ARCHAEOLOGICAL INVESTIGATION OF THE STONEGATE DEVELOPMENT (INCLUDING SITES 44AX31,166 AND 167) WEST BRADDOCK ROAD CITY OF ALEXANDRIA, VIRGINIA



Prepared by International Archaeological Consultants 1145 Mountain View Boulevard Rawlins, Wyoming 82301

November 1993

ARCHAEOLOGICAL INVESTIGATION OF THE STONEGATE DEVELOPMENT (INCLUDING SITES 44AX31,166 & 167) WEST BRADDOCK ROAD, CITY OF ALEXANDRIA, VIRGINIA

> Principal Investigator/Author Robert M. Adams Contributing Authors Martha W. McCartney Michael F. Johnson Lawrence E. Moore

Prepared for: Eakin/Youngentob Associates, Inc. 1000 Wilson Boulevard Suite 2720 Arlington, Virginia 22209

> Submitted to: Alexandria Archaeology 105 North Union Street Alexandria, Virginia

> > November 1993

International Archaeological Consultants 1145 Mountain View Boulevard Rawlins, Wyoming 82301

ABSTRACT

The 22 acre Stonegate development is located on the western edge of the City of Alexandria, Virginia, along West Braddock Road where both historic and prehistoric occupation was defined. The property was investigated by International Archaeological Consultants under contract with Eakin/ Youngentob Associates , Inc., the developers of the property, from September 1992 through January 1993 in compliance with City of Alexandria ordinances.

The investigation revealed a historic homesite dating from the mid-19th century to the late 1950's and a prehistoric site with lithic concentrations ascribed to the Late Archaic.

The historic site had remains of a house and outbuilding built in the early 1940's and an older house site dating to the mid- 19th thru the early 20th century. All of these were highly disturbed as a result of the razing of the structures in the late 1950's. A discussion of the cultural/botanical indicators that greatly assisted in understanding the site is also presented.

As part of the infrastructure for the development two storm drain outfalls and a portion of the area for a proposed storm water retention pond were also investigated. These investigations revealed a cultural occupation to be present all along the creek floodplain at the southern boundary of the property. The artifacts indicate a Woodland and perhaps earlier cultural association. The area has been set aside as an archaeological preserve and a non-disturbance area.

The prehistoric site was particularly unique in that the area had never been under cultivation or extensively developed. On this terrace area three undisturbed lithic scatters with a few associated features were discovered which date to the late Archaic Period (3,000-1,200 B.C.).. The analysis of these lithic concentrations suggests that the reduction activity represents three separate discreet manufacturing activities associated with projectile point or biface reduction. The quantity, limited parent materials, spatial distribution and limited assemblage found in the concentration suggest that the activity occurred over a very brief period of time. and it has remained undisturbed since its original deposition.

- D. Archaeological Preservation Certifications
- E. Resumes-Personnel, Co-authors, Consultants (alphabetical order)
- F. Oversized Maps
 - 1. Resource Management Plan Map
 - 2. Boring Activities Disturbance and Surface Collection Map
 - 3. Stonegate I-Prehistoric Site (44AX166)
 - 4. Stonegate II-Historic Site (44AX167)
 - 5. Preservation Area Map- C.J. Site (44AX31)
- G. Deed of Gift-Artifacts to City of Alexandria
- H. Blood Protein Residue Analysis
- I. Aerial Photographs-1937, 1948, 1960, 1968, 1985, and 1991.
- J. Ceramic Analysis-C.J. Site 44AX31
- K Public Summary
- L Property References
- M. Archaeological Preserve-Memorandum of Agreement

LIST OF FIGURES AND TABLES

Figure 1	Stonegate Parcel Location Map				
Figure 2	Stonegate map showing archaeological sites and areas of				
	investigation.				
Figure 3	Physiography of Northern Virginia.				
Figure 4	Comparative precipitation and temperature chart for the				
	Shenandoah Valley (from Carbone 1976:91, 93). Note that it				
	uses current conditions (left end of graph) as the baseline for				
	comparison.				
Figure 5	Maximum southern extent of full glaciation during the				
	Wisconsin Episode in Eastern North America (redrawn from				
	Whitehead 1973:628).				
Figure 6	Clovis-like points.				
Figure 7	Mid-Paleo-like points.				
Figure 8	Dalton-like points.				
Figure 9	Hardaway-like points.				
Figure 10	Palmer/Kirk-like point.				
Figure 11	Direct comparison of <u>Quercus</u> (oak) with <u>Pinus</u> (pine) and Picea				
	(spruce) pollen diagrams from Quarles and Hack Ponds near the				
	Shenandoah Valley, Virginia (Carbone 1976: 48; redrawn from				
	Craig 1969).				
Figure 12	Kirk-like points.				
Figure 13	Bifurcate-like points.				
Figure 14	Total pre-5,000 B.C. points and archaeological sites by known				
	cultural phase in Fairfax County (from sites located before May				
	1983) (Johnson 1983a:64).				
Figure 15	Stanley-like point.				
Figure 16	Lobate-like points.				
Figure 17	Morrow Mountain-like point.				
Figure 18	Guilford-like points from Loudoun (top) and (bottom) Fairfax				
T: 10	Counties.				
Figure 19	Halifax point.				
Figure 20	Savannah River-like point (variety 1).				
Figure 21	Savannah River-like point (variety 2).				
Figure 22	Holmes-like point. Basal grinding is not common. Generally				
	grinding is confined to a short length of blade area on one or				
Eiguno 22	Soundars.				
Figure 25	Joapstone bowls from 44FX129 (Holmes 1697: plates LXXVII and				
Eigung 24	LAAVIII). Marcow Crock like commiss (Starbarcon and Ferraren 10(2.00.)				
Figure 24	Wirginia Discovered and Discribed [sia] (Smith 1(24)				
Figure 25	Virginia Discovered and Discribed [SIC] (Smith 1624).				
Figure 20	Virginia and Maryland, 1670 (Herrmann 1673).				
rigure 2/	1760 (Mitchell 1987)				
	1/00 (millen 1907).				

Figure 28	A Plan of the County of Fairfax on Potomac River (Jenings [1745- 1748]).				
Figure 29	A Map of the most Inhabited part of Virginia (Fry and Jefferson 1775).				
Figure 30	A map of Virginia Formed from Actual Surveys (Madison 1818)				
Figure 31	A Map of the State of Virginia: Constructed in Conformity to Law (Boye 1826).				
Figure 32	Hotchkiss' Geological Map of Virginia and WestVirginia (Hotchkiss 1835-1841).				
Figure 33	Sketch of the Seat of War in Alexandria and Fairfax Cos. (Corbett 1861b).				
Figure 34	Untitled manuscript sketch of parts of Alexandria and Fairfax Counties (Church [n.d.]).				
Figure 35	Untitled military map (Anonymous [186-]).				
Figure 36	Defenses of Washington and Adjacent Country (Engineer Bureau 1865a).				
Figure 37	Environs of Washington (Engineer Bureau [n.d.]).				
Figure 38	Extract of Military Map of Northeast Virginia Showing Forts and Roads (Engineer Bureau 1865b).				
Figure 39	Map of the Ground of Occupation and Defense of the Division of the U.S. Army in Virginia (Bache 1865).				
Figure 40	Map of Northeast Virginia and Vicinity of Washington(McDowell 1862a).				
Figure 41	Extract of Military Map of Northeast Virginia Showing Forts and Roads (Engineer Bureau 1865c).				
Figure 42	E. and G. W. Blunt's Corrected map of Washington and the Seat of War on the Potomac (Blunt [1862]).				
Figure 43	Untitled pen and ink manuscript map of Fairfax County, with parts of Loudoun and Prince William Counties (Hoffman 1864).				
Figure 44	Map of the State of Virginia (Bache 1863).				
Figure 45	Central Virginia Showing Lt. Gen. U. S. Grant's Campaign in 1864-1865 (Engineer Bureau 1865d).				
Figure 46	Central Virginia Showing General P. H. Sheridan's Campaigns in 1864-1865 (Gillespie 1865).				
Figure 47	Falls Church District No. 4 (Hopkins 1879).				
Figure 48	Map of Fairfax County (Shipman 1886).				
Figure 49	Map of the Vicinity of Washington, D.C. (Hopkins 1894).				
Figure 50	Mount Vernon quadrangle (U.S.G.S. 1891).				
Figure 51	Map of Washington, D. C. (Clement 1891).				
Figure 52	Map of the District of Columbia and Vicinity (Engineer Corps 1892).				
Figure 53	Metropolitan Washington quadrangle (U.S.G.S. 1895).				
Figure 54	Map of Fairfax County (Noetzel 1907).				
Figure 55	Map of Fairfax County (Choate 1910).				
Figure 56	U. S. Post Office Map of Fairfax County (U.S.P.O. 1912).				

Figure 57	Annandale quadrangle (U.S.G.S. 1951).				
Figure 58	1865 Map showing " Mrs. Green and Mrs. Dove" house relative				
0	to Washington Forest southern property line.				
Figure 59	Stonegate property overlay.				
Figure 60	Property boundaries delineated in 1953 court case.				
Figure 61	1894 map showing the location of the "Edward Dove" house and				
	the boundaries of the Stonegate property.				
Figure 62	Enlargement of the strip of land with Dove family owners and				
	the location of the house constructed in the 1940's.				
Figure 63	Graphic showing Stonegate vicinity 1991.				
Figure 64	Graphic showing Stonegate vicinity 1985.				
Figure 65	Graphic showing Stonegate vicinity 1968.				
Figure 66	Graphic showing Stonegate vicinity 1960.				
Figure 67	Graphic showing Stonegate vicinity 1948.				
Figure 68	Graphic showing Stonegate vicinity 1937.				
Figure 69	Mechanical excavation test with tracked skid loader at Unit 99.				
	Looking southwest.				
Figure 70	Backhoe excavation of two possible well/privies/ metal detector				
-	holes.				
Figure 71	Skid loader at southwest end of mechanical trench across the				
0	older house site.				
Figure 72	Cultural/Botanical map of historic site (44AX167).				
Figure 73	Shovel test map of Parcel D.				
Figure 74	"Evening in Paris" perfume bottle ca. 1930. Found by Ms. Kathy				
	Nicotra on historic site 44AX167.				
Figure 75	Shovel test map of Parcels A & B.				
Figure 76	Site plan of shovel tests from Stonegate I-Prehistoric site				
	(44AX166).				
Figure 77	Representative profile of Stonegate I-Prehistoric site (44AX166).				
Figure 78	Drawing of hearth feature #3 from Unit 35.				
Figure 79	Drawing of hearth feature #4 from Unit 56.				
Figure 80	Bifacially worked material from lithic concentration around Unit 6/28.				
Figure 81	Bifacially worked material from lithic concentration around Unit 20.				
Figure 82	Bifacially worked material from lithic concentration around Unit 10.				
Figure 83	Contour map of the total number of flakes recovered from Unit 6/28 lithic concentration.				
Figure 84	Graphic representation of the total number of flakes recovered from Unit 6/28 lithic concentration.				
Figure 85	Contour map of thinning flakes recovered from Unit 6/28 lithic concentration.				
Figure 86	Graphic representation of the thinning flakes recovered from Unit 6/28 lithic concentration.				

Figure 87	Contour map of the total number of flakes recovered from Unit 20 lithic concentration.
Figure 88	Graphic representation of the total number of flakes recovered from Unit 20 lithic concentration.
Figure 89	Contour map of the thinning flakes from Unit 20 lithic concentration.
Figure 90	Graphic representation of the thinning flakes recovered from Unit 20 lithic concentration.
Figure 91	Contour map of the total number of flakes recovered from Unit 10 lithic concentration.
Figure 92	Graphic representation of the total number of flakes recovered from Unit 10 lithic concentration
Figure 93	Contour map of the thinning flakes recovered from Unit 10 lithic concentration.
Figure 94	Graphic representation of the thinning flakes recovered from Unit 10 lithic concentration.
Figure 95	Quartzite fragment with distal end bifacial reduction, a possible axe or rejected early stage preform.
Figure 96	Diagnostic projectile points recovered from 44AX166.
Figure 97	Location of pig feeding area showing the position of excavation lanes.
Figure 98	View of pig feeding area looking south. Lane 1 in foreground with Braddock Road in the background.
Figure 99	Shell, bone and peach pits with representative sample of restaurant ware and utensils from the pig feeding area.
Figure 100	Embossed glass bottle fragments and bottle neck with Hutchinson bottle stopper from Stonegate II-Historic site (44AX167).
Figure 101	Excavation unit 69 adjacent to house pier at older house site. Looking southwest.
Figure 102	Gun flint and two late 19th or early 20th century pipe bowl fragments.
Figure 103	Profiles from shovel testing of Southwest Storm Drain corridor.
Figure 104	Profiles from excavation units from Northeast Storm Drain corridor.
Figure 105	Profiles from excavation units from Southwest Storm Drain corridor.
Figure 106	Site map and artifacts recovered from the Northeast Storm Drain corridor.
Figure 107	Site map and artifacts recovered from the Southwest Storm Drain corridor.
Figure 108	Storm Water Retention Pond shovel test location map.
Figure 109	Map showing the location of the Storm Water Retention Pond, Outfalls and Site 44AX31.
Figure 110	Site plan for the testing of Storm Water Retention Pond.

Figure111	View of site with excavation Unit #1 in foreground with shovel test #4 and Unit #2. Stream in center background. Looking southeast.			
Figure 112	Profiles for test excavation units 1 and 5.			
Figure 113	Distribution of flakes, shatter and ceramics from test units.			
Figure 114	Projectile points and fragments from test unit 1.			
Figure 115	Projectile point fragments from test unit 5.			
Figure 116	Biface and point fragment from test unit 2.			
Figure 117	Map of proposed preservation area.			
Table 1	Paleo-Environmental Chronology for the Middle Atlantic			
	Region (years Before Present).			
Table 2	Hypothetical Native American Cultural Overview for the			
	Middle Atlantic Region (as of November 1992).			
Table 3	Current Cultural Chronology for Northern Virginia Prehistory (as of November 1992)			







INTRODUCTION

In September 1992 International Archaeological Consultants was asked to review the archaeological potential of a 22 acre area of undeveloped land in the western part of the City of Alexandria. The area is currently being developed and the construction of 505 townhomes will commence in the near future. The Stonegate development represents one of the last properties within the City of Alexandria that has not previously been developed and three parcels that comprise the development.were investigated (Figure 1).

After an initial pedestrian survey of the property and review of the historical documentation a scope of work to investigate the area was proposed to the City of Alexandria. This scope of work was discussed and refined with the cooperation and assistance of Drs. Pamela Cressey and Steven Shephard of Alexandria Archaeology and approval granted in late September.

The initial phase of testing was to shovel test the area on a 50 sq. ft. test grid along with a pedestrian survey of the area. This testing showed no cultural occupation of Parcel D and revealed the presence of a historic and prehistoric site on Parcels A and B (Figure 2).

The inadvertent disturbance of Parcel A and B from the drilling to determine the composition of the substrate resulted in the surface collection of the disturbed areas.

Investigation of the two sites that were defined progressed as additional artifacts and features were unearthed. The methodology and scope of work were designed in close association with Alexandria Archaeology to maximize the information recovered and to avoid any unnecessary work.

The historic site was found to have the remains of two houses and a probable outbuilding. One house was found to be constructed in the 1940's and the other to be the historic Dove family house site dating from the mid-19th century. Excavation on the site in conjunction with research and the study of aerial photographs showed that the site was highly disturbed during the razing of the structures in the 1950's. The historic house site was found to have burned in 1927 and artifactual evidence confirms the report.

The cultural/botanical analysis of the site indicated the presence of decorative plants and assisted in defining the occupational patterns of the site. It also helped to interpret the site current condition and the previous use of the area.

During the initial testing of the prehistoric site three concentrations of lithic debitage were encountered. These concentrations were defined by further investigation and the entire site area was tested to detect other lithic concentrations. The three lithic concentrations were defined and two possible hearth features. The hearth features were investigated and mapped with inconclusive results.

The three lithic concentrations were intensively investigated and revealed three separate lithic manufactures areas from the Late Archaic. The concentrations represent three separate events in the manufacture of





projectile points that were undisturbed by cultivation or development. Careful examination of contour maps, graphic reconstructions, and analysis of the artifact catalog on a data base indicate several specific cultural activities.

Along with these two sites, two storm drain outfall corridors were investigated near the southern boundary of Parcel Band revealed a limited cultural occupation along the creeks floodplain.

As a result in an engineering change for the storm water management a pond is planned for construction near the southeast corner of Parcel B. This area was shovel tested and subsequently test excavated and revealed an occupation

To help the reader or researcher who is using this text the appendices have been subdivided with the use of dividers with tabs and the individual subsections divided by sheets of colored paper. Located on the cover sheet for each appendices is a listing of its contents. Also, a computer disc containing the artifact catalog for the Stonegate I (44AX166) in a dBase III format is enclosed so that further analysis by artifact groups can be conducted.

It should be noted that five oversize maps are listed as Appendix F are in a sepearte 24 inch long map tube.

The Public Summary has been included as Appendix J near the end of the appendices.

PREHISTORIC CONTEXT

Introduction

In this chapter the prehistoric context for the site is reviewed. The basic approach taken here follows that of Fairfax county (Johnson 1986) but with some revisions and a focus on Alexandria. This chronology also emphasizes the Coastal Plain as Alexandria is in that geographic region. Other areas are discussed as needed. The overall conceptual perspective is an environmental-ecological one as is typical of prehistoric archeology in the Middle Atlantic region. This chapter begins with an overview of the climatic and environmental changes during the last 10,000 years. This is followed by sections on the various cultural periods. The Contact period, even though it is a brief 100 years, is given fuller coverage because more is known and speculated about it.

Several published overviews can be found that cover the topics presented here. Schmitt (1952) wrote the first thorough overview for the region. The Archaeological Society of Virginia has recently published a four volume set on Virginia prehistory (Reinhart and Hodges 1990, 1991, 1992; Wittkofski and Reinhart 1989). Potter (n.d.) has a book in press covering the rise of the tribes and chiefdoms of the Potomac valley. Stephenson's (Stephenson, Ferguson, and Ferguson 1963) classic report contains most of the useful artifact descriptions used by local practitioners. Gardner (1986) and Humphrey and Chambers (1985) have written popular accounts of the area's prehistory. All of these are useful resources. The presentation given here is a little different in that the usual Paleo-Archaic-Woodland period format is not used; reasons for this are given in a later section. Overall, though, the information contained here is not inconsistent with what has already been reported elsewhere.

Ecological Overview

General Physical Setting

The project is situated along the boundary between the Piedmont Uplands and Coastal Plain physiographic provinces which also coincides with the approximate boundary between the tidal and fresh water Potomac River. In this position it offered any prehistoric inhabitants relatively easy access to the diverse resources of two dramatically different physiographic zones and of two distinctly different types of riverine habitats: an entrenched fresh water river and a broad, shallow estuary. Not only were the diverse zones attractive to prehistoric hunter-gatherers, but also the boundary itself offers unique opportunities for subsistence and historic cultural and economic interaction.

Figure 3 depicts the general northeast-southwest orientation of the physiography and the Fall Line. The eastern most province contains unconsolidated sediments of the Atlantic Coastal Plain, which consist of silt, sand, gravel, and clay. The gravel has been found to contain important quantities of quartz and quartzite which could have been used by prehistoric peoples (Johnson 1979). The naturally occurring gravels have also been, and are currently being, quarried for concrete and other historic uses. These deposits overlay Piedmont bedrock in a wedge shaped formation which gradually thickens toward the southeast (Johnston 1964:6,9). The topography is generally flat with deeply cut stream valleys dissecting the uplands in the west and gradually broadening toward the east and south.

The Piedmont Uplands, which is a 15-20 mile wide band of highly metamorphosed bedrock containing quantities of quartz and soapstone, both useful for prehistoric and historic inhabitants, forms the "backbone" of Fairfax County, west of Alexandria. This province is underlain by resistant bedrock, and, is characterized by higher topographic relief and elevation than the Coastal Plain. In a few areas, such as Tysons Corner, there are residual Coastal Plain deposits mixed with Bryn Mawr gravel, which provide stream cobbles to the small easterly flowing streams (Drake and Froelich 1977). These streams include Pimmit Run which empties into the Potomac below Little Falls (Potomac Fall Line), Four Mile Run which empties into the Potomac south of National Airport, and Holmes Run which empties into the Potomac as Hunting Creek on the southern boundary of Alexandria. These interior cobble sources would have been important to prehistoric occupants of the Piedmont-Coastal Plain boundary.

The diverse physiography appears to have an impact on climate, producing a noticeable contrast between that of, for example, the area of the Potomac above Great Falls and that of Mason Neck at the mouth of the Occoquan River. For example, annual rainfall in the former area averages about two inches more that it does in the latter area, and, the average annual temperature is about three degrees cooler in the north (Parsons, et al 1977:II-1, II-2). This distance is only slightly over 20 miles.

The Piedmont Uplands portions of the Potomac River above and for about seven miles below the Fall Line at Little Falls is characterized by a relatively deeply entrenched river with only minor terracing along its southern (Virginia) bank. Terraces, generally small, occur mostly at the mouths of the many small tributaries entering the river. Steep, rocky bluffs and narrow alluvial and colluvial terraces generally characterize the shoreline from Great Falls to Spout Run at Rosslyn. Great Falls and, to a lesser extent, Little Falls provide natural barriers to waterborne transportation and commerce into the interior.

The upper tidewater estuary of the Potomac, bordering Arlington, Alexandria and Fairfax County, offers a very different picture. Current estimates are that it was not until about 7000 years ago that the present Fall Line was established (Gardner 1980:3). Prior to that time the Fall Line would



Figure 3 Physiography of Northern Virginia.

have been further downstream. Probably a significant terrace system would have existed in the presently submerged tidal areas along the current Potomac channel below Washington, D. C. The archaeological implications for this will be discussed later. Ecologically, such conditions would have created wetland resources different than those present today. They may have been similar to those along the present Piedmont Potomac. Current conditions probably took several thousand years more to be achieved. The presence of a nearly exclusive Savannah River-Homes cultural episode and, then, later habitation sites along the current shoreline indicate that relative environmental stability may not have been achieved until approximately 4500 B.P. (B.P.= "years before present"). This is consistent with the climatic picture provided by Delcourt and Delcourt (1981) as discussed below.

Climatic Setting

Three main sources have been consulted for climatological information (Table 1). These are Delcourt and Delcourt's (1981) overview for the Eastern United States, Carbone's (1976) study of the Shenandoah Valley and Dent's (1979) study of the Upper Delaware Valley. Delcourt and Delcourt (1981) are used for a broad context. Although neither Carbone (1976) or Dent (1979) really represent prehistoric conditions for Alexandria, the Shenandoah Valley study -- because it is closer--is useful for estimating climatic changes and their resultant effects on cultural and biotic communities in this area. Dent's work is presented because it shows a more northern, or cooler climate, than the Shenandoah Valley. This can be used as a contrast to help estimate conditions in Northern Virginia.

Table 1 shows the Paleo-climatic episodes hypothesized by Dent and Carbone within the overall framework provided by Delcourt and Delcourt (1981:138). Delcourt and Delcourt's (1981:148-152) vegetation maps and analysis, which provide the foundation for their climatic reconstruction, place the Northern Virginia area within a jackpine-spruce forest zone by 14,000 B.P., a mixed conifer-northern hardwoods zone by 10,000 B.P., a boundary zone between oak-chestnut and oak-hickory-southern pine by 5000 B.P., and the same oak-hickory-southern pine and oak-chestnut boundary at 200 B.P. The most difficult part of this model for archaeologists to come to a consensus on is the period 14,000-10,000 B.P. when the biological communities were increasingly coming under severe stress due to accelerating climatic change. Butzer's (1971:144) often cited warning that there may well be no modern analogue for Late Glacial environments needs to be considered; prehistoric environments may have been much more varied and richer than the modern northern latitude counterparts are because of the effects of lower latitude solar radiation.

Regarding the regional climatic conditions as defined by Carbone (1976) and Dent (1979), note that the dates for the pre-Atlantic episode for the Upper Delaware appear to be at least 500 years older than those hypothesized for the

Table 1. Paleo-Environmental Chronology for the Middle Atlantic Region (years Before Present).

9

Eastern North American Overview (Delcourt & Delcourt 1981:138)			Upper Delaware Valley	Shenandoah Valley	Dates of possible environmental stress (Carbone 1976:200)	
Dates (BP)	Period	Episode	(Dent 1979: 212-225)	(Carbone 1976: 181)	Transition	Years
16,500-12,500 Lat	e Glacial interval	Tundra	15,000-13,000			
		Late Glacial		-10,030		
10 500 0 000 0 1		Pre-Boreal	13,000-10,680	10,030-9,300		
12,500-8,000 Early-Holocene interval-		Boreal	10,680-9,211	9,300-8,490	Boreal/Atlantic	9,135-8,700
		Atlantic	9,211-4,610	8,490-5,060	Atlantic II/III	7,000
8,000-4,000 Mid-H	000-4,000 Mid-Holocene interval-		4,610-2,000	5,060-2,760	Sub-boreal/ Sub-Atlantic	3,000-2,600
(000 0 t to U lo		(Modern) Sub-Atlantic	2,000-present	2,760-1,680	Sub-Atlantic/ Scandic	1,740-1,305
4,000-0 Late-Holocene interval-		Scandic/ Neo-Atlantic		1,680-850	Neo-Atlantic Pacific	850
		Pacific		850-present		

Shenandoah, and, the post-Atlantic dates are about 500 to 700 years later. This is important because it means that significant differences in plant and animal resources can exist between two similar areas separated by a relatively short distance (250 miles). At any one time these differences could have had significantly different effects on prehistoric cultural adaptation in the two areas.

Two changes in Carbone's climatic sequence have been made here. The Pre-Boreal and boreal episodes have been combined into a Pre-Boreal/Boreal episode. This was done because the two episodes represent a relatively rapid period of climatic change (Figure 4), which, for the purpose of studying cultural adaptation, is best looked upon as a unit. The second change has been to combine the latest three episodes (Sub-Atlantic, Scandic/Neo-Atlantic, and Pacific) into a Modern Episode. This was done for convenience and with the understanding that minor fluctuations have occurred. These fluctuations appear not to have altered the overall climatic trend. Their impacts on specific cultural trends, though, may have been more important and these will be discussed within the particular cultural periods described later. The use of a Modern climatic episode is acceptable because it is consistent with Dent's (1979:222) chronology and that offered by Gardner (1980:4) for Fairfax County, which should be applicable to Alexandria.

Specific Site Setting

The project area lies along the Piedmont-Coastal Plain boundary. Coastal Plain sediments dominate the landscape except in the deepest stream channels where the stream in places has cut down to the underlying bedrock. Since the Piedmont portions of the project area have been scoured by stream action they are not relevant to the discussion of impact on potential heritage resources. The Piedmont bedrock adjacent to this part of the Coastal Plain is gneiss which, though it has been historically mined for road and building material, appears to have had no prehistoric exploitation within the project area.

The sediments of the Inner Coastal Plain contain large amounts of useful cobbles and gravel. These gravel consist mostly of very hard quartz, quartzite, and chert. Prehistoric populations exploited these cobbles throughout the Inner Coastal Plain of Northern Virginia. Of particular note are the prehistoric sites around Mt. Vernon Springs (Johnson 1979), prehistoric cobble exploitation in Mason District Park, which is three miles to the west (Sorensen 1978), the Elliott Site (Reed 1991), and prehistoric cobble exploitation in a tributary of Holmes Run less than a mile to the southwest (Johnson 1992: personal communication). Therefore, it is likely that similar activity would be evident in the project area. Historic gravel quarrying does not appear to have occurred on the project area.

For many years there has been a tendency to write off upland terraces in the Coastal Plain as having no potential for deeply buried or stratified



Precipitation during the growing season

Figure 4 Comparative precipitation and temperature chart for the Shenandoah Valley (from Carbone 1976:91, 93). Note that it uses current conditions (left end of graph) as the baseline for comparison.

cultural material. However, several new sites located within the last five years--the Higgins Site (Ebright 1989) and the Upper Wolftrap Complex (Moore 1990a, 1992) -- have clearly demonstrated that geological and/or climatological processes have buried upland sites in the Inner Coastal Plain. The actual conditions and soil types where this tends to occur have not been identified but are of interest as a research topic. The stratified components have generally occurred within two feet of the surface and deeper deposits cannot be ruled out. The soils of this project area contain coarse cobble deposits within two feet of the surface, which, in the areas where those cobbles occur, would be less likely to contain buried archaeological deposits. These deposits have not been present on the Higgins and Wolf Trap sites.

Prehistoric Cultural Overview

Introduction

Regarding a cultural framework (model) to use in organizing prehistoric archaeological data in Northern Virginia, the traditional Paleoindian-Archaic-Woodland (PAW) trinity and associated Early-Middle-Late subsets will not be used here. They are included as reference points for those unfamiliar with the Fairfax County model, which is being used (Table 2 and 3).

Although the PAW model is a generally acceptable device for communication between regional archaeologists, not all researchers depend on it (eg. Custer 1984:30; Gardner 1989:6; and Johnson 1981:Table 2, 1986:8, 1992:Table 1). The PAW model was initially designed to reflect different patterns of culture and human behavior. However, its principal basis is in artifact typologies which are used as temporal markers. This gives the model a temporal not cultural connotation. This is considered a severely retarding factor in understanding more general and complex cultural processes and traits.

Specific rationales for the cultural periods defined in Tables 1 and 2 are contained in the Cultural Setting section that follows. The terms "Cultural Period" and "Subsistence (emphasis)" heading the columns of Table 2 are adapted from Binford (1982). "Paleoindian I" and "II" are derived from Gardner (1989:6). The remaining adaptations regarding the Early Agriculturalist period and the Early European Settlement period come from Johnson (1986:8; 1992:Table 1). Terms like First Virginians, Hunter-Gatherer, Early Agriculturalist and Early European Settlement are clearer to the general public and passing students. And they are more accurate terms for describing what was going on.

In reviewing possible alternatives, it was decided that a framework for a cultural model should reflect broad patterns of culture. Hopefully this would make the model more stable. It is recognized that cultural changes are not isolated and that environmental change is an important variable Table 2. Hypothetical Native American Cultural Overview for the Middle Atlantic Region (as of November 1992).

Cultural Period

Subsistence (emphasis)

Foraging (hunting-

possible big game

emphasis)

Foraging

Foraging

- I Paleoindian I or First Virginians (-7,410 B.C.)
- II (Paleoindian II
 ("Early Archaic")
 (7,540-6,010 B.C.)
- III Hunter-Gatherer I
 ("Middle Archaic")
 (5,860-3,100 B.C.)
 - IV Hunter-Gatherer II Collecting
 ("Late Archaic" and
 "Early and Middle Woodland")
 (2,750 B.C.-800 A.D.)

Diagnostic artifacts

Clovis/Mid-Paleo points Dalton points Hardaway points

Palmer/Kirk points Kirk stemmed points Bifurcate points

Stanley points Lobate points Morrow Mtn/Stark points Guilford points Halifax points

Savannah River points (Holmes/Bare Island points) Susquehanna points Calvert points Rossville/Piscataway points Fox Creek points Triangular points Soapstone bowls Bushnell/Marcey Creek pottery Selden Island pottery Accokeek pottery Popes Creek pottery Mockley pottery

Small Triangular points Shepard pottery Rappahannock/Townsend pottery Potomac Creek pottery

Triangular points Rappahannock/Townsend pottery Potomac Creek pottery Cottage ware ("Colono") pottery European trade goods Bifacial gunflints

V Early Agriculturalist ("Late Woodland") 800-1,607 A.D.

Collecting/Producing

VI European Invasion ("Contact") (1,607-1,750 A.D.) Collecting/Producing

Table 3. Current Cultural Chronology for Northern Virginia Prehistory (as of November 1992)

Period	Diagnostic Point Types	Dates (from Gleach 1985*)
I	Clovis/Mid-Paleo (fluted point) Dalton (fluted point) Hardaway (notched fluted point)	9,100-7,600 B.C. (Northeast dates) 8,250-7,180 B.C. (Missouri dates) 7,410 B.C.(?)
II	Palmer/Kirk (corner/sidenotched point) Kirk (stemmed point) Bifurcate (notched stem point)	7,540-6,200 B.C. 7,190-6,635 B.C. (New York dates) 6,870-6,010 B.C. (incl. St.Albans, Lecroy and Kanawha)
III	Stanly/Neville (stemmed point) Lobate indented base point (sidenotched) Morrow Mountain (contracting stem point) Guilford (lanceolate point) Halifax (corner/sidenotched point)	5,860-5,440 B.C. Relative dating only (Moore 1990) 5,300-4,500 B.C. ca. 4,000 B.C. (Justice 1987:141) 3,100-3,900 B.C.
IV	Savannah River (stemmed point) Holmes/Bare Island (stemmed point) Susquehanna Broad (broad corner notched point) Calvert (stemmed point) Vernon (corner notched points) Rossville/Piscataway (lanceolate point) Fox Creek/stemmed/lanceolate point) Triangle (triangular point)	2,750-1,630 B.C. 2,155-1,850 B.C. (Va. & Pa. dates) 1,785-855 B.C. (Pa. & New England dates) 1,160-1,070 B.C. (Virginia dates) relative dating only 480 B.C270 A.D.(Northeast dates) 340-410 A.D. 335-1,690 A.D.
٧	Triangle (small triangular point)	335-1,690 A.D.
VI	Triangle (small triangular point) Iron/Glass points (triangular) Gunflints (bifacial)	1,610-1,750 A.D. (estimate) 1,607-1,750 A.D. (estimate) 1,610-1,750 A.D. (estimate)
	Diagnostic Pottery Types (From Egloff	and Potter 1982)
IV	Bushnell/ Marcey Creek (soapstone temper) Selden Island (soapstone temper) Accokeek (sand/grit temper) Popes Creek (sand temper) Mockley (shell temper)	1,300-800 B.C. 900 B.C. 800-300 B.C. 500-B.C200 A.D. 200-900 A.D.
V	Shepard (crushed quartz/sandstone temper) Rappahannock/Townsend (shell temper) Potomac Creek (sand temper) Moyaone (grit temper)	900-1,400 A.D. (Curry & Kavanagh 1990:20) 945-1,590 A.D. 1,300-Pre-1,700 A.D. 1,310-1,460 A.D. (Waselkov 1982:258)
VI	Cottage ware (sand, grit, and no temper)	1,607-Pre-1,750 A.D.
*Oldest	and latest dates deleted.	

influencing culture. As a result of this, and the poor quantity and quality of cultural data available, a great deal of emphasis here has been devoted to reconstructing the natural environment. As the local data base of archaeological sites grows in quantity and quality, the balance between environmental and cultural variables used in this model can become more even.

Since culture is not only reflected in relatively static patterns, but also in dynamic processes, other, more reliable chronological frameworks also are needed to help order changes in the archaeological record. One such backdrop for cultural process can be climatic episodes (Table 1) which have been worked out by Carbone (1976) for the region. These are discussed in conjunction with the cultural periods that follow.

