartz flakes. No historic material was recovered. Context 11, the subsoil, is located 2.4 to 3.75 feet BD (a new datum

was assigned when measuring this context, creating the discrepancy between the depths of Context 11 and the strata overlying it). Argillite was more commonly found toward the top of Context 11, while jasper was more frequently found toward the bottom. Almost no artifacts were found toward the bottom. A cobble feature was identified in this context, designated Context 38. This feature consists of a cluster of cobbles and a fragment of thermally-altered rock. No charcoal was found. After Context 11 was removed, the unit came down on Context 12, the bedrock. Historic features that overlie the natural soils in this unit also yielded debitage as well as a jasper scraper.

Unit 1904. Context 1 was 0.45 to 0.5 feet BD. Context 2 was 0.5 to 1.35 feet BD, containing some possible debitage as well as historic and modern material. Context 3 was 1.35 to 2.0 feet BD and contained a large amount of brick and mortar fragments. Underlying Context 3 was a rich historic midden feature (Context 15, cut by Context 16) that contained primarily 18th century artifacts, as well as prehistoric debitage of mostly jasper, located 1.6 to 3.75 feet BD.

Trench Summary. The typical stratigraphy of the south yard trench was as follows, with depths below ground surface:

~0.0-0.3'	Context 1, topsoil
~0.3-1.0'	Context 2, a historic fill layer
~1.0-2.0'	Context 3, redeposited subsoil
~2.0-2.4'	Context 10, the buried A-horizon
~2.4-3.6'	Context 11, the B1-horizon
~3.6'	Context 12, bedrock

This typical soil profile varied slightly throughout the trench. EU 1901 was able to reach more deeply due to a dive in the bedrock, allowing excavators to reach Context 45, a B2-horizon. In EUs 1903 and 1904, Context 3 was mixed with more plaster and brick rubble than in the northern units, and there was a greater complexity of historic features present. A large 18th-century midden

deposit (Context 15, fill of Context 16) was identified in EU 1904. The entire trench yielded a high quantity of prehistoric material in both historic fills and natural soils. Highlights include an argillite axe, an argillite bifurcate projectile point, an argillite point, a couple of chert triangle points, and a couple of translucent quartz points. Only small sherds of ceramic were recovered from this trench. A possible prehistoric pit feature was also encountered in EU 1902. The west wall profile of the trench is demonstrated in Figure 8.1.

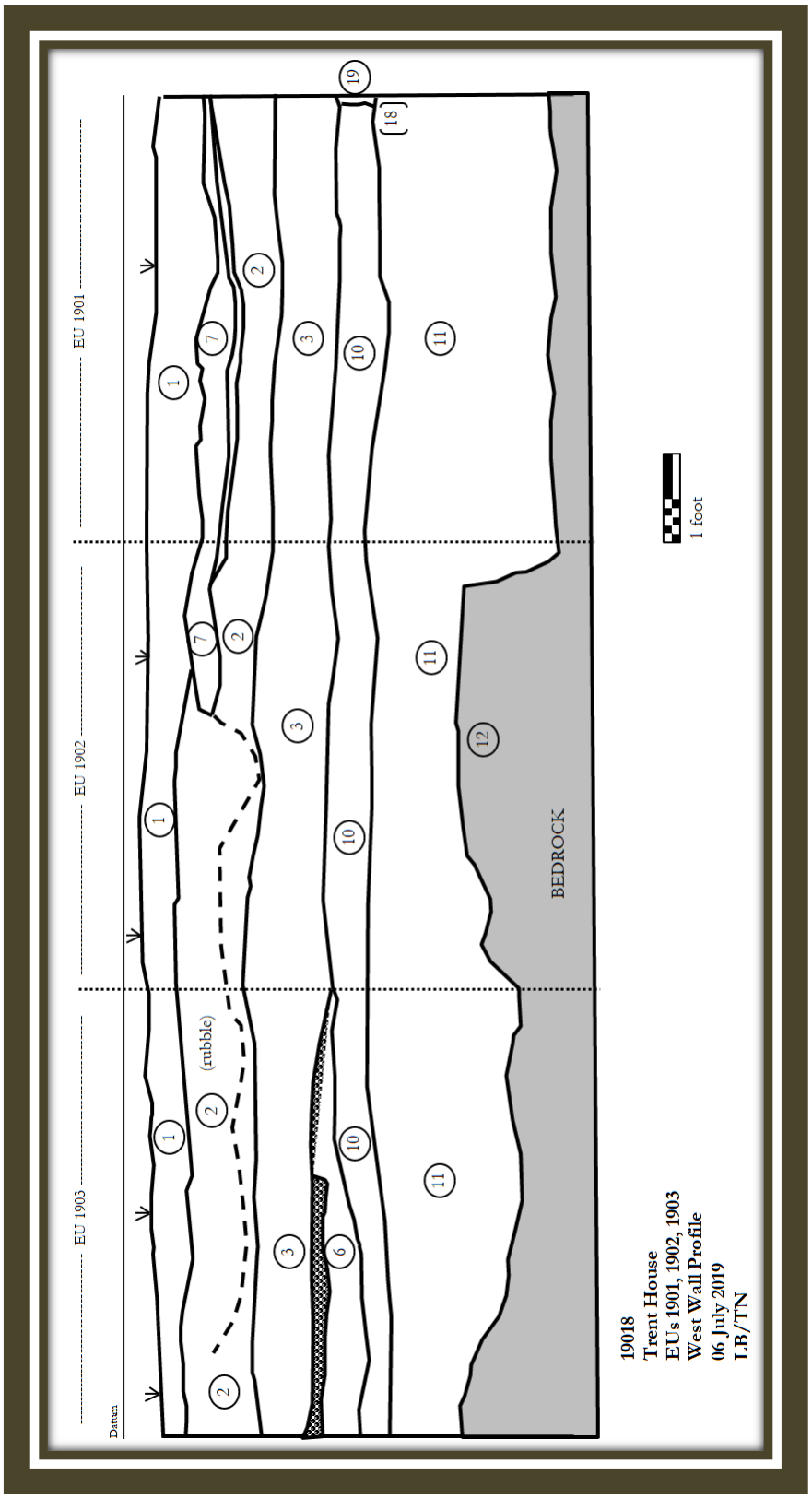

Figure 8.1 South Yard Trench - West Wall Profile (excluding EU 1904)
Context 10 represents the buried-A, Context 11 is subsoil

Kitchen Area

The east side of the house consisted of a complex variety of historic fill deposits and features related to the kitchen wing and other later additions. These unit descriptions will focus primarily on the natural soils and any significant artifacts that were recovered from the historic fills overlying them. It is also important to note that any excavation unit with a numeric designation that begins with "14" was originally excavated by Hunter Research in 2014-2015, and more detail about them is available in their final report (Butchko, Burrow, and Hunter 2016). The datum for these units was located 0.2 feet north of the northwest corner of EU 1904, and was 0.3 feet above the ground surface. The same datum was used for each unit in the area.

Unit 1402. No significant prehistoric material was recovered from the historic fills at the top of this unit. Natural soils were encountered along the west wall, while the rest of the unit was blocked by stone foundation. The natural buried A-horizon (Context 28), 10YR 3/4 fine silty loam, was encountered at 1.7 feet BD. Context 28 overlies Context 30. Context 30 represents natural subsoil, the B-horizon, a 10YR 4/6 silty loam encountered at 2.7 feet BD. Only small quantities of debitage were recovered.

Unit 1403. Historic fills contained a number of prehistoric artifacts, including thermally-altered rock and debitage. Beneath these fills, natural soils were encountered. Context 28, the buried-A horizon, was located from 1.9 to 2.4 feet BD and contained calcined bone, quartzite and chert flakes, and several sherds of pottery with decoration. This context also included possible trade copper and redware. The interface between the A and the B was designated Context 29 and lasted from 2.4 to 2.6 feet BD. It contained more debitage and pottery sherds, as well as a small amount of brick fragments. Context 30 represents the B-horizon, lasting 2.6 to 3.5 feet BD. This was dug in 0.25-foot arbitrary levels. 30A contained primarily quartz flakes, which represent all stages of lithic production, as well as some chert, jasper and argillite. Quartzite thermally-altered rock was also

recovered. 30B contained argillite and quartz flakes, a thermally altered jasper flake, and a broken hammerstone. Two features were identified at the end of the level: Context 47 and 48/49. Context 47 was a cobble concentration that existed from 2.9 to 3.05 feet BD. Context 49 was a possible post hole (the cut for it was Context 48), which was believed to be an auger test higher in the B and only designated a possible feature in the second arbitrary level. The possible post hole was visible from 3.15 to 3.35 feet BD. Context 30 had two more levels dug after the features; 30C had a small quantity of prehistoric artifacts which were fewer in 30D. The west wall profile is demonstrated in Figure 8.2.

Unit 1404. A single quartz flake was found in EU 1404 (general provenience).

Unit 1905. A possible jasper tool was recovered from a historic fill layer, Context 39. The unit did not reach natural soils.

Unit 1906. A chert biface and some debitage were recovered from the topsoil, Context 1, located 0.2 to 0.75 feet BD. Argillite and quartzite debitage were recovered from underlying historic fills. This unit mostly consisted of a large stone footing feature, and natural soils were reached only in the northeast corner. The buried-A, Context 28, was encountered at 2.2 feet BD. The natural subsoil, Context 30, was encountered underneath at 2.6 feet BD, containing primarily a variety of debitage. Excavation was terminated at 4.0 feet BD.

Unit 1907. Chert debitage was recovered from overlying historic fill in EU 1907. The buried A was possibly encountered at 1.7 feet BD, described as a 10YR 3/4 sandy loam and designated Context 50. A shovel test was placed in the unit to reach natural soils. A definitive buried A was encountered underlying Context 50 at 2.2 feet BD, which was called Context 55, a 10YR 4/4 silty loam. Context 61 is B-horizon, encountered at 2.5 feet BD and described as a 10YR 4/6 loamy sand. Underlying Context 61 is Context 62, the B2 horizon. This is a 10YR 6/6 loamy sand and was

reached at 3.7 feet BD. Bedrock, Context 63, was reached at 6.3 feet BD. Prehistoric artifacts from this unit consisted of small amounts of debitage and a quartzite preform.

Area Summary. The stratigraphy of the kitchen area was less consistent and more complex than the south yard due to the multiple episodes of construction and demolition that occurred in relation to the east wing additions. A number of historic foundations were uncovered that relate to these structures. The area yielded limited prehistoric deposits of significant interpretive potential save for a few significant examples. In EU 1403, natural soils were encountered and they contained multiple sherds of prehistoric ceramic with incised line decorations. A large amount of quartz debitage was also recovered from this unit, which included flakes representing all stages of lithic reduction. Large reduction fragments and primary flakes as well as smaller secondary and tertiary flakes are present.

