

**Stage 4 Salvage Excavation
of the King's Point Site (AhGs-24)
225 Ricardo Street,
Town of Niagara-on-the-Lake,
Regional Municipality of Niagara, Ontario**

Submitted to

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ASI: Consulting Licence 98-014
CIF #: not applicable

March 2007

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1.0 INTRODUCTION

In August of 1998, Daniels Group/King's Point, Niagara retained Archaeological Services Inc. to monitor earthmoving activities on the construction site of the King's Point Landing condominium development at 225 Ricardo Street. The property is located adjacent to a former marshland near the mouth of the Niagara River (Figure 1). The majority of the construction site was located on fill placed in the marsh during the mid-nineteenth century to stabilize the shore and permit the construction of docks.

The King's Point archaeological site (AhGs-24) was discovered during monitoring activities in the portion of the site which is immediately adjacent to Ricardo Street (Figure 2). The first artifacts to be observed in the topsoil were chert flakes characteristic of pre-contact Aboriginal occupation. Construction activities were subsequently halted in the area of the site by Dr. Christopher Watts of ASI. Although the site area had been partially disturbed by nineteenth and twentieth century activities, the

subsequent Stage 4 investigations involved the excavation of 311 one metre units within the Daniels Group/King's Point, Niagara property and within the adjacent Ricardo Street right-of-way. This work yielded an assemblage of 27,161 artifacts. The material includes 69 chert projectile points, 43 of which were diagnostic of the Early Archaic (7,000 - 6,000 B.C.), Middle Archaic period (6,000 - 2,500 B.C.), Late Archaic period (2,500 - 1,000 B.C.), and the Early to Late Woodland periods (1,000 B.C. to A.D. 1650), and 260 other non-diagnostic formal tools. Several small pieces of Woodland period ceramic vessels were also recovered. On the basis of the assemblage recovered, the site appears to have been used most frequently by hunter-gatherers between 5,500 and 3,000 and 2,000 and 1,500 years ago. These small bands were probably exploiting the rich natural resources of the nearby marsh and river. Substantial quantities of projectile points and flakes, made of Flint Ridge chalcedony and other exotic cherts, characterise the latter occupation. Historic period artifacts such as a white clay smoking pipe, two War of 1812 period buttons and a small piece of a War of 1812 British shako plate, were found as well.

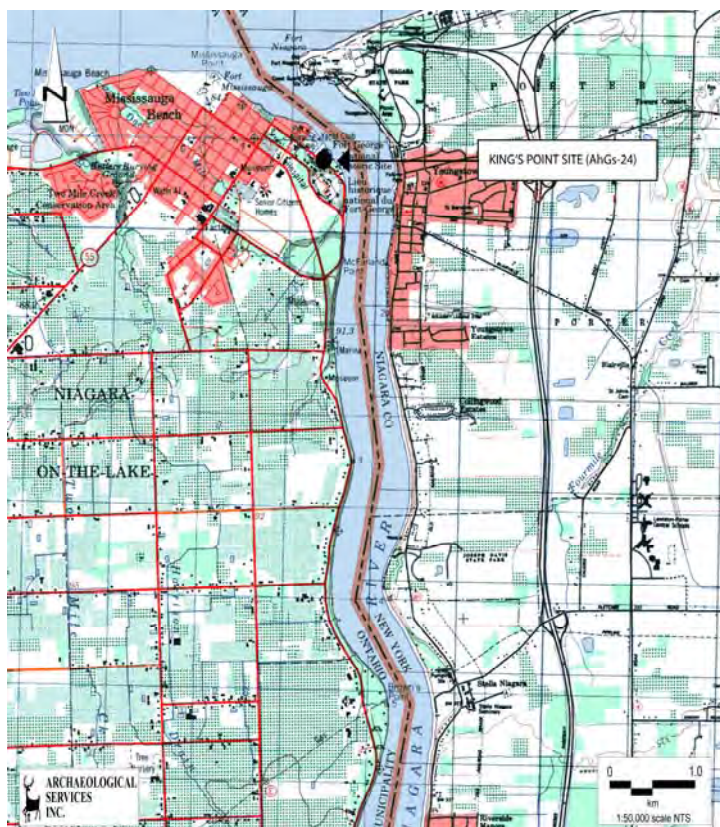
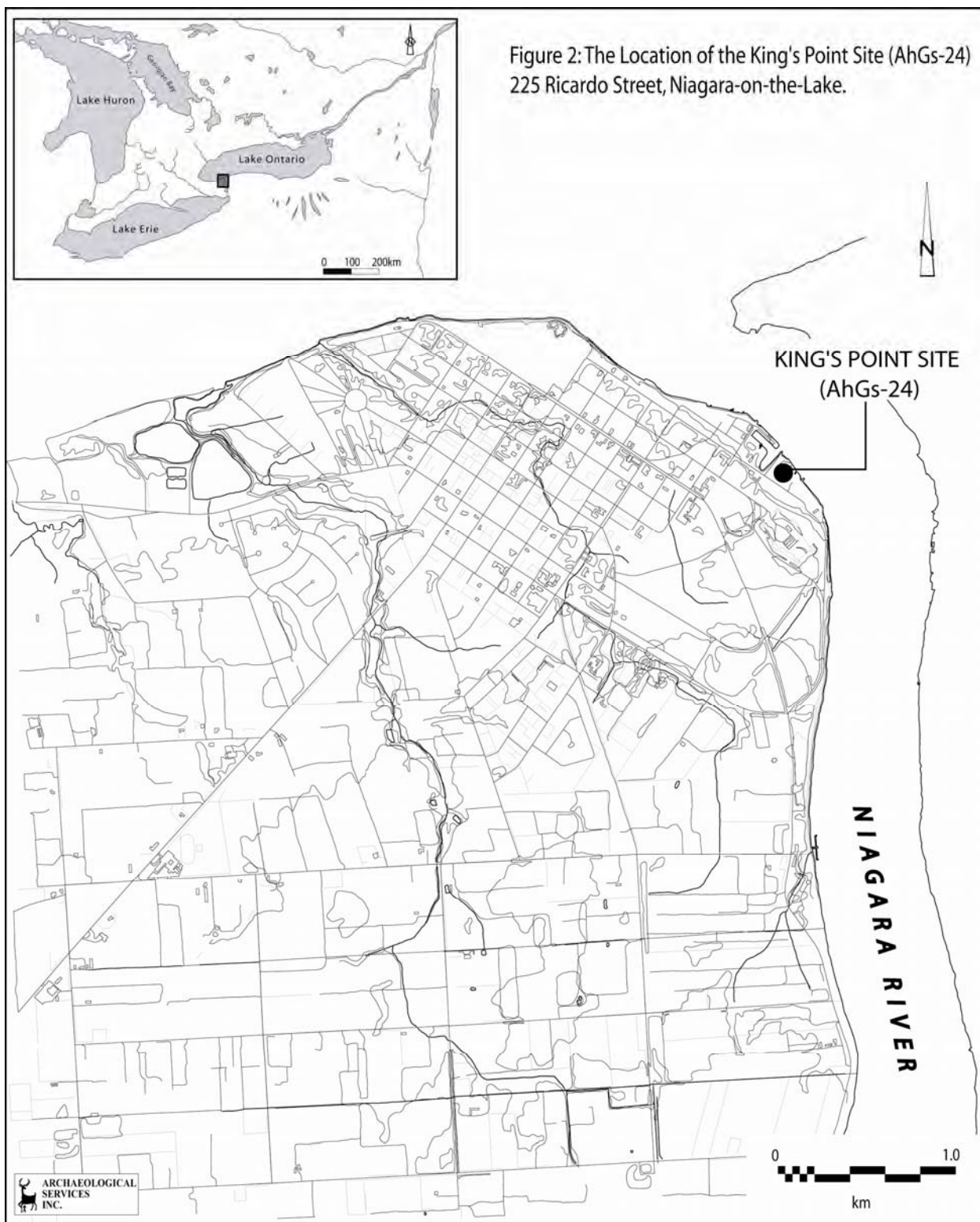


Figure 1: Location of the King's Point Site (AhGs-24)
(NTS Sheet 30 M/3 edition 6, 1984)



The Stage 4 excavations were carried out between August 17th and November 30th of 1998, and May 3rd to 18th, 1999 under the project direction of Dr. Ronald Williamson and the field direction of Dr. Christopher Watts. All work was conducted in accordance with the Ontario Heritage Act (1980) under an archaeological consulting licence (98-014) issued to Archaeological Services Inc. This document constitutes the final report on the King's Point site salvage excavations.

2.0 ENVIRONMENTAL SETTING

2.1 Physiography and Geology

The King's Point site is located within the Niagara-on-the-Lake Clay Plain subregion of the Iroquois Plain physiographic region, a lowland area bordering Lake Ontario that was originally the shore of glacial Lake Iroquois (Chapman and Putnam 1984: 190-191).

The area is underlain by Palaeozoic bedrock which dips gently towards the south. The majority of the Town, north of the Niagara Escarpment, is underlain by Queenston Formation red shale of Upper Ordovician age. The bedrock is mantled by Halton Till deposits that are generally in the order of 15 to 20 metres in thickness (Feenstra 1981) and are the product of the south-westerly advancement of the Ontario-Erie glacial lobe around 13,000 years ago. The Halton Till was subsequently capped by glacio-lacustrine deposits laid down by the short-lived pro-glacial lakes Dana and Dunnville, and finally by glacial Lake Iroquois between about 12,500 and 12,000 B.P. Deposits of deltaic sand laid down by the Lewiston Spillway—the ancestral Niagara River—where it debouched into Lake Iroquois occur in the vicinity of the site (Feenstra 1981), while the site itself is located in an area characterized by the development of modern alluvium comprised of clay, silt, sand and gravel with organic material.

As the glacial ice retreated, lower outlets of Lake Iroquois were opened, resulting in lowering water levels in the Ontario basin between 12,000 and 11,500 B.P. Early Lake Ontario began between 11,500 B.P. and 10,500 B.P.; at water levels that were as much as 100 metres below present (Figure 3). Levels gradually rose again until after around 5,000 B.P. when they attained levels similar to present during the Nipissing Transgression period. After about 4,000 B.P. water levels fell again to slightly below modern levels, and they have gradually risen again since then (Anderson and Lewis 1985).

2.2 Palaeovegetation

At 11,000 B.P., southwestern Ontario was dominated by spruce forests, although other early successional taxa such as poplar and birch were also in evidence. By about 10,500 B.P., fossil pollen records indicate that jack/red pine was assuming dominance over spruce, and it has been suggested that the opening of new habitats, resulting from the draining of the Main Lake Algonquin highstand, contributed to environmental change, particularly in coastal areas. In addition to pine-dominated upland forests, mixed stands that also included poplar, birch, and oak also developed at this time, while poorly drained lowland situations would have supported eastern white cedar, tamarack, black spruce, and balsam fir. After about 9,000 B.P., white pine assumes dominance from jack/red pine in southern Ontario forests, while increases in ash and elm pollen suggest diversification of lowland swamp forests. Over the next millennium, Holocene forests continue to evolve with the arrival of additional taxa, notably hemlock which assumes a dominant role. By around 7,500 B.P., an essentially modern forest becomes established, with the increasing representation of taxa such as oak, elm, maple, and ash, although there have been significant fluctuations in certain species frequencies since then, notably a decline in hemlock around 5,000 B.P. and an increase in beech thereafter (Karrow and Warner 1990: 28-31).