Table 2 represents two aspects of the model: one for diagnostic types and the other for subsistence emphasis. Note that the PAW model has been included as a reference point. The diagnostic aspect not only reflects artifact changes but also it can represent changes in other cultural patterns. Such a typology is essential because stone artifacts and ceramics are by far the most common diagnostic prehistoric remains. They provide a chronology. As cultural markers they have inherent weaknesses. The point and ceramic typologies also only represent a portion of the potential diagnostic types that may be observed in Northern Virginia, and, in some cases, the types presented are neither clearly defined nor strongly represented in the region. In those poorly represented cases, the types may represent a distant culture contact that had only a limited influence on cultural patterns in this area. If that is the case, it is possible that unidentified types represent cultural phases that were more active in Northern Virginia and have not yet been temporally placed.

The subsistence aspect of the model is an attempt to go beyond artifacts and use the available data to offer hypotheses about cultural patterns. It is based on reviews of the works of many other archaeologists and a preliminary assessment of site distributions in Fairfax County, which should be applicable to Alexandria.

First Virginians or Paleoindian I (9500 - 7410 B.C.)

This period represents the earliest known human activity in the Middle Atlantic region (Johnson 1985). Its beginning dates are not known, but the major thrust, as represented in stone tools, appears to have begun around 9500 B.C., near the end of the Late Glacial climatic episode. Stone tools tended to be made from very high quality stone with what appears to have been a gradual shift to more local stone sources. Dated sites even from this early period are rare, but the region has produced numerous stone artifacts which are the diagnostic markers for the people who may have been the first Americans as well as the first Virginians. The people who made these tools entered a region in which the climate did not resemble the one we live in today. The general environment was also significantly different, as the term "Late Glacial Episode" indicates. The most outstanding feature was the Wisconsin polar ice cap, which, during its maximum southern extent (Full Glacial Episode), reached down to and covered Northern Pennsylvania (Figure 5). Although a warming trend was underway by the time the first Paleoindians arrived, the retreating glacier remained close enough to profoundly influence the regional and local environment. As shown in Table 1 and Figure 4, the climate appears to have been cooler and wetter overall, but this was especially in the summer. Snow fall in the winter should have been greater and lasted longer than it does today. The resultant increase in surface moisture probably was greatly magnified by a greater percentage of cloud cover which would have reduced solar induced evaporation (Gardner 1983:Personal Communication).

The varied topography of the region (mountains, piedmont, and coastal plain) could have produced a wide range of ecological habitats, ranging from tundra conditions at higher elevations in the Appalachian Plateau and Blue Ridge, through spruce-pine parkland and closed boreal forest in the mountain valleys and piedmont, to a mixed spruce-pine-deciduous forest in the Atlantic Coastal Plain. With such floral diversity found within a linear distance of less than 200 miles, it is likely that a wide range of animals were also present. This variety could have included such species as caribou, nearer the mountainous areas, moose, mastodon, bison, elk and large bear near the edges of the more closed forest areas, and mastodon, deer and bear in the mixed conifer-deciduous forests. Many paleo-environmentalists feel that the regional environment was a mosaic of habitats with local diversity being the rule (Gardner 1980:8; Whitehead 1973:638). It also has been proposed that this environment, would have been similar to that found in Canada and Northern New England today, but actually has no modern analogue and it may have been much richer then than paleo-environmentalists can reconstruct (Butzer 1971:144).

Archaeologists differ on whether the first stone tool-making people in the region were "big game hunters" or "general foragers," who hunted small game and gathered wild plant and aquatic resources in a more daily cycle (Binford 1980:9). Considering the diversity and richness of the environment it is likely that they were both, depending on the time of year and social organizations of the groups. For example, caribou may have been a seasonal resource in parts of the region or may have been acquired during seasonal moves out of the area.

Furthermore, organization of the bands may have divided labor along sex and age lines, with women and elderly people foraging while adult males hunted larger animals.

While it appears that the environmental changes were being pushed by a rapidly moderating climate (Figure 4) and an increase in southern plant and animal species at the expense of northern species, cultural changes are more difficult to define. Changes may have been more rapid in the southern part





Maximum southern extent of full glaciation during the Wisconsin Episode in Eastern North America (redrawn from Whitehead 1973:628) of the region than in the north, where, because of a lingering cold climate, the older lifeways could have remained viable for a longer period of time. By the end of the period the temporally sensitive artifacts, like points (probably spear points), evolved in the south into something almost totally different than what were being used at the beginning of the period. This evolutionary sequence is not well represented in the north where the original forms seem to have persisted for a longer period of time. Hypothetically these changes, which, as a note of caution, are reflected only in hunting-related artifacts, were the result of adaptations to a changing environment. Since very little is known about the culture of these people, archaeologists cannot go much beyond subsistence and group size related hypotheses.

The Late Glacial climatic episode is also the time of earliest known human activity in Northern Virginia. It is possible that biological conditions in the area at that time would have been similar to those postulated for the lower elevations of the Shenandoah Valley. This could have involved

a mixed conifer-deciduous forest on the valley floor and foothills, boggy areas around . . . lower floodplain situations, and mixed deciduous gallery forests along the rivers, possibly composed of oak/hornbeam (Carbone 1976:185).

The actual floral mix for Northern Virginia piedmont may have been a cross between the above conditions and that which would have existed in the Coastal Plain, which should have had a slightly milder climate. This could have involved a conifer-dominated forest with significant deciduous elements being present, probably in more sheltered areas. Open grasslands and/or meadows also could have been present (Gardner 1980:4).

Gardner (1980:3) also hypothesizes that the Culpeper Basin, which is in Loudoun, and western Fairfax and Prince William Counties, may have been wetter and more poorly drained. The soil and bedrock conditions there, plus climatic conditions favorable to high surface moisture, would tend to support that contention. The stream flow and water table conditions in the Piedmont and Coastal Plain should have been high as well. Erosion of the less stable Coastal Plain and Tysons Corner sediments should have been more excessive than in the Piedmont.

Such a wet, highly diversified environment could have supported a varied fauna. Within Northern Virginia it is likely that moose, elk, deer, bison, and mastodon were available to hunters, and, a wide range of small fish, game and plant resources were available to general foragers. The regional diversity also would have made it possible to travel a relatively short distance to the mountains in the west to hunt caribou and other animals adapted to tundra edge conditions.

Tables 2 and 3 represent the best available cultural chronology for Northern Virginia. They reflect the temporally sensitive artifact changes (point sequence) which characterize the archaeological record for the southern part of the region. Figures 6, 7, 8 and 9 depict examples of each point





Green prase

0<u>1</u>2 Centimeters





 \bigcirc

Brown chert





Clovis-like points.



Jasper (Thermally altered)

÷





Quartz

Figure 7 Mid-Paleo-like points.

20



Jasper (Redrawn from photograph)

õ 2 Centimeters





Not ground

Jasper (Thermally altered)



21



as found either in the Northern Virginia area or a short distance away. The following discussion is keyed to the chronological sequence in Table 2.

The four point styles pictured in figures 6 through 9 represent time markers, or diagnostics, for the evolution of points. They do not necessarily reflect corresponding changes in other aspects of culture. The evidence does indicate that changes were, in fact, occurring. For example, one Dalton and only two Hardaway points have been reported from Northern Virginia, east of the Blue Ridge. The earlier Clovis and Mid-Paleo points are more common, but still relatively rare. The virtual absence of Dalton and Hardaway points may indicate that the county was largely deserted after the Mid-Paleo phase, as the open areas were replaced by a less productive sprucepine forest.

This is not the only possible explanation for this difference. Preservation factors may contribute to archaeologist's poor knowledge about the Paleoindian I period. Post-Glacial sea level rise, the damming of the Occoquan River, and sedimentation and scouring in the Potomac River piedmont may have obscured or destroyed many of the remains. During the Late Glacial climatic episode sea level was some 300 feet lower than it is today (Hardaway and Anderson 1980:1). As a result, present tidal estuaries outside the main channel of the Potomac River would have been available for habitation. These areas now are largely destroyed, but the potential for residual traces of a site still needs to be assessed. A similar situation exists along the Occoquan River where the reservoir now covers large alluvial terraces which also could contain traces of the First Virginians. Similar thick terraces along the Potomac River piedmont offer the same potential, but have never been fully tested. As a result, little is known about how these people used Northern Virginia's main waterways.

Potential Site Parameters

Extensive work, in response to random suburban development pressures in the upland-interior portions of Northern Virginia, has produced sparse evidence of these early inhabitants. Whether that represents a universal trend for the region or reflects survey bias in favor of unoccupied areas, is a major question for understanding the Paleoindian I period.

The potential data base for this period would consist mainly of (but not limited to) the following kinds of archaeological resources:

 Isolated artifact finds consisting of a single point or a diagnostic tool indicating a cultural presence in the vicinity of the find. Such sites could be representative of various hunting related functions, but may not represent habitation or multi-purpose procurement sites. Without additional data little more can be said about them. Isolated points have been recorded from Tysons Corner (Moore 1990a), the upper Accotink Creek drainage, and the lower Occoquan River.



- 2. Lithic scatters consisting of artifacts made from potentially diagnostic raw material such as chert, jasper, chalcedony, or ortho-quartzite that can be identified with a specific diagnostic tool or dated site. The actual function of such sites is equally questionable because of the poor information that such sites contain. Such stone scatters may only indicate tool resharpening, when in fact, many other functions which are not evident in the archaeological record may have occurred on the site. Two sites, Upper Cub Run in Western Fairfax County (Johnson 1983b) and the Catoctin Site in Northern Loudoun County (Dent 1991), may represent more substantial types of sites, but poor integrity prevents their being identified properly.
- 3. Exploitive foray camps containing diagnostic points and/or tools and chipping debris of a distribution and/or artifact intensity which indicates a special function (e.g. kill site, quarry, etc.). As with lithic scatters relative functions are all that can be inferred from stone artifacts. For example, hunting may be indicated by a broken point, or the presence of small flakes of an imported material might indicate tool resharpening. If the flakes are of a stone type naturally occur on or adjacent to the site, it may be a quarry or workshop. Scraping and butchering or other processing stone tools that show use wear could represent a butchering or animal processing camp. The presence of fire cracked rock may also indicate food processing or possible habitation. The Fifty Site near Front Royal is the one recorded site that fits this category (Carr 1975).
- 4. Seasonal micro- or macro-social unit base camps containing diagnostic points, tools, and chipping debris which indicate short term or extended habitation by a small group or a meeting place for several small groups. (The definition for "small group" is to be developed). Sites possessing several different tool types and a concentrated or high density of artifacts may indicate long term occupation of the site. In such a case one would expect to see tools representing much of the range of functions that could be expected to be performed at a habitation site. However, in a disturbed context it is possible that such a site may represent many unrelated short term activities occurring at different times rather than one continuous occupation over several weeks or months. The Thunderbird Site (Gardner 1974) on the Shenandoah River can be placed in this category because it does possess the necessary integrity. There are no recorded Paleoindian I sites near the project area. However, the Higgins site (Ebright 1989) in Anne Arundel County, Maryland is in an upland Coastal Plain context similar to the project area. It and the Neha site near Tysons Corner (Moore 1990a, 1992), which produced an isolated Clovis point probably from a deep stratum, are clear evidence that Paleoindian I components are likely to occur in buried, undisturbed contexts on upland Coastal Plain terraces. Such terraces are a characteristic of the project area.

Paleoindian II or Early Archaic (7540 - 6010 B.C.)

This period appears to represent a continuation of the Paleoindian I theme (compare Johnson 1988). The major changes are represented by the appearance of notched and stemmed, serrated points, and continuation of the shift toward the use of local stone in tool manufacture. The quantity of sites also appears to increase markedly over time, culminating in a relatively high level of activity by the bifurcate point phase (Table 3). It is likely that the rapidly moderating climate and resultant diversification of plant and animal resources played a role in the cultural changes that were taking place (Johnson 1983a).

The warming trend that was beginning during the Late Glacial climatic episode accelerated rapidly during this period. It was coupled with a corresponding decrease in overall moisture (Figure 4). The terms for the types of climate occurring then are Pre-Boreal (8000-7300 B.C.) and Boreal (7300-6500 B.C.). The term boreal describes a northern environment associated with a closed spruce-pine forest. Such an environment, normally, is low in food resource productivity. It is likely, though, that because of lower latitudes and higher solar radiation the boreal forest then was somewhat richer than modern boreal forests in Canada (Butzer 1971:144). Hypothetically, the mosaic pattern that was present during Late Glacial times continued but with more southern hardwood plant species becoming prevalent at the expense of, first, tundra in the mountains and, later, spruce throughout the region. By the end of the period the southern part of the region, south of Pennsylvania, probably had a greater diversification of plant life than at any time since. An important note is that in the southern part, by the end of the Boreal episode, the climate had achieved precipitation and temperature levels comparable to those present today (Figure 4). In the northern part, with its cooler/drier climate, the evidence indicates higher percentages of spruce and pine.

For this southern part of the region the diversity of plant life should have produced an equally diversified animal life. Moose, bear, elk, deer, and possibly residual populations of bison, mastodon, and woodland caribou could have been present. The pine forest to the north and in the higher mountains of West Virginia and interior Pennsylvania probably supported sparser populations of large mammals. Figure 4 indicates a short period of climatic stability between 7000 and 6000 B.C. It is during that time that there appears to have been a distinct break in both the cultural and environmental continuity, which appears to have begun during the Late Glacial climatic episode. It is this break that marks the transition from the Paleoindian II period to the Hunter-Gatherer I period.

Technologically, the Paleoindian II period began with an apparent evolutionary shift in point forms from the notched-fluted Hardaway point (Figure 9) to the corner notched-unfluted Palmer/Kirk point (Figure 10). According to Gardner (1989) the evidence from the Shenandoah Valley


indicates that although there is a shift from fluted to notched points, the earlier site distribution (settlement) pattern appears to have persisted through the Palmer/Kirk point phase at least until the later Kirk side notched/stemmed point phase. As a result, the Palmer/Kirk through bifurcate point phases have been treated here as a sub-phase within the Paleoindian theme. Into whichever place these are put there is evidence that there were strong environmental and possibly also cultural factors that were creating stress on the human populations during this thematic period (Johnson 1983a).

A marked increase in apparent activity occurred with the shift from Palmer/Kirk corner notched to Kirk side notched/stemmed points. When combined with Gardner's hypothesized, concurrent, settlement pattern shift, the changes reflect what appears to have been a longer lasting cultural type, a more intense and possibly successful subsistence strategy, and/or a population increase. In the Northeast, New York, and northern Pennsylvania, this apparent cultural emergence is not well documented. It is possible that low productivity of the boreal forest that covered those areas at that time could not sustain large numbers of hunter-gatherers and, therefore, little evidence of their presence exists. It is also possible that the low number of sites from this period is the result of survey bias in favor of later villages, and Clovis and Mid-Paleo sites.

The final phase in this thematic period is represented by the Bifurcate point type, which appears to mark a peak in activity in the region (Johnson 1981; 1983a). Although some variation exists in point sizes, shapes, and flintworking quality, this point phase is being treated as one cultural horizon. Whether it reflects a significant change in cultural patterns from the preceding Kirk phase has yet to be determined. Probably the Bifurcate phase is only an evolutionary extension of the cultural patterns underway during previous phases. Its apparent increase in intensity over previous phases could reflect a successful refinement of already existing adaptive strategies. The occurrence of ground stone artifacts during this phase indicates a more intensive use of plant resources than was present during previous phases (Chapman 1975:161).

As mentioned previously, this peak in activity corresponds to the most diversified vegetational mixture present during the past 11,500 years. Figure 11 shows the comparison of oak, spruce and pine with the estimated 6500 B.C. (8500 years ago) time marker occurring where the three pollen curves intersect. This graphic indicates that the region possibly had a mixture of plant and resultant animal resources from both northern and southern climates. Central and Southern New England possibly serve as a partial modern analogue. The effects of lower latitude during this period, as with the previous Paleoindian I period, probably makes a true modern analogue difficult to identify.





Figure 11 Direct comparison of <u>Ouercus</u> (oak) with <u>Pinus</u> (pine) and Picea (spruce) pollen diagrams from Quarles and Hack Ponds near the Shenandoah Valley, Virginia (Carbone 1976: 48; redrawn from Craig 1969). Local Context:

During the Paleoindian II Period the cultural phases in Northern Virginia seem to have followed the chronological sequence that characterizes the southern part of the Middle Atlantic (south of New York and Northern Pennsylvania (Table 3)). Environmentally, for the Shenandoah Valley,

This period is characterized primarily by the expansion of coniferous and deciduous elements and a reduction in open habitats. The higher elevations shifted from tundra to subarctic woodland, coniferous forests of hemlock and pine probably characterized the slopes and ridges, while mixed coniferdeciduous forest of decidedly northern cast dominated the valley floor and foothills (Carbone 1976:186).

The boggy conditions possibly present in the interior parts of Northern Virginia during the Paleoindian I period probably would have continued but at a gradually lessening degree.

A similarly northern "conifer-deciduous forest" should have dominated the Northern Virginia landscape during the 8000-6500 B.C time period. Again, as with the Paleoindian I period, the local environment probably was slightly more southern in character than that occurring in the Shenandoah Valley. As a result, deciduous (broadleaf) plant elements should have been more common as one moved south and east through the Northern Virginia area. Alexandria should have had a decidedly more deciduous character to its forest cover than Loudoun County.

The presence of an increasingly higher percentage of fruit and nut bearing vegetation and, theoretically, an increasingly more diversified and plentiful animal population, could have supported a more marked shift from a hunting based subsistence to a more general resource procurement strategy by the local hunter-gatherers.

The point styles picture in Figures 10, 12 and 13 are the representative types (diagnostics) for each cultural phase during the Paleoindian II period. As with the Paleoindian I period, changes in them do not necessarily reflect corresponding changes in other cultural systems. For archaeologists they are time markers and manifestations of technological and/or stylistic change in point related systems, such as, for example, spears and spearthrowers (atlatls).

Based on the total quantities of each type of point and number of sites from each phase found in Fairfax County it appears that a rapid increase in point related activity was taking place during the period. For example, 12 points and eight sites from the Palmer/Kirk phase, 40 points and 13 sites from the Kirk phase, and 60 points and 28 sites from the Bifurcate phase were identified in that in May 1983 (Figure 14; Johnson 1983b). It is hypothesized here that those changes that are apparent from the archaeological record were influenced by the strong currents of environmental change to which they seem to correspond. The main problem with these data is that they reflect









Variety 2



0 1 2 L.L.J Centimeters

1.12





Quartz



Quartz



Quartz



0 1 2 Centimeters

Figure 13 Bifurcate-like points.



Figure 14 Total pre-5,000 B.C. points and archaeological sites by known cultural phase in Fairfax County (from sites located before May 1983) (Johnson 1983a:64)

primarily non-riverine sites. Therefore, whereas one can say that in the interior portions of the area significant changes in prehistoric cultural patterns appear to have been taking place during the Paleoindian II Period, this idea may not represent riverine areas, like Alexandria, until more data are available.

With the present Potomac River fall line possibly not having reached the Washington channel until 5000 B.C. (Gardner 1980:3), the problems of preservation and data recovery of Paleoindian II sites along the present tidal Potomac River is immense. The soil deposition problems from the fresh water Potomac above Little Falls are only slightly less than those from the Paleoindian I Period. The Occoquan Reservoir remains a problem for all but the latest sites.

Potential Site Parameters:

Although a relatively high amount of data is available from this period, its quality is not good because of the mixed condition of most uplandinterior sites. The Hobo Hill (44FX1517), Neha (44FX1561), and Wolftrap (44FX1516) sites are notable exceptions. Major questions concerning the function, size and components of these sites need to be addressed. Further work should be done on the sites in the Potomac and Occoquan floodplains. The potential site data base for this period could consist mainly of (but not limited to) the following kinds of archaeological resources:

- Isolated artifact finds as described above. Such finds are common in the Culpeper Basin and Piedmont Uplands and less common in the Coastal Plain where significant potential activity areas are now underwater.
- 2. Lithic scatters consisting of non-functionally identifiable artifacts (flakes and shatter) in association with a diagnostic point or date from this period. The shift to a more general stone preference, including quartz, quartzite, and rhyolite, as well as chert, makes basing an assignment of a site to this period upon stone type alone questionable. The Upper Wolftrap Complex (Moore 1990a) offers the best location found to date for isolating this kind of site.
- 3. Exploitive foray camps containing diagnostic points and/or tools and chipping debris of a distribution and/or artifact intensity which indicates a special purpose function (e.g. kill site, quarry, etc.). Again, the Upper Wolftrap Complex is the best available candidate for finding an undisturbed example of this kind of site in Northern Virginia. The Langert Quarry Workshop (44FX1788) in Western Fairfax County appears to be an example of this kind of site (Flanagan 1992). Thunderbird (Gardner 1974) is a good example of either this or a more complex site type available in Northern Virginia.

- 4. Seasonal micro-social unit base camps containing diagnostic points, tools, and chipping debris which indicate short term or extended habitation by individual small groups. Sites possessing several different tool types, and a concentrated, high density of artifacts may indicate a relatively long term occupation of the site. In such a case one would expect to see tools representing much of the range of functions that could be expected to be performed at a habitation site. However, in a disturbed context it is possible that such a site may represent many unrelated short term activities occurring at different times rather than one continuous occupation over several weeks or months. The closest potential for sites of this type is the Upper Wolftrap Complex, and again, Thunderbird is a type site.
- 5. Short term micro-social unit base camps containing diagnostic points, tools, and chipping debris which indicate short term habitation by several small groups at one time. These may be termed general or special purpose fusion camps. Each artifact concentration would consist of the range of artifacts appropriate to a micro-social unit base camp, and the complex would be related by topographic features (vicinity), and by diagnostic artifacts, tool and raw material. Here, as with the micro-social unit base camp, it is possible that such a site may represent many unrelated occupations occurring at different times, and that none of the features were occupied concurrently. Again, Thunderbird is the most likely candidate for a site of this type.

Hunter-Gatherer I or Middle Archaic (5860-3100 B.C.)

Unlike the preceding period, the Hunter-Gatherer I period does not appear to reflect a continuation of the previous cultural theme. Although it is possible that the people who were represented by the Bifurcate phase did not disappear along with the cultural traits represented in their stone tools, the present archaeological record from the Middle Atlantic indicates that significant and possibly rapid changes took place by 6000 B.C. (Broyles 1971; Chapman 1975; Coe 1964). In New England the changes appear to have been more gradual (Snow 1980).

The pollen records for the Shenandoah Valley indicate that the warming trend that had slowed during the Bifurcate phase resumed during the early parts of the Hunter-Gatherer I Period (Figure 4). The change is inferred from the rapid decrease in pine and spruce pollen with an eventual disappearance of spruce (Figure 11). The result appears to have been the achievement of an essentially modern forest by 7500-8000 years ago (5500-6000 B.C.). Modern forest conditions also appear to have been achieved in New England (Snow 1980:173). Generally, the new climatic conditions are called the Atlantic-Xerothermic Interval and lasted until ca. 3000 B.C.

These relatively warm-dry conditions (Figure 4) could have been accentuated by increased solar radiation and the resultant increased evaporation (Gardner 1982:personal communication). Therefore, conditions in the interior, away from major freshwater sources, such as rivers, could have been much dryer than today. For example, the rate of evaporation can have an important impact on the water table and, therefore, the rates of flow from live springs and streams in the uplands. These are significant factors for animal as well as human populations. A retarding influence on such drying conditions is beaver activity which creates wetlands.

Evidence from pollen samples recovered from the upper Delaware River Valley indicate the possibility of forest fires being more common, possibly as a result of the dryer conditions present during this climatic episode (Dent 1979:220). If forest fires were common then it would be difficult to predict the specific plant and animal communities in any part of the region at any time during the period.

One general factor seems to be fairly certain: the vegetational conditions were not suitable for animals which are adapted to boreal or tundra edge conditions. Deer, bear, and smaller animals should have been common, with a possible presence of bison and elk in open grassy areas when and where they occurred. Moose, woodland caribou, and mastodon probably disappeared well before by 5500 B.C., possibly even as early as the Paleoindian I Period.

Technologically, the Hunter-Gatherer I period appears to have begun with a shift from Bifurcate point forms with their small size, notched base, and serrated edges to the Stanly point (Figure 15) which is relatively large, lobate stemmed, and generally unserrated. In New England Bifurcate points appear to have evolved into a larger, unserrated from, called Neville, in some areas (Snow 1980:164). At the St. Albans site in West Virginia points similar to Stanly appear after the Bifurcate point type in forms that could indicate an evolutionary sequence (Broyles 1971:49, 58). These points, referred to as Kanawha Stemmed at St. Albans, closely resemble, in form and chronology, the Stanly points reported in North Carolina by Coe (1964:36).

The low level of research on this apparent shift makes reasonable explanations for the technological changes premature. For Northern Virginia, placing the Paleoindian II/Hunter-Gatherer I transition between the Bifurcate and Stanly/Neville phases is based more on an apparent settlement pattern shift inferred from site quantities than from changes in point typologies gleaned from external sources. This shift is discussed in detail below.

Moore's (1990a, 1992) excavations at the Neha site (44FX1561) placed Lobate based, quartz points (Figure 16) at and above bifurcates and below Halifax notched points. This new type of point previously had been found in disturbed surface contexts where dating was impossible. Prior to its discovery in relatively good context at the Neha site, the low frequency of examples from the accepted point sequence indicated very low cultural activity in the Northern Virginia area throughout the Hunter-Gatherer I Period (Johnson





Quartzite



Figure 15 Stanly-like point.





Quartz

Ground

Qua

Reworked



Quartz



Polish ?



Lobate-like points.

1981:11; 1983a:69, 71; 1986:P3-7, P3-11). The relative dating of this common point type to this period completely alters the previous view. Apparently the intensity of hunting and gathering activity in the region was consistent with the previous bifurcate point phase.

Some stylistic confusion appears to exist between Morrow Mountain points (5300-4500 B.C.) and variants of the Savannah River point type (Lehigh point in Pennsylvania) which occurred more than 2000 years later. In overall shape they are somewhat similar. This makes inferences from data found on plow zone or disturbed sites difficult. A similar problem exists with the Guilford point type (ca. 4000 B.C.) and larger variants of the Rossville/Piscataway point type (480 B.C.-270 B.C.). This problem is even more serious with Halifax and later Vernon points.

With the Morrow Mountain and Guilford point types the patterns that appear to exist also are taken largely from Fairfax County sources. The only regional settlement pattern information is from the Shenandoah Valley where sites from these phases appear to be located on floodplains in close proximity to river channels (Carbone 1976:189).

Halifax points have produced confusion among archaeologists in light of the fact that the most common point type in Northern Virginia is a quartz side or corner notched point with a heavily ground base and notches. This point has been defined by Coe (1964:118) in the North Carolina piedmont where he dated it to 3490-350 B.C. Based on excavations at the Neha site (Moore 1990a) it is clear that quartz Halifax notched points date to two separate time periods: before Savannah River, where Coe's Halifax type dates, and, apparently during the latter part of the Hunter-Gatherer II Period, between 1000 B.C. and A.D. 500. Until these points can be technologically or stylistically separated there is little that can be said about the Halifax phase, except that it is present in the region.

Initially, the Hunter-Gatherer I period was thought to be in marked contrast to the previous Paleoindian II period, especially with regard to its terminal Bifurcate phase. The number of sites producing points from the Stanly, Morrow Mountain, and Guilford phases (Figures 15, 17, and 18) drops dramatically when compared to the earlier Bifurcate phase points. The lack of firm date ranges for the Lobate point type mentioned above--the Neha site produced only relative dating--leaves many questions about the Hunter-Gatherer I period unexplained. For example, if Lobate points lasted throughout the period how can the other point types be explained? If the Lobates only lasted a short time then why is there a drop in the numbers of Stanly, Morrow Mountain, and Guilford points and sites?

Environmentally for the Shenandoah Valley, the Hunter-Gatherer I Period saw the expansion of oak-hickory forests along the hillsides and valley floors along with the reappearance of grassy open areas (Carbone 1976:189). These general conditions, if present in the valley, also should have been present in the Piedmont and Coastal Plain physiographic provinces of Northern Virginia. It is possible that, like today, Northern Virginia's climate would have been slightly warmer than that in the Shenandoah Valley. As a





Metamorphosed quartz

0 1 2 Centimeters

Figure 17 Morrow Mountain-like point.









.

1400 L

Quartzite Variety 1



Variety 2



result, the plant community could have been dominated by deciduous trees. If the forest fire hypothesis for the upper Delaware River Valley is valid for the Virginia and Maryland Piedmont and Coastal Plain then, at times during the period, grassland and thicket-like habitats would have been common.

As a result, in an area of such apparent plant diversity, larger herd animals like bison and elk could have been present in unidentified quantities in burned over areas or where grasslands persisted. These would have supplemented the deer, bear, and other smaller animal resources that are common to deciduous forests. The hypothesized lower amounts of water resources in upland and interior zones may have fostered more open habitats in those areas as well, with forested habitats occurring in better watered zones, such as floodplains.

The problems of terrace build-up in the freshwater Potomac, and inundation in the Occoquan River and the tidal portions of the Potomac River, noted in the discussion of the preceding two cultural periods, appear to be applicable to the Hunter-Gatherer I period, too. Sites from this period should be shallower in the freshwater terraces and closer to the present shore line in the tidal portions of the Potomac River. Discovery of undisturbed sites in the small interior stream valleys is extremely important.

Potential Site Parameters:

The potential site data for this period would consist mainly of (but not limited to) the following kinds of archaeological resources:

- Isolated artifact finds consisting of a single point or a diagnostic tool as described above. Numerous isolated Lobate points have been found in the area, but Stanly, Morrow Mountain, and Guilford finds are rare. Not much can be said about Halifax points until they can be accurately separated from similar later forms.
- 2. Lithic scatters consisting of non-functionally identifiable artifacts in association with a diagnostic point. Assigning sites to this time period based on stone types alone is impossible at this time. The Neha site (Moore 1990a), which is destroyed, is the only Hunter-Gatherer I site with potential stratigraphy found in the local area, to date. Other sites in the Upper Wolftrap Complex potentially have similar stratigraphy.
- 3. Exploitive foray camps containing diagnostic points, and/or tools and chipping debris of a distribution and/or artifact intensity which indicates a special purpose function (e.g., kill site, quarry, etc.). Again, the Upper Wolftrap Complex near Tysons Corner is the only known area where such sites may potentially be found.



- 4. Seasonal micro-social unit base camp as described above. No potential sites of this kind have been found yet in the local area.
- Short term macro-social unit base camps as described above. No potential sites of this kind have been found yet in this area.

Of special note again is the fact that the Upper Wolftrap Complex is in an upland Coastal Plain terrace situation with relatively deep stratigraphy. This type of situation is present in the Coastal Plain of Alexandria.

Hunter-Gatherer II or the Late Archaic, Early and Middle Woodland (2750 B.C. - 800 A.D.)

This period appears to represent a distinct shift from the quartz technology, general foraging subsistence, and isolated subregional patterns that seemed to characterize the Hunter-Gatherer I period. The Savannah River phase reflects a shift toward a more generalized exploitation of stone with the preference being for more durable types such as quartzite, rhyolite, slate, and hornfels. Larger apparent macro-social unit base camp sites appear in the riverine and non-riverine areas, and the point technology may be more widespread. Regional interaction, possibly including trade, may also have become widespread. A general breakdown in the point-style derived chronology occurs later in the period, and for study purposes ceramics become a more reliable dating tool after 1000 B.C. (Table 3). The end of the period is marked by a possible settlement shift toward greater sedentism, particularly visible in the Coastal Plain, but possibly also along the Piedmont and Culpeper Basin portions of the Potomac and Occoquan Rivers. Larger interior (non-riverine) sites also are not uncommon.

The climatic conditions during the Hunter-Gatherer II Period marked a gradual cooling and more precipitous moistening trend that culminated in the achievement of a generally modern climate by 750 B.C. (Figure 4). Considering the inability to predict plant and animal population during the warm, dry Atlantic-Xerothermic Interval, it is difficult to assess the progress of change as the climate gradually became milder. Generally, it would be accurate to predict that, although short term fluctuations occurred, the trend was toward cooler and wetter conditions.

The pollen records for the Middle Atlantic region indicate an increase in pine at the expense of oak. Hickory in the piedmont and chestnut in the mountains continued to be present, while herbaceous pollens seem to diminish, indicating a reclosing of the forests. In the Dismal Swamp in southeastern Virginia the pollen record indicates a refilling of the swamp, which seems to have had a lower water level during the latter part of the previous Atlantic-Xerothermic Interval (Hunter-Gatherer I period) (Carbone 1976:56). As a result of these climatic and floral changes the animal populations in the region should have gradually stabilized becoming essentially modern in character. Deer, bear, and smaller animals could have become the main terrestrial prey species for human populations.

Several factors indicate a concurrent stabilization of aquatic and migratory bird populations. With the sea level having reached approximately modern levels by the beginning of the Hunter-Gatherer II period, migratory (anadramous) fish, such as shad, herring, and sturgeon could have been seasonally available in large numbers, especially at bottle necks like the falls. The creation of large expanses of open water in coastal bays and recently inundated rivers should have attracted migratory water fowl in increasing numbers as marshlands expanded. The seasonality and volume of plant and animal resources made available by this dramatic increase in wetlands appears to have been attractive to hunter-gatherers in the region, and could have encouraged a settlement pattern shift toward intensive riverine associated habitation at certain times and/or for specific subsistence-related purposes.

Based on present levels of knowledge there appears to have been a major cultural discontinuity (break) between the Halifax and Savannah River phases. Technologically the change was most dramatic. The flintworking technologies and raw material preferences for the two point types are distinctly different. Whereas, the Halifax phase produced a quartz tool assemblage identified with relatively small notched points (Figure 19), the Savannah River phase produced a largely quartzite tool assemblage dominated by moderate-to-large-sized stemmed points (Figure 19 through 22). Note that the Holmes phase point type is considered here to have been a variant of the Savannah River phase point type. The Savannah River and Holmes phase stone preferences were less specific than the Halifax phase preferences. For example, although quartzite was preferred for Savannah River and Holmes points in many areas, it is not unusual to find these points along with tools made of rhyolite, slate, siltstone, hornfels, and quartz. Most of the lithics used during the Savannah River and Holmes phases are available in cobble form throughout much of the Coastal Plain, to a lesser extent in the Piedmont and at primary and secondary sources in the Blue Ridge mountains. Both secondary (cobble) and primary (outcrop) sources appear to have been used.

Although early Hunter-Gatherer II Period artifacts appear in contexts similar to those that have produced Halifax phase sites, there is a distinctly new addition to the pattern. Savannah River and Holmes phase sites often are larger and more intense in both the uplands and along the main riverine floodplains. The large upland sites are of particular significance because they indicate an intensification of resources exploitation not characteristic of the Halifax phase (Reed 1991). Large and intense resource extraction sites from the Savannah River and Holmes phases also are present in riverine settings, but since few Halifax phase sites are well documented from riverine settings, especially in Coastal Plain areas, a comparison is not possible at this time. It is possible that many of the Halifax phase sites (small or large) in the riverine areas of the Coastal Plain have been destroyed by tidal action. Large portions





Metamorphosed quartz

0 1 2 L, L, J Centimeters

Figure 20 Savannah River-like point (variety 1).