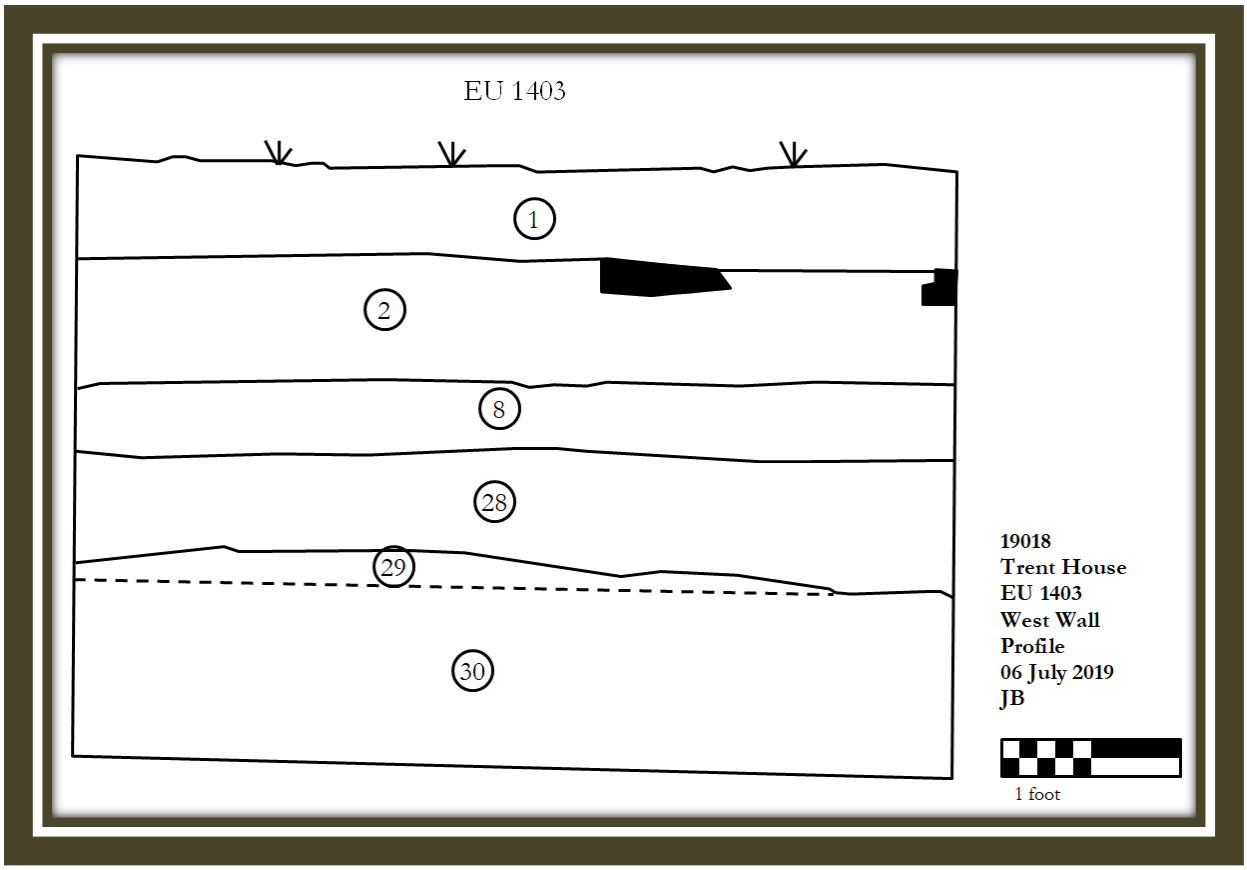

Figure 8.2 Kitchen Area EU 1403 - West Wall Profile
Context 28 represents the buried-A, Context 29 is the transition to subsoil, and Context 30 is subsoil

Chapter 9: Material Culture Analysis

Archaeological investigations at the William Trent House to date have yielded a total of 3,764 prehistoric artifacts. For the purposes of this thesis, this chapter will be restricted to the material recovered from the 2019 fieldwork conducted by Monmouth University and Hunter Research, Inc., which yielded 2,323 prehistoric artifacts (61.72% of the total prehistoric material recovered to date). Statistical and quantitative analyses will be restricted to this 2019 material. Specific diagnostic artifacts recovered from previous excavations that are pertinent to the synthesized analysis of the site will be addressed in Chapter 10. For more detailed information about the material recovered from previous work, refer to Chapter 6 of this thesis or the previous reports by Hunter Research (Burrow and Cress 1995; White et al. 2003; Hunter Research 2007; Butchko, Burrow, and Hunter 2016). The catalog of Native American artifacts (including Contact period material) recovered in 2019 is included in Appendix A.

Each context from which artifacts were recovered was assigned a "catalog number" to facilitate analysis. Within each catalog number, artifacts were assigned a separate row number (ex. within catalog number 50, artifacts are numbered 50.1, 50.2, and so on). If multiple artifacts in one catalog number could be described identically according to the data fields used, they were grouped under a single row number. For example: 57.24 is the designation for a group of five thermally-altered dark brown and red jasper flakes that were found in Context 10 of EU 1901. The number "57" is unique to Context 10 in EU 1901, and "24" is an arbitrary designation for that group of artifacts.

Five primary data fields were used to catalog the recovered material. They include: material, type, component, damage/wear, and typology (if applicable). Material refers to the material that the

artifact is made of. For the vast majority of the collection, the material is stone, but other materials include fired clay-ceramic, fauna, flora, and glass. The specific material was also recorded: this field specifies what type of stone, such as chert or jasper, as well as the temper used in ceramics or the specific type of fauna or flora (only calcined bone and charcoal, respectively). Type refers to the common name or specific function of an artifact (projectile point, flake, thermally-altered rock, ceramic pot, etc.). Component refers to the completeness of an artifact recovered, either a fragment or whole. The damage/wear field was used to describe any breaks, weathering, etc. Typology was used to note the specific name of certain artifact types where applicable; this field was primarily used to identify specific projectile point types, such as Rossville or Orient Fishtail points.

Six additional categories were also used to classify artifacts with more precision: surface treatment, color, class size/diameter, linear dimensions, weight, and description. The surface treatment field was primarily used to note if any artifacts demonstrated evidence of thermal alteration. The color of each artifact was recorded. Whole artifacts and tools were measured. Whole flakes were classified in a specific class size by diameter, and tools were measured by the dimensions that showed no evidence of breakage or incompleteness (in millimeters). Whole artifacts (besides debitage), thermally-altered rock, and raw material pieces were all weighed (in grams). The description field was used to note any further pertinent information about an artifact.

The artifact assemblage has been classified under nine categories: bifaces, flake tools, debitage, cores and raw material, cobble-based tools, thermally-altered rock, pottery, flora and fauna, and European Contact artifacts. Each category is covered below, summarizing the artifacts recovered and their significance.

Bifaces

The term "biface" refers to lithic tools crafted using a bifacial reduction sequence, or the removal of flakes from both faces of the prospective pointed or edged tool. These tools were crafted by flintknapping, the art of using hammerstones, billets, and pressure flaking tools to chip off flakes of stone until the desired form is crafted. Bifaces generally refer to projectile points (arrow or spear tips) and/or knives (the same tool type was frequently used for both purposes). The term also refers to prospective pointed tools at different stages of production, such as edged bifaces, thinned bifaces, and preforms. These stages of production were identified by William Andrefsky and refer to the different forms that a tool can take during the reduction process (2005). The following bifaces were recovered from the recent Trent House excavations:

Projectile Points. A total of 17 projectile points was recovered during the 2019 excavations, making up 0.7% of that assemblage. This includes one grey quartzite Brewerton variant point, a type that appears during the Middle Archaic and lasts through the Late Archaic, dating to around 3,000-2,000 BCE (Ritchie 1971:16-20; Custer 2001:28). A general Late Archaic straight-stemmed projectile point was recovered, made from argillite and demonstrating a stem that may be nicked on both sides. The stem is partially broken, making a determination of typology difficult. A black quartzite Rossville point was recovered, which also dates from the Late Archaic to the Early Woodland, around 3,000 BCE to 0 CE (Ritchie 1971:46; Kraft 2001:182). An argillite Poplar Island variant that demonstrates a short, sharply tapered stem and a long, narrow blade was also recovered. This is generally considered a Late Archaic type, although it may have appeared during the Middle Archaic and lasted through the Middle Woodland (Ritchie 1971:44; Kraft 2001:105, 121-122; Custer 2001:43). A broken argillite point with a bifurcate stem is in the collection, a type that is primarily assigned to the Middle Archaic period, dating to around 6,500 to 6,000 BCE. It is interesting to note

that bifurcate points are most commonly crafted from cherts and jaspers rather than argillite (Custer 2001:27). However, argillite bifurcates similar to this artifact have been recovered from the Abbott Farm locale (NJSM). A quartzite point with an expanding stem has also been recovered, which could be dated anywhere from the Middle Archaic through the Middle Woodland, although there is a higher probability it dates to the Archaic period (Custer 2001:17, 18, 40). A Late Archaic side-notched argillite point was also recovered dating to about 4,000 to 2,000 BCE.

Plate 9.1 Selection of Diagnostic Projectile Points (Top row points from redeposited subsoil: 5.55 Poplar Island variant, 55.29 Rossville, 75.1 General Late Archaic straight-stemmed projectile point; Bottom row points from intact subsoil: 71.39 Bifurcate, 79.2 Untyped expanding stem, 87.10 Brewerton variant)

Five triangle points are in the assemblage. One of them, a black chert point, appears to be a possible Late Woodland Levanna type. The other four demonstrate some of the characteristics that have been suggested to indicate Archaic-age triangles, such as a more pronounced bevel on the basal edge and a preference for isosceles shapes among some equilateral forms, although any exact morphological characteristics that differentiate Archaic from Woodland triangles are not currently definitive (Louis Berger 1996c:9-10; Stewart 2018:49-65). Initial visual comparison with Archaic triangles from the Abbott Farm suggests a possible correlation and an earlier date for these Trent House points (Stewart 2018:55). Archaic triangles will be covered in greater detail in Chapter 10.

Plate 9.2 Triangular Points (Top, Late Woodland Levanna point: 78.5; Middle row from redeposited subsoil: 55.14, 75.9, 84.1; Bottom from intact subsoil: 87.9)

Five points in the collection are broken and unable to be assigned any typology or inferred date ranges. Two of these points, one argillite and one quartz, demonstrate a transverse break across the middle of the point. This type of break could be caused by the points being used as knives (Mounier 2003:146). A chert point tip has also been recovered. Two broken jasper points were also recovered: a dark red, thermally-altered jasper projectile point with a missing and a brown and red thermally-altered jasper point that is broken vertically down the middle with an incomplete base.

Plate 9.3 Projectile Points with Transverse Break, possibly used as knives (88.1, 70.32)

Plate 9.4 Broken/Untyped Projectile Points (Top row: 69.6, 69.10; Bottom: 71.19)

Staged Bifaces and Preforms. According to William Andrefsky (2005), there are five stages of the bifacial reduction sequence used to craft finished bifacial implements. A stage one biface is a flake blank; as this form is merely a large flake that lacks further modification, no "flake blanks" were distinguished in the catalog. A stage two biface is an edged biface, a stone that demonstrates edge modification to initiate the bifacial reduction process. A stage three biface is a thinned biface; this artifact has been further modified and reduced to a size closer to the final form. A stage four biface is called a preform. A preform has been reduced and shaped in the vague outline of a pointed implement. A stage five biface is a completed projectile point or tool.

A total of 12 of these artifacts is in the catalog. Two edged bifaces (stage two) crafted from argillite are present in the Trent House assemblage. Two thinned bifaces (stage three) have also been identified, both made of gray quartzite. Eight preforms (stage four) were recovered. One is made of red argillaceous shale, two from light gray argillite, and five are made from gray quartzite. These artifacts represent different stages of the lithic tool manufacturing process. Staged bifaces and preforms make up 0.5% of the assemblage.

Plate 9.5 Early and Mid-Stage Bifaces (Top row are stage two edged bifaces: 55.7, 92.2; Bottom row are stage three thinned bifaces: 55.30, 90.1)

Plate 9.6 Selection of Preforms (Top row: 55.6, 75.16; Bottom row: 75.19, 78.18, 95.1)

General Bifaces. A small brown jasper reduction fragment in the collection shows evidence of bifacial knapping, so it was classified as a general biface. A longer, gray argillite biface has been recovered and is interpreted as a knife rather than a projectile. Another possible argillite biface is in the collection; the artifact is very weathered and demonstrates no flake scarring, though the shape suggests that it could be a worn biface that is broken at both the proximal and distal ends. A fragment of chert also demonstrates evidence of bifacial work on one edge.

Plate 9.7 Selection of General Bifaces (54.5, 59.2, and 86.4)

Flake Tools

Flake tools, or utilized flakes, are generally flakes of stone that were removed during the reduction process of tool manufacture or deliberately removed from a core to be used as a sharp edge tool. They are typically expedient tools and were used as knives, scrapers, and more. Flake tools show evidence of wear on one or more utilized edges, and they may or may not be reworked or sharpened for continued use.

A total of 37 flakes in the assemblage has been identified with edge damage or use wear, which represent 2% of the artifacts recovered. The lithic materials represented are as follows: 1 argillaceous shale, 15 argillite, 3 chert, 1 jasper, 1 quartz, and 16 quartzite. The majority of identified

flake tools were quartzite and argillite, making up 43% and 41% of the group, respectively. However, it is possible that argillite flake tools are underrepresented, as argillite can weather more easily than other stone materials over time, and it can be more difficult to identify a utilized edge. It is also possible that the large-grained quartzite chips more irregularly than other stones, leaving an undulating edge that could be mistaken as use wear.

