

A COLLECTION OF STONE IMPLEMENTS FROM THE DISTRICT  
OF COLUMBIA.

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(With plates X-XIV.)

The collection of stone implements from the District of Columbia and its environs, which is herewith presented to the Smithsonian Institution as an addition to the donation of December 22, 1887, is the result of personal work in the field. It was not made with a premeditated donative intent, but has grown by degrees until the collector no longer feels justified in claiming or exercising the right of sole ownership therein. In the hands of the Institution it will not only be accessible to others who are interested in such matters, but will probably draw to it further contributions from the same area, and thus serve a better purpose than it possibly could in private possession.

The collection is fairly typical of the aboriginal work as it is now found in the fields of the District. The greater part of the large stone implements had found its way into public and private collections long before this one began, hence the number of polished implements now offered is comparatively small. Yet, while this is true, a sufficient number of these implements have been found to fairly exhibit the degree of skill attained by the Potomac Indian in this class of work.

A tribute here to the handicraft of this people is not misplaced. The material with which they wrought was the most obdurate and refractory of all substances found available to any considerable degree among the American Indians. Quartz, quartzite, and argillite for the greater part were used from necessity, no better material being within reach. The first two are very hard, and in the hand of the workman full of unpleasant surprises. A long, slender flake, such as might be easily driven off from a mass of flint or obsidian, could be but with great difficulty produced from the boulder or pebble of the Potomac gravels. The argillite, though softer, is not susceptible of receiving or retaining any high degree of finish. Notwithstanding these obstacles the material was treated with such patience, care, and skill, that the work of this region, not only in matters of utility but in points of finish compares favorably with that of any other.

In gathering these relics special care has been taken to preserve an accurate record of each addition to the collection, so that, if it were desired, every piece might be replaced in the very field from which it was obtained; and in order that the record and catalogue may be better understood and perpetuated, as against the ultimate result of the growth of the city and continued cultivation of the fields, a map has been prepared and is submitted herewith, whereon are marked the various fields from which the collection was made. The map will also serve to show the location of all Indian village sites and aboriginal workshops in the District, and from what part of each contributing village site the collection was gathered. Thus it will be seen by consulting the map (Plate X,) that the eastern shore of the Anacostia, or Eastern Branch of the Potomac, is dotted with wigwam-like marks to indicate a village site, while but three fields on the stream are marked from which relics have been taken; one at Anacostia marked A, and two at Bennings marked B and C. The village is old Nacotchtanke, which stretched along the whole eastern shore from the mouth of the stream up to Bladensburg. While many places along the eastern shore of the Anacostia, are equally rich in relics as the three indicated, the ease with which the latter are reached from the city accounts for their marked prominence in this collection.

Again, it will be noticed that a village site is laid down along the eastern bank of the Potomac, from a short distance above Georgetown to the Little Falls, while but two fields, D and E, are there marked as having contributed to the collection. In this case the other fields were not available to the collector, being either covered with a heavy sod, or so closely cultivated that no room was left for the antiquarian. A small village is marked on the Virginia shore of the Potomac, overlooking Chain Bridge and Little Falls; another at the foot of Analostan Island, on the same side of the stream; and still another a little farther down, at the southern end of the Long Bridge (Namaraugh quena); one at the mouth of Four Mile Run; and one at Falls Church, on the same stream.

It should not be understood that any one of these sites or fields has been exhausted by the collector. The ground covered by the village sites has been but partially under search, and the search even where it has extended has not been prosecuted closely enough to appreciably diminish the amount of relics, except in the matter of large stone implements, such as would strike the attention of those cultivating the fields, and so find their own way into public and private collections. In fact, the amount of material that may yet be gathered from these village sites is only emphasized by the present collection, which in effect is substantially confined to the fields at Bennings.

With each plowing of the fields a fresh supply of relics is turned up for the collector, and how long this will hold good may be indicated in the following observation: The new bridge across the Anacostia at the

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MAP OF THE DISTRICT OF COLUMBIA, SHOWING ANCIENT VILLAGE SITES, ETC.



eastern end of Pennsylvania avenue leads directly into one of the old camps of Nacotchtanke. In preparing the grade for the eastern approach to the bridge, the surface soil was removed from at least two acres of this camp. The field, a level sandy plain, was first plowed, the loose soil taken up and deposited on the grade, and the process repeated. Each time the shovel followed the plow nearly everything turned up by the latter was removed from the field. On one side of the field, however, the work was not carried out to include the full area first laid bare, but was confined within lesser limits, and, the same thing occurring again, two low terraces were formed, each but a little more than the depth of one plowing. Thus: the upper terrace is the original surface of the field, the next lower the result of the first plowing, and the foot of this terrace the result of the last plowing. The whole depth of the excavation at this point was a little over two feet. An examination showed that the upper terrace carried a large number of reliques common to the locality, bits of worked quartz, quartzite, arrowheads, etc., the second an equal quantity of the same material, while the bottom, though in less degree, still furnished a considerable number of implements, fragments, and chips.