Quartzite

0 1 2 L_____ Centimeters

Figure 21 Savannah River-like point (variety 2).



2 Centimeters

Figure 22 Holmes-like point. Basal grinding is not common. Generally grinding is confined to a short length of blade area on one or both shoulders.

of Savannah River and to a lesser extent Holmes phase sites appear to have met similar fates, with only the inland parts of these sites (furthest from the original shore) being left intact.

The occurrence of larger, more intensive sites with the Savannah River and Holmes phases indicates larger concentrations of people or more focused, logistically organized, resource procurement strategies. Both of these are characteristic of the collecting strategy described by Binford (1980:10-12).

These characteristics are more evident (maybe deceptively) after 1000 B.C., when ceramics become a major part of the tool kits. The presence of ceramics on sites creates its own set of analytical problems, especially when one tries to compare the artifact densities of such sites with earlier sites from phases when ceramics were not used. In terms of artifacts, ceramics are survivors, they are durable, whereas what they may have replaced (e.g., wooden bowls, baskets, hide bags, and tortoise shells) usually are not. As a result, trying to compare ceramics, which represent one type of cultural activity, with points, which represent another, is a classic case of mixing apples and oranges.

In the Middle Atlantic region the first containers which become part of the archaeological record are not ceramics but soapstone bowls. And these appear to be associated with the latter part of the Holmes phase. They have been dated to before 1000 B.C. and are rapidly followed by two possibly related types of ceramics, Marcey Creek and Selden Island (Table 3). The Marcey Creek ceramics are similar in vessel form to the earlier soapstone bowls (Figures 23 and 24) and they are tempered with soapstone. Those types most likely to be found within Alexandria are briefly described below, based on Egloff and Potter (1982).

Ceramic Types

<u>Marcey Creek</u>: this ware was defined for as group of ceramics excavated at the Marcey creek site in Arlington (Manson 1948). A plain variety exists which is tempered with soapstone. Vessels are coil constructed and take the forms of the earlier soapstone bowls. Selden island Cord Marked is a related ware.

<u>Accokeek</u>: this ware was defined by Stephenson et al (1963) for the Accokeek site in Maryland. The temper is a coarse to medium sand and the exterior surfaces are cordmarked. Construction is by coiling and vessels are medium to large with conical bases.

<u>Popes Creek</u>: this ware has one main type, Net Impressed. These are large wide mouth jars with conical bases. Vessels are sand tempered and coil constructed. A cord marked variety is found but is rare.







Not to scale





profiles (interior to left)



Vessel profiles

SUMMARY

(Egloff and Potter 1982:95-96)

This ware, first defined by Manson (1948:225), derives its name from the Marcey Creek Site on the Potomac River in Arlington County, Virginia. Later Evans (1955:54-56) and Stephenson et al (1963:89-92) refined the definition of the ware. Marcey Creek Plain pottery is tempered with particles of crushed steatite (soapstone) ranging from very fine to 1 cm in diameter, which comprises 25% to 50% of the paste. Vessel walls were either coil-constructed or, occasionally, hand-modeled upon a flat base which often bears impressions of an open weave matting. Interior and exterior vessel walls are smoothed by hand and usually are very uneven due to the steatite particles. The vessels are rectanguloid or oval shallow bowls having flat bases with protruding basal heels, curved to straight sides, and often lug handles at the ends. Marcey Creek Ware is thought to be one of the earliest ceramics in the area, most likely dating between 1200 to 800 B.C.

Figure 24 Marcey Creek-like ceramics (Stephenson and Ferguson 1963:90)

<u>Mockley</u>: three types of this ware are present, Cord Marked, Net Impressed and Plain. Vessels are medium to large coil constructed jars. Temper is crushed shell.

<u>Culpeper</u>: this ware is a new type, only recently described in Fairfax County. It is similar to Mockley but is sandstone tempered (Johnson 1991). Vessels are coil constructed and straight rimmed. Surface treatment is mostly net impressed but there is a minor amount of cord marked shards.. This ware is primarily found in the piedmont but at the Gulf Branch site in Arlington it was present as a large minority.

The Selby Bay Complex

Archaeologists are able to identify a unique pattern of material culture towards the end of this period and it is known as the Selby Bay Complex. Prior to this very little can be said about inter-regional interactions. However this complex is marked by Coastal Plain groups exploiting the stone resources of the Blue Ridge mountains. The basic diagnostic of the complex are large stemmed and lancelot points of exotic stone (rhyolite, argillite, and jasper) and Mockley ceramics. Base camps are characterized by large pits, large blank and cache blanks, three-quarter grooved axes, and two hole elliptical gorgets (Wright 1973; Curry and Kavanagh 1991). The Neha site in Fairfax County may be part of this complex but Culpeper ware was found in majority not Mockley (Moore 1990a).

The Early Agriculturalist Period or Late Woodland (800-1700 A.D.)

The old "Woodland" period in the Eastern United States used to be characterized as the introduction of ceramics into the material culture assemblage of prehistoric peoples, and, this item was believed to represent a sedentary lifestyle versus the "nomadic" one of the previous periods. This impression of ceramics is no longer widely accepted. As already seen, by the end of the last Hunter-Gatherer period ceramics and a restricted transhumant settlement pattern were already in place. The changes that allow archaeologists to consider a new period, starting around 800 A.D., are the apparent regionalization of cultures and the introduction of several new items and patterns into the archaeological record. First, there is a wide spread, not minimal, use of ceramics; second, there is an increase in the use of domesticated local plants such as sunflower, pigweed, marsh elder, and goosefoot. And third, there is the introduction of exotic domesticates--squash, gourds, corn--from other areas, mainly to the south. There are no major climatic changes to discuss as it was essentially the same as today. The changes are cultural ones.

In the Middle Atlantic, especially Northern Virginia, prehistoric societies pursued a mixture of slash-and-burn horticulture, fishing, hunting, and the gathering of wild plants as a subsistence pattern. The settlement pattern reflects this diversity. Early Agriculturalist sites are found in a variety of environments. Large semi-permanent settlements, both nucleated and decentralized, are found on or adjacent to agricultural soils. Smaller hamlets are found scattered around the larger settlements. There also seems to be a clear seasonal aspect to the sites of this period. Winter hunting in the uplands and spring and fall shellfish collecting around the estuaries and creek mouths have left exploitive foray camps in these locations.

Social organization is basically at the tribal level for most of the period; however, at the end of the sixteenth century small chiefdoms are present in some areas. Turner (1992:102-104,115-116) has recently presented a new idea associating ceramic distributions in the Coastal Plain with increased territoriality and conflict. The Townsend complex extended throughout the majority of the coastal plain of Virginia, Maryland, and Delaware, about 900 A.D. By 1600 this distribution is changed. In Virginia different ceramic technologies, like Potomac Creek in Northern Virginia, Gaston/Cashie on the middle James and Appomattox Rivers, and Roanoke on the lower James River and the Atlantic coast, are present. In the core area of the Powhatan chiefdom, the confluence of the Pamunkey and Mattaponi Rivers, one still finds Townsend wares. Turner interprets this new ceramic distribution as being evidence for increased population and reduced access to natural resources. Thus groups are circumscribed, leading to the rise of ranked societies (c.f. Carneiro 1970, 1981). Turner also mentions that the seventeenth century records document the hostility that existed between the Powhatan and groups further away from the core area of the chiefdom, like the Potomac to the north and the Nansemond and Chesapeake to the southeast.

Ceramic Types

<u>Shepard</u>: this ware has a crushed rock temper and is coil constructed. Surface treatment is typically cordmarked and there is an applied rim. It is primarily a piedmont located ware but it is found on early Potomac Creek sites in the Coastal Plain. This is one reason that these two wares are believed to be linked technologically and temporally.

<u>Townsend/Rappahannoc</u>: this is a broadly distributed ware that has technological links to Mockley. It is a crushed shell coiled ceramic. Exterior surfaces are always fabric impressed. Four types are present based on decorations: Fabric Impressed (no decoration), Incised, Corded, and Herringbone.

<u>Potomac Creek</u>: More emphasis will be given on this ware because it is more common to the Alexandria area. As defined by Egloff and Potter (1982:112):

Potomac Creek Ware consists of vessels made by coiling, with paddle-malleated surfaces. Vessels are small to large, with globular bodies, everted or straight rims (some with applique strips) and [generally] rounded bases. The clay is tempered with 20% to 35% crushed quartz and/or medium sand grains. The clay is compact and hard, and vessel walls are relatively thin. Two types are recognized: (1) Potomac Creek Cord-Impressed, which may be cord-marked only, or cord-marked with a twisted cord, cord-wrapped stick or cord-wrapped paddle edge impressions in the rim area ... (2) Potomac Creek Plain, with exterior surfaces either originally smoothed, or cord-marked and then smoothed.

This definition is a refinement of Stephenson's (Stephenson, Ferguson, and Ferguson 1963:113-120) influential description. However, there is one important change. Stephenson emphasized decoration and the lack of it while Egloff and Potter emphasized rough (cord marked) exterior surfaces versus smoothed surfaces. Further, Egloff and Potter did not mention decoration for the Plain type but they did for the Cord Impressed type. In both definitions, then, a vessel with cord marked surfaces and a cord decorated rim was classed as Cord Impressed. However, decorated vessels with smoothed exterior surfaces were classed as Cord Impressed by Stephenson (Stephenson et al. 1963: Plates XVI:d,q and XVII:g,l) while they would have been Plain to Egloff and Potter.

Archaeologically all four possible combinations of surface treatment and decoration are present. Stephenson stated that cord roughened vessels were always decorated (Stephenson et al. 1963:115) but undecorated cord roughened vessels were found at the Patawomeke site (Schmitt 1965:13). Other types of surface treatment or decoration such as incising, punctation, and fabric impressing were also present in minor frequencies at Patawomeke. These other surface treatments have not been generalized topologically at this time.

Egloff and Potter presented the two types as being a temporal continuum, with Plain increasing in frequency over Cord Impressed to "become the dominant type by the early 17th century" (1982:112). Egloff (1985:240) later stated that all across the coastal plain traditional ceramic attributes such as conical bases, impressed surface treatments, and thickened rims gradually disappeared during the seventeenth century and that by the eighteenth century plain surfaced pottery, based on European vessels, became preferred. For Potomac Creek ceramics, Clark was more specific and stated that "Rim decorations became obsolete or rare after the second half of the sixteenth century..." (1980:12). However, it is possible that Plain and Cord Impressed were contemporary for much of the time period and then Cord Impressed faded out beginning in the mid-sixteenth century. At the Little Marsh Creek site, 44FX1741, burned organic residue scraped from a Plain shard was dated ca. 1310 A.D. (Beta-46953; ETH-8511). Only more and better dates will clarify the sequence.

Two studies on surface treatments for Potomac Creek wares have been done. Johnson (1989) compared S and Z cord twist frequencies on Potomac Creek shards from the Patawomeke site with shards from five Montgomery complex sites in the peidmont of the Potomac Valley. His conclusion was that the two complexes were related due to similar cord twist frequency patterns. Falk (1983) identified two "types" of Potomac Creek ceramics based on the distinction between direct cord impression and cord wrapped stick impression. Within each of these two types she identified three motifs (vertical, horizontal, and geometric) for a total of six subtypes. Unfortunately, the distinction between direct cord impression and cord wrapped stick impression has not been investigated any further. These two studies focused on technological traits; how the decorations were made. Falk's discussion of motifs was brief and her conclusion was that they can be either simple or complex. She could have discussed the possible symbolic differences between simplicity and complexity but did not. Johnson has argued quite well for the conservative nature of ingrained motor habits such as twist patterns (Johnson and Speedy 1992) but he has yet to demonstrate how these patterns are linked to ethnicity. Ethnic variation has yet to be identified from the Potomac Creek archaeological record.

Early Agriculturalist Complexes and Phases

Little Round Bay Phase: Wright (1973) defined this phase based on work done in Maryland. Ceramics that mark the phase are Rappahannoc-Fabric Impressed and a variety of Incised with high proportions of broad-line incised horizontal bands and triangular motif elements. Isosceles Triangle points of small and medium size predominate. Obtuse-angle pipes and bone awls are also found. The settlement pattern has several small shell midden sites around one large one suggesting a larger group which periodically fragments into smaller ones to collect oysters.

<u>Montgomery Focus</u>: Schmitt (1952) and Slattery and Woodward (1992) have defined this complex for the piedmont Potomac River. The main diagnostics are Shepard ware, triangle points, flexed burials, circular storage pits, dog burials, and an oval village plan. There are associations with Owasco ceramic types to the north (Curry and Kavanagh 1991) and it is believed that this complex led to two other later complexes, Potomac Creek for this area (MacCord 1984) and Shenks Ferry for the Susquehannoc drainage (Graybill 1989).

<u>The Potomac Creek Complex</u>: This complex is given more thorough coverage because it is common to the Alexandria area. As presented by Clark, the Potomac Creek complex dated from about 1300 to 1700 A.D. and was

associated with the Piscataway "empire" or "confederacy," which was said to be "an incipient chiefdom of allied tribal cultures" (1980:8). According to him, the primary traits of this complex are Potomac Creek ceramics, triangle points, palisaded nucleated villages, seasonal hunting camps, secondary ossuary burials, a riverine versus estuarine orientation, and a wide range of subsistence items with preferences for corn, squash, hickory nuts, deer, and fresh water shellfish. The chiefdoms being discussed here are not the well stratified societies that can be imagined for the Mississippian or Hopewell cultures.

Two phases for the Potomac Creek complex were described in 1980 by Clark. The Patawomeke phase dated approximately 1300-1600 and extended within the coastal plain from the York River to the Susquehanna River. Later historic groups known as the Piscataway, Potomac (Patawomeke), Nacotchtanke, and Portobago were named as having belonged to this phase; the first group was considered to be the politically dominant one. The Indian Point phase dated 1600-1700 and those groups north of the Potomac River constituted the Piscataway chiefdom for that period. The groups south of the river (the Potomac and, as discussed below, the Doeg/Tauxenent) were thought to have become part of the Powhatan chiefdom. Clark argued that this constriction of the Piscataway chiefdom, not the Potomac Creek complex, was due to late sixteenth century expansions by the Five Nation Iroquois and Susquehannoc-moving to the south--and the Powhatan--moving north to the Potomac Valley.

Another interpretation of the extent of the Powhatan chiefdom is that it was restricted to the coastal plain area of the Rappahannoc and James Rivers (Binford 1964; Potter 1982). Potter (1980:3-5: 1982:134-135) disputed the extent of the Potomac Creek complex, as given by Clark, and pointed out that sites belong to the complex only if the Late Woodland-Contact period ceramic assemblage from them is dominated by Potomac Creek wares. The several sites around the Chesapeake with a few Potomac Creek shards present are not representative of the complex. Potter emphasized that if the Piscataway chiefdom was associated with the Potomac Creek complex then the chiefdom was not as large as Clark presented it because the complex was not that widely distributed. The complex was centered in the interior coastal plain portions of the Potomac and Rappahannoc valleys (Egloff and Potter 1982; Egloff 1985).

Cissna (1986) accepted Potter's changes to the extent of the Potomac Creek complex/Piscataway chiefdom and the reduced version for the Powhatan territory. He also updated the number of groups thought to be associated with the complex: Piscataway/Moyaone, Mattawoman, Nanjemoy, Portobago, Nacochtanke, Doeg/Tauxenent, and Potomac. He provided, too, a slightly different sequence of phases. Clark's (1976) earlier work on the complex had outlined three phases: Ferguson (1350-1450); Patawomeke (1450-1608); and Indian Point (1608-1711). Cissna used these phases and stated that these tentative dates "correspond to the development of Potomac Creek in the Ferguson phase, followed by the period up to European contact, and lastly the contact history of the Piscataway until they supposedly left the [Maryland] colony" (1986:16) in the late seventeenth century. Cissna essentially replaced the Powhatan with the Piscataway for domination in Northern Virginia at the turn of the seventeenth century.

A third position about the political associations of the complex is one given by Potter (1982). He argued that all the groups that were living along the south side of the Potomac River and north of the Rappahannoc in the seventeenth century were autonomous petty chiefdoms. The Powhatan chiefdom was to the south and east; the Piscataway chiefdom was centered in Western Shore Maryland. Moore (in press; 1991b) also adopted this idea of autonomous groups in Northern Virginia but argued that at least one group, the Doeg, was a tribal society.

EARLY EUROPEAN SETTLEMENT, ca. 1608-1700

Introduction

The contact period is really the seventeenth century for Northern Virginia. This was the time when European colonists began to settle in the Chesapeake. The Native American-European interactions that occurred have been the focus of an enormous amount of study by anthropologists and historians (Axtell 1992; Boender 1988; Cissna 1986; Fausz 1985; Feest 1978a,b; Hantman 1990; Merrell 1979; Moore 1991a,b; Mouer 1983; Potter n.d., 1989, 1982; Rountree 1989, 1990; Turner 1992, 1985; Waselkov 1983). The term "contact" typically refers to the European impact on non-European cultures. However, this term should indicate any time when people from different cultures meet. Other contact periods can be defined and they need not emphasis the European connection.

Kraft (1989) has recently pointed out that there is a paucity of European made goods on seventeenth century contact sites within the Middle Atlantic even though there is plenty of documentary data for intensive interaction. These comments certainly fit Virginia, where, after many years of archaeological study, less than twenty-five contact sites have been studied (c.f. MacCord 1989). However, the number of such goods says little about the intensity of contact. Such inferences are made by studying not only the sheer quantity but also the diversity of artifacts that are found (e.g. Potter 1989). Each Indian group in the Potomac Valley interacted with the colonists in a different way and the archaeological record should demonstrate this to some degree. In the Potomac Valley, for example, seventeenth century English colonists maintained a fairly stable trade relationship with the Potomac Indians but not one with the Doeg. One might expect to see, then, different archaeological patterns based on these different interaction patterns.

Also, a contact site is not just a place dated to a certain time period. It must have some physical evidence of the interactions between contacting groups. There must be a set of artifacts, or traits thereof, that are identifiable

as indigenous, and, there must be artifacts or traits that are identifiable as not only intrusive, but also part of the incoming culture. What is important is that the data allow for inferences about contact-situation groups influencing one another. A contact site does not have to have European made goods. However, artifacts that are found on Native American sites of this period that clearly indicate European presences are trade beads, European ceramics, metals other than local copper, and glass. Many of the Indian ceramics changed during this period to reflect more European forms and these are called cottage wares, also known as colono wares.

Doeg Ethnohistory

The main Indian group living in the Alexandria area in early seventeenth century was the Doeg. In 1651 Lord Baltimore described the land of the Doeg as being, in modern terms, the region along the Potomac River, from Piscataway Creek, Maryland, to Potomac Creek, Virginia, (Maryland Archives I:332). While this may have been a bit generous to the Doeg, it provides a frame for the Doeg territory. To the south of them in Virginia were the Potomac (around Potomac and Aquia Creeks). In Maryland were the Nangemoy and Portobaco. To the north were the Piscataway along Piscataway Creek and the Nacotchtank (Anacostian) near current Washington, D. C. and Arlington County, Virginia.

Several recent studies provide excellent historical and ethnohistorical statements concerning all these groups (Rountree 1989; Potter in press, 1989, 1982; Axtell 1988; Cissna 1986; Fausz 1985; Waselkov 1983). Moore (1991a,b, in press) is the only one to focus on the Doeg as an ethnic group. The summary below is based on these secondary references and the primary documents cited within them.

In 1608 Captain John Smith explored the Potomac River; he was met with hostility for much of the way, but was well received at the settlements of Tauxenent, Nacotchtank, and Moyaonce. The Virginians later traded with the Potomac group in 1610, 1612, and 1614. In 1622 they established a (trading) fort adjacent to the Potomac; that same year the Potomac assisted the Virginians on a corn raid against Nacotchtank. But, also in 1622, Captain Madison, acting rashly on false information, turned on the Potomac and slaughtered 30 or 40 of them. In 1623 Captain Spelman and twenty men were killed somewhere on the river near the Potomac. This was probably done by the Nacotchtank because Henry Fleete later noted that they had captured him when they killed twenty English in the time of Governor Wyatt, ca. 1621-1624. Wyatt revenged Spelman's death that same year by raiding the "Pascoticons" and their associates; he also renewed the alliance with the Potomac.

Henry Fleete was a free man and trading up and down the Potomac River in the 1630s. His activities had some effect on the groups living there. In October 1631, Fleete learned at a town near the mouth called Yowaccomoco that "by reason of my absence, the Indians had not preserved their beaver, but burned it, as the custom is, whereupon I endeavored by persuasion to alter that custom" (Neill 1876:20). In Spring 1632, he returned to the Potomac River and spent most of the summer trading with various groups as far up as the falls. On his trip down river he was informed, at Portobaco, that all the Indians on the river, below the falls, "will take pains this winter in the killing of beavers and preserve the furs for me now that they begin to find what benefit may accrue to them thereby" (Neill 1876:35).

The Maryland side of the Potomac was first settled in 1634 at St. Mary's City. The Jesuit priests there made a futile attempt at converting natives to Christianity; they made some headway with the Piscataway and had a mission among the Portobaco. But by 1645 their missionizing had failed and the Catholics had temporarily lost power in Maryland. No other settlements are known further up the river until Giles Brent, of Maryland, moved across and established a trading center and plantation adjacent the Potomac in 1646. Brent had married a Piscataway woman and he and his sons played prominent roles in the Indian-English relations for the next several decades. Brent's settlement also stimulated a land dispute between Virginia and Maryland. Lord Baltimore's description of the Doeg territory in 1651 was included in a document wherein he urged settlement on the boundaries of his colony. The Virginians responded by claiming patents in the "freshes" of the Potomac River: by 1660 most of the land above Brent's to the Nacotchtank on the Virginia side was patented and some was possibly settled.

This was the heart of the Doeg territory. For the next two decades the Doeg and their Susquehannoc allies waged a sporadic guerrilla warfare on the Virginia and Maryland settlers. This culminated in the Susquehannoc-Doeg war of 1675-76 and Bacon's Rebellion in 1676. By the 1680s and 1690s the Doeg seem to have been fragmented, found always in mixed company, like renegades. By the eighteenth century they had faded into the background and some were living on the Mattaponi River in Caroline County, Virginia.

The Doeg appear to have been an autonomous tribe with representation by "Great Men." They subsisted through horticulture, hunting, fishing, and trade. Their life was semi-sedentary: living in dispersed settlements, "towns," and hamlets for part of the year to plant and harvest crops and then taking extended hunting and fishing trips the rest of the year. Their two main settlements were named "Tauxenent" or "Moyumpse" on Mason Neck peninsula in Fairfax County and "Moyaonce", on Indian Head peninsula, in Charles County, Maryland. Little is known about their customs or ideology; there is some evidence that they had an animistic religion. Their language was not Piscataway and may not have been Algonquian; Moore (1991b) has suggested that they were either Siouan or Iroquoian speakers.

Two seventeenth century sites can be ascribed to the Doeg: Little Marsh Creek (Moore 1990b) in Fairfax County, Virginia, and the Posey site (Barse 1985) in Charles County, Maryland. These associations are based on the date range of the later components of each site (the early to mid-seventeenth century) and documentation that identifies the Doeg as living at these locations in that period (c.f Moore 1991a). Otherwise, the cultural materials present are typical of the middle Potomac River Valley from the Early Agriculturalist-Early European Settlement periods. There is one difference though--these sites are Potomac Creek ones and the interpretation of the complex is that main settlements will be nucleated villages. The ethnological reconstruction for the Doeg, based on documents, suggests dispersed settlements. Therefore one would not expect to find a palisaded village dating to the seventeenth century in the land of the Doeg. At this time no Potomac Creek palisaded villages have been found within that stretch of the Potomac River described above; only at the extreme ends of that area does one find the villages, the Accokeek site in Maryland and Patawomeke in Stafford County, Virginia. On going work at the Hartwell site on Mason Neck, which is hoped to be Tauxenent, may resolve this issue.

Site Uniqueness

During the early stages of the investigation a request was made from Alexandria Archaeology for a brief survey of the prehistoric sites similar to the Stonegate properties prehistoric site that exist in the Mid-Atlantic region and particularly in Fairfax County and the City of Alexandria.

A brief review of the area was gleaned from several publications including a review of the recent thesis written by Fran Bromberg. Her thesis catalogs and shows the distribution of 533 sites in the coastal plain and fall zone of the Potomac Valley. These sites dated from ca. 6,500 B.C. to A.D. 1400 and cover a time period that is broader than the range indicated from the single Late Archaic projectile point recovered from the site. A number of data biases may account for differences in site densities, locations and recording deficits and these were considered in evaluating the findings presented in her thesis. The distribution of sites in her thesis was summarized in several maps of the area for each cultural phase and keyed by level of occupation.

Halifax cultural phase which equates to the final phase of the Mid-Archaic showed numerous sites in Fairfax County probably as a result of the extensive recording that has been undertaken in the County. Only two sites have been recorded in the uplands while the the topographic area defined as the Inner Coastal Plain had a total of 26 sites. Twenty one of these sites in the Inner Coastal Plain were categorized as exploitive foray camps with 17 located on terraces and four as upland sites. Five of the sites were categorized as base camps. The Outer Coastal Plain had four sites two classified as exploitive foray camps and two as base camps.

Bromberg's thesis notes seven sites in the Piedmont Uplands; five classified as micro social base camps that were located near rivers and two sites that were exploitive foray camps. It is noted that an increase in occupation after 2,000 B.C. is speculated based on the relative increase in the number of Holmes versus Savannah point types in the area. On the Inner Coastal Plain 42 sites were defined; 15 exploitive foray camps, nine of which were located on terraces and six in an upland setting. Base camps totalled 27, with 24 located on terraces and three in an upland setting. and it appears that five macros social sites were defined but there is some question regarding the total number of sites in this topographic area during this cultural phase. Fewer sites were recorded on the Outer Coastal Plain (19) with the majority being base camps (15). Only four exploitive foray camps were recorded; three near rivers. The sites are generally characterized as shell middens on terraces associated with river and estuarine environments. Correlations to settlement patterns and food acquisition are tied to sea level changes and subsequent changes from freshwater marshes to tidal marshes, forest closure and the development of anadromous fish populations. It is postulated that the settlement patterns follows a seasonally based fusion-fission model for both macro and microsocial unit base camps.

A brief review of the prehistoric sites of Fairfax County show that numerous prehistoric sites have been accurately recorded through the efforts of County archaeologist Mr. Michael Johnson. The chronology used by Mr. Johnson places the Stonegate site, as indicated by the single projectile point, between Hunter-Gatherer III-IV. which correlates to the late Middle Archaic up to the Late Woodland. Currently, an accurate number of sites from the same cultural phase as that located at Stonegate property is not readily discernible from the 1988 computer listing of sites in the Fairfax County-Heritage Resource Management Plan. When this Plan was published 733 sites were known in Fairfax County and currently there are 1900 sites. Unfortunately, this material has yet to be published in a map or graphic form to help us evaluate the Stonegate site (pers. comm. M. Johnson 10/30/92). The listing has a number of categories but, references the site by a single point type and no topographic setting for the sites are listed. Several articles and publications pertaining to Fairfax County show the distribution of sites within the county but precise topographic information necessary to compare the Stonegate site with the those sites is not in published form. Research to integrate the data amassed in Fairfax County with the Stonegate site and Alexandria was undertaken by Mr. Mike Johnson and Larry Moore is included as part of the Regional Prehistoric Context of this report.

The question regarding the uniqueness to the City of Alexandria has several components. These criteria include what is currently known about the prehistory of Alexandria, the number of sites that have been located, how many of these have been investigated, and how many sites may be located in the future.

A review of the City of Alexandria records shows 63 single source finds and 24 sites. The majority of these finds and sites were recorded during a reconnaissance survey conducted by Terry Klein in 1979 that focused on some of the last vacant property in western Alexandria. These were the Winkler and Stone tract properties as well as several Park areas along Holmes Run to the west of both properties. A number of artifacts and artifact concentrations were noted during the survey and a few of these were registered with the Commonwealth of Virginia as archaeological sites. Unfortunately, the sampling methodology for the survey did not include the collection of nondiagnostic finds. This has presented some difficulty in establishing whether the artifacts noted were of cultural origins.

A review of the 24 registered prehistoric sites in Alexandria show that all but one of these sites are directly associated with drainage or lowlands. Only one site 44AX24 appears to be an upland terrace site similar to the Stonegate site and when it was recorded in 1979 the registration form stated that it was slated for low income housing development. The current status of this site was unable to be determined at this time.

Of the 11 registered sites that are listed on the Winkler property , only three were shown to be within the 61 acre terrace area slated for future development. Of these three sites, two have been previously investigated and have gone through the review process and are no longer extant as a result of the development of two structures on the property. Another site has been registered with the Commonwealth of Virginia as 44AX163 and was determined to be a very light lithic scatter at the edge of an upland terrace. Another prehistoric site that is registered but is located within the Botanical Preserve, 44AX12, was found to be a very sparse lithic scatter and has been, after City approval, inundated by the Winkler Botanical Preserve Lower Pond.

Examination of the City of Alexandria Master Plan shows an accurate and current breakdown of the land use within the City of Alexandria. It states that a total of 446.9 acres or 6% of the City is vacant land. The largest percentage of this area lays in the Alexandria West portion of the City, where Stonegate is located, and comprises 170.2 acres. The majority of this vacant land is held in the 103.9 acres of the Winkler property and the 32.8 acres of the Stone Tract. The 22.8 acres of the Stonegate that is currently being developed represents 5% of the total vacant land in the City.

This review of site distribution and statistical examination were considered in designing the methodology and in recommending further work. Perhaps the two most important considerations were that the site appeared to have not been cultivated or developed since it's original deposition. These conclusions were based on the examination of the soil profile and the distinct concentration of lithic material that were discovered in three locations. It was concluded that three lithic scatters undisturbed from the Late Archaic within the City of Alexandria offered a unique find and an excellent research opportunity.

The preceding section is excerpted from a Scope of Work which has been included in it's entirety in Appendix C-Relevant Communications-Scope of Work-Prehistoric Testing.

HISTORIC CONTEXT

Research Strategy

Archival research undertaken in support of archaeological investigations of the Stone Tract in the City of Alexandria commenced with the examination of cartographic works that are on file at the Library of Congress, National Archives, Virginia State Library, Virginia Historical Society, Virginia Department of Historic Resources and the Colonial Williamsburg Foundation Research Archives. Maps reproduced in secondary sources such as <u>The Official Atlas of the Civil War</u> and the <u>American</u> <u>Campaigns of Rochambeau's Army</u> were utilized. Indices to plats and surveys that are on file at the Huntington Library in San Marino, California, and the Virginia Historical Society in Richmond were examined. Map research was oriented toward identifying cultural features within the boundaries of the Stone Tract and tracing the sequence of any development that occurred there. Observations also were made with regard to land use patterns in the vicinity of the study area, which from 1742 to 1957 was part of Fairfax County.

Patents and grants (records of the Virginia Land Office) were accessed through the use of the abstracts compiled by Nell M. Nugent and Susan B. Sheppard. Peggy S. Joyner's synopses of Northern Neck warrants and surveys also were reviewed. This research was undertaken as a means of assessing the rate at which settlement spread within the Potomac River drainage and in the vicinity of Holmes Run. Phase I archival research on the Stone Tract was enhanced by a title search. The chain of title for the period 1741 to 1925 was traced by Beth Mitchell, who provided a chronologically organized and annotated list of the land ownership transactions that occurred during that period (See Appendix L). Personnel of the First American Title Insurance Company produced facsimiles of the deeds that changed hands whenever the Stone Tract was sold or mortgaged during the years 1925 through 1992 (See Appendix L).

Faithful transcriptions of the official records of the Virginia government, as first a colony and then a state, were used as needed. Background research was conducted by the principal investigator in the offices of Alexandria Archaeology. E. G. Swem's <u>Virginia Historical Index</u> and the computer networks and card catalogues at the Colonial Williamsburg Foundation Research Archives, the Williamsburg Regional Library, the Virginia Historical Society, and the Swem Library at the College of William and Mary were searched for secondary source material on the history of the City of Alexandria and Fairfax County, for the study area lay within the bounds of Fairfax for 215 years. General historical background data were extracted from volumes produced by respected scholars such as Warren S. Billings, Thad Tate, Gary Nash, and Allan Kulikoff. Specialized reference
works on the American Revolution and the Civil War were used as sources of both general and site-specific information on military activity that might have potentially affected the study area and left an imprint upon its archaeological record.

The well documented history of Fairfax County produced by Nan Netherton et al. was used as a source of local and regional background data; it was invaluable in placing the study area within its historical context. <u>Fairfax</u> <u>County: Historical Highlights: Abstracts of Wills and Inventories, Fairfax</u> <u>County, Virginia 1742-1801: Fairfax County in Virginia</u>; and the <u>Fairfax</u> <u>County Heritage Resource Management Plan</u> also were utilized. The latter document was particularly helpful in developing a working knowledge of the cultural themes that are associated with the Stone Tract's historical continuum.

The Virginia Department of Historic Resources' 1992 guidelines for the preparation of cultural resources management reports have been used as the basis for the temporal organization of the narrative that follows. The domestic, military, and agricultural/subsistence cultural themes will be introduced and addressed within the temporal contexts to which they pertain.

Data Limitations

Most of the seventeenth and eighteenth century maps that are available for the Northern Neck, within which the study area lies, consist of schematic representations that contain relatively little topographic detail, especially in the region's interior. They do, however, disclose the general pattern of regional settlement and development. By the mid-to-late eighteenth centurymap-makers began identifying Fairfax County's major thoroughfares and some of its more prominent local landmarks. Civil War era cartographers prepared highly detailed maps that were extremely useful in tracing land use patterns and in identifying subsurface cultural features that were in the immediate vicinity of the StoneTract. Twentieth century maps facilitated the interpretation of earlier-dated renderings.

Ms. Beth Mitchell, in tracing the Stone Tract's chain of title from 1741 to 1925, cited the instruments through which individual property transfers occurred, but (with two exceptions) furnished neither synopses nor copies of the deeds themselves. The First American Title Insurance Company provided copies of relevant deeds, 1925-1992, some of which made reference to plats and surveys; however, copies of those drawings were not made available.

Fairfax County was formed from Prince William County in 1742.In 1757 it was reduced in size when Loudoun County was formed (Virginia State Library 1965:19,26,28). Prince William County's early court records are incomplete, as are those of Stafford County, one of Prince William's immediate antecedents. Fairfax County's records and those of the City of Alexandria are largely intact. Fairfax County was part of the Northern Neck Proprietary, which land grants are incompletely preserved. Even so, many of the region's original records (including surveys) still survive. Virginia's earliest land patents are copies of the original documents, which in 1690 were transcribed into volumes and forwarded to England. Prior to that time, the colony's patents, which were kept in the clerk's office at Jamestown, were maintained as loose leaves that were suspended upon a piece of cord; therefore a significant number of pre-1690 patents were lost or destroyed (Nugent 1969-1979:I:226).

