

**AN UNUSUAL LATE PALEO-INDIAN PROJECTILE POINT FROM GREY COUNTY, SOUTHERN
ONTARIO**
PETER L. STORCK

ABSTRACT

A Late Paleo-Indian projectile point from southern Ontario is described and compared with other Late Paleo-Indian (Plano complex) material in the province. The white quartzite from which the point was made could be from the La Cloche Range on the north shore of Georgian Bay and thus may indicate north-south movements of early hunters. The point cannot be identified with any of the known Late Paleo-Indian manifestations and can only be classified within the inclusive Plano complex.

INTRODUCTION

The purpose of this paper is to describe an unusual Late Paleo-Indian projectile point of quartzite from Grey County in southern Ontario. The specimen was found in the city limits of Flesherton (Figure 1) in 1970 by Mr. Alistair Thomson, a teacher at Grey Highlands Secondary School in that community. The point was found in the Boyne River and approximately thirty feet south of a bridge on Highway 10. The river flows through a steep narrow valley at this location and the point has clearly been secondarily transported. Although it exhibits no clear evidence of water action, the point could have been carried some distance by the river or washed into the valley from higher ground in the immediate vicinity. Considering the condition of the point and its proximity to the bridge, it is also possible that it was transported to the site from a local quarry which provided sand and gravel fill used in highway and bridge construction.

DESCRIPTION OF THE POINT

The projectile point is quite large and was almost certainly hafted to a heavy thrusting or throwing spear. The specimen is 17.8 centimeters (7 inches) long, 4.6 centimeters (1⁻³/₈ inches) wide, and, except at the base and tip, uniformly 8.0 to 10.0 millimeters thick which is quite thin considering its overall size. The cross-section of the blade is symmetrically bi-convex and exhibits no beveling such as is frequently observed on points which have been unequally flaked on alternate margins of both faces. The sides of the specimen converge slightly toward the base which is approximately 2.7 centimeters wide. The base was carefully flaked and then lightly ground which produced a basal concavity with a smooth outline and a depth of 1¹/₈ to 2.0 millimeters. The lateral edges of the blade near the base were also ground but to a lesser extent so that the projecting ridges between adjacent flake scars along the edge were only smoothed and not entirely eliminated. Consequently, these edges still retain the uneven outline produced by flaking.

Certainly the most striking feature of this projectile point, considering its size and the material from which it was made, is the fact that it clearly exhibits oblique transverse flaking. This is particularly evident on the obverse face (Figure 2). The term oblique transverse flaking, taken from Wormington (1957), refers to the removal of flakes from opposite margins of the same face which are slightly oblique to the long axis of the specimen and which overlap in the center of the blade thus preventing, whether intentionally or not, the formation of a median ridge. On this specimen, the flake scars are shallow, generally rectangular in shape, and from the mid-section to the base, are of roughly uniform size. Irregularities along the lateral edges of the blade were trimmed by marginal retouch which produced very short concoidal or contracting flake scars.

The point is made of fine-grained white quartzite. The nearest bedrock source of

quartzite of this color and quality is the La Cloche Range located approximately 150 miles to the north along the shores of Georgian Bay and the North Channel between Killarney Provincial Park on the east and the mouth of the Spanish River on the west. La Cloche quartzite also occurs in outcrops on the northern part of Manitoulin Island. If, as seems likely, the point was actually made from material obtained directly from a bedrock source rather than from glacial drift, then it indicates the southward movement of a group of Late Paleo-Indian hunters from northern into southern Ontario. This could either have been a one-way "migration" or a seasonal movement. There are two possible routes which could have been used: (1) around the eastern shore of Georgian Bay or, the most intriguing possibility, (2) directly across a land bridge connecting Manitoulin Island and the Bruce Peninsula. A complete or nearly complete land bridge would have existed from sometime prior to 8000 to approximately 7000 B.C. when the levels of several successive post-glacial lakes were at least 100 feet below the present level of Lake Huron (see Prest, 1970; and discussion by Savage, 1971). In fact, Savage (Ibid, pp. 3945) has recently suggested that this may have been a route of entry for caribou (*Rangifer tarandus*) into southern Ontario.

