

ART. X.—ABORIGINAL REMAINS OF NOVA SCOTIA.—ILLUSTRATED
BY THE PROVINCIAL MUSEUM COLLECTIONS.—BY
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Read May 13, 1889.

In the following paper I shall confine myself to remarks upon such specimens of aboriginal work as are preserved in the Provincial Museum.

The archæology of our Province has already received the attention of a few of our members. In the Transactions of the Institute, Vol. III, pp. 220–231, Dr. J. Bernard Gilpin has given us an account of Nova Scotia in the stone age. Since then, more material for study has been obtained, and more light has been thrown upon the subject. Recently, a paper has been read before the Society in which a general view of Nova Scotian archæology is presented. All I wish to do is to bring into notice the excellent, and hitherto almost undescribed, collection of Nova Scotian specimens displayed in the cases of our Museum; and, when possible, to make use of similar implements, &c., from other parts of the world, by way of illustration and comparison. For this purpose the Museum Collections will also be resorted to.

According to the arrangements of the Museum, the articles are separated into two divisions, namely, the "General," and the "Webster," Collections. The former is composed of objects collected by various persons from many localities. The latter was presented by the gentleman whose name it bears—Dr. Webster, of Kentville, N. S.

Unfortunately, most of the specimens are unlabelled, consequently their particular localities cannot be ascertained. In classifying and arranging the collections, I have in general used the nomenclature of the Smithsonian Institute, as given in "Contributions to Knowledge," No. 287.* In some respects, however,

* Rau: Archæological collections of the U. S. National Museum, 1876.

I have deviated slightly from the plan of that work in order to meet the requirements of the case. Many specimens, set down as arrow-heads, may have been hafted and used as cutting tools, while others may have been small spear-heads. Considering, however, the fact that it is impossible to draw a distinction between a large arrow-head and a small spear-head, or, in many cases, to distinguish a cutting implement from either of the above, I have decided to classify them all as either arrow, or spear-heads. Those above 3.85 inches in length I designate by the latter name; those below 3 inches by the former.

I. STONE.

A. FLAKED AND CHIPPED STONE.

Raw Material.—In a small collection of various articles from Starr's Point, Kings Co., are three or four large fragments of agate and jasper, which were evidently intended to be worked into implements.

Flakes.—The collection contains a beautiful series of chips from Bachmann's Beach, Lunenburg County. They were presented by Mr. Lewis Anderson. The materials are agates, jaspers, porphyrites, &c. They were produced during the manufacture of the succeeding implements. Some of these flakes could be, and possibly were, used as primitive cutting tools, and scrapers for rounding and finishing articles of wood and bone.

Unfinished Arrow and Spear-heads.—Thin, neatly chipped, and regularly shaped specimens are doubtless unfinished spear or arrow-heads. They are convex-sided with a truncated base. Before me is a series showing the transition from the incomplete, to the finished weapon. Here is the truncated convex-sided implement. Next, we have another of the same form, but with one side notched. And lastly, the complete arrow-head notched on both sides. Omitting the notches, the form in each is precisely the same.

Arrow-heads.—These are the most abundant aboriginal relics

represented in the collection. Most of them are from the seat of the arrow-maker's operations at Bachmann's Beach, Lunenburg Co. There are fifty complete heads together with about thirty-five incomplete ones. These latter have been either fractured whilst still in the hands of the arrow-maker, or damaged by striking some hard object, during their flight. Among the arrow-heads obtained at Bachmann's Beach, are some which were broken while in process of being made. The parts have been recovered and fitted together. These attest to the difficulty of working such fragile materials as were employed by our men of the stone age. After toiling at the delicate point before him, the swarthy craftsman, by an unlucky slip of his flaking instrument, spoiled his work. It was thrown to one side, where, centuries afterwards, the pieces were found and fitted together, and the complete arrow-head is now lying before us.

The forms of these implements are various:—Leaf-shaped; convex-sided with truncated base; straight-sided with slight concave base; notched at the sides near the base, which is straight, concave or convex; stemmed, expanding, straight, or tapering; barbed and stemmed.

