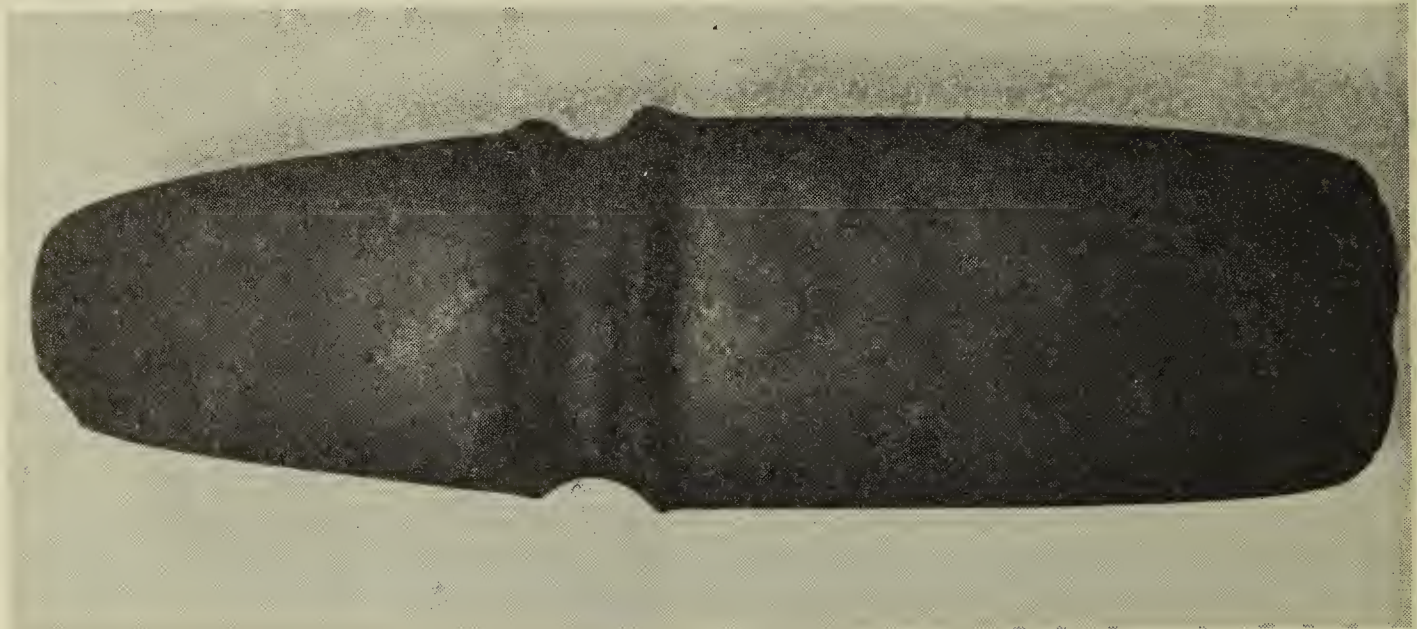


Unusual Stone Axes

By **Bruce A. McCorquodale**, Saskatchewan Museum of Natural History.



BROADVIEW AXE

Photo by R. W. Fyfe

The above illustration shows an unusual stone axe which was found in 1955 in a field (NW $\frac{1}{4}$ -35-15-6-W2) by Mr. Sid Fathers, Broadview, Sask. Mr. Father's courtesy and consideration in loaning the axe to the Museum made it possible to photograph it (see *Blue Jay*, Vol. 16:135 and back cover). The author is indebted to Leslie Beck, Department of Mineral Resources, for assistance in the analysis of the rock composition.

The material from which this artifact has been made is a dense, highly consolidated and slightly metamorphosed sandstone to which the name "greywacke" can be arbitrarily assigned. Field stone or greywacke occur in the glacial drift in the eastern half of Saskatchewan. Greywacke probably represents a sediment of Pre-Cambrian age and must have originated in a formation in an unknown locality in northern Manitoba or northern Saskatchewan. This material seems to be well suited to production of large artifacts. It has an amorphous structure with little or no indication of planes of fracture. It is dense, fine grained and soft enough to be easily shaped by pecking or grinding but hard enough to resist breakage and erosion. It readily absorbs greases and oils so that ordinary handling of the material will change its normal grey colour to black. Because of the black-stained surface of this axe it

is easily mistaken for a basic volcanic rock.

This specimen exhibits damage only in the form of one large chip removed from the upper end and four small chips removed from the lower or cutting end. Although it may appear to be double-bitted in the illustrations, only the longer end has been sharpened. The smaller end has been smoothly rounded on its edge suggesting that its prime function may have been to provide balance to the axe. For the purposes of this description I have designated the smaller end from the flanges outward the "poll," and the other end from the flanges outward the "bit."

