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BULLETIN

THE ARCHAEOLOGICAL SOCIETY OF DELAWARE

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BULLETIN THE ARCHAEOLOGICAL SOCIETY OF DELAWARE Vol. 5 No. 1 DECEMBER, 1952

C. A. WESLAGER, Editor-601 S. Maryland Ave., Wilmington, Del.

Field Work

Starting October 9, 1951 and continuing until January 1952, members of the Society excavated the site of a colonial log cabin near Wilmington. This work was conducted at the request of the State Archivist, Leon de Valinger, Jr. A large quantity of material including glassware, dishes, metal objects, buttons, coins, pipe fragments, and miscellaneous objects was uncovered. A report of the work will be published in our next issue.

On October 4 and 5, five members of the Society, acting as a digging committee conducted preliminary archaeological work on the Gilbert Montgomery farm (old Henderson property) in Glenmoore, Wallace Township, Chester County, Pa. The objective of the work was to verify local tradition that there were Indian burials at the site. The remains of an adult Indian male was unearthed, with grave goods. A report will be published in due time.

Currently, the Society is conducting archaeological work at the mansion, south of Dover, formerly occupied by John Dickinson, Delaware patriot of the Revolution. The home has been acquired by the state and will be maintained as a memorial, under custody of the Public Archives Commission. The excavation at the log cabin mentioned above and at the Dickinson house illustrates how archaeological techniques may be useful in exploring historic problems as well as those relating to prehistory.

This Bulletin

This issue of the *Bulletin* consists entirely of a rare monograph published in 1892 by Peabody Museum, Cambridge, Mass. It was recently learned that a small quantity of the original unbound pages were still available in the museum's storage room. We felt that this work should be made available and we therefore purchased the pages for distribution to our membership.

The author, Dr. Hilborne T. Cresson, conducted several archaeological projects in Delaware, but his excavation of the Claymont pile structure described in the monograph brought him national notice (see Chapter 4, Delaware's Buried Past, by C. A. Weslager for full account of Cresson's work in Delaware).

In the present monograph, Cresson advances the theory that the piles, or stakes, which he found imbedded in the mud in the bed of Naaman's Creek were the remains of an Indian fish weir. It is of more than passing interest to note that Cresson changed his original opinion about the structure. Previously he conjectured that the log stakes were the supports of houses of an ancient river folk who lived over the water in the fashion of the Swiss lake dwellers. He advanced this theory in a short article entitled, "River Dwellings in the Mud Flats of the Delaware River," *American Antiquarian*, Vol. 9, No. 6 (Nov. 1887) pp. 363-365.

Cresson's work on the pile structure was considered significant at the time because of the conflicting opinions of his day relative to the age of man in the Delaware valley. Cresson sided with the followers of Dr. Charles Abbott who believed that a "paleolithic man" had roamed the valley. In his 22nd Report of the Trustee of Peabody Museum Vol. 4 No. 2 (1888) pp. 44-45, the curator, F. W. Putnam, who also embraced Abbott's theory that an ancient pre-Indian race once lived in the Delaware valley, inferred that Cresson's work at Claymont had uncovered data which further supported this belief. However, in his preface to the monograph under the caption "Editorial Note," Professor Putnam's enthusiasm seems to have moderated, in view of Cresson's ultimate conclusion that he had found a fish weir instead of an ancient river dwelling.

ARCHÆOLOGICAL AND ETHNOLOGICAL PAPERS

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REPORT

UPON

PILE-STRUCTURES IN NAAMAN'S CREEK,

NEAR CLAYMONT, DELAWARE.

BY HILBORNE T. CRESSON, A.M., M.D. SPECIAL ASSISTANT OF THE PEABODY MUSEUM.

> CAMBRIDGE, MASS. PEABODY MUSEUM OF AMERICAN ARCHÆOLOGY AND ETHNOLOGY. APRIL, 1892.

PRINTED BY THE SALEM PRESS PUBLISHING AND PRINTING CO. The Salem Press. Salem, Mass.

EDITORIAL NOTE.

In the Twenty-second Report of the Museum for the year 1887-8, a brief notice is given of a collection of stone implements, potsherds and other objects, taken from the mud near the mouth of Naaman's creek, Claymont, Delaware, presented by Mr. Hilborne T. Cresson, with a few others from the same place presented by Mr. A. B. Huey, and Mr. W. R. Thompson. The statement is there made that these objects were found in the mud of the creek at three localities, designated Stations A, B and C, which were near together. The fact that these objects were in close association with the decayed remains of stakes or piles (several of which have been carefully taken up and sent to the Museum), indicating some aboriginal structure of an unknown character, made the collection one of considerable interest and importance. Since then, Mr. Cresson has sent to the Museum other specimens from this interesting locality and has furnished a Report giving a detailed account of his long-continued and careful researches at this place. This Report is here published and is commended as a clear and simple account of the facts observed during the research. From this statement archæologists can draw such conclusions as seem to them most likely to account for the presence of the piles and the associated objects which to Mr. (now Dr.) Cresson seem to indicate an aboriginal fish-weir.