Plate 9.8 Selection of Flake Tools, all edges with use-wear facing to the right (Top row: 55.31, 55.10, 88.7, 71.24; Bottom row: 77.11, 71.51, and 58.37)

Spokeshaves. A spokeshave is a purposely formed flake tool with a semi-circular notch used primarily to scrape or smooth wooden shafts. They can be used in spear, dart, or arrow manufacture. The 2019 Trent House assemblage contains 2 spokeshaves, both made from argillite.

Plate 9.9 Spokeshaves (58.14, 70.8)

Debitage

Debitage refers to the debris produced during stone tool manufacture, and the category consists of flakes and reduction fragments that do not show evidence of further use as tools. A total of 1,729 flakes and 148 reduction fragments were collected in 2019, together making up 81% of the

artifacts recovered. Of these, 65 flakes and 9 reduction fragments (4% of the total debitage) were further designated as "primary flakes" due to the presence of stone cortex. These artifacts demonstrate an earlier stage of the reduction process.

Debitage from the 2019 Trent House excavations reflect lithic materials at the following proportions: 4% argillaceous shale, 26% argillite, 0.2% chalcedony, 13% chert, 14% jasper, 26% quartz, 17% quartzite, and 0.1% rhyolite (in addition, one single schist flake and one single siltstone flake were cataloged; these may or may not be cultural and are generally not considered for this analysis). Thermal-alteration was detected on 8% of the debitage. Thermally-altered materials were represented at the following proportions: 85% jasper, 13% quartz, 1% chert, and 1% quartzite. While jasper represents a clear majority of thermally-altered debitage, it is important to note that jasper changes color very dramatically when heat-treated, demonstrating a solid red that contrasts against the material's typical brown color. It is possible that other materials are underrepresented because evidence of thermal alteration is less observable.

Cores and Raw Material

Cores are stones from which flakes are derived in order to create expedient flake tools, flake blanks for biface production, and more. These artifacts demonstrate evidence of flake removal, known as flake scars. A total of 9 cores were recovered: 4 chert, 3 jasper, 1 quartz, and 1 quartzite. One of the chert cores shows evidence of use wear on one edge, suggesting its use as an expedient tool. Additionally, a single chert tested pebble was recovered, demonstrating evidence of limited knapping to test the material's quality.

Plate 9.10 Selection of Cores (Top row: 58.29, 86.27; Bottom row: 55.15, 58.15, 89.12, 55.19)

A total of 14 pieces of raw material were also recovered. These are stones of common flintknapping material that show no evidence of modification and they are assumed to have been collected for potential stone tool production because of their material and their context within a known prehistoric site. The raw material pieces recovered include 2 of argillaceous shale (105 grams), 6 of argillite (298 grams), and 6 of chert (396 grams). Chert and argillite make up all of the raw material present on the site.

Cores and raw material pieces make up 1% of the collected materials.

Cobble-Based Tools

Cobble-based tools typically show little modification, and they are primarily used as they are found. Cobbles can be used as hammerstones for flintknapping, manos or pestles for food production, and more. Evidence for these uses can include battering damage or smooth, polished faces. Seven quartzite cobble-based tools were recovered. One of these cobbles demonstrates two smooth faces and was possibly used as a mano or grinding stone. A second possible mano was also identified. Four cobbles were identified as possible hammerstones; two of them could also be interpreted as pestles due to battering damage on the edge of the slightly elongated form. Another long cobble with battering damage was recovered, which could have been used as a pestle for food processing or as a billet for flintknapping. In addition to these cobble-based tools, a smaller-sized pebble-based tool of argillaceous shale was recovered, with an indeterminate function. These tools make up 0.3% of the collection.

Plate 9.11 Selection of Cobble-Based Tools (Top row: 84.3, 61.24; Bottom row: 89.45, 62.5)

Axe

A single light grey argillite axe was recovered during the 2019 excavations. The axe head was manufactured by flintknapping; flakes were removed from the core stone to shape the tool and create a useable edge. Other Native American axes are commonly crafted using a pecking and grinding technique to create a polished edge. The presence of the axe suggests the prehistoric people living at the site were capable of modifying their environment as necessary and utilizing lumber as an important resource.

Plate 9.12 Axe (55.4)

Miscellaneous Lithic Tools

Three miscellaneous lithic tools were identified in the assemblage. These include a possible chopper of weathered argillite (a chopper is defined as a cobble with a flaked edge used as an expedient tool), a bulky argillite fragment that demonstrates a possible worked edge, and a quartzite fragment that demonstrates a worked edge on one side. This quartzite tool is broken on the opposite end, and it may be an axe fragment, a larger scraper, or a knife.

Thermally-Altered Rock

Thermally-altered rock, often referred to as fire-cracked rock (FCR), is the result of Native American activities such as hearth building and stone boiling. Stones were used to line hearths for fires and were heated and dropped into containers of water to bring it to a boil. The fire associated with these activities heats the rock and causes it to crack and split in particular patterns; it also often reddens in color. A total of 277 pieces of thermally-altered rock were recovered from the 2019 excavations, weighing a total of 13.945 kilograms and making up 12% of the total artifact count. The most favored stone material is quartzite; the 168 pieces recovered make up 61% of the thermally-altered rock pieces in the collection and 89% of the total weight. Quartzite is often favored for its ability to retain heat due to its larger crystal grain size (Stewart 2005:38). The rest of the FCR recovered was primarily composed of a granitic material, making up 35% of the thermally-altered rock pieces and 9% of the weight (this includes 80 pieces [444 grams] recovered in association with a possible cobble feature; it is difficult to determine if they are thermally-altered and may not be cultural in nature). Small quantities of other materials were also noted to have thermal-alteration; this includes 2 pieces of argillite (142 grams), 5 pieces of quartz (125 grams), 2 pieces of burned sandstone (1 gram), and 2 pieces of micaceous schist (66 grams), which altogether comprise only 4% of the total thermally-altered rock count and 2% of the total weight.

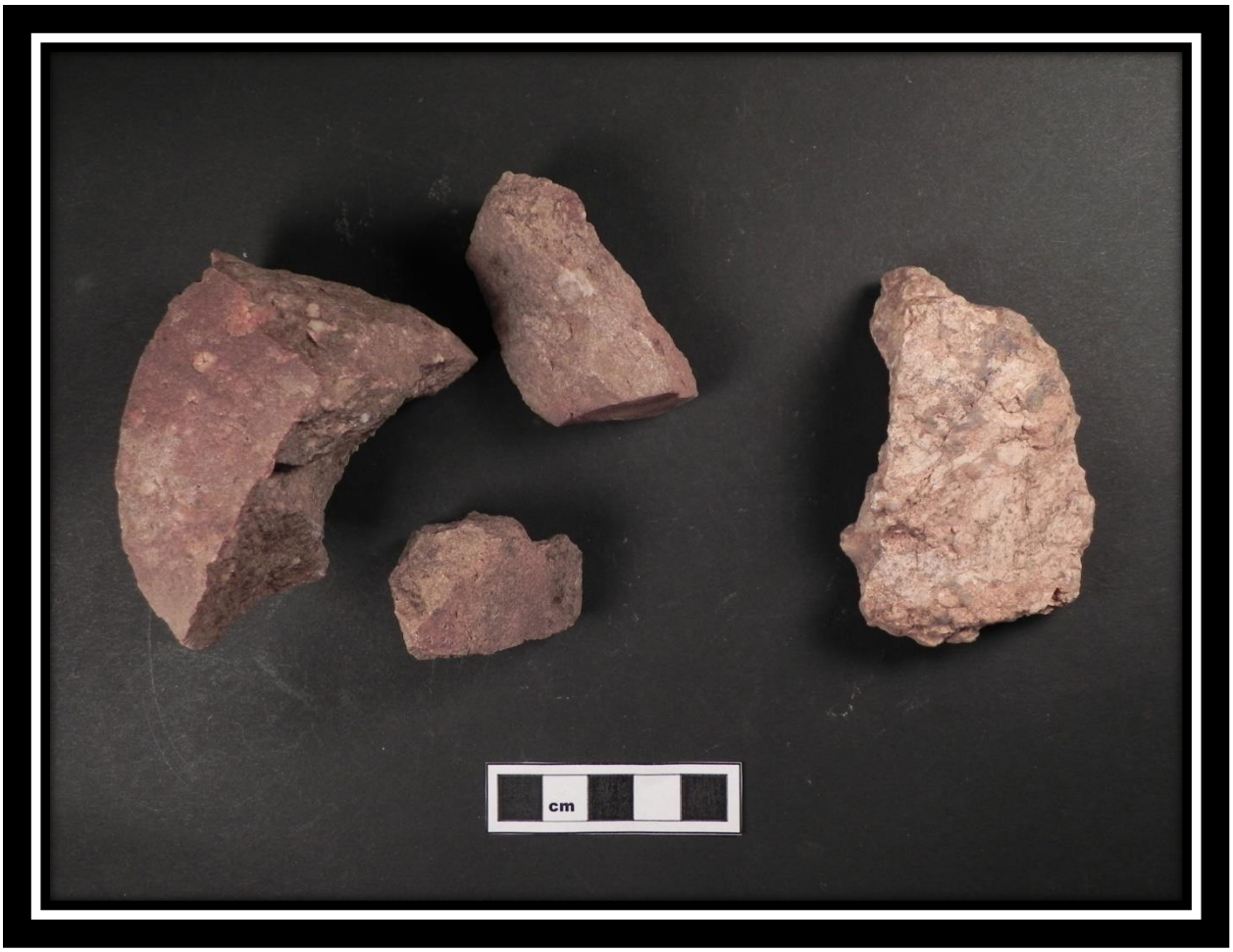

Plate 9.13 Selection of Thermally-Altered rock (Three pieces on the left: 70.50; Right: 71.18)

Pottery

Native American pottery was typically used as storage or food containers, primarily as utilitarian vessels (Kraft 2001:192). It is also postulated that certain ceramics, particularly the zone-decorated pottery from the Abbott Farm and Trenton areas, were be used for ritual feasting or social gathering purposes (Lattanzi, Stewart, and Pevarnik 2015). Prehistoric pottery is a coarse earthenware primarily constructed with a coiling technique; this consists of stacking clay coils to form the pot's shape and smoothing them together. Some transitional period and Early Woodland pottery has been documented to have flat bottoms, similar to the steatite bowls that generally precede them, but the most common form demonstrated a conical base (conoidal form). During

later prehistoric times, some ceramics develop a collared rim. A variety of surface decorations were applied using incised techniques, fabric impressions, impressions from cord-wrapped paddles, and more. Tempers were also commonly used; a temper is an inclusion that is mixed into the clay to increase the pot's survivability when fired and to strengthen the ceramic. Common tempers include sand (or grit), quartz, crushed pottery (grog), crushed shell, and more (Mounier 2003:88-94).

A total of 16 pottery sherds were recovered from the Trent House in 2019, making up 0.7% of the assemblage. Of these sherds, 3 demonstrate a grit and grog temper, 2 have a grog temper, 1 with a grog and shell temper, 1 with a quartz and shell temper, and 9 with indeterminate tempers or no temper. Four of the sherds also demonstrate blackend surfaces that are evidence of burning. Eleven of the sherds are smoothed on both the interior and exterior surfaces, and one sherd is smoothed on the interior and the exterior demonstrates a rough, black surface. This sherd appears to be fired at a higher temperature, and the paste is more dense and stone-like.

Four sherds demonstrate incised designs on the exterior surface (with smoothed interiors; 2 have grit and grog tempers, 1 with a grog temper, and 1 indeterminate temper). While the pottery does not fit cleanly into any of the ware types identified by R. Michael Stewart (1998), the decoration appears distinct. The incised lines run parallel across the sherds at regular spacing. Two of the sherds show incised lines running at a two different angles on the same sherd; this may be evidence of zoned decoration, and these sherds demonstrate the divide between two of the design zones.

