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BRONSON MUSEUM
Tel. 222-5470

This, the Society Museum, is located on the 5th Floor of the Attleboro Trust Co. building, at 8 North Main Street, Attleboro, Mass. — Museum Hours are from 9:30 to 4:00, Mondays, Tuesdays, and Thursdays; other days by appointment. Contact the Society office at the museum; Maurice Robbins, Director, William S. Fowler, Curator and Preparator.

The museum has extensive exhibits of stone implements, obtained for the most part from central Massachusetts areas. They have been arranged in the four culture periods identified in the Northeast that extended over the past 10,000 years; diagnostic artifacts are shown in the culture to which they belong.

Beside seven large dioramas depicting scenes of aboriginal activities, many large wall-case displays have been added. These contain impressive ceremonial remains of cremated burials that exhibit probable mortuary rites of Late Archaic peoples, who lived 4,200 to 4,700 years ago on the shores of Assawompsett Lake. The museum has been developed so as to aid archaeological research for those interested in gaining comprehensive information about the cultural development that took place in New England throughout its four culture periods; Paleo, Early Archaic, Late Archaic, and Ceramic-Woodland.
IN APPRECIATION: WILLIAM S. FOWLER
MAURICE ROBBINS

It is with sincere regret that the Massachusetts Archaeological Society, Inc., announces that, for personal reasons, Dr. William S. Fowler has found it necessary to resign his offices in the Society. Dr. Fowler became a member of the Society in the fall of 1939, only a few months after its organization. He was one of the founders of the Connecticut Valley Chapter, and was chairman of that Chapter from its inception until 1946. During that time the Chapter expanded rapidly and became one of the leading chapters in the Society. Under the direction of Dr. Fowler the chapter carried out a number of field projects, and its members contributed to the Bulletin and to the Research Committee's survey. Among the achievements of the Connecticut Valley Chapter under Dr. Fowler's direction were the excavations at the Wilbraham steatite quarries.

In 1946 Dr. Fowler moved to Attleboro and became the Secretary of the Society and Curator of its Bronson Museum. For the ensuing 10 years he served the Society as Secretary. At that time "the secretary" was charged with the duties now assigned to the Recording Secretary, Corresponding Secretary and the Mailing Committee. The membership was at about 300 and we had not acquired the addressograph machine, so that all Bulletins, meeting notices, etc. had to be hand addressed.

In 1948, at the invitation of Dr. Irving Rouse, Peabody Museum at Yale University, Dr. Fowler spent the fall and winter excavating the Ragged Mountain site in the upper Farmington River Valley in Connecticut. This was an outstanding achievement and contributed greatly to our knowledge of the final phases of the Late Archaic.

In 1960 Dr. Fowler was elected Editor of the Society, remaining in that office, as well as that of Curator of the Bronson Museum, until retirement in 1975. As Editor his success in producing an outstanding Bulletin, that has been widely acclaimed both by the membership and by archaeologists in general, is well known to all of us. The Bulletin has not only provided all of us with excellent articles on current archaeological events but it has been a major contribution to the growth and success of the Massachusetts Society. Perhaps its major contribution was the publication of the classification system adopted by the Society and which is widely used in the area.

As Museum Curator, Dr. Fowler was responsible for the many excellent displays which we have all enjoyed over the years. The dioramas would not have been possible without his ability as an artist and these will remain a reminder of his unique talents and his willingness to give of his time to the Society.

No one individual in the history of the Society has devoted more of his time and talents to the Massachusetts Society than Bill Fowler. When he resided in Attleboro he was at the Museum every weekday and, after his removal to East Providence and then to Barrington, Rhode Island, he continued to travel, at least on three days each week, regardless of weather, to the museum to carry out his duties as Editor and Curator. All this was a "labor of love" and an outstanding demonstration of devotion to the Society and to the science of archaeology.