F. W. PUTNAM,

CURATOR OF THE MUSEUM.

CAMBRIDGE, MASS., MARCH 21, 1892.

REPORT UPON PILE-STRUCTURES, SUPPOSED TO BE THE REMAINS OF ABORIGINAL FISH-WEIRS, IN NAAMAN'S CREEK, NEAR CLAYMONT, DELAWARE.

THE specimens collected during explorations for the Peabody Museum, since 1887, at the site of the pile-structures which are believed to be the remains of prehistoric fish-weirs, inside of the mouth of Naaman's creek, near Claymont, Del., together with specimens gathered before my connection with the Museum as field assistant, have been arranged for study, and a considerable portion of the collection is placed on exhibition', in the Museum; thus presenting with the Abbott, Lockwood and Bennett collections, an interesting series illustrating the condition of early man in the southern portion of the Delaware valley.

The slow and laborious nature of the work, executed with a hand-dredge, rendered it impossible to complete the examinations until the summer of 1889. At this time a steam dredge was used to deepen the creek's channel near Richmond's brick-yard which finished the work. This more rapid method of procedure, although it destroyed the site of the relic bed surrounding the pile-structures, served to add many new specimens of interest to the collection, and afforded a chance to examine more fully the geological formation upon which the alluvial deposits and underlying peat and gravel beds rest.

In 1870, a fisherman living in the village of Marcus Hook, Pa., gave me some spear and arrowheads, chipped from a dense argillite, which he had found on the edge of the extensive mud flats which border Naaman's creek, a small tributary of the Delaware river. The finder stated that while cat-fishing among the reeds and spatter-docks, he noticed, here and there, the ends of logs or stakes protruding from the mud, and that they seemed to be placed in rows; to use his own words, "they stuck out just above the

mud, were as rotten as punk, and he could see no reason why they'd been placed there by white folks; more than likely the Indians in old times used them to hitch their canoes to when spearing fish, and that was the reason the darts, axes and such like were found around there." A visit to the place, made a few days afterward in company with the fisherman, disclosed the ends of much decayed stakes protruding above the mud, just as he had stated, and confirmed what I had before heard in regard to them from a reed-bird gunner, who encountered them while poling his skiff off the marsh into the creek after the water had fallen on the ebb-tide. At that time (1870) I coincided with the fisherman's views that the spot had been a fishing-place of the Indians, as the finds of argillite implements seemed only to exist in the neighborhood of the wooden structures or stake-ends. More mature deliberation based upon the results of hand-dredging and excavating since my first visit (1870), only serves to confirm my opinion that they were the remains of fish-weirs.

Professional duties did not permit me at this time (1870) to give the matter serious attention, and it was not until my return from France, in 1880, that I again visited the spot at Naaman's creek where the finds had been made. While abroad I studied many archaeological collections, especially those from the Swiss lakes, and visited various prehistoric stations of Switzerland. The rude sharpening of the pile-ends which I there examined was in some cases evidently made with sharp stone implements and recalled the cuts on the stake-ends at Naaman's creek. Since 1880, I have frequently examined the spot, excavating the few pile-ends that remained and preserving several that did not fall to pieces. Careful notes were made of the dredgings and excavations. These operations were carried on at low tide, the work being conducted principally by myself aided at times by interested friends. The results, so far (1887), seemed to indicate that the ends of piles embedded in the mud, judging from the implements and other débris scattered around them, had once served as supports to structures intended for fishweirs. In all probability, the piles or stakes originally projected a few feet above the water and were probably interlaced with wattles or vines to more readily bar the passage of fish from the creek to the river. The upper portions of these wooden structures have disappeared during the long lapse of time since they were placed there.