Historical Background

Exploration and Frontier (1550-1675)

Fairfax County is in Virginia's Northern Neck, which region is situated between the Potomac and Rappahannock Rivers and fronts upon the Chesapeake Bay. The Northern Neck most likely was visited by Captain Vincente Gonzalez and.Juan Menendez-Marques in 1588, Spanish explorers who set out in search of Sir Walter Raleigh's colonists. In 1608 Captain John Smith ventured into the Potomac River and discovered that Indian villages lined its banks.Later, he depicted those settlements upon his well known map of Virginia. The Virginia colonists, who in 1610 were in desperate need of corn, began trading with the Natives of the Northern Neck, a practice that continued for many years (Lewis and Loomie 1953:186-202; Smith 1624; 1910:395-398,419) (Figure 25).

English settlement in the southerly portion of the Potomac River valley was initiated during the early 1640s, but it wasn't until nearly a century later that colonists in substantial numbers began moving into the Northern Neck's upper reaches and into its interior. Their homesteads would have consisted of impermanent structures, many of which were surrounded by ancillary buildings (Wheeler 1972:11-14; Henry et al. 1988:III-H2-3; Nugent 1969-1979:I:131-132,135,189,199,239,264,278).

The Northern Neck of Virginia was part of a proprietary territory that the exiled King Charles II allocated to seven of his loyal supporters in 1649, a grant that he upheld in 1652 when the monarchy was restored. In 1669 Charles II reaffirmed the Northern Neck grant by means of a 21 year lease but excluded three of its seven original proprietors. Later, when one of the excluded men's heirs protested, six of the seven men's shares were reinstated. John Lord Culpeper, whose interest in the Northern Neck had been restored, eventually purchased the shares of four fellow lessees. In 1688, his heir, Thomas Lord Culpeper, received the final grant to Northern Neck. Later, the Northern Neck Proprietary passed to Thomas Lord Fairfax through his marriage to Culpeper's daughter and heir (Gentry 1981:xvi-xvii).

Tracts of land within the Northern Neck Proprietary were allocated to prospective grantees by means of purchase warrants that specified the size and location of the acreage for which application was being made. After a survey



Figure 25: Virginia Discovered and Discribed [sic] (Smith1624).

was performed, a legal land grant was prepared and issued. The office of the Northern Neck Proprietary continued to dispense land until after the American Revolution and the death of Lord Fairfax. The Fairfax family's interest in these Virginia lands, which was the subject of heated controversy after the Revolutionary War, was terminated in 1808 when the last surviving Fairfax heir sold off his residual interest in the region. Despite the fact that the Northern Neck was a proprietary territory, those who resided within its boundaries fell within the purview of Virginia law (Gentry 1981:xvi-xvii).

Early Colonial Settlement (1650-1720)

The earliest date at which land was patented by European colonists in the region that eventually became Fairfax County was 1651, when 2,109 acres were acquired by Robert Turney, whose land lay at the mouth of the Occoquan River. By 1655, all of the land on the northwestern shore of the Occoguan, inland to its falls, had been claimed (Netherton et al. 1978:1-12). During the late seventeenth and early eighteenth centuries, sizeable tracts of Northern Neck land were cleared to accommodate the mass production of tobacco, utilizing slave labor. Early on, Virginia planters learned that the soil type they favored for the production of sweet scented tobacco (the most marketable and therefore most valuable species of the weed) occurred along the banks of the colony's major rivers and their tributaries. Therefore, it was during the mid-to-late seventeenth century that the plantation economy which characterized the Northern Neck for the next century and a half became well established (Billings et al. 1986:66-68). The 1670 map of Augustine Herrmann (1673) reveals that planters were then dispersed along the shore line of the Potomac and the lesser streams that extended into the region's interior (Figure 26). A rapid increase in the population of the Northern Neck led to its being subdivided into a succession of new counties and parishes.

As settlement spread inland, tensions increased between the colonists and the Indians, with the result that there were sporadic outbreaks of violence. In 1676 Governor William Berkeley responded to the plight of frontier families by building forts at nine sites on the heads of the colony's principal rivers. On the Potomac a fort was constructed on Mussell Creek in Stafford County. In 1679 these forts were replaced by military garrisons that were erected at only four sites. In contrast to the forts of 1676, which the colonists likened to mousetraps, these garrisons were to serve as bases from which armed horsemen could range through the countryside, maintaining a watch over the frontiers. The garrison on the Potomac was to be built near Occoquan. In 1683 the garrisons were discontinued, by which time the population of eastern Virginia's Indians had declined significantly (McCartney 1985:67-71; Hening 1809-1823:II:326-327,433; Nugent 1969-1979:II:60).



Figure 26: Virginia and Maryland, 1670 (Herrmann 1673).

67

Most of the men who claimed literally thousands of acres of land on the Virginia frontier were members of the planter elite who were intimately involved in the colony's commerce and trade and in its political affairs. Their plantations were massive and according to contemporary accounts, resembled small villages. Interspersed with these great plantations were those of lesser size, which belonged to persons of more modest means (Billings et al. 1986:55,122). The development and maturation of the colony and its governmental systems coincided with an increase in the stratification of Virginia society as a whole, with the result that those in its upper ranks, socially and economically, were in possession of many important advantages. County officials were appointed by the governor and council, as were lesser functionaries, all of whom derived income from performing their governmental duties. Members of the House of Burgesses, though elected, were drawn from the upper ranks of society, further enhancing their own influence. Family, political and social connections among the colony's leaders guaranteed their participation in the governmental establishment. Politics also permeated the affairs of the church, to which official interest was linked, with the result that the same men who functioned as burgesses or county officials (such as justices, naval officers or sheriffs) usually served as parish vestrymen. As members of an elite class these Virginians mingled together socially as well as when they were conducting business or discharging their governmental duties. Meanwhile, those individuals who were at the lower end of the socio-economic scale, such as enslaved or free blacks and landless free whites, had little opportunity for personal advancement (Billings et al. 1986:55,122).

Tobacco Plantation Society (1720-1800)

By 1720 most of the land in what became eastern Fairfax County had been claimed by prospective settlers. Many of the people who immigrated into the region were from the southeastern part of Virginia and brought with them a heritage of tobacco culture. But by the early eighteenth century the cultivation of wheat and other forms of diversified agriculture had begun to replace tobacco (Henry et al. 1988:III-H3-1). During the period 1720 to 1732, many new land grants were awarded and the region experienced considerable growth. This increase in population and land development gave rise to a need for more roads. These byways(which typically were little more than trails) made it possible for travelers to go to church or to court, or reach larger communities or rudimentary commercial facilities (Netherton et al.1978:15-19).

In 1742 Virginia's House of Burgesses passed an act creating Fairfax County out of the northeastern portion of Prince William. Fifteen years later, Fairfax was subdivided when Loudoun County was formed out of its westerly territory. Shortly after Fairfax County was established by law, Spring Field (a site near Freedom Hill and Tyson's Corners) was made the county seat. A decade later, in 1752, the seat of the county court was moved to Belhaven or Alexandria, which had been established in 1749 but not formally given the status of a town until three years later. During this period, plantations along the Rappahannock and Potomac Rivers, which early on had become a conduit of shipping and trade, served as the manorial estates of some of Virginia's most prominent families (Virginia State Library 1965:19; Geddes 1967:13; Netherton et al. 1978:37; Mayo 1736; Warner 1736-1737; Reps 1972:202).

Preliminary research suggests that William Henry Terrett, who in 1741 acquired 982 acres that encompassed the Stone Tract, was a man of wealth and social standing (Northern Neck Grants E:412). On May 14, 1746 he enhanced the amount of land under his control through the addition of a 127 acre tract on Holmes Run, which he had surveyed. Terrett's new acreage was contiguous to the land he already owned. William Henry Terrett was one of Fairfax County's first court justices and in 1750 he served as clerk of the Truro Parish vestry, both of which offices indicate that he was relatively affluent and influential in the community (Netherton et al. 1978:10,54; Mitchell 1987; Joyner 1987:118) (Figure 27).

Nan Netherton, when analyzing land settlement patterns in Fairfax County, determined that in 1749 only 36 percent of county residents lived to the north or west of Difficult Run. Stonegate, which lies a few miles southeast of Difficult Run, fits this rural occupational pattern. This led her to conclude that settlers generally preferred to establish their homesteads on the banks of rivers and navigable streams and tended to move inland at a relatively slow rate. Her research also revealed that at the upper end of Fairfax's economic scale, 11 percent of the county's slave owners had from 20 to 40 slaves apiece, whereas an elite four men possessed more than 40 slaves each. Netherton's research demonstrates that the region's wealth (as demonstrated by the ownership of slaves) was concentrated in the hands of a few well established families. Many of these individuals were absentee landowners (such as the Pages and the Carters) who placed tenants or sharecroppers upon their property (Netherton et al. 1978:30-31).

A map prepared in ca. 1747 suggests that during the second quarter of the eighteenth century, the upper part of the Northern Neck was sparsely settled but that the frontier lay beyond the Blue Ridge mountains (Jefferson and Brooke 1736-1746). A map of Fairfax County that dates to ca. 1745-1748 reveals that a road network then criss-crossed its countryside. The Potomac Path, an Indian trail that led along the natural ridge between the Potomac and Rappahannock Rivers, extended from the Occoquan to the Hunting Creek warehouse on Great Hunting Creek, near which was Belhaven (Alexandria); from that point, the Potomac Path continued westward. Another road extended westward from the Occoquan Ferry,what was known as the Middle Ridge or Ox Road. This byway reportedly was laid out by Robert Carter in 1729 as a connecting link between the ferry and his Frying Pan Copper Mine, which was on a branch of Broad Run (Netherton et al. 1978:20-26; Jenings [1745-1748]) (Figure 28).



Figure 27: An Interpretive Historical Map of Fairfax County, Virginia, in 1760 (Mitchell 1987).



Figure 28: A Plan of the County of Fairfax on Potomac River (Jenings [1745-1748]).

Early Diversified Agriculture (1750-1840)

The early 1750s saw dramatic growth in Fairfax County's population. It was during this period that new roadways were laid out in the county's interior and the towns of Belhaven and Colchester developed into sizeable communities. Fairfax's land mass was reduced by almost 60 percent in 1757 when Loudoun County was formed, but its population continued to grow steadily. This influx of settlers stimulated commercial development and provided an incentive for improving or establishing new transportation corridors (Henry et al. 1988:III-H3-1; Netherton et al. 1978:27). Although the county's large landowners generally were situated in relatively close proximity to the Potomac River and tended to raise tobacco utilizing slave labor, the small farmers who lived in the county's hinterlands typically relied upon less labor-intensive forms of agriculture. Research has demonstrated that the average Fairfax County landowner was in possession of 200 to 500 acres, which he worked with the assistance of family members and one or two slaves or indentured servants. Such yeoman farmers were obliged to travel overland to procure goods and services which production was beyond their means and they needed to reach mills, churches and the seat of county government. Although craftspeople by the 1760s had begun to ply their trades in outlying portions of Fairfax County, most such artisans tended to congregate in urban communities where commercial facilities, such as retail establishments and warehouses, also were accessible. The need for access to urban centers led to the development and improvement of overland transportation corridors (Henry et al. 1988:III-H3-3).

The forerunner of what became the Little River Turnpike (later, Route 236) was an important early road that extended to the Ohio Valley. In 1785 it was surfaced with crushed stone to facilitate travel. In 1801 a commission was formed for the purpose of constructing a turnpike from Duke Street in Alexandria to the Little River and the town of Aldie. The proposed turnpike was intended to create easy access to the waterfront of what in 1779 had become the incorporated town of Alexandria (Geddes 1967:19,115; Netherton et al. 1978:198; Virginia State Library 1965:31). By means of Fairfax County's increasingly complex road network, farmers in the west were able to transport their wheat, flour, tobacco and other crops to market in Alexandria. Historical maps that date to the third quarter of the eighteenth century reveal that road from Vestals Gap to Belhaven (Alexandria), which roughly paralleled the Potomac River, was an important thoroughfare, as was the forerunner of the Little River Turnpike (Henry 1770; Fry and Jefferson 1755,1775; Jefferson 1787)(Figure 29).

Although the residents of Fairfax County, like other Virginians, were caught up in the American Revolution, military activity seemingly had very little impact upon the area's landscape. The aftermath of the Revolution brought about certain fundamental changes in Virginia's legal and social systems, but the old gentry families continued to dominate the political spectrum, just as they had before the war. Some of the county's more affluent



Figure 29: A Map of the most Inhabited part of Virginia (Fry and Jefferson 1775).

planters, who had gone into debt during the war, experienced financial difficulties that forced them to sell off some of their landholdings. Gone was the old Northern Neck Proprietorship, as was the Established Church, which played an active role in many aspects of community life. Various religious denominations came to Fairfax County, erected houses of worship, and introduced new social and cultural perspectives. It was in the aftermath of the American Revolution that Virginians in substantial numbers began moving into the vast territory which lay beyond the mountains (Henry et al. 1988:III-H5-1).

In 1789 the state of Virginia proposed ceding 10 square miles of land to the United States government, to serve as the capital of the newly formed nation. The proposed district's boundaries were delimited and in January 1791 President George Washington formally proclaimed the creation of the District of Columbia. Although Alexandria lost much of its international flour trade, as emphasis shifted to Baltimore and New York, the development of the new federal city attracted newcomers to Fairfax County and expanded its markets for agricultural products. When Alexandria became part of the District of Columbia, a new seat for the Fairfax County court was established at Providence, now the city of Fairfax (Henry et al. 1988:III-H5-1).

In 1793 a William Henry Terrett (perhaps the son and heir of the man who in 1741 acquired acreage that encompassed the Stone Tract) sold 133 1/4 acres of his plantation to Ludwell Lee (Fairfax County Deed Book X:225). Lee and his wife, Elizabeth, retained their acreage until 1799, at which time they deeded it to Benjamin Dulany. In 1815 the land changed hands again, when Dulany's trustees sold it to Thomas Watkins (Fairfax County Deed Book B No.2:456; O No.2:184). It should be noted that these land transactions occurred at a time the nation's economy was in a period of stagnation (Henry et al. 1988:III-H5-1).

By 1800 the population of the Fairfax-Alexandria area had grown to more than three times its size in 1742 (Netherton et al. 1978:27). Historical maps that were made during the early nineteenth century demonstrate that by that time overland transportation had improved considerably. Bishop James Madison (1807,1818), who in 1807 prepared a map of Virginia that was updated in 1818, emphasized the state's main thoroughfares (such as stage roads) while omitting many lesser-sized roads. Madison showed Route 1's forerunner, which developed from part of the track of the ancient Potomac Path, and he indicated that highways extended from Alexandria to Fairfax Courthouse, Colchester, Centerville and Georgetown, from which a network of roads also emanated. Two of the roads shown on James Madison's map were the Leesburg (or Middle) and the Little River Turnpikes, the forerunners of Routes 7 and 236 (Figure 30).

The Little River Turnpike, which received a modest amount of public support, also was financed through the sale of stock. By 1806 a section of the 34 mile turnpike was completed and its first 10 miles were opened to travelers later in the year. However, it wasn't until 1815 that construction was complete. Meanwhile, in 1813 several men organized a company to build a





turnpike from Alexandria to Leesburg. Construction got underway in 1818 and was completed in 1828, thanks to the assistance of the Virginia Board of Public Works. The Middle Turnpike, as the new highway was known,comprised a very direct link between Leesburg and Alexandria (Netherton et al. 1978:195,198). It should be noted that the Middle (or Leesburg) Turnpike (forerunner of Route 7) defines the northern boundary of the Stone Tract.

The map of Virginia produced by Herman Boye (1826) showed not only the state's older, better known thoroughfares but also a number of minor roads that by 1826 had evolved into public byways (Figure 31). By the 1820s, the market at Georgetown had diminished in importance and residents of the western part of the Northern Neck were directing their attention toward Alexandria. This was likely why Virginia's Board of Public Works decided to give public support to the construction of the Middle (or Alexandria and Leesburg) Turnpike (Wrenn 1972:12). During the late 1820s the Fairfax Episcopal Theological Seminary (now the Virginia Theological Seminary) was established at a site not far from the Leesburg and Little River Turnpikes; nearby was the Episcopal High School, which opened in 1839. Both of these educational institutions, which are in the general vicinity of the Stone Tract, have been operational throughout much of the nineteenth and twentieth centuries (Netherton et al. 1988:288,571).

Agrarian Fairfax (1840-1940)

Jedediah Hotchkiss (1835-1841), David H. Burr (1839) and Claudius Crozet (1848) depicted many of the same transportation corridors that had been identified by their predecessors a decade or more earlier. Hotchkiss also showed the tracks of the Virginia Midlands; the Washington and Ohio; and the Richmond, Fredericksburg and Potomac Railroads, all of which led to Alexandria (Figure 32). Stage coaches carried travelers overland to and from Alexandria. In 1854 Samuel M. Janney reported that:

In passing through that unfrequented part of Fairfax, which lies between the Little River Road and the Middle Turnpike [within which territory the Stone Tract lies], the traveller finds himself in a wilderness of pines and journeys for miles without seeing a single habitation. In a distance of twelve miles which we travelled through this district, we saw but two or three cabins, and nothing that is entitled to the appellation of a comfortable dwelling for civilized man. Yet most of this land was formerly cultivated in corn and tobacco, and having been exhausted by the mis-directed efforts of man, is now undergoing the process which the bountiful author of nature has provided for the renovation of the soil [Wrenn 1972:12].



Figure 31: A Map of the State of Virginia: Constructed inConformity to Law (Boye 1826).



Figure 32: Hotchkiss' Geological Map of Virginia and WestVirginia (Hotchkiss 1835-1841).

Although partisan issues, such as slavery and sectionalism, polarized the politics of the mid-nineteenth century, it also was a time of great technological change. Advances in the field of agriculture, which enhanced crop productivity and restored the fertility of worn-out soil, stimulated Fairfax County's rural economy. Wheat, corn, fruit and vegetables, in substantial quantities, were produced for urban markets, as were livestock and poultry, which were sold locally, regionally and nationally. This quickening of the economy occurred as scientific farming became both popular and widely accepted. Farming that was assisted by machinery also opened the way to greater crop diversification. During this era, small villages sometimes grew up around community service centers, such as taverns, stores, blacksmith shops, schools and churches (Henry et al. 1988:III-H5-1).

Despite these changes in the rural countryside, Alexandria continued to serve as a regional focal point of cultural and social activities and more complex commercial and industrial enterprises. The city, which for half a century was included within the boundaries of the District of Columbia, was returned to the state of Virginia in 1846; however it was made a part of the newly created Alexandria County, not Fairfax County, of which it formerly had been part. In 1852 the City of Alexandria received its charter and its corporate bounds were delimited. The city charter was amended in 1853 and in 1858 the city of Alexandria's bounds were expanded somewhat (Rose 1967:31; Reps 1972:209-210). Historical maps reveal that the study area was located in very close proximity to the boundary line of Alexandria County, within which the city was located (see ahead).

In 1847 the heirs of Thomas Watkins, who throughout much of the second half of the nineteenth century, were in possession of what became known as the Stone Tract, sold four of the decedent's 133 1/4 acres to John Skidmore. The land that Skidmore purchased reportedly lay on the north side of the Middle (or Leesburg) Turnpike (forerunner of Route 7) (Fairfax County Deed Book L No.3:188). A later-dated land conveyance suggests that the late Thomas Watkins left as his heirs four sons: David G., Thomas J., John H., and James M., who with their spouses, had a legal interest in the property (Fairfax County Deed Book I No. 5:384). It is uncertain whether Thomas Watkins, deceased in ca. 1847, ever occupied the land he had acquired from Ludwell Lee in 1793.

Because agriculture was the economic mainstay of Fairfax County throughout the nineteenth century, its inhabitants (particularly those who lived somewhat inland) needed to transport their produce to urban markets, where they also could procure the manufactured goods upon which they relied. The Richmond, Fredericksburg and Potomac Railroad was built in the 1830s and was Fairfax County's first rail line. Its trains transported passengers and freight to the mouth of Aquia Creek, where they could continue by steamer to Alexandria, Washington, Baltimore and other ports. In 1847 the Alexandria and Harpers Ferry Railroad, which was designed to unite with the Winchester and Potomac Railroad and establish a direct line to Alexandria from points west, received its charter; however, before construction of the

Alexandria and Harpers Ferry line got underway, the Winchester and Potomac was taken over by the Baltimore and Ohio. The Orange and Alexandria Railroad in 1850 began constructing its rail line, which originated in Alexandria. By 1853 the Orange and Alexandria's tracks reached Gordonsville, where they connected with the Virginia Central Railroad. In May 1853 the Alexandria, Loudoun and Hampshire Railroad was organized. Its officers planned to construct a central railroad between Northern Virginia and Keyser, in western Virginia. Although construction got underway in 1855, it was not until 1858 that the railroad's tracks reached Leesburg, 38 miles west of Alexandria. During the early 1850s the Manassas Gap Railroad line also was built. Although it leased trackage from the Orange and Alexandria that allowed its trains to reach Alexandria, the Manassas Gap eventually laid its own tracks into the city. Northern Virginia's rapidly expanding rail network linked western markets and the Shenandoah Valley with the seaport of Alexandria. The region's railroads and the local economy were thriving when the Civil War broke out (Geddes 1967:27-30).

The coming of the railroads exerted a tremendous impact upon Fairfax County's development, for communities grew up around rural train stations which often served as mail stops or post offices. Whereas settlements were clustered along the county's turnpikes during the early nineteenth century, by the 1870s many railroad stations had evolved into the nuclei of small communities (Henry et al. 1988:III-H6-1).

Civil War and Reconstruction (1860-1870)

Shortly after the outbreak of hostilities between North and South, those who lived in Northern Virginia became increasingly uneasy about what the future held. On May 24, 1861 Union troops crossed the Potomac and set foot on Virginia soil. Meanwhile, Confederate troops from Alexandria and Fairfax received orders to withdraw to Manassas, in nearby Prince William County. Soon, literally thousands of Union soldiers poured into Fairfax and Alexandria Counties, where they foraged in local citizens' gardens and availed themselves of poultry, livestock, timber and other personal property. County residents who lingered in the area were left to ponder whether they should stay or go. Within a matter of days, Union troops set about building a strong line of fortifications that were to comprise Washington's inner defenses. These earthen forts, which were armed with garrison artillery, were placed along the Alexandria-Fairfax line and secured by battery epaulements and infantry entrenchments that were designed to be resistant to assault. During the summer and fall of 1861, Union Army camps covered Seminary Hill, Cameron Valley and other locations to the south and west of Alexandria (Bohn [186-]; Magnus1863; Johnson and Buel 1956:II:161; Netherton et al. 1988:320-322).

A sketch map produced by V. P. Corbett in 1861 (Figure 33), upon which he identified some of the sites where Union troops were encamped, shows the Fairfax Theological Seminary and the Skidmore home, perhaps the residence of John Skidmore, who in 1847 purchased from the heirs of Thomas Watkins four of the decedent's 133 acres, a lot that lay to the north of the Leesburg Turnpike (Corbett 1861b)(Figure 33). Corbett identified the forerunner of Seminary Road as the "County Road." Union Army Captain B. S. Church, whose undated sketch covered much of the same territory, also depicted the Seminary and showed some of the other features in the area's built environment (Church [n.d.]) (Figure 34). A contemporary cartographer labelled several of the region's roads and topographic features, among which were the Leesburg (or Middle) Turnpike and Holmes Run (Anonymous [186-]) (Figure 35).

One of the fortifications erected in defense of Washington was Fort Ward, which construction got underway in September 1861. It has been preserved within a modern military park that is located in close proximity to the Stone Tract. Maps prepared by Union Army cartographers during wartime depict the countryside in which stood the fortifications that were intended to defend Washington from a Confederate attack. One topographically sensitive sketch, which is dated 1865, shows Fort Ward and the batteries that linked it to Forts Reynolds and Worth. In the vicinity of the study area was a dwelling that was attributed to a Mrs. Green (Engineer Bureau 1865a) (Figure 36). Another map shows both Mrs. Green and Mrs. Dove at the site (Engineer Bureau [n.d.]) (Figure 37). Other renderings that were produced for the purpose of depicting the defenses of Washington identified Fort Ward and the other forts and batteries that rimmed the city, but provided less information about the region's built environment. Some of these maps indicate that the study area was then wooded (Engineer Bureau 1865b,1865c; Bache 1865; McDowell 1865) (Figures 38,39,40, and 41). Certain cartographers chose to emphasize the railroads and public thoroughfares that passed through the region and led toward Washington (Blunt 1862; Hoffman 1864; Bache 1863) (Figures 42, 43, and 44).

Although no major battles were fought in Fairfax County during the Civil War, casualties from the First and Second Battles of Manassas (Bull Run) were brought to St. Mary's Church in Fairfax Station, where Clara Barton (founder of the American Red Cross) saw that they received medical care. Confederate Major John S. Mosby and his rangers reportedly operated at will within Fairfax County, where they preyed upon Union camps and supply lines (Fairfax County 1986). After hostilities ceased, maps were prepared to demonstrate the movement of the armies headed by Generals U. S. Grant and P. H. Sheridan. These maps show that the study area was somewhat remote from the countryside through which the armies marched (Engineer Bureau 1865d; Gillespie 1865) (Figures 45 and 46).



Figure 33: Sketch of the Seat of War in Alexandria and Fairfax Cos. (Corbett 1861b).



Figure 34: Untitled manuscript sketch of parts of Alexandria and Fairfax Counties (Church [n.d.]).



Figure 35: Untitled military map (Anonymous [186-]).



Figure 36: Defenses of Washington and Adjacent Country (Engineer Bureau 1865a).











Figure 39: Map of the Ground of Occupation and Defense of the Division of the U.S. Army in Virginia (Bache 1865).



Figure 40: Map of Northeast Virginia and Vicinity of Washington (McDowell 1862a).



Figure 41: Extract of Military Map of Northeast VirginiaShowing Forts and Roads (Engineer Bureau 1865c).



Figure 42: E. and G. W. Blunt's Corrected map of Washington and the Seat of War on the Potomac (Blunt [1862]).



Figure 43: Untitled pen and ink manuscript map of Fairfax County, with parts of Loudoun and Prince WilliamCounties (Hoffman 1864).







Figure 45: Central Virginia Showing Lt. Gen. U. S. Grant's Campaign in 1864-1865 (Engineer Bureau 1865d).



Figure 46: Central Virginia Showing General P. H. Sheridan's Campaigns in 1864-1865 (Gillespie 1865).

Reconstruction and Growth (1865-1917)

The end of the Civil War and the onset of the Reconstruction period brought many changes to Fairfax County and Virginia as a whole, which then comprised a military district. Some of Fairfax County's buildings were damaged or destroyed during the war, with the result that whole families were displaced or made destitute. Freed slaves immigrated to the vicinity of Alexandria, many of whom came with only the clothes upon their backs. Land that formerly had been under the plow, upon being abandoned, quickly grew up in thickets of weeds and briars that had to be cleared before it could be placed under cultivation. The demise of slavery as a legalized institution forced Virginia farmers to draw upon hired labor and sharecroppers, some of whom were ex-slaves that chose to remain near their former homes. The labor shortage was exacerbated by the fact that literally thousands of Virginia men lost their lives in battle or received permanently disabling wounds, such as the loss of a limb. As the majority of these ex-Confederate soldiers were rural males of working age, their elimination from the agricultural work force crippled the farm economy. Many rural families turned to raising less labor-intensive crops, such as vegetables and fruits that could be sold in urban markets, or they became more heavily involved in animal husbandry (McCartney 1988:165).

Technological advances and industrialization exerted a significant impact upon Fairfax County's economy, for newly invented farm machinery enhanced productivity and food-processing equipment made it possible to grow and preserve fruits and vegetables for year-round consumption. Some water-powered grist and saw mills were converted to steam and heavy industries, such as a plow factory, a fertilizer plant and a cannery, came to Fairfax. During this period, mining, quarrying, lumbering and other industrial-processing operations enlarged the county's economic base. The availability of cheap land attracted Northerners, who came to Fairfax in pursuit of investment opportunities. This increase in population encouraged doctors, lawyers and other professionals to settle in the county's rural communities rather than congregating in urban settings. Mercantile facilities, banks and other businesses also proliferated in Fairfax County during this period (Henry et al. 1988:III-H6-1).

Northern Virginia's railroads, which had been in the hands of the Union Army during much of the Civil War, were returned to their owners after combat ceased. Under a post-war agreement with the United States Military Railroads, the Alexandria, Loudoun and

Hampshire Railroad bought equipment and rolling stock, which it exchanged for its profits. The line eventually was renamed the Washington and Ohio and later reorganized as the Washington and Western. The old Manassas Gap and Orange and Alexandria Railroads were consolidated and renamed the Virginia Midland Railroad. By 1894 its lines had been taken over by the Southern Railway system (Geddes 1967:27,30). The Constitutional Convention of 1867-1868, which produced the socalled Underwood Constitution, effected a complete reorganization of Virginia's state government. At that time, county boards of supervisors were established as the administrative unit of local government. The creation of a system of public education, which support and attendance was mandatory, also stemmed from the 1867-1868 Constitutional Convention.

Suburbanization and Urban Dominance (1890-present)

In 1870 the city of Alexandria was split off from Alexandria County to form a separate political entity. This was done in response to the area's rapidly expanding population. Population growth gave rise to an increased demand for public services, such as post offices, and educational and religious institutions, such as schools and churches. Another change that occurred during the late nineteenth century was the increased importance of Washington as the nation's capital. The burgeoning governmental bureaucracy attracted new workers whose need for food fueled expansion of Fairfax County's agricultural economy, such as dairying, fruit growing and the production of livestock and poultry (Henry et al. 1988:III-H6-3). Hopkins' map (1879) of the Falls Church District, which identified prominently the Fairfax Theological Seminary and the Theological Seminary Post Office, suggests that no buildings then stood within the Stone Tract. Shipman's map (1886) likewise indicates that the property was vacant (Figures 47 and 48).

In 1890 the grandchildren of the late Thomas Watkins, to whom his 133 acre parcel had descended, sold its remaining 129 acres to Samuel H. Lunt, Francis L. Smith, and H. Frank Lambert (Fairfax County Deed Book I No.5:384). In 1894, when G. M. Hopkins prepared a map of Fairfax County's Falls Church Magisterial District, the three men's names and the quantity of land they owned were inscribed upon the area in which the Stone Tract is located; the home of Edward Dove was shown on the parcel and is the same house as the Green/Dove dwelling depicted by Union cartographers during the 1860s (Hopkins 1894) (Figure 49). In 1901 Lunt and Smith partitioned their property, at which time Lunt received 60 acres and Smith was left in possession of a residual 70 acres that is included in the Stone Tract (Fairfax County Deed Book H No.6:326,394). The two men, as investors, may have decided to meet the challenge of urban expansion in different ways.

The advent of the twentieth century brought a number of significant changes to those who lived in rural Fairfax County. Steam- and horsepowered farming equipment was replaced by gasoline-powered tractors that were both faster and more efficient. Likewise, horse-drawn vehicles gave way to trucks and automobiles, which in turn necessitated road improvements. As animal-propelled vehicles decreased in use, tracts of land formerly used to raise livestock feed were re-planted in crops that were intended for human consumption. Rural electrification and telephone service, the paving of roads and the establishment of rural mail delivery further broadened the horizons of Fairfax County residents who lived in the countryside outside of



Figure 47: Falls Church District No. 4 (Hopkins 1879).


Figure 48: Map of Fairfax County (Shipman 1886).

A Dreuss . Ta . s Est 5 3.111. E.Il Sil 1 5111 17 33314. Rob! E. I.e. 1+1 S.A. Su. TAS Eisz. at+a Luntz, SmillA Ter Ett., Elu Lumbert James arah (i.Smith 8 SGE H. n.H. Terrett Est. đ Der B ja HYCHUFC 5 R -Blackford Alt 4 STONEGATE ing B.Shur 1 sty WJ. Feterning. 3 LACCella 6 8 IL Uler. Se S. Ferront in-B "1."= d. SC. E. Lee. dely "=the B Kiur ST Bonta : 23.... Clerchand Sa. Geo. Hise 59'01 Ureland. liz. EuchErr D ð 61 Y P/1 ET. High a B ETI. Em and SiL. .Sr Tinul Schi I FEFLISON SCHE 2=11. Ho HUNTE Kelge ·:---£ *Terbert* OO.H.Thil Sala Qa H.E TIERON hes achuri

Figure 49: Map of the Vicinity of Washington, D.C. (Hopkins 1894).

Alexandria. Growth in the corporate sector also occurred during this period. The expanding scope of the federal bureaucracy, with departments designed to regulate what had evolved into a national and global economy, brought more government workers into the area. In 1915 866 acres of Alexandria County land and 450 acres of Fairfax County property were annexed to the city of Alexandria; five years later Alexandria County was renamed Arlington County (Henry et al. 1988:III-H10-1; Rose 1967:31). Evidence of the rate at which eastern Fairfax and the Alexandria area were then expanding is apparent on several maps that were produced during the late nineteenth and early twentieth centuries (U.S.G.S. 1891,1895; Clement 1891; Engineer Corps 1892; Noetzel 1907; Choate1910; U.S.P.O. 1912) (Figures 50 through 56).

World War I to World War II (1917-1945)

In 1930 the city of Alexandria annexed additional portions of Arlington County, with the consensus that the acreage being added was adaptable to city improvements and was likely to be developed within the near future (Rose 1967:31). It may have been the prospect of annexation and potentially rising taxes that led Margaret V. Smith, who had inherited Francis L. Smith's 70.37 acres (the Stone Tract), to dispose of her property in 1925. Ms. Smith, as grantor, noted that the acreage she was deeding to Dr. Martin D. Dulaney for \$10 was "in consideration of [the] long, efficient and faithful medical services" he had provided over the years (Fairfax County Deed Book P No.9:412). Within two years, Dr. Dulaney's 70.37 acres had come into the hands of Courtland H. Smith, who on April 6, 1927 sold it to George Garrett of the City of Alexandria. Garrett also purchased from Smith a 55 acre tract that lay nearby but was descended from another land ownership tradition (Fairfax County Deed Book Z No.9:96). George Garrett, within 18 months of purchasing Courtland H. Smith's land, deeded 0.367 acres of his 70.37 acre parcel to Edward Dove, whose property lay to the southwest. Dove, in turn, conveyed the small parcel to his trustees (Fairfax County Deed Book B No.11:181).