Flesherton is located near the head of the Beaver valley (Figure 1) which is a major gap in the Niagara escarpment. The valley is approximately six and one-half miles wide at its mouth near Georgian Bay and extends approximately twenty-five miles inland (to the south) becoming gradually narrower until it terminates just north of Flesherton on the upland surface of the Niagara cuesta. In the Collingwood area, the Niagara cuesta reaches its highest elevation in southern Ontario — over 1000 feet above Georgian Bay. The escarpment bordering the cuesta and the re-entrant Beaver valley is quite rugged forming steep slopes from 600 to 800 feet high with the upper 50 or 100 feet often forming near vertical cliffs. Cutting through the escarpment, the Beaver valley would have provided a fairly easy route by which man and/or game animals could have moved from the lower lying regions to the north and east around Georgian Bay to the top of the Niagara cuesta and hence to the southwestern part of the province. Elsewhere (Storck, 1971), I have suggested that Paleo-Indian hunters in Ontario may have hunted migratory herds of barren ground caribou as they passed through the major gaps in the escarpment in their seasonal movements across the province. While this hypothesis is dramatically suggested by the location of the Flesherton point, it can, of course, only be demonstrated by the discovery of a consistent pattern of distribution of surface finds and campsites or kill sites in the larger gaps and, more conclusively, by the recovery of preserved bone of barren ground caribou.

COMPARISONS

Both the lanceolate outline and the style of flaking identify this specimen as a Plano or Late Paleo-Indian projectile point. Unfluted lanceolate points of this and related types are generally regarded as having been made in the Great Lakes region between approximately 6000 and 9000 B.C. These dates are based on geochronological evidence of the maximum age of Late Paleo-Indian sites located on elevated beaches in this region as well as on radiocarbon dating of sites occupied by related peoples in the plains. Three sites in northern Ontario provide evidence at about this time. These are the Brohm site (MacNeish, 1952) on the northern shore of Lake Superior a short distance east of Thunder Bay, the Sheguiandah site (Lee, 1954, 1955, 1957) in the northeast corner of Manitoulin Island, and the nearby George Lake I site (Greenman and Stanley, 1943; Greenman, 1966) in Killarney Provincial Park. A fourth, the Cummins site which is also in the Thunder Bay area, is a taconite quarry campsite similar to Brohm but it is as yet unpublished (MacDonald, 1970). In a general sense these sites were all occupied by related peoples at this time horizon but, because of their geographic proximity and the raw material used, the Sheguiandah and George Lake I sites offer the closest comparisons to the projectile; point described in this paper.

At Sheguiandah, at least nine and possibly as many as eleven lanceolate projectile points

can be assigned, on typological grounds, to one or perhaps several Late Paleo-Indian occupations at the site (Lee, 1954, Figure 35, numbers 1, 3, and 4, p. 104; Lee, 1955, Figure 30, number 4, p. 63; and Lee, 1957, Figure 4, numbers 7, 8, 12, 13, and 14 and possibly 9 and 10). These points vary to a considerable extent in general outline, basal configuration, and nature and quality of flaking. One point has a short broad stem not unlike those on Scottsbluff points while the other specimens have sides which contract slightly toward the base, are straight, or, in one instance, actually expand toward the base. The bases are frequently straight or slightly convex but, in only one instance, distinctly concave. From the published drawings and an examination of the specimens on loan to the Royal Ontario Museum from the National Museum of Man, only four of the eleven points exhibit oblique or horizontal transverse and collateral flaking and this is only really pronounced on one specimen. Consequently, while several points exhibit one or another of the attributes found on the specimen described in this paper, no single specimen exhibits the same combination of attributes. It is not known what possible significance, if any, these differences may have in terms of cultural relationships.