Many of the individuals whose papers appeared in the Bulletin are indebted to him for assistance in writing and particularly for the excellent illustrating which has made our Bulletin one of the most attractive to be published by an amateur society.

Whoever succeeds Dr. Fowler as Editor and as Curator of the Museum will be obliged to aim high to sustain his standards. It is our sincere hope that Bill will continue his archaeological research and that we are yet to read many papers from his pen and enjoy his meticulous illustrations.

Bronson Museum
October 18, 1975

AN EDITORIAL GREETING AND EXHORTATION
DENA F. DINCAUZE

This Bicentennial year also marks the end of an era for the M.A.S. Bulletin. William S. Fowler retired from the Editorship of the Bulletin after seeing vol. 37 nos. 1 & 2 to press. He had held the office longer than anyone else, and had firmly stamped the journal with his personal style and philosophy.

The Trustees have appointed the present Editor to fill Mr. Fowler's unexpired term, serving until October 1976. The new Editor is working with an Editorial Board, whose members are listed inside the front cover.

Since change is inevitable, the next two issues will see some innovations and experiments, as well as the continuation of many traditional elements. The major innovation in this issue is the practice of listing cited sources together at the end of articles. We believe that this format facilitates reader reference to sources, and that it will bring to our readers' attention a variety of interesting sources they might wish to consult themselves.
A BIFURCATED POINT CONCENTRATION

WILLIAM B. TAYLOR

In eastern Massachusetts, on six major sites in the upper reaches of the Taunton River has appeared a noticeable concentration of Bifurcated projectile points. Because of their unique shape and presumed early culture association, recent interest has developed in promoting a more intensive study of these unusual points. At present an investigation is under way in eastern United States in an effort to learn more about them, such as discovering their probable use, as well as the reason for their diffusion along the Atlantic Coast as far as New England. This research has been of especial interest to the writer, since over the years he has participated in the extensive recovery of 99 representative specimens from a comparatively limited area in the Taunton River drainage of North Middleboro and Bridgewater, Massachusetts, known as the Titicut district. It seems to him that this high productivity, when compared to the few isolated finds made outside of this region, is significant and may be informative as a guide to further study. This thought became apparent, as a result of my correspondence with Jefferson Chapman of the Department of Anthropology at the University of North Carolina, who is making a comparative study of these points in the East. The writer is impressed with the fact that they are accepted as an important projectile point in Tennessee, and from there east, extending through coastal regions of the Atlantic. It seems informative that their shape remains quite uniform throughout this diffusion that reaches up the coast to New England, where a notable concentration has occurred as reported in this paper.

Some idea of the importance of this study lies in the radiocarbon dated early age of Bifurcated points in several sections of the East. For instance, in Tennessee, an Early Archaic site, excavated under the direction of Jefferson Chapman, has recently been intensively studied. Its Bifurcated point recoveries are dated between 8,300 to 8,850 years ago, and are preceded by an earlier Kirk horizon.

Another report comes from West Virginia, by Bettye Broyles. It covers Bifurcated point recoveries on sites along the Kanawha River, including St. Albans, with dates ranging from 8,200 to 9,000 years ago (Broyles 1971).

In New England, there are no radiocarbon dates available which can be directly associated with Bifurcated points. At the Titicut site in Bridgewater, thirteen Bifurcated points were recovered (Robbins 1967). Three of them appeared at the lowest level, in the "white sand" horizon; one of these is included in Figure #1. It is characteristic of the deeply bifurcated, wide-based points with relatively sharp barbs, which are recovered at low levels in sites. Specimens from higher levels have more rounded, modified barbs. The earliest radiocarbon date from the Titicut site, from an open hearth in the white sand horizon, indicated an age of 5750 ± 720 years for that feature. The difference between this date and the most recent one from West Virginia amounts to 2450 radiocarbon years. The Titicut date, therefore, almost certainly does not refer to the Bifurcate point occupation of that site.