George Garrett was dead by 1935, at which time his landholdings descended to his widow, Sarah B., whom he named as his executrix and heir (Fairfax County Will Book 17:13). In 1936 several owners of lots in the nearby Fort Ward Heights subdivision(which the Garretts had been developing) sued Mrs. Garrett and her late husband's estate, in an attempt to remove certain legal encumbrances stemmed from the Garretts' having mortgaged their landholdings in Fairfax County (Fairfax County Deed Book C No.12:600). Six years later, on April 1, 1941 Mrs. Sarah B. Garrett deeded to Edith B. Garrett several properties, including certain lots in Braddock Heights, Fort Ward Heights, and Eagle Crest, plus the two tracts George Garrett had purchased from Courtland H. Smith in 1927, except for the 0.367 acres he had deeded to Edward Dove in 1928 (Fairfax County Deed Book F No.15:559). In November 1941 Sarah and Edith Garrett conveyed the residue of the Smith tracts to



Figure 50: Mount Vernon quadrangle (U.S.G.S. 1891).



Figure 51: Map of Washington, D. C. (Clement 1891).











Figure 54: Map of Fairfax County (Noetzel 1907).



Figure 55: Map of Fairfax County (Choate 1910).





Henry S. Huidekoper, who used the property as collateral when obtaining his purchase money. Excluded from the transaction was the 0.367 acre lot that had been sold to Edward Dove in 1928 (Fairfax County Deed Book J No.15:440,442).

During the early 1940s, attempts to reduce the proliferation of federal boards and agencies only served to accelerate government expansion, for this period was characterized by a foreign policy that increased the size of the military establishment and generated new governmental agencies (Henry et al. 1988:III-H10-1). The Stone tract, during this period, may have been seen as potentially developable property.

Henry S. Huidekoper sold the Garrett property to Mary Anne Moore in July 1942, who promptly deeded it to her trustees. During the next two years Ms. Moore's trustees conveyed her mortgage and land (which she had used as collateral) to other groups of trustees. One set of trustees was obliged to deed a 13.62 acres of the Moore (Garrett) tract to the Virginia Department of Highways for the construction or improvement of the intersection formed by the junction of Shirley Memorial Highway with Route 7. Later, a small portion of that acreage (2.42 acres)was returned to Ms. Moore's trustees (Fairfax County Deed Book 401:512,514,516,519;415:110; 462:120). In August 1945 the individuals who ultimately served as Mary Anne Moore's trustees deeded the residue of the land she had bought from Henry S. Huidekoper to the Woodland Hills Corporation, which promptly mortgaged the property (Fairfax County Deed Book 462:123,127,135).The developers most likely hoped to capitalize upon the economic boom that occurred on the heels of World War II and gave rise to a marked increase in Northern Virginia's population.

In 1947, when the Woodland Hills Corporation was dissolved legally, its landholdings were conveyed to the Shirley Hills Development Corporation (Fairfax County Deed Book 597:205). A decade later that organization conveyed an easement to the City of Alexandria for the construction of sewer lines, for in 1957 the corporate limits of Alexandria expanded to encompass the study area (Fairfax County Deed Book 457:450). During the 1950s and 60s the population of the region in which the study area lies grew at a remarkable rate, as people flocked to the governmental, military and scientific facilities that were concentrated in the metropolitan Washington area (Geddes 1967:128). Again, many of those who owned developable land foresaw an opportunity for economic advancement, although many newcomers to the area gravitated toward the planned communities that characterized much of suburbia (Henry et al. 1988:III-H10-3). A topographic quadrangle sheet that was published in 1951 indicates that a structure then stood in the same vicinity of the house that had been occupied by Mrs. Green and Mrs. Dove during the 1860s (U.S.G.S. 1951) (Figure 57).

In August 1965 the Shirley Hills Development Corporation, which was obliged to liquidate its holdings, sold to Paul T. Stone of Delaware "certain undeveloped real property," the 71 +/- acre parcel that in 1927 had been sold





by Courtland H. Smith to George Garrett (Fairfax County Deed Book Z No.9:96; City of Alexandria Deed Book 631:503). A short time later, the Virginia Department of Highways expanded Route 395's right-of-way, taking part of Stone's acreage (City of Alexandria Deed Book 637:662;648:139)¹ Paul T. Stone died within three years of the time he purchased the defunct Shirley Hills Development Corporation's property. Under the terms of his will his landholdings were placed in the hands of trustees, who had the authority to manage, lease, sell or exchange his assets until his youngest heirs (his grandchildren) reached age 30; Stone also left an interest in his landholdings to his ex-wife, Zilpha (City of Alexandria Will Book 78:431). During the years the Stone Tract was in the hands of the late Paul T. Stone's trustees, the City of Alexandria acquired part of it for a street improvement program (City of Alexandria Deed Book 689:256).

In 1973, Paul T. Stone's grandchildren (Claudia S., Paula, and David G. Johnsen) and Mrs. Zilpha F. Stone joined United Virginia Bank in an agreement which specified that the Stone Tract could be subdivided and developed. Within a week the Stone heirs and trustees deeded their interests in the property to the Stone Tract Associates, a general partnership which expressed intentions were to subdivide the property into lots and streets. Waterline easements were granted to the Virginia American Water Company in April 1974. Two years later, in 1976, United Virginia Bank deed edits interest in the property to Claudia Paulette (Paula) Johnsen. In 1986 the bank, as trustees, conveyed the residue of its control over the property to David G. Johnsen and Claudia Paulette Johnsen(City of Alexandria Deed Book 754:303,318;775:466;844:509; 1187:1222). In September 1988 David G. Johnsen and his wife, Lynn, used their equity in the Stone Tract to secure a loan. The Johnsen couple's deed of trust was revised in January 1989, December 1990, and January 1991 (City of Alexandria Deed Book 1253:178;1264:1083;1316:757;1318:1928).

Site History

The area where the Stonegate II(44AX167) site was located has a somewhat confusing history but in itself is an indicator of cultural dynamics of the area and the people who lived there. The strip of land where the site is located is at the north end of Stonegate parcel A.

The Alexandria Archaeology map overlap show a historic structure that may have been located on the current Stonegate property. This estimation was based on the review of several historic maps that were

¹Stone and his wife had acquired 2.167 acres of neighboring property (a portion of the Dove tract) in July 1953, which acreage they sold to Norma Buchanan in November 1960 (Fairfax County Deed Book 360:268; City of Alexandria Deed Book 526:408).

overlain on a current map of the City of Alexandria. This was done in many instances with very good accuracy to locate historic houses and features.in a modern context.

A structure, located on a sector map from 1865 was labeled "Mrs. Green, Mrs. Dove" in the location of the Stonegate II historic site (Figure 58). The property line of the Lee families Washington Forest which is the northern boundary of the Stonegate development has ben drawn on the map for reference. This map was overlain on a recent aerial photograph with the help of Mrs. Beth Mitchell and it clearly shows a close correlation.

A suit filed in 1870 by a daughter of Peggy Dove, Margaret Cease (wife of Samuel Cease) apparently disputed her will as her heirs were listed as Sarah Green, Jane (Mrs. Frank Luckett), Eli Dove, Edward (sic) Dove, Fairfax Dove, and Amanda (Mrs. John or Joseph Daniels) -Cease vs. Lisby CFF 17K (1870). It is unclear whether Sarah Green was a friend or relative, but it is believed that both she and Jane may have been sisters, one of these two is probably the Mrs. Green shown as co-tenant on the 1865 map. Records for the 1860 census show Robert and Peggy Dove to have three children, Eli 21, Fairfax 16, Edgar 14 and another child William Bustby, age 10, to be part of the household. It appears that before Peggy Dove's death just after 1864 that she had two more daughters, Amanda and Margaret. This presents another incongruity. It is difficult to understand what reason would have occurred that Margaret was omitted from her mothers will.

The specific ownership and identity of the tenants of the property where the historic site is located was a difficult task to ascertain. It is apparent that it resided within the Dove family with different relatives having been present at different times. The 100-150 foot wide slightly wedge shaped strip of land that occupies the northern limit of Parcel A where the site is located has a questionable chain of title and its ownership came into dispute in 1952. The discrepancy is apparently related to the difference in the location of the southern boundary of Washington Forest and the difference between the surveyed line and the one established by "call" (Figure 59 & 60). A suit in the Circuit Court of the City of Alexandria in 1953 leaves more questions than it answers. A review of the Chancery records of this case and the depositions of individuals recorded in the suit suggest that the property where the house is located was in the Dove family for many years (City of Alexandria, Chancery #3060, Doc. I-20).

The deposition of Mr. Robert Lee Dove in the 1953 case sheds some light on the history of the site. At the time of the deposition he testified that he was 70 years old and had lived in the immediate vicinity his entire life Mr. Dove's testimony began by stating he was familiar with the strip of property "occupied by the Terretts, Daniels, and Doves". The questioning by the attorney is as follows:



Figure 58: 1865 Map showing " Mrs. Green and Mrs. Dove" house relative to Washington Forest southern property line.



Figure 59 Stonegate property overlay.



PROPERTY BOUNDARIES DELINEATED IN 1953 COURT CASE

Figure 60 Property boundaries delineated in 1953 court case.

Dove-	Well, yes, I never knowed all about it. I don't know any of the transactions in the business. I know Mr. Terret has been there all his life.
Attorney-	You know that Mr. Terret has been there all his life?
Dove-	Yes.
Attorney-	Now, have the Terrets been reported to be the owners of the property in this neighborhood?
Dove-	I never heard it called anything different than Terrets.
Attorney-	You don't know of anyone who ever made a claim against the property?
Dove-	I never heard of anyone claiming but them.

Immediately, upon cross examination, he stated the following:

Attorney-	Now, you know this piece of land, about three acres that Edward Dove lived on
	for a long time, didn't you?
Dove-	Yes
Attorney-	Did he always claim that to be his?
Dove-	Yes, sir.
Attorney-	Did anybody but the Dove family claim
	that in your time?
Dove-	Not as I ever heard of. My grandfather
	lived there.

(Circuit Court, City of Alexandria, Chancery #3060, part 2.)

It can be seen that the testimony is confusing but it also shows the long time occupation of the property by the Dove family.

He also testified that his grandfathers name was John Dove. Testimony from Margaret Howard (Dove), the sister of Edward Dove who lived on and owned the property, stated that he had gotten the property from their grandfather. When asked what his name was she said, " I think it was Ben Dove". The records show that her grandmother, who she remembered her name, was married to Robert Dove!

The testimony of Margaret Dove Howard is typical of the difficulties in understanding the relationships between relatives and ownership of the small pieces of property. She responded when asked about the transfer of 1/4 acre of land to William Daniels and the deeding of land to her sisters and brother that : "Florence Kitts is my sister, Mary Dove's only child. He had no deed for that at all. He gave his sisters \$10.00 for their shares but he never had any deed."

Despite these discrepancies it appears that a brief summary of the people who lived on the property can be drawn. The earliest occupants that can be traced were Robert and Peggy Dove in the mid 1800's. One of their sons Edward remained on the property and is noted on a map of 1894 (Figure 61). Their children included Margaret (Dove) Howard, Minnie (Dove) Smith, Edward and Florence (Dove-Daniels-Kitts). Edward , the grandson, apparently remained on the property until 1927 when it is reported that "buildings burned". The purchase of .56 acres of property on Leesburg Pike by Edward with his wife Lillian appears to end the Dove occupation on the property. A lot, or a portion thereof, owned by Minnie Smith was sold to William O. Daniels. that adjoined the property to the west.

The first appearance of the Doves on the tax rolls is the 1927 report of "buildings burned" and it is assumed that he may have been avoiding taxes for many years. The next reference indicates that a structure had been built on the .6 acre lot adjoining the Dove property owned by Florence (Dove) Daniels in 1941 that was valued at \$300 (Falls Church Land Tax Record,1941). In 1942 Charles M. Reid acquired the 1.55 acres that included the former Edward Dove lot and an assessment for a building valued at \$200 was recorded. In 1944 Reid had acquired 3 of the 4 lots , which included the Daniels property, along this strip of land at the northern edge of the property and the two structures were both assessed at a value of \$300 each.

In the suit to quiet the title in 1953 the house was described as a single story frame structure (Figure 62). It is unclear whether this was the only structure on the property as it is often that in legal descriptions or for purposes of taxation that other non-domestic structures or improvements i.e. barns were not described.

It is of interest to note that the structure appears to have been extant at the time of the suit in 1953. Aerial photographs from 1948 show two structures on the property whereas the later aerial photograph from 1960 shows the structures to have been razed.(See aerial photographs-Appendix I) This narrows the end point of the sites occupation to within a seven year period.

Artifactual evidence recovered during the surface collection and other investigations of the site suggests a date from the mid-19th century. The deposition of Mr. Robert Lee Dove, and Margaret Howard (Dove) that their father and grandfather had occupied the property, corroborates the artifactual evidence recovered from the site.

To summarize, historic research revealed little to understand the Dove family their socio-economic status or their place in society. The artifactual evidence that was recovered from the site was limited and disturbed and did not provide significant information for further historic research. The historic records from many sources suggests that the owners of the property acquired the property differing reasons that remain unknown and that the property remained unoccupied for most of its history.

Frind. 14411 H: Bil: 1-151 uri.10. E ·S Suiraili Rob! C W. DUTIN. 1 M. Ilwie P'Ein 300 EPROPERTY ah. OF S AT TINTC 36 N.H. Terrett Est Ma 8 ja XY. Blackforde 5.5 UL B.Shirled 1.54 WJ.Fitter N S. Heri H1-1 mann t - 1 .. loriland Sa. Hearr Bontz Ged. land. hr. EUCHAST 4.50 Z.JIL. 2=11. rla :1 ich -1 . ---

Figure 61 1894 map showing the location of the "Edward Dove" house and the boundaries of the Stonegate property.



NORTH

ENLARGEMENT OF PROPERTY SURVEYED IN 1953

Figure 62 Enlargement of the strip of land with Dove family owners and the location of the house constructed in the 1940's.

Development from 1937 to the Present

The western portion of the City of Alexandria has seen a rapid expansion in the rate of development in the past 50 years. There are many reasons that contributed to this rapid growth including the post war expansion, modernization and growth of the federal government. The progression of this development has been gleaned from a series of aerial photographs taken in 1937, 1948, 1960, 1968, 1985, and 1991 (Appendix I).

These photographs contain a great deal of fascinating information but there are two parameters that are most relevant in helping us understand the area during this later half of this century. They are the development of infrastructure, i.e. roads and construction (The changes in vegetation as it applies to the development of the Stonegate sites is discussed in the section Cultural/Botanical Analysis)

It is often a difficult task to examine a series of aerial photographs without becoming confused or distracted because of the wealth of information that is present in a photograph. To simplify the the situation and to focus attention on the development and construction of roads a simplified graphic has been prepared that highlights the areas that are developed or not developed and the location of roads in the area. These graphics have been prepared to the same scale and the graphics copied onto acetates to facilitate visualizing the development of the immediate area. The acetates have been assembled in a reverse chronological sequence so that one can peel off a layer of development one sheet at a time. It was felt that for those readers who are familiar with the area that this would act to take them from a map that was familiar with known roads and help them understand the older road systems of the area that preceded them. When using this graphic series a loose blank sheet of paper, which should be in position beneath the 1991 graphic, is the starting position and it should be used in conjunction with the appropriate aerial photograph from Appendix I.

In 1991 when the aerial photograph was taken it can be seen that the entire perimeter of the area surrounding the Stone Tract has been completely developed. To the west, Southern Towers, to the south I-395, to the north Newport Village Apartments, to the east a series of high rise apartments. and bisecting the tract is Braddock Road or more accurately West Braddock Road. (Figure 63)

To continue, peel back the 1991 graphic and move the blank sheet of paper behind the next graphic while continuing to hold the 1991 graphic out of the way. This graphic drawn from the 1985 aerial photograph shows very little chang , and the period of change where significant changes occurred is between 1985 and 1968 (Figure 64). The 1968 graphic shows that the apartment buildings at the northern boundary of Stonegate property and those on the west side of Braddock Road had not been built. Perhaps the most striking feature that is missing is the current Braddock Road and that there doesn't appear to be any road that existed before it was built. Another feature







is that one of the spans for the Braddock Road underpass was under construction (Figure 65).

Going further back in time , the 1960 graphic shows that Southern Towers had not been built yet and that Shirley Highway was still a four lane divided highway (Figure 66). The road that runs nearly straight up and down on the graphic is Old Leesburg Road, not Braddock Road. The road that branches off to the left is Braddock Road. This road continues northwest and cuts across Seminary road at the current day Beauregard intersection and descends down Winkler Run into where the Winkler Botanical Preserve is currently located. The road that branches off to the upper right is the old driveway to the Dove property and has remained unchanged for over 100 years. The road branching off to the right is an older road that runs along the floodplain of the creek. It is believed that the small driveways that shoot off this road were used to dump concrete into the stream bed to control erosion.

Peeling back another 12 years to 1948 we see the same roads; Braddock angling off to the left, Old Leesburg Road running straight up and down, the old road running along the creek floodplain and the Dove driveway (Figure 67). There is one apparent change in that the Dove driveway appears to continue beyond the house to connect with King Street to the northwest and it also continues to the west.

Regressing another 11 years to 1937 the picture changes even more and presents several questions (Figure 68). Braddock Road is still recognizable angling off to our left but the road that comes in from the west, the reader's left, joins into what is known as the Old Leesburg Road. This change in the road pattern can not be explained nor can the the route of "Old Leesburg Road" be verified.

It can be seen that the immediate area has had a developed network of roadways for many years and encroaching development brought improved and larger roadways along with it.





Figure 66

Graphic showing Stonegate vicinity 1960.



Figure 67 Graphic showing Stonegate vicinity 1948.



Figure 68

Graphic showing Stonegate vicinity 1937.

METHODOLOGY

Field Methodology

The methodology for investigating the 22 acres of land evolved through a continuing process of consultation with representatives of Alexandria Archaeology. This process included submitting proposed field work methodologies, research objectives, requested archival research, literature reviews, preliminary research and justification for their implementation. A number of meetings and several tours of the site areas were held with Alexandria Archaeology to better assess the archaeological requirements for the site and to assure that unnecessary excavation was not undertaken. During these meetings requests for additional or more specific information was sought in an effort to streamline or limit the scope of work.

The following methodology is explained in a chronological sequence as it developed with discussions with Alexandria Archaeology in order to better enable the reader to understand the reasoning and justifications for the methodologies. Many of these decisions in regard to specific numbers and unit locations are contained in a number of communications, agreements, and Scopes of Work and they have been included in Appendix C-Relevant Communications.

Before any work had been proposed a pedestrian walkover of the three Parcels A, B and D was undertaken (See Figure 1). Consideration for the topography, soil type, and ground cover were considered during the reconnaissance. Comparisons between the Stonegate and Winkler Properties were assessed and a research methodology developed.

After this evaluation had been undertaken, a proposed methodology for investigating the area was submitted and approved by Alexandria Archaeology. The methodology for this portion of the investigation is part of the Scope of Work which is included in its entirety in Appendix C.

The methodology for the initial survey was primarily to excavate 30 centimeter diameter shovel tests on a 50 foot grid pattern over the majority of the area to be surveyed. The first efforts to layout this pattern of shovel tests were based on the locations of proposed boring holes on Parcel D. These boring hole locations were chosen as they were previously surveyed points and conveniently dispersed over the area. A pattern of four shovel tests were planned to be excavated in each of the four cardinal directions from the known boring hole location. During the process of laying out the shovel tests with the use of a sighting compass and fiberglass tape, discrepancies in the location was noted on the topographic map as being near the bottom of a deep drainage and in reality it was located nearly 50 feet to the east near the edge of the drainage. Although the locations of the surveyed points may have been accurate, the location on the plan for the test borings were inaccurate.

A secondary plan was implemented to establish a fifty foot grid on parcel D starting at the southeast property corner. From this point an eastwest baseline was established with the a Leitz DT20E electronic digital theodolite. Distances along the baseline were measured with a 100 foot fiberglass tape, and the locations marked with pin flags. Additional lanes and locations were laid out with the use of a wooden sighting gauge used in conjunction with a Suunto sighting compass. This method utilizing the sighting gauge was very accurate and more efficient than the theodolite. On Parcel A the same pattern and procedures were implemented, and the grid was originated from the northwest corner of the Parcel at the top of the terrace.

The use of magnetic north rather than true north was based on the simplicity and mobility of the sighting compass and the ability to return to any given point within the grid without the use of sophisticated equipment. This procedure was further justified by the immediacy of the project. Whereas, the relocation of any given point would only be required for at most a few months rather than over many years where precession and magnetic declination may be factors in relocating any given location. The grid was laid out in late September and early October, 1992.

A portion of Parcel A and a larger portion of Parcel B are comprised of slopes that are in excess of 12 %. Based on observations during the survey of the Winkler property, and assessments in the literature these areas were considered to be of very low probability for cultural occupation and therefore the slopes were not the primary focus of the survey. To further support the assessment, two shovel test transects were placed so that they ran from the edge of the terrace to the floodplain of the creek with 50 ft. spacings between the tests.

After the initial Scope of Work was approved for the shovel testing of the area as described above, a significant portion of the study area of Parcels A & B was disturbed as a result of the boring activities to examine the substrate. An immediate halt to the boring activity was ordered by Eakin/Youngentob Assoc., Inc. It was determined that the request for a second drilling rig to expedite the project had lead to the disturbance. The second drilling rig was mounted on a four wheel drive truck and is far less able to handle the steep and heavily forested areas as well as the usual swamp buggy drilling rigs. To facilitate the use of the truck mounted drilling rig it was determined by the contractor that the most practical division of labor would be to utilize the truck on the flat terrace areas and the swamp buggy rig for the sloped areas. In an effort to get the truck rig to the locations it became necessary to bulldoze roads to each of the numerous boring locations on the terrace and hence the level of disturbance that has occurred on the site. This disturbance was reported to Alexandria Archaeology and an amended Scope of Work to address the disturbed areas was defined. (See Appendix C, IAC- AA 9\22\92)

This amended Scope of Work called for a controlled surface collection of the area that was disturbed. The collection was undertaken by two individuals walking together down the disturbed "roads" which are about 10 feet in width. Any artifacts that were encountered were recovered and their location placed on a site map. In the area where a house site was identified and the artifacts were very numerous, a selective collection was made of diagnostic artifacts to determine the period of occupation at the site. The majority of artifacts along the roads were historic in nature and many of these were clearly displaced from their original locations or were in a disturbed context.

The shovel tests were excavated after the field crew had received a briefing and a review of the soil profile that was to be encountered. The tests were 30 cm. or 12 inches in diameter and were excavated to a pre-cultural level of orange red clay. No individual soil profiles with soil smears and Munsell colors were undertaken as the consistency of the soil profile precluded the need for such repetition. Instructions were given to record any variation from the standard profile, and to record the total depth of each test pit. Before backfilling the shovel test a 1992 penny was placed in each pit as a temporal indicator and the pin flags were replaced to mark the test location. Because the site was scheduled for immediate development the pennies in each test pit served as a backup if the pin flags were accidentally removed and the shovel test needed to be relocated.

All material recovered from the shovel tests was screened through a 1/4 inch mesh screen and all remaining material was bagged for water screening. The composition of the soil and moisture content made recognizing lithic materials difficult under dry screening conditions. More importantly the water washing and personal examination of the screened material removes any identification or skill level biases from the recognition of lithic materials.

The results of the investigation from this shovel testing and surface collection revealed two archaeological sites. Both sites are located on Parcel A on the north east side of West Braddock Road. A prehistoric site that measures approximately 150 x 250 feet near the edge of the terrace (Stonegate I) and a late 19th-20th century domestic site located at the northeast corner of Parcel A (Stonegate II), and, a cement and stone slab used for feeding pigs that is associated with the house site (located at the Northwest corner of Parcel A)... The density of the prehistoric artifacts and the artifacts indicating a turn of the century date for the house site suggested that further investigation of the sites would be recommended.

To address the need for further work on the prehistoric site a summary of the information that had been recovered was presented along with recommendations for further work during a tour of the sites with Dr. Steven Shephard of Alexandria Archaeology. From the discussions held during the tour, Alexandria Archaeology proposed that between 25-30 test units be excavated to determine a number of research questions, and that the proposed outfalls that cross the stream floodplain would need to be investigated as well.

A Scope of Work for this portion of the prehistoric site investigation and the testing along the outfall corridors was submitted with corrections and additional information for review by Alexandria Archaeology. The Scope called for a total of 28 - 1 x 1 meter units to be excavated over the site area and a transect of shovel tests at 10 foot intervals along the centerline of the two proposed outfalls.

Methodology for the shovel test transects along the outfalls was made with careful attention being paid to stratification of artifacts by excavating each shovel test in 10 cm. arbitrary levels from the ground surface. An examination of the floodplain area on the south side of the stream showed that the area was a result of recent accretion. Evidence of the disturbance was detected from cloth and 1/4 inch magnetic recording tape protruding from the profile of the stream cut many inches below ground level. Obviously, shovel testing would not be required in this area.

Investigation of the outfalls began with a review of sites in the area that showed that a site (44AX31) had been located during a reconnaissance survey conducted in 1979. This site was located along the creek nearly equidistant between the two outfalls. The area is currently forested and covers approximately 100 feet from the creek towards the terrace slope. Fieldwork began with shovel testing along the centerline of the corridor to determine the presence of cultural occupation. Lithic debitage was recovered from a number of the shovel tests along both the northeast and southwest storm drain corridors. The results of the shovel tests can be seen as notations on the corridor drawings or examined in the artifact catalog-Appendix B.

Further testing was recommended to determine if significant amounts of cultural material or intact cultural features were present by excavating 1 x 1 meter units along the length of the corridor at 10 foot intervals. During our weekly meetings to discuss the progress of the investigation, a request was made by Alexandria Archaeology to excavate another row of shovel tests at the eastern edge of the corridors as the width of the corridors were found to be a few feet wider than originally determined. During the following week it was determined that the shovel tests along the eastern edge of the northeast corridor could not be excavated as they were located in a highly disturbed area. During the same week, excavation units along the Northeast storm drain corridor were completed and revealed few artifacts and no cultural features.

At the meeting the following week it was agreed that the shovel testing along the southwest storm drain corridor would not be beneficial and that three excavation units should be placed along the length of the corridor rather than the original six units that had been planned. These excavations revealed lithic debitage in limited quantity and no cultural features. These findings were presented to Alexandria Archeology the following week and it was agreed that no further work would be required along either corridor.

Excavation of the 28 test units at the Terrace 1 prehistoric site was conducted in accordance with standard procedures which require that all units be 1×1 meter and measurements be in the metric system. Each arbitrary level was 10 centimeters in depth and all recovered material was screened through 1/4 inch mesh hardware cloth. Variations of these procedures occurred as the concentration of artifacts was determined to be at or within 20 cm. of the surface. The leaf detritus and poorly formed forest soil would be excavated as an individual level as a number of flakes were coming from the base of this level or what would be an original ground surface. Level 2 was then excavated to 10 cm. to re-establish the arbitrary level sequence. In instances where minor variation in an otherwise flat topography occurred the arbitrary levels were associated with the beginning of soil rather than being referenced to the datum. This allowed for the accurate recovery and interpretation of materials excavated from a level below the ground surface.

Any features that were encountered were given individual designations either numeric or alphabetic as the situation dictated. Each feature was sectioned with one half of the feature being collected for floatation analysis, and the feature being drawn in plan and profile views. The other half of the feature was excavated and wet screened thru 1/4 inch mesh screens. Any charcoal encountered in association with a feature was collected for radiocarbon dating. Faunal and floral analysis for any remains recovered from floatation sampling or during the excavation were analyzed.

After the completion of the 28 excavation units further review and discussions with Alexandria Archaeology lead to a revision in the required work. The results of the excavation of these units indicated that there were significant undisturbed lithic concentrations in three of the units. To further investigate these concentrations a pattern of hop scotched units alternating every other unit was excavated in the four cardinal directions around each of the lithic concentrations. This pattern was used to define the limits of the lithic concentrations.

In addition to these hop scotched units, a pattern of units was excavated over the entire site area on the five meter grid. These excavation units were required to assure that lithic scatters no greater than five meters in diameter were present anywhere on the site. The original estimate of the size of the lithic scatters appeared to be less than 5 meters in diameter but it was considered to be statistically probable that smaller scatters could be encountered with this "carpet bombing" methodology.

After the hopscotch units had been completed and a number of units had been excavated on the 5m grid pattern, the results were discussed during the weekly meeting held with Alexandria Archaeology. They requested to limit the depth of the excavation units based on the analysis of over 40 units that had already been excavated and the limited amount of information or data that was being recovered from the lowest excavation levels. After extensive discussions and review of the artifacts recovered and their spatial distribution, both vertically and horizontal, it was agreed that the excavation of the additional units could safely be limited to three levels of excavation rather than the five levels that had been excavated to date.

After the completion of the excavation units on the 5m grid no further lithic concentrations were detected and a careful examination of the concentrations that had already encountered was discussed. Based on the results and the preliminary analysis of the materials recovered it was decided to mitigate, due to the undisturbed nature of the lithic concentrations. In discussions and review with Alexandria Archaeology the limits of the scatters were estimated based on the materials recovered in the hopscotching of the units around the concentrations. The units to be excavated were selected and it was agreed that if units contained more than 50 lithic flakes that the excavation would continue until fewer than 50 flakes were recovered.

Mechanical Excavation Methodology

It was also discussed that a number of units in the concentration 6/28, 10 or the feature in Unit 56 would be excavated with the assistance of mechanical equipment if possible. This methodology was proposed to expedite the work if it could be accomplished with the necessary control. A small tracked skid loader called a Commander with a 48 inch wide front end bucket was proposed to do the work, because of it's small size, tracks, and hydraulic control (Figure 69). Unfortunately, two factors limited it's use to the excavation of just two units; the extremely wet or saturated ground conditions and the presence of small trees greater than two inches in diameter. The wet ground conditions made the accurate vertical control of the levels to be removed extremely difficult as repeated passes in the same track tended to liquify the ground under the tracks and prohibit a level plane for the skid loader to operate upon. In addition the skid loader was not able to cut the small trees cleanly which interfered with controlled shaving of the levels.

Another mechanical excavation tool that was used was the use of a Terramite tractor with a front end loader and a small backhoe (Figure 70). The backhoe was used to excavate the two depressions thought to be privy/wells/metal detector holes. The backhoe bucket was 12 inches wide and the hydraulic actuation allowed for very precise control in the excavation. Although only one of the two depressions was scheduled for investigation it was found immediately upon beginning the work that the depressions were not historically significant features. Both of the depressions were excavated with the backhoe in two inch levels and the material was water screened through a 1/2 inch mesh screen. The depressions were nothing more than holes excavated by metal detector enthusiasts, the excavation was discontinued shortly thereafter.

The Commander skid loader was also used in the excavation of a trench or scrape across the older Dove homesite (Figure 71). This trench, which reached a maximum of eight inches in depth, was used to possibly determine the perimeters of the house, to uncover any features that might be intact, and to collect an artifact assemblage from the site. It was felt due to level of disturbance noted over the entire site area that aditional hand excavated units would not recover sufficiently more information and would



Figure 69 Mechanical excavation test with tracked skid loader at Unit 99. Looking southwest.


Figure 70 Backhoe excavation of two possible well/privies/ metal detecto holes.



Figure 71 Skid loader at southwest end of mechanical trench across the older house site.

expend a great deal more man hours than the use of the tracked vehicle. The scraping of the site was done in approximately one inch levels although the level of disturbance and variations in the soil made the collection of artifacts in these arbitrary levels very difficult.

Artifact Analysis Methodology

In an effort to better understand the lithic artifacts that were recovered from the excavation of the units from Stonegate I, 44AX166, they were entered on the computer in a spread sheet catalog form. The programs that were used were the dBaseIII and dBase III+ to separate and sort the various categories or fields. A copy of the disc is contained in a padded envelope at the rear of the text so that interested readers and researchers can access the fields that were investigated or analyze data in different combinations to suit their specific research interests. The tab at the back of the disc has been permanently moved so that the information on the disc and the calculations and interpretations made from this report can not be altered. It should be noted that corrections can be made once the information has been down loaded onto the individuals computer, but all of my mistakes will be preserved for the future editors and critics.

Another program was used to create some of the graphic displays This program "Surfer-version 4.14", is used primarily by archaeologists in producing magnoclinic maps from data recovered from magnetometer surveys. It is a mapping program that produces two dimensional contour maps and three dimensional maps that are produced by weight averaging of the data. The weighted average being a system where a single data point is averaged with its surroundind points to avoid anomalous results. The specific reference to this and the dBase III programs are included in the bibliography.

Over the past decade or two the classification of lithic debitage has become more refined with greater detail, although the classification methods and terminology continue to vary at the discretion of the investigator or the regulatory agency. Keeping abreast of the latest state-of-the-art methods is a constant process, and the chosen method for a report is usually designed to meet specific research interests. In the examination of the prehistoric lithic materials, the system for identifying the tools, projectile points, and their various stages of production conformed to the standard recognized by all prehistorians. The greatest area of variation is in the classification of lithic debitage. Many investigators classify lithic debitage by primary, secondary, and tertiary flakes, which indicate the various stages of reduction process. Variations of this system use the presence, absence, and amount of cortex to assist in determining the classification. This applies well to raw materials of good quality for lithic manufacture and the debitage that has no visible platform is identified as "shatter" or "chips". Occasionally, these chips are differentiated by presence or absence of cortex. This system is well suited for easily definable materials. When quartz and quartzite are the greater majority of the lithic parent material, this system has limitations that may obscure the picture of the actual cultural activity involved. A method of classification that more accurately reflects the reduction process and its by-products is defining the debitage by form and process. This is to say that portions or fragments of lithic flakes that often result, when reducing quartz or quartzite, are clearly identified as flakes. However, under the former classification system, they would be considered chips or shatter and therefore give a skewed view of the actual reduction activity.

This system of classification by which debitage with easily recognizable striking platforms are identified as flakes and material without platforms are considered shatter is a fairly accurate and easily applied system to categorize lithic material when working in the field. This is the system that was used during the excavation, and it provided a reliable estimate of the amount of cultural material that was present from unit to unit. However, in more controlled conditions the system of classification by form and type was used as a more accurate method in understanding the cultural activity at the site. This system may account for differences in flake totals which appear in different location within the text.

All diagnostic bifaces or projectile points that were recovered before water screening were analyzed for residual blood proteins. The analysis was conducted by the Archaeological Resources Laboratory of the Department of Anthropology, University of Deleware with negative results. Two locations did test positive for blood protein on two different points, but secondary tests were negative. After a brief conversation with the laboratory it was felt that the tests were inconclusive, that further tests for speciation would not be possible, and that the positive tests may have been aberrations. (personal communications K. Doms 3/19/92 - See Appendix G).

CULTURAL/BOTANICAL EVALUATION

During the course of the surface collection, which was required after a portion of the area had been disturbed by the roads cleared for the boring/drilling truck, a number of daylillies (<u>hemerocallis fulva</u>) were noted that crossed one of the recently cleared roads. After careful examination it was noted that these daylillies were in a definable line. Further investigation along this line of daylillies lead to barely discernible house pier that had been covered with many years of growth by honeysuckle vines. After uncovering the house pier, an alignment taken from the faces of the pier showed the south and east edge of a former house. After some clearing, a berm was noted that formed the western edge of the house, and the line of daylillies seemed to align with the northern wall of this house. These botanical remnants indicated three of the four walls of the former house's dimensions and lead to the closer examination of the botanical assemblage in order to help understand the domestic occupation of the site.