Over the past 200 years, the forests of Niagara-on-the-Lake have been reduced to isolated remnants. Nevertheless, a number of sources can be used to gain a sense of the local vegetation immediately prior to Euro-Canadian settlement in the late-eighteenth and early nineteenth centuries. These include historical descriptions and maps, phytosociological reconstructions based on soils, and extrapolation from extant forest stands in, and adjacent to, the study area. Unfortunately, data from early land survey notes, which record the early historical distribution of forest taxa for many parts of southern Ontario, are not available for Niagara-on-the-Lake (Bakowsky, 1999). Under normal moisture and temperature conditions, the dominant species for the region are typically hard maple (*Acer saccharum*), beech, basswood (*Tilia americana*), red and white oak (*Quercus* sp.) and shagbark and bitternut hickory (*Carya* sp.), with pioneering species including cottonwood (*Populus tremuloides*) and black cherry (*Prunus serotina*). Wetter sites tend to be dominated by swamp and pin oak (*Quercus* sp.), red and black ash (*Fraxinus* sp.) white elm (*Ulmus americana*), and bitternut hickory (*Carya cordiformes*) (Burger 1990). Analysis of modern tree taxa associations with various soil texture and drainage regimes in a similar landscape in Haldimand-Norfolk suggests the following general topo-sequences on clayey soils. The moderately well-drained soils tend to support upland forests dominated by sugar maple in association with beech, white ash, red and white oak, and shagbark hickory. The imperfectly drained soils are dominated by swamp white oak in association with bur oak, bitternut hickory, white ash, and sugar maple. The poorly drained soils exhibit co-domination by swamp white oak and silver maple in association with bur oak and shagbark hickory. The poorly drained soils in the immediate vicinity of the site probably supported wet-adapted taxa such as swamp white oak and black ash. The extent of this wetland habitat likely varied over time, in response to climatic change. For example, during the Altithermal period between about 7,000 and 5,000 B.P., the swamps may have contracted, while in cooler, wetter times, such as the Little Ice Age of circa A.D. 1500 to 1880, they may have expanded (Lovis and MacDonald 1999).

2.3 Plant and Faunal Subsistence Resources

A wide variety of wild plant resources was available to Aboriginal populations in the area. Of particular importance to this study were plant species that appear to have been integral to Native subsistence. Nut-bearing trees were likely abundant in the region, and could have provided an important and storable source of protein and fat. High in calories and rich in oil, nuts may have provided an important diet supplement. However, certain nuts required a considerable expenditure of energy for collection and processing, and nut masts are not consistent from one year to another. Common nut-bearing trees found in the study area include butternut (*Juglans cinerea*), hickory (*Carya* sp.), oaks and beech. The floodplains of a major watercourse such as the Niagara River and associated wetlands also would have offered a wide variety of resources, including foods such as roots, tubers, greens, as well as fibres and building materials, such as bark and cedar poles.

Local fauna provided an extensive resource base for pre-contact populations. Different forest zones can be considered as micro-environments to which certain animal species may be principally adapted, although clearly, faunal habitats are of a clinal rather than a discrete nature. Generally, biotic diversity tends to be greatest where topography, drainage, and soils are most variable, resulting in a broader range of habitats per unit area. In contrast, areas with uniform topography, adequate drainage, and suitable soils tend to produce closed canopy climax forest with an impoverished understorey that is less attractive to many animals. It is likely that the King's Point site was located in an area marked by heightened habitat diversity, with relatively easy access to upland hardwood forest, riparian forests and swamp on the entrenched floodplains, marshes in the flooded river and mouth, and various vegetation communities along the lakeshore. For the vast majority of the pre-contact period, ungulates represent the most significant game species in Niagara-on-the-Lake. White-tailed deer (*Odocoileus virginianus*) would have been attracted to wetland margins for spring and summer forage, to stands of mast-producing trees such as oak during the fall, and to conifer groves for winter browse and shelter. The coastal wetlands at the mouth of the river could have provided suitable habitat for moose (*Alces alces*), while beaver (*Castor*

canadensis) and muskrat (*Ondatra zibethicus*) would also have occupied the riverbanks. Wetland margins, stream valleys, and river floodplains, especially those with access to mast-producing forest, would also attract raccoon (*Procyon lotor*). Black bear (*Ursus americanus*), although a wide-ranging omnivore, would also be attracted to areas of highest biotic diversity and productivity.

The estuary at the mouth of the river also attracted migratory waterfowl, especially in the autumn. In the late eighteenth century, the quantities of waterfowl in the area were so great that the garrison at Fort George collected and consumed these birds “for a long period of time” (cited in MacDonald and Cooper 1997:31)

Lake Ontario, and the Niagara River also provided an important fishery. Freshwater drum (*Aplodinotus grunniens*), brown bullhead (*Ictalurus nebulosus*), smallmouth bass (*Micropterus dolomieu*), pike (*Esox lucius*) and muskellunge (*Esox masquinongy*) in the weedy river shallows, would have been available through much of the year. More important, however, may have been seasonal spawning runs of species such as Lake Sturgeon (*Acipenser fulvescens*), walleye (*Stizostedion vitreum*), American eel (*Anguilla rostrata*), and sucker (*Catostomus* sp.) that likely attracted groups to the mouth of the river to intercept the fish as they moved upstream.

Such a pattern of exploitation likely entailed establishment of major base camps in riverine venues where abundant local resources could sustain the band, and evidence for such continuity in lifestyle can be seen at multi-component occupations such as King's Point or the Peace Bridge site (Williamson and MacDonald 1997, 1998; Williamson et al. 2006).

2.4 Geoarchaeology of the King's Point Site (AhGs-24)

The King's Point site was situated on the north side of Ricardo Street a few tens of metres north of the base of a scarp on the west bank of the Niagara River. To the west of the site, on the south side of Ricardo Street, was observed remnants of a ravine which had breached the scarp. Historical maps show that the stream which once flowed in this ravine drained the upland which comprises the northern precincts of historic Fort George (Figure 3). By triangulating the distances from the archaeological site to the bastion of Fort George and Navy Hall, the site was placed approximately on an 1819 map of the area (Figure 3). This, together with examination of modern oblique aerial photography of the site location (Figure 4) allowed for an approximate placement of the site on Edward Walsh's 1804 painting of the Fort George area from across the Niagara River (Figure 5).



Figure 3: Location of the King's Point site (red rectangle) on 1819 Map (north to bottom right).

The historically recorded shoreline configuration (Figure 3) suggests that alluvium from the adjacent stream entered the Niagara River upstream and on the inside of a large bend in the river. Flow in the river appears to have been sufficient in rate and volume to prevent the formation of a significant point bar in

this location, so the alluvium built up along the west bank of the river and was carried longitudinally (northerly) along this bank. Occasional flooding and fluvial re-modelling of this sediment, including on-going input from the upland drainage, created a substantial wetland area along the riverbank behind a natural levee. Early maps (Figure 3) show the mouth of the stream contiguous with this riparian wetland.

The King's Point site would have been situated on the south bank of the stream on a low terrace between the wetland and the base of the Niagara River scarp. Geotechnical investigations of the subject property by Trow Consulting Engineers Ltd. (1996) revealed substantial deposits (~1 to 10 metres) of alluvial silty and gravelly sand, with some upper organic silt (peat), overlying a lag deposit (< 1 metre) of clayey silt (Halton) till, in turn overlying Queenston shale bedrock at depths ranging from about 2 to 15 metres. The deeper deposits appear to be located in areas scoured by the Niagara River and its tributary stream.

The sedimentary matrix underlying the King's Point archaeological site was identified in the field as unsorted diamicton comprised of gravel-sized clasts within a fine matrix. This description is consistent with the descriptions of boreholes 3, 4, 5, P, Q, and R along Ricardo Street as reported by Trow (1996), and can likely be attributed to Halton Till which is the predominant Late Wisconsinian basement deposit in the Niagara region (Feenstra 1981). The noted lack of archaeological features in the subsoil may be due in part to the difficulty of digging into this compact clay till. No evidence of fluvial deposits was found in the immediate vicinity of the site, but minor re-working of the diamict by fluvial action is possible. Also, while the sedimentary matrix was generally deemed to be native, localized cultural or natural disturbance was also considered to be possible. The appearance of cultural material at depth was thought to be most likely attributable to localized cultural disturbance in antiquity rather than faunalurbation. The lack of visible subsoil staining in association with this disturbance may be due to leaching of organics over long periods of time. An aerial photograph from 1934 (Figure 6) illustrates a couple of trees on the site, and by 1954 (Figure 7) a house had been built immediately to the east (NAPL 1934, 1954). Landscaping activities in the vicinity may have contributed to the more recent disturbances noted.



Figure 4: Oblique southwesterly view of the King's Point site (AhGs-24).

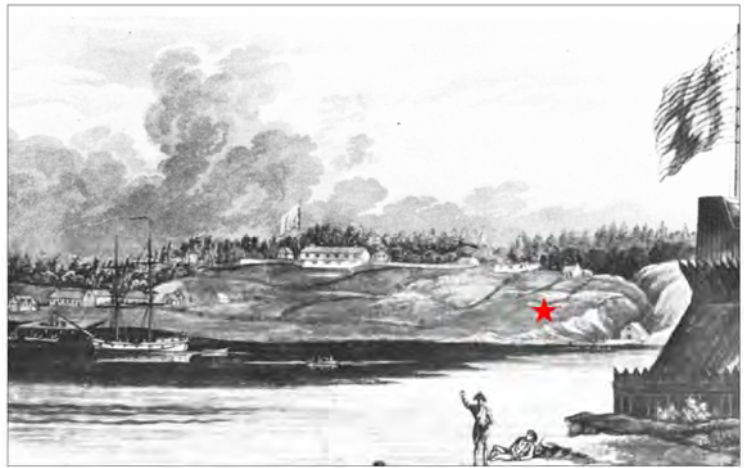


Figure 5: Edward Walsh's 1804 View of Fort George Showing King's Point Site Area (red star).

Profiles along the north-west end of the caisson trench to the north of the site suggested that this area had once been lower terrain that had been in-filled. The structure of the sand and gravel deposits overlying organic clay in these exposures suggested fluvial deposits, although fill or re-worked fill is also a possibility. These coarse sands and gravels must have been laid down in a high energy environment, likely brought down-stream from the adjacent uplands and/or possibly brought into the lowland during seiche and high river levels which breached the levee. Figures 6 and 7 illustrate how in-filled the mouth of the adjacent stream had become by the twentieth century thanks to reduced upstream drainage inputs and alluvial deposition along the river. In these photos the stream mouth has been modified for use as a marina, with the former wetland behind the levee dredged northerly as a side harbour.

In conclusion, the King's Point site appears to have been situated in a location which would have generally been clear of all but the most severe occasional flooding, while providing easy and relatively sheltered access to the river, the stream, the riparian wetland, and the adjacent upland. The antiquity of the artifact assemblage suggests that the physical context of the site had been relatively unchanged for millennia, and there is no geological evidence to suggest otherwise.

2.5 Nineteenth Century Land Use History

The significance of the War of 1812 to the Town of Niagara-on-the-Lake's history has been summarized by Parks Canada (1998) in their *Niagara Historic Sites Management Plan*:

During the War of 1812, Niagara experienced some of the bloodiest fighting and suffered the greatest per capita loss of property in the colony. Although America's war aims would have been achieved more readily by the capture of Montreal, thereby dividing the British/Canadian forces, for a variety of reasons including internal political rivalries, American efforts tended to focus on Upper Canada generally and the Niagara frontier in particular. The Battles of Lundy's Lane, Queenston Heights, and Stoney Creek are synonymous with British/Canadian resolve to defend Upper Canada from American territorial expansion. To this end, the small cadre of British professional soldiers was ably supported by the Canadian militia and Aboriginal warriors. Their efforts on the Niagara



Figure 6: 1934 Aerial Photo of King's Point Site (red rectangle).