Sheguiandah is located just below the Sheguiandah-stage, one of the post-Algonquin lake phases, and consequently could have been occupied for the first time by Paleo-Indian peoples after the lake fell from this level (Hough, 1958, footnote, p. 234). At the present time all of the post-Algonquin lake phases are estimated to date from approximately 8500 to 9000 B.C. (Flint, 1971) with the Sheguiandah-stage occurring in the latter part of this interval. In Swamp 3 near the top of the quartzite hill on which the site is located, a radiocarbon date of 7180 B.C. (W-345, Lee, 1956) was obtained from peat samples near the base of a five foot section of peat overlying strata containing flakes and cores. This indicates that the site was occupied at least sometime prior to 7000 B.C. but how much earlier is of course unknown. The artifacts, unfortunately, are not diagnostic enough to determine the cultural affinities of these early occupants but, considering the time period, they were probably the same peoples responsible for the lanceolate projectile points.

One lanceolate projectile point and fragments of two stemmed and one side-notched point were recovered from the George Lake I site together with a large number of quartzite implements and debitage (Greenman, 1943, 1955, 1966; Greenman and Stanley, 1943). The stemmed points clearly resemble Eden-Scottsbluff points of the Late Paleo-Indian Cody complex in the western United States and Canada. The lanceolate point (Greenman, 1966, Figure 5, no. 30005, p. 542) is somewhat shorter but approximately the same width as the one described in this paper and is similar in form except for the fact that the base is straight. Unfortunately the specimen is heavily water worn and the flaking is indistinct but it does not appear to have been collaterally or transversely flaked, at least on the illustrated face.

The elevation of the site suggests that it is probably located on a beach of the Cedar Point stage, one of the post-Algonquin lake phases (Stanley cited in Quimby, 1959, 1960). Consequently, the site could have been occupied for the first time during the period following Lake Algonquin but preceding Lake Chippewa-Stanley. In 1959, this interval was believed to date between 7000 and 6000 B.C. (Hough, 1958; Quimby, 1960). In 1963, this was revised to between 8500 or 8000 and 7500 B.C. (Hough, 1963; Quimby, 1963) and more recently this interval has been pushed back even earlier to between 9200 or 9000 and 8500 B.C. (Flint, 1971). This provides only a maximum possible age for the site and it could have been occupied much later. As previously mentioned, the stemmed points are similar to Eden-Scottsbluff points of the Cody complex which has been reasonably well-dated between 6000 and 7000 B.C. (see for example Haynes, 1967; Wheat, 1971). This may actually provide a better estimate of the age of the George Lake site unless, of course, Eden-Scottsbluff and related points are earlier in the east than in the west, a possibility which has been suggested (Griffin, 1956) but not as yet demonstrated. The side-notched point is not inconsistent with a date of 6000 to 7000 B.C. considering the early dates and age estimates obtained for typologically similar points in the Middle West (Agogino and Frankforter, 1960; Fowler, 1959). Furthermore, the base of a

side-notched point quite similar to the one from the George Lake site was found directly associated with Eden and Scottsbluff points at the Renier site in Wisconsin which may have been occupied, at the earliest, during falling levels of glacial Lake Algonquin (Mason and Irwin, 1960).

At the Brohm site, twelve projectile points and a number of other stone tools including large bifaces and a transversely flaked end scraper were recovered from excavations and surface collections (MacNeish, 1952). Six or possibly seven lanceolate points were classified by MacNeish as Plainview points. These are made of both chert and taconite. The complete points are much smaller and more rectangular in shape near the base than the specimen described here but are similar in having concave bases and transverse as well as collateral flaking, sometimes on the same specimen. The site is located on the upper part of the Minong series of beaches (Quimby, 1960) and therefore could have been occupied, at the earliest, between approximately 8700 and 8500 B.C. (Flint, 1971).

