

ONTARIO PROJECTILE POINT GUIDE



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ACKNOWLEDGEMENTS

The process of developing this updated point guide was an incredible learning experience for both of us, and we could not have done so without the knowledge, guidance and support of our professors, mentors, colleagues and the experts who assisted us at every stage of this project.

We would like to express our deep appreciation to:

The Indigenous peoples, past and present, of the land now known as Ontario. It has been an honour and privilege to work with these objects and witness the skill of Indigenous artisans. We acknowledge the ongoing connection that living Indigenous communities have to the belongings of their ancestors.

Dr. Tristan Carter, Chair of McMaster University's Anthropology department, for facilitating and supervising this project, providing the lab space and equipment for photography, and putting his faith in us to create this document for future students.

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April Hawkins, Collections Specialist in Archaeology of the Americas at The Royal Ontario Museum, for her assistance, support and for spending the day with us documenting and photographing the Paleodindigenous points within the North American Archaeology collection.

Finally, this project would not be possible without the decades of research, excavation and dedication by archaeologists that came before us. This updated guide builds directly off of their hard work, laying the foundations for Ontario Archaeology as we experience it today. We owe them, and everyone who was a part of this project with us, an immense debt, and we hope that this updated Projectile Point Reference Guide can make them and all those who supported us proud.

Rosalie Swenor & Ricardo Bonilla Diamond

ABOUT THIS GUIDE

At its inception, the original Projectile Point Reference Guide created by the London chapter of the Ontario Archaeological Society (OAS) was designed to provide academics, cultural resource management (CRM) firms, and the wider public with an accessible resource for identifying stone spear and arrow heads, academically known as lithic projectile points. However, why do we identify these points in the first place, what are the mechanisms we use to give these points ages and names? and what do we learn from distinguishing the cultures that made them from one another?

Typology and Ontario Archaeology

The primary tool for this is Typology, or the systematic classification of objects based upon shared attributes and characteristics. While typological systems are far from perfect, the study of stone tools has a long history with typologies, predating archaeology as a discipline entirely. When archaeologists use typologies, it is typically in conjunction with stratigraphic association, which assigns dates to objects based on their position within the layers of the earth, associating archaeological sites and artifacts with cultural groups and time periods. Once a typology has been established, the process of identifying a point in relation to a site can speed up relative dating by saving the time and resources required for methods like radiocarbon dating. In addition, “typing” a point allows researchers to quickly assign sites to cultural complexes, establishing an understanding of the cultural history of an area, and the distribution of that complex and their mobility.

Within North American archaeology, the relationship between projectile points and typologies goes so far that archaeology is often branded and defined by the ‘flint arrowhead’ to the point that one cannot think of archaeology in North America without projectile points. In Ontario, projectile points sit as one of the primary defining cultural materials that we have to study the past. While the reasons for this are many, their excellent preservation and variation in manufacture and design across time and space stand out. Projectile points can tell us so much about the people of the past, where they gathered their materials and how far they moved from those sources, how they developed and valued manufacturing techniques, and what they ate and hunted based on the design and use-wear of these tools. Alongside this, very few cultural materials can preserve as long as stone tools do, especially when we consider the deeper past.

Updates to the Guide

With the background and intent of the original guide outlined, why update it? Have things changed so much? In short, yes. Things have changed immensely in the last 40 years, technologically and academically. This is not to take away from the authors of the original point guide in any way. To be abundantly clear, this project would not be possible without the incredible and foundational work of the archaeologists that came before us, and much of the information from the original guide is retained. We are incredibly grateful to have had the

opportunity to learn from their research and be a part of its preservation.

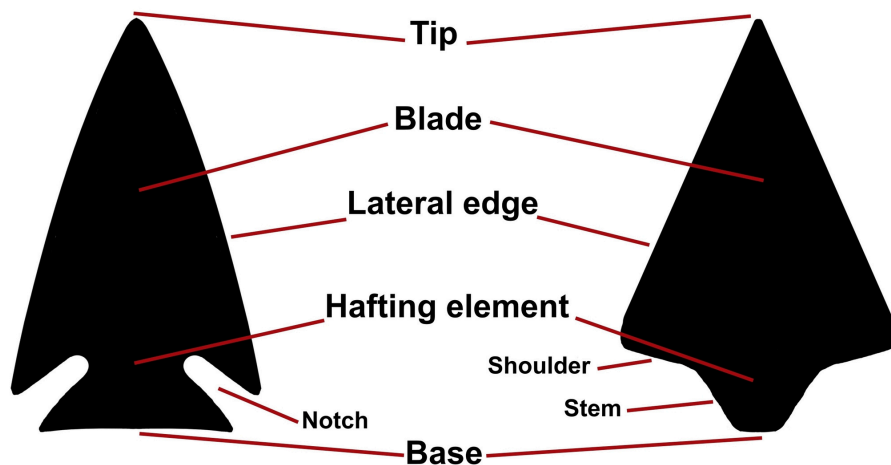
When the original guide was compiled in 1987, visual depictions of points were limited to line drawings and profile outlines. While both media are still invaluable, the dissemination of digital camera and high-quality colour printing technology allow us to provide even further detail when exhibiting projectile points. As a result, we have chosen to include high resolution images of exemplary points alongside the original line drawings for each point type. While some of the original entries were limited in their depictions of points, sometimes only showing an individual sketch, each entry has been updated with a sample photo of multiple points to give readers a better feel for the variation found within a single type. As technology has changed, so has our understanding of the past. In the intervening decades, updates in our understandings of point type distributions, associated dates, and methods of lithic analysis have changed significantly. While a comprehensive literature review and update would have been out of the scope of this project, we have updated the language where possible to create a more accessible and digestible resource for students and members of the public.

Among our additions to this point guide are a material reference section and a point anatomy primer. With samples of major Ontario chert formations found across the region, we have attempted to provide the best examples of materials that would have been commonly used to create the point types found in this guide. While this list is not exhaustive, and does not account for all exotic materials that have been found in Ontario, the material examples provided allow for a basic primer to local materials that have been used for millennia. The point primer was designed to introduce readers to projectile points and assist in identifying the key characteristics and features of a projectile point, whether for new students unfamiliar with projectile points and archaeology, or for more experienced field technicians needing a quick point of reference. This primer consists of an introduction to points, detailing basic anatomy and dimension measurements, as well as the general terminology used in describing point types. This terminology includes blade and base shapes, stem and notch types, cross section types, and distinguishing features like fluting.

Overall, our central goal with this updated reference guide has been to provide a visual and formatting update to the original guide. Providing new detailed photographs, reorganizing and reformatting each entry, and rewording when we deemed it necessary. Over the course of this project, we have attempted to the best of our ability to maintain consistency with our choices regarding the chosen typologies. As a result, the decision was made to focus primarily on Ontario based site documentation, point samples and literature. By extension, the inclusion, exclusion, or merging of various types that were present in previous iterations of the guide has been an ongoing process informed by our advising and consulting colleagues and professors, whose guidance we could not have done without.