Figure 7: 1954 Aerial Photo of King's Point Site (red rectangle).

Peninsula helped to nurture a distinctive Canadian identity and the birth of a pantheon of 'Canadian' heroes from Major-General Isaac Brock to Laura Secord.

British/Canadian determination to defend the Niagara frontier continued into the post-War period. An active military presence was maintained, and the garrisons were periodically increased in response to border raids and threats, notably during the Mackenzie Rebellion and the Fenian crisis. Extensive repairs and improvements were also carried out to the military facilities at Niagara to improve defensive capability and to provide adequate accommodation for the troops (Parks Canada 1998:5)

Archaeological investigations by Parks Canada of military installations such as Butler's Barracks, Fort Mississauga (AhGs-2), and Fort George (AhGs-1) have been ongoing since the 1970s. Other sites within the Town also have a military component to them, such as the pre-contact King's Point site (AhGs-24), where a portion of a metal shako plate was recovered. The investigation of sites such as these can provide comparative material between a principal fortification, such as Fort George, and satellite locations such as piquets, where different types of activities were performed beyond the walls of the fort (ASI 2001).

The War of 1812 disrupted the economy and halted the flow of immigrants to Ontario. After the Treaty of Ghent was signed in 1814, however, there was a renewed interest in emigration from overseas and the United States. For example, many of the engineers and technicians hired by the Niagara Harbour and Dock Company were Scots Presbyterians, and the Irish population of Niagara grew after the 1840s Potato Famine (Dale 1999:37). African-Americans continued to travel to the Niagara area via the Underground Railway, and between 1830 and 1840, 14 Black families applied for refugee status in the old town of Niagara-on-the-Lake (Hill 1981:73). Many of these families lived on Mary Street close to the Baptist church on Mississauga Street, in an area known as "Little Africa" (Dale 1999:75).

Immigration combined with natural population growth in the established settlement centers resulted in the reformulation of the County of Lincoln in 1856 to include the townships of Niagara, Grantham, Louth, Clinton, Gainsborough, Caistor and Grimsby (Powell and Coffman 1956:18). Lincoln County in turn was superseded by the Regional Municipality of Niagara in 1970, and the creation of the Town of Niagara-on-the-Lake from Niagara Township and a portion of Grantham (ASI 2001).

3.0 STAGE 4 ARCHAEOLOGICAL FIELDWORK

3.1 Excavation Methods

The Stage 4 salvage excavations were undertaken between August and November 1998, and May 1999. The initial step in the Stage 4 salvage excavation process was to establish a five metre grid throughout the site area that would serve as the basis of the provenience and recording system. The subsequent excavations entailed block excavation of the site. The excavations proceeded through the hand excavation of 311 one-metre square test units encompassing an area of approximately 350 m² (Figure 8, Plates 1 and 2). All excavation unit fill, as well as feature fill, was screened through 6mm mesh to facilitate artifact recovery. All units were



Plate 1: The Stage 4 excavation of the King's Point site (AhGs-24).

excavated to sterile subsoil and soil contents were screened through six-millimetre steel mesh to aid in the recovery of artifacts. All profiles and subsoil floors were examined for the presence of undisturbed cultural strata/features. The excavation units and grid were referenced to a permanent site datum stake established during the Stage 4 assessment. The location of each unit was recorded on field mapping. Feature and significant soil profiles were documented, photographed and drawn in plan and profile as necessary. The limits of the excavation were established according to MCL-specified yields of ten or fewer artifacts per one-metre unit and/or by constraints imposed by topography or previous land disturbances.



Plate 2: The Stage 4 Excavation of the King's Point site (AhGs-24).

Subsurface features were exposed more precisely by shovel shining and by trowelling. Comments on fill and contents were made and recovered artifacts were bagged separately. Features were recorded by triangulation to a centre point and were then drawn on pre-printed forms; dimensions and other attributes were recorded as well. Features were then excavated by trowel and shovel, and their fills screened through six-millimetre mesh to facilitate artifact recovery. Features were sectioned along their central long axes, their profiles recorded and the remaining fill removed. Where necessary, photographs were taken to document feature plans and profiles.



Plate 3: King's Point site (AhGs-24): Feature 1 Planview.

3.2 Stage 4 Excavation Results

The Stage 4 block excavation of the King's Point site (AhGs-24) resulted in the recovery of 27,161 artifacts, including precontact ceramic (n=56), lithic (n=26,277), and groundstone (n=1) artifacts as well as historic artifacts (n=737) and faunal remains (n=90). One subsurface cultural feature was encountered during the Stage 4 excavation (Figure 8).

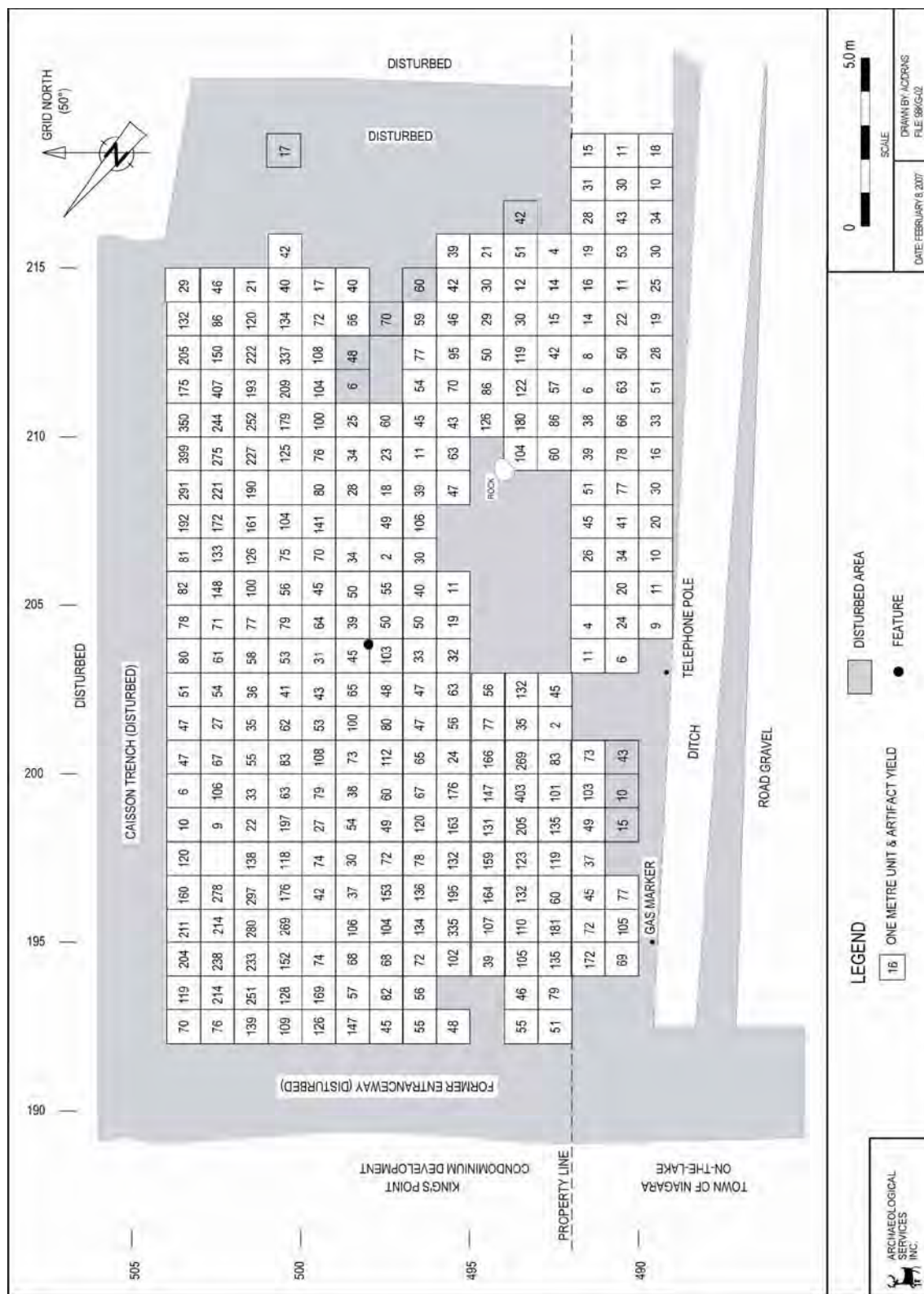
3.2.1 Feature 1

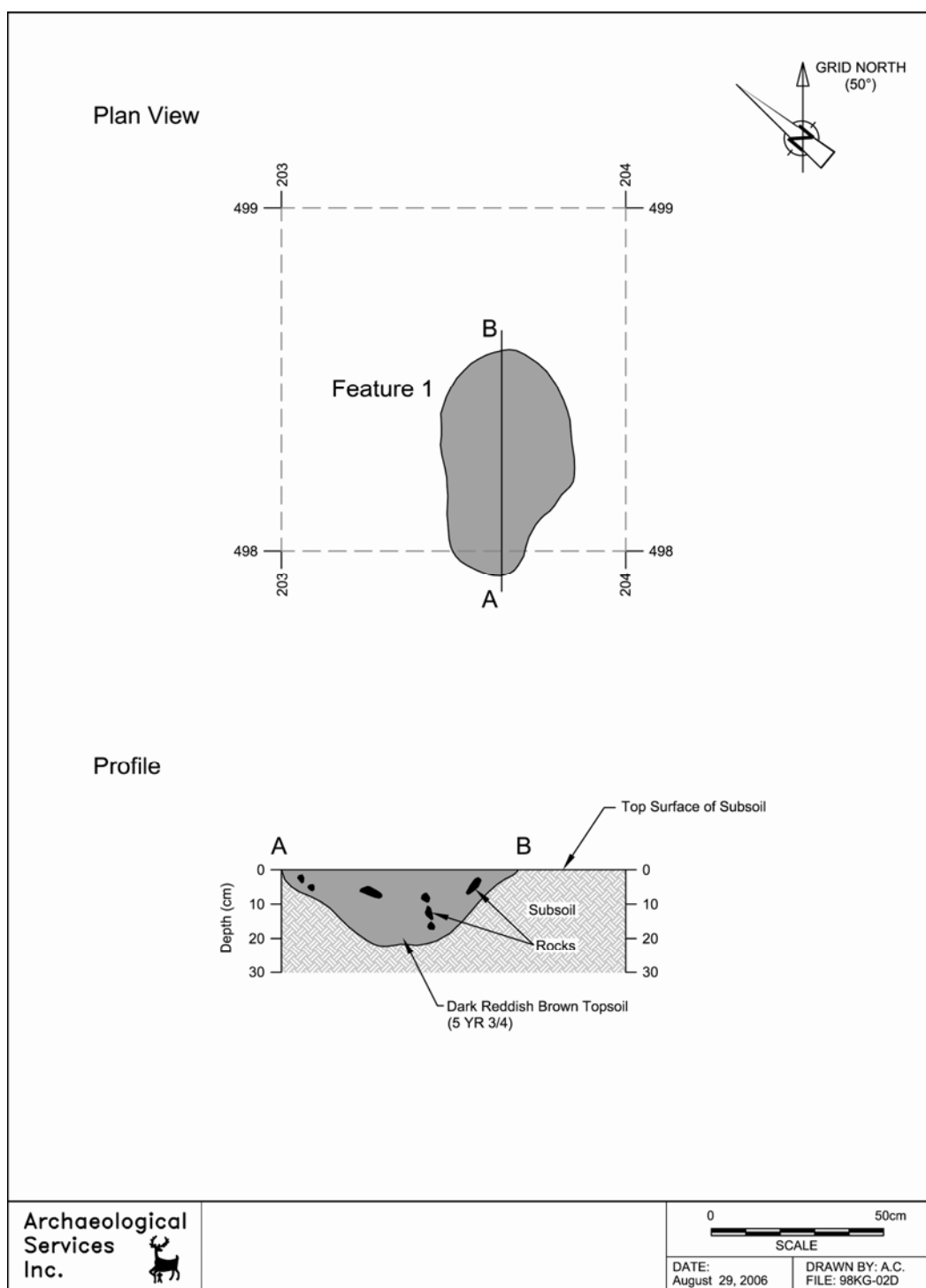
Feature 1, located in Units 497-203 and 498-203, was a precontact Aboriginal refuse pit measuring 64 cm in length, 38 cm in width and 23 cm in depth (Figure 9, Plates 3 and 4). This completely exposed feature had an ovate plan shape and a basin profile shape. It was filled with mottled soils.