Plate 9.14 Selection of Typical Pottery (Left: 57.2; Right: 57.3)

Plate 9.15 Incised Pottery (12.10, 12.15, 12.16, 12.17)

Flora and Fauna

Seven small flecks of charcoal were recovered throughout the excavation. Two small pieces of white calcined bone were found in subsoil. They are of an indeterminate species.

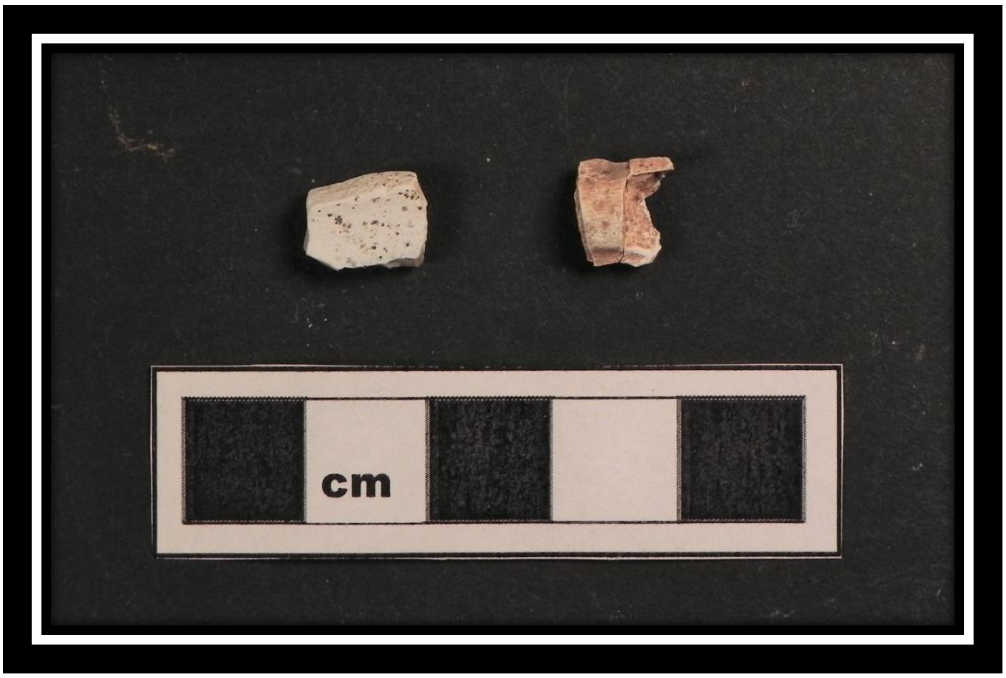

Plate 9.16 Calcined Bone (57.40, 57.41)

European Contact Artifacts

Glass beads, copper artifacts, and tobacco pipes were all commonly traded to Native Americans in exchange for furs, surplus corn, and deer meat. Glass and shell beads, such as wampum, were commonly used as currency in these interactions. Copper, often in the form of copper kettles, was frequently repurposed to craft items such as projectile points or adornments (NJSM 2012:24; Kraft 2001:391).

During the Early Contact Period, around 1500-1575, no glass beads are traded, only brass and iron scraps. In Late Contact Period, about 1575-1620, glass beads are traded in small quantities. This material mostly consists of small round blue beads, as well as dark blue, white, and rose brown tubular beads. Blue beads were favored by the Native Americans and carried by European traders, particularly in earlier periods. During the first half of the 17th century, glass beads become more common, primarily trading football-shaped beads. Round beads occur, but are not as common. In later years, traders carried different colors to meet demands for different preferences. In New Jersey,

similar to the trend for the entire Northeast, monochrome beads are typically earlier while polychrome beads are favored later. Beads were used often to adorn necklaces, but were also used in clothing, belts, pouches, moccasins, and in hair (Fogelman 1991:36).

A single blue glass trade bead was found in the south yard trench. The bead is a dark translucent blue that demonstrates parallel scratched lines vertically around the bead at irregular intervals, with scratches circling the openings on each end.

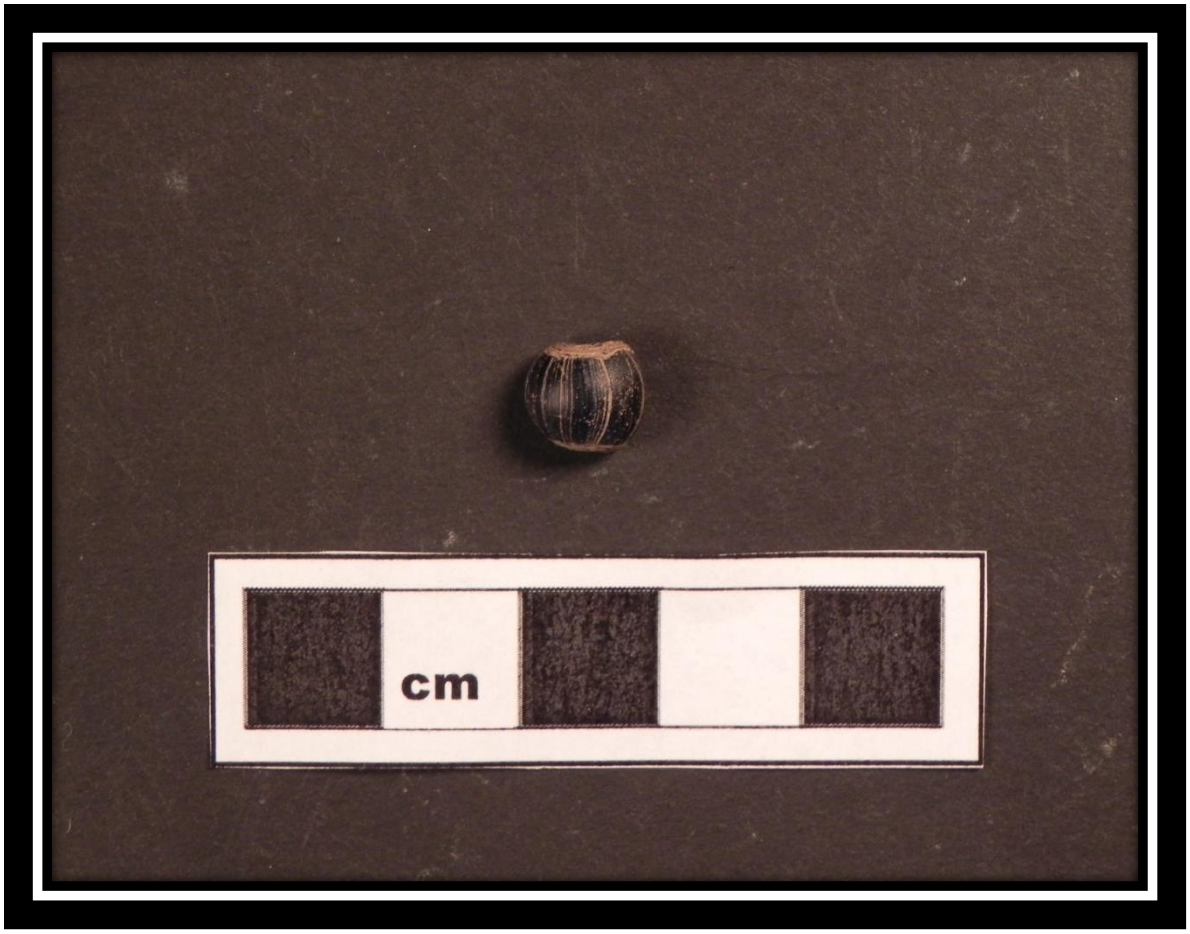

Plate 9.17 Trade Bead (57.1)

The Trent House bead was compared to the Kidd and Kidd (2012) bead classification, and based on the navy color, round shape, striped decoration around the body, and the circular

decoration around the opening, it most closely fits into the type classification of IVb36, while also closely resembling IVb33, IVb34, and IVb35.

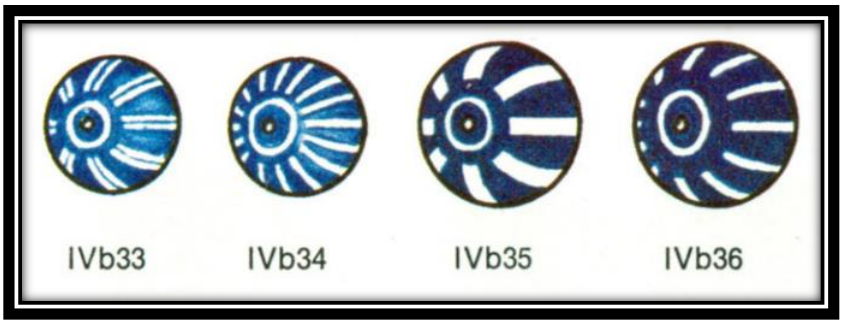

Plate 9.18 Bead Classifications Closely Resembling the Trent House Bead (Kidd and Kidd 2012, Plate VIII)

Kent (2001:221) identifies a distribution of the IVb33 type (which he refers to as B21a), reflecting 1.3% of the La9 site bead assemblage and 2.5% of the La1 site bead assemblage. The La9 site dates from 1575-1600, and the La1 site dates from 1630-1645. Kent also notes a collection of the most popular trade bead types and includes one type (designated B8 by Kent, IVa19 according to the Kidd and Kidd typology) that appears visually similar to the Trent House bead, although lacks the striped decoration around the body of the bead. It looks to be the same size and color, and it includes the same circular decoration around the bead's opening (Kent 2001:216). This type is noted to be 5% of the La9 site (1575-1600) bead assemblage, 8% of the La8 site (1600-1625), and 2% of the La6 site (1630s) (Kent 2001:214). In his research on northeastern trade beads, Gary Fogelman identifies IVb33 and 35, and 34, as the very earliest beads found in the New Jersey/Maryland/Delaware/Virginia area, traded during the Late Contact Period circa 1575-1620 (1991:34, 39).

Plate 9.19
Example of B8/IVa19 Bead (Kent 2001, Figure 57)

Two pieces of trade copper were found in the kitchen area to the east of the house. Also, 3 fragments of pinkish brown clay tobacco pipes were identified in the buried-A horizon. One

fragment has a bowl rim edge, with a roulette dentate impressed decoration along the rim. These pipes may represent prehistoric pipes or Contact period European reproductions.

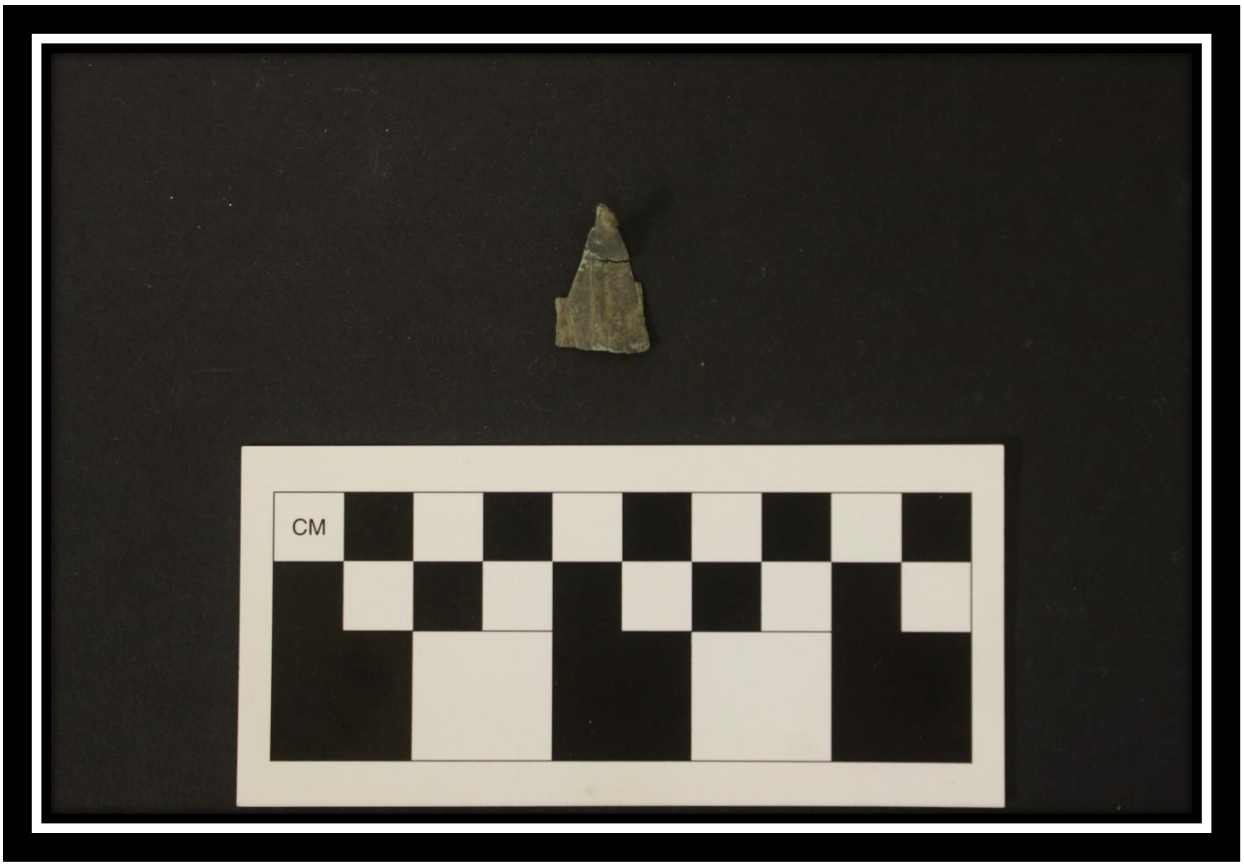

Plate 9.20 Example of Trade Copper (9.6)