The only other published information on probable Late Paleo-Indian material in Ontario is Ritchie's description (1965, pp. 17-18; Plate 3, p. 18) of seven projectile point fragments from Thompson's Island in the St. Lawrence River near Cornwall in the southeastern part of the province. The points are narrow and quite thin and have straight or slightly convex bases and collateral flaking. Except for the lack of a distinct stem, these points are reminiscent of Eden points which are also relatively narrow and were collaterally and transversely flaked. The specimens from Thompson's Island are comparable to the point described here only in terms of quality of flaking.

Projectile points very similar to the one described in this paper have been reported from New York (Funk and Schambach, 1964, Plate 1, upper left and lower left and right) and Ohio (Prufer and Baby, 1963, Figure 10, p. 20; Pi-Sunyer, Blank, and Williams, 1967, Figure 3, f, p. 248). In New York, the few Late Paleo-Indian points which have been reported occur sporadically in the central and eastern part of the state and because of the limited amount of material Funk and Schambach doubt whether a Plano complex existed. They suggest that the lanceolate points may have been derived from Plano groups to the west such as in Ohio — and incorporated into early Archaic complexes in New York. In Ohio, most of the Plano material occurs in the northern half of the state and particularly in the region of Lake Erie. Unfortunately, points comparable to the one described here have not been found in clearly-defined and dated assemblages of associated tools.

CONCLUSIONS

In summary, geochronological evidence suggests that Late Paleo-Indian peoples may have occupied parts of Ontario during or immediately following the post-Algonquin and Lake Minong phases presently dated between approximately 9000 and 8500 B.C. These dates, however, do appear to be somewhat early considering the Paleo-Indian chronology in the west. Consequently, it should be stressed that these geological estimates provide only a rough "base date" which is subject to revision as the chronology of the glacial and post-glacial lake sequence is modified and, particularly, as other sites are located providing an opportunity for more direct dating of archaeological materials. As the above discussion indicates, a variety of Late Paleo-Indian projectile point styles occur in Ontario and a survey of university, museum, and private collections would undoubtedly add to this. What possible cultural and temporal significance these various styles may have is presently largely unknown although it does appear as though several distinct Late Paleo-Indian complexes may be present. The projectile point described in this paper cannot definitely be related to the other Late Paleo-Indian manifestations described above and, like them, must, for the present time at least, simply be classified within the inclusive Plano complex.