The predominant soil matrix was a dark reddish brown soil (Munsell 5YR ¾) mixed with subsoil containing charcoal flecks. The feature contained 8 pieces of shatter.



Plate 4: King's Point site (AhGs-24): West profile of Feature 1.





KING'S POINT SITE (AhGs-24): Feature 1 - Plan and Profile

Figure 9: King's Point Site (AhGs-24) Feature 1 – Plan and Profile

4.0 ARTIFACT ANALYSES

4.1 Ceramics

A total of 56 precontact ceramics was recovered from 21 one metre square test units during the Stage 4 excavation (Figure 10). No vessels were identified. The 56 pieces include 24 body fragments, five shoulder fragments, and four shoulder-body fragments (Table 1, Plate 5). Ceramic fragments that were smaller than 23mm or displayed excessive exterior exfoliation were classified as unanalyzable and account for 23 fragments, or 41.1% of the total ceramic assemblages. No diagnostic rims are present.

Of the 24 body fragments identified, two display evidence of decoration or surface treatment other than plain. The identified surface treatment includes smoothed over cord marked and dentate stamped. An additional three shoulder fragments exhibit smoothed over cord marked, dentate stamped, and linear stamped, interrupted horizontal treatments and motifs. One unanalyzable fragment exhibits dentate stamping. Although no diagnostics are present, smoothed over cord marking is often associated with Middle to Late Woodland ceramic types, while linear stamping with interrupted horizontals is often associated with Late Woodland ceramic types.

Table 1: King's Point Site (AhGs-24), Ceramic Artifacts		
Type	n	%
Unanalyzable Fragments	23	41.1
Body Fragments	24	42.9
Shoulder Fragments	5	8.9
Shoulder-Body Fragments	4	7.1
Total	56	100%



Plate 5: Selected decorated ceramic artifacts from the King's Point site (AhGs-24): Left to right: smoothed-over cord marked (P1, P2) and dentate stamp (P3) decoration.



Figure 10: King's Point site (AhGs-24): Total Ceramic Artifact Yield

4.2 Flaked Lithics

In total, 26,277 lithic artifacts were recovered during the Stage 4 excavations (Table 2, Figure 11). This includes 13,109 pieces of shatter, 8,758 secondary knapping flakes, 863 primary thinning flakes, 3,132 secondary retouch flakes, 14 primary reduction flakes, 7 core trimming flakes, and 3 bipolar flakes. Also recovered were 221 bifaces or biface fragments, 17 bipolar cores and 42 cores or core fragments. Other tools include 69 projectile points, 28 drills, seven scrapers and four wedges. There were also 389 expedient tools exhibiting retouched edges, 170 of which were on secondary knapping flakes, 53 on primary thinning flakes, 158 on shatter, six on secondary retouch flakes, one on a core trimming flake and one on a bipolar flake. Evidence of thermal alteration is present on 13.07% (3,435) of the artifacts (Table 2). A full catalogue of this material is presented in Appendix A.

The flaked lithic raw material is dominated by Onondaga (n=25961, 98.8%) chert, likely derived from the Peace Bridge or other local quarry sites (Williamson and MacDonald 1997, 1998; Williamson et al. 2006). The raw material is summarized in Table 3. A number of other chert types were also used including chalcedony (n=121, 0.46%), Bois Blanc (n=75, 0.28%), Dundee (n=40, 0.15%), Lockport (n=28, 0.11%), Kettle Point (n=20, 0.08%), and Upper Bobcaygeon (n=4, 0.01%). One tool (0.01%) and twenty-seven pieces of debitage (0.10%) could not be identified to a particular chert type.

Table 2: The King's Point Site (AhGs-24) Flaked Lithic Assemblage

Artifact Type	Total	%	Thermally Altered	%	Retouched/Utilized	%
Primary reduction flakes	14	0.05	2	0.06	0	0
Primary thinning flakes	863	3.28	72	2.10	53	13.38
Secondary knapping flakes	8758	33.33	813	23.67	170	42.93
Secondary retouch flakes	3132	11.92	247	7.19	6	1.52
Shatter	13109	49.89	2254	65.62	158	39.90
Core trimming flakes	7	0.03	0	0	1	0.25
Bipolar cores	17	0.06	1	0.03	0	0
Bipolar flakes	3	0.01	0	0	1	0.25
Cores	42	0.16	4	0.12	0	0
Bifaces/fragments	221	0.84	30	0.87	2	0.51
Drills/fragments	28	0.11	3	0.09	0	0
Wedges/fragments	4	0.02	0	0	0	0
Scrapers	7	0.03	0	0	4	1.01
Projectile points/fragments	69	0.26	9	0.26	1	0.25
Unclassifiable	3	0.01	0	0	0	0
	26277	100.00	3435	13.07	396	100.00

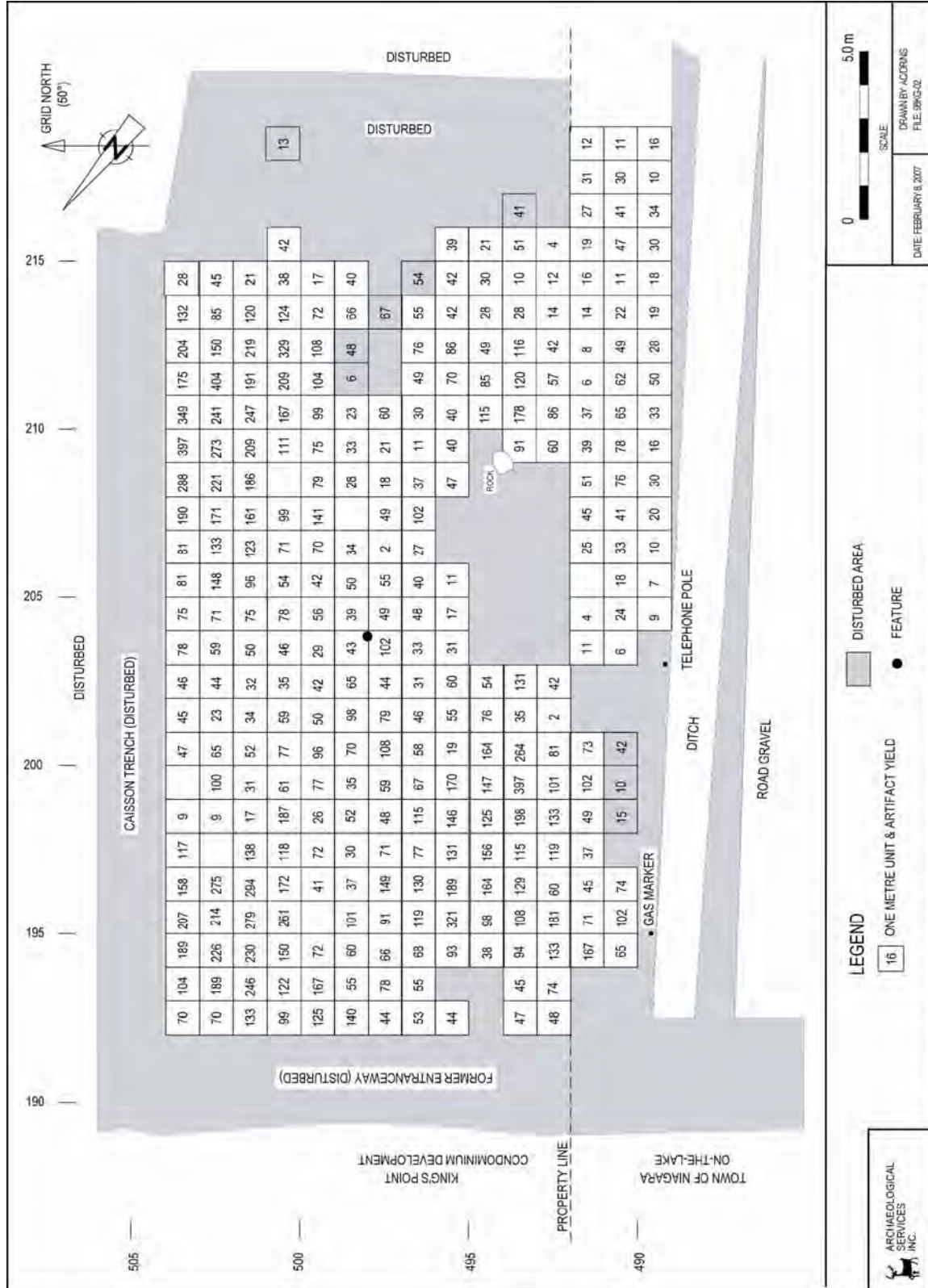


Table 3: Summary of Lithic Raw Material									
Raw Material	Debitage	Biface	Drill	End Scraper	Side Scraper	Projectile Point	Wedge	Total	%
Bois Blanc	73	2						75	0.28
Chalcedony	110	5				6		121	0.46
Dundee	38	1				1		40	0.15
Kettle Point	15	3			1	1		20	0.08
Lockport	23	1				4		28	0.11
Onondaga	25659	208	28	5	1	56	4	25961	98.80
Upper Bobcaygeon	3					1		4	0.01
Unknown	27	1						28	0.11
Total	25948	221	28	5	2	69	4	26277	100.00

The lithic reduction sequence represented at the site, as evinced by flake types, is comprised of 3% primary reduction and thinning flakes, 33% secondary knapping and bifacial thinning flakes and 12% secondary retouch flakes. Shatter comprised 50% of the total flaked lithic assemblage. Only 1% of flakes or shatter showed evidence of retouch for expedient tool use (see Table 2).

4.2.1 Formal Tools

A total of 329 formal tools was recovered during the Stage 4 salvage excavations of the King's Point site (Table 4). These included one dated to the Early Archaic (7,000-6,000 BC); 10 to the Middle Archaic (6,000-2,500 BC); 19 to the Late Archaic (2,000-1,000 BC); two to the Early Woodland (1,000-400 BC); five to the Middle Woodland (400 BC – AD 800); and eight to the Late Woodland (AD 800-1650) (Figure 12). The remainder could not be affiliated with a particular period.