Plate 9.21 Selection of Native American Pipe Fragments (12.7 and 12.8)

Unmodified Cobbles

As part of a possible cobble cluster feature in subsoil, 18 quartzite cobbles, 6 granite rocks, and 3 sandstone rocks were collected and added to the catalog. These artifacts demonstrate no evidence of modification or thermal alteration. They make up 1% of the assemblage and weigh a total of 11.159 kilograms.

Fossil

One small possible crinoid fossil was also recovered. It is a small, cylindrical shape. This may be naturally occurring or kept as a curiosity or adornment.

ARTIFACT TYPE	QUANTITY	PERCENT
Projectile Points	17	0.73%
Bifaces	4	0.17%
Staged Bifaces and Preforms	12	0.52%
Flake Tools (including Spokeshaves)	39	1.68%
Debitage	1,877	80.80%
Cores and Raw Material (including Tested Pebble and Utilized Core)	24	1.03%
Cobble-Based Tools (including Pebble-Based Tool)	8	0.34%
Lithic Tools (including Axe)	4	0.17%
Thermally-Altered Rock	277	11.92%
Pottery	16	0.69%
European Contact Artifacts	6	0.26%
Unmodified Cobbles (possible feature)	27	1.16%
Miscellaneous (including flora, fauna, fossil, and natural micaceous schist sample)	12	0.52%
Total	2,323	100.00%

Table 9.1 Artifacts Summary by Type

The Native American assemblage recovered from the 2019 Trent House excavations appears to demonstrate a primarily Late Archaic occupation based on typed projectile points recovered, as was observed in previous investigations (Burrow and Cress 1995:IV-1; White et al. 2003:5-1). Earlier Middle Archaic occupation is suggested, and later Woodland and Contact period components are also represented by the recovery of ceramics, stone tools, and trade items.

The predominant artifact type is debitage, comprising over 80% of the assemblage. This contrasts against the relatively low percentage of cores and raw material pieces, which make up only 1% of the artifacts recovered. The most popular lithic materials represented are argillite and quartz, both making up about 26% of the lithic artifacts (excluding thermally-altered rock and unmodified cobbles/rocks). These also appear to be the most versatile materials, representing more artifact types

than chert, jasper, or quartz. Chalcedony and rhyolite are represented at limited quantities. The second most numerous artifact type is thermally-altered rock, which makes up almost 12% of the collection. Sixty-one percent of the thermally-altered rock is quartzite.

A variety of artifact types are represented at the Trent House site, including projectile points, expedient flake tools, staged bifaces and preforms, cobble-based tools, an axe, thermally-altered rock, and pottery. These types reflect a variety of activities that took place on the site; these include hunting, processing, lithic tool production, food processing, lumbering, hearth cooking and/or stone boiling, and food storage.

MATERIAL	QUANTITY	PERCENT (of total)	TYPE BREAKDOWN	QUANTITY	PERCENT (of material)
Argillaceous Shale	79	3.98%	Debitage	74	93.67%
			Pebble-Based Tool	1	1.27%
			Preform	1	1.27%
			Raw Material	2	2.53%
			Flake tool	1	1.27%
Argillite	521	26.27%	Debitage	484	92.90%
			Axe	1	0.19%
			Bifaces	2	0.38%
			Chopper	1	0.19%
			Edged Bifaces	2	0.38%
			Lithic Tool	1	0.19%
			Preform	2	0.38%
			Projectile Points	5	0.96%
			Raw Material	6	1.15%
			Spokeshaves	2	0.38%
			Flake Tool	15	2.88%
Chalcedony	3	0.15%	Debitage	3	100.00%
Chert	267	13.46%	Debitage	248	92.88%
			Biface	1	0.37%
			Cores	3	1.12%
			Projectile Points	4	1.50%
			Raw Material	6	2.25%
			Tested Pebble	1	0.37%
			Utilized Core	1	0.37%
			Flake Tools	3	1.12%
Jasper	269	13.57%	Debitage	262	97.40%
			Biface	1	0.37%
			Core	3	1.12%
			Projectile Points	2	0.74%
			Flake Tool	1	0.37%
Quartz	507	25.57%	Debitage	502	99.01%
			Core	1	0.20%
			Projectile Points	3	0.59%
			Flake Tool	1	0.20%
Quartzite	336	16.94%	Debitage	301	89.58%
			Cobble-Based Tools	7	2.08%
			Core	1	0.30%
			Lithic Tool	1	0.30%
			Preforms	5	1.49%
			Projectile Points	3	0.89%
			Thinned Bifaces	2	0.60%
			Flake Tools	16	4.76%
Rhyolite	1	0.05%	Debitage	1	100.00%
TOTALS	1983	100.00%			

Table 9.2 Lithic Material Summary (Excluding FCR and Unmodified Cobbles/Rocks)

Chapter 10: Synthesis

The 2019 excavations at the William Trent House yielded more prehistoric material than previous investigations, however, the scope of the project was still relatively small and more excavation, especially covering different geographic areas of the site, is necessary for a full analysis of the site. However, given the material recovered to this date, a more coarse-grained approach can preliminarily address key research questions and reveal new information about the Native American occupation on the Trent House property.

Dating the Trent House Site Prehistoric Occupation

Investigations of the Trent House site to this date have not yielded sufficient charcoal or preserved organic material to allow for radiocarbon dating of the site's occupational layers. Therefore, current understanding of the site's temporal occupation is limited to an analysis of temporally-diagnostic artifacts, especially typed projectile points.

Diagnostics. Of the 12 projectile points recovered in 2019 with definitive or suggested type associations, 4 are most popular during the Late Archaic leading into the Early Woodland (Rossville, Poplar Island variant, a Late Archaic-age straight-stemmed point, and a Late Archaic-age side-notched point). A Middle to Late Archaic Brewerton variant was also recovered. Earlier investigations also yielded the Late Archaic Bare Island and Genesee types (Burrow and Cress 1995). The presence of a bifurcate point suggests an earlier, although likely small, Middle Archaic occupation. This is supported by the recovery of one Middle Archaic point from previous fieldwork at the site, a stemmed Morrow Mountain point (White et al. 2003). A Woodland occupation is also

noted, evidenced by a likely Late Woodland Levanna point and a small quantity of pottery from the 2019 investigation, including 4 sherds of possibly Abbott-Zoned pottery (Middle Woodland), as well as a Levanna point and two Middle Woodland Fox Creek points found during previous investigations (White et al. 2003). The trade bead and trade copper recovered in 2019 demonstrate a Contact period component that transitions the site into its historic occupation (17th century onward). For a summary of diagnostic artifacts recovered from the Trent House, see Table 10.1.

Contact Period	One trade bead, two copper pieces, three possibly Contact period Native American-style ceramic pipes
Late Woodland	Two Levanna points
Middle Woodland	Four possible Abbott-zoned ceramic sherds, two Fox Creek points
Woodland	Twenty-five ceramic sherds
Late Archaic	One Rossville point, one Brewerton Eared-Triangle, one Brewerton variant, one Genesee point, two Poplar Island variants, one Bare Island/Poplar Island-like point, one side-notched point, one straight-stemmed point
Archaic	One expanding stem point, four possibly Archaic-age triangle points
Middle Archaic	One bifurcate point, one Morrow Mountain point

Table 10.1 Temporally Diagnostic Artifacts from All Trent House Excavations To-Date

Archaic Triangles. Another 4 points from the 2019 project appear to be Archaic-age triangles, although their classification is not definitive. Only one of these triangles, a translucent quartz isosceles triangle, was found in intact subsoil, and it was found in the same level as the Brewerton variant point. This suggests the context is possibly Middle to Late Archaic in age, and the other, almost identical quartz isosceles triangle found in redeposited subsoil is likely of a similar age.

Triangular-shaped points have been traditionally assumed to be diagnostic of the Late Woodland period. Point types such as Levanna and Madison points date to this period, and many

assumed that small, triangular points were specifically used as arrowheads, appearing alongside bow-and-arrow technology during the Late Woodland (Custer 2001:48; Ritchie 197131-34; Kraft 2001:258). However, triangle-shaped points are documented in earlier contexts throughout the state, and can be difficult to differentiate from their Woodland counterparts (Kraft 2001:98).

A number of researchers have attempted to define the differences between Archaic and Woodland triangles, with limited success. No concrete, diagnostic morphological features have been identified that are sufficient presence/absence criteria to differentiate between periods. However, there are a number of identified patterns that can suggest a period designation, and a combination of evidence can help to discern a point's age (Stewart 2018:56). The only definitive way to secure a date is through radiocarbon assay.

Vernon Leslie observed that Archaic triangles of the Upper Delaware Valley region appeared relatively thicker, crafted with a more crude knapping pattern in comparison to Late Woodland points (1963:71, 74). More in-depth analysis of Archaic triangles came with the examination of the Area D site in Abbott Farm (28ME1-D). This particular site has been a useful case study for the understanding of Archaic-age triangles due to its deep stratigraphy, radiocarbon dates, and relatively large quantities of triangular points that lie clearly within Archaic contexts (Stewart 2018:51). At the Area D site, earlier triangles frequently demonstrated a specific pressure flaking pattern on the basal edge. These early triangles have longer, deeper pressure flake scars with a central focus on the basal edge of one face and short, steep scars on the opposite face, creating a more uneven, beveled edge along the base of the point (Louis Berger 1996c:10; Stewart 2018:54). The majority of these triangles appear to be isosceles in shape, although equilateral forms are also well represented (Stewart 2018:54-55). An analysis by Gregory Katz concluded that Archaic triangles compared to Late Woodland triangles at the Gropp's Lake site in Abbott Farm tended to have straighter bases, a

smaller mean basal depth and width, less to no basal grinding, a smaller mean edge angle, and a greater proportion of excurvate lateral margins (2000:80-81).

The possibly-Archaic triangles from the Trent House are comparable to Archaic triangles from the nearby Abbott Farm, demonstrating a number of these characteristics. The two quartz triangles found at the Trent House are almost definitively Archaic in age; one was found in association with a Late Archaic point, and both are visually almost identical to Archaic quartz triangles found at Area D (Stewart 2018:55, Figure 17). They are isosceles, demonstrate excuravte lateral margins, and their dimensions (75.9: 36.7 x 21 x 5.2mm, 87.9: 41.4 x 23.3 x 6.8mm) lie well within the typical ranges of Archaic triangles at Area D (Stewart 2018:54, Table 4).

Two chert triangles from the Trent House also demonstrate characteristics that suggest a possible Archaic age. The larger triangle (84.1) demonstrates a thickness (12.2mm) that is much bulkier than typical Late Woodland points. Levanna points, which are larger Late Woodland triangles, are typically thinner than 4.8mm (Ritchie 1971:31). The basal edge demonstrates long, deep flake scarring on one face, creating a steep bevel as well. The smaller chert triangle (55.14) is less certain. The craftsmanship is more crude and uneven, and there appears to be slightly deeper flake scarring near the center of the basal edge. The context of the site's primary occupation during the Late Archaic and the prevalence of Archaic-age triangles at the site itself and in the greater region, namely at Abbott Farm, suggest that the point may not be definitively from the Woodland period.