In the Webster collection there is one arrow-head of decidedly foreign appearance. It is most beautifully wrought, being bevelled along both edges on opposite sides. This corresponds with an arrow-head from Texas, now in the Museum. From its appearance, I doubt very much if Dr. Webster obtained his specimen in Nova Scotia. As that gentleman has left no record of the place where it was found the question must remain undecided.* The material of which it is made agrees exactly with that of a well finished (notched) spear-head in the same collection. Some of the undoubted Nova Scotian specimens are beautiful pieces of workmanship.

Spear-heads.—There are, in the collection, six specimens which I have designated spear-heads. The first is a fine example of masterly workmanship. Its length is 7.90 inches, its greatest thickness .50, and its greatest breadth 2.75 inches. In form, it is

* Dr. Patterson tells me that he has obtained a portion of a similar head, but of inferior finish, from Yarmouth County, N. S.

nearly symmetrical. It has a straight stem, the base of which is also nearly straight. The sides are moderately convex. It is formed of a jaspideous rock of a yellowish colour. With it might be compared an implement of inferior workmanship in Dr. Patterson's collection (No. 85.) This is designated a "(supposed) Spade." If the maker of this last implement had continued his operations somewhat further, by notching it on either side so as to form a stem, it would constitute an efficient, if perhaps somewhat clumsy and broad, spear-head. Our specimen, as on inscription upon it informs us, was found in an Indian grave.

Another spear-head in the Museum is imperfect and somewhat rudely formed, but it was originally almost equal in size to the above. Yet another specimen is short and thick, and may have been used as a cutting implement of some description. A broken spear-head is interesting from the fact that it is fashioned from slate and polished. If this is aboriginal work it must have been used only as a ceremonial weapon. Such a weapon would be almost useless in actual warfare. Dr. Gilpin, in a paper already referred to, speaks of an arrow-head in his possession which was polished like a celt and of hardened slate.

It is curious to find that in Les Carbot's narrative no mention is made of spears or javelins as being in use among the Micmacs.

Perforators.—There is one example of a perforator, or drill, in the collection. It is somewhat lozenge-shaped. The point bears no indications of use.

Cutting Implements.—In this group I place two implements which probably were used as knives. They agree with the arrow-heads in all particulars, except that one edge is nearly straight, whilst the other is convex. As has been already said, many so-called "arrow-heads" were probably put to the same use.

Leaf-shaped Implements.—There are about a dozen of these in the collection (three or four broken) varying in length from $1\frac{1}{2}$ inches to nearly 4 inches. They are formed of jasper and agate. The thicker and larger ones I consider were inserted in a club of wood. The rough, projecting portion would then form a terrible addition to an already formidable weapon. Catlin

mentions the use of steel and bone for the same purpose and figures several specimens.

B. PECKED, GROUND AND POLISHED STONE.

Wedges or Celts.—These are numerous and well represented in our collection. There are about fifteen examples. With few exceptions I consider that these have been hafted, and used as adzes. Specimens from the Rocky Mountain collection of Col. W. Chearnley, from the West Indies, British New Guinea, and elsewhere, show similar forms which are hafted by being bound, in various ways, to a handle of wood. In this manner they could be used for working wood and preparing skins, and also, in some cases, for hoeing the ground when there was need. For the latter use some of the larger ones are admirably adapted. A celt from Summerside, P. E. I. may have been hafted and used as a hatchet. It is beautifully polished, and is made of a felsite rock which Dr. Honeyman recognizes as the same as that occurring at Arisaig, N. S. It is 2.45 inches in length, while a similar one from the same locality is nearly 2 inches. The largest celt in the collection is about 10 inches long.

The material of which one of the celts is formed, precludes it from being put to any rough use. It is made of soft red sandstone, and is 2.45 inches in length. The edge shows but few marks of wear. The edge of one or two adze-like implements is round, so that the cutting effect may be likened to that of a gouge. On many of the celts, the scratches made by grinding show that their makers were right handed men like ourselves.