Another reference from southern regions indicates presence of Bifurcated points in the Carolina Piedmont area, reported by Joffre Coe. He places this projectile type early in point of age, followed by Middle Archaic Stanly and Morrow Mountain types (Coe 1964). Stanly and Morrow Mountain points are comparable to Corner-removed#5 and Corner-removed#8 and 9 of the Massachusetts classification.

In New York, among other regions adjoining New
Fig. 1. BIFURCATED POINTS, Titicut-Taunton River District. a) 1-17, Sharp barbed specimens; b) 20, 21, Eccentrics; c) 18, 19, 25, 27-37, Rounded barbed specimens; 22-24, 26, Disappearing barbed specimens. (Some have broken points restored).
Masachusetts Archaeological Society

England, the presence of Bifurcated points is reported by William A. Ritchie (1961:115), who did not give them a type name.

New York specimens of Bifurcated points are usually made of either Deepkill Coxsackie, or Onondaga flints from the Hudson and Mohawk valleys, respectively.

**TAUNTON RIVER SITES**

Located along a half mile stretch of the Taunton River, beginning at tidewater about 15 miles above Narragansett Bay, occur six principal sites where Bifurcated points have appeared in quantity, amounting to 4 or more at a site. Description of these sites and a brief account of them follows, from which evidence the conclusion of this paper is derived.

**Seaver Farm.** Located about 20 feet above the Taunton and stretching for a distance along one side of the river, starting at a bend in the stream, this 32 acre, formerly plowed, area probably has produced more Bifurcated points than any other site in Massachusetts. All told, 44 recoveries have been made here, of which many are illustrated. All but two were surface finds picked up on several adjoining fields of the site. Here, deep plowing over many years either brought up points from low levels, or allowed them to work up to the surface through loosened soil. This site lies beside Titicut, next to be described, which was carefully excavated, and from which a more accurate interpretation of the evidence is possible.

**Titicut.** This site lies next to the Seaver Farm on the same side of the Taunton, at a sharp bend in the river. Excavated by the W.K. Moorehead Chapter of the Society from 1946-1951, it yielded 13 Bifurcated points from an area of about 3 acres. As already stated, 3 came from the white sand horizon—the deepest and earliest zone of occupation—while 3 more occurred just above in the yellow subsoil. Apparently, these represent the earliest undisturbed recoveries of this type of point at the site; the balance probably were out of context in the humus level above.

**Fort Hill.** Moving about a half mile up stream from Titicut on the opposite side of the Taunton, part of this elevated site covers the top of a steep bluff that overlooks the river. Here a palisaded, small Indian fort of Contact days once stood. Adjoining the fort site is an open area, once extensively plowed. From both surface hunting and excavations 18 Bifurcated points have been recovered from these two areas, and are well represented in the page of illustrations.

**Taylor Farm.** Located downstream from Fort Hill on the same side of the river in North Middleboro, about half way to Titicut on the opposite side of the Taunton, appears this 83 acre farm. Formerly much of the open land was plowed, of which four main concentrated occupation areas of about an acre apiece were conti-
A BIFURCATED POINT CONCENTRATION

beginning of the age, or later with a migratory movement of people having new ideas and equipment.

A distinctive trait of a Bifurcated point is its prominent barbs that usually are quite noticeable. This projectile has a relatively broad body from 1 to 1 5/8” in width. Also, while on the subject of size, it is important to note that width of the basal stem varies from 5/8” to 1”. This extreme width would indicate something more than the usual 1/2” spear shaft haft—could well have been a bone harpoon holder of 3/4 to 1” in width, to be described further along. Of all the unique traits of this projectile, its barbs are perhaps the most significant. Invariably they are carefully retouched to become one of the most noticeable features. But that which is perhaps its most important observation to make is that when the Bifurcated point is found at low levels—assuming it has not been disturbed—its barbs are relatively sharp. An impression begins to form that these barbs were made for the purpose of holding the projectile firmly in quarry being hunted, which should make it a harpoon projectile. Also, it is worth noting that sometimes, when one of these points is uncovered at low level with its pointed tip broken off—doubtless as a result of its use in hunting—the pointed tips of its barbs also will be fractured. This suggests that this Bifurcated projectile, which at times has slightly concave lateral sides to increase its effectiveness, had deeply penetrated its target as a harpoon, and in being retrieved had lost all of its pointed tips.