Table 4: Formal Tools Recovered from the King's Point Site (AhGs-24)							
Cat. #	Material	Thermal Alter.	Retouched/Utilized	Length	Width	Thickness	Comments
Complete Bifaces							
.01905	Onondaga	Yes		52	39	15	Preliminary stage biface
.02070	Onondaga	Yes		24	17	7	Battered edges
.02038	Onondaga			48	35	29	Crude biface; two edges very worn/battered
.01940	Onondaga			32	25	9	
.02088	Onondaga			49	35	15	Refined biface, probably used as a cutting/scraping tool
.02081	Onondaga			60	30	11	
.02075	Onondaga			35	25	11	Crude, incomplete bifacial flaking
.02074	Onondaga			60	33	11	
.02089	Onondaga			52	39	10	
.02092	Onondaga			57	28	7	Refined biface with parallel flaking; possible use as knife
.02093	Kettle Point			59	28	9	Refined biface, parallel flaking
.02086	Onondaga			37	16	10	
.02119	Onondaga			41	24	8	

Table 4: Formal Tools Recovered from the King's Point Site (AhGs-24)							
Cat. #	Material	Thermal Alter.	Retouched/Utilized	Length	Width	Thickness	Comments
.01583	Onondaga			47	23	7	
.00986	Onondaga			48	31	10	
.00906	Onondaga			37	24	7	Bifacially worked
.00792	Onondaga			30	20	9	Biface with side scraper edge
.00703	Lockport			45	20	8	
.02179	Onondaga			50	36	19	Preliminary stage biface
.02162	Onondaga			40	29	10	
.02072	Onondaga			48	20	9	Crude biface
.00545	Onondaga			45	32	13	
.00544	Onondaga			23	17	6	Incomplete bifacial flaking
.02080	Onondaga			64	47	18	
.00515	Onondaga			43	49	18	Primary stage
.00233	Onondaga			34	30	10	Crude biface; made from thinning flake, incomplete bifacial flaking
Drills							
.00793	Onondaga	Yes		18	12	8	Midsection fragment
.02105	Onondaga			41	20	6	Side-notched base, possible Meadowood drill
.02101	Onondaga			48	22	9	Flake with a drill tip plus a broken graver tip
.01623	Onondaga			35	13	7	Drill or perforator
.02102	Onondaga			49	24	8	Genessee drill in two pieces
.02099	Onondaga			26	10	6	
.00406	Onondaga			28	23	7	Heavily worked on all margins
Scrapers							
.01724	Onondaga		Yes	25	16	5	Endscraper
.01593	Onondaga		Yes	25	30	7	Endscraper; extensive retouch along end edge
.00988	Onondaga		Yes	32	22	6	Endscraper; possibly hafted
.02149	Onondaga			26	22	7	Endscraper; triangular-shaped hafted
.02091	Onondaga			55	34	14	Endscraper; probably hafted
.01863	Kettle Point		Yes	25	20	9	Sidescraper; blocky fragment of a scraper
.02090	Onondaga			40	24	8	Sidescraper; unifacial sidescraper with graver tip
Wedges							
.01712	Onondaga			22	23	5	Battering on opposed edges; relatively thin piece
.01632	Onondaga			+16	16	8	
.00661	Onondaga			16	13	8	
.00203	Onondaga			21	12	12	Possible wedge; bipolar crushing on opposite margins
Projectile Points							
.02147	Onondaga			26	22	6	Probably Late Woodland; base portion

Table 4: Formal Tools Recovered from the King's Point Site (AhGs-24)							
Cat. #	Material	Thermal Alter.	Retouched/Utilized	Length	Width	Thickness	Comments
.02150	Onondaga			35	17	5	Late Archaic Lamoka point
.02129	Onondaga			31	21	6	Late Archaic Ace of Spades point;
.02083	Chalcedony			11	17	3	possibly reworked Tip fragment
.02130	Kettle Point			43	22	7	Early Archaic bifurcate-base point;
.00548	Onondaga			22	12	3	basal tangs possibly used as graters
.02118	Onondaga			10	17	6	Non-diagnostic fragment Tip fragment
.02120	Onondaga			31	22	4	Probably Late Woodland point; base broken
.02128	Onondaga			52	29	8	Resembles Late Archaic Hind point;
.02128	Onondaga			26	15	6	base width=16mm Resembles Late Archaic Innes point
.00636	Onondaga			6	5	2	Mid-section fragment; non-diagnostic
.02114	Onondaga			67	26	7	Early Woodland Meadowood point;
.02148	Upper			43	22	9	reworked; possibly used as a knife
.02111	Bobcaygeon			33	17	10	Upper Mercer chert; resembles Lamoka point
.02131	Onondaga			47	25	6	Resembles Late Archaic Lamoka point Late Woodland point, resembles
.02138	Onondaga			35	30	7	Levanna (2 pieces) Middle Archaic Brewerton point; notch
.02124	Chalcedony			27	18	7	depth=4mm, notch width=7mm, base
.02141	Onondaga			29	16	5	width=23mm Tip fragment; non-diagnostic, possibly
.00832	Lockport			26	24	9	Middle Woodland
.02066	Dundee			19	15	6	Tip fragment; probably Late Woodland
.02112	Lockport			39	25	8	Base fragment of a stemmed projectile point; stem width=16mm, stem
.02123	Onondaga			36	24	8	height=12mm
.02146	Onondaga			42	27	7	Tip fragment
.02145	Onondaga			26	26	9	Middle Archaic side-notched point;
.00984	Chalcedony			15	18	6	notch depth=5mm, notch width=19mm
.00975	Onondaga			+17	20	6	Triangular biface; possible preface for
.02133	Lockport			51	25	12	Late Woodland Levanna point
.02126	Onondaga			39	23	7	Late Archaic Innes point; stem
.01062	Onondaga			23	20	5	width=16mm, stem length=11mm
.02116	Onondaga			18	13	4	Base fragment; resembles Late Archaic Innes point; stem width=18mm, stem
							length=13mm
							Tip fragment
							Mid-section fragment; well flaked
							Middle Archaic side-notched point
							Heavily reworked; probably Late
							Archaic Innes point with graver tip
							Tip fragment
							Tip fragment; probably Late Woodland
							Tip fragment; probably Middle

Table 4: Formal Tools Recovered from the King's Point Site (AhGs-24)							
Cat. #	Material	Thermal Alter.	Retouched/Utilized	Length	Width	Thickness	Comments
.02137	Onondaga			26	19	7	Woodland
.02107	Onondaga			36	19	8	Late Archaic, resembles Innes point; notch width=10mm, base width=15mm
.02110	Onondaga			35	23	8	Middle Archaic side-notched Brewerton point; notch width=6mm
.02135	Onondaga			21	21	5	Mid-section fragment of a probably
.01227	Onondaga			10	10	3	Late Woodland side-notched point
.01282	Lockport			28	23	7	Tip fragment
.02127	Onondaga			33	32	9	Tip fragment
.02122	Onondaga			56	24	8	Late Archaic Genessee point fragment; stem width=16mm, stem length=15mm
.01335	Onondaga			13	10	3	Late Archaic Lamoka point; stem width=15mm, stem length=13mm
.02115	Chalcedony			33	24	6	Tip fragment
.01364	Onondaga			12	12	3	Point fragment manufactured from a flake; non-diagnostic, probably Middle Woodland based on material
.01381	Onondaga			24	30	7	Tip fragment
.02140	Onondaga			19	23	9	Base fragment; probably Brewerton point
.01408	Onondaga			46	18	9	Base fragment; probably Middle Archaic side-notched point
.02134	Onondaga			52	31	8	Crude, resembles Lamoka point
.01440	Onondaga			14	8	4	Middle Woodland point; resembles Vanport point; base width=27mm, notch width=5mm, notch depth=4mm
.02144	Onondaga			22	20	6	Tip fragment
.01551	Onondaga			+32	+15	6	Tip fragment; non-diagnostic
.02117	Onondaga			31	28	12	Fragment; Lamoka-like
.02106	Onondaga			29	14	5	Genessee point fragment
.02113	Onondaga			29	23	8	Late Archaic Crawford Knoll point
.02136	Chalcedony			45	26	7	Brewerton point; reworked blade; blade width=19mm
.01860	Onondaga			13	14	5	Middle Woodland Vanport point; Flint Ridge chalcedony; base width=22mm, notch width=7mm; notch depth=5mm
.02076	Onondaga			23	17	7	Tip fragment
.01931	Onondaga			8	12	4	Tip fragment
.01942	Chalcedony			11	8	4	Tip fragment
.01993	Onondaga	Yes		17	12	4	Tip fragment; Flint Ridge chalcedony
.02143	Onondaga	Yes		38	23	6	Tip fragment
.02125	Onondaga	Yes		30	30	11	Resembles Early Woodland Meadowood point; blade broken longitudinally; notch width=6mm, notch depth=5mm
							Middle Archaic Brewerton point; missing tip

Table 4: Formal Tools Recovered from the King's Point Site (AhGs-24)							
Cat. #	Material	Thermal Alter.	Retouched/Utilized	Length	Width	Thickness	Comments
.02121	Onondaga	Yes		29	14	5	Probably Late Woodland; tip portion
.01621	Onondaga	Yes		24	17	4	Probably Late Woodland; tip portion
.02109	Onondaga	Yes		37	17	8	Resembles Lamoka point; water-worn edges
.00932	Onondaga	Yes		22	16	7	Tip fragment; non-diagnostic
.02139	Onondaga	Yes		31	25	8	Mid-section fragment; non-diagnostic
.00417	Onondaga	Yes		+14	+17	5	Notched basal fragment
.01915	Onondaga		Yes	35	23	6	Reworked fragment
.01992	Onondaga			20	22	8	Innis point base and shoulder fragment
.02151	Onondaga			16	26	8	Probably Middle Archaic Brewerton-like notched base fragment

Projectile Points

A total of 69 projectile points and projectile point fragments was recovered comprising 21% of the non-expedient tools at the site (Table 2). Of these, 62.3% (43) are considered diagnostic (Table 4, Figure 12, Plates 6-11). There is one projectile point dating to the Early Archaic, ten projectile points dating to the Middle Archaic period, eighteen projectile points dating to the Late Archaic, one Early Woodland point, five Middle Woodland points, and eight dating to the Late Woodland.

The Early Archaic is represented by a single complete bifurcate-base projectile point (Cat. .02130) manufactured from Kettle Point chert (Plate 6). It measures 43 x 22 x 7 mm in length, width, and thickness. It is heavily reworked and the basal tangs of this artifact may have been used as graters.

The ten diagnostic Middle Archaic projectile points include: five Brewerton side-notched points, two probable Brewerton side-notched points, and two unidentified side-notched points (Plate 7).

The eighteen Late Archaic tools include: one Ace of Spades projectile point; one Innes point; two Genesee points; one Crawford Knoll point; one Lamoka point; and a Genesee drill. (Plate 8) The eleven remaining tools are all believed to be Late Archaic points resembling Lamoka, Hind, Susquehanna, and Innes point types.

The Early Woodland is represented by one Meadowood point (Plate 9). The five Middle Woodland tools include: two Vanport points, and four non-diagnostic points resembling Middle Woodland types (Plate 10). The eight Late Woodland points include one possible Levanna point, one triangular point diagnostic of the Late Woodland and seven unidentified types (Plate 11).

Twenty-six other projectile points or point fragments were found that could not be attributed to a particular time period. One of these displayed evidence of re-working likely for additional tool uses (i.e., graver, end scraper and drill).