ACKNOWLEDGMENTS

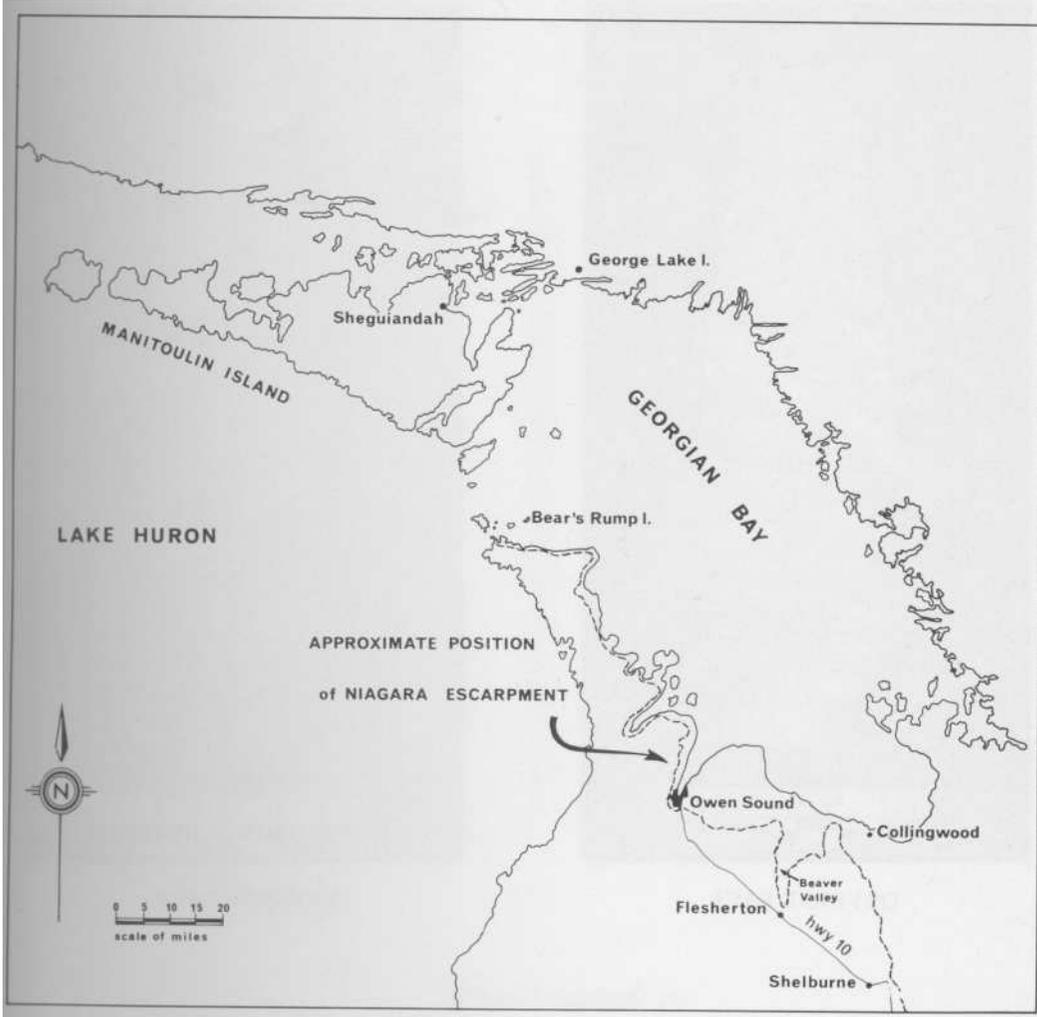
I would like to express my appreciation to Mr. Alistair Thomson for lending the specimen to the Royal Ontario Museum and to Mr. G. Little who first brought it to my attention. I would also like to thank Dr. W. Tovell, Associate Director (former Curator of the Geology Department) Royal Ontario Museum, for examining the specimen and discussing with me its possible bedrock source. Mr. Peter Cox, Assistant Conservator, Conservation Department, prepared the specimen for photography and Mrs. J. Hosek, Technician II in the Office of the Chief Archaeologist, made the excellent drawings. The photographs were painstakingly taken by Mr. B. Leech, Associate Curator I/C of the Conservation Department.