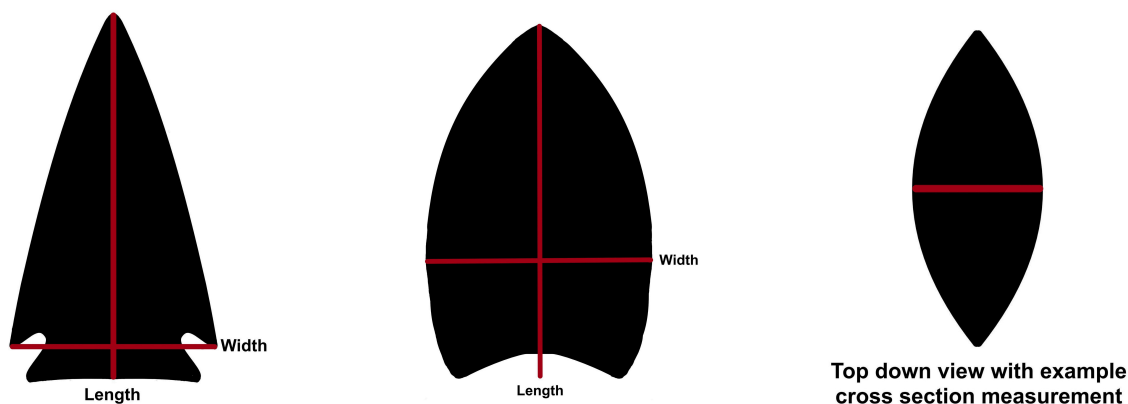
INTRODUCTION TO PROJECTILE POINTS

Basic Anatomy



Hafting - Projectile points were attached to a wood or bone handle, aka haft, for use. The hafting element is the portion of the point that has been modified to facilitate secure hafting. Hafting elements may be stems, notches, or flutes. Some points do not have defined hafting elements.

Measuring a Point



It is easiest to measure projectile points with a set of calipers, but a ruler will suffice.

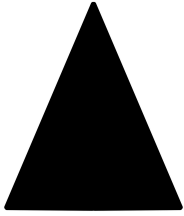
Length: The maximum distance from the tip to the base

Width: Measured at the maximum width, may be the base or part of the blade

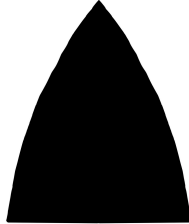
Thickness: The maximum cross-section measurement of the point

PROJECTILE POINT TERMINOLOGY

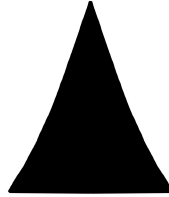
Blade Shapes



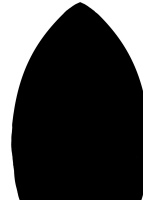
Triangular



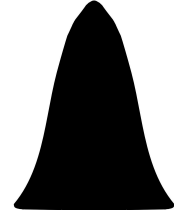
Convex
Triangular



Concave
Triangular



Lanceolate



Concavo-Convex

Base Shapes



Straight



Convex



Concave

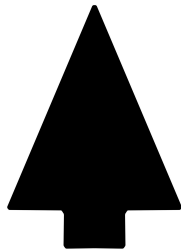


Bifurcate

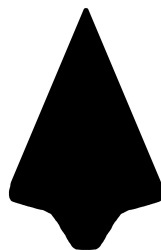


Fishtails

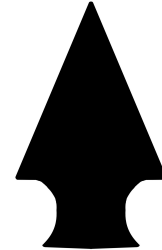
Stem Types



Straight

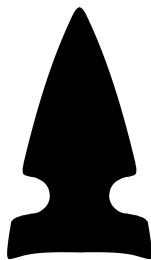


Contracting

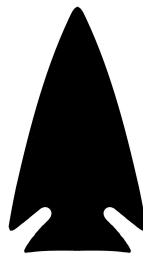


Expanding

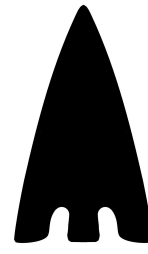
Notch Types



Side



Corner



Basal

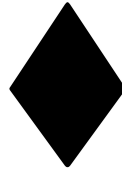
Cross Section Types



Lenticular



Flattened Lenticular

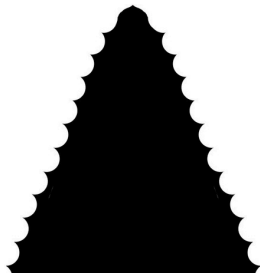


Diamond

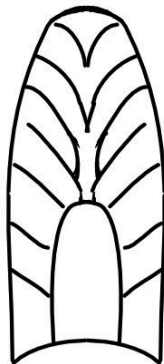


Plano-Convex or
Unifacial

Additional Terms



Denticulation - When a series of small flakes have been removed from the lateral edge to create a serrated blade



Fluted - When a large thinning flake has been removed from the base of the point, usually as the last step in the knapping process. The resulting groove was used to haft the points. Fluted points are only found in the Early Paleo period and are uncommon in Ontario

OVERVIEW OF POINT TYPES

Early Paleo 11,000-10,000 BCE



Enterline



Gainey



Barnes



Crowfield

Late Paleo 10,000-9000 BCE



Hi-Lo



Holcombe



Plano

Early Archaic 9000-7000 BCE



Nettling

Middle Archaic 7000-3000 BCE



Stanly



Brewerton

Late Archaic 3000-800 BCE



Genesee



Adder Orchard



Crawford Knoll

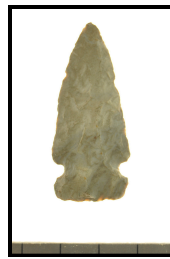


Innes

Early Woodland 800-500 BCE



Meadowood Cache Blade



Meadowood



Kramer

Middle Woodland 500 BCE-1000 CE



Snyders



Saugeen

Late Woodland 1000-1650 CE



DeWaele



Glen Meyer



Daniels



Nanticoke
Triangular



Nanticoke
Notched

ENTERLINE FLUTED

AKA Clovis-like →



Date Range

11,000-10,800 BCE

Dimensions

Enterline points range from 30-90 mm in length, 20-40 mm in width, and 6-9 mm in thickness. The depth of the basal concavity ranges from 2-5 mm.

Shape

These lanceolate points have parallel sides, shallow to moderate base concavity, and short flutes (less than half the length of the point). The lateral edges are either parallel or slightly expanding at the base with fishtails.

Flake Pattern

The flake pattern on Enterline points tends toward large, irregular thinning flakes on the faces. This flaking technique means the faces are flat and lack a well-defined medial ridge to guide the flute removal. This results in shorter flutes than later Paleo types. Fluting was done earlier in the knapping process while the preform was still thick, leading to a relatively thick final point.

Material

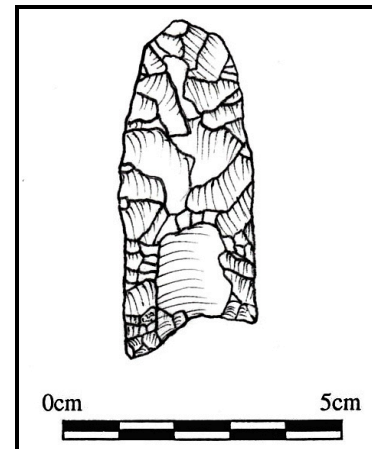
Clovis-like points in Ontario are made on local cherts such as Onondaga, Haldimand, and Selkirk, as well as imported materials from Ohio and Pennsylvania.

Distribution and Cultural Affiliation

Clovis and Clovis-like points are found across North America in the Paleo Indigenous period. In Ontario they are found in the Central Great Lakes region.

Notes

Compared to Gainey points, Enterline points have shallower base concavities, shorter flutes (less than half the point length), and more irregular flake patterns.