Before going on to the next group of implements, I should like to mention a peculiarity in many of our celts, and also, to a certain extent, in our gouges, which occurs so frequently as to have attracted my notice. The cutting edges of these implements are convex to a greater or less extent. The *general* line of the edge, however, is not at right angles to the axis of the implement, but rather cuts such an imaginary line in a more or less oblique direction. This makes one end of the edge higher than the other. When examining different specimens, I have found that, as a rule, this higher end is upon the same side of the celt or gouge. This

may be consequent upon a peculiar method of using the implement or it may be intentional. I only mention it as I see it occurring in our specimens.

Chisels.—There is only one specimen which I have classified as a chisel, and even this may have been hafted and used in the same manner as a small jade adze in the Museum.

Gouges.—There are eight unmistakable gouges before me, varying in length from 6.75 inches (smallest complete specimen) to 11.25 inches, and in form from those in which the concavity is confined to the lower part of the implement only to those in which it extends throughout their whole length. In one the concavity is remarkably deep, while another might almost be classed as a chisel, so slight is the groove. Another specimen has been broken. Enough is left however to show that it was slender. The groove is very evenly made and probably ran from end to end. What is chiefly remarkable about this gouge, however, is that it is made of the same material as the two tubes which I shall mention further on. The style of workmanship is also much the same in both. Another gouge exhibits to a remarkable degree, the obliquity of edge which has been already mentioned.*

Adzes.—These I have treated of in connection with the celts.

Grooved Axes.—These implements, although common in the United States, are quite rare in Nova Scotia. They could never be used to cut down a tree. For the process of "girdling" they were better adapted. After a tree was killed by this means, fire was resorted to, and the stone axe was used to clear away the charred wood. The same implement upon occasion, could also be used as a weapon, while the rounded, or blunt end, was well suited to breaking open bones in order to extract the marrow. This last use probably accounts for the battered appearance of that portion of these articles. Dr. Gilpin suggests that they may also have been used for detaching the bark from the birch tree.

* There is some doubt as to where this specimen was obtained. It may be from Newfoundland and consequently the work of Bethuks.

Our specimens vary in size from 4.60 to 7.60 inches in length. The smallest is of syenite. It is interesting as showing the transition from the celt, to the axe, form. One side is straight, the other convex. There is a short groove across each lateral edge. This implement may have been hafted in a different manner from other axes which are completely encircled by a groove. Another specimen shows how a sea-worn boulder was utilised in forming an implement, thus lessening the labour required in fashioning it. Here we see the original and naturally rounded surface of the stone. Around the upper part has been pecked a well-formed groove, whilst the lower part has been, rather irregularly, pecked to an edge. Such stones as this axe was formed from, may be found abundantly upon our sea-shores. These the Micmacs, with comparatively little labour, adapted to their wants. A third specimen is an example of the double grooved axes. They are exceedingly rare in our Province. It is more square in outline than the single grooved ones. The length is 6.80 inches; the breadth 4 inches. There are two well-marked grooves lying close together. The upper one—or one nearest to butt of the axe—is broader than the other. The latter is polished on either face of the axe.

Discoidal Stones and Implements of Kindred Shape.—The two implements which I shall now describe seem to be unique. Nowhere can I find anything which resembles them.

They are formed of marble. In shape they both resemble a coiled snake. A section of the body would represent an oval.

The most regularly formed one (Figs. 3 & 4) was presented by Mr. Gilbert Seaman, of Minudie, in the County of Cumberland. The thicker end of the coil, which may be considered as representing the head of the reptile, is turned to the left and lies upon the thinner end, or tail. It thus presents the appearance of a ring. No attempt has been made to represent the head in detail. It is simply a rounded termination to the tapering body. The whole surface seems to have been once highly polished. The circumference of this stone is 8.25 inches and the diameter 2.55 inches. The perforation, or space left between the coil, is .75 of an inch in diameter. The greatest diameter at the "head" is 1 inch.

Thence it tapers regularly and gradually to within a short distance of the tail, where the diameter is .80 of an inch.

The other specimen* (Figs. 5 & 6) was presented by Miss Frame, of Shubenacadie, Hants County. In form it is somewhat elongated, thus differing from the one found at Minudie, which latter is circular. This elongation is caused by the "head," which, instead of lying upon the "tail" is placed outside that portion of the object. The circumference measures 10 inches. The greatest diameter is 3.60.