The axe has a highly polished surface everywhere except in the groove between the flanges. In the groove there is indication of only minor polish on a coarse surface texture which suggests that pecking was the technique used in shaping the groove, as well as the whole axe. Prominent areas of polish within the groove, most noticeable near the larger notch, probably evidence movement of the axe within its handle or binding. The larger size and lack of confluence with the groove suggest that the concentric notch (uppermost in illustration) accommodated the end of a handle. This is substantiated by a pronounced flattening of the face of this notch.

The faces of the poll and bit form shallow, even curves in both lateral and longitudinal cross-sections. The side edges have been flattened to a width of 5-6mm. for the greater part of their length and taper down quite abruptly near their ends. All evidence of original shaping technique has been erased during the process of polishing. However, examination by microscope has yielded information about the finishing method employed by the maker. The abrupt juncture of the polished top rim of the flanges with the unpolished groove indicates that the axe may have been hafted before the final polishing process was applied. This juncture would be less distinct if the groove had not been occupied by a binding while an abrasive was being applied to the adjacent surfaces. Surface scratches indicate that both fine and coarse grit were used in the finishing process. A fine abrasive was used for the final polish of the faces of the poll and bit. In all determinable instances the polishing strokes seem to have been applied from the flanges outward in a direction parallel to the longitudinal axis. On the poll these strokes passed over and around the end, thus producing a rounded effect at the apex. In the angles between the flanges and faces of the poll and bit, were observed coarse scratches paralleling the flanges. These had been partially removed by the finer abrasive used in the final polishing of the faces.

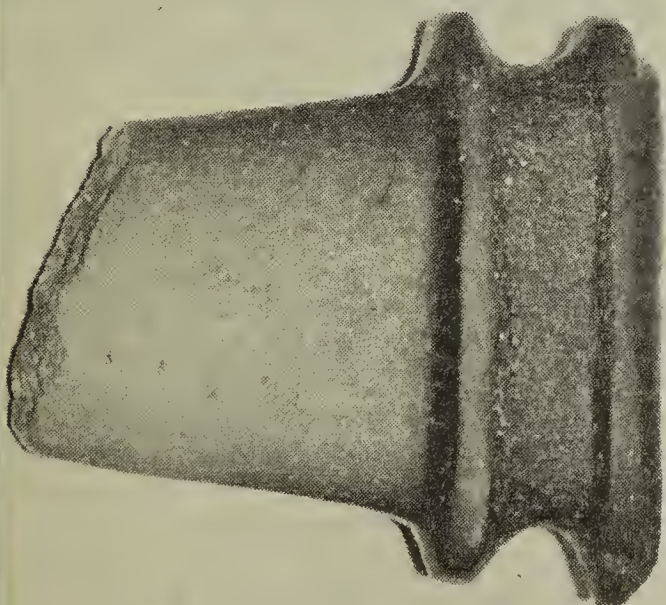


Photo by R. W. Fyfe
Erickson Axe

Superimposed scratches indicate that sharpening of the cutting edge of the bit was the final act of finishing. A coarse abrasive was used for this, in a direction parallel to the cutting. On both faces the area is approximately one-half inch in width.

An incomplete stone axe (see photograph) which appears to have the same basic form as the axe described above was found by Mr. J. Chaydor near Erickson, Manitoba on NW $\frac{1}{4}$, 8-17-18W1. It was received by the Saskatchewan Museum of Natural History through the courtesy of Mr. W. Blight, Regina, Saskatchewan, on September 19, 1952, and has been placed in the Museum's archaeological collection under No. 5577.

Since the end of one blade is missing it is not possible to determine definitely whether the remaining blade represents the bit or the poll of the axe. However the high degree of taper of the sides leads the author to regard this end as the poll of the axe. This is further substantiated by the relatively greater width of the base of the missing blade at the point of fracture.

Although this specimen is not complete enough to permit a comprehensive comparison, the similarities between this fragment and the complete axe described above are very striking. Both are composed of grey-wacke and have the same high polish on the surface of the poll and flanges, the same unpolished surface in the groove and the same flattened side edges on the poll. Their differences are of minor significance. The incomplete axe appears to have been larger and lacks the crescent notch evident on one side of the other specimen. There is only slight evidence of the polishing methods employed in finishing this axe. However, where discernible, surface abrasions would seem to indicate that a similar method was employed to finish both axes.