A closer look around the house site revealed the presence of yucca (yucca filamentosa) and apple trees. At this point it was felt that other domestic plants may be present on the site and that a knowledgeable and trained individual was required for an accurate assessment. I contacted Mr. Rod Simmons an employee of the Winkler Botanical Preserve, owner of a landscaping company, with a number of college level anthropology and archaeology courses and is well versed in historical plant use. His assessment was made without prior knowledge of the configuration of the site and without examining the aerial photographs. It is remarkable that his skill in understanding the plant growth and seeding patterns, and his assessment of the age of forest assemblages was perhaps more accurate than that which could be discerned from the aerial photographs and amazingly accurate in corroborating the historical records. Mr. Simmons observations and maps were incorporated into the research and evaluation of the entire development area and were particularly valuable in the interpretation of the historic occupation of the site.

To begin a botanical/cultural evaluation, the entire area needs to be considered in context. The western area of Alexandria has historically been a rural area until the relatively recent urban expansion, particularly over the last 30-40 years, which has absorbed its rural character. The survey area is located a number of miles from the Old Town Alexandria and has always been "between" the port city and Baileys Crossroads. The area has remained sparsely populated and the primary use of the area has not been for cultivation as there is almost no soil overlying the ancient gravel terraces. In the recent past it has been reported that area was widely used for raising pigs and that regular logging of the area has occurred. These reports concur with reports and photographs taken near the area during the Civil War that suggest that it may have been cleared of forests for use as a heating and cooking fuel for Alexandria and Washington and to supply the northern war effort.

Aerial photographs of the area have proven to be an invaluable aid in understanding the cultural influence on the landscape and how and when it was utilized (See Appendix I- Aerial Photographs). These large scale observations made from the photographs can also be observed in smaller scale at ground level and show us several distinct cultural changes in the landscape. The earliest photograph, from 1937, clearly shows that the 150 foot wide strip of land that borders the northern edge of the survey area had been cleared. The adjacent area that encompasses the terrace top is apparently overgrown but without substantial tree growth indicating that deforestation has occurred within perhaps, the preceding ten years.

The next aerial photograph taken in 1948 clearly shows the 150 foot wide strip of property cleared as well and apparently being utilized for pasture. It should also be noted that two structures are present on the property and active habitation is apparent.

The next photograph, from 1960, shows that the domestic site has been razed, pine trees have begun to encroach on the previously cleared pasture area, and ground cover has become more dense. Comparing this photograph to the next photograph, from 1968, shows significant growth of the pine trees and a slightly different appearance to the vegetation that was once the center of the circular driveway for the house site. This photograph from 1968 is of particular value as it was taken in January and shows evergreen trees as prominent features when other vegetation and trees are without foliage.

Another feature that can be seen in the 1968 photograph is a large cleared area along the creek, currently located on Parcel B at the southern edge of the property. This area was originally thought to be associated with logging activity. This conclusion is drawn from the apparent use of the road along the northern edge of the creek and the small feeder roads that can be seen radiating from this road. The photograph seems to indicate that selective cutting may have been the logging method used, as there appears to have been a general thinning of the forest canopy. The logging appears to have taken place over an extended period of time or perhaps over more than one season, as perhaps four of the eight feeder roads appear to be be older than the most prominent roads seen feeding off the main creek road. A major glitch in this scenario is that the majority of these roads appear to cross the floodplain to the creek edge. It is possible that a selective harvest of trees occurred along this floodplain area or that an entirely different conclusion can be hypothesized for the activity along the creek. It is, perhaps, more likely that the reason for the feeder roads to the creek edge is not for the purpose of removing resources but for the deposition of materials. It was noted that the creek bed contains an abundance of concrete debris that was placed there in an effort to control the erosion of the creek. The increased erosion was the result of increased run off from building within the watershed. The purpose of the large clearing adjacent to the creek road may have been to facilitate trucks

dumping their loads by allowing the trucks to turn around to exit back onto Shirley Highway.

Two additional aerial photographs that show the survey area were taken in 1985 and 1991. These photographs show little difference or cultural activity on the property with only two exceptions. The storm drain located at the very southwest corner of the property and the area that was cleared during the expansion of Shirley Highway to form I-395 has become reforested, by 1991. A cleared area adjacent to the eastern edge of Parcel A of the property shows the rate of vegetation growth that can occur over a period of six years.

Although it can not be clearly seen in the 1985 photograph, the 1991 photograph clearly shows a difference in the tree canopy that covers the area where the circular driveway used to be. This apparent difference can not be easily explained as the photographs were taken at almost the same time of year (July and June respectively). They also appear to be taken at nearly the same time of day and with clear skies as indicated by the similar shadows that can be seen on the northern edge of the I-395 underpass on West Braddock Road. The reason why the area is more distinctive than the earlier photograph is not of great concern but the fact that cultural/botanical remnants from an area that was razed more than 30 years earlier are still identifiable is worthy of consideration for future investigations.

To summarize the information gleaned from the series of aerial photographs, it can be seen that from the period of the 1937 photograph until the house was raised between 1953-1960 that the 150 foot wide strip of land at the northern edge of the property remained cleared and was utilized for pasture. The area adjacent to this strip of land that forms the remainder of the terrace had been cleared at some time before 1937 and had been allowed to re-establish itself as a forest over the past 50 years. The slopes of the terrace along the current West Braddock Road and above the creek on Parcel B have escaped intensive logging as evidenced by the photographs, which indicate a mature forest assemblage on the property. In the areas where the driveway had been present and in other cleared portions of the pasture pine trees were seen to be the first trees to take seed. This represents the initial stages in the progression towards a mature oak forest assemblage that is native to the area.

It is also noteworthy that by 1991 an effort has been made to plant trees along the median of West Braddock Road. This is clearly an indicator of cultural activity and may be a valuable tool in gauging socio-economic levels of a given area from aerial photographs. This interpretation can be based on the size of the median, whether there are trees present and of what size.

Observations made on the site confirm the observations gleaned from the aerial photographs. A survey undertaken by the City of Alexandria Arborist-Mr. John Noel indicated that "specimen" trees, defined as being over 15 inches in diameter, are concentrated along the slopes facing West Braddock Road near the north end of the development and on the slopes of the terrace above the creek. The reason that few of the older trees have survived is most probably the result of periodic logging. However, several larger, old trees are located at the very edge of the terrace and there may have been logistical or practical considerations for not harvesting them.

The majority of the terrace area on Parcel A, which is not part of the 150 foot wide strip of land, is forested with an old oak forest system. This is a floral assemblage that develops over an extended period of years resulting in a full canopy that dictates the undergrowth assemblage as well. Rod Simmons estimates the age of the trees within this old oak forest system to be 60 years old and that the health and diversity of the understory of the forest floor was not heavily disturbed when the area was last deforested and was therefore able to re-establish a quality mature forest rather quickly. This suggests that the area was not burned over and that relatively non-destructive methods of logging may have been employed to harvest the area. The level of maturity of this assemblage, as concluded by Simmons, indicates that it is doubtful that the area had been cleared for agriculture in the 20th century, if ever.

In contrast, Parcel D has no recorded specimen trees and the entire area is characterized by small diameter trees that are typical of an area that has been harvested or cleared within the past 30 years. This assemblage also suggests that the understory or ground cover was seriously disturbed during the clearing /logging of the parcel.

A similar level of disturbance can be seen in the 150 foot wide strip of land along the northern border of the survey area. This area was cleared for a long period of time and there are no remnants of the original oak forest system. The plant assemblage that is present now includes a wide variety of what are termed "pioneer" species. These are species that are the first to settle back into an area after a particular disturbance has occurred. Among the species of plants noted in the area were poison ivy, big tooth aspen, southern red oak, willow oak, greenbriers, Virginia red cedar, persimmon, elderberry, white mulberry, Japanese honeysuckle, black locust, Virginia creeper, and Virginia pine.

The portion of the field that is located slightly further to the east shows a slightly more developed stand of pines. These pines are surmised by Simmons to have "pioneered an old field and were left as forest". This conclusion appears to be an accurate interpretation and can be corroborated by examining the 1960 and 1968 aerial photographs that show the growth and encroachment of pine trees into this area. The 1948 photograph may show the beginning of this pine forest with an age of just over 40 years is confirmed by the age of the pine trees observed in the area. If this area had not been developed, this pine forest would be short lived and would eventually be replaced by the surrounding oak forest.

The domestic plant types that were noted at the historic site give us an interesting reconstruction of the site based on their distribution. In an effort to pin point the location of these plant types, the circular driveway that is seen in the 1948 aerial photograph was superimposed over the botanical map of the site. A somewhat sanitized drawing showing the distributions of the plant types shows that a number of domestic plant types are contained within

the center of the driveway (Figure 72). These include a pure stand of persimmon trees and closely associated with this stand is a cluster of wild cherry trees that show a naturalized escape from cultivation. This term means that a previous tree or trees were planted in close association and after it died its offspring grew up in the immediate vicinity. At the base of this stand of wild cherry trees was a small cluster of yucca, and a little further south and directly across from the older of the two house sites is a thick stand of wild garlic. This stand of wild garlic suggests that the area had once been grassy and open. Along with the indication that the area had once been open and grassy a possible L-shaped line of crab apple trees appeared to frame an area that roughly corresponds to the dimensions of the older house. At both the southwest and northeast corners of the older house site a single white mulberry (<u>Morus alba</u>) may have served as a decorative plant.

Crab apple trees were noted to be present, albeit sporadically, over the entire former pasture area from the house site to the edge of the terrace to the west that overlooks present West Braddock Road. This observation was one of the few botanical identifications that was made during the initial walkover survey. (Fortunately, it was the right season and small green apples were found on the ground while collecting artifacts.) This observation was brought to the attention of Mr. Simmons after we had collected an assemblage of artifacts that clearly showed that a pig feeding area that utilized restaurant scraps was in the immediate vicinity. Without the knowledge of the pig feeding area, Mr. Simmons suggested that historically the sweet crab apple was used primarily for the production of a low quality hard cider and much more frequently as fodder for feeding pigs.

Immediately south of the older house site is the beginning of the oak forest system which is mainly comprised of large post oaks that are approximately 60 or more years old. This change in flora suggests a different treatment from a botanical context, but it was also the property line and the reason for the change may be a differential use of the land from one property to the other.

To the east and north of the of the older house site is a thicket of black locust intermixed with occasional Chinese elm that is estimated by Simmons to be "approximately 30 years old". This correlates with the large cleared area in the 1948 photograph, and it may be assumed that after the razing of the area in 1960 that the area was reclaimed by these two tree species that are common in highly disturbed areas. In the area where a cinder block foundation was discovered a plant assemblage that is characteristic of highly disturbed areas was recorded. It had a prevalence of poison ivy and Japanese honeysuckle that nearly obscured the foundation. It should be noted that this building was constructed at about the same time as the house which was built in the early 1940's. Neither of these structures had any readily definable decorative plants associated with them.



On the northern side of the older house site a large patch of English ivy (<u>Hedera helix</u>) was noted. This type of ivy is particularly common as a decorative vine that often covers chimneys. Although the area was highly disturbed there were a number of bricks recovered in the vicinity from the mechanical trench that cut across the site.

Approximately 40 feet from the northern side of the older house a large thicket was encountered during the shovel testing that was so thick it was considered to be impenetrable, and two of the proposed shovel tests were postponed until the next level of investigation was undertaken. This thicket was primarily Japanese honeysuckle (<u>linicera japonica</u>) that had overgrown and grown up with some very large grapevines (<u>vitis sp.</u>). Many of these grapevines were nearly four inches in diameter and were believed to have grown undisturbed since the buildings were razed approximately 40 years ago.

During the clearing of the thicket it was noted that the grapevine had covered numerous wild american plum trees (<u>prunus americana</u>). The growth of the grapevine severely deformed the trees and they were growing nearly parallel to the ground. The age of the plum trees is also consistent with the time when the buildings on the site were razed.

Beneath this thicket, the remains of the house constructed in the 1940's was discovered. Three of the four corner piers were located in their original positions and the fourth had been bulldozed into the center of the house site. The location and number of plum trees and their orientation to the former house site suggests that there may have been a small orchard on the southern side of the house. After the razing of the area, the plum trees re-established themselves at the same time as the grapevine and honeysuckle. Together they have grown to produce the impenetrable thicket that was encountered.

It is apparent that on this particular site the analysis of the cultural/botanical interactions has presented a wealth of information to assist in interpreting the site. The skills and knowledge of Mr. Rod Simmons to identify the plant species both in a historic context, how these plant types were associated with cultural activity and their developmental frameworks has been invaluable in understanding the site. His analysis of how the site may have been configured in the past and it's formation processes that we are observing and interpreting today have been a valuable contribution. A summary of these observations is presented as a portion of the conclusions for the historic site.

RESULTS AND ANALYSIS

The following section is divided into seven parts which include the investigation of Parcel D, shovel testing-Parcels A & B, surface collection Parcels A & B, historic site (44AX167), prehistoric site (44AX166), the two storm drain corridors or outfalls located on Parcel B. and the southern portion of the storm water retention pond (44AX31).

Parcel D Investigation

The original Scope of Work detailed a methodology for a pedestrian walkover and shovel testing of the entire 22 acre area to be developed. Parcel D was the first to be investigated.

The pedestrian walkover of Parcel D located a short section of an old road that crossed the very southeast corner of the property. This road was originally a minor unnamed feeder road that is no longer extant for the majority of it original length. Both sides of this road area were examined and no historical references were found to suggest occupation along this small section of road.

The shovel testing of this parcel entailed 86 shovel tests in which no prehistoric artifacts were recovered (Figure 73). Several shovel tests yielded recent trash but no historic artifacts were recovered. It was clear from the historic research and the materials recovered from the shovel tests, that no historic or prehistoric occupation had occurred anywhere on the property.

Surface Collection - Parcel A & B

The surface collection of Parcels A& B that was amended to the original Scope of Work methodology yielded a number of artifacts that were originally associated with the historic site. These artifacts were distributed by at least two major events; the razing of the structures on the historic site that occurred between 1953 and 1960, and the disturbance caused by the recent drilling activities.

The second disturbance occurred as a result of the roads or paths cleared to facilitate the soil drilling operation in October 1992. This activity distributed artifacts over a wide area and also exposed many artifacts that may have otherwise gone undetected.

The artifacts collected during the surface collection included a wide assortment of domestic artifacts, such as, fragments of cream top milk bottles from the Alexandria Dairy, embossed panel bottle glass, salt glazed stoneware, a clay marble, and hotel or restaurant ceramics from the 1940's. Also, recovered in quantity from the pig feeding area, was a wide variety of



E PARCEL C

 $1_{(i)}, j$

147

Figure 73

Shovel test map of Parcel D.

bones, shell, and restaurant ceramics. A number of small dishes and utensils, including butter dishes, creamers, and pickle forks, that would have been inadvertently scraped into the garbage were also recovered. Another artifact of some uniqueness was a small dark blue faceted perfume bottle discovered by Ms. Kathy Nicotra while touring the site (Figure 74). This bottle has been identified as "Evening in Paris", an inexpensive perfume from the 1930's and 40's (pers. comm. Margaret Crickman)

Also collected during the surface collection were two prehistoric artifacts. Both artifacts, a unifacially modified flake/scraper and a lobate projectile point, were made of quartz and recovered in close proximity to the edge of the terrace.

Shovel Testing - Parcel A & B

Shovel testing of Parcels A & B yielded a number of artifacts, both historic and prehistoric. The historic artifacts that were recovered included whiteware hand painted ceramics, wire nails and a variety of glass artifacts. These artifacts spanned a small time range from, primarily, the second quarter of the 20th century. The artifacts were of the same character and date as those that were collected during the surface collection after the sites had been disturbed by the soil drilling activity and their origin at the historic domestic site was known.

Two transects that were placed along a line at 50 foot intervals to test the slopes (STP 184-193) of the terrace did not recover any artifacts.

Shovel testing of Parcels A & B entailed a total of 90 test pits (Figure 75). Results of the initial shovel testing of Parcels A & B produced prehistoric lithics in five shovel tests. Intersite tests at 25 foot intervals in the four cardinal directions, where possible, yielded an additional 19 artifacts. A total of eight intersite tests yielded prehistoric cultural materials. (Figure 76). The following list includes the surface finds, original shovel tests and their intersite holes. All of the material recovered was either quartz or quartzite and was identified as follows:

- 1 projectile point-possible Brewerton -Late Archaic, 3,000 2,200 B.C. (Later examination-Lobate)
- 1 bifacial scraper
- 1 modified flake
- 1 awl/drill fragment
- 1 corticate chunk?
- 1 corticate chip
- 2 decorticate chips
- 1 primary flake
- 12 secondary flakes

From these artifacts and their locations site boundaries were drawn to reflect the limits of the site as defined by the methodology.



Figure 74 "Evening in Paris" perfume bottle ca. 1930. Found by Ms. Kathy Nicotra on historic site 44AX167.





The recovery of these artifacts indicated that prehistoric cultural occupation had occurred in a defined area and that further investigation was warranted.

Stonegate I - Prehistoric Site (44AX166)

(See Appendix F- Oversized Maps for site plan)

The first phase of testing on the prehistoric site entailed the excavation of 28-1 x 1 meter units. The results of these excavations showed three areas of lithic concentrations, two possible hearth features, and a scattered but limited prehistoric occupation over the entire site area. Most of the units revealed only a few flakes, but some units had concentrations of over 50 artifacts.

As the excavation of these lithic scatters progressed very few historic artifacts were recovered. At the completion of the excavation a plot of these artifacts recovered on the prehistoric site plan showed a light concentration of artifacts that was recovered in the units around concentration Unit 10 and trending towards the southern edge of the terrace. The assemblage included sherds of pearlware and whiteware and a total of 31 square nail or nail fragments. The majority of these nails, 25, came from two adjacent units 91 and 93. One clay marble and an expended three ring Minie ball were recovered in the same area The probable reason why these artifacts are more prevalent at this end of the site is that it is the closest to the historic house site that is located over 100 feet to the northeast.

At least one of the historic artifacts, a musket flint, and a few ceramic sherds are believed to be isolated losses. The gunflint shows little if any use and it may have been carried in an auxiliary pouch from which it may have been lost. The flint is dark grey-black in color and characteristically assigned a British origin. It was recovered from unit 3, level 1, over 100 feet from the scattering of other historic artifacts. There is a difficulty in ascribing a date to gunflints because of the longevity and widespread use of flint lock muskets from the 18th thru the mid-19th centuries. It is interesting to note that numerous .22 caliber shell casings were found in the immediate vicinity, indicating the presence of firearms in the same spot separated by perhaps 100 years or more.

The excavation of these units extended through two sterile levels, which in most cases was to the bottom of level 5, or 45 centimeters below ground surface. The concentration of artifacts was noted to be primarily from the uppermost three levels with only an occasional artifact from the deeper levels. To confirm this observation additional units were excavated through level five both on the edge of the terrace where artifact concentrations were limited and around the units that were identified as having lithic concentrations.

The explanation for the concentration of the artifacts in the uppermost levels is derived from the geomorphology of the terrace area. It was formed as a Pleistocene river gravel terrace with little change occurring in the past few thousands of years. This relatively recent deposit has yet to establish a soil matrix and therefore acts as a porous substrate before reaching a clay compaction or fragipan level at 16 inches to 24 inches. Soil profiles recorded during the testing and excavation phases show an undisturbed soil profile with the ground surface being covered with a 5 cm. layer of dark grey humus/root mass (Figure 77). Below this thin forest mat is a ground surface that has changed little in many thousands of years. This gravelly layer grades into a silty sandy loam and within a few inches the silt is more abundant and then within a few more inches clay becomes the dominant constituent in the matrix. The consistent topography across the terrace shows little or no variation in this soil profile except near the edges of the terrace. This slight change in soil profile is effected by the slight slope encountered when approaching within 50 feet of the terrace edge. This slope has allowed the finer soils to either be eroded away, perhaps deflated, or perhaps they were never able to accumulate. This change is evidenced by a coarser texture, i.e. more gravels and less matrix. It was also observed that after a rain this area stayed wetter longer than the better drained area where the lithic concentrations were located. It is possible that the same insistence by the crew members to dig in the driest areas of the site may have been felt by the prehistoric inhabitants who lived or visited the terrace as well. Perhaps the most important observation made was that the soil profile showed no indication of a plow zone or disturbance for cultivation. This finding correlates with the lithic concentrations that were identified and determined to be undisturbed.

Observations during the excavation and statistical analysis show that the majority of the artifacts which were present in the lithic concentrations were deposited, most probably, as a single event at a level only a few inches below the current ground surface. Diagnostic artifacts suggest a date for the lithic concentration to be the Late Archaic/ Hunter Gatherer III-IV dating from 2,750 B.C. to 800 A.D. Therefore, it is surmised that the soil accumulation in these areas was limited to 6-10 cm. from the time of deposition to the present.

The vertical distribution of lithic debitage displays a classic bell curve distribution. This is explained by some artifacts being present at the surface while others are found at a depth greater than the original level of deposition. The artifacts that are present above the original level are deposited by perhaps several processes. When trees are uprooted from death or storm conditions artifacts are brought to the surface or perhaps from burrowing animals. Likewise, artifacts are carried to deeper depths by roots and animal burrows. This transportation is expressed in the horizontal plane as well with the probability of a growing tree or plant displacing it in any given direction an equal amount. This is not to say that nature will maintain a perfect pattern of movement but that the dispersion in a horizontal plane is equal throughout the concentration.



NORTH WALL

10YR 3/6 Dark yellowish brown loam 10YR 6/6 Brownish yellow gravelly sandy silt 10YR 6/6 Brownish yellow silty clay 10YR 6/3 Pale brown clay

0 30cm SCALE

REPRESENTATIVE PROFILE PREHISTORIC SITE 44AX166

Figure 77

Representative profile of Stonegate I-Prehistoric site (44AX166).

The number of flakes generated in the reduction process from cobble to finished projectile point may vary because of material type, style of point, proficiency of the tool maker or other factors. However, a general estimate of 150-200 flakes per projectile point is considered to be an accurate count. Based on these estimates, it is calculated that 11 to 16 projectile points could have been produced at the lithic concentration first encountered in Unit 10, three to five in Unit 20 concentration and 11 to 16 at the concentration of Unit 6/28.

If several premises are accepted as fact, including that the lithic scatter is a result of a single event of limited duration and that the vertical distribution of artifacts originated from a single level, the statistical distribution can then be applied to the horizontal distribution to estimate an original scatter size.

The number of rocks recovered from each of the three concentration varies somewhat with concentration 6/28 showing the highest density of rocks. These "rocks" are cataloged under three categories as "HEARTH" rocks, "GEO", geologic or naturally occurring or "FCR", firecracked rock. These categories were established in an effort to ascribe possible cultural attributes to the cobbles or rocks that were encountered.

It appears from the geology of the area that the terrace is formed from very well sorted gravels and that the presence of stones larger than gravel in the area of the concentrations may have a cultural origin. Although it should be clearly understood that occasionally stones of larger size do occur naturally. The stones themselves have several characteristics that makes their classification very difficult. Most of the stones are of a cobble size that could be utilized for many functions from holding down the flap of a prehistoric structure from fluttering in the breeze to the use as a tool or hearth stone. Most of the cobbles have a highly degraded cortex and some show percussion marks from their original transport and rounding. This degraded cortex makes the mineralogic identification of the cobble difficult to impossible. Stones that show some angularity as if they had been broken are classified as firecracked, but the age of the breaks is difficult to assess. It is also difficult or impossible to ascertain if any thermal alteration (fire reddening), of the ferric minerals has occurred, because of the condition of the cortex.

Although a number of the rocks have some blackening of the surface, these rocks have tentatively been classified as hearth stones with several reservations. Whether these rocks are blackened as a result of fire or sulphides is unclear. The production of sulphide stains on rocks in an acidic forest soil is not unusual. Another question that is difficult to determine is whether the blackening that was noted is of recent cultural origin, i.e. forest fire or campfire.

It is extremely difficult to determine whether some of these rocks were firecracked or whether they are naturally occurring random cobbles or even if they were collected specifically for manufacture and never used or even possibly rejected after more careful examination. It is my opinion that the rocks recorded in their various categories are of limited value in interpreting the cultural activity that may have occurred on the site. Perhaps in the future with advances in lithic analysis, the stones that were recorded and collected can be re-examined and many of these questions may be clarified.

During the excavation several possible stain or mold features were excavated or recorded as features. The first "feature" to be recorded was located in Unit 11 with a similar feature also recorded in Unit 14. These features were a series of approximately 5/8 inch diameter molds that were often nearly vertical in orientation and were 10-15 cm. in depth. Upon encountering these features in Unit 11 they were spaced approximately 15-20 cm. apart and formed a slight curve in their orientation. An initial interpretation was that these may be small molds from stick-in-the-ground structures. To define the configuration of this pattern a discretional unit was placed adjacent to the feature in Unit 11. Excavation in this adjacent unit (Unit 27) showed more of the small mold features but not in a pattern and many of the holes were not filled in but were open cavities. It was obvious that these holes were of modern origin, and it is believed that they are cicada burrows (pers. comm. Richard Falcone).

Another soil discoloration was located in Unit 17 on it's western edge, and a discretionary unit was excavated to define the entire feature. The results of the excavation yielded no charcoal and no definable pit or hearth feature. Floatation analysis of the sample did not yield any seeds or faunal material and the residual material was identified as a tree trunk remnant.

Two possible "hearth" features were encountered in Unit 35 -Feature 3 and 56 - Feature 4 (Figures 78 & 79). Unfortunately, the categorization of these stone concentrations unfortunately does not easily follow those guidelines that define the differences between "hearth" features and those attributed to "stone boiling technique " (McLearen 1992:111). Both features showed a concentration of stones although no discoloration of the rocks that can be clearly attributed to burning was noted in either feature. No staining, charcoal flecking, or other signs indicating a feature or the presence of a hearth were detected in either feature. Low artifact density and lack of organic materials does not suggest either specialized processing or general cooking activity and the cultural purpose, if any, of both of these clusters remains undetermined. The clustering of stones in Unit 35, Feature 3, may represent a stockpile of cobbles to be worked or a pile of stones that were gathered and later rejected. Although even this assessment is difficult as the recognition of the cobble material type is extremely difficult because the cortex of many of these stones is highly degraded.

On the western side of concentration 6/28, a larger number of stones were recorded, and a high percentage of these stones show some thermal alteration. It is possible that the larger number of stones recorded in this area may be the result of better recording or better exavation methods.

An analysis of the lithic materials that were recovered presented an interesting overview of the activities that occurred in the areas of lithic concentrations. There were three areas of lithic concentrations that were defined by the test units . They are the concentrations around Unit 20,10, and 6/28.





Another area that was investigated which is nearly contiguous with the Unit 10 concentration was the investigation of the area around a possible hearth feature in Unit 56. This investigation entailed the excavation of six units around Unit 56 in order to define the possible hearth feature. In addition, the units that were excavated around unit 35 ended up being contiguous with the concentration centered around units 6 and 28.

In these four areas an analysis of the type of raw material used in the tool manufacture was examined. The vast majority of the material was either quartz or quartzite(99.5%). An analysis of material recovered over the entire site totaled 6,408 flakes of various types and forms. This represents 128 units which include 82 that comprised the three lithic concentration that were intensively investigated.

The percentage breakdown of material types was almost exactly even with 49.6% guartz and 50.4% guartzite. When the 716 flakes from the general site area are subtracted from the number of flakes recovered in the three lithic concentrations the percentage of quartz to quartzite changes slightly to 46% and 54% respectively. This shows a slight bias for quartzite within the three concentrations. When each percentage of the material types are examined between each of the concentrations, an interesting picture of the differences between the people who did the manufacturing emerges. Of the 2,335 flakes recovered from Units 6/28, 73.3% were quartz and and 26.7% quartzite. Compared to the concentration around Unit 10 the opposite is seen. Of the nearly same amount of flakes (2,362) recovered in the Unit 10 concentration, 13% were quartz and 87% quartzite. The third concentration around 20 has a somewhat statistically more representative percentage with 55% quartz and 45% quartzite. It should be noted that the total number of flakes recovered from this concentration (sample group) was only 678 flakes. This suggests different preferences in the material type that was used and perhaps that different individuals were responsible for the manufacture in each of the three areas.

The assemblages of tools or tool fragments recovered from the site are centered around the three lithic concentrations. This is most likely a result of the extensive excavation in these areas and the tools recovered from other areas of the site most probably represent hunting losses.

To enable the reader to visualize the distribution of the tools recovered from the three areas of lithic concentrations the tools and tool fragments have been placed on a scale grid with the number of the unit in which it was recovered appearing in the photograph. It can be seen that the majority of tools recovered are associated with bifacial reduction and that many of these are fragments from late stage biface (LSB) reduction.

The bifacial tool and tool fragments recovered from concentration 6/28 comprise an interesting assemblage. There were 12 items recovered in this category and pictured in Figure 80. In Unit 29 a bifacial tool identified as a knife or perhaps a scraper was recovered adjacent to the only other recognizable tool recovered from the site, a white quartz awl/drill, from Unit 114 shown directly above it in the photograph. Also pictured is a large





preform recovered from unit 28. Three projectile points are also pictured, the tip and base of a single projectile point were recovered from separate units, although only a meter apart in Units 81 and 74. It is unclear whether this point was finished, but it is my opinion that it was broken during the last stage of the manufacturing process and was discarded at that time. The spatial distribution of these two fragments may either be the result of natural processes or as the result of its original discard. Two other projectile points were recovered from Unit 28 as well; a small guartz Savannah River projectile point and another very small, crude point with no known stylistic parallel. It is felt that this very small crude point may represent a "training" point, perhaps an adolescents early attempt at point manufacture. It has been unscientifically classified as a "Potomac Valley Mystery Point" (pers. comm. Mike Johnson). The remaining five objects are all proximal end early-late stage biface fragments. Numerous interpretations can be presented to account for this assemblage, but it is clear that this area was a manufacturing site for projectile points. The presence of the awl in close proximity to the knife/scraper as well as the intact point as well can lead us to any number of possible interpretations.

The bifacial tool and tool fragments recovered from the Unit 20 concentration show a very similar assemblage as that recovered from the nearby concentration Unit 6/28 (Figure 81). A discarded preform was recovered in unit 39 and a quartzite tip and base from late stage bifaces were also recovered. In Unit 20 a quartzite bifacial fragment that shows a distinctive hinge fracture was recovered in close association with one and perhaps two quartz fragments that show bifacial reduction. In the adjacent unit to the south, Unit 104, a small quartz point tip fragment was also retrieved. The asymmetry at the tip may indicate a late stage biface that was snapped off in the reduction process. One of the anomalies on the site was the presence of a point tip from Unit 103, level 3. This fragment material is identified as either an argillite or greenstone and has a highly patinated surface making a positive mineralogic identification very difficult. This is the only tool fragment that was not made from either quartz or quartzite and its presence remains an enigma.

In the lithic concentration located in Unit 10 two quartzite preform fragments were recovered (Figure 82). The other lithic fragments that showed bifacial working include a tip from Unit 93 and a possible stemmed basal fragment from Unit 84 may be from late stage biface reduction. Another possible stemmed basal fragment made of quartz was recovered from this unit and is not pictured as it was a very small fragment and was overlooked until the analysis and cataloging process. Three white quartz point tips were recovered near the center of the concentration in Unit 87 and two meters to the east in Unit 85.









In the center of the concentration where the highest number of flakes were recovered a Savannah River, perhaps a Holmes variant was recovered. This is the only diagnostic artifact which was recovered and may also represent a late stage discard. There are two features that support this conclusion. The base of the point has two areas that are either damaged or perhaps not completed and there is a large "stack" or remnant that was not removed. This can be seen in the photograph of the bifacial artifacts distribution for lithic concentration around Unit 10. This "stack" may have been impossible to remove as no viable platform could be formed to remove it. Whether this point could have been used or not is questionable. It is believed that the asymmetry of the stack may have made the flight of the point irregular and therefore unusable.

An examination of the pattern of the lithic debitage within the individual concentration was undertaken with the assistance of computer graphics. A mapping program was used to generate a two dimensional contour map to better visualize the patterning in plan view. This same program was used to generate a three dimensional isometric graphic. These processes were used to examine the total number of flakes as well as number of thinning flakes in each of the concentrations.

A contour map of the total number of flakes in the lithic concentration 6/28 shows three distinct areas of lithic concentration (Figure 83). These concentrations can be seen in the three-dimensional graphic and suggests that three episodes of activity occurred within the lithic concentration (Figure 84). The three-dimensional graphic which shows the distribution of thinning flakes closely parallels the distribution of the total flake count. It should be noted that the three dimensional contour mapping does not represent the actual numbers of material as expressed by the height of the peaks but it represents a weighted average within the field of the given data. The thinning flake graphics does show one peak that does not closely parallel the total flake graphic. This suggests that a thinning flake activity occurred that is not directly related to or in proportion to the reduction activity (Figures 85 & 86).

The contour mapping of the Unit 20 lithic concentration which shows the total number of flakes recovered indicates two separate but closely associated concentrations on the far, or southern side, of the concentration (Figure 87). These concentrations also appear in the three-dimensional graphic as a single peak suggesting a single event, unlike the graphic plotting the distribution of thinning flakes which indicates two discreet events of thinning activity (Figure 88, 89 & 90). The peak representing the thinning activity at the western side of the graphic suggests that the primary component of the total flake graphic was composed of a higher percentage of thinning flakes than the concentration of materials that is adjacent to it.



Figure 83 Contour map of the total number of flakes recovered from Unit 6/28 lithic concentration.







Figure 85 Contour map of thinning flakes recovered from Unit 6/28 lithic concentration.





Figure 87 Contour map of the total number of flakes recovered from Unit 20 lithic concentration.



Figure 88 Graphic representation of the total number of flakes recovered from Unit 20 lithic concentration.


Figure 89 Contour map of the thinning flakes from Unit 20 lithic concentration.



Figure 90 Graphic representation of the thinning flakes recovered from Unit 20 lithic concentration.

The contour map of the lithic concentration detected in Unit 10, which is actually centered around Unit 51, shows a concentration of lithic flakes of extreme density (Figure 91). In real numbers Unit 51 had 474 total flakes and the adjacent unit to the north only 31 flakes. Within a distance of three meters in all directions the concentration had decreased to a level of concentration that can be considered a "background" level. This distribution pattern is also paralleled with respect to the thinning flakes and suggests that this reduction activity included all stages in the reduction process proportionally. The three dimensional representations of the total number of flakes also show an interesting depositional pattern with a slightly lower slope facing to the east or to the right as the graphic is viewed in the text (Figure 92). This pattern is amplified in its graphic representation showing the thinning flakes distribution (Figure 93 & 94). This pattern may suggest that thinning flakes, because of their smaller size or the technique used to remove them, may have been deposited a meter further from the the bulk of the flakes. It is often tempting to over interpret graphic representation and data, particularly when extreme examples are present. The location of a secondary thinning flake concentration to the east and the radical delineation of the total number of flakes from 474 to 31 in a single unit on the western side of the concentration may suggest the orientation of the individual engaged in the activity or the presence of a barrier either natural e.g. tree or a cultural structure.