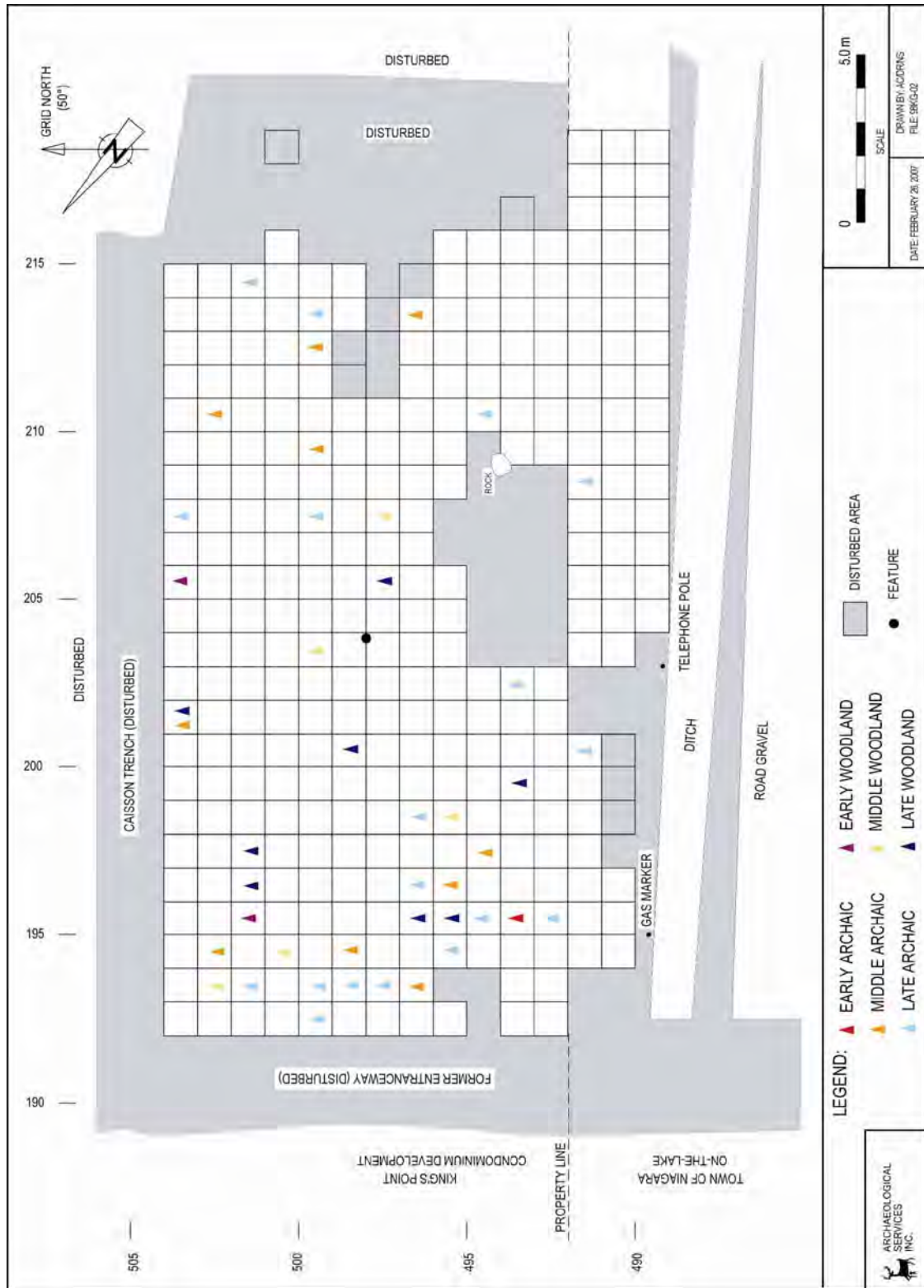


Figure 12: The Stage 4 Excavation of the King's Point Site (AhGs-24): Distribution of Diagnostic Tools



Plate 6: Early Archaic bifurcate-base projectile point (Cat. .02130).



Plate 7: Selected Middle Archaic projectile points: Side-notched points (a- Cat. .02133; b- Cat. .02112; c- Cat. .02114); Brewerton points (d- Cat. .02110; e- Cat. .02138; f- Cat. .02113). Note: 'f' is manufactured from Lockport chert.



Plate 8: Selected Late Archaic projectile points. Innes (a- Cat. .02146; b- Cat. .02126), Lamoka point (c- Cat. .02122; d- Cat. .02109), possible Lamoka point (e- Cat. .02148), Ace of Spades (f- Cat. .02129), Crawford Knoll (g- Cat. .02106), Hind (h- Cat. .02142), and Genessee (i- Cat. .02127).



Plate 9: Early Woodland Meadowood projectile point (Cat. .02143).



Plate 10: Middle Woodland projectile points from the King's Point site (AhGs-24): Vanport (a- Cat. .02134; c- Cat. .02115), probable Middle Woodland point manufactured from chalcedony (b- Cat. .02136). Note: 'b' and 'c' are manufactured from Flint Ridge chalcedony.



Plate 11: Select unidentified Late Woodland projectile points. From left to right – Cat. .02120; .02121; .02123; .02131.

Bifaces

A total of 221 biface and biface fragments is present within the sample (Table 2). Of these, 208 are manufactured from Onondaga chert. The remaining thirteen bifaces are manufactured from Bois Blanc (n=2), chalcedony (n=5), Kettle Point (n=3), Dundee (n=1), and Lockport (n=1) cherts. One biface fragment is manufactured from an unknown chert type (Table 3).

Bifaces and biface fragments comprise 67.2 % of the non-expedient tools at the site. The 26 complete bifaces (Table 4) average 44 mm long, 29 mm wide and 11 mm thick. One biface fragment may be the base of an Early Woodland Meadowood cache blade (Plate 12). Complete bifaces, as well as other tool types recovered from the site, are presented in Table 4. These data, along with the predominance of secondary stage reduction flakes (45% secondary knapping/ secondary retouch flakes versus 3% primary reduction/thinning flakes), suggest that bifacial core reduction and thinning in addition to tool re-sharpening were primary activities conducted at the site.

Drills

A total of 28 drill and drill fragments is present within the sample (Tables 2 and 4, Plate 13). All are manufactured from Onondaga chert (Table 3). Drills and drill fragments comprise 8.5% of the non-expedient tools at the site. The seven complete drills average 35 mm long, 18 mm wide and 7 mm thick (Table 4). One complete Late Archaic Genessee drill is present (Plate 13).

Scrapers

A total of seven scrapers, including five endscrapers and two sidescrapers, is present within the sample (Tables 2 and 4, Plate 14). Scrapers comprise 2.1% of the non-expedient tools at the site. The three complete scrapers average 40 mm in length, 27 mm wide and 10 mm thick. One is a complete scraper (Cat. .02091), manufactured from Onondaga chert, and with the working edge located at the distal end. The distal edge is bifacially worked. The overall measurement of this tool is 55 x 34 x 14 mm in length, width, and thickness. This scraper may have been hafted.



Plate 12: Selected bifaces from the King's Point site (AhGs-24): non-diagnostic biface (a- Cat. .02074), possible Meadowood cache blade (b- Cat. .02092), and a refined biface manufactured from Kettle Point chert (c- Cat. .02093).



Plate 13: Select drills from the King's Point site (AhGs-24): Genessee drill (a- Cat. .02102), possible Genessee side-notched drill (b- Cat. .02105), and non-diagnostic heavily worked drill (c- Cat. .00406).

The second is a triangular-shaped hafted end scraper (Cat. .02149) manufactured from Onondaga chert. The working edge is bifacially worked at the distal end. The measurement of this tool is 26 x 22 x 7 mm in length, width, and thickness.

The third is a complete side scraper (Cat. .02090) manufactured from Onondaga chert. This side scraper is unifacially worked on one margin and has a graver tip. It measures 40 x 24 x 8 mm in length, width, and thickness.

The remaining four scrapers are fragmentary and consist of a retouched blocky fragment of a side scraper manufactured from Kettle Point chert, and three retouched end scraper fragments manufactured from Onondaga chert.

Wedges

A total of four wedges was recovered comprising 1.2% of the non-expedient tools at the site (Tables 2 and 4). All are manufactured from Onondaga chert.

4.2.2 Debitage

The debitage consists of 14 primary flakes (0.05%), 863 primary thinning flakes (3.32%), 8,758 secondary knapping flakes (33.8%), 3,132 secondary retouch flakes (12.07%), seven core trimming flakes (0.03%), 17 bipolar cores (0.07%), three bipolar flakes (0.01%), 42 cores (0.16%), and 13,109 pieces of shatter (50.52%). Three pieces are unclassifiable (Table 2). Retouch was evident on 398 pieces (1.5%). The majority of the debitage (98.9%) is Onondaga chert (Table 3). The remaining chert types identified include chalcedony (0.42%), Bois Blanc (0.28%), Dundee (0.15%), Lockport (0.09%), Kettle Point (0.06%), and Upper Bobcaygeon (0.01%). A total of 27 (0.10%) pieces could not be identified to chert type.

4.2.2 Spatial Patterning

A “smoothed” distribution of the total flaked lithic artifact counts from the block excavation area indicates four areas of high yields (Figure 13). The assemblages from these areas were subjected to further examination in order to compare artifact type frequencies with the entire site assemblage, thereby distinguishing any noticeable differences in lithic activities having occurred in these areas of the site. There are three areas of high yields that follow a “paired” or bimodal distribution pattern.

The first bimodal distribution consists of a 6m² area with a total 1,174 artifacts, representing 4.5% of the total lithics recovered from the site (Units 492-198, 492-199, 492-200, 493-198, 493-199, 493-200) and a 4m² area with a total of 550 artifacts, representing 2.1% of the total lithic assemblage (Units 494-194, 494-195, 495-194, 495-195). The representation of artifact types in this area is comprised of 4% primary thinning flakes, 32% secondary knapping flakes, 15% secondary retouch flakes and 47% shatter. The proportion of flake types and shatter in this ten metre square sample is consistent with the overall site collection.

The second bimodal distribution consists of a 8m² area with a total of 750 artifacts, representing 2.9% of the total lithics recovered from the site (Units 492-209, 492-210, 492-211, 492-212, 493-209, 493-210, 493-211, 493-212) and a 4m² area with a total of 189 artifacts, representing 0.7% of the total lithic



Plate 14: Selected scrapers from the King's Point site (AhGs-24): end scraper (a- Cat. .02091), side scraper (b- Cat. .02090), and hafted end scraper (c- Cat. .02149).