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The edge of the flats in which the stakes were embedded¹ is covered with about two and a half to three feet of water on the flood tide. At slack water it forms a low mud bank slanting toward the creek. Three different stations² were located, probably all that exist, in the bed of the creek referred to. This opinion is based upon careful examination of nearly every inch of ground in the neighborhood of the stake-ends, made within the past four years by dredging in sections between certain points marked upon the creek's bank. The implements found at Station A are generally made of argillite, with a few quartz and quartzite. Some were very rude in character and not unlike the palæoliths found by Dr. C. C. Abbott in the Trenton gravels.³

The reproduction, from a photograph, shows the pile-ends as they appeared before excavation at the spot designated station B (see p. 8). The other stations, A and C, were generally covered at high tide. These stakes were carefully excavated, dried and forwarded to the Peabody Museum by the late Mr. William Reilly⁴ of Philadelphia, a florist, then living at Claymont. The slight amount of excavation necessary to remove the pile-ends did not give anything more than a superficial idea of the geological formation in which they stood, and, as it has been stated, until the steam-dredge began its work of deepening the bed of Naaman's creek so that sloops could enter its shallow waters and anchor at the wharf near Richmond's brick-yard, it was not possible to learn much in regard to the underlying formation.

Careful study of the material brought up during the operation of the steam-dredge suggests that in places a bastard peat soil or peat muck, covered by alluvial deposits several feet in thickness, rests

¹ The alluvium was excavated from around these stakes which were photographed in place before removal.

² The term "station" was adopted by Professor Putnam's suggestion, as implements were found in certain spots, several feet apart, in the bed of the creek.

³Implements of like kind have been found in the boulder clay at the brick-yard alongside of Naaman's creek. The implements that were brought up by the handdredge at station A may, therefore, have been washed out of the brick and boulderclay deposits and scattered among the alluvial deposits in which the stakes were found.

⁴ Mr. Reilly's letter accompanied the specimens referred to. He took an active interest in the researches of the Peabody Museum. He was drowned near the mouth of Naaman's creek in 1887. Thanks of the Museum are also due Mr. Charles Ottey and Willie Shute who presented specimens found among the débris deposited by the steamdredge. Their letters accompanied the specimens and are on file in the Museum.

upon the brick-clay of Lewis (Columbian of McGee), and that this same peat layer frequently dips downward under the clay deposit. An example of this may be seen northeast and southeast of the creek's mouth near low-water mark; here is a bed of hard, blue clay and two hundred feet further inland, a dark, peaty soil comes to the surface. Southwest of this at Lobdell's Car Wheel Works, near the mouth of Christiana creek,¹ this same peat-bed exists, covered in places by alluvial deposits varying from three feet to six and even ten feet in thickness. I am informed by Mr. Emer



PILE-ENDS AT STATION B.

Loyd of Claymont that, several years ago, while excavating muck for fertilizing purposes on the farm of Mr. William Myers, there was encountered at a depth of twelve feet this same peat layer together with the trunks of trees; in fact, this has often been remarked by well-diggers in that vicinity, and in all probability accounts for the so-called tree-ends which protrude from beneath alluvial deposits in the bed of the Delaware river near Grubb's landing. These

¹Chipped implements of argillite have been found three and a half feet beneath this peat-layer. See letters of Mr. George Lobdell on file in the Museum. Mr. Lobdell mentions the trunks of sycamore trees in the peat. In this respect it resembles the Fallen Forest and Peat Layer at Claymont. A number of these implements, collected by Mr. Lobdell in 1882, are in the Museum, presented by him in 1884 and 1888. 214

obstructions are a source of annoyance to the sturgeon fishermen who set deep nets, and for this reason they resort to the east channel of the river. Some connection may be traced between these facts and the legends that exist among the country people in the vicinity in regard to apple orchards standing upon farms now entirely covered by the waters of the Delaware.

Professor McCorkle of the United States Coast Survey informs me that the encroachments of the river upon the west bank, within the past hundred years, have been so slight that the contours of recent and earlier surveys show very little change. The fact must not be overlooked, however, that certain land on the west side of the Delaware river, at one time covered by the ebb and flow of the tide, was reclaimed from its waters by dykes. This was the work of the early settlers. The land near the Christiana creek and the shore line of the Delaware south of that point are examples of this. Mr. Lobdell, who owns large tracts of land near the spot last mentioned, states that the dykes along the Delaware river front and the Christiana creek require careful attention to prevent overflow, and that the land had undoubtedly been reclaimed by the early Swedish settlers from the encroachments of the water; a proof being given by the heavy alluvial deposits in the vicinity resting upon other aqueous deposits of great age.