To illustrate the amount of material on the surface of the ground, attention is directed to Exhibit No. 146,563, a tray of 107 pieces picked up in two hours' work, April 20, 1888, from the field marked A: A polished ax, arrowheads, knives, scraps of pottery, etc.; all the odds and ends of the old village life.

In studying the distribution of stone implements in the District it should be remembered that an Indian village of the Potomac was not a compact assemblage of houses, but scattered dwellings along a water-course, with the intervening spaces usually under cultivation. In some instances, however, a cluster of houses might be found at such points as afforded more than the ordinary riparian advantages, but usually the dwellings were comparatively isolated. Again, the establishment of temporary hunting and fishing stations is to be taken into consideration. An examination of any cultivated field that lies along the Potomac or Anacostia will furnish more or less evidence of temporary occupation. The difference between these places and village sites is readily discernible in the character of the remains, as well as in the quantity. The former show flakes, and chips of stone, with here and there an implement of the knife and arrowhead type, while the latter, with its ever-present pottery, seems to have left its mark on every stone in the field. The wreck of an old village can never be mistaken for the camp-ground of a single season.

In addition to the implements found in the vicinity of villages and hunting camps, the occasional arrowhead lost in the chase, and the greater number spent in battle, should not be overlooked.

After an engagement with the Mannahocks, it is related by Capt. John Smith that "we contented Mosco (a friendly Moraughtacund) in

helping him to gather up their arrowes, which were an armefull, whereof he glорied not a little."\*

In passing over the fields of the district, the frequent occurrence of a few chips of quartz, or quartzite, at places which do not otherwise show any signs of occupation, calls to mind another statement by Smith concerning the readiness with which the Potomac Indian prepared an arrowhead for use.

His arrowhead he quickly maketh with a little bone, which he ever weareth at his bracer, of any splint of a stone or glasse in the forme of a hart; and these they glew to the end of their arrows.\*

The term "arrowhead," as generally used, is applied to an implement with a range of usefulness much wider than is suggested by the word itself. It is a conventionalism, descriptive as to form, but not as to use. Wherever a sharp, cutting edge or point is required, either as the tip of an arrow or the blade of a knife, the general form is the same. By its wedge-shaped butt, or barbed shank, the point is easily secured in place to serve the purpose of the hour.

In the evolution of the arrowhead, invention confined itself mainly to methods of hafting, and in this direction much ingenuity is displayed in the variations of shank and base. It may be said with truth that the arrowhead, considered in its use as a projectile, reached its perfection in the hands of primitive man, so far as form goes, and that only in the matter of material was the point of the English archer's arrow superior to that of the American Indian.

That it was only after protracted use of the simpler forms that the perfected arrow point was secured, goes without argument, but that we can show the stages of this evolution is another and more doubtful matter.

The reason for this lies in the fact that the most highly finished arrowhead must of necessity pass through the ruder forms in the process of manufacture, so that if work on the modern arrowhead is suspended before the implement is finished, we have an archaic type of the same implement. The remains of an old village site will illustrate this statement. From the chipped pebble without definite form, to the rudely ovate point, and from that stage to the thin blade, all may be found mingled together. Here rudeness in form is no evidence of antiquity, it being but a necessary incident in the production of the implement in any age. Catalogue No. 146651, U. S. National Museum, a tray of eighteen quartz pieces, with flakes and chips, from the fields at Bennings, will serve as an illustration.

The course of any chipped implement, whether arrowhead or knife, from the rock in mass to completion is the same. At each stage of successive chippings the stone assumes the familiar forms which have often been mistaken for completed implements of a rude type and great

\* Smith's Works, vol. 2, p. 427, Arber's ed.

\* Ibid., vol. 1, p. 68.

antiquity. To secure a knife of the larger variety the employment of a stone of considerable size is necessary to allow for the waste in working, and this fact should not be overlooked in determining the true character of certain forms of primitive work found in the district and elsewhere.