Stratigraphy. The 2019 investigation at the Trent House was limited in scope, covering only a small geographic area and recovering a modest number of diagnostic artifacts. However, some of these artifacts can provide insight into the temporal stratigraphy of the site. Natural soils were encountered in the south yard trench and small pockets in the kitchen area, namely in EU 1403, and a small number of diagnostic artifacts were recovered from these intact contexts. While the sample

size is relatively small to make any definitive conclusions about discrete temporal contexts, the vertical positioning of these artifacts within intact soil deposits suggests a potential chronological stratigraphy demonstrated at the Trent House site (see Figure 10.1).

It appears that the buried A-horizon, previously determined to be a pre-1720 context, only contained artifacts diagnostic of the Woodland and Contact periods. These artifacts include: a Levanna projectile point, 13 prehistoric ceramic sherds, 3 Native American-style ceramic pipe stems, 1 piece of trade copper, and 1 glass trade bead. The glass bead appears to match styles that date to the 1575-1620 period (Kent 2001, Fogelman 1991), placing it before the 1720 mark and corroborating the evidence for an undisturbed, natural buried A with historic material that predates the Trent occupation. Intact subsoil, the B-horizon, underlies the buried A. Within this context, a small quantity of Archaic period artifacts were recovered. This includes a Brewerton variant and a bifurcate point, as well as an isosceles triangle point that is likely of Archaic age based on its morphological features and association with these Archaic artifacts. While the sample size is too small to make definite conclusions, it appears that the buried-A horizon at the Trent House is a strictly Woodland-Contact period context, while the subsoil has yielded material associated with the Archaic period. The 1995 investigations at the Trent House site also identified stratified deposits and came to a similar conclusion, identifying Woodland period artifacts in the buried A-horizon, interface, and the upper levels of the B-horizon, while Late Archaic material was found within the B-horizon (Burrow and Cress 1995:IV-1).

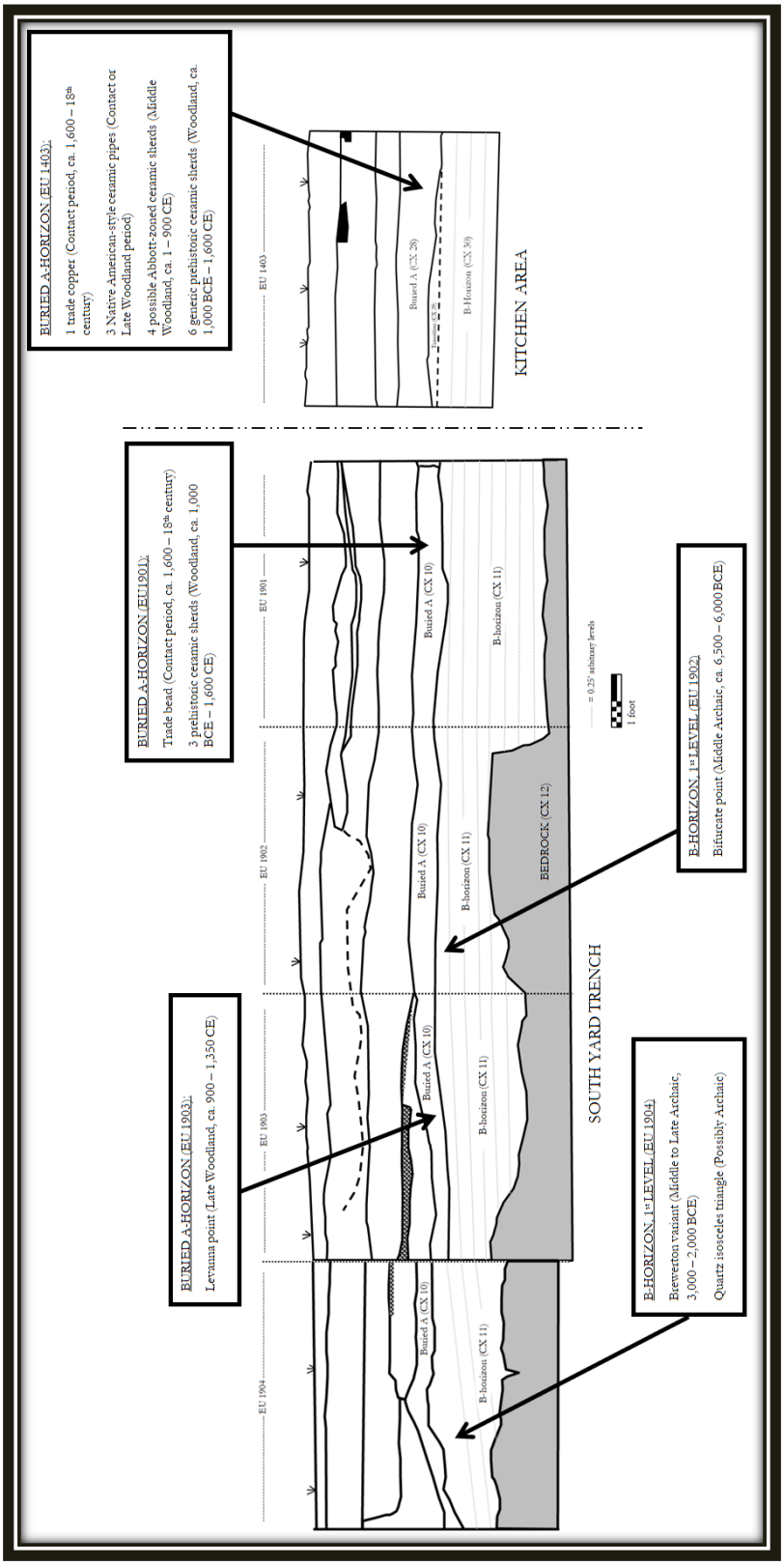

Figure 10.1 Temporally Diagnostic Artifacts within Natural Stratigraphy
From 2019 Investigation (Point type dates: Ritchie 1971; Custer 2001; Kraft 2001)

Based on the limited number of diagnostic artifacts recovered, the prehistoric component of the Trent House site demonstrates a primarily Late Archaic occupation transitioning into the Early Woodland period, ca. 3,000 – 700 BCE. Earlier occupation during the Middle Archaic is noted, as well as a Middle Woodland manifestation and a later Woodland occupation that extends through the Contact period.

Lithic Material Procurement and Tool Production

Raw Material Procurement. Lithic materials used at the Trent House site consist primarily of argillaceous shale, argillite, chert, jasper, quartz, and quartzite. Very small quantities of chalcedony and rhyolite have also been recovered, among others. The majority of these materials were locally available to the Native American inhabitants. Local cobbles, often of riverine or glacial origin, were greatly utilized in the Abbott Farm region, and the Trent House site appears to reflect the same pattern. Quarry sites are also present just upriver; argillite especially was available from outcroppings in the Piedmont region to the north (Williams and Thomas 1982:115-116; Louis Berger 1996b:136, 159, 206; White et al. 2003:5-1). Northern Mercer County is also underlain by Lockatong argillite (Louis Berger 1996b:136). Numerous potential sources of chert have also been identified in the New Jersey region, especially in the Highlands, Ridge and Valley, and the Outer Coastal Plain regions (Marshall 1982:22-24). Jasper quarries are well-known throughout eastern Pennsylvania, although local New Jersey outcrops have also been identified. Quartz is easily sourced from stream channel gravels, and quartzite is available from multiple local rock formations and as secondary deposits (AECOM 2014). The lack of reworked tools in Abbott Farm and the Trent House suggests that raw material was easily obtained (Louis Berger 1996b:159). The Trent House assemblage reflects no large raw material pieces or flake blanks, the cores in the collection are relatively small cobble or pebble cores, and caches of raw material or prepared bifaces have not been identified at this time. These

observations support the notion that local cobbles were being used more frequently than quarried stone.

Lithic Material Preferences Over Time. Given the tentative assumption that the buried-A horizon at the Trent House site represents a Woodland context and the subsoil represents an Archaic context, a comparison of lithic material proportions within each context can potentially suggest which materials were most prominent during each period. The entire south yard trench was considered when tabulating the lithic artifacts present (thermally-altered rock was excluded). This was done because natural soils were encountered throughout the trench, and the kitchen area units reached natural soils with less consistency. Subsoil was excavated in 0.25-foot arbitrary levels to understand the vertical distribution of artifacts, and these levels were used to analyze the vertical distribution of lithics.

There are a number of problems with this analysis. Because of the large outcropping of bedrock present in the center of the trench, not all excavation units reached the same depth. Therefore, lower levels of subsoil contain smaller sample sizes of lithics that could misrepresent the actual proportions. The south yard trench is also covers a relatively small geographic area and yielded a limited number of artifacts, which can also skew the analysis. The following table represents the percentages of each stone material reflected within each natural context of the south yard trench, excluding FCR (Figure 10.2):

	Buried A (CX 10)	1st Level of B (CX 11A)	2nd Level (CX 11B)	3rd Level (CX 11C)	4th Level (CX 11D)	5th Level (CX 11E)
Argillaceous Shale	6.40%	3.32%	6.59%	2.17%	10.13%	1.79%
Argillite	24.13%	43.15%	38.46%	32.61%	20.25%	33.93%
Chert	19.19%	12.45%	19.78%	17.39%	8.86%	8.93%
Jasper	18.31%	11.62%	6.59%	13.04%	16.46%	14.29%
Quartz	11.92%	10.79%	16.48%	19.57%	26.58%	32.14%
Quartzite	20.06%	18.67%	12.09%	15.22%	17.72%	8.93%
LITHIC ARTIFACT TOTAL	344	241	91	46	79	56

Table 10.2 Lithic Material Percentages by Stratigraphic Context (South Yard Trench)

Artifacts made of argillaceous shale were present in small quantities, resulting in inconsistent and inconclusive percentages in each context. Argillite appears to be reflected more prominently in the higher levels of subsoil than the buried A or the lower levels of subsoil. It is possible that argillite was less favored earlier in the Archaic period, peaked in popularity in the later Archaic, and declined slightly during the Woodland. Chert and jasper appear to be slightly less favored during the Archaic than the Woodland, although a clear, consistent pattern is not apparent for either material. Quartz appears to show a clear pattern, with higher representation deeper in subsoil, and therefore more favored earlier in time and losing favorability during the Woodland period. Quartzite appears to show the opposite pattern; the material is more prominent in later contexts.

Interestingly, different patterns of lithic use are represented in the results of the 1995 investigation (see Figure 6.3 for trench locations, depicted in yellow). Burrow and Cress's analysis of lithic materials considered their occurrence in the A-horizon, interface, B-horizon, and upper C-horizon (see Table 10.3).

Raw Material	A-Horizon 1/13; 2/6		Interface 1/15; 2/8		B-Horizon 1/19; 2/12		Upper C-Horizo 1/20; 2/13; 2/14		Totals	
	#	%	#	%	#	%	#	%	#	%
Argillite	54	23.2	86	45.5	153	46.2	105	31.4	398	36.6
Chalcedony		0.0		0.0		0.0	3	0.9	3	0.3
Chert	11	4.7	4	2.1	5	1.5	11	3.3	31	2.9
Horneblende Granite		0.0		0.0		0.0	1	0.3	1	0.1
Horneblende Schist		0.0	1	0.5	3	0.9		0.0	4	0.4
Jasper	103	44.2	76	40.2	99	29.9	111	33.2	389	35.8
Quartz	14	6.0		0.0	5	1.5	27	8.1	46	4.2
Quartzite	47	20.2	22	11.6	62	18.7	70	21.0	201	18.5
Quartz Mica Schist	2	0.9		0.0		0.0	1	0.3	3	0.3
Ryolite	1	0.4		0.0		0.0		0.0	1	0.1
Sandstone	1	0.4		0.0	4	1.2	5	1.5	10	0.9
Diagnostics	Ceramic		Bare Is.		Poplar Is		Genesee			
			Ceramic		Ceramic					
Totals	233	100	189	100	331	100	334	100	1087	100

Table 10.3 Prehistoric Lithics from Pre-20th Century Contexts, 1995 Investigation (Source: Burrow and Cress 1995:IV-2, Table 3.1)

In the 1995 analysis, argillite shows a similar pattern to the 2019 analysis: it is most prominent in the upper levels of the B-horizon and is seen slightly less in the A- and upper C-horizons. Jasper appears to be more prominent in the A-horizon, showing a similar trend to the 2019 analysis but with a larger sample size of the material. The most strikingly dissimilar materials are chert and quartz; both of these materials occur in much higher quantities/percentages in the south yard trench than they did in the 1995 trenches (see Table 9.2 for 2019 lithics summary).