Certain modifications of the Bifurcated point become apparent on specimens recovered from higher levels. More specifically, barbs become rounded shoulders in some cases, as though it were being used no longer as a harpoon, but instead as a regular projectile point. At other times, upper horizon recoveries have relatively long barbs with intentionally made rounded ends, not points. An explanation for this variation is still a mystery.

Since Corner-removed#5, 8, and 9 points are well established as early Archaic points, a brief description of them seems desirable. As previously mentioned, quartzite is the preferred stone used in their manufacture, although argillite and felsite occasionally occur. Corner-removed#8 has a more or less pointed base with noticeable shoulders appearing just above, while type # 9 is the same point with the basal point somewhat rounded. On the other hand, Corner-removed#5 has a similar narrow stem base, except instead of a point, it is cut off with a slight bifurcation appearing at its extremity. At several excavated sites these points have appeared to be contemporaneous, as related to their deposition and probable use.

Perhaps the best example of their close relationship occurred at the Oak Island site on North River, in the town of Norwell, Massachusetts (Scotthorne 1968). Here they appeared in yellow sandy subsoil, separated from Late Archaic artifacts above, by a layer of sterile silt. In this same sandy horizon occurred 2 Bifurcated points, apparently indicative of some kind of related connection with the Corner-removed points. Somewhat similar evidence uncovered at Titicut has convinced the writer that contemporaneity existed between Bifurcated and Corner-removed#9 points. There in the white sand early horizon appeared 6 Corner-removed#9 points together with the 3 Bifurcated points previously mentioned. Furthermore, since felsite was used quite generally for Bifurcated points, while quartzite was preferred for Corner-removed types, it seems just possible that appearance together of the two at both Titicut and Oak Island may indicate two migrant groups living together, but with diverse preferences for stone point materials.

CONCLUSION

This study of Bifurcated points and their concentration in the Titicut district and river-connected environs leads to several concluding observations. In so far as their age is concerned, appearance in the early post glacial white sand horizon at Titicut leaves no doubt that they arrived here relatively early, during the early post-glacial mixed forest period. However, Bifurcated point hunters were preceded somewhat earlier by migrants with Parallel Stem points, doubtless transitional between the Paleo hunters and the Early Archaics.
supporting evidence of this sequence appeared at Oak Island. Here, lying in the top 6" of the white sand, below the Early Archaic yellow sandy horizon, occurred 3 Parallel Stem points—resembling Alabama Dalton points, transitional between the Paleo and the Early Archaic in the Southeast—and with them were 3 small unique stone hearths.

Having said this, the question arises: What use would have been made of Bifurcated points that would have required their odd but distinctive characteristics, so different from all other points? For instance, note their extreme width and peculiar pair of prominent basal lobes, one either side of a deep bifurcation in their base. Beyond this, mention should be focused once more upon the modification of their lateral edges that occasionally become somewhat concave, apparently altered so as to effect better penetration. Finally, notice the relatively large size of these points, which would seem to pre-empt their use for spearing large, rather than small, animals.

With these various traits of Bifurcated points in mind, it is suggested that these distinctive projectiles were used for harpooning seal. These aquatic mammals, 8,000 years ago, might have frequented the Titicut area and as far upstream as lakes Nippenicket and Assawompsett. The chief attraction for seal at that time could well have been what is present today; the annual run of alewives, commonly known as herring. Also, such a run of fish to their spawning grounds might have included salmon, a fish that is known to be followed by seal, often as far as hundreds of miles inland in other parts of the world (Gilbert 1973: 65-6; Marshack 1972: 170-2).