These facts are mentioned to show that "The Fallen Forest and Peat Layer" is not confined solely to the immediate neighborhood of the mouth of Naaman's creek but is distributed over a wider area.¹

Under the brick-clay of Lewis may be encountered, at certain localities, a red gravel similar in character to that observed further northeast toward Philadelphia, but not so well defined and disappearing altogether at times or merging into the boulders and clay so characteristic of this region. Whether the old tertiary sea deposit, so well marked at Philadelphia, exists thus far south is yet

¹ When Mr. McGee of the United States Geological Survey visited the peat-beds, then uncovered at Richmond's brick-yard, Naaman's creek, he was unable to give a decided opinion in regard to their age. In a letter to me upon the subject, bearing date of Jan. 13, 1890, he states: "You must allow me to withhold my opinion until I have opportunity to make extended studies along both sides of the Delaware, in Pennsylvania, New Jersey and Delaware." Prof. G. Frederick Wright, who visited the site of the supposed fish-weirs as well as other localities in the neighborhood, expressed himself as greatly puzzled by the position of the peat-beds.

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to be demonstrated.¹ Underlying the brick-clay is the crystalline of Dana.

A suggestion of the superposition of the layers near the mouth of the creek may be conveyed by the ideal sketch shown below. AD represents the creek's bed and alluvial deposits overlying;



BC brick clay and G gravel deposits; CD is the crystalline of Dana; PL is the peat layer that lower down contains the fallen trunks of willow, cedar, oak and pine trees; for this reason it has been designated the Fallen Forest and Peat Layer. The black areas in the creek bed mark the position of the pile-structures which it is conjectured were interlaced with wattles or vines, forming ancient fish-weirs.

The position of these pile-structures shows that in two localities they were implanted in the peat layer, and in the other case, so near as could be determined in the difficult process of hand-dredging, in a gravelly deposit mixed with large boulders.

Reference has already been made to the reproduction of a photograph taken at dredging-station B (see p. 8). This picture was taken some months after the bank had been sliced away, a few of the piles being removed to study their geological position. The negative was not satisfactory, and later other photographs were taken. But little change had taken place in the position of the piles subjected to the ebb and flow of the tide, as they were in a measure protected by the water-grass and spatter-docks that grew up around them after the section of the creek's bank had been removed.

¹A yellow sand resembling that underlying the Red gravel of Lewis at Philadelphia has been remarked at Mr. Lobdell's, also in wells dug at Marcus Hook, Pa. Traces of this yellow sand and gravel are not wanting in the vicinity of Naaman's creek. 216

A copy of a pencil sketch will better suggest how the wooden stakes or pile-ends looked when first examined (profile).



C, the creek; S, the wooden stakes covered by alluvial deposits; B, the mud bank on the side of Naaman's creek; the lines show the stakes below the mud, and the dark tops indicate how little they projected above it.



The second sketch shows the method pursued at low tide in trenching away the side of the bank and exposing the wooden structures. A slanting cut was made, a few feet in depth, from W to A, W to V and P to R.

The profile sketch on the next page, taken in this connection, shows the geological position of the wooden structures.

A, B and C indicate the position of the three dredging stations; the dotted lines the relic beds surrounding them. The exact position of the wooden pile-ends could be determined at B, but at C and A the positions were determined with less accuracy, as they were on an average about two to two and a half feet beneath the alluvial deposits of the creek and had to be probed for with a long, 217

iron rod. This process required great care, as the rod easily penetrated the soft wooden ends. The hand-dredge served to determine the area of the relic-beds from which was obtained the interesting collection now on exhibition in the Peabody Museum. X, Y and Z show the outlines of the alluvial deposits, peat-beds and underlying clays and gravels.

C

Indications of an attempt to sharpen the ends of the stakes are not wanting, as shown in the following reproduction of a photograph of the best preserved in the collection, and suggest that this was probably accomplished by a cutting instrument of stone.



Pile-ends after removal from dredging station B, Naaman's creek. From a photograph of specimens in the Peabody Museum.

Wedge-posts, as shown in figure on next page, were also used to strengthen the wooden structures, a necessary precaution from the fact that during the spring rains the waters of the creek are largely increased in volume and during the ebb tide push out with great 218

force. This strong current probably accounts for the existing gaps that occur between dredging-stations A, B and C, the pile-ends between the points C to A and A to B (see figure, p. 12), having been carried away since they were abandoned by the people. The preservation of those at dredging-stations A and C is due to the fact that while the upper portions of the piles have rotted away, the ends have been preserved in the bastard peat and alluvial deposits which covered them. The superior condition and length of the piles secured at station B may be accounted for by the shelving nature of the bank and the mass of water plants that in a great measure protected them from injury.



A is a pile-end in position; B is a wedge stake driven into the mud alongside of it.