The lithic trends over time at the Trent House site appear to align well with those identified throughout the Abbott Farm. In this region, argillite was the dominant material during the Late Archaic period, and it's prominence started to decline in favor of cryptocrystalline materials such as chert and jasper during the Middle Woodland period around 800 CE (Louis Berger 1996b:138, 206, 233, 291). This general pattern is reflected at the Trent House site as well: argillite was represented at its highest percentage in the upper levels of the B-horizon, which appears to be a primarily Late Archaic context. While the proportions of chert appeared to follow a less-definite trend, it does

appear to have been slightly prominent in higher levels, mainly the Woodland period A-horizon. Jasper is more prominent in higher levels, reflecting the Woodland period increase in jasper preference.

Tool Production. Primary lithic reduction activities would be expected to demonstrate large flakes, especially primary flakes with cortex present, and a larger proportion of raw material and cores. At the Trent House, the large amount of small debitage, with only 4% demonstrating evidence of cortex, and the low percentage of cores and raw material (only 1% of the total assemblage) suggest that the initial lithic reduction of quarried or gathered material was not a primary activity on-site and most debitage likely resulted from tool maintenance. Despite this, the site still demonstrates evidence of the full lithic reduction process. In the first level of subsoil in EU 1403, a large quantity of quartz debitage reflects primary, secondary, and tertiary flakes that likely originated from the same initial piece of raw material. This particular concentration likely represents a single lithic reduction activity, and similar artifacts are found scattered throughout the site.

Most of the debitage recovered likely comes from the reduction of locally-available cobbles, prepared blanks and preforms, or reworked previously crafted tools. Although the quantity of cores and raw material pieces represent double the quantity of staged bifaces recovered (24 to 12), this is likely not an indicator that cores and raw material were more heavily relied-on for the production of bifacial tools. The cores and raw material recovered were too small for such activity, and they were likely only used for the production of expedient flake tools. The staged bifaces recovered are a greater indicator of on-site bifacial tool production, which is likely more focused on reducing prepared bifaces brought on-site from elsewhere. While most of the argillite, chert, jasper, and quartz materials utilized in this area are derived from local cobbles, bedded argillite sources just to

the north were likely utilized for larger tools as well, evidenced by the two larger argillite early-stage edged bifaces in the collection (Stewart 2015:20-21).

Small and expedient tools at the Trent House site were likely crafted from local cobbles, available from the Delaware River, nearby streams, or glacial deposits. This tool type primarily consists of quartzite (43%) and argillite (41%). Larger, bifacial tools were likely crafted from large cobbles or blanks and staged bifaces that were prepared off-site. Tool production is well-represented at the site, but it is likely not one of the site's primary activities and was only performed as-needed. The large amount of debitage is due, in part, to the maintenance of stone tools rather than their initial production. This is evidenced by the low proportion of primary debitage (about 4% of recovered debitage).

	PRIMARY	SECONDARY/ TERITIARY	PERCENTAGE PRIMARY
Argillaceous shale	3	71	4.05
Argillite	18	466	3.72
Chert	15	233	6.05
Jasper	17	245	6.49
Quartz	3	499	0.60
Quartzite	18	283	5.98
Total	**74**	**1797**	

Table 10.4 Debitage by Material and Production Stage

The presence of primary debitage (identified by the presence of cortex) suggests the initial reduction of raw material to produce a formal or expedient tool. Due to the low frequency of primary debitage at the Trent House site, this activity was likely not common at this location. Of the primary debitage that is present, the materials with the highest proportions are jasper (6.49%) and chert (6.05%). This may suggest that while most primary reduction activities took place off-site, the materials that were reduced on-site were primarily higher-quality materials that were either locally available or the raw material itself was brought to the site for reduction. This is supported by the absence of jasper or chert staged bifaces and the higher incidence of chert raw material and cores

than any other material. Material of lower quality and greater availability, such as argillite and quartzite, was likely acquired nearby and reduced to staged bifaces or tools before being brought to the Trent House.

Discussion of Intra-Site Patterning

Archaeological investigations at the William Trent House property have been limited in their coverage of the area, making it difficult to make any definitive statements about activity patterns on-site. A series of excavation units should be placed in different zones of the property to identify any preliminary patterns.

The results of the 2000-2003 investigations revealed a few general patterns about the archaeological deposits on the site as a whole. The east section mostly revealed evidence of historic Trent House additions with little evidence of prehistoric material; however, the 2019 excavation units that encountered natural soils, especially EU 1403, found a significant quantity of prehistoric ceramic sherds and other artifacts. The southeast section revealed more evidence of prehistoric occupation, yielding debitage, a core, thermally-altered rock, and a quartz triangular projectile point. An excavation unit dug in this area produced jasper flakes, a quartz core, a large chopper, a large argillite tested cobble, and ceramics. The central/southwest section yielded more prehistoric artifacts and evidence of natural soils underlying fill. The central/west section yielded the most prehistoric material of the 2000-2003 excavations, including large argillite flakes, thermally-altered rock, an argillite knife, an argillite Fox Creek point, and a hammerstone. The central/northwest section, three shovel tests were able to reach natural soils. A jasper flake and thermally-altered rock was recovered from this area. The far west portion of the property yielded limited evidence of prehistoric material, mostly encountering modern demolition fills that made testing difficult (White et al. 2003:3-4 to 3-7).

The 2019 archaeological investigations produced limited evidence of intra-site patterns, and a greater geographic spread should be excavated to reveal more information. It appears that EU 1403, on the east side of the Trent House, produced a significantly higher density of prehistoric ceramic. In the one unit, 13 sherds were recovered from the buried A-horizon (about 15% of that context). Although no minimum vessel analysis was conducted, at least four different tempers are represented by these sherds, demonstrating that they represent more than just one pot. In contrast, the only ceramics found in the south yard trench were 3 small sherds from the buried A in EU 1901 (only 2% of that context). The rest of the trench yielded no prehistoric ceramic.

It is also interesting to note that there was a great disparity between the lithic materials present in the 2019 excavation units near the Trent House and the trenches excavated by Hunter Research, Inc. in 1995 to the west. While the occurrence of argillaceous shale, argillite, jasper, and quartzite appeared relatively similar, the quantities of chert and quartz were very different. The 1995 excavations yielded very small quantities of chert (2.9%) and quartz (4.2%). In contrast, the 2019 units had much higher incidences of each material, as chert represented 13.46% of the lithics recovered and quartz represented 25.57% (statistically speaking, quartz practically tied argillite for the most prominent lithic material). It is currently unclear why these materials were less prominent in the western portion of the site.

Site Function

Data from the Trent House prehistoric component is still limited; however, preliminary site functions can be inferred from the material that has been recovered. The artifact assemblage reflects a variety of different tool types and artifacts that imply a diverse range of activities performed on the site. These artifacts include projectile points, knives, staged bifaces and preforms, expedient flake tools, scrapers, spokeshaves, hammerstones, pestles, an axe, thermally-altered rock, and pottery.

Projectile points can be interpreted as indicators of hunting, and possibly fishing, in the local environment. The Trenton area near the falls of the Delaware is known for its environmental diversity in prehistoric times, and Native peoples would have been able to hunt and forage in the productive woodlands and marshes associated with the Delaware River, the Douglas Gut stream, and the Assunpink Creek (Hunter and Burrow 2014:327-328). The slight rise in elevation of the Trent House site would have been a useful vantage point over the environment. These artifacts could also have been used as knives.

Staged bifaces, preforms, cores, and raw material, as well as vast quantities of lithic debitage, represent a degree of stone tool production on the site. It appears that most stages of lithic reduction are represented at the site, but not in large enough quantities to suggest it was a primary site activity. Stone tool maintenance is likely the primary cause of the site's debitage (see "Lithic Material Procurement and Tool Production" section above for more information).

A number of processing tools have also been recovered that show a variety of activities related to the refinement of foraged flora and fauna for human consumption. Knives and flake tools would have been used for cutting materials such as meat, animal hide, sinew, wood, plant fibers, and more (Mounier 2003:61-62). Scrapers are interpreted as tools with the primary function of processing animal hides and shaping or removing the bark from wooden tools, while spokeshaves in the collection were likely used to smooth and straighten wooden shafts, such as spears, darts, or arrows (Kraft 2001:99-100). Cobble-based processing tools include hammerstones, pestles, and manos. Hammerstones were used for stone tool production and could also be used for smashing or grinding nuts and other plants. Pestles and manos are typically used for milling seeds, nuts, and minerals (Mounier 2003:67-68).

One axe was recovered from the Trent House site, which represents activities such as land-clearing and the collection of timber.

Large quantities of thermally-altered rock have been recovered throughout the property as well. This artifact is created by extreme heat and is typically the result of stone-lined hearths and stone boiling techniques in meal preparation. Large fire-cracked rock platforms have also been interpreted for use to smoke, roast, or dry fish (Mounier 2003:74, 140-141), although this is an unlikely use at the Trent House site. No large platforms of the sort have been identified in the nearby Douglas Gut sites, and these features were likely limited to the Abbott Farm locale for the large-scale processing of anadromous fish. The majority of the thermally-altered rock from the Trent House site was cracked and reddened, which suggests its use for stone boiling. Quartz-containing rocks do not typically change color with heat unless it comes into contact with water (Stewart 2005:38).

Pottery was also recovered from the Trent House site. This artifact type was primarily used as containers for food and food storage, and it can be partially indicative of more sedentary lifestyles. While some Abbott-Zoned vessels from the Abbott Farm have been interpreted as evidence of feasting rituals (Lattanzi, Stewart, and Pevarnik 2015), it is likely that the pottery represented at the peripheral Trent House site had only utilitarian functions, like most New Jersey prehistoric ceramics (Kraft 2001:192).

Fishing. Based on the Trent House site's location, fishing was likely a typical activity. The Delaware River is an excellent source of aquatic resources, and the nearby falls in the river causes an abrupt change in depth resulted in migrations of fish to gather in the area (Hunter and Burrow 2014:326-327; Kraft 2001:187-188). Despite this, there has been no direct material evidence of fishing activities recovered from the Trent House site at this point, although some general-purpose tools recovered could have been used to process fish, such as knives. The lack of specialized fishing artifacts could simply be due to the limited nature of the archaeological investigations at the Trent

House thus far. Fishing-related artifacts, such as netsinkers, could be present on the property and simply have not been uncovered yet. Further investigation is required to locate these artifacts or to recover tools suitable for protein-residue analysis, which could potentially yield evidence of fish processing. Two Fox Creek bifaces have been recovered from the site; these point types are reflective of the Fox Creek culture, prominent throughout the Abbott Farm region during the Middle Woodland period and often associated with a dependence on fishing as a food resource (Kraft 2001:185). The Riverview Executive Park, Chain Shop, Lexington Street, and Cass Street areas of the Douglas Gut Archaeological Complex just south of the Trent House all yielded small quantities of netsinkers, artifacts that are direct evidence of fishing activity (Hunter Research 2002). The Trent House is assumed to be related to these sites, reflecting similar temporal occupations and a close geographic proximity. Either these materials are yet to be found at the Trent House, or fishing activity was more prominent to the south. It is likely that fishing was conducted more intensively in the Abbott Farm region, focused on seasonal anadromous fish runs, while peripheral sites such as the Trent House site focused on fishing as a subsidiary subsistence activity.