References - Ellis, C., and Wright, H. - 2023 *Early Fluted Point Types in the Upper Midcontinent* (unpublished manuscript), Ellis, C. - personal communication Feb 26th, 2026



Date Range

10,800-10,600 BCE

Dimensions

Measured points range from 35-120 mm in length, 20-37 mm in width, and 6-10 mm in thickness. Basal concavities tend to be 4-8 mm in depth.

Shape

Gainey points have a deeply concave base but lack fishtails. Although the lateral basal edges can expand slightly from the base to a maximum width around mid-point, the points are essentially parallel-sided. The points are relatively wide and somewhat thick. Cross-sections are of a marked lenticular form.

Flake Pattern

Flaking is very similar to that for Barnes points given elsewhere in this series, including: parallel-lateral retouch; a tendency for long, parallel sided flute removals, and composite fluting. Lateral basal edges are very heavily ground such that in some cases a distinct “insetting” (almost a shoulder) is formed at the juncture of the ground and unground areas.

Material

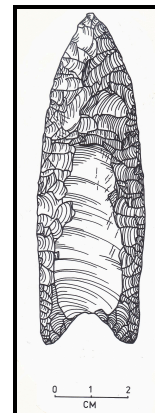
Although some Gainey points are known on Collingwood chert, most of this type tend to be on local Onondaga, or Upper Mercer, Flint Ridge and Ten Mile Creek cherts from Ohio.

Notes

Gainey Fluted points can be distinguished from Enterline points by their deeper base concavity, longer flutes (half the length of the point, or more), and overall higher quality workmanship

Distribution and Cultural Affiliation

These points are found in southern Ontario



References - Ellis, C. – 1984 *Gainey Fluted Points*. KEWA 84-7., Ellis, C., and Wright, H. - 2023 *Early Fluted Point Types in the Upper Midcontinent* (unpublished manuscript).

BARNES FLUTED

AKA Cumberland →



Date Range

10,600-10,400 BCE

Dimensions

Barnes points range from 35-105 mm in length, 15-30 mm in width, and 3.5-8 mm in thickness.

Shape

Barnes fluted points are lanceolate shaped with fishtails. Lateral base edges expand moderately from the “waist” above the fishtail to a maximum width at, or if the point is largely unresharpened, just below midpoint. The points tend to be narrow and thick with marked lenticular cross-sections.

Material

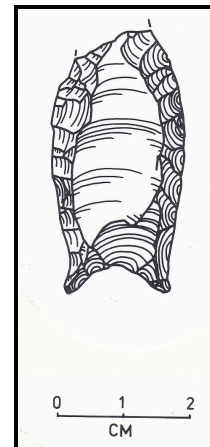
In north south-western to south-central Ontario, most points are made on Fossil Hill chert, while in more southerly areas Onondaga chert is common. Bayport and Ten Mile cherts also occur.

Flake Pattern

The points exhibit well-executed parallel-lateral flaking which terminates along the mid-line on each face. The ridge formed by these terminations down the mid-line was used as a guide for long (up to 80 mm), single, parallel-sided flutes. Flutes tend to extend to the tip on one face and from 1/2 to 3/4 of length on the other. There are never more than 2 flutes to a face. Often, the base of the flute has been widened and the base thinned by the subsequent removal of a single, short, broad flake (the “Barnes” finishing technique; see Roosa 1965). Lateral basal edges and basal concavities are lightly ground.

Distribution and Cultural Affiliation

Barnes points are diagnostic of the Parkhill industry which occurs in southern Ontario, eastern Michigan, northern Ohio and western New York state.



References - Ellis, C., – 1984 Barnes Fluted Points. KEWA 84-6.



Date Range

10,400-9900 BCE

Dimensions

Crowfield points range from 40-65 mm in length, 22 to 35 in width, and 3-6.5 in thickness. Basal concavities are shallow.

Shape

The lanceolate points have a concave base but lack fishtails. Lateral basal edges markedly expand from the base to a maximum width around or (if the point is largely unresharpened) above, mid-point. The points are very broad and thin with flattened lenticular cross-sections.

Material

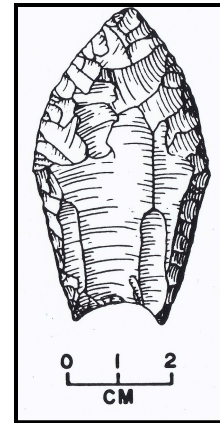
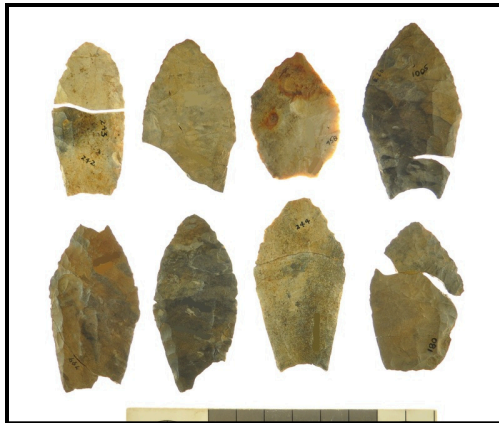
At the type site, Onondaga chert was predominantly used. However, specimens from the type site and other areas of Ontario are on Collingwood (Fossil Hill) chert.

Flake Pattern

The points exhibit a lateral retouch which does not tend to consistently terminate at any one point on the biface surface such as the mid-line. Because of the oblique lateral basal edge orientation to the mid-line of the point, retouch tends to be somewhat oblique from each edge (almost a “chevron” pattern) near the base. The points are very well-fluted. Flutes tend to extend from 1/2 to 3/4 of point length and are often multiple (2 to 3 flutes to a face). The lateral flute edges can expand markedly from the base. Bases are consistently finished by a short, parallel retouch in the basal concavity. Lateral basal edges and concavities are lightly ground.

Distribution and Cultural Affiliation

These points are found throughout the central to eastern Great Lakes area.





Date Range

9600-8800 BCE

Dimensions

Hi-Lo points range from 26-59mm in length, 18-29.5mm in width, and 6.5-11 mm in thickness.

Shape

These lanceolate points have “eared” concave to bifurcate base, and exhibit basal and lateral grinding, and basal thinning flakes. There is considerable variability in blade shape, largely due to resharpening. Unresharpened or little resharpened points have convex blade edges with maximum width and thickness at blade midpoint, a lenticular to plano-convex cross-section, and a slight shoulder at the blade element-haft element juncture. Resharpened points have straight to concave lateral edges, maximum width and thickness at the top of the lateral grinding, a lenticular to “twisted” parallelogram cross-section, and little or no shoulders.

Flake Pattern

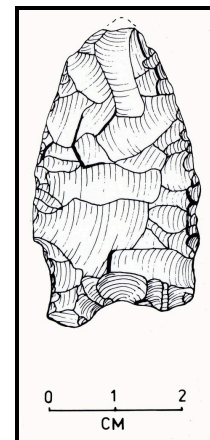
Unresharpened specimens exhibit a well-executed collateral to rough parallel flaking, but resharpened points show little consistent pattern to removals. Some examples exhibit edge beveling on opposite sides, creating a twisted cross section.

Material

Onondaga, Haldimand and Kettle Point chert are the predominant identifiable materials on Ontario sites. White Haldimand chert was the preferred material.

Distribution and Cultural Affiliation

Hi-Lo points are found in southwestern Ontario and along the north shore of Lake Ontario.



References - Ellis, C. – 1981 Hi-Lo Points. KEWA 81-2.



Date Range

9900-9700 BCE

Dimensions

Holcombe points range from 34-68 mm in length 16-30 mm in width, and 3-7 mm in thickness.