The recovery of a quartzite cobble fragment which had shown some signs of cultural modification was difficult to identify. There is some bifacial working on what some might consider the distal end of the cobble. The only other sign of probable cultural modification is an area where a flake has been removed, this is pictured in Figure 95 as the obverse side. The reverse side of the possible implement is flat and unmodified. Extensive examination, discussions, and multiple opinions have suggested two distinct possibilities. One possibility is that the object was used as a crude axe with the notch used to assist in hafting the cobble fragment to a stick. The second, and perhaps more likely explanation, is that this cobble fragment was in the beginning stages of modification and was found to be unsuitable for further reduction and discarded. To favor the side of cultural interpretation, it has been cataloged as a possible axe.

Four projectile points were recovered from the three lithic concentrations with a fifth coming from the hearth area around Unit 56 (Figure 96). With the exception of a crude and unrecognizable point, all are identified as Savannah River or Holmes variants of Savannah River. The two other points recovered from unit 65, level 2 and from the surface collection 20 feet east of drilling hole BR-8 were identified as lobate projectile points (ca. 5,500 B.C.) and are considered to be hunting losses as they were not associated with lithic concentrations.

Two other points were recovered from the southwest storm drain investigations and one was surface collected by Mr. Rod Simmons near



Figure 91 Contour map of the total number of flakes recovered from Unit 10 lithic concentration.







Figure 93 Contour map of the thinning flakes recovered from Unit 10 lithic concentration.



Figure 94 Graphic representation of the thinning flakes recovered from Unit 10 lithic concentration.



0	1 2	3	4	5	6	7	8	9	10	cm.
									1	
L						9				
0	3	1		2			3		4	inches

OBVERSE

REVERSE

Figure 95 Quartzite fragment with distal end bifacial reduction, a possible axe or rejected early stage preform.



Figure 96 Diagnostic projectile points recovered from 44AX166.

drilling hole BB-7 on the slope of the terrace. Only two of the three points are clearly identifiable and are assigned a cultural association to the Early or Middle Woodland.

Stonegate II - Historic Site(44AX167) (See Appendix F - Oversized Maps for a site plan)

Investigation of the historic site was divided into five areas of investigation; the cinder block foundation, the privies/wells/ metal detector holes, the pig feeding area, the house that was constructed in the 1940's and the 19th century house site of the Dove family.

The cinder block foundation was briefly investigated. The excavation of unit 76 revealed that this structure appears to have been an outbuilding. This structure was built, as far as the tax records suggest, in 1941. The following year, the adjacent lot formerly owned by Edward Dove, was purchased by Charles Reid with a tax value for a structure of \$300. This valuation poses a question concerning its method of construction of interest. The cinder block foundation that was discovered laid directly on the ground and no mortar was used to cement the blocks together. This construction suggests that this was an earthen floor outbuilding made of simple materials. Only a single unit was excavated within the confines of the foundation against the southern wall. The top two levels (eight inches) were described by the excavators as 20th century garbage. Level three was almost completely sterile with only a one nail and one piece of glass present there. It was felt the further excavation was not justified based on the late date of the artifacts recovered. The absence of any decorative foliage and the apparent dirt floor further substantiates the conclusion that this was an outbuilding.

The investigation of two circular depressions which were initially located under the grapevine and honeysuckle thicket were originally thought to be wells. This preliminary identification was made because both depressions were approximately three feet in diameter and had standing water. Furthermore, their proximity to both house sites also suggested that it was a favorable location for a well or spring house whicht could have served either house. During an early effort to prepare to investigate the "wells", a crew member began to splash the water out of the depression with a shovel. It was at this moment that the earlier supposition was changed to the pungent belief that these depressions may actually be "privies". After discussion, and some pleading, Alexandria Archaeology approved a methodology which allowed one of the depressions to be excavated mechanically. This approval was based on the use of a Terramite 140 a very small tractor with a 12 inch wide backhoe attachment which offered excellent control for precise excavation. Immediately, when the excavation of one of the depressions began it was clear that neither of the previous conclusion was correct. The depression was found to have been dug into fill from the razing of the structures just before 1960. These two holes are believed to be the work

of local metal detecting collectors or perhaps the private bathroom facility that was constructed for the formerly elaborate kids fort that had been built within the confines of the old house site about 40 feet away. Artifacts recovered from the test trench varied from flow blue transfer print ceramic to red vinyl scraps to a 1986 penny. This mix of artifacts is explained by the disturbance of the area when the structures were razed. A total of 29 artifacts were collected from trench #1 and 45 were collected from trench #2.

Within the pig feeding area, that had been defined during the surface collection, was a small depression a few feet to the north of the slab. Again the proximity to the feeding area suggested the presence of a well, although further investigation proved that this depression too was a metal detecting hole. Undisturbed subsoil was encountered approximately six inches below the surface of the depression, reiterating the findings. The few artifacts that were recovered were representative of the artifacts which covered the feeding slab and the slope directly below the slab.

In an effort to clearly define the activities of the pig feeding area an alternating pattern of three foot wide lanes were excavated (Figure 97). After clearing the slab, it became clear that this area was made by assembling small stones and cobbles to cover the area which was then spread with a thin veneer of cement. In lane three the cement had separated and a large crack had developed as the stones had been displaced. This crack was filled with a large number of artifacts which included a wide assortment of bone, shell, glass and restaurant ceramics (Figure 98). Perhaps the most intriguing characteristic of the known food item artifacts was the predominance of small artifacts (Figure 99). Among the artifacts recovered were butter dishes, pickle forks, and small creamers. These represent small items that would be easily overlooked and scraped into the garbage along with the food scraps.

After the grapevine and honeysuckle thicket had been cleared, the remains of the house constructed in the 1940's was uncovered. The remains of the house site consisted of three of the four house piers remaining *in situ*. The fourth, on the southwest corner had been bulldozed to the eastern side of the house. The dimensions and orientation of the house concurred with the drawing submitted in the 1953 court case which shows the house to measure 20 x 32 feet. A large depression, first thought to be a root cellar, located at the eastern end of the house, was approx. 11 feet in diameter. It appeared to be the efforts of over zealous metal detector enthusiasts looking for the mythical jar of gold coins that is rumored to be buried under every house. A small concentration of bricks was noted centered along the southern face of the former house. It is believed to be associated with an entrance to the house. A short distance from the house was another depression that had been dug down about two feet where unit 75 was excavated.

The first unit on this house site was excavated very near the undisturbed pier which marked the southeast corner of the house. Unit 58 was excavated thru six levels to a total depth of 24 inches and a very large number of artifacts(1,043) were recovered. This unit clearly showed the amount and the depth of disturbance that had been caused by the razing of



PIG FEEDING AREA





Figure 98 View of pig feeding area looking south. Lane 1 in foreground with Braddock Road in the background.



Figure 99 Shell, bone and peach pits with representative sample of restaurant ware and utensils from the pig feeding area.

the structures on the site. While pearlware was recovered near the surface, wire nails and screw top bottle necks were recovered from level 6. Cut nails and a stainless steel spoon were found in the same level while a plastic harmonica fragment is found at the same level as pre-1880 Hutchinson bottle stopper fragment. The profile of the unit showed the interbedding of disturbed clay subsoil as lenses within the profile that clearly showed the disturbance of this area.

Approximately 20 feet east of the 1940's house site an approximately seven feet diameter depression which had been dug to a depth of two feet was found. The purpose of this pit was not evident and as far as the possibility that this could be the allusive well or privy, we believed that an excavation unit at the bottom of the depression would answer the question. Some effort had been made by someone to dig out this sizable hole and it was believed that additional excavation would establish the original ground surface for the area. Unfortunately, the same mix of highly disturbed stratigraphy was noted during the excavation. Efforts to determine the original ground surface, or depth of fill, were abandoned after 6 levels and 994 artifacts had been recovered. The 6 levels or 24" of excavation resulted in the depth of four feet below ground level. The distribution of artifacts is nearly the same as in unit 58 with plastic coffee cup lids being found with cut nails at level 6. The assemblage of artifacts shows, as expected, a much higher percentage of recent artifacts. Items from the 1940's and 50's include numerous childrens items from rubber ball fragments, a blue glass marble, record fragments, toy horse fragment, rubber toy tire and a fragment of a Colt model 1911.45 cal. toy pistol.

An excavation unit was planned for the interior of the house in what was believed to be a possible root cellar. Using the information gained from units 58 and 75 it was clear that the area was highly disturbed and that the depression was a result of ambitious collectors and did not warrant excavation.

Excavation of the older house site began with the excavation of a unit near the very middle of the former structure. Unit 57, in its first two levels showed a disturbed mix of artifacts that resulted when the structure was razed. This assemblage included a plastic doll boot, made in "Hong Kong", cellophane wrap, modern crown caps along with brick and coal fragments and amethyst tint glass from level 1. In level 2, along with more modern artifacts several cut nails, a sherd of pearlware, 2 stoneware sherds and and a few pieces of early whiteware and a small amount of melted lead that may be the result of the 1927 burning of the house were recovered. Artifacts from level three have a small number of later or intrusive artifacts with the majority also indicating a pre-1927 occupation at the house site. A number of artifacts from the last two quarters of the 19th century were cataloged. The assemblage is domestic. It primarily includes glass and ceramic with a few wire and cut nails, a tin can fragment, a rim fire shell casing of some age, but unknown date and a Hutchinson bottle stopper fragment that pre-dates 1880 (Figure 100).





Figure 100 Embossed glass bottle fragments and bottle neck with Hutchinson bottle stopper from Stonegate II-Historic site (44AX167). The excavation of unit 69 offered the best opportunity to find an undisturbed or well preserved stratification from the site. The unit was placed on the north side of the only remaining house pier (Figure 101). Because the house pier has not been disturbed during the razing of the structures or by the recent road, it is hoped the area would provide an undisturbed look at the site.

The depth of the cultural deposit reached only eight inches below the surface in this unit, 647 artifacts were recovered, with only five additional artifacts recovered below this level at a depth of (8-12 inches). All of these artifacts perhaps with a few exceptions from level 1, pre-date the 1927 burning of the home reported in the tax rolls. Several ceramics were recovered which were manufactured by the Mount Clemens Pottery Co. in Mount Clemens, Michigan. This company was established in 1915. The presence of a makers mark indicates a date perhaps before 1930, this gives a range between 1915-1930. Evidence of the burning can be seen in numerous pieces of ceramics and several examples of melted bottle glass. The presence of both cut and the more modern wire nails in the assemblage corroborates the life span of the structure. The number of cut nails vs. wire nails, was 41 vs. 11 which may suggest that some repairs may have occurred near this corner of the house. There is also a relatively large number of 19th century ceramics and glass which establishes the identity of the house site as the original Dove family home as seen on the 1865 map.

After this preliminary information from units 57 & 69 had been examined, an additional unit was recommended to be excavated to cross the western edge of the former structure. Unit 74 was excavated to determine if a builders trench had existed or a former foundation had been present and perhaps salvaged. The unit was placed straddling the berm that delineates where the west wall of the of the former house would have stood. Artifacts from the upper two levels continue to be mixed. They included tin foil, beer bottle caps, with a sherd of pearlware and early whiteware for seasoning. Levels 3 and 4 were relatively undisturbed with an assemblage of 29 cut nails and only 5 wire nails of later manufacture. Ceramics found in these levels include pearlware and early decorated whiteware, both sponge and hand painted, from the mid-19th century. Remnants of burned wood were recovered and a small piece of melted lead were recovered in both levels indicating that the structure had burned. The intrusion of later artifacts in the lower levels is possible as a result of the levels being horizontally excavated rather than following the radical slope of the berm where the unit was located.

The mechanical or bulldozer scrape area was done to locate features and to recover additional information. The Commander skid loader, with a 48 inch front bucket, was used to scrape an area from the north edge of the former house to the western side of the site. The length of the scraped area was approximately 26 feet long and was excavated to a depth averaging 8 inches. The scrape was continued until sterile subsoil was uncovered with only one small pocket where a mixture of artifacts from 19th and 20th century were recovered. The material was then screened through a 1/2 inch mess in



Figure 101 Excavation unit 69 adjacent to house pier at older house site. Looking southwest. approximately one inch levels. This procedure continued until an undisturbed level could be defined. Unfortunately, the previous disturbance to the site made this transition to a recordable level unrecognizable, if it still existed.

Artifacts recovered from the scrape area included an assortment of artifacts both from the 19th and 20th century. It included pennies from 1976, 1986 and 1987, rubber bands, Chrysler car keys, and assorted plastic fragments. Almost all of the ceramics which were recovered pre-date the 1927 burning of the house. A large amount of early 20th century hand painted overglaze oriental floral pattern porcelain and various patterns of decorated whiteware were found. Earlier ceramics, from the 19th century, include a possible creamware sherd and a number of stoneware sherds. Two ceramic pipe bowl fragments were recovered from the trench as well, and have been dated to the late 19th century. One of these is a grey stoneware pipe bowl fragment which has a ribbed decoration. It has been identified as a Pamplin pipe from the late 19th or early 20th century and may be a Hamburg or City Shaker style (Figure 102).

The percentage breakdown of cut nails vs. wire nails is nearly even. The appearance of the house is further brought to life by the presence of a single slate roofing fragment and three asbestos shingle fragments. The asbestos shingles may be a portion of an addition which was constructed later and may be of the same vintage as the wire nails that were also found on the site.

Outfall Investigations

Results of the shovel testing along both storm drain corridors yielded a few flakes and shatter in most of the shovel tests. One unifacial quartz scraper was recovered in shovel test #5 on the southwest storm drain along the northeast storm drain corridor, one biface fragment was recovered in shovel test #3 and one projectile point body fragment from shovel test #2. Profiles from the shovel testing indicated a diversity in the soil profile and artifacts were recovered throughout the profile (Figure 103). The recovery of these artifacts suggested that excavation units would be required to determine if intact cultural features were present or if significant amounts of cultural material would be recovered.

In the interim, it was discovered that the width of the disturbance corridor was wider than originally thought and subsequently an additional line of shovel tests and a line of test units every 10 feet along the centerline of each corridor would be required (See IAC-AA, 11/23/92-Appendix C).

The shovel tests that were requested to be excavated along the eastern edge of the northeast corridor were discovered to lie in a disturbed area. This area had been bermed as a water control measure in the late 1950's or 60's. Five test excavation units were excavated along the northeast storm drain



Figure 102 Gun flint and two late 19th or early 20th century pipe bowl fragments.

SOUTHWEST STORM DRAIN PROFILES



10YR 3/4 Dark yellowish brown-humus

10YR 6/6 Brownish yellow clayey sand



10YR 3/4 Dark yellowish brown-humus

10YR 6/6 brownish yellow sandy gravelly clay

SHOVEL TEST #5





10YR 4/4 Dark yellowish brown humus 10YR 6/6 brownish yellow sandy gravelly clay

10YR 6/6 Brownish yellow sand

10YR Pale brown clayey sand

SHOVEL TEST #3

Figure 103 Profiles from shovel testing of Southwest Storm Drain corridor.

corridor and revealed a number of flakes in the five levels that were excavated per unit.

After further discussions with Alexandria Archaeology, it was decided that only three units would be excavated along the southwest storm drain, based on the information gained from the northeast storm drain excavations (IAC- AA-1/4/93-Appendix C). These excavations, once again, yielded a number of flakes and shatter, but no cultural features. In addition to the lithic debitage, two projectile points were recovered. One point which was recovered from Unit 4, level 3 has been difficult to assign a typology as its characteristics are not clearly defined. It has no basal grinding, shows some asymmetry but is smaller than many points of similar form. There are several possibilities which exist between a Palmer and Brewerton. The other projectile point is identified as a Piscataway from the Early to Middle Woodland period.

Profiles from the test excavation units showed that the area along the northeast storm drain corridor is essentially undisturbed (Figure 104). Although the current sediment accumulation is greater than on the terrace above the floodplain. The possible explanations for this include deforestation and resultant downslope transport of soils and the colluvial deposits from the creek. The geomorphology of the creek area has been significantly altered in the past 60 years as the result of the extensive development of the area and the subsequent increase in run off funnelled into the creek area. The entire creek bottom is highly disturbed due to the extreme erosion and meandering of the creek.

Profiles from the southwest storm drain corridor show a similar stratigraphy with at least one drainage rivulet noted in Unit#4 (Figure 105). Also noted were several historic artifacts at level 3 in Unit #4. This may be attributed to larger accumulations of soil as a result of logging activities and the subsequent increase in deposition or perhaps it is a disturbance associated with the construction of the road a few feet to the north of the unit.

The limited number of artifacts, primarily lithic debitage, suggested that a general cultural occupation occurred over the entire floodplain area (Figure 106 & 107). Because no intact cultural features were encountered and the artifact density was low no further work was recommended.

Storm Water Retention Pond

As a result of a change in the design of the storm water management system at the Stonegate development an additional area required surveying. This change consisted of the construction of a storm water retention pond which crossed into the non-disturbance area at the south east corner of Parcel B.

After a discussion with Alexandria Archaeology concerning the scope of work, the shovel testing of this area was approved. This scope of work called for a total of 16 shovel tests to be excavated on a 25 foot grid pattern.

NORTHEAST STORM DRAIN PROFILES



Figure 104 Profiles from excavation units from Northeast Storm Drain corridor.

SOUTHWEST STORM DRAIN PROFILES



UNIT #1 WEST WALL

10YR 3/4 Dark yellowish brown-humus

10YR 6/6 brownish yellow sandy gravelly clay



UNIT #3 WEST WALL

10YR 3/4 Dark yellowish brown-humus

10YR 6/6 brownish yellow sandy gravelly clay



Figure 105 Profiles from excavation units from Southwest Storm Drain corridor.



Figure 106 Site map and artifacts recovered from the Northeast Storm Drain corridor.



Figure 107 Site map and artifacts recovered from the Southwest Storm Drain corridor.

The fieldwork revealed that the old road, which runs parallel to the creek, had disturbed a portion of the area to be surveyed. Several shovel tests were moved to avoid this disturbed area. A total of 14 shovel tests were excavated (Figure 108) within the survey area.

A total of 64 lithic artifacts were recovered from these shovel tests. The majority of these flakes were quartz with the remainer being quartzite (See Appendix A- Artifact Catalog). This was an average of 4.6 flakes per shovel test with a higher concentration of artifacts being recovered from shovel test on the flatest areas closest to the stream. Only 5 of these artifacts were classified as shatter one non-diagnostic biface fragment (Unit 1,level 1) was recovered. This biface body section was crude in form with some cortex present and it may have been utilized as a scraper.

The largest concentration of artifacts were recovered from shovel test #4 numbering 34 flakes, with 10 flakes recovered from shovel test #1. The artifacts from these two tests constitute 65% of the artifacts that were recovered. In shovel tests #7-14 only six flakes were identified.

The number of artifacts recovered from these shovel tests indicate a level of occupation which is comparable to both the southwest and northeast storm drain corridors. The shovel tests which had only a few lithic artifacts were located in the areas where the topography had a slightly greater slope and is less well suited for occupation. The location of shovel test #4 and #1 is in an area of lower relief and therefore more suitable for habitation. The proximity of these shovel tests in the area of lower relief is contiguous with the area that has been defined as site 44AX31. It is apparent that the concentration of artifacts represent the northeastern limits of site 44AX31. The number of artifacts recovered in shovel tests #1 & 4 required that additional testing be recommended.

Discussions with Alexandria Archaeology resulted in agreement on the manner and level of testing to be undertaken on the site. A total of five -1 x 1 meter excavation units would be excavated on the site to determine if any intact cultural features or significant artifactual material were present. Two of these units would be located next to shovel test #4 where the largest number of artifacts had been recovered. A third unit placed next to shovel test #1. The remaining two units were placed between these two units to determine if a trend or individual concentrations were apparent.

To better help the reader visualize the association between the various investigation areas a map showing the Storm Water Retention Pond and its relationship to site 44AX31 and the two outfalls that have been previously investigated is shown in Figure 109. The area where the five test excavation units were placed is in the southwest corner of the Storm Water Retention Pond. A larger scale map showing the location of the shovel test within the pond area can be seen in Figure 108 and the site specific location of the test units to shovel tests #1 & 4 can be seen in Figure 110.



SHOVEL TEST LOCATION MAP

198

Figure 108





STORM WATER RETENTION POND TESTING PHASE SITE PLAN

Figure 110 Site plan for the testing of Storm Water Retention Pond.

200

The area where the testing was undertaken is located on a flat terrace area which is currently located approximately 10 feet above the existing level of the stream. The southern limit of the area is bounded by an erosional bank that was formed by the meandering of the stream channel or extreme flood conditions. Shovel test #4 and units #1 & 2 that were excavated on the north and south side of the shovel test are located approximately 60 feet from the stream (Figure 111).

Excavation of the five test units revealed a soil profile similar to each other and to the profiles from the test units previously excavated along both of the outfall corridors (Figure 112). The uppermost level of humus, light soil, and roots was excavated as level 1 and was 5-7 cm. in thickness. This level revealed numerous artifacts and provides evidence for either very little soil accumulation or the vertical migration of artifacts as a result of bioturbation. The next level, level two, was excavated to 10 cm. to re-establish the arbitrary 10 cm. level. This level was composed of a sandy loam with small gravels. At the beginning of level three at 10 cm. the abundant gravels became the primary matrix in the sandy loam. As the excavation proceeded to the deeper levels the gravel remained constant with the soils grading to a finer silt and then to a more clay rich composition. At the base of level 4 and thru levels 5 and 6 the red- orange clay became the dominant constituent of the soil matrix. A slight variation was noted in the soil profile of unit 3, which was closest to the stream, it had a higher gravel and stone content than any of the other units that were excavated.

Numerous artifacts were recovered from all five test units, 1,632 flakes, 288 pieces of shatter and 106 prehistoric ceramics in total. This is an average of 326 flakes and 21 ceramics per unit and represents a significant occupational presence. In addition to these artifacts, 14 bifacially worked tools or tool fragments (primarily projectile points), and two soapstone bowl fragments were recovered (Figure 113).

An analysis of the lithic debitage revealed that the percentage of lithic materials were almost evenly divided between quartz and quartzite. A number of flakes and at least two bifaces were manufactured from rhyolite. The large number of thinning flakes recovered from the excavations suggest that thinning or resharpening may have been a significant activity that occurred at the site(See Appendix A-Artifact Catalog).

The distribution of these artifacts within the units, both horizontally and vertically, appear to be fairly consistent. A slight variation can be seen in the lithic concentration with a consistent distribution of lithic materials across the investigation area with only a slight decrease in the number of lithics trending towards the stream. The lowest number of lithics were recovered from unit #3 which is located between shovel tests #1 and 4.

A total of 14 bifacially worked tool or tool fragments were recovered in the five test units. The distribution of these artifacts were concentrated in three of the five units. Only a single quartzite preform fragment was recovered from Unit 3, level 4 and it is similar to several preforms that were recovered from excavations of site 44AX166 at the top of the terrace. In unit 1



Figure111 View of site with excavation Unit #1 in foreground with shovel test #4 and Unit #2. Stream in center background. Looking southeast.

UNIT 1 - NORTH WALL



10YR 4/4 Dark yellowish brown humus 10YR 4/6 Dark yellowish brown sandy loam

10YR 6/2 Light brownish grey gravelly clayey sand

10YR 6/6 Brownish yellow sandy clay

UNIT 5 - NORTH WALL



TEST EXCAVATION UNIT PROFILES

Figure 112 Profiles for test excavation units 1 and 5.

STONEGATE STORM WATER RETENTION POND TESTING PHASE

	Flakes	Snatter	Ceramics
Unit 1-Level 1	60	6	0
Level 2	51	5	5
Level3	111	28	10+1 soapstone
Level 4	125	11	1
Level 5	89	30	Ô
Level 6	7	0	0
Levero	1.12	. 80	16
	443	80	10
That 7 Lough 1	01	14	0
Unit 2-Level 1	01	14	0
Level 2	85	17	3
Level 3	103	10	24
Level 4	120	23	17
Level 5	36	4	2
Level 6	4	0	0
	427	68	54
	22	12	
Unit 3-Level 1	32	12	4
Level 2	35	12	3
Level 3	54	13	4
Level 4	32	5	1
Level 5	10	2	0
Level 6	2	0	0
	165	44	12
71. 14. 4 Taxan 1 T	10	F	1
Unit 4-Level 1	48	2	1
Level 2	69	9	3
Level 3	125	15	11
Level 4	49	6	2
Level 5	10	0	0
Level 6	2	0	0
	303	35	17
Unit 5-Level 1	37	10	2
Level 2	69	22	2
Level 3	153	73	3 ±1 soapstone
Level J	28	6	5 +1 soapstone
Level 4	20	0	0
Level 5	5	0	0
Level 6	4	0	
	294	61	1
TOTALS	1632	288	106+ 2 soapstone



a total of six projectile point fragments and one crudely made point which may be intact was recovered (Figure 114). The intact point is made from a dark grey quartzite and is tentatively identified as a Holmes variant of Savannah River. Three other basal fragment were recovered, a smaller Savannah River, a Holmes variant and quartz basal fragment that may be a bifurcate was recovered from level 3. The identification of this basal fragment as a bifurcate is problematic because of it's close association with later Archaic points.

In unit 5, four projectile point fragments were recovered. A crudely made rhyolite point that may be identified as a Piscataway was found in level 1. The point from level 2 and the stem fragment from level 3 are considered two nebulous to accurately assign a cultural affiliation (Figure 115).

One bifacial tool was recovered from Unit 2, level 3 that was made from rhyolite and is highly weathered. This tool is crudely made and the stem is not clearly defineable. It is believed that this tool may have been used as a scraper. In the same unit in level 4, a quartz basal fragment was recovered but assigning a specific identification may be misleading. It is possible that this is a basal fragment and may be associated be associated with the Middle Archaic (Figure 116).

An analysis based on observing the bags of artifacts in their proper sequence and examining the numbers of artifacts in tabular form clearly shows that a smaller number of lithics of smaller size were recovered from the deeper levels. This appears to indicate that there is some filtration or downward movement of smaller lithic material within the soil profile. Although an in-depth statistical comparison between the lithic materials and ceramics was not undertaken, it appears that the presence of Accokeek wares at all levels with smaller amounts at depth may corroborate this conclusion.

An analysis of the 106 native american ceramic sherds was undertaken by Mary Ellen Hodges, who is widely recognized as an authority in Virginia prehistoric ceramic studies. A complete copy of her report is included in Appendix J. I have chosen to summarize her findings in this portion of the report. All of the ceramics, with the possible exception of a single sherd, were identified as Accokeek ware (900-200 B.C.). The single sherd was decorated with a knotted net-marked surface treatment and is a rim sherd with a straight profile. This sherd may have a rim fold and it may have been decorated with a cord wrapped dowel. Mary Ellen associates these attributes to a Later Woodland period although with reservations because of the sherds small size.

The ceramics were classified by four temper groups ; medium to coarse crushed schist and sand, fine crushed schist, fine to medium sand, and fine sandy paste. 64% of the ceramics were classified as medium to coarse crushed schist and sand temper.

More than half of the ceramics that were recovered had a cord-marked surface treatment while the remainder of the sherds surface treatment could not be determined because of their poor level of preservation.





Figure 114 Projectile points and fragments from test unit 1.


Figure 115 Projectile point fragments from test unit 5.

UNIT 2





Statistical analysis shows that the majority of the ceramic sherds (49%) were recovered from level 3, with only 2% being recovered from level 5 and no ceramics in level 6. This concentration of sherds in level 3 mirrors the number of lithics recovered from this level.

To summarize, the excavation of the five test units encountered in the northeastern portion of site 44AX31, which was originally identified in 1979, revealed numerous prehistoric artifacts. The quantity and typology of the artifacts suggests a small base camp or perhaps an exploitive foray site. This site may have been reoccupied on a number of occasions in the Late Archaic and Early Woodland periods. All of the ceramics, with the possible exception of one sherd, are identified as Accokeek ceramics which date from 900-200 B.C. and the recovery of two soapstone bowl fragments, although often assigned an earlier association to the Late Archaic, may be contemporaneous with the ceramics. The projectile points recovered from the test units also concur with a Late Archaic through an Early-Middle Woodland association although the presence of two possible bifurcates may expand this chronology of the period of occupation.

The significance of this site on a low order stream within the City of Alexandria represents an important resource. My recommendation to Eakin/ Youngentob Inc. was to avoid the site. A minor redesign of the storm water pond would leave the area undisturbed. To make up for the loss in volume, the pond was deepened in another area.

The location of the site at the very limit of the construction area posed a three dimensional preservation solution. The area where the artifact concentration was defined is part of the edge of the storm water pond. This means that while part of the area would have originally been disturbed by excavating the basin of the pond the rest of the pond edge would actually have as much as four feet of soil piled on top of the existing ground surface. The boundaries of the impact area were defined through analysis of the artifact distribution and an examination of the site and it's topography as it is related to occupational suitability and the presence of artifacts. A field examination of the site was conducted with Fran Bromberg of Alexandria Archaeology to better visualize the location of the artifacts over the entire site area. During this examination the area to be protected in the re-engineering of the pond was agreed upon. The area is limited to the south by the erosional cut associated with the stream, to the west by an old road cut, to the north by a perceptible increase in slope and decrease in artifacts and to the west by the limits of the storm pond (Figure 117).



The recommended method for protecting the site area was gleaned from discussions with representatives of the Virginia Department of Historic Resources, several publications provided from the Commonwealth and inquiries with archaeologist involved in the burying of several acres at Governors Land near Williamsburg, Virginia. Considerations for the type of site and artifactual material were two of a number of factors that were taken into account when deciding on the best method to protect the area. Other factors included the function of the storm pond and the currently unexposed and undisturbed nature of the site.

The procedures and the materials to accomplish the task were then discussed with and refined by the construction supervisor of the Stonegate development Mr. Lee Steinmeyer as he will be responsible for implementing portions of the plan under the direct supervision of the archaeologist.

Before the actual preparation of the area was undertaken a permanent datum was established away from the area to be disturbed so that the work that has taken place can be integrated into a master plan. A 1-1/2" galvanized pipe was driven approximately 12 inches below the ground surface to act as a primary datum. This countersunk pipe will act as a back up reference if the marker placed above it is ever disturbed and it can be relocated with a metal detector or hand held magnetometer (pin finder). The countersunk pipe set in 8' of mortar was covered with a small piece of plastic sheeting and a 1-1/4' diameter stainless steel rod set flush and vertical above the primary datum. The stainless steel rod which is imbedded in mortar will eventually be set in concrete with the date and cardinal directions scratched into the concrete.

Before the site was covered, the area was delineated by flagging tape and the area hand cleared of brush and debris. The trees that were present on the site were cut with chains saws then sawn into smaller pieces and hand rolled off the site. The stumps of these trees were sawed off flush to the ground surface so that a piece of landscape fabric could be laid over the entire site. The landscape fabric (Typar) that was used to cover the site is a grey spun polyester that is extremely durable, porous and very difficult to cut. This fabric was covered with a thin layer of #57 gravel (approximately 3/4 inch in size) to allow any future archaeologists to recognize an intrusive stone type separating the original surface from the fill above it. On top of this gravel layer 18-24 inches of soil will be placed on top to effectively protect the site from any disturbance and to allow the area to re-establish it's natural flora or to be landscaped.

CONCLUSIONS

The results of the shovel tests and excavation units along both storm drain corridors and the stormwater retention pond indicate the presence of cultural occupation all along the floodplain of the creek. Two projectile points located during the investigation of the Southwest Storm Drain suggests an association with the Late Archaic thru the Middle Woodland near the southwest corner of the property.

The testing of the the Storm Water Retention Pond revealed a portion of site 44AX31 that indicates an exploitive foray camp or small base camp was located along the creek and occupied from the perhaps the Late Archaic to the Middle Woodland. The recover y of over 100 sherds of Accokeek Ware and the presence of abundant lithic debitage suggests an active cultural occupation from ocurred from sometime between 900-200 B.C. An association between the site 44AX31 and 44AX166 cannot be clearly established but it is believed that both cultural activities were contemporaneous.

The historic site (Stonegate II-44AX167) was identified as a domestic occupation area with the remains of three structures found in close proximity to each other. At the far end of the former pasture area of the domestic site a pig feeding area was also located on the edge of the terrace that currently overlooks Braddock Road.

The oldest of the structures to be identified at the historic site is first noted on a map of 1865 and is identified as "Mrs. Green, Mrs. Dove". A descendant of the family states that the property was given to Peggy Dove by General George Washington Custis Lee although that date or reason for the gift is unknown. This house site remained in the extended Dove family well into the 20th century with the property being divided into four lots among the descendants of Edward Dove, the son of Peggy Dove. This older house site apparently burned in 1927/1928 while the current owner Edward Dove, grandson of Peggy Dove, and his wife Lillian owned the property. Records show that Edward and Lillian shortly after the fire then purchased property nearby on Leesburg Pike.

The tax records indicate that a structure valued at \$300 was built on lot 2 of the Dove property, owned by Florence Dove Daniels Kitts in 1941. The remains of this structure was identified as the cinder block foundation located on the site. The property formerly owned by Edward Dove was purchased by Charles M. Reid in 1942 and a notation in the 1942 tax records records that a building was added. These two structures are seen in the 1948 aerial photograph, and the newer house site built by Reid is drawn on the property map in the 1953 suit to quiet the property title. Sometime between this 1953 record and by the time 1960 aerial photograph both structures have been razed.

Artifactual evidence recovered in the investigations of this site corroborate the historical record. The earliest artifacts date to the mid and late 19th century and are few in number. Soil profiles observed over the site indicate that the razing of the site between 1953-1960 seriously disturbed the area with few intact cultural features remaining.

Little is known about the Dove family themselves. The family was in the immediate area as early as 1819 and probably earlier. Although, they apparently were never listed on the tax rolls until 1927 and a legal deed to the property does not appear to have been presented in the 1953 suit to quiet the title. The 1860 census lists both Robert and Peggy Dove as illiterate and Robert Dove as a laborer. The two grandchildren of Peggy Dove, who testified in the 1953 court case, were illiterate and had the court sign their name to their testimony. The artifactual evidence indicates few items of high quality in either ceramics, glassware, building hardware or in the size of the house. The location of the property located some distance from a main thoroughfare and the small acreage of the land indicate a lower socio-economic status.

The actual appearance of the 19th century house is difficult to ascertain but a reconstruction based on remnants of botanical materials indicates that daylillies had been planted on the south, east and part of the western side of the house. The north side of the house where the chimney may have been located was covered with English ivy. In front of the western side of the house was a small grassy area with crabapple trees. Just to the north west was a small stand of wild cherry trees with yucca planted near their bases.