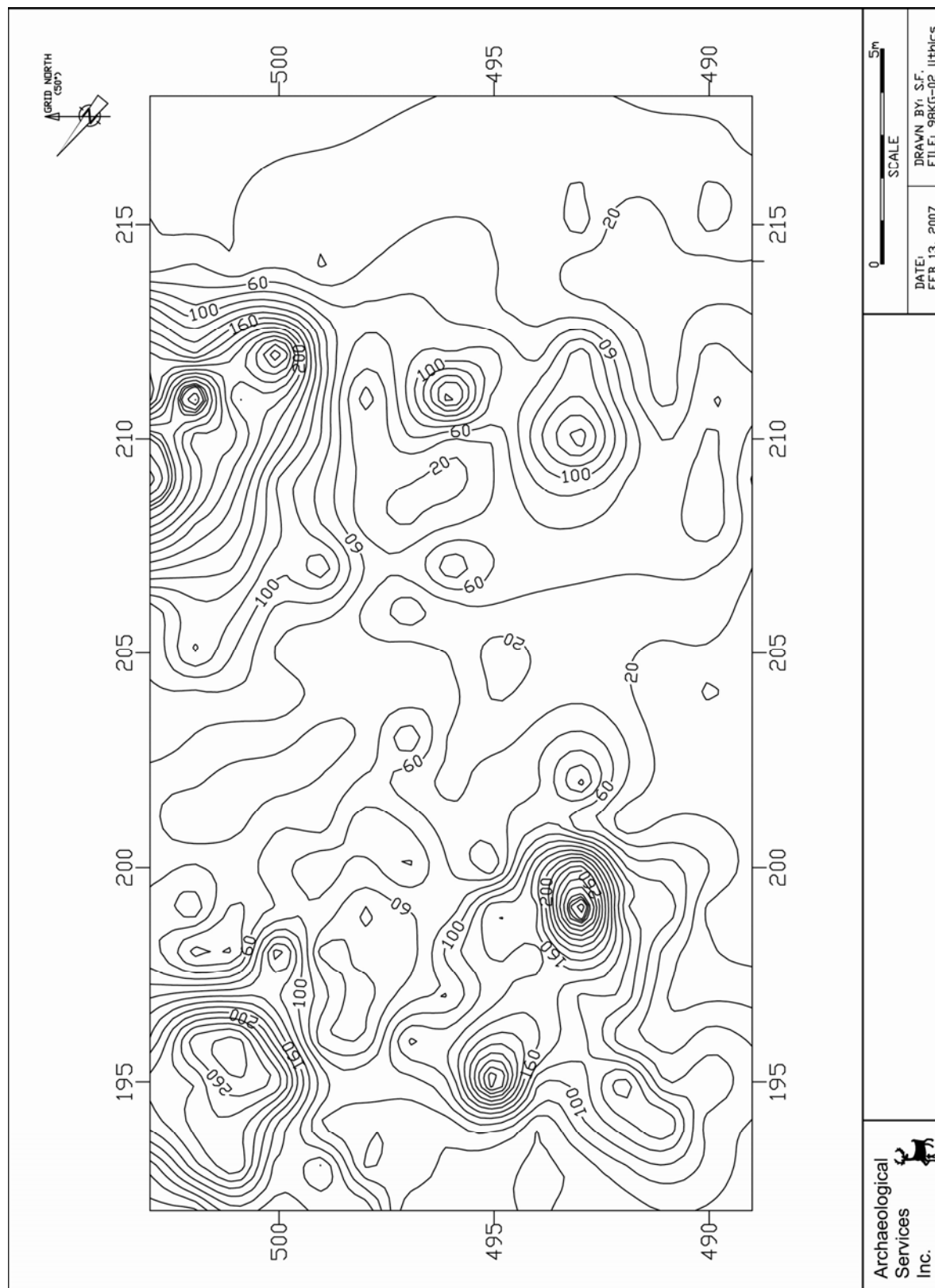


Figure 13: The Stage 4 Excavation of the King's Point Site (AhGs-24)- Smoothed Distribution of Flaked Lithic Yields

assemblage (Units 495-210, 495-211, 496-210, 496-211). The representation of artifact types in this area is comprised of 3% primary thinning flakes, 28% secondary knapping flakes, 15% secondary retouch flakes and 50% shatter. The proportion of flake types and shatter in this twelve metre square sample is consistent with the overall site collection.

The final bimodal distribution consists of a 4m² area with a total of 1,083 artifacts representing 4.1% of the total lithics recovered from the site (Units 501-210, 501-211, 502-210, 502-211) and a 4m² area with a total of 750 artifacts, representing 2.9% of the total lithic assemblage (Units 499-211, 499-212, 500-211, 500-212). The representation of artifact types in this area is comprised of 4% primary thinning flakes, 36% secondary knapping flakes, 5% secondary retouch flakes and 54% shatter. The proportion of flake types and shatter in this eight metre square sample differs slightly from the overall site collection. The percentage of secondary retouch flakes is lower than the average for the site collection.

Finally, a six metre square area located in the extreme northwest portion of the site consists of a total of 1,386 artifacts representing 5.3% of the total lithics recovered from the site (Units 500-194, 500-195, 500-196, 501-194, 501-195, 501-196). The proportion of flake types and shatter in this six metre square sample also differs slightly from the overall site collection. The percentage of secondary retouch flakes is lower than the average for the site collection.

4.2.3 Summary

The recovery of 389 expedient tools, 12,794 primary and secondary reduction flakes, and 13,109 pieces of shatter, indicates that the entire reduction sequence of stone tool manufacture is present at the site. The recovery of 45 diagnostic tools indicates continuous use and/or occupation of the site from the Early Archaic through to the Late Woodland period. The lithic artifact yields dating to the Middle and Late Archaic periods suggest that most of the flaked lithic assemblage was deposited at that time. The presence of diagnostic artifacts of multiple periods within the areas of high artifact yields, however, precludes easy affiliation of the areas with particular periods (Figure 12). It is nevertheless concluded that the primary lithic reduction activities carried out at the site, as reflected in all of the sample analyses, was the production of bifaces as well as tool refinement.



Plate 15: Possible netsinker (G1) from the King's Point site (AhGs-24).

4.3 Ground Stone Tools

One possible netsinker was recovered from Unit 495-210 (Plate 15). It is manufactured from sandstone and measures 86.3 mm in length, 48.4 mm in width, and is 16.1 mm thick.

4.4 Historic Artifact Analysis

A total of 737 artifacts was recovered from 206 of the one-metre square units excavated at the King's Point site (Figure 14; Appendix B). A modified version of the Canadian Parks Service "Classification System for Historical Collections" (Canadian Parks Service 1992) was used to organize the artifact data. A brief discussion of each artifact class is presented below. Given that the assemblage is not derived from a sealed deposit, it is not surprising that the materials range in date from the early nineteenth century through to the present.

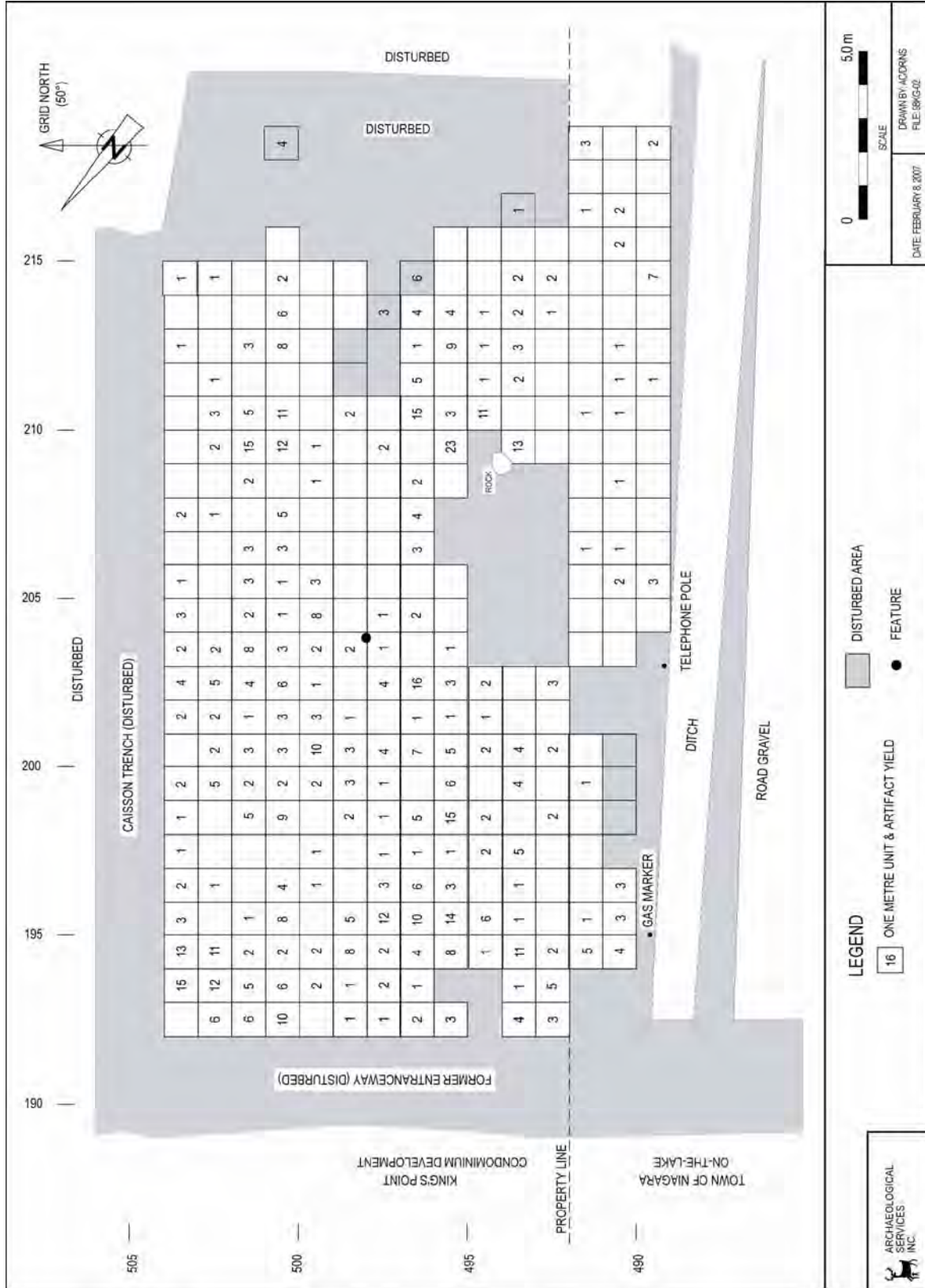


Figure 14: The Stage 4 Excavation of the King's Point Site (AhGs-24) - Historic Artifact Yields

4.4.1 Architectural Class

Building components such as window glass, nails and spikes are present to varying degrees in the units, and comprise 14.52 % of the historic assemblage. Together they indicate the construction and maintenance of a timber frame structure, perhaps wharving or a shed given the site's location on the shore of Lake Ontario adjacent to a commercial boat slip. A small amount of window glass (n=16) was recovered, so it could also have been a domestic structure with windows. The greatest frequency of nails that can be identified are machine cut (n=34), while the balance are wire (n=8) and hand wrought (n=2). During the nineteenth century, hand wrought nails were replaced by those manufactured by machine, and in Ontario the switch to machine-cut nails is dated to circa 1830 (MCR n.d.). Wire nails are dated from 1900 to the present-day. Half of the nail assemblage cannot be identified as to manufacture due to incompleteness or extreme corrosion.

4.4.2 Furnishings Class

This class of artifacts is comprised of items that can be used to furnish the interior of domestic structures to make them more comfortable. At the King's Point site, this class represents 0.68 % of the historic assemblage. Only five test units contained household accessories such as oil lamp chimney glass fragments (n=3), a single flower pot sherd, and pieces of coal slag and klinker from heating fuel.

4.4.3 Kitchen/ Food-related Class

The class of artifacts best represented on the King's Point site is that of "Kitchen/ Food-related," which comprises artifacts related to the storage, preparation, distribution and consumption of food and beverages. A total of 490 artifacts, representing 66.49 % of the historic assemblage, belong to this class. The majority are small, exfoliated ceramic sherds (469), but container glass is also recovered (Appendix B).

A minimum number of 14 food and beverage related vessels have been identified in the King's Point ceramic assemblage based on diagnostic rims, ware type and distinctive decorative attributes. The greatest proportion of vessels are table and tea wares, including four saucers, three teacups, one partially reconstructed soup plate, one muffin, two table plates, and one bowl. One glazed coarse red earthenware storage jar and one stoneware jug are also represented.

The ware types and decoration also indicate the relative date of the deposit as trends in ceramic availability have been summarized for Ontario between 1790 and 1910 (I. Kenyon 1995). The majority (n=336) are refined white earthenwares commonly used between the 1830s and 1870s, including handpainted, underglaze transferprint, and factory-made slip wares. One-fifth of the ceramic assemblage is comprised of pearlware (n=47), creamware (n=29) and handpainted Chinese porcelain (n=11) characteristic of the early nineteenth century. The late nineteenth century is also represented in seven ironstone sherds, five sherds of bone china and four of semi-porcelain.