Shape

Holcombe points have lanceolate blades with maximum width at or above mid-point. The bases have shallow (< 4.5 mm) concavities, and lack fishtails. Cross sections are lenticular.

Raw Material

Holcombe points are known to have been made from Bayport, Tenmile Creek, Onondaga, Upper Mercer, Fossil Hill, and Kettle Point cherts.

Distribution and Cultural Affiliation

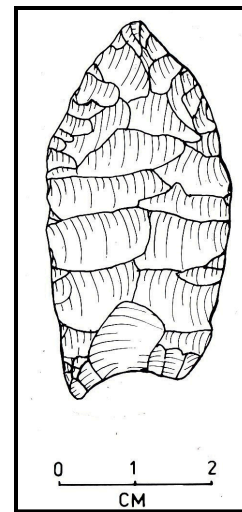
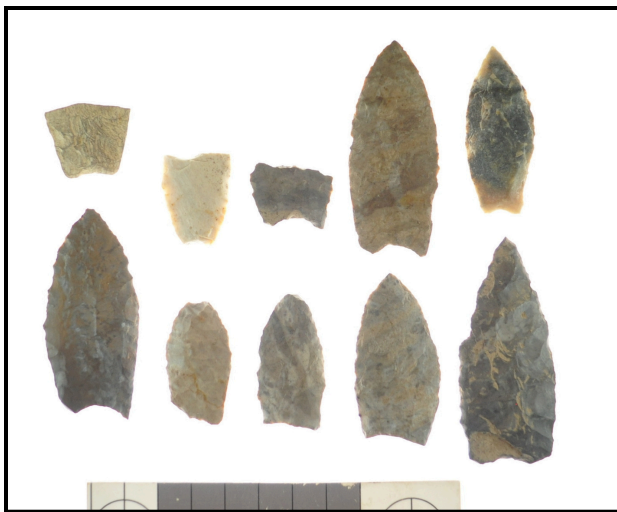
These points occur in southern Ontario and Michigan, northern Ohio and north-western Pennsylvania.

Flake Pattern

Surface flaking consists of a shallow, narrow, parallel to collateral, unpatterned retouch which does not consistently terminate at the mid-line. A short, abrupt, unifacial retouch is applied to shape the basal concavity and, often, to round the basal corners. Bases are thinned by short, often multiple, flake removals. Holcombe points are not fluted. Lateral basal edges and basal concavities are lightly ground.

Notes

Unlike Crowfield points, Holcombe points are unfluted, never exhibit a shoulder on one lateral edge, and are narrower and more elongated in appearance with smoothly convex lateral edges.





Date Range

9600-9300 BCE

Dimensions

Plano points have a very large size range, varying from 30-190 mm in length, 20-46 mm in width, and 4-12 mm in thickness.

Shape

Plano points have long tapering lanceolate blades that tend to have smooth and symmetrical outlines. They either have no defined hafting element, or slightly developed shoulders with a stem nearly the same width as the blade. Cross sections are lenticular.

Material

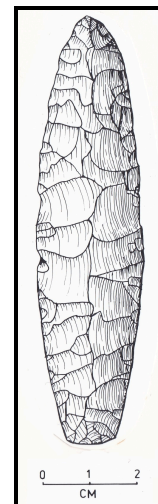
Due to their wide distribution, these points come in a wide variety of raw materials. Examples found in Ontario were made from local cherts, coarse stone such as greynwacke, or exotic materials.

Flake Pattern

Plano points were usually made with a high degree of workmanship. Surface flaking generally consists of shallow, medium width, parallel-sided flake scars in a collateral pattern, leaving a median ridge on both faces of the point. The basal and basal lateral edges are usually ground. There may be some short basal thinning flakes, but these points are not fluted.

Distribution and Cultural Affiliation

Plano, Agate Basin, and related lanceolate points were used across much of North America in the Late Paleo Indigenous period.



References - Ellis, C. - 1988 Madina Plano. KEWA 88-7, Jackson, L.J. - 1998 Plainville Plano Points. KEWA 98-4.

NETTLING

AKA Kirk Corner Notched, Cypress Creek, Palmer,
Charleston Corner Notched



Date Range

8800-8200 BCE

Dimensions

These carefully made bifaces range from 29-90mm in length, 17-38mm in width, 4-9mm in thickness and 10-20mm in hafting width.

Shape

Triangular biface preforms were used to produce most Nettling points. The hafting element ranges from corner notched to expanding stem. Lateral edges are convex, with edge serration displayed on many specimens. Base configuration varies from convex to concave, and cross sections are lenticular.

Material

Nettling points are manufactured from local Onondaga, Selkirk, Haldimand, and Ancaster cherts. Ohio cherts such as Pipe Creek, Flint Ridge chalcedony, and Mercer also appear.

Flake Pattern

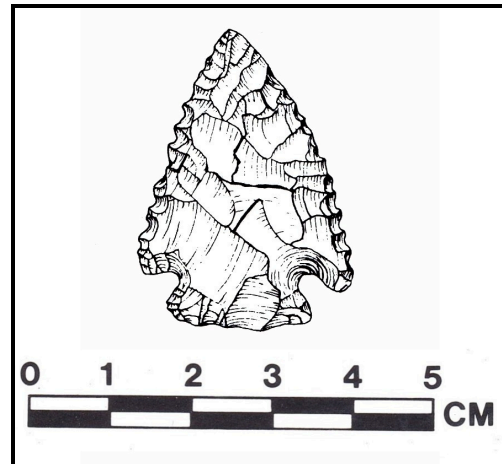
The preform flake scars are broad and flat, which produced a thin biface. Edge serrated pieces display between 3 and 5 teeth per centimeter.

Distribution and Cultural Affiliation

They are found in small numbers in Southwestern Ontario, and are most common in the Northwestern Erie drainage basin.

Notes

As with most biface forms, many specimens are extensively reworked. Certain of them display one convex and one concave lateral edge, suggesting a cutting (knife) function.



References - Fox, W.A., (1980) Nettling Points. KEWA 80-2, Justice, N.D., (1987) Stone Age Spear and Arrow Points of the Midcontinental and Eastern United States



Date Range

7000-6000 BCE

Dimensions

Stanly points range from 30-58 mm in length, 19-29 mm in width, and 4-12 mm in thickness

Shape

A small, “Christmas tree-like” form with a relatively broad, triangular blade and short, narrow stem. Lateral edges range from slightly convex to straight to concave and rarely, are serrated. Stems are parallel-sided or expanding, sometimes exhibit a small amount of ear flaring. The juncture of the stem and blade is usually right-angled to slightly obtuse and is rounded rather than abrupt. Bases can be straight but more often are shallowly notched or bifurcate. Cross-sections are generally lenticular but can be a flat plano-convex.

Material

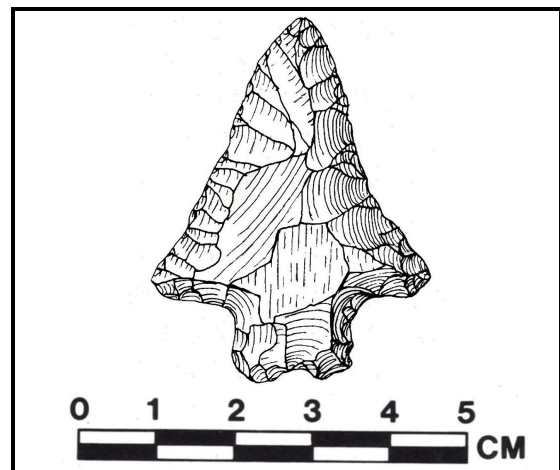
Examples are known on Onondaga, Selkirk, Gull River, Kettle Point and Upper Mercer cherts.