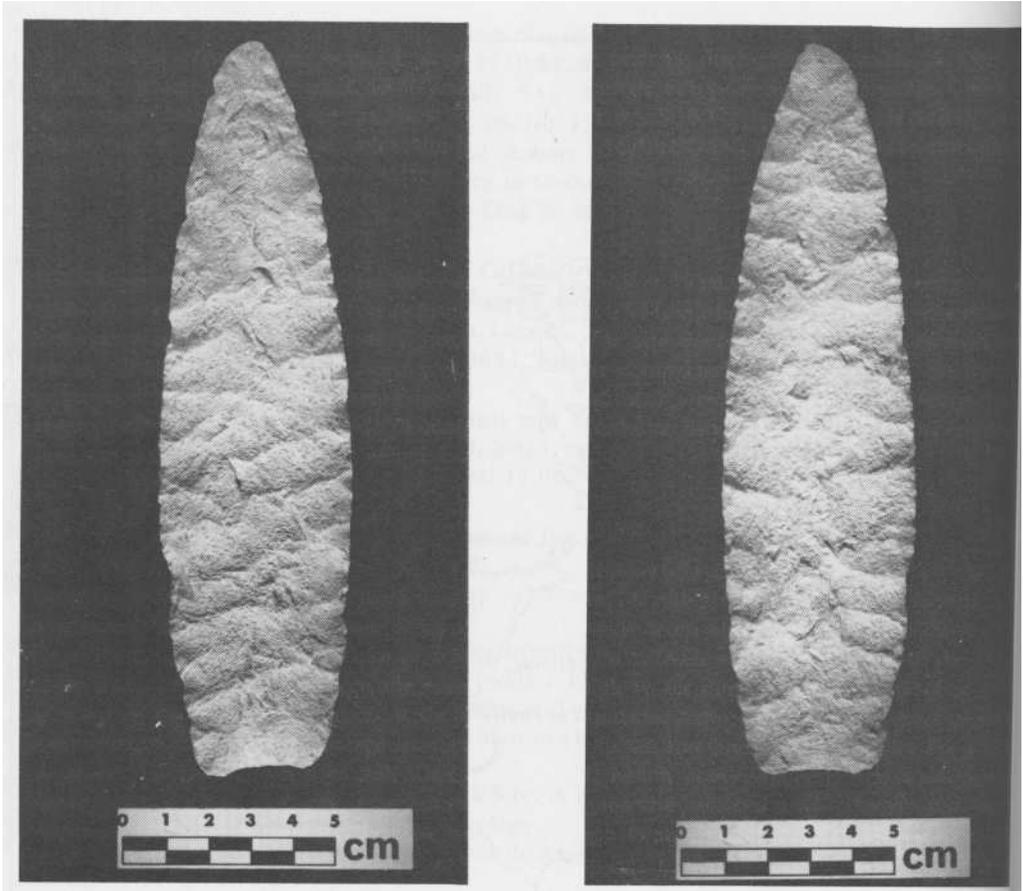
As quartzite is very difficult to photograph, the artifact was lightly coated with grey paint soluble in alcohol in order to emphasize the flake scars. The photographs were taken with a Polaroid MP-3 Multi-Purpose Industrial View Land Camera using Polaroid Type 55 black and white film.

REFERENCES CITED

- Agogino, George A. and W.D. Frankforter, 1960. "A Paleo-Indian Bison Kill in Northwestern Iowa". *American Antiquity*, Vol. 25, No. 3, pp. 414-415.
- Flint, Richard Foster, 1971. *Glacial and Quaternary Geology*. John Wiley and Sons, Inc., New York.
- Fowler, Melvin L., 1959. "Summary Report of Modoc Rock Shelter". *Illinois State Museum Report of Investigations*, 8. Springfield.
- Funk, Robert E. and Frank F. Schambach, 1964. "Probable Plano Points in New York State". *Pennsylvania Archaeologist*, Vol. 34, No. 2, pp. 90-93.
- Greenman, E.F., 1943. "An Early Industry on a Raised Beach Near Killarney, Ontario". *American Antiquity*, Vol. 8, No. 3, pp. 260-265.
- 1955. "Wave Action at George Lake I, Ontario". *American Antiquity*, Vol. 20, No. 4, pp. 376-377.
 - 1966. "Chronology of Sites at Killarney, Canada". *American Antiquity*, Vol. 31, No. 4, pp. 540-551.
- Greenman, Emerson F. and G.M. Stanley, 1943. "The Archaeology and Geology of Two Early Sites Near Killarney, Ontario". *Papers of the Michigan Academy of Science, Arts and Letters*, Vol. 28, pp. 505-531.
- Griffin, J.B., 1956. "The Reliability of Radiocarbon Dates for Late Glacial and Recent Times in Central and Eastern North America". In, *Papers of the Third Great Basin Archaeological Conference*, edited by Robert Anderson, pp. 10-34. *University of Utah, Anthropological Papers*, No. 26. Salt Lake City.
- Haynes, C. Vance, Jr., 1967, "Carbon-14 Dates and Early Man in the New World". In, *Pleistocene Extinctions: The Search for a Cause*, pp. 267-286, edited by P.S. Martin and H.E. Wright, Jr. Volume 6 of the Proceedings of the VII Congress of the International Association for Quaternary Research. New Haven and London, Yale University Press.
- Hough, Jack L., 1958, *Geology of the Great Lakes*. University of Illinois Press, Urbana.
- 1963 "The Prehistoric Great Lakes of North America". *American Scientist*, Vol. 51, pp. 84-109.
- Lee, Thomas E., 1954. "The First Sheguiandah Expedition, Manitoulin Island, Ontario". *American Antiquity*, Vol. 20, pp. 101-11.
- 1955. "The Second Sheguiandah Expedition, Manitoulin Island, Ontario". *American Antiquity*, Vol. 21, No. 1, pp. 63-71.
 - 1956. "Position and Meaning of a Radiocarbon Sample from the Sheguiandah Site, Ontario". *American Antiquity*, Vol. 22, No. 1, p. 79.
 - 1957. "The Antiquity of the Sheguiandah Site". *The Canadian Field Naturalist*, Vol. 71, No. 3, pp. 117-137. Ottawa.