4.4.4 Personal Class

This class of artifacts includes items related to clothing, adornment, personal gear, and recreation, and comprises 7.33 % of the historic assemblage. The majority of personal artifacts on the King's Point site are smoking pipe fragments (33), including 22 stems and 11 bowls. While the majority of stem fragments are unmarked, two fragments cross-mended from adjoining squares bear the mark "DIXONS/MONTREAL." This mark was placed on pipes was manufactured by W. H. Dixon and Company, who took over from the Montreal business of Henderson and Son in 1876, and continued in business until 1894 (Walker 1983:24). The pipe bowl fragments include a partially mended human effigy modeled in the classic "Turk's head" (T. Kenyon 1983), with a full beard, moustaches and a turban (Plate 16).

The button assemblage (n=16) contains a relatively large quantity of marked United States military buttons that can be dated to the War of 1812 (Plate 17a and c). Perhaps this is not surprising given the site's proximity to Fort George, which was captured by the Americans in May of 1813, and abandoned during their retreat from the Niagara peninsula in December of 1813 (ASI 2001:31-33). The occupying soldiers set up a large encampment outside of the walls of the fort, thus some domestic debris from their occupation may comprise a component of the King's Point historic assemblage. The American buttons include two small cast pewter buttons with the raised initials "U.S." that are characteristic of general service military fatigue uniforms circa 1808 to 1845 (Wyckoff 1984:84). It is known that the 13th and 24th U. S. Regiments of Infantry were assigned to the Niagara frontier and in particular the Fort George operation (Cruikshank 1903:211; Cruikshank 1907:262). Also present are two buttons with the "RA" device in foliate script and a wreath with the number "2" below it. These belong to the 2nd Regiment of Light Artillery, which was raised in 1812. The buttons can be tightly dated to the 1812-1813 period because the Artillery Corps was reorganized in 1814 (Wyckoff 1984:38, 41).

One marked British military button is also dated to the War of 1812 period. It is a highly corroded pewter button with the raised numbers "49," (Plate 17d) which denotes the 49th Hertfordshire Regiment of Foot garrisoned at Fort George between 1803 and 1813. A second pewter button with illegible raised letters may also be a British military specimen, but it is too corroded to decipher the device. Also of interest is a three-piece stamped brass button with a dome face that has a crown in the centre and the letters "Canada Militia" in relief (Plate 17b). The backmark reads "Thomas Carlyle/Son/Birmingham/England," which



Plate 16: "Turk's Head" modeled pipe bowl (H327).



Plate 17: Selected historic military buttons from the King's Point site (AhGs-24). From left to right: a- H330; b- H292; c- H316; d- H286.

can be dated to a company in business circa 1875 (UKDFD 2007). A large number of the buttons (n=6) are two-piece, flat circular disk buttons with traces of gilt or silver plate that are suitable for military vests or coat sleeves.

The remaining buttons are more characteristic of domestic clothing assemblages. These include two bone buttons with four hole sew-through fasteners, and a fancy stamped brass button with a poppy flower motif, perhaps from a woman's dress or coat. Also in the clothing sub-class is a fragment of shoe leather.

Consistent with the presence of British military buttons from the War of 1812 period is a fragment of a stamped copper plate from a "stovepipe" shako (hat) (Plate 18). The outline of a bugle is distinguishable on the plate fragment, which is part of the device on shakos issued as universal land service gear during the time that Fort George was garrisoned by the 49th Regiment of Foot (Mr. Ron Dale personal communication 1998).

Clothing accessories include one half of a pair of brass cuff links for fastening together the sleeve of a man's shirt. The artifact consists of two oval plaques that have been cast in one piece, each with a running fox and the word "TALLIO" in negative relief; a small chain link joins them together through eye fasteners (Plate 19b).

Personal adornment is represented by a spherical modern plastic bead coloured to resemble amber.

Finally, a one cent coin issued by the Province of Canada was recovered (Plate 19c). The obverse bears a silhouette of Queen Victoria with lettering VICTORIA DEI GRATIA REGINA/ CANADA. On the reverse is a garland of maple leaves with the lettering ONE CENT and the date 1859 in the centre.

4.4.5 Tools and Equipment Class

The majority of artifacts in this class are hardware items including 10 fragments of wire, a fence staple, two bolts, a hook, and a washer. Other tools include a smooth brass arm from a folding ruler, a corroded iron wrench and a fragment from a glazed stoneware container that probably held blacking used to polish leather or cast iron. The armament sub-class includes a lead musket ball (.75 calibre) that could be used with the British Short Land Musket affectionately known as the Brown Bess. This is contrasted with an empty bullet case for a revolver. In total, these artifacts make up 2.7 % of the historic assemblage.



Plate 18: Fragment of a "stovepipe" shako (hat) (H317-H318) from the King's Point site (AhGs-24).



Plate 19: Selected personal artifacts from the King's Point site (AhGs-24): "DIXONS/MONTREAL" smoking pipe (a- H312), "TALLIO" cuff links (b- H323), and a once cent coin (c- H328).

4.4.6 Indeterminate Class

Sixty artifacts could not be assigned confidently to a functional class. These include a heavy metal ring fashioned from twisted bar stock, a small solid iron disk, a delicate solid brass handle from an unidentified object, several ceramic sherds, and 55 pieces of corroded iron. In total, these artifacts make up 8.14% of the historic assemblage.

4.5 Faunal Remains

4.5.1 Introduction and Method

All bone and shell specimens were identified to lowest possible taxonomic level without the aid of a comparative skeletal reference collection. All specimens are quantified in terms of “number of identified specimens” (NISPS). No attempt has been made to determine minimum number of individuals (MNI) present.

4.5.2 General Observations

The sample consists of 90 specimens recovered from a total of 45 excavation units (Figure 15, Table 5). All specimens were recovered from dry screening through six millimetre mesh. Mammal bone (n=78) accounts for 86.7% of the sample and 91.7% of the sample identified to class. The remaining 12 specimens include five bird bones, two bivalve fragments, and five unidentifiable bone fragments. Modification in the form of polishing, thermal alteration, and butchering, is noted on 16 bone specimens, all of which are mammalian.

Table 5: The King's Point site (AhGs-24) Faunal Catalogue		
Taxon	Common Name	n
Class Pelecypoda	Freshwater bivalves	2
Class Aves	Bird	5
Class Mammalia	Mammal	60
<i>Bos Taurus</i>	Domestic cow	8
<i>Sus scrofa</i>	Domestic pig	5
<i>Ondatra zibethicus</i>	Muskrat	2
Order Artiodactyla	Even-toed ungulates	3
Class unknown	Unidentified bone	5
Total		90

4.5.3 Mammal Bone

Of the 76 bone specimens identified as mammal, 18 could be identified to a lower meaningful taxon than class and include eight specimens identified as domestic cow (*Bos taurus*), five domestic pig (*Sus scrofa*), two muskrat (*Ondatra zibethicus*), and three specimens identified as even-toed ungulate (Order Artiodactyla).

Domestic Cow (*Bos taurus*) – All of the eight cow specimens are post-cranial elements or portions thereof. Five of the elements exhibit evidence for butchering and include four saw cut bones and one cut by an axe or cleaver.



Figure 15: The Stage 4 Excavation of the King's Point Site (AhGs-24): Total Faunal Yields

Domestic Pig (*Sus scrofa*) – All five specimens identified as pig are teeth and include three canine tooth fragments and two molar and/or premolar fragments.

Even-toed Ungulate (Order Artiodactyla) – All three unidentified artiodactyl specimens are believed to be from medium to large sized domesticates such as pig, sheep/goat, or cow.

Muskrat (*Ondatra zibethicus*) – The two muskrat hindlimb bones may represent intrusive elements in the faunal sample.

Unidentified Mammal (Class Mammalia) – The sixty unidentified mammal bones were sorted into the following animal size categories: 9 large, 32 medium-to-large, 1 medium, and 18 indeterminate. It is likely that the majority of the medium to large specimens are attributable to the identified domestic animals, cow and pig. Three of these specimens exhibit butchering marks associated with cutting by axe, cleaver, or saw. The unidentified mammal specimens were also sorted by body region. All specimens, except for one possible cranial fragment, are representative of post-cranial elements and include: 10 axial bones, two forelimb elements, 23 limb bones, and two specimens identified only as post-cranial. The remaining 23 specimens are too fragmented to assign to body portion. Thermal alteration is noted on six specimens (all are calcined). The lack of cranial elements, and the presence of butchered bone, suggests that the unidentified mammal bone specimens most likely represent food refuse associated with Euro-Canadian settlement of the area.

4.5.4 Bird Bone

None of the five bird bone specimens could be identified below class, although element size suggests that the bones represent both duck or chicken-sized taxa and turkey or goose-sized taxa.

4.5.5 Molluscs

Two fragments of bivalve shell were identified. It is likely that these are freshwater bivalves, which could have been obtained from the Niagara River.

4.5.6 Summary

The majority of the recovered faunal sample consists of food refuse from domestic animals, including cow and pig. These remains are associated with nineteenth-century land use of the site. The absence of fish bones from a site immediately adjacent to the Niagara River may indicate off-site processing and preservation of fish or could be attributable to poor preservation due to acidic on-site soils coupled with periodic flooding (see geoarchaeology section above). Considering a precontact occupation sequence of the site that spans from the Early Archaic through to the Late Woodland, the overall lack of non-domesticated native fauna may also indicate off-site processing of game.

5.0 CONCLUSIONS

The Stage 4 excavation of the King's Point site (AhGs-24) carried out in the summer-fall of 1998 and the spring of 1999, resulted in the excavation of 310 one metre units and the documentation of one subsurface feature. In total, 27,161 artifacts were recovered during the course of this work.

The artifact data suggests that the site served as a seasonal camp occupied intermittently from the Early Archaic through to the Late Woodland period. On the basis of the assemblage recovered, the site appears to have been used most frequently by hunter-gatherers between 5,500 and 3,000 and 2,000 and 1,500

years ago. These small bands were probably exploiting the rich natural resources of the nearby marsh and river. Based on the location of the site adjacent to the Niagara River, it is likely that the site occupants may have engaged in large-scale fishing activity. However, the absence of fish bone within the faunal assemblage may indicate that processing and preserving may have taken place off-site. Such a pattern of exploitation likely entailed establishment of major base camps in riverine venues where abundant local resources could sustain the band, and evidence for such continuity in lifestyle can be seen at multi-component occupations such as King's Point and the Peace Bridge site (Williamson and MacDonald 1997, 1998; Williamson et al. 2006).

Historic period artifacts such as a white clay smoking pipe, two War of 1812 period buttons and a small piece of a War of 1812 British shako plate, were found as well. Given that the historic artifact assemblage is not derived from a sealed deposit, it is not surprising that the materials range in date from the early nineteenth century through to the present. The presence of the military buttons and other artifacts reflects the nineteenth century land use of the site, and in particular activities related to the War of 1812 and nearby Ft. George.

This final report constitutes fulfillment of licensing commitments (Consulting Licence 98-014) pursuant to the Ontario Heritage Act.

The documentation and artifacts related to this archaeological assessment shall be curated by Archaeological Services Inc. until such a time that arrangements for their ultimate transfer to Her Majesty the Queen in right of Ontario, or other public institution, can be made to the satisfaction of the landowner, the Ministry of Culture, and any other legitimate interest groups.

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