Flake Pattern

These points appear to have been made largely on small, thin flakes and some points retain an unflaked surface remnant of the flat interior of the flake blank. Flaking is generally unpatterned and consists of a shallow, small, expanding surface retouch. Edges were regularized by the application of a fine and generally discontinuous retouch. Bases are almost always thinned by the removal of a short flake on one face. Base and stem edges are rarely ground.

Distribution and Cultural Affiliation

These points are documented throughout south-western Ontario as far north as the southern Lake Huron basin. They also occur as far east and north as Rice Lake.



BREWERTON SIDE/CORNER NOTCHED



Date Range

3800-3200 BCE

Dimensions

Size is quite variable. Most specimens fall within the following ranges: length 30-60 mm, width 20-40 mm, hafting width 10-22 mm, thickness 6-11mm.

Shape

Brewerton points have a triangular outline. The blades usually have convex lateral margins; some specimens have straight or concave margins, but these are mostly re-worked and re-sharpened points. Typically the bases are straight or slightly convex. The hafting modification ranges from basally notched to side-notched. In cross-section the points are often lenticular, but, owing to variable workmanship, they may be plano-convex or otherwise asymmetric.

Material

The raw material is usually Onondaga chert, Selkirk and Haldimand cherts are also found.

Flake Pattern

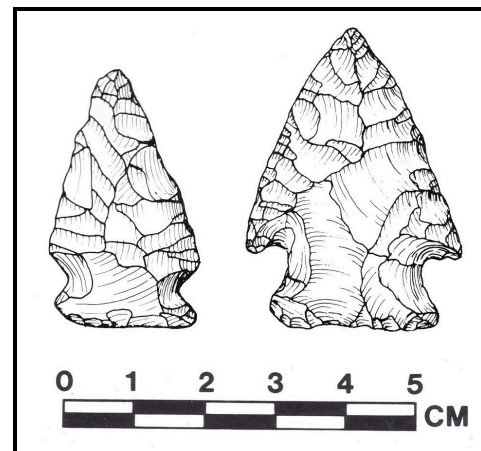
Brewerton points tend to be rather thick and coarsely made, with irregular flake scars. Some bases are slightly to heavily ground.

Distribution and Cultural Affiliation

Brewerton points are found throughout much of eastern North America.

Notes

Many of the larger Brewerton Corner-Notched "points" may well have functioned as knives. It is not uncommon to find specimens having their distal ends retouched into scraper edges.



References - Kenyon, I. – 1981 Brewerton Corner-notched Points. KEWA 81-8, Justice, N.D., (1987) Stone Age Spear and Arrow Points of the Midcontinental and Eastern United States



Date Range

2600-2000 BCE

Dimensions

Genesee points range in length from 45-140 mm, widths vary from 25-65 mm, and stem widths range from 15-28 mm. Maximum thickness ranges from 7-16 mm.

Shape

Blade configuration is variable: convex shapes are the most common. Concavo-convex blades are found, particularly in the Niagara Peninsula. Stems are straight sided, but some specimens have stems that are somewhat expanding or contracting. Bases are usually slightly concave. Cross-sections are lenticular.

Material

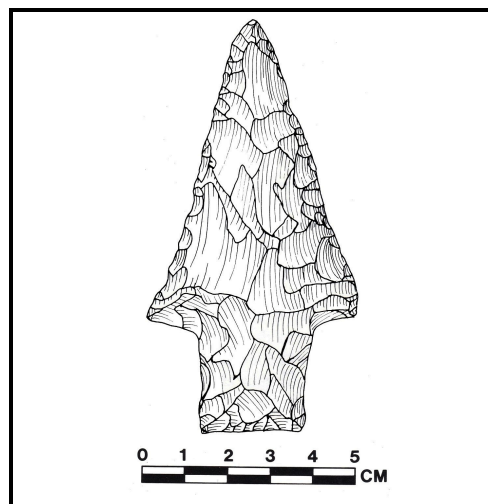
Onondaga chert is the most popular material, especially in the Grand River – Niagara Peninsula area. In the Lake Huron and St. Clair drainages, Kettle Point chert and coarse-grained rocks (particularly greywacke) are commonly used.

Flake Pattern

The flaking is usually well executed. The primary retouching, which entirely covers both faces, consists of wide, expanding flake scars. Secondary or marginal retouching is used where it is required to produce an even, sharp edge. The sides of the stem and the base often display slight grinding (or haft wear).

Distribution and Cultural Affiliation

Southwestern Ontario, most Genesee points are found in the Carolinian biotic province.



ADDER ORCHARD →



Date Range

2600-2200 BCE

Dimensions

These points range from 41-78 mm in length, 19-38 mm in width, and 7-10 mm in thickness.

Shape

Adder Orchard stemmed points have narrow lanceolate blades with the point of maximum width usually being well above the shoulder. Shoulders tend to flare out only slightly from the stem. Occasionally these points are marked by a slight spur which projects laterally from the base. Stems are parallel-sided to contracting in shape.

Material

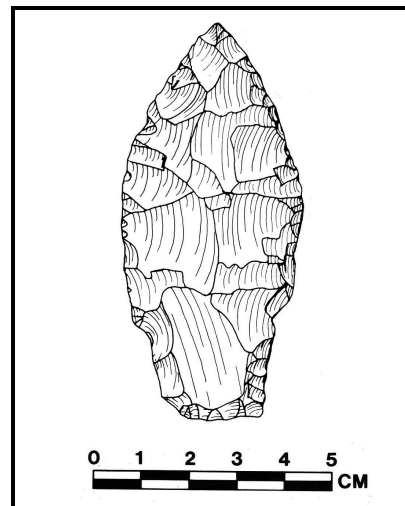
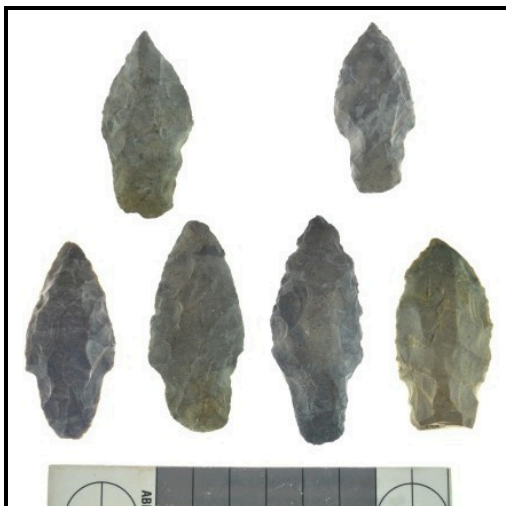
Adder Orchard points have been found on Kettle Point, Onondaga, and Selkirk cherts, as well as greywacke.

Flake Pattern

Flaking is usually well executed. Primary retouching consists of wide, expanding flake scars. Secondary or marginal retouching is used where it is required to produce an even, sharp edge. Stems are often lightly ground or rubbed.

Distribution and Cultural Affiliation

Adder Orchard points are found in south-western Ontario, most notably from the Ausable Valley in the south-eastern Huron basin.