But beyond all evidence so far presented, the most significant and instructive recovery ever made occurred during the Wapanucket excavation at Assawompsett Lake. It consists of a bone harpoon holder with a stone projectile that had come out of its haft—illustrated as probably hafted with improvised bone barbs (Fig. 2). It lay deep in the subsoil, miraculously preserved over the years. With it was a Corner-removed#8 point that had worked loose from the bone holder, indicating its early Archaic provenience. It seems probable that Bifurcated points would have been hafted in similar bone holders, as their bulky structure would have aptly accommodated the unusually wide basal stems of these points. Interestingly, a presumed related bone harpoon of the Eskimos closely resembles the Wapanucket specimen, except that the Eskimo harpoon has a modern iron triangularly shaped projectile in place of one of stone. The Wapanucket bone harpoon with probable fish bone barbs bound in would have served handily in the spearing of aquatic mammals, presumably seal—a too cumbersome rig for spearing anything smaller. From this evidence it appears reasonable to conclude that the Bifurcated point with sharp barbs deliberately worked into the stone itself may have preceded the Corner-removed#8 point-rigged gear from Wapanucket. That is to say, the Wapanucket harpoon with its improvised bound-in bone barbs was an adaptation—very likely a copy of a Bifurcated point-hafted harpoon. Therefore, if the Early Archaic harpoon imitation was used as postulated, then seal probably frequented Taunton River waters throughout the first part of, and well into the Early Archaic period.

From this comparative study of bone harpoons, with the Bifurcated point haft being the probable primary sample, there may have been little or no time lag between it and the Corner-removed#8 point haft. Instead, what may have happened was arrival of migrants from regions to the south, bringing with them their unique Bifurcated projectiles. Mixing in with the native early Archaics they evidently preferred to continue making and using their specialized harpoon points. As so often happens, the resident society with the usual resistance in accepting new ideas thrust upon it—in the form of harpoon equipment in this instance—copied this Bifurcated point-hafted gear by substituting their Corner-removed#8 point rigged with bone barbs. Under such conditions, use of these two types of points, made of different kinds of stone, hafted in bone harpoon holders could have continued side by side for some time, while seal were to be found in this Taunton River area.

While it is true that no known seal bones remains have occurred in Early Archaic refuse pits, this is not at all strange. When consideration is given to the long lapse of 8,000 years with presence of New England's acid soil, survival of bone would be unlikely except in rare cases, such as that of the Wapanucket bone.
A BIFURCATED POINT CONCENTRATION

harpoon holder—preserved doubtless because it happened to lie in very alkaline sand. As a matter of fact, the writer knows of no refuse pit of the Early Archaic uncovered at excavated sites that contained bone. Instead, such pits consist of a mass of black sediment, presumably decomposed organic refuse, often with charcoal mixed in.

Conclusions suggested in this report are of course no more than attempted logical evaluations. However, they are based on provocative evidence that may, as is hoped, open up further discussion to explain the presence and use of Bifurcated points.

North Middleboro, Mass.
February 6, 1975

APPENDIX

Subsequent to my completing the preceding manuscript, a most unusual bifurcate point was discovered, prompting a short description of this recovery. This find was made December 6, 1975 while surface hunting a corn field on the Leland Farm in East Bridgewater, Massachusetts.

The site, located off North Central Street, is a small Archaic camp site, which has produced some fine Corner-removed points during past years. A brook winds through a swamp adjacent to the site, that presumably provided some excellent hunting in Archaic times. Only 8 miles to the south lies the Titicut district.