- MacDonald, George F., 1971. "A Review of Research on Paleo-Indian in Eastern North America, 1960-1970". In, Papers from a Symposium on Early Man in North America New Developments: 1960-1970, held at the American Anthropological Association Meetings, San Diego, California, Nov. 18-22, 1970. *Arctic Anthropology*, Vol. VIII, No. 2, pp. 32-41.
- MacNeish, Richard S., 1952. "A Possible Early Site in Ontario". Annual Report of the National Museum of Canada for the fiscal year 1950-51, *Bulletin 126*, pp. 23-47. Ottawa.
- Mason, Ronald J. and Carol Irwin, 1960. "An Eden-Scottsbluff Burial in Northeastern Wisconsin". *American Antiquity*, Vol. 26, No. 1, pp. 43-57.
- Pi-Sunyer, Oriol, John Edward Blank, and Robert Williams, 1967. "The Honey Run Site (33co-3): A Late Paleo-Indian Locality in Coshocton County, Ohio". In, *Studies in Oki(Archaeology*, pp. 230-251, edited by Olaf H. Prufer and Douglas H. McKenzie. Western Reserve University Press, Cleveland.
- Prest, V.K., 1970. "Quaternary Geology of Canada". Chapter XII from *Geology and Economic Minerals of Canada*, Economic Geology Report No. 1, Fifth edition. Department of Energy, Mines, and Resources, Ottawa, Canada.
- Prufer, Olaf H. and Raymond S. Baby, 1963. "Palaeo-Indians of Ohio". The Ohio Historical Society, Columbus, Ohio.
- Quimby, George I, 1959. "Lanceolate Points and Fossil Beaches in the Upper Great Lake Region". *American Antiquity*, Vol. 24, No. 4, pp. 424-426.
- 1960 *Indian Life in the Upper Great Lakes: 11,000 B.C. to A.D. 1800*. University of Chicago Press.
- 1963. "A New Look at Geochronology in the Upper Great Lakes Region". *American Antiquity*, Vol. 28, No. 4, pp. 558-559.
- Ritchie, William A., 1965. *The Archaeology of New York State*. The Natural History Press, Garden City, New York.
- Savage, H.G., 1971. "Faunal Analysis of the Inverhuron Site (BdHj-16)". In, "*Palaeoecology and Ontario Prehistory*", pp. 7-85, edited by W.M. Hurley and C.E. Heidenreich, Department of Anthropology, University of Toronto, Research Report No. 2, Toronto.
- Storck, Peter, 1971. "The Search for Early Man in Ontario". *Rotunda*, Fall, Vol. 4, No. 4, pp. 18-27.
- Wheat, Joe Ben, 1972. "The Olsen-Chubbuck Site: A Paleo-Indian Bison Kill". Memoir Number 26 of the Society for American Archaeology.
- Wormington, H.M., 1957. *Ancient Man in North America*. Denver Museum of Natural History, *Popular Series No. 4*, Denver.