CRAWFORD KNOLL

AKA Preston Corner Notched, Merom Expanding Stem,
Trimble Side Notched



Date Range

1500-1200 BCE

Dimensions

Crawford Knoll points range from 25-40 mm in length, 15-25 mm in maximum width, 7-12 mm in hafting width, and 4-8 mm in thickness.

Shape

These triangular points have convex lateral edges; bases range from convex to straight. The hafting element varies from side notched to corner notched to expanding stemmed. Cross-sections are usually lenticular, but in some specimens they are diamond shaped. Plano-convex cross sections also occur.

Material

Crawford Knoll points are found on Kettle Point, Onondaga, Haldimand, and Ancaster cherts.

Flake Pattern

The workmanship is quite variable: some points are well finished but others are rather crudely made with asymmetrical outlines. The points are made in two different ways: most are manufactured with the “classic” bifacial reduction technique, but some are unifacial marginally retouched flakes. Denticulation is seen on some examples.

Distribution and Cultural Affiliation

This description is based on points from the Crawford Knoll site near the St. Clair River delta, Kent Co., but these points are found across southern Ontario.



References - Kenyon, I. – 1980 Crawford Knoll Point. KEWA 80-3, Justice, N.D., (1987) Stone Age Spear and Arrow Points of the Midcontinental and Eastern United States



Date Range

1200-1000 BCE

Dimensions

Innes points are medium sized ranging 32-50 mm in length, 17-31 mm in maximum width— usually corresponding to shoulder width, and 5-8 mm in thickness.

Shape

These points have convex lateral blade edges with slightly sloping to slightly barbed shoulders. The hafting element ranges from wide round side notches to an expanding stem. In cross section lenticular forms are most common.

Material

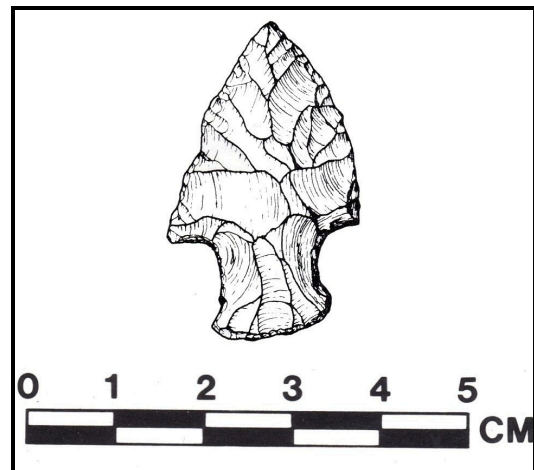
Onondaga chert is the predominate material type used, though Kettle Point, Haldimand, and Ancaster chert, and Pennsylvania jasper examples have also been found.

Flake Pattern

Innes points tend to be coarsely flaked, but the primary shaping of the point rarely leaves any broad surfaces unscared. Marginal secondary retouch is usually discontinuous. Some points have basal grinding, which often extends up the lateral edges of the stem.

Distribution and Cultural Affiliation

The type site is few kilometers west of Brantford, and other examples are reported from the Grand River drainage and westward in Southwestern Ontario.



References - Lennox, P. – 1982 Innes Points. KEWA 82-5, Justice, N.D., (1987) Stone Age Spear and Arrow Points of the Midcontinental and Eastern United States

MEADOWOOD CACHE BLADE →



Date Range

800-400 BCE

Dimensions

Meadowood cache blades range from about 45 to 90 mm in length, 20 to 40 mm in width, and 4 to 7 mm in thickness.

Shape

Meadowood cache blades are triangular in shape. Typically the cache blades have convex lateral margins and convex or straight bases. Cross sections are lenticular or plano-convex.

Material

Onondaga and Selkirk chert

Distribution and Cultural Affiliation

Meadowood cache blades are found throughout South-Western Ontario.

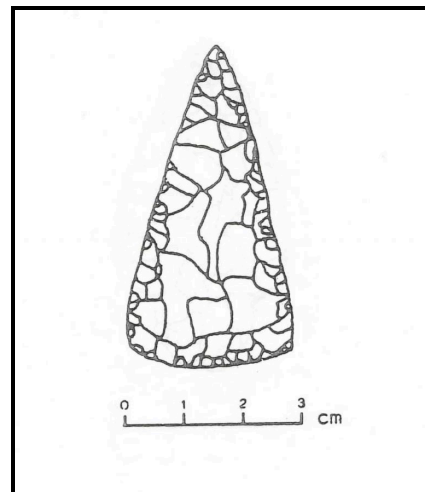
The cache blades are characteristic of the Early Woodland Meadowood culture.

Flake Pattern

Meadowood cache blades are excellently made. They have symmetrical outlines and cross-sections; also, their faces display notably flat flake scars.

Notes

Cache blades are so named because they have often been found in large caches associated with burials. These bifaces also occur on habitation sites. Most “cache blades” are in fact blanks for the side notched Meadowood points. The blanks were made in the Niagara Peninsula and western New York State where the Onondaga chert outcrops. From there, the cache blades were distributed over much of the Northeast.



References - Kenyon, I. – 1980 Meadowood Cache Blades. KEWA 80-5.



Date Range

800-400 BCE

Dimensions

These bifaces range 40-75 mm in length, 18-35 mm in width, and 4-8 mm in thickness.

Shape

Both the lateral and basal edges of these triangular points are usually convex; however, bases are straight on occasion. Side notches which are aligned perpendicular to the biface long axis or at times angled toward the tip characterize the hafting element. Cross sections have a flattened lenticular form.

Material

Meadowwood bifaces manufactured of Onondaga, Kettle Point, and Haldimand chert have been documented.

Flake Pattern

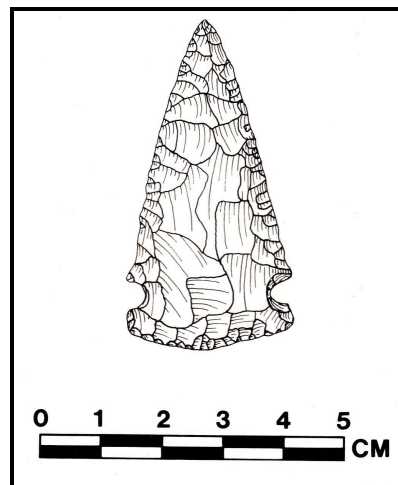
Meadowwood bifaces display distinctive flat flake scars which allow production of these high quality thin, smooth surfaced tools.

Distribution and Cultural Affiliation

These bifaces occur in south-western Ontario, from Bruce County in the north to Essex County in the west and into New York State to the east.

Notes

This distinctive biface tool form often occurs in mortuary caches, but are also widely distributed on small camp and Onondaga chert quarry sites.



References - Kenyon, I. – 1980 Meadowwood Points. KEWA 80-5, Justice, N.D., (1987) Stone Age Spear and Arrow Points of the Midcontinental and Eastern United States



Date Range

500-300 BCE

Dimensions

Kramer points are between 40-70 mm in length, 17-40 mm in width, and 5-14 mm in thickness

Shape

A stemmed lanceolate, the Kramer point tends to have a straight to slightly convex base. The stems are long, usually over one third the length of the point. The stem sides are straight, contracting, or are convex in shape. The shoulders are prominent, sometimes sloping from the stem in a wide arc and leaving a distinctive barb-like corner at the beginning of the blade. Blades are convex triangular or lanceolate in shape, and are often heavily reworked and/or resharpened. Cross-sections are usually lenticular, but occasionally plano-convex in shape.

Flake Pattern

Flaking is not well executed, often leaving primary surfaces on one or both sides. Grinding is frequently used on the stem. Often the base is left unrefined, or thicker than the blade.