The greatest diameter at the head is about 1.10 inch. From this it gradually decreases until a couple of inches from the head when it again increases in size and then decreases to the end of the tail, near which the diameter is .65 of an inch. The original surface of this specimen has unfortunately been defaced by the use of acid in determining its composition.

Such is a description of these two curious relics of the old stone age of Nova. As to their use, little can be said. Any designation which we can give them only serves to cover our own ignorance of the subject. They can neither be weights for digging sticks, club-heads, hammer-stones, tchunkee-stones, net-sinkers, nor spindle-whorls. They were exhibited and discussed at the Archæological Convention held during the Centennial Exhibition, 1876. They seemed to puzzle all. In both specimens it is evident that a rude representation of a serpent was attempted. These stones, says Dr. Gilpin, are so peculiar, and bear so strongly on the universal snake worship papers lately put forward, as, in the absence of all tradition or history of such worship in this Province, to demand a paper to themselves.

Pierced Tablets.—There are before me two specimens of these implements. Regarding their use nothing seemed to be definitely known. The first specimen (Fig. 1) is made of slate, very regularly formed, and carefully finished. Its shape is that of a rectangle with moderately concave sides. The thickest part—which measures .42 of an inch—is midway between the perforations. From this place it slopes to the edges on either side and also to the extremities. Beneath it is flat. The perforations are two, biconical, and 2.18 inches apart (measuring from the centre of

* It was presented to the Museum some years previous to the one from Minudie.

each.) They show no traces of abrasion. Length of tablet 6.50 inches nearly; breadth at extremities 1.50 in.; at middle 1.20 in. This implement was found in a Kitchen-midden at Smith's Cove, near Digby, by Mr. Robert Austin, and was presented by him to the Museum, 1887. Accompanying it was the following note:—

“An instrument used by the Micmacs in the stone age, for scraping scraps of fat and other integuments from the skins of Moose and Cariboo, when making them wearable. The two holes in this instrument were for the purpose of preparing the sinews of the animals for serving as bowstrings. The sinew was inserted at the larger end of the hole and pulled through the smaller end.—J. AMBROSE,* Digby, N. S.”

The second specimen (Fig. 2) is in the Webster collection. The workmanship is very much inferior to that of the one from Smith's Cove. It is formed of a banded slate of a greenish color. The sides are nearly parallel, and the extremities bevelled so as to form an edge, which is blunted, apparently from use. The perforations are like those in the specimen just described, except that they are closer together and not so truly placed. One side shows a conical pit close to one of the perforations. Here, evidently, the maker of the implement first set his drill, then, for some reason, he abandoned the place and drilled a perforation close alongside. Greatest length, 5.50 in.; breadth, about 1.60 in.; thickness, varying from .45 to .24 in. Distance between the perforations, measuring from the centre of each, nearly one inch.

Stones used in Grinding and Polishing.—A piece of slate in the collection seems to have been employed in rubbing down or polishing some piece of work. One edge in particular is rounded throughout its length, as though it had been used for sharpening a gouge or some other implement of like form. One face of our specimen has fourteen parallel oblique lines scratched upon it.

Tubes.—These objects have always puzzled greatly those archæologists who have striven to assign a use for such singular implements, the fashioning of which must have cost their makers much hard labor. Schoolcraft considered the larger ones to be

* Rev. John Ambrose, D. C. L.

telescopic instruments, which were used by the aborigines for observing the heavenly bodies; others thought them to be a kind of speaking trumpet. Many articles of tubular form are now considered to be pipes, while others are classed as instruments of the Shamans or Medicine Men.

Two specimens from Nova Scotia are now in the cases of the Museum. Both are formed of a light grey material, which is highly polished on the outside. The first and finest one was found at Dartmouth, N. S., and was presented by Adam Esson, Esq. At first it was erroneously supposed to be a moose "call." It is perfectly cylindrical, and, when first discovered, was complete. A small piece, an inch or so in length, has since been broken off, and is now unfortunately lost. At present it measures a trifle over 12 inches in length, and in outside diameter 1.25 inch. One end is closed, with the exception of a perforation .32 of an inch in diameter, which penetrates, in a slightly oblique direction, to the inner cavity. This cavity has been formed with great care. I examined the interior by the aid of sunlight, which was reflected into the tube. As far as I could discern the surface exhibited longitudinal striæ only. No circular markings were visible. The pipe from Musquodoboit, which will be described further on, has similar longitudinal scratches in the bowl; so, also, has the fragment of another tube which I shall now describe.