The fact must not be overlooked that the present mouth of the creek is not as it was in bygone times. Alluvial deposits extend a considerable distance northeast and southwest of the present mouth, in what are now swampy meadows which have been reclaimed by dykes from encroachments of the waters of the Delaware. It is not improbable that these wooden structures occupied a central position in the areas either covered with water or subject to overflow, or else that the existing hard clay-bed around and to eastward of station B was an islet forming an elevation of dry land suitable for a camping-place of the fishing community.

A better idea of this may be had by reference to the pen sketch on page 14. F and E are the beds of clay projecting beyond the dykes, P. G is a large area of swamp land, with a black muck or bastard peat soil, mixed into alluvial deposits. It now forms a part of the Clyde estate. L is upon the Richmond property occupying the north side of Naaman's creek; the area of overflow is not so great on this side toward the north but bends towards Marcus Hook to the eastward. The present position of Naaman's creek bed is indicated by MM. H is an elevation of clay that overlooks G from the west. I is a small islet surrounded by a ditch 219

K which has in recent times been used by the firm of George Churchman & Sons as a log boom. The width of the water-way around I was considerably enlarged and deepened by the Messrs. Churchman, so as to better float timber; and the material dug from it for dyking may also have increased its size. The late George Lodge, Esq., of Claymont, Del., a well-known and respected citi-



zen who was acquainted with the traditions of the neighborhood in which he was born, once related to me that Wertmüller the distinguished court painter, an exile from the court of Louis XVI, who formerly owned this property and died in the old Clyde homestead, stated that he had been told by a Delaware Indian that this was a ditch in which his ancestors the Lenapi used to hide their canoes when they came to catch fish at the creek's mouth. When 220

Prof. G. F. Wright, the distinguished glacialist, visited this locality, his attention was called to this islet and ditch, and the position and character of the same seemed to impress him with the probability of aboriginal origin. If it had been the work of the white man it is not probable he would have left the islet that stands in the centre. It seems improbable that any one would have taken the trouble when the land was dyked to run the banks around a spot of this kind unless a ditch of considerable depth had previously existed there. If it was dug for a log boom, in later times, it is a singular circumstance that the entire area of M, I, K (see sketch) was not excavated. Its shape and its position at the side of the creek recall similar excavations that have been quoted by my friend, the late Dr. Charles Rau of the Smithsonian Institution. If the mouth of this artificial excavation had been closed by pilings interlaced by wattlings similar to those remains discovered further to the eastward, at the creek's mouth, an admirable fish preserve would have been the result. Dr. Rau, in a visit to this locality shortly before his death, deemed it to be of aboriginal origin.



The position of the wooden structures ran from north to south across the creek's bed, as indicated by the dark spots, C, A, B, 221

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shown in the diagram on page 15, and so near as could be determined by pile-ends located at the various dredging spots or stations, A, B, C, the piles were placed about six inches apart and in the following order:



Withes of wicker work could have been slipped between these piles as suggested by sketch B, thus forming a sufficient obstruction to drive the fish toward B, page 15, where, for reasons already given, the water was more shallow, or a shelving bank of clay afforded a better opportunity to the aboriginal fisherman to pierce them with his spear or arrow. On the other hand, if it be considered that the structures were simply wooden enclosures surrounding a habitation site now covered by the waters of Naaman's creek, and that the original waters of the creek were further to the northeast or southeast, as the case may be, then we cannot account for the position and kind of implements that have been dredged from around A, B, C, for they were found at various depths in the peat and alluvial deposits and suggest implements used by a people resorting to this locality to fish. The collection forwarded to the Museum by the various gentlemen interested in the exploration also suggests this. Most of the arrow-points are similar to those found among the shellheaps of Cape Henlopen.

Among other interesting implements presented to the Peabody Museum is a large stone maul that differs from our usual American types of such implements in the fact of its having a hole drilled through it for the insertion of a handle or a withe. Three of these implements were found.

A difference in the character of the objects dredged from the various spots shown in the plan above, A, B and C, is worthy of remark. At B pottery was found, and in the material used for the manufacture of stone implements, jasper and quartz predominate. Implements of argillite, it is true, were also found, but they were few in number and of better finish than those dredged from A and C. At these last two stations there were but few implements of 222

jasper, quartz or any flint-like material. Pottery and fragments of bone implements were found only at B.

Prof. Henry W. Haynes agrees with Professor Putnam¹ in his belief that "the fact that at only one station pottery occurs and also that at this station the stone implements are largely of jasper and quartz with few of argillite, while at the two other stations many rude stone implements are associated with chipped points of argillite, with few of jasper and other flint-like material, is of great interest." Professor Haynes, likewise, deems it safe to consider them as ancient aboriginal fish-weirs rather than the remains of a piledwelling people. This, then, but confirms the words of the fisherman who first brought the stone implements to notice when he suggested that " the Indians, in old times, used to hitch their cances to them and spear fish, and that this was the reason why their darts, axes and such like were found around there."