Material

In South-western Ontario these points have been made from Kettle Point, Onondaga, and Selkirk cherts. Exotic cherts tend to be from Michigan, such as Bayport and Norwood cherts.

Distribution and Cultural Affiliation

Kramer points are found primarily in the lower Great Lakes areas: Illinois, Michigan, Indiana, northern Ohio, and southern Ontario



References - Parker, L. – 1992 Kramer Points. KEWA 92-8, Justice, N.D., (1987) Stone Age Spear and Arrow Points of the Midcontinental and Eastern United States



Date Range

200 BCE - 50 CE

Dimensions

Snyders points range from 35-95 mm in length, 30-60 mm in width, and 7-11 mm in thickness.

Shape

Snyders points have broad lanceolate to extremely convex triangular blades with round corner-notches. These points have convex lateral edges with long, barbed shoulders, and short expanding stems with a straight or slightly convex basal edge. Cross-sections are generally plano-convex, although lenticular specimens occur.

Material

Snyders points are found on Upper Mercer chert, Flint Ridge chalcedony, and Onondaga, Ancaster, Haldimand, and Selkirk cherts.

Distribution and Cultural Affiliation

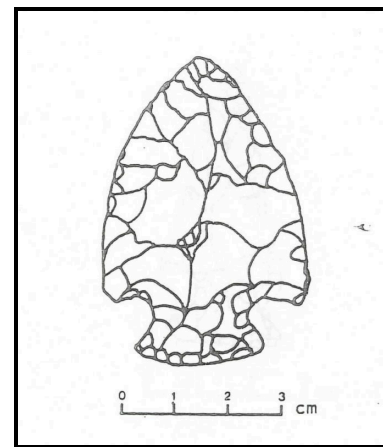
Snyders points or similar variants are occasionally found over much of south-western Ontario, frequencies increase near Lakes Erie and St. Clair.

Flake Pattern

Snyders points are marked by a high degree of workmanship. As few as five or six broad, flat bifacial thinning flakes are removed from each lateral edge to finish the preform. The corner notch is produced by removal of one thick, round flake from the lower corner of each lateral edge. Limited grinding or rubbing sometimes occurs on the base.

Notes

Limited numbers of related bifaces (often reaching extravagant lengths and widths) were imported to Ontario from Hopewellian craftspeople in the earlier stages of the Middle Woodland period. These bifaces were likely valued status or ceremonial objects, while Snyder's points represent a more utilitarian aspect of this developing north-south interaction.



References - Murphy, C. – 1988 Snyder's Points. KEWA 88-3.



Date Range

0-500 CE

Dimensions

Typically Saugeen points range from 40-60 mm in length, 17-30 mm in maximum width, 15-22 mm in hafting width, and 7-10 mm in thickness.

Shape

Generally these points are made on triangular preforms which may have either convex or straight lateral margins, and either convex or straight bases. The hafting modification varies from side notched to expanding stemmed. In cross-section the points may be lenticular but are often diamond shaped, especially in reworked specimens.

Material

Kettle Point, Onondaga, Haldimand, and Ancaster cherts are found

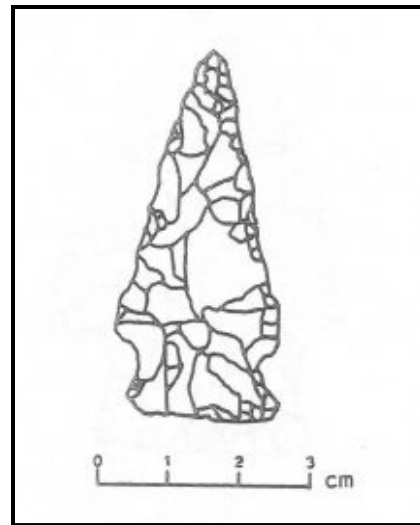
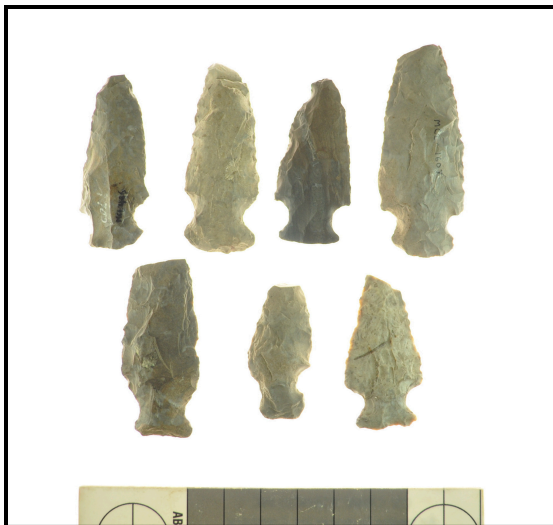
Flake Pattern

Saugeen points tend to be coarsely made; the flakes scars are irregular and hinge fractures are common. In outline the points are frequently asymmetrical. The thickness/width ratio is high.

Distribution and Cultural Affiliation

Southwestern Ontario, these points are common in the Lake Huron drainage, and are found south to the central Lake Erie shoreline.

This type is the characteristic point form of the Middle Woodland Saugeen culture.





Date Range

1000-1200 CE

Dimensions

These points range from 27-59 mm in length, 14-25 mm in width, and 3-7 mm in thickness

Shape

These small triangular points have convex or straight lateral edges, while the base can be convex to concave in form. Hafting elements vary from side notched to expanding or straight stemmed, depending on the size of notches. A lenticular or flattened lenticular cross-section is the norm.

Material

Onondaga, Selkirk, and Ancaster cherts

Distribution and Cultural Affiliation

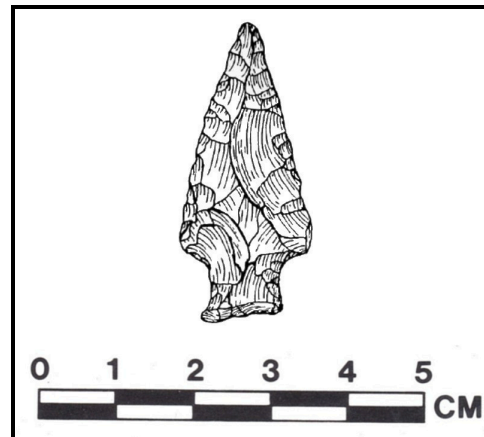
DeWaele points are found from western Middlesex and Elgin Counties to as far east as the Duffins Creek drainage, east of Toronto. This point form occurs as a minority type on Glen Meyer sites

Flake Pattern

Most DeWaele points are characterized by flat, expanding flake patterns; however, hinged flake terminations are not uncommon. Although complete bifacial retouch obscures the evidence, it does appear likely that these points were manufactured from flake blanks.

Notes

There is little doubt that this Iroquoian notched biface evolves into the later Middleport Notched and Naticoke Notched forms. The Onondaga chert DeWaele bifaces have much in common with the Naticoke Notched type, in that they are often reworked as drills and may have had a wider range of functions than contemporary triangular point forms. Similarly, these bifaces were also exported to the east, where they are reported on Pickering villages.



References - Fox, W.A. – 1982 DeWaele Points. KEWA 82-3.

GLEN MEYER TANGED-TRIANGULAR →



Date Range

1000-1200 CE

Dimensions

These points range from 20-59 mm in length, 14-27 mm in width and 3-6 mm in thickness.