This specimen is smaller and thinner than the preceding one. It is a fragment, 5.70 inches long and 1.06 inch in outside diameter. The thickness varies from .28 to .10 of an inch or less. This variation in the thickness is caused by the position of the hole, which is not central. One end of the tube is thinned to an edge.*

The material is the same as that of the first specimen. From my examination of these tubes it has occurred to me that they may possibly have been formed of some material which was worked while in a plastic state. If this was the case the making of these objects was comparatively easy.

In Schoolcraft's Indian Tribes, Vol. I., pl. 32, are figured two

*The missing portion of the larger specimen is said to have been similarly finished off.

tubes formed of steatite. These tubes were found on opening some of the minor mounds of the Ohio Valley. Figures 9 to 12, when drawn to the correct size of the originals, agree almost exactly with our larger specimen. The outside and inside diameter (and consequently the thickness), and the diameter of the small perforation are practically the same in each. The only difference is that our specimen was, when complete, slightly longer than Schoolcraft's and not quite so regular in section. Now this agreement in form and measurement can hardly be accidental. And yet, it may be asked, what need was there for such a correspondence? We cannot answer.

As to their use, it is now generally believed that they were employed by the medicine men when performing their conjurations upon a diseased person. Many early travellers describe similar tubes which were used for this purpose.*

Pipes.—There are four pipes in the collection. The first (Figs. 7 & 8,) was found at Musquodoboit, in Halifax County, and was presented by Mr. Alexander Riach. It is remarkable for being of the same type as the mound-builder's pipes. The bowl, which is round, rises from the centre of an oblong, slightly curved base, which has a central line of elevation above and below, and through which passes the perforation, .30 of an inch in diameter, leading to the inner cavity which is designed to hold the narcotics. The top of the bowl has a wide flange, which is ornamented above by several short grooves, disposed in radiating positions. Length of base, 5.10 inch; greatest width of ditto, 1.45 in.; height of bowl above base, about 1.75; diameter of cavity of bowl, .90 inch.

The second pipe (Fig. 9.) is of the type which Dr. Patterson considers to be the Micmac form of pipe. The bowl rises from the edge of a flattened handle or base, which is pierced with a hole for receiving the stem. The lower edge of the base—or keel, as it might be called—is cut into three small lobes, each of which has a small perforation through it, probably for the purpose of attaching some ornament. This pipe was found near the River Dennis, Cape Breton. It was presented by Mr. W. McPherson.

* See RAU—Archæological Collection of the National Museum, pp. 43-45. And ABBOTT—Surveys West of the 100th Meridian, Vol. VII., pp. 190-2.

The third specimen is beautifully made and ornamented. It was found at Dartmouth, Jan., 1870, and was presented by Dr. A. C. Cogswell. It is of the same general form as the preceding one, only more finely finished. The "keel" is straight, and has only one hole. The ornamentation is very elaborate, consisting of groups of incised lines, wheel-like forms, and rows of triangular pits. This pipe is probably of late date. It is formed of argellite.

The fourth pipe was found near the old Dutch Church, corner of Gerrish and Brunswick Streets, Halifax, in September, 1873. It is made of red clay. I consider it to be of European manufacture. Many clay pipes resembling those of Indian production are known to have been made in Europe for the purpose of trade with the Indians. In our specimen, one side of the base has scratched upon it the date 1560 and the other side bears a figure which is probably intended for a bow-and-arrow. The form is similar to the two preceding specimens. No importance, however, can be attached to this one.

In order to show that the making of stone pipes is not altogether a lost art among our Indian tribes, I may mention a beautiful pipe in the possession of my father, Mr. Henry Piers. It was made some years ago, by an Indian of the Malicite tribe of New Brunswick. It is a beautiful piece of work, the fore part representing a seated Indian, while the bowl itself is decorated with designs which are executed with great care. It bears the date March 5th, 1859.