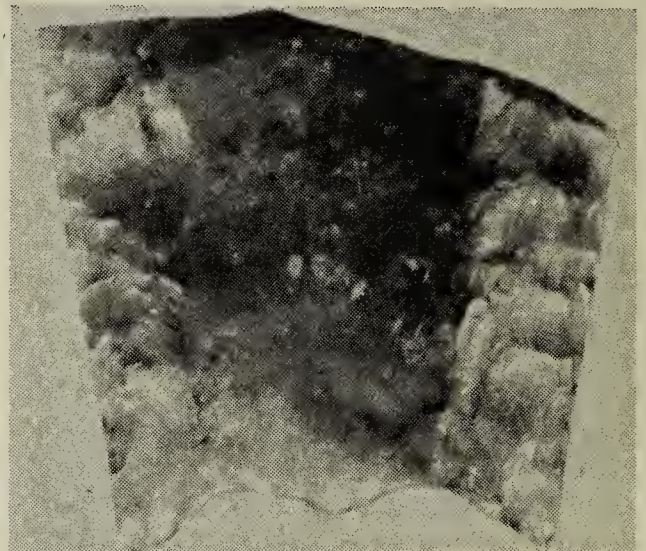
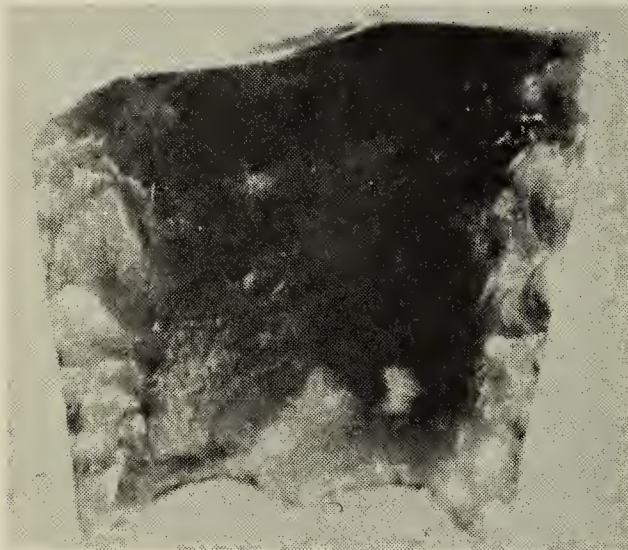
Only one other similar axe has come to the attention of the author. It is a slightly longer axe of similar form and material found by Mr. E. B. Dimmock on his ranch 10 miles south of Tompkins, Saskatchewan, and examined by the author a few years ago.

Additional information concerning similar artifacts will be welcomed by the Museum.

Comparative Dimensions (in mm.) of Broadview and Erickson Axes

	Broadview Specimen	Erickson, Man. Specimen
Length	316.0	126.0 (incomplete)
Maximum thickness (apex of upper flange).....	29.0	34.5
Maximum thickness of bit (base of flange)	19.5	
Maximum thickness of poll (base of flange).....	19.5	22.0
Maximum width (apex of lower flange)	96.0	117.0
Maximum width of bit (base of flange)	92.5	
Maximum width of poll (base of flange)	85.5	84.0
Width of cutting edge	73.0	
Weight	1093 grams	

RARE FLUTED POINT FOUND



Photos by R. W. Fyfe

The above photographs show the two sides of a basal fragment of a fluted projectile point of the classic Folsom type (2 x natural size). This was recently submitted to the Museum for examination by Stanley M. Durr, Bromhead, Saskatchewan. It was found by Mr. Durr on the surface in the Bromhead district.

The point is made from brown chalcedony (Knife River flint); the edges of the base and sides are heavily ground. An extremely skilfull and

well-controlled technique of flint-working is evident. One cannot but admire the artistry of the early hunters of perhaps 10,000 years ago who produced these scarce artifacts.

A few other fluted points have been described in the *Blue Jay* (Vol. 16:42-43) and the Museum has records of fluted points from Jameson, Kamsack, McCord, and Weyburn.—Robert W. Nero, Saskatchewan Museum of Natural History.

ARCHAEOLOGICAL POSITION ANNOUNCED!

Word has just been received that the Museum has been granted approval of its request for a curatorial position in archaeology and ethnology. The position is already being advertised and it is hoped that an appointment may be made after January 1, 1959. This is an important event in the development of the Museum since this is the first official research position to be established.

This augurs well for the acceptance of our Museum as a scientific institution. We look forward with anticipation to an orderly development of

archaeological research. It seems highly likely that this programme will yield considerable information about the prehistory of mankind in the Northern Plains. Archaeologists throughout North America have already expressed a strong interest in the three scientific excavations which have been conducted in Saskatchewan. Dr. H. Wormington has suggested that this region may hold the key to the prehistory of the Plains. Congratulations to the Museum and the Department of Natural Resources. — Editor.