Fish-weirs have been mentioned by certain early explorers on this continent and remains resembling such structures have been referred to by more modern writers.²

That these pile-structures discovered at the mouth of Naaman's creek originally formed aboriginal fish-weirs, is but a conjecture, it is true; but from a study of the material obtained from the three dredging-stations, and now in the Peabody Museum, it may be granted that the assumption is not unwarranted.

¹ Report Peabody Museum, Vol. IV, p. 45, 1888.

²See Smithsonian Contributions to Knowledge, Vol. XXV, Prehistoric Fishing in Europe and North America, by Charles Rau, p. 284, De Bry *et al.*

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THE following summary from the museum catalogue will give some idea of the collection now arranged in the Peabody Museum where it can be seen by all interested.

FROM STATION A.

Nos.	44,281-6	15 broken masses of argillite, quartz and other rocks.
66	44,287	2 stone chips.
66	44,288-301	17 chipped stones of various kinds, several being split
		pebbles.
4.6	44,302-8	9 rude celt-like implements.
	44,309	3 notched stone, sinkers.
**	44,310	3 pitted stones.
	44,311	1 hammer stone.
**	44,312-64	53 chipped pointed implements, mostly of argillite but

- a few of quartzite and other stones. Also a few fakes.
 - 103 specimens from station A.

STATION B.

NOS.	45,252	1 grooved stone, axe shape.	
66	45,253	1 discoidal pebble, perforated.	
**	45,254	1 large chipped pointed implement of jasper	
2.2	45,255	1 large chipped pointed implement of granit	e.
66	45,256	1 chipped pebble, jasper.	
66	45,257-8	2 chipped points, slate.	
**	45,259	1 chipped piece of jasper.	
66	45,260	1 hammerstone, pebble, pitted.	
. 66	45,261	1 chipped point, slate.	
8.8	45,262	1 split pebble.	
66	45,263	1 jasper flake, chipped.	
66	45,264	1 chipped implement, jasper.	
66	45,265	1 natural stone.	
66	45,266	1 chipped implement, jasper.	
66	45,267	1 chipped implement, quartz.	
66	45,268	1 hammerstone.	
66	45,269	1 small argillite implement, with groove.	
6.6	45,270	1 jasper flake.	
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Nos.	45,271	1 chipped point, slate.
6.6	45,272	1 chipped scraper, jasper.
66	45,273	1 long point, slate.
66	45,274	1 chipped piece of slate.
66	45,275	1 broken piece of granite.
66	45,276	1 chipped piece of jasper.
**	45.277	1 rude, grooved axe-like weapon.
66	45.278-9	2 chipped points, slate.
	45.280	1 large chipped jasper implement.
	45.281	1 chipped jasper flake.
	45.282	1 broken nodule of flint.
66	45.283	1 perforated pebble.
66	45 284	1 notched pebble, sinker.
66	45.285	1 chipped pointed jasper flake.
	45 286	1 grooved stone, sinker.
66	45 987	1 chipped slate point, process of manufacture.
	45 988	1 rude stone axe, grooved.
64	45 989	1 notched nebble, sinker.
	45 200	1 chinned issuer nehble.
	45 991	1 chipped jasper implement.
	45 909	1 chipped jasper flake
	45,202	1 nitted hammerstone
66	45,200	3 chinned slate points.
6.6	45,201-0	1 chinned issuer point.
	45 909	l jasper pebble
	45 900	1 celt made from issner pebble.
	45,200 201	2 chinned stone points
	45 202	1 chipped issper fiske scraper.
6.6	45,302	1 chinned stone implement.
	45 904	I chipped issuer nebble.
66	45,004	1 chinned issper point failure.
	45,500	1 jagnar fishe
	45,000	I shinned jagner point
	40,007	1 quartz flake
	40,000	1 ground nable
	40,000	I chinned issper implement
	40,010	A abipped stope points
	40,011-014	2 jacpor fakos
	40,010-010	1 abinned jagner soreper
	40,011	1 chipped stone point
	40,010	I fint fake shinned adges
	40,010	1 abinned fint implement process of manufacture.
	40,020	A shipped inspor fakos
	40,021-4	1 notchod nobble sinker
	40,020	I house false
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Nos	. 45,329-332	4 slate points.
66	45,333-334	2 jasper flakes, chipped edges,
66	45,335	1 chipped jasper pebble.
66	45,336	1 chipped pebble, sinker.
66	45,337-8	2 chipped stone points.
66	45,339	1 chipped jasper pebble.
**	45,340	1 notched pebble, sinker.
6.6	45,341	1 chipped jasper point, one edge serrated
66	45,342	1 chipped stone point.
66	45,343	1 chipped jasper implement.
66	45,344-345	2 chipped jasper pebbles.
66	45,846	1 chipped stone point.
4.6	45,347	1 chipped jasper implement.
66	45,348-9	2 chipped stone points.
**	45,350	1 chipped jasper point.
66	45,351	1 chipped stone point.
66	45,352	1 jasper point.
66	45,353	1 slate point.
66	45,354	1 chipped piece of issper
66	45,355-6	2 argillite points.
66	45,357	1 slate point.
66	45,358	1 jasper point.
66	45,359	1 chipped jasper implement
66	45,360-361	2 slate points.
* *	45,362	1 chipped piece of jasper
5.5	45,363-4	2 jasper points.
6.6	45,365	1 slate point.
66	45,366	1 stone point.
66	45,367	1 argillite drill.
66	45,368-9	2 natural stones.
66	45,370	1 argillite point.
**	45,371	1 chipped slate implement.
**	45,372-3	2 chipped jasper flakes.
66	45,374	1 argillite point.
6.6	45,375	1 chipped slate implement.
66	45,376	1 argillite point.
66	45 377	1 jasper point.
66	45,378-380	3 jasper flakes, chipped.
66	45,381-2	2 jasper points.
66	45,383	1 jasper flake.
44	45,384	1 jasper implement, discoidel
66	45,385	1 chipped slate point.
66	45,386	1 quartz implement.
8.6	45,387	1 splinter of argillite.
66	45,388	1 flake of argillite.
6.6	45,389	1 chipped jasper pebble.
**	45,390	1 chipped piece of argillite