Ornaments.—There are two specimens which may be classed as ornaments. The first is a stone measuring three inches in greatest length. Both faces have been ground into facets. The second specimen is a little over two inches in length. It is leaf-shaped. The surface is smooth, apparently from the constant wear of being carried about the person. Extending in a diagonal direction across the stone, are three raised lines, the material being harder in those places. Two of the lines have been notched throughout their length. One line has about twelve notches; every third one longer than the others. The other has about nine small notches. No provision has been made for sus-

pending the object. The notches may have served as a record or they may have been only added for ornament.

II.—COPPER.

A collection of eighteen specimens is from Bachmann's Beach, Lunenburg. Presented by L. Anderson & Co., 1874. There are eight nuggets, four of which are in their natural state, the rest have been slightly hammered on two sides. Two other pieces have been hammered out very thin—too thin even for knives. The other objects comprise two "knives" and about six piercers. The latter are hammered square and brought to a point. One specimen is pointed at both ends.

III.—BONE AND HORN.

An imperfect specimen in the collection would probably be classed by many as a piercer. It bears a great resemblance, however, to a portion of a large fish-hook from Fraser's River (Chearnley Collection.) Similar hooks may be seen figured by Swan and Schoolcraft.

IV.—SHELLS.

The only objects of shell are two very fine strings of wampum beads. They may not be pre-historic. Slight irregularities in the beads, however, seem to point to the Indians as their fabricators. They were presented by Mrs. John Liddell some thirty years ago. The first one is a little more than 11.50 inches in length. It consists of eighty-one black and eighty-two white beads strung alternately; one hundred and sixty-three in all. These beads are in the form of small perforated discs about .24 of an inch in diameter. Diameter of perforation .07 of an inch. The average thickness of the beads is .07 of an inch. A twisted, two-strand cord made of fibre is used for the purpose of holding these beads together.

The other string of wampum is composed of smaller discs. The length of the string is 61.7 inches. The diameter of the

beads vary from .19 to .10 of an inch. The beads of this specimen are strung with little regularity; one part consisting wholly of black beads.

V.—CLAY.

Schoolcraft (Vol. I, p. 81) informs us that the Micmacs and other northern tribes, boiled "by casting heated stones into bark vessels filled with water." However this may be, it is well known that our Indians were acquainted with the art of making pottery. Several fragments are in our collection. I shall designate them by letters.

A, B, C, D, E, and *F* are examples of unornamented work. Thickness from .22 to .38 inches.

G is ornamented with impressions which probably were produced by a twisted cord, which was applied to the clay while still in a plastic state. It is also ornamented with short oblique dashes. Thickness .20 of an inch. *H* is somewhat similar in ornamentation.

I exhibits crescent shaped impressions; possibly made by the finger nail.

J Here two distinct styles of ornamentation have been applied; zigzag rows of square dots and incised, crossed lines. The *inside* of this specimen has also a few rows of dots. Thickness half an inch.

In *K* and *L* (probably portions of the same utensil) the zigzag rows of square dots again appear. These dots often diminish regularly in size towards one end of the row. Holmes considered that these markings on pottery were made by rolling back and forth a circular tool, a *roulette*, the edge of which was notched. Dr. Patterson is of the opinion that they were made by a straight implement with small teeth.

M exhibits rows of crescent-shaped depressions which are graded in size. They have not been made by the finger nail. Near the upper edge there are two parallel rows of round holes .15 of an inch in diameter, and about the same in depth. Thickness, .3 of an inch.

N is a portion of the projecting rim and body of a pot about

12 inches in diameter. Thickness one-half inch. The lower portion of this fragment is ornamented with *very* fine and delicate wave-like undulations, which are made with great regularity. This pattern must have been stamped on the clay while in a soft state. The sides of the projecting rim are decorated by a row of deeply incised lines, while that portion is further decorated on its summit by short diagonal lines. The specimen is from Bridgewater, and was presented by Judge Desbrisay.

O shows a peculiar style of ornamentation formed by incised lines, about an inch in length, which overlap each other for a short distance at each end.