OBVERSE FACE

REVERSE FACE

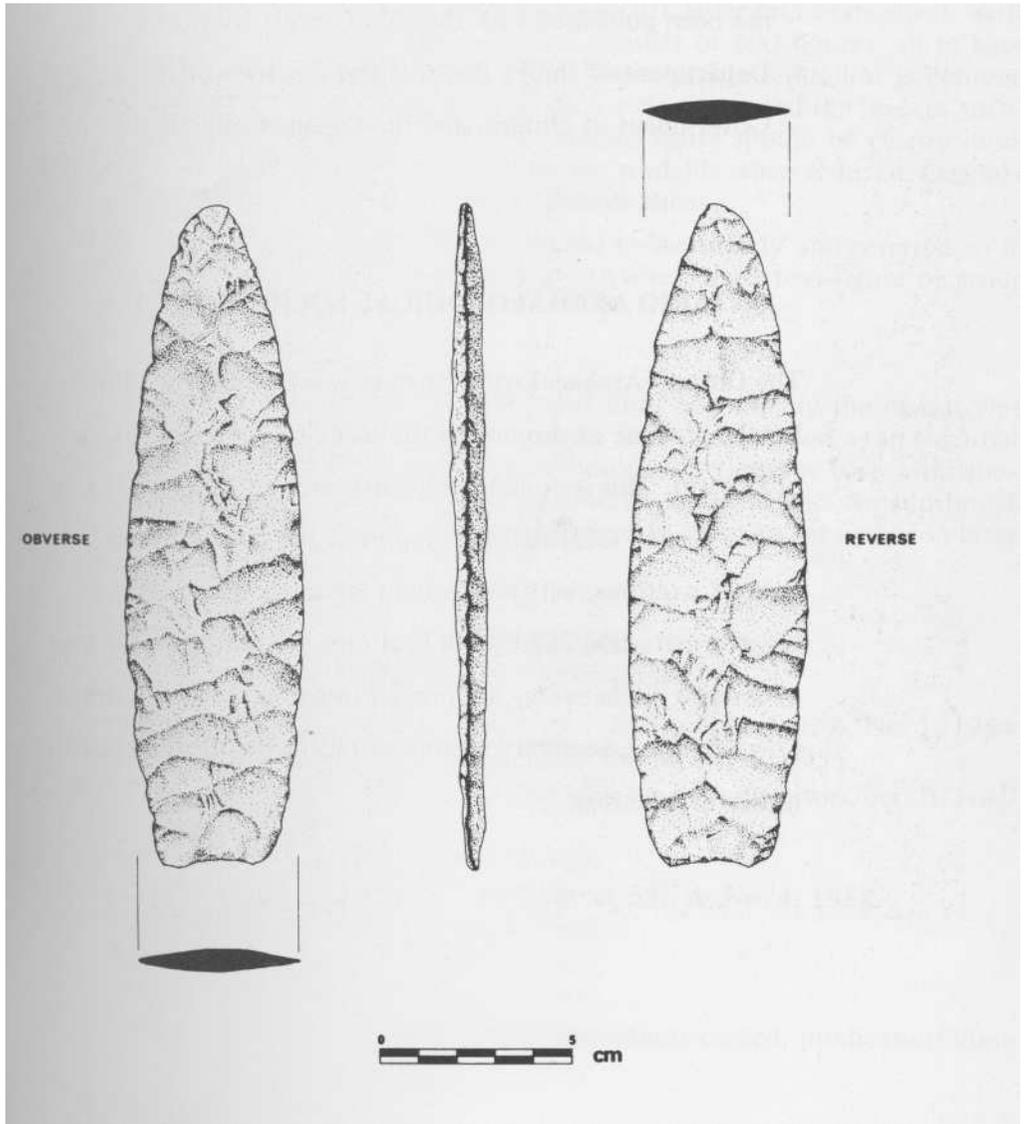


FIGURE 2