In confirmation of these conclusions, attention is asked to Nos. 146589 to 146616, forty-five pieces from various fields of the district and vicinity. Also Catalogue Nos. 146572-146604, U. S. National Museum, a tray of thirty-four pieces from the same fields.

These three exhibits comprise the various materials commonly employed for chipped implements, and in each substance the methods of treatment, as discovered from the unfinished implements, serve to emphasize the primal forms of the knife or arrowhead as it emerges from the pebble or rock in mass. In many cases the untouched crust of the pebble shows here and there on the face of the unfinished piece; in some the work is only begun; in others it is nearly finished; in most cases abandonment of the original intention is suggested, if not actually apparent. But on the other hand, many of these apparently unfinished pieces are as well calculated in their present form, if not better, to serve certain purposes than if more finely wrought; so that the separation of the finished from the unfinished implements can not be effected with any great degree of exactness, a rough and jagged point of stone, set in the knotted end of a club adds more to the savage effectiveness of the weapon than a polished stone would, though formed for the same purpose. But the same jagged point with a few well-directed touches can be reduced to a cutting tool, capable of many uses, yet it is quite as much a finished piece in the first form as in the last. This again suggests the futility of accepting form as indicative of antiquity in the line of chipped stone implements, especially when it is seen that the ruder forms are constantly repeated and perpetuated in the latest efforts of the stone worker.

The persistent survival of essentially primitive types, under the pressure of changed conditions, also adds an element of confusion to the labor of classification.

In the Ray collection from the Hupa Reservation,\* jasper knives are shown that were found in actual use in 1885. The form of the blade is identical with the leaf-shaped knife of the Potomac. The hafting is effected by setting the butt of the blade in the slit end of a short pine stick and the liberal use of pitch. In some instances the handle is formed of two pieces lashed together, and in one specimen of this kind the lashing used is ordinary *cotton twine*. The aboriginal conception of the implement remains unchanged, though the bit of cotton string unites it to the present with startling effect.

A suggestion the reverse of this is found in a curious thing set down in Smith's account of the relations existing between the Jamestown col-

\* Prof. Otis T. Mason, Smithsonian Report, 1885, Part 1, pages 205-239.

ony and the people of Powhatan. Inquiry being made as to Smith's intended movements he answered :

We sent him word we intended no such thing (an invasion) but only to goe to Powhatan (the country) to seek stones to make hatchets; except his men shot at us, as Paspalhegh had told us they would; which if they did shoothe but one arrowe, we would destroy them, etc.

Now did Smith tell the truth? Did the colony in fact make stone implements in exchange for the products of the Indian fields, or did he merely assign a cause for his intended trip which would appear reasonable to the Indians? Whatever the truth may have been, it is to be hoped that the statement proved more satisfactory to the Indian than that it does to the archaeologist now.

This much however of valuable suggestion is found in the Smith incident. The Indians of the Powhatan Confederacy were accustomed to frequent certain places for the purpose of obtaining suitable material for their tools and weapons, and the fact was well known to the colonists. In short, the place thus indefinitely designated by Smith may be accepted as a historic "workshop," for the practice of reducing the rough material to at least primary forms at the place where it was found seems to have been generally followed.

Workshops were established where abundance of material was found in conjunction with special conveniences for working it, such as nearness to water, etc. The materials most available were quartz and quartzite, and these were to be had from the gravel beds of the valley. That the pebble, or small boulder, was used instead of the rock in mass is easily to be seen from any series of chipped implements made of these materials. It does not follow, however, that surface pebbles were used. The Indian well knew that the stone fresh from the ground worked better than the sun-baked stone, and it is quite probable that he took pains to secure the former, though absolute proof of such practice in the District is yet wanting.\*

A place possessing all the requisites for an Indian workshop is found on Piney Branch, a small stream that enters Rock Creek on the outskirts of Mount Pleasant. On the north side of the branch, and just below where it is crossed by Fourteenth street road, Blagden's hill rises abruptly from the bed of the stream, a steep gravelly hill, with its sides and summit well covered by native forest trees. Here, over a space of several acres, lie scattered the chips, flakes, and chipped stones left by the native workman as the arrow-head and knife grew under the deft touch of a practiced hand. The ground in places is literally covered with this work. Some stones show but a single fracture, while others are fashioned into the rude subovate forms, so familiar on the village site. One of the most common forms is the split pebble with its outer face worked at the edges and the center untouched; and another not