It is difficult to determine when some of the botanicals may have been introduced to the site but, a small orchard of wild plums separated the older house site with the one constructed by Reid in the 1940's. This area was planted/established by the late 1950's and was then overgrown with honeysuckle when the site was razed and abandoned sometime shortly before 1960. The surrounding pasture and cleared areas were overtaken with black locust and pine trees. The pine trees prefering the most barren and well lighted areas, such as the roads and pasture area.

The prehistoric site Stonegate I (44AX166) measured approximately 40 x 60 meters and showed a light sporadic distribution of lithic material over most of the site area. This site was located from very near the edge of a gravel terrace overlooking the creek to approximately 200 feet from the edge. A total of 46 units were excavated, excluding the three lithic concentrations, to cover the site on a 5 meter grid pattern. These individual units yielded 716 lithic flakes. In addition to these units, the three lithic concentrations had a total of 82 units excavated in all phases of the investigation and yielded 6,408 flakes.

During the testing of the site three concentrations of lithic debitage and two possible hearth features were noted and became the focus of the work on the site. The two features that were encountered, originally identified as hearth features, may or may not represent cultural activity. The absence of charcoal, definable ground staining, spalling pattern or identifiable material for lithic reduction suggests that too little information is present to draw a supportable conclusion for the original purposes that these stones may have served.

The three lithic concentrations showed a narrow variation of the material types and patterning that indicated that the primary activity was the

lithic manufacture of projectile points. It was also noted that some limited resharpening occurred on the site and that 99.5% of the lithic materials was either quartz or quartzite.

Although a drill and a few possible tools were recovered, it is believed that the three lithic concentrations were the result of three separate projectile point manufacturing events occurring in the late Archaic. The flake totals represent the manufacture of a limited number of tools that occurred over a brief period of time, perhaps a brief as a single day but yet a relatively brief period of time.

The graphic representations of the scatters show the concentrations have remained undisturbed for several thousand years and that the original depositon patterns were preserved except for natural bioturbation. The size of the scatters as they were defined range in size and are only 2-3 meters in diameter. The demarcation noted in the Unit 10 concentration suggests a barrier, either natural or cultural, may have been present and the graphic indicates that a higher percentage of thinning flakes was present on the eastern side of the concentration perhaps indicating the orientation of the individual making the projectile points..

It is possible that these three remarkably well preserved lithic concentrations represent the same activity in the same place and at the same time. It also appears that they have neither an earlier or later occupation and may offer an unequalled comparative data base for future work.

MANAGEMENT PLANS AND RECOMMENDATIONS

As part of the Stonegate development the floodplain area along the creek at the southern boundary of the property near I-395 has been set aside as a non-disturbance area (See Appendix F-Resource Management Plan Map). Within this area are planned nature trails and an interpretive station that explains the purpose and process of the stormwater retention pond. During discussions with Alexandria Archaeology a plan for an archaeological preserve was incorporated into the theme of this non-disturbance area. The purpose of this archaeological preserve is to protect and to preserve a demonstrated resource of the site originally recorded in 1979 (44AX31) and the materials recovered on both outfalls and on the southern portion of the stormwater retention pond. The preserve would act as a resource to help school students and the general public understand their prehistory and provide an area for field work under the guidance of Alexandria Archaeology and in cooperation with Stonegate Associates.

Two separate areas of recommendations are presented. Those for the archaeological preserve and those for further research from the information recovered from both sites.

The archaeological preserve should be designated as such with the proper categorization and register with state and federal agencies. A permanent datum has been established and secondary and tertiary datums should be established in the event that the primary datum were ever disturbed. A grid system should be established to form the basis for future field work and a master site plan drafted and put on file with Alexandria Archaeology. Aerial photographs of the area should be taken both in the winter and during the period of full foliage as a baseline reference future study. Research objectives should be established and guidelines and requirements for further research defined. An effort to recover information from local collectors should be made, publication of the preserve's establishment should be undertaken and recognition from local officials should be sought out.

In all reports there are always questions that the investigators would like to pursue but are limited by the time that can be spent on the research. There are several questions and areas of research that are of interest that may be pursued by other archaeologist, historians and interested researchers. For the historic site, these include assembling or locating a genealogy for the Dove family and perhaps attempting to locate members of the family that are probably still living in the area. These relatives if they have knowledge of the site area should have their oral histories recorded.

The pig feeding area was apparently supplied from food scraps from a local restaurant or hotel and if a Daniels family member could be located they may be able answer the question where the scraps came from. If a historic menu were located from that establishment it would make an interesting item for display and the basis for analyzing the artifact assemblage.

Valuable information was recovered from the botanical survey of the historic site and an artistic drawing that reconstructs the yard as it may have appeared would also be an interesting endeavor. This reconstruction would be very interesting if photographs of the house site could be located from family members to compare the accuracy of the reconstruction.

For the prehistoric site, a number of questions can be pursued to help understand the prehistory of the area. These include the statistical comparisons between this site and other Late Archaic components of sites in similar geographic areas. The artifact catalog and data base that is provided on a floppy disc and enclosed in the rear pocket should be examined for other combinations and variables. This should include the micro analysis between individual units to answer specific research questions that may contribute to the body of knowledge of lithic technologies.

The distribution of the lithic scatters and their formation should be applied to an equation, such as Darcy's equation for fluid flow or a similar formula, to explain and reconstruct the original dimensions of the scatters. Although this equation may not be strictly applicable, I believe that a differential equation in this realm may be applied to help understand site formation and dynamics. Considerations for faunal and floral turbation, particularly cicada burrows, should be considered when attempting to apply any results derived from the equation to different environments.

BIBLIOGRAPHY

Alexandria

1957-1992

Deeds, wills and plat books. City of Alexandria Courthouse, Alexandria, Virginia.

Andrews, Charles M.

comp. 1967

Narratives of the Insurrections, 1675-1690. Barnes and Noble, New York.

Anonymous

[186-]

Untitled military map. Library of Congress, Washington, D.C.

Axtell, James

1988

"White Legend: The Jesuit Missions in Maryland," in After Columbus: Essays in the Ethnohistory of Colonial North America, edited by James Axtell. New York: Oxford University Press, p.73-85.

1992

"Columbian Encounters: Beyond 1992," William and Mary Quarterly 49(2)335-360.

Bache, A.D

1863

Map of the State of Virginia. National Archives, Washington, D.C.

1865

Map of the Ground of Occupation and Defense of the Division of the U.S. Army in Virginia. National Archives, Washington, D.C.

Barse, William P.

1985

A Preliminary Archaeological Reconnaissance Survey of the Naval Ordinance Station on Indian Head, Maryland: Cornwallis Neck, Bullitt Neck, and Throughfare Island. Draft, Maryland Historical Trust Manuscript Series.

Beverley, Robert

1947

History of the Present State of Virginia (1705). L. B. Wright, ed. University of North Carolina Press, Chapel Hill.

Billings, Warren M., John E. Selby and Thad W. Tate

1986

Colonial Virginia: A History. KTO Press, White Plains.

Binford, Louis R.

1964

Archaeological and Ethnohistorical Investigation of Cultural Diversity and Progressive Development Among Aboriginal Cultures of Coastal Virginia and North Carolina. Doctoral dissertation, Department of Anthropology, University of Michigan, Ann Arbor.

1980

"Willow smoke and dog's tails: hunter-gatherer settlement systems and archeological site formation," American Antiquity 45:4-20.

1982

"The Archeology of Place," Journal of Anthropological Archeology 1(1):5-31.

Boender, Debra Ruth

1988

Our Fires Have Nearly Gone Out: A History of Indian-White Relations on the Colonial Maryland Frontier, 1633-1776. Doctoral Dissertation, University of New Mexico.

Blunt, E. and G. W

[1862]

E. and G. W. Blunt's Corrected map of Washington and the Seat of War on the Potomac. Library of Congress, Washington, D.C.

Boatner, Mark M., III

1959

The Civil War Dictionary. David McKay Co., Inc., New York.

Bohn, Casimir

[186-]

District of Columbia and the Seat of War on the Potomac. Library of Congress, Washington, D.C.

Boye, Herman

1826

A Map of the State of Virginia: Constructed in Conformity to Law. Virginia State Library, Richmond.

Brooke, Robert and Peter Jefferson

1747

Northern Neck of Virginia. Virginia Department of Historic Resources, Richmond.

Broyles, Bettye J.

1971

Second preliminary report: the St. Albans Site, Kanawha County, West Virginia. Report of Archeological Investigations, No. 3. West Virginia Geological and Economic Survey, Morgantown.



1839

Map of Virginia, Maryland and Delaware exhibiting thepost offices, post roads, canals, railroads, etc. Library of Congress, Washington, D.C.

Butzer, Karl W.

1971

Environment and Archeology. Aldine, Hawthorne, New York.

Carbone, Victor A.

1976

Environment and Prehistory in the Shenandoah Valley. Ph.D. Dissertation, Catholic University, Washington, D.C.

Carneiro, Robert L.

1970

"A Theory of the Origin of the State," Science 169:733-738.

1981

"The Chiefdom: Precursor to the State," in The Transition to Statehood in the New World, edited by Grant D. Jones and Robert R. Kautz, pp. 37-75. Cambridge University Press.

Carr, Kurt W.

1975

The Fifty Site: A Flint Run Paleo-Indian Complex Processing Station. M.A. thesis, Catholic University, Washington.

Chapman, Jefferson

1975

The Rose Island Site and the bifurcate point tradition. Report of Investigations No. 14, Department of Anthropology, University of Tennessee, Knoxville.

Choate, C.D

1910

Map of Fairfax County. Library of Congress, Washington, D.C.

Church, B. S

[n.d.]

Untitled manuscript sketch of parts of Alexandria and Fairfax Counties. Library of Congress, Washington, D.C.

Cissna, Paul Byron

1986

The Piscataway Indians of Southern Maryland: An Ethnohistory from Pre-European Contact to the Present. Doctoral Dissertation, American University.

Clark, Wayne E.

1976

The Application of Regional Research Designs to Contract Archeology: the Northwest Transportation Corridor Archeological Survey Project. Masters Thesis, American University.

1980

"The Origins of the Piscataway and Related Cultures", Maryland Historical Magazine 75(1)8-22.

Clement, James E

1891

Map of Washington, D.C. Library of Congress, Washington, D.C.

Cocke, Charles F

1967

Parish Lines of the Diocese of Virginia. Virginia State Library, Richmond.

Coe, Joffre L.

1964

The formative cultures of the Carolina Piedmont. Transactions Vol. 54, Part 5. American Philosophical Society, Philadelphia.

Colles, Christopher

1789

Map of the Postal Routes of the United States., Colonial Williamsburg Research Archives, Williamsburg.

Conway, Moncure D

1892

Barons of the Potomack and Rappahannock. The Grolier Club, New York.

Corbett, V. P.

1861a

Corbett's Map of Northern Virginia. Library of Congress, Washington, D.C.

1861b

Sketch of the Seat of War in Alexandria and Fairfax Cos. Library of Congress, Washington, D.C.

Craig, A. J.

1969

Vegetational history of the Shenandoah Valley, Virginia. Geological Society of America Special Paper 123:283-296.

Craven Wesley F

1970

The Southern Colonies in the Seventeenth Century 1607-1689. Louisiana State University Press, Baton Rouge.

Crozet, Claudius

1848

A Map of the Internal Improvements of Virginia. Virginia State Library, Richmond.

Curry, Dennis C. and Maureen Kavanagh

1991

"The Middle to Late Woodland Transition in Maryland," North American Archaeologist 12(1)3-28.

Custer, Jay F.

1984

Delaware Prehistoric Archeology; an Ecological Approach. University of Delaware, Newark, Delaware.

Delcourt, P. A. and H. R. Delcourt

1981

Vegetational Maps for Eastern North America: 40,000 years B.P. to the Present. In Geobotany, An Integrating Experience, edited by R. Romans. Proceedings of the 1980 Geobotany Conference, Plenum.

Dent, Richard J.

1979

Ecological and Sociocultural Reconstruction in the Upper Delaware Valley. Ph.D. Dissertation. The American University, Washington.

1991

"Deep Time in the Potomac River valley--Thoughts on Paleoindian Lifeways and Revisionist Archeology," Archaeology of Eastern North America, 19:23-43.

Davis, George B., Leslie J. Perry and Joseph W. Kirkley 1978

The Official Military Atlas of the Civil War. Compiled by Capt. Calvin D. Cowles. Arno Press and Crown Publishers, Inc., New York. Originally published 1891, Government Printing Office, Washington, D.C

Drake, A. A. Jr., and A. J. Froelich

1977

Bedrock Map of Fairfax County, Virginia. U. S. Geological Survey, Reston, Virginia.

Ebright, Carol A.

1989

Archaic and Paleoindian Occupations at the Higgins Site. Paper presented at the Middle Atlantic Archeological Conference, Rehoboth Beach, Delaware.

Egloff, Keith T. and Stephen R. Potter

1982

"Indian Ceramics from Coastal Plain Virginia," Archaeology of Eastern North America 10:95-117.

Egloff, Keith T.

1985

"Spheres of Cultural Interaction Across the Coastal Plain of Virginia in the Woodland Period," in Structure and Process in Southeastern Archaeology, edited by Roy S. Dickens, Jr. and H. Trawick Ward, pp. 229-242. University of Alabama Press.

Engineer Bureau

[n.d.]

Environs of Washington. National Archives, Washington, D.C.

1865a

Defenses of Washington and Adjacent Country. National Archives, Washington, D.C

1865b

Extract of Military Map of Northeast Virginia Showing Forts and Roads. National Archives, Washington, D.C

1865c

Extract of Military Map of Northeast Virginia Showing Forts and Roads. National Archives, Washington, D.C

1865d

Central Virginia Showing Lt. Gen. U. S. Grant's Campaign in 1864-1865. National Archives, Washington, D. C.

Engineer Corps

1892

Map of the District of Columbia and Vicinity. Library of Congress, Washington, D.C.

Fairfax County

1742-1957

Deeds, wills and plat books. Microfilms at Virginia State Library, Richmond, and originals at Fairfax County Courthouse, Fairfax, Virginia

1974

Fairfax County in Virginia. Office of Comprehensive Planning, Fairfax

1986

Fairfax County, Virginia: An Historical Tour Map and Guide to Places of Interest. Office of ComprehensivePlanning, Fairfax.

Falk, Carole Portugal

1983

"Cordage Impressed on Potomac Creek Pottery: Decoding the Corded Style Motifs and the Methods of Pattern Manufacture," Maryland Archaeology 19(2)1-20.

Fausz, Frederick J.

1985

"Patterns of Anglo-Indian Aggression and Accommodation along the Mid-Atlantic Coast, 1584-1634," in Cultures in Contact: the European Impact on Native Cultural Institutions in Eastern North America, A.D. 1000-1800, edited by William W. Fitzhugh. Washington: Smithsonian Institution Press, p.225-270.

Feest, Christian F.

1978a

"Nanticoke and Neighboring Tribes," in Handbook of North American Indians; Volume 15, Northeast, edited by Bruce Trigger, pp. 240-252, Smithsonian Institution Press, Washington, D.C.

1978b

"Virginia Algonquians," in Handbook of North American Indians; Volume 15, Northeast, edited by Bruce Trigger, pp. 253-270. Smithsonian Institution Press, Washington, D. C.

Flanagan, Edward J.

1992

Phase IIIB Archeological Data Recovery at the Langert Site, Fairfax County, Virginia. Greenhouse Consultants, Shady Side, Maryland. (Draft)

Fry, Joshua and Peter Jefferson

1755-1775

A Map of the most Inhabited part of Virginia containing the whole Province of Maryland with Part of Pensilvania, New Jersey and North Carolina drawn by Joshua Fry and Peter Jefferson in 1751. Library of Congress, Washington, D.C.

Gardner, William M., ed.

1974

The Flint Run Paleo-Indian Complex: a Preliminary Report 1971-73 Seasons.

Occasional Publication No. 1, Archeology Laboratory, Department of Anthropology, The Catholic University of America, Washington, D. C.

Gardner, William M.

1980

Fairfax County: Some Comments on Man-Land Relations, Effective Environment and Prehistory. Informal paper prepared for the Fairfax County Park Authority's N.E.H. grant, "The Making of the Northern Virginia Landscape" (available from the Fairfax County Archaeological Survey).

1982

Early and Middle Woodland in the Middle Atlantic: an overview. In Practicing Environmental Archeology, edited by Roger W. Moeller, pp. 53-86.

Occasional Paper No. 3, American Indian Archeological Institute, Washington, Connecticut.

Connecticut.

1986

Lost Arrowheads and Broken Pottery: Traces of Indians in the Shenandoah Valley. Thunderbird Museums Publications

1989

An examination of cultural change in the Late Pleistocene and Early Holocene (circa 9200 to 6800 B.C.). In Paleoindian Research in Virginia: A Synthesis, edited by J. Mark Wittkofski and Theodore R. Reinhart, pp. 5-52. Special Publication No. 19, Archeological Society of Virginia.

Geddes, Jean

1967

Fairfax County Historical Highlights from 1607. Denlinger's, Fairfax.

Gentry, Daphne S

1981

Virginia Land Office Inventory. Virginia State Library, Richmond.

Gillespie, G.L

1865

Central Virginia Showing General P. H. Sheridan's Campaigns in 1864-1865. National Archives, Washington, D.C.

Gleach, Frederic W.

1985

"A Compilation of Radiocarbon Dates with Applicability to Central Virginia," Quarterly Bulletin of the Archeological Society of Virginia 40:180-200.

Graybill, Jeffrey R.

1989

"The Shenks Ferry Complex Revisited," in New Approaches to Other Pasts, edited by Fred W. Kinsey, III and Roger W. Moeller, pp. 51-59. Archeological Services, Bethlehem, Conn.

Hantman, Jeffrey L.

1990

"Between Powhatan and Quirank: Reconstructing Monacan Culture and History in the Context of Jamestown," American Anthropologist 92(3)676-701.

Hardaway, Scott and Gary Anderson

1980

Shoreline Erosion in Virginia. Virginia Institute of Marine Sciences, Gloucester Point, Virginia.

Hening, William W.,ed

1809-1823

The Statutes At Large:Being a Collection of All the Laws of Virginia. 13 vols. Samuel Pleasants, Richmond.

Henry, John

1770

A New and Accurate Map of Virginia. Virginia State Library, Richmond.

Henry, Susan L. et al

1988

Fairfax County Heritage Resource Management Plan. Office of Comprehensive Planning, Heritage Resources Branch, Fairfax.

Herrmann, Augustine

1673

Virginia and Maryland, 1670. Virginia Department of Historic Resources, Richmond.

Hoffman, J. Paul

1864

Untitled pen and ink manuscript map of Fairfax County, with parts of Loudoun and Prince William Counties. Library of Congress, Washington, D.C.

Hopkins, G. M

1879

Falls Church District No. 4. Library of Congress, Washington, D.C.

1894

Map of the Vicinity of Washington, D.C. Library of Congress, Washington, D.C.

Hotchkiss, Jededian

1835-1841

Hotchkiss' Geological Map of Virginia and West Virginia. Virginia State Library, Richmond.

Humphrey, Robert L. and Mary Elizabeth Chambers

1985

"Ancient Washington: American Indian Cultures of the Potomac Valley," GW Studies, No. Six, second edition. George Washington University, Washington, D.C.

Jefferson, Peter and Robert Brooke 1736-1746 A Map of the Northern Neck in Virginia. Virginia State Library, Richmond.

Jefferson, Thomas

1787

A Map of the Country between Albemarle Sound and Lake Erie. Colonial Williamsburg Foundation Research Archives, Williamsburg.

Jenings, Daniel

[1745-1748]

A Plan of the County of Fairfax on Potomac River. Library of Congress, Washington, D.C.

Johnson, Michael F.

1979

An Assessment of Prehistoric Archaeological Resources; Mt. Vernon. Potomac River Watershed, Fairfax County, Virginia. Fairfax County Archaeological Survey, Fairfax, Virginia.

1981

A Preliminary Cultural Resource Assessment of Fairfax County, Virginia Prehistory. Fairfax County Archaeological Survey, Fairfax, Virginia.

1983a

"The Evolution of the Bifurcate Hunting System in the Interior Piedmont of Fairfax County, Virginia," In Piedmont Archeology, Special Publication No. 10, edited by J. Mark Wittkofski and Lyle E. Browning, pp. 55-73. Archeological Society of Virginia, Richmond.

1983b

The Upper Cub Run Complex - Part I - Site 44FX143: A Research Report. Fairfax County Archaeological Survey, Fairfax, Virginia.

1985

"Paleo-Indians: The First Virginians of Fairfax County," Yearbook 20:5-18. The Historical Society of Fairfax County, Virginia.

1986

The Prehistory of Fairfax County: An Overview. Heritage Resources Branch, Fairfax County, Falls Church, Virginia.

1988

"The Hunter-Gatherer I Period: Fairfax County 9,000 Years Ago," Yearbook 21:75-84. The Historical Society of Fairfax County, Virginia.

1991

"Middle and Late Woodland Settlement Systems in the Interior Fall Zone of the Potomac Valley: Not a Live Oyster in Sight," North American Archaeologist 12(1)29-60.

1992

Phase III Archaeological Resource Recovery of the Virginia Oaks Golf Course Site #2 (44PW584) in Prince William County, Virginia. Report prepared for dePolo Land Services, Inc., Reston, Virginia.

Johnson, Robert U. and C. C. Buel, eds

1956

Battles and Leaders of the Civil War: The Way to Appomattox. 4 vols. Castle Books, New York.

Johnson, William C.

1989

Analysis of Cordage Impressions on Late Woodland Ceramics from the Patawomeke Site (44ST2) and five Montgomery Complex sites in the Potomac River Piedmont and Ridge and Valley Provinces or a New Twist to an Old Tale. Paper presented at the Middle Atlantic Archaeological Conference, Rehoboth Beach, DE.

Johnson, William C. and D. Scott Speedy

1992

"Cultural Continuity and Change in the Middle and Late Woodland Periods in the Upper James Estuary, Prince George County, Virginia," Journal of Middle Atlantic Archaeology 8:91-106

Johnston, Paul M.

1964

Geology and ground-water resources of Washington, D. C., and vicinity. Geological Survey Water-Supply Paper No. 1776. U.S. Government Printing Office, Washington, D. C.

Joyner, Peggy S

1987

Abstracts of Virginia's Northern Neck Warrants and Surveys: Hampshire, Berkeley, Loudoun, Fairfax, King George, Westmoreland, Richmond, Northumberland and Lancaster Counties, 1697-1784. Privately published, Portsmouth, Virginia.

Justice, Noel D.

1987

Stone Age Spear and Arrow Points of the Midcontinental and Eastern United States. Indiana University Press, Bloomington.

King, J. E. S

1978

Abstracts of Wills and Inventories, Fairfax County, Virginia, 1742-1801. Genealogical Publishing Company, Baltimore.

Kraft, Herbert C.

1989

"Evidence of Contact and Trade in the Middle Atlantic Region and with the Minisink Indians of the Upper Delaware River Valley," Journal of Middle Atlantic Archaeology 5:77-102.

Kulikoff, Allan

1986

Tobacco and Slaves: The Development of Southern Cultures in the Chesapeake, 1680-1800. University of North Carolina Press, Chapel Hill.

Lewis, Clifford M. and A. J. Loomie

1953

The Spanish Jesuit Mission in Virginia, 1570-1572. University of North Carolina Press, Chapel Hill.

Long, E. B

1987

The Civil War Day By Day, An Almanac. Da Capo Press, Inc., New York, N.Y.

MacCord, Howard A.

1984

"Evidence for a Late Woodland Migration from Piedmont to Tidewater in the Potomac Valley," Maryland Archeology 20(2)7-18.

1989

"The Contact Period in Virginia," Journal of Middle Atlantic Archaeology, 5:121-128.

Madison, James

1807-1818

A Map of Virginia Formed from Actual Surveys. Colonial Williamsburg Foundation Research Archives, Williamsburg.

Magnus, Charles H

1863

Birds Eye View of Alexandria, Va. Library of Congress, Washington, D.C.

Manson, Carl

1948

"Marcey Creek Site: An early Manifestation in the Potomac Valley," American Antiquity 13(3)223-227.

Mayo, William

1736

A Map of Northern Neck between Potomac and Rappahannock. Virginia Department of Historic Resources, Richmond.

McCartney, Martha

1985

Seventeenth Century Apartheid: The Suppression and Containment of Indians in Tidewater Virginia. Journal of Middle Atlantic Archaeology. Vol. 1:51-80

1988

The Battle of Drewry's Bluff in Chesterfield County, Virginia: The Historical Background. Manuscript on file at Virginia Department of Historic Resources, Richmond.

McDowell, Irwin

1862a

Map of Northeast Virginia and Vicinity of Washington National Archives, Washington, D.C

1862b

Surveys for Military Defenses, Map of N. Eastern Virginia and Vicinity of Washington. National Archives, Washington, D.C.

Merrell, James H.

1979

"Cultural Continuity Among the Piscataway Indians of Colonial Maryland," William and Mary Quarterly 36:548-70.

Michler, Nicholas

1864

Untitled map of several north-central Virginia counties. National Archives, Washington, D.C.

Mitchell, Beth

1977

Beginning at a White Oak . . . Patents and Northern Neck Grants of Fairfax County. Fairfax County Office of Comprehensive Planning, Fairfax

1987

An Interpretive Historical Map of Fairfax County, Virginia, in 1760. Fairfax County Office of Comprehensive Planning, Fairfax.

Moore, Larry E.

1990a

Early Prehistory of the Upper Wolftrap Drainage. Paper presented at the 1990 Middle Atlantic Archeological Conference, Ocean City, Maryland.

1990b

The Little Marsh Creek Site, Mason Neck National Wildlife Refuge, Lorton, Virginia. Fairfax County, Virginia, Heritage Resources report submitted to the United States Fish and Wildlife Service.

1991a

"A Little History of the Doeg," Quarterly Bulletin of the Archaeological Society of Virginia 46(2)77-85.

1991b

The Doeg and their Neighbors. Paper presented at the Archeological Society of Virginia Annual Meeting, Roanoke, Virginia.

1992

"Down in the Uplands," Quarterly Bulletin of the Archeological Society of Virginia 47(3)129-139.

in press

"Piscataway, Doeg, and the Potomac Creek Complex," North American Archaeologist

Morgan, Edmund S

1975

American Slavery, American Freedom: The Ordeal of Colonial Virginia. W. W. Norton, New York.

Mouer, Daniel L.

1983

"A Review of the Ethnohistory and Archaeology of the Monacans," in Piedmont Archaeology, edited by J. Mark Wittkofski and Lyle E. Browning, pp. 21-39. Special Publication No. 10 of the Archeological Society of Virginia.

Nash, Gary B

1974

Red, White and Black: The Peoples of Early America. Prentis-Hall, Englewood.

Neill, Edward W. (ed.)

1876

The Founders of Maryland. Joel Munsell, Albany, pp. 19-37.

Netherton, Nan et al

1978

Fairfax County: A History. Fairfax County Board of Supervisors, Fairfax.

Netherton, Ross and Nan

1986

Fairfax County, Virginia: A Pictorial History. Donning Company, Norfolk.

Noetzel, Gregor

1907

Map of Fairfax County. Library of Congress, Washington, D.C.

Northern Neck Grants

1741

Grant to William Henry Terrett. Virginia State Library, Richmond.

Nugent, Nell M

1969-1979

Cavaliers and Pioneers: Abstracts of Virginia Land Patents and Grants. 3 vols. Dietz Press, Richmond andGenealogical Publishing Company, Baltimore.

Parsons, et al

1977

Cub and Bull Environmental Baseline. Fairfax County Task Order 10.8, Parsons Brinkerhoff, Quade, and Douglas, Fairfax.

Potter, Stephen R.

n.d.

Commoners, Tribute, and Chiefs: The Development of Algonquian Culture in the Potomac Valley. University of Virginia Press, Charlottesville.

1980

A Review of Archeological Resources in Piscataway Park, Maryland. National Park Service, National Capital Region, Washington, D. C.

1982

An Analysis of Chicacoan Settlement Patterns. Doctoral Dissertation, University of North Carolina, Chapel Hill.

1989

"Early English Effects on Virginia Algonquian Exchange and Tribute in the Tidewater Potomac," in Powhatan's Mantle: Indians in the Colonial Southeast, edited by Peter H. Wood, Gregory A. Waselkov, and M. Thomas Hatley, pp. 151-172. University of Nebraska Press, Lincoln.

Preisser, Thomas M

1977

Eighteenth-Century Alexandria, Virginia, Before the Revolution, 1749-1776. Dissertation, College of William and Mary History Department.

Quinn, David B

1977

North America from Earliest Discovery to First Settlement. Alfred Knopf, New York.

Reed, Delores J.

1991

Lithic Analysis of a Plowzone Site in Fairfax County, Virginia: The Elliott Site (44FX428). M.A. Thesis, American University, Washington, D. C.

Reinhart, Theodore R. and Mary Ellen N. Hodges (eds.)

1990

Early and Middle Archaic Research in Virginia: A Synthesis. Special Publication No. 22 of the Archeological Society of Virginia, Richmond.

1991

Late Archaic and Early Woodland Research in Virginia: A Synthesis. Special Publication No. 23 of the Archeological Society of Virginia, Richmond.

1992

Middle and Late Woodland Research in Virginia: A Synthesis. Special Publication No. 29 of the archeological Society of Virginia, Richmond.

Reps, John W

1972

Tidewater Towns: City Planning in Colonial Virginia and Maryland. University of Virginia Press, Charlottesville.

Rice H. C. and A. S. K. Brown

1972

The American Campaigns of Rochambeau's Army, 1780, 1781, 1782, 1783. Princeton University, Princeton, and Brown University, Providence.

Robertson, James I., Jr

1963

The Civil War. U. S. Government Printing Office, Washington, D.C.

Rose, C.B

1967

A History of the Boundaries of Arlington County, Virginia. Office of the County Master, Arlington.

Rountree, Helen C.

1989

The Powhatan Indians of Virginia: Their Traditional Culture. Norman: University of Oklahoma Press.

Sauer, Carl O.

1975

Sixteenth Century North America. University of California Press, Berkeley.

Schmitt, Karl

1952

"Archeological Chronology of the Middle Atlantic States," in Archeology of the Eastern United States, edited by James B. Griffin, pp. 59-70. University of Chicago Press, Chicago.

1965

"Patawomeke: An historic Algonquian Site," Quarterly Bulletin of the Archeological Society of Virginia 20(1)1-36.

Shea, William L.

1983

The Virginia Militia in the Seventeenth Century. Louisiana State University Press, Baton Rouge.

Sheppard, Susan B

1980

Cavaliers and Pioneers: Abstracts of Virginia Land Patents and Grants, Supplement Northern Neck Grants No. 1, 1690-1692. Virginia State Library, Richmond.

Shepperd, Samuel

1970

The Statutes at Large of Virginia from October 1792 to December 1801, Being a Continuation of Hening. A.M.S. Press, New York.

Shipman, A. J
1886
Map of Fairfax County. Library of Congress, Washington, D.C.

Slattery, Richard G. and Douglas R. Woodward

1992

The Montgomery Focus: A Late Woodland Potomac River Culture. Bulletin No. 2 of the Archeological Society of Maryland.

Smith, John

1624

Virginia Discovered and Discribed [sic]. Virginia Department of Historic Resources, Richmond.

1910

Travels and Works of Captain John Smith, President of Virginia and Admiral of New England, 1580-1631, ed. by Edward Arber. 2 Vols. John Grant, Edinburg.

Smith, William F. et al

1989

A Seaport Saga: Portrait of Old Alexandria. Donning Company, Norfolk and Virginia Beach.

Snow, Dean R.

1980

The Archaeology of New England. Academic Press, New York.

Sorensen, James D.

1978

Mason District Park: Phase I Reconnaissance Survey. Fairfax County Park Authority, Division of History, Annandale, Virginia.

Stephenson, Richard W

1981

The Cartography of Northern Virginia. Fairfax Office of Comprehensive Planning, Fairfax.

Stephenson, Robert L., Alice L. L. Ferguson, and Henry G. Ferguson 1963

"The Accokeek Creek Site: A Middle Atlantic Seaboard Culture Sequence," Anthropological Papers, No. 20, Museum of Anthropology, University of Michigan.

1990

Pocahontas's People: The Powhatan Indians of Virginia Through Four Centuries. Norman: University of Oklahoma Press.

Turner, E. Randolph, III

1985

"Socio-Political Organization Within the Powhatan Chiefdom and the Effects of European Contact, A.D. 1607-1646," in Cultures in Contact: The European Impact on Native American Cultural Institutions in Eastern North America, A.D. 1000-1800, edited by William W. Fitzhugh, pp. 193-224. Smithsonian Institution Press, Washington.

1992

"The Virginia Coastal Plain During the Late Woodland Period," in Middle and Late Woodland Research in Virginia: A Synthesis, edited by Theodore R. Reinhart and Mary Ellen N. Hodges, pp. 97-136. Special Publication No. 29 of the Archeological Society of Virginia.

United States Geological Survey (U.S.G.S.)

1891

Mount Vernon quadrangle. Library of Congress, Washington, D.C.

1895

Metropolitan Washington quadrangle. Library of Congress, Washington, D.C.

1951

Annandale quadrangle. Library of Congress, Washington, D.C.

United States Post Office (U.S.P.O.)

1912

U. S. Post Office Map of Fairfax County. Library of Congress, Washington, D.C.

Virginia State Library

1965

A Hornbook of Virginia History. Virginia State Library, Richmond.

Warner, John

1736-1737

Survey of the Northern Neck. Virginia Department of Historic Resources, Richmond.

Waselkov, Gregory A.

1983

"Indians of Westmoreland County," in Westmoreland County, Va.: 1653-1983, edited by Walter B. Nooris, Jr.. Montross, Va.: Westmoreland County Board of Supervisors, p.15-33.

Washburn, Wilcomb E

1972

The Governor and the Rebel: A History of Bacon's Rebellion in Virginia. W. W. Norton, New York.

Wheeler, Robert A

1972

Lancaster County, Virginia, 1650-1750: The Evolution of a Southern Tidewater Community. Dissertation, Brown University History Department, 1972. Copy on file at Colonial Williamsburg Foundation Research Archives, Williamsburg.

Whitehead, Donald R.

1973

"Late-Wisconsin vegetational changes in unglaciated Eastern North America" Quaternary Research 3:621-631.

Wittkofski, J. Mark, and Theodore R. Reinhart, eds.

1989

Paleoindian Research in Virginia: A Synthesis. Special Publication No. 19 of the Archeological Society of Virginia, Richmond.

Wrenn, Tony P

1972

Falls Church: History of a Virginia Village. Historical Commission of the City of Falls Church, Falls Church.

Wright, Henry T.

1973

An Archeological Sequence in the Middle Chesapeake Region, Maryland. Maryland Geological Survey Archeological Studies, No. 1.