Shape

The lateral edges of these triangular points can vary from concave to convex, but the most common configuration is convex. Bases are always concave and oblique to the long axis. In certain cases, the obliqueness is exaggerated to form a pronounced unilateral barb.

Material

Most Glen Meyer points were manufactured from Onondaga chert; however, Kettle Point chert was utilized by some of the more westerly groups.

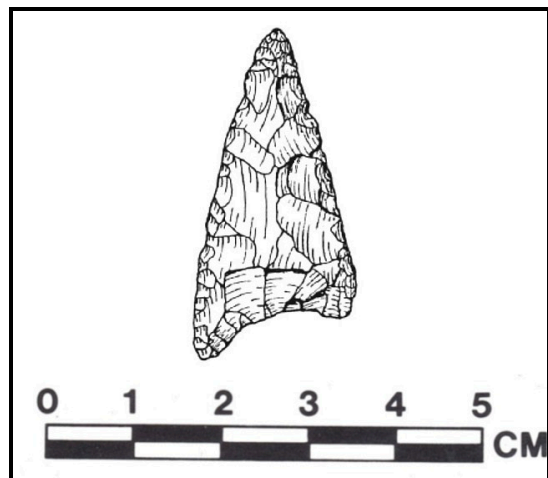
Flake Pattern

Bifacial retouch is irregular and may cover both faces; nevertheless, some specimens are simply edge retouched on the second face.

Distribution and Cultural Affiliation

They are found scattered across South-western Ontario from the Niagara Escarpment and Peninsula to the east to Lambton County in the west, and primarily within the Carolinian biotic province.

These triangular points are characteristic of the western early Ontario Iroquois.



DANIELS TRIANGULAR

AKA Madison →



Shape

The lateral edges of these triangular points are most commonly convex, while the base is usually concave. However, all edges can be convex, straight or concave, or any combination of these. Cross-sections are primarily lenticular.

Flake Pattern

There is a great variation in secondary flake scar attributes and distribution over these bifaces; however, the patterning is usually irregular and totally bifacial. Some specimens may exhibit only edge retouching on one or both faces.

Material

The majority of the Daniels Triangular points are manufactured of Onondaga chert, although some Ancaster and Kettle Point chert specimens have been recorded.



Date Range

1500-1600 CE

Dimensions

These generally small bifaces range from 17-41 mm in length, 9-27 mm in width, and 3-7 mm in thickness.

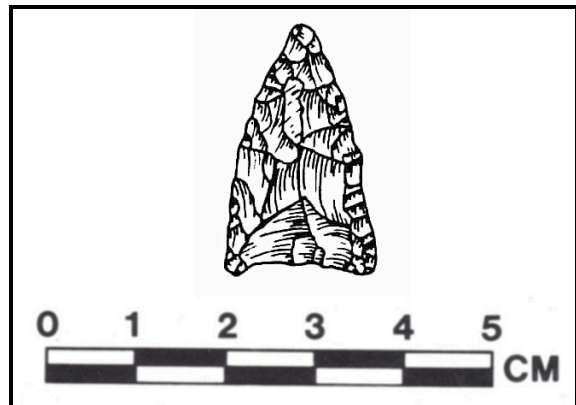
Distribution and Cultural Affiliation

These points occur throughout the Niagara Peninsula and the middle to lower Grand River drainage, as well as the Hamilton vicinity and Northeast to the Milton area. They have also been recovered from several village sites in Chatham.

Daniels points are characteristic of the Neutral culture during the historic period.

Notes

These small triangular bifaces were manufactured on flake blanks and probably served primarily as arrowpoints. Their variable form suggests that little time was expended in the manufacture of these points, which are abundant on late proto-historic Neutral villages.



NANTICOKE TRIANGULAR →



Date Range

1450-1500 CE

Dimensions

Nanticoke Triangular points range from 27-53 mm in length, 11-22 mm in width and 3-7 mm in thickness. The majority are between 30 and 45 mm in length.

Shape

The lateral edges are usually convex, but they can vary to straight or concave, while the base is usually concave. Convex bases do occur.

Flake Pattern

Irregular complete bifacial flaking characterizes the majority of these points; however, some examples display total secondary retouch over one face and only edge retouch on the other.

Material

Onondaga chert was the favoured material for their production, but some Kettle Point, Ancaster, and Selkirk specimens have been recorded.

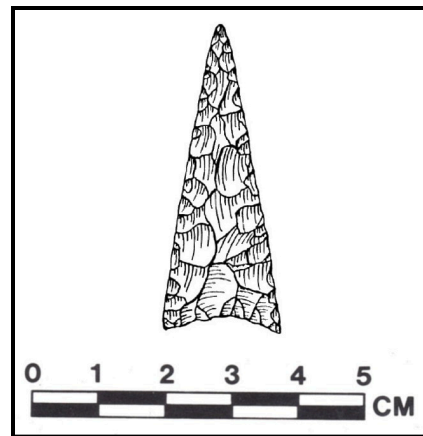
Distribution and Cultural Affiliation

These triangular points are found from Kent County in the west to east of Toronto and north into Simcoe county

Nanticoke Triangular points were used among prehistoric Neutral and Huron groups. As with the Nanticoke Notched form, most were manufactured by Neutral knappers; however, some appear to have been produced on Southern Division Huron villages.

Notes

This long isosceles triangular form may have continued in vogue to the east slightly longer than among the Neutral to the west. Nanticoke Triangular points are so similar in size and shape to the Nanticoke Notched form that many may have been intended as preforms for the latter.



NANTICOKE NOTCHED →



Date Range

1400-1450 CE

Dimensions

These points range in length from 24-55 mm, width 12-23 mm and thickness 3-7 mm.

Shape

Nanticoke Notched points are simply side notched isosceles triangular preforms. Lateral edges are usually convex, but may be straight or concave. Basal edge configuration ranges from convex to concave. Cross-sections are lenticular.

Flake Pattern

Irregular complete bifacial flaking characterizes the majority of these points; however, some examples display total secondary retouch over one face and only edge retouch on the other.

Material

Onondaga chert is the predominant raw material, however a number of specimens were manufactured of Kettle Point, Ancaster chert, and Selkirk chert.

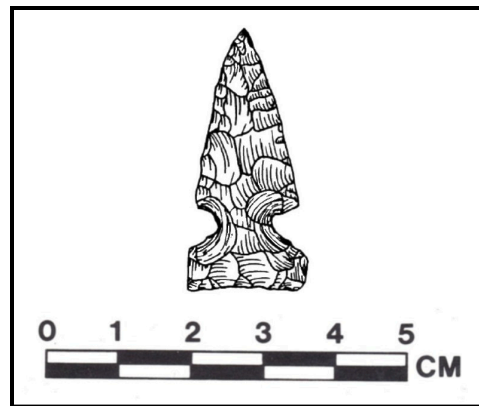
Distribution and Cultural Affiliation

Nanticoke Notched points are distributed throughout south-western Ontario. They have been found as far east as the St. Lawrence valley, and occur commonly as far north as the south shore of Georgian Bay.

This point form was used by Ontario Iroquoian groups. The vast majority were manufactured by prehistoric Neutral craftsmen, often at Onondaga chert outcrops workshop sites, while some appear to have been produced “in house” on the Parsons and Draper Southern Division Huron villages. Nanticoke Notched points have been recorded on many prehistoric Northern Division Huron and some St. Lawrence Iroquois villages.

Notes

It common to find these bifaces reworked as drills.



References - Fox, W.A. – 1981 Nanticoke Notched Points. KEWA 81-3.