Nos.	45,391-2	2 argillite flakes.
66	45,393	1 chipped piece of argillite.
**	45,394	1 argillite flake.
66	45,395	1.argillite point.
66	45,396	1 argillite flake, chipped.
66	45,397	1 chipped point, quartz.
66	45,398	1 chipped point, chert.
66	45,399-400	2 chipped points, argillite.
66	45,401	1 chipped implement in process manufacture.
66	45,402-3	2 chipped slate points in process manufacture.
66	45,404	1 slate flake.
66	45,405	1 long slate implement.
**	45,406	1 point of slate, implement.
66	45,407	1 chipped slate point.
	45,408-9	2 chipped argillite points.
**	45,410	1 argillite flake.
66	45,411	1 curved stone, natural.
**	45,412	1 chipped slate point.
66	45,413	1 chipped jasper pebble.
66	45,414-420	7 chipped slate points.
66	45,421	1 slate flake.
5.5	45,422	1 chipped jasper point.
66	45,423	1 slate flake point.
**	45,424	1 chipped slate flake.
66	45,425	1 argillite perforator.
2.2	45,426	1 stone flake, chipped.
66	45,427	1 slate point, chipped.
66	45,428	1 slate flake.
6.6	45,429	1 slate point, chipped.
**	45,430	1 long slate point, chipped.
66	45,431	1 slender slate point, chipped.
6.6	45,432	1 small slate point, chipped.
66	45,433	1 slate point, perforator.
**	45,434	1 stone, much decomposed.
66	45,435	1 large stone flake, pointed.
**	45,436	1 chipped slate pebble.
**	45,437-441	5 chipped pieces of slate.
66	45,442	1 hammerstone, pitted pebble.
6.6	45,443	1 hammerstone, pebble.
66	45,444	1 pebble, chipped on one edge.
66	45,445	1 slate arrowpoint.
**	45,446	1 jasper point.
**	45,447	1 curved stone, natural.
**	45,448	1 jasper point, process of chipping.
**	45,449	1 jasper point.
65	45,450	1 curved piece of stone, natural.
66	45,451	1 fragment chipped slate point.