Based on the currently-available evidence, the Trent House site likely represents a transient camp situated near common Native American travel routes and focused on seasonal terrestrial and aquatic resource procurement. The variety of activities demonstrated by the material culture suggests a site with more diversity than a typical single-focus procurement camp or work station (Mounier 2003:129, 138). The site appears to represent Kraft and Mounier's description of Archaic period encampments located near aquatic features such as rivers. Although no fishing-related artifacts have been recovered, an axe was recovered that suggests woodworking for the purpose of clearing an open site and constructing houses and dugout canoes. This type of site was likely occupied seasonally and could probably accommodate multiple families and bands (Kraft and Mounier

1982:61). Seasonally revisited sites were common during the Late Archaic, and continuous reuse over greater periods of time is suggested by the broad range of temporal occupation, reaching as far back as the Middle Archaic period and lasting until European contact (Kraft and Mounier 1982:67). The site's location along a major river suggests a role as a larger, principal settlement with an influential reach extending inland toward smaller, interior sites (Kraft 2001:111). The artifact variability and multiple activities represented suggest a type of base camp (Pagoulatos 2006). The site likely represents a secondary-base camp or transient camp branching off from the larger, more extensively-occupied sites to the south in the Abbott Farm complex, with occupation dependent on seasonal settlement patterns and cyclical reuse. The Trenton area near the falls of the Delaware is also known for its convergence of Native American trails and proximity to a fordable portion of the river (Hunter and Burrow 2014:327-328). The Trent House site is situated in an area with facilitated travel routes and productive environments. It is within the greater Trenton Complex and lies in close proximity to the Douglas Gut Archaeological Complex to the south, to which it likely maintained a close relationship with. It is also relatively close to the downtown Trenton complex around Petty's Run and the Assunpink Creek. The Trent House site's function is likely tied to the greater regional complex.

Type	**Archaic Period (B-horizon)**	**Woodland Period (buried A-horizon)**
Projectile Points	0.45%	0.45%
Bifaces	0.18%	0.00%
Preform	0.00%	0.22%
Flake Tools (including Spokeshaves)	2.50%	0.67%
Debitage	87.22%	85.20%
Cores and Raw Material	0.89%	0.45%
Cobble-Based Tools	0.36%	0.22%
Lithic Tools	0.18%	0.00%
Thermally-Altered Rock	8.22%	8.74%
Pottery	0.00%	2.91%
European Contact Artifacts	0.00%	1.12%

Table 10.5 Percentage of Major Artifact Types by Time Period (as determined by intact strata)

Preliminary analysis of a small sample size of diagnostic artifacts suggests that the buried A-horizon at the Trent House site represents a primarily Woodland and Contact period occupation, while the B-horizon has produced primarily Archaic and Transitional period material. By comparing the artifact types from each context, it may be possible to infer similarities or differences between the site's functions between these periods. Table 10.5 compares the percentage of each major artifact type by their occurrence within intact A- and B-horizons. The percentage of each artifact type appears very similar between the two contexts, and therefore, Archaic and Woodland site functions were likely very similar. The above table considers 446 artifacts from the buried A-horizon and 1119 artifacts from subsoil (11 miscellaneous artifacts from these intact strata were not considered).

Based on density of diagnostic material, settlement appears to have diminished at the Trent House during the Woodland period. Settlement during this period favored the Douglas Gut sites to the south, which reflected more robust Woodland components. This could be due to their closer proximity to Abbott Farm and reduced foraging radii during the Woodland period.

Relationship to the Greater Region

North of the Abbott Farm National Historic Landmark lies a continuous zone of prehistoric occupation that stretches into downtown Trenton. Just north of the Abbott Farm lies the Riverview Bluff North and South sites. The Riverview Bluff South site appears to be an extension of the Lalor Field site, a prominent Abbott Farm locale. North of these sites is the Douglas Gut Archaeological Complex. Farther north lies the Trent House site, and beyond that lies a zone of prehistoric occupation around the former Petty's Run channel. An almost continuous line of prehistoric occupation extends north of the Abbott Farm along the Delaware River, with the breaks between

sites most likely a result of urban development and disturbance carving apart the archaeological record.

While the Abbott Farm represents a complex of densely occupied village sites, the line of Trenton sites within its periphery typically reflect lower densities. The Douglas Gut sites demonstrate Native American presence during the Middle Woodland period and extensive occupation during the Late Woodland. Middle Archaic presence is suggested but deposits have not survived intact. The Late Archaic and Early Woodland components of these sites often demonstrate similar attributes to the seasonal transient camps located along the Abbott Farm high terrace bluff (Hunter Research 2002:i-ii). The Trent House site appears to represent a continuation of this regional settlement pattern.

Geographically, the Trent House site is located at the northernmost extent of the Douglas Gut Archaeological Complex. The site is located along the Valley Heads Terrace and along the former Douglas Gut stream just north of the identified complex (sees Figures 4.2 and 10.3). The Trent House site is likely an extension of the Douglas Gut complex, evidenced by its geographic location and the apparent continuity in settlement patterning, especially during the Late Archaic and Early Woodland periods. These sites are likely representations of peripheral seasonal occupation related to the extensively occupied Abbott Farm sites. Late Archaic and Early Woodland transient camps of the Douglas Gut complex, the Trent House site included, may have been established during fall or winter settlement movements (Hunter Research 2002:5-13). Fall subsistence strategies were often focused on nut harvesting, mammal hunting, and fishing, which appears more reflective of the Trent House site, while winter encampments typically reflected small hunting stations (Pagoulatos 2006:29). Warm seasons would have attracted local groups to larger sites within the Abbott Farm, such as the Area B and Area D sites, during anadromous fish runs (Hunter Research 2002:5-13; Pagoulatos 2006:29). The sites of the Abbott Farm Douglas Gut complex have been

intensively excavated and researched, and each area's assemblage is much larger than the collection recovered from the Trent House so far; it can be difficult to make meaningful comparisons. However, it appears that the Trent House artifacts are starting to reflect a similar pattern of artifact type diversity and a reflection of similar site activities compared to the Douglas Gut sites (except for the Cass Street area, which appears to be focused on mortuary practice). It is possible that Native American groups congregated in the Abbott Farm region during warm seasons to subsist on productive anadromous fish runs, and then migrated outward during the fall to locations such as the Trent House and Douglas Gut sites. These sites acted as smaller base camps from which groups splintered toward smaller, specialized resource procurement stations during the winter months (Pagoulatos 2006).

Examples of archaeological cultures with a wide geographic spread are also represented at the Trent House site. A manifestation of the Fox Creek culture is present on the site, evidenced by two Fox Creek points recovered thus far. The Fox Creek culture dates to the Middle Woodland period and their sites are mainly on river and coastal sites on the Chesapeake Bay, north into the Delaware, Susquehanna, and Hudson River drainages (Kraft 2001:185). The Fox Creek component of the Abbott Farm is its most prominent occupation, and the culture is also demonstrated throughout the Douglas Gut complex.

Minimal evidence of distant trading relationships is represented at the Trent House site. Lithic materials represented are primarily available locally. A very small quantity of rhyolite flakes have been recovered from the site (1 in 1995, 1 in 2019). Rhyolite found in this area may have originated from the Blue Ridge province in southern Pennsylvania and Maryland and similar material has been found as far as New York or Virginia. Rhyolite has been identified as a commonly traded material during the Late Archaic (Stewart 1989:50, 52). In Abbott Farm, lithic materials used for certain artifact types (such as steatite bowls or ornamental artifacts) have been sourced from

Pennsylvania as far as 35-40 miles away (Stewart 2015-21). Copper beads, associated with a Middlesex burial, have been found at Abbott Farm and are likely sourced from the Lake Superior area (Stewart 1989:56, 58). Distant relationships have also been established as far as modern-day Canada; for example, a Transitional period blade from Abbott Farm was crafted from Mistassini quartzite, sourced from the upper Quebec province (NJSM). However, none of these exotic materials were found at the Trent House. The people's more valuable, exotic goods were likely kept in more permanent residents within the Abbott Farm landmark or used as grave goods.

A Contact period component at the Trent House site reflects evidence of exchange between the Native American groups present and early European traders. Hunter Research (2002), through documentary research, has identified a Dutch trading post that is located in the south Trenton area near the falls of the Delaware, nearby the Douglas Gut Archaeological Complex and the Trent House site. Douglas Gut Contact period features and artifacts were interpreted with a potential relationship to this post. No exact location for this site has been identified, but given the known preservation of historic resources in the area, it is possible that the site maintains undiscovered integrity (Hunter Research 2002:3-158). It is possible that the Trent House Contact period items may be related to this Dutch trading post as well. Contact period material was recovered from the buried A-horizon, a context that predates the early historic Trent occupation. The glass trade bead likely dates from around 1575-1620 (Kent 2001, Fogelman 1991), which would be earlier than the British occupation of the area that began around the 1670s (Hunter and Burrow 2013:323). It is interesting to note that a yellow Dutch brick was identified in the Trent House historic catalog. It is currently interpreted with a possible relation to the site's early historic occupation by Mahlon Stacy.

Chapter 11: Conclusions and Recommendations

Monmouth University's 2019 archaeological field school took place at the William Trent House in Trenton, NJ in collaboration with Hunter Research, Inc. Earlier work at the Trent House was conducted by Hunter in 1995, 2000-2003, 2005, 2007, and 2014. During these investigations, archaeologists were able to identify evidence of a prehistoric occupation on the property that survives beneath historic fill layers. An analysis of Pre-Contact material recovered from secondary fills and natural soils revealed a site that dates primarily the Late Archaic and Transitional period, ca. 3,000 – 700 BCE. The site represents a seasonal transient camp situated near common Native American travel routes with a focus on terrestrial and aquatic resource procurement and processing. Limited evidence of Middle Archaic occupation has been recovered, and Woodland and Contact period components have also been identified.

Although excavation has been limited and has covered only a small geographic area, a great variety of activities could be inferred from the material recovered. Artifact types present include projectile points, expedient flake tools, staged bifaces and preforms, cobble-based tools, an axe, thermally-altered rock, and pottery. These types reflect a variety of activities that took place on the site; these include hunting, processing, lithic tool production, food processing, lumbering, hearth cooking and/or stone boiling, and food storage. These artifacts were found within temporally stratified deposits. Argillite and quartz appear to be the most favored lithic materials, while thermally-altered rock was primarily quartzite. Small and expedient tools were likely crafted from local cobbles, while larger, bifacial tools were likely crafted from large cobbles or staged bifaces that were prepared off-site. Tool production is well-represented at the site, but it is likely not one of the site's primary activities and was only performed when necessary.

The Trent House Native American site was likely part of the same prehistoric entity as the Douglas Gut Archaeological Complex. This regional collection of sites lies just south of the Trent House and represents a series of occupation along the Delaware River extending north of Abbott Farm, likely maintaining a peripheral relationship with the significant complex. The Trent House camp is likely a result of seasonal movement around Abbott Farm and throughout the region.

Recommendations for Future Work

Further investigation of the William Trent House prehistoric component is necessary for a greater understanding of the site's nature. Overall, excavations to date have not covered a large portion of the property, and a relatively small assemblage limits interpretive potential. The following recommendations are presented for further investigation of the property's prehistoric site:

1. More geographic area needs to be covered to reveal more information about intra-site patterning, recover more material for analysis, and to uncover features that could enhance the site's interpretation. Ideally, excavation should be conducted throughout the property to reveal information about intra-site patterning.
2. A wide variety of activities are represented by the current Trent House assemblage, including artifacts that suggest food resource procurement and processing. Further investigation at the Trent House should attempt to secure archaeobotanical evidence of food resources. Prehistoric ceramics should be collected without contamination for residue analysis. Cobble-based tools such as pestles, manos, or hammerstones should also be subjected to specialized analyses such as starch grain analysis. Soil samples from prehistoric features should be collected and subjected to soil flotation in an attempt to recover macrobotanical ecofacts. Bifacial implements should be submitted for protein-residue analysis in an attempt to deduce processed and consumed meats.

3. Soil flotation samples and similar methods should be used to try and secure evidence for site seasonality.
4. An in-depth geomorphological assessment of the site's natural soils should be conducted to better understand the nature of the depositional processes and to identify any potential erosional activities that may have disturbed earlier deposits, as was identified in a number of Douglas Gut sites.

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