\*This paper was written before Mr. Holmes's exploration of the Piney Branch workshop. (See "The Anthropologist," Vol. 3, No. 1, p. 1; also, Vol. 2, July, 1889, pp. 241-246.)

infrequently found is the "domestic hand-ax,"\* a pebble with one end roughly chipped to an ax-like edge. These rude forms, together with the chips and flakes, make up for the most part the great mass of remains, but here and there occur the butts and tips, and occasionally a perfect specimen of the leaf-shaped knife. (See Figs. Plates IX-XIV.) No pottery is found, and but three arrow-heads have thus far rewarded the search of the writer. (Cat. No. 146571, U. S. Nat. Mus.) These were found at the foot of the hill and are made of argillite, while the other work is in quartzite, the pebbles of which in main constitute the gravel beds of the hill.

On the level at the top of the hill may be seen small patches of ground littered with the smaller chips, among which have been found quite a number of the tips and butts of knives. A deep ravine with a small stream at the bottom cuts the hill about midway, and in the bed of this stream, as well as that of the branch, the *debris* occurs in abundance. The sides of the ravine furnish an exposure in places of several feet, and from the face of this exposure the writer has taken chipped stones that were under four feet of soil and gravel. The same thing and under like conditions may be observed along the bank of the branch where it has been cut away by the action of the water.

At the foot of many of the trees standing on the hill-side are considerable accumulations of chips, with worked and unworked stones, that have drifted down the hill till intercepted by the base of the tree.

These observations have been confined to the remains and the conditions under which they are found on the north bank of Piney Branch and below the Fourteenth-street road; but similar work, though in less quantity, is found on that part of the hill above the road, as well as on the south side of the branch and opposite Blagden's hill. Along the banks of Rock Creek, below Piney Branch, other workshops have been located, though not covering so large an area or showing an equal amount of work in the same space. One of these, however, on the west side of the creek and just above Oak Hill Cemetery, will doubtless make as good returns under the same exploration as the larger shop on the Piney Branch. The grading on the east side of the creek during the past year has so modified the original topography of that bank and the adjacent hills that but little remains now to be seen of places that once furnished considerable evidence of aboriginal work in stone.

The collection from Piney Branch is made up of unfinished implements, forty pieces; butts and tips of knives, thirty-one pieces; rude implements, cores, etc., twenty-seven pieces; and a box of flakes and chips. (See catalogue.) The work from this place should be compared with that from the village sites. The wonderful similarity of corresponding series (a similarity which renders the substitution of one for

\*See Abbott's Stone Age in New Jersey.

the other a matter not to be detected by the expert) can not fail to suggest how small a place mere form has in settling the antiquity of a chipped stone implement.

#### ARROW-HEADS.

An effort toward the classification of the arrow-heads found on the village sites has been made, and though it is only tentative and based upon arbitrary conventionalities in form, it may be useful in calling attention to the many variations possible in so small a matter as the method of attaching the point to the shaft, or the blade to the handle. The classification is made upon the base line of the arrow-head and the form of the butt or shank. The forms, however, frequently blend, and vary from one shape to another, with such slight shades of difference that an attempt to classify them on any basis of form would be worse than idle.

Some beautiful pieces in quartz and quartzite are shown. Long slender tips, with symmetrical edges, and carefully wrought shank.

Imported material, flint, jasper, and chalcedony, occasionally appears in the collection.

#### AXES, CELTS, ETC.

A few fine specimens are submitted; the most are, however, not worthy of special mention, though the whole collection in this class is perhaps a fair illustration of the handicraft of the Potomac Indian. Special attention is asked to the descriptive catalogue herewith.

#### POTTERY.

One box of sherds from the fields at Benning's comprises the exhibit of pottery. The long continued cultivation of the ground has gradually reduced the pottery to such small fragments that the shape and size of the original vessel can but rarely be determined. But from the small pieces now obtainable, the material used, the method of tempering the clay, and taste in decorative art, may be readily learned.

#### SOAP-STONE VESSELS.

The last four numbers in the catalogue are from a soap-stone workshop located on Four-Mile Run, and about one mile below Falls Church. A considerable amount of the material was found at this place, but the greater portion of it showed but slight evidences of artificial handling. The supply was doubtless from a point a short distance above the workshop, where in late years the stone has been quarried to some extent. No indications of aboriginal mining however remain at present.