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	Nos	. 45,452-3	2 jasper points, process of manufacture.
	**	45,454	1 stone point, process of manufacture.
	66	45,455-6	2 chert arrowpoints.
	**	45,457	1 jasper flake.
	66	45,458	1 chipped jasper pebble.
	66	45,459	1 chipped point, chert.
	66	45,460	1 chipped piece of slate.
	66	45,461	1 splinter of argillite.
	**	45,462	1 flake of argillite.
		45,463	1 chipped point, argillite.
	**	45,464-5	1 chipped point argillite, much decomposed.
	66	45,466	1 chipped point quartz.
	66	45,467	1 chipped slate arrowpoint.
	66	45,468	2 chipped stone points.
	66	45,469	1 potsherd, incised ornament.
	66	45,470	1 chipped slate point.
	6.6	45,471	1 argillite flake.
	66	45,472	1 stone flake.
	66	45,473	1 quartz flake.
	46	45,474	1 chipped stone point.
	**	45,475	1 chipped slate point.
	"	45,476	1 chipped stone point, process of manufacture.
	6.6	45,477	1 chipped slate point.
	66	45,478	1 quartz flake.
	66	45,479	1 chipped stone arrow point.
	**	45,480	2 chert points, process of manufacture.
	66	45,481	1 chipped slate point.
	**	45,482	1 quartz point.
	"	45,483	1 chert point.
	66	45,484	1 jasper point, chipped.
	66	45,485	1 fragment grooved stone axe.
	66	45,486	1 stone hammer, pebble roughly grooved.
	66	45,487	1 grooved stone axe, one-half.
	**	45,488	1 chipped pebble.
	66	45,489	1 stone celt.
	**	45,490	1 stone celt made from pebble.
	66	45,491	1 stone celt, chipped.
	66	45,492	1 chipped mass of argillite.
	66	45,493	1 stone celt.
	**	45,494	1 slate celt, process of manufacture.
	66	45,495	1 stone celt chipped.
	66	45,496	1 rude stone implement.
	66	45,497	1 stone flake.
	66	45,498-500	- 8 large slate points, portions.
	6.6	45,501	1 chipped jasper pebble.
	6.6	45,502	1 chipped slate pebble.
	66	45,503	1 grooved stone implement, fragment.
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Nos.	45,504	1 slate flake.	
66	45,505	1 grooved stone.	
66	45,506	1 chipped piece of slate.	
66	45,507	1 jasper scraper.	
6.6	45,508	1 chipped slate point.	
66	45,509-10	2 chipped pieces of slate.	
66	45,511	1 chipped piece of jasper.	
66	45,512-13	2 chipped stone points.	
66	45,514	1 chipped slate implement.	
46	45,515	1 chipped jasper pebble.	
6.6	45,516	1 chipped slate point.	
66	45,517	1 natural pebble.	
44	45,518	1 slate flake.	
66	45,519	1 jasper flake, chipped, peculiar shape	
66	45,520	1 chipped stone point.	
66	45,521	1 chipped slate point.	
66	45,522	1 chipped jasper point.	
**	45,523	1 chipped argillite point.	
**	45,524-5	2 chipped jasper points.	
66	45,526	3 potsherds.	
**	45,527-537	12 potsherds.	
	45,528-549	84 splinters of bone.	e
66	45,550	1 chipped jasper implement, process	of manufacture.
66	45,551	1 chipped piece of jasper.	
66	45,552	1 jasper flake, trimmed.	
**	45,553	1 chipped piece of jasper.	
66	45,554	1 chipped stone point.	
6.6	45,555	1 chipped point (chert?) knife.	
66	45,562	9 pile ends.	
66	45,563	1 chipped chert knife.	bre bred
61	45,564	1 chipped slate implement.	onected and
61	45,565-573	9 chipped slate points.	A B HIEV
6	45,574	2 chipped slate points, broken.	I. A. D. HUEL.
61	45,575	1 piece of slate.	
6	45,576	1 potsherd. Collected and present	ed by Mr. w. R.
		Thompson.	

404 specimens from station B.

STATION C.

Nos.	44,365-68	11 broken pieces of stone.
66	44,369-73	7 rude stone implements.
**	44,374-75	2 stone flakes.
66	44,376	1 large argillite flake.
**	44,377	4 broken pieces of stone.
**	44,378	1 pitted stone.
**	44,379	1 notched stone, sinker.

Nos.	44,380-381	2 chipped masses of stone, one of jasper.
66	44,382-84	3 stone celts, one in process of manufacture.
66	44,385-400	16 rudely chipped implements.
55	44,401-34	34 chipped pointed implements.
66	44,435	chipped jasper pointed implement, collected by Mr.
		Thomas Whalen, Aug. 18, 1881.
66	44,436	1 large oval pebble, maul with hole through centre,
		presented by W. R. Thompson, collected in 1884.
66	45,556	1 chipped stone.
66	45,557-8	2 chipped points, argillite.
66	45,259	1 slate flake.
66	45,260	1 chipped slate knife.
66	45,261	6 slate flakes.
		95 specimens from station C.
		Total number of specimens, 602.