Upon finding this intriguing point, my attention was drawn to its unusual shape with pronounced notches located about midway along the edge (Fig. 3). Immediately I remembered the bifurcate base with similar deep side notches found at Titicut in 1972 (Taylor 1975), which we had previously thought to be an Eccentric (Fig. 1 #21). A tracing of the new point was soon completed, with the missing portions projected. Now by viewing both points, the complete form becomes quite evident. Notice how practical these notches would be to crisscross the lashing, while the spear was being hafted to the shaft. The thong lashed obliquely over the barbs would hold the spear point quite firmly in place.

This bifurcate point is larger than the average with an overall length of 2 1/4" and a shoulder width of 1 9/16". It is made of a light yellow felsite material and shows excellent workmanship with skillfully made notches. Whether this variant is the result of an ingenious innovation by a skilled arrowmaker, or a widely-used hafting alternative, cannot now be determined. Only future recoveries will establish if this bifurcate form is unique to this locality or something which has existed in other areas of Massachusetts and previously gone unnoticed.

January, 1976

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ROBBINS, MAURICE

SCOTHORNE, DONALD G.

TAYLOR, WILLIAM B.
Pipe research is always an interesting facet of archaeological study, since smoking has been a fascinating pastime in all ages from the moment of its inception. Throughout this long period of more than two millennia in the New World, pipe smoking has been the means of providing various kinds of satisfaction to man. These have included: placing him in closer touch with the spiritual world through induced hallucinations, providing a bond of accord in peacemaking between enemies, affording an aid in curing the sick by a shaman, or simply as a means of enjoyment. In most cases, as reported by early commentators in Contact times, the use of pipes was reserved for men alone. Women seem not to have enjoyed this privilege, although doubtless there were some exceptions, human nature being what it is. Just when tobacco made its appearance in the Northeast has not yet been determined. From its reported existence in the wild state in California, evidently it was diffused across the continent, but how long it took is not known. All we know is that it was here when Columbus first saw the weed being smoked by natives in the Caribbean. Also, from writings of early reporters of native customs in the Northeast tobacco was then in use. For example, Roger Williams wrote as follows: “Generally all the Men throughout the Country have a Tobacco-bag with a pipe on it, hanging at their back.”

As for the materials from which pipes were made, early writings mention two principal ones as being stone and ceramic. And these two kinds, exclusive of others, are confirmed by archaeological recoveries at many sites. That other substances occasionally may have been used, such as corn cobs or wood, as reported infrequently, is entirely probable. However, these materials have not been identified on excavated sites, since they are subject to rot. Indurated clay, frequently referred to as fireclay, is a naturally fire-hardened clay, a product of early geologic ages. This hardened clay was often used by Adena pipe makers for their Blocked-end tubular pipes. However, there is no evidence of its having been employed in the Northeast, even after Adena migrants arrived here, and became the probable harbingers of pipe smoking. This review seems necessary in order to prepare for a discussion of what is to come concerning the subject of this paper.

Research that is involved dates back to 1937, when Milton B. Hall of the Narragansett Archaeological Society of Rhode Island located and dug a site in the Squantum Woods of East Providence. After spending much time and effort in properly excavating and recording his recoveries, he wrote an account of his work with appropriate horizontal and stratigraphic drawings. This report, never published, has now been made available to the writer for use in describing some important aspects of the dig.

The site, situated on a 14 foot high bank of a small spring-fed brook that empties into a cove at the head of Narragansett Bay, between Kettle Point and Squantum, is located some distance from the shore of the Bay. The area dug covers a relatively small plot, 20 x 26 feet in size, that lies up against a 4 foot high outcropping of rock on the southerly side. From here the land drops off sharply to the brook. This was a shell-deposit site, with a varying thickness of shell accumulation up to about a foot that tapered to 2 or 3" toward the edges. Recovered from this shell were several Small Triangular points, a yellow jasper knife, and some potsherds. Seven fire pits occurred throughout the area, presumably open hearths, while a few fire stones were scattered about as well as several groups of large stones. These may have served to hold ceramic pots upright in the fire. Besides the shell tempered potsherds found in the upper shell deposit, sherd from 5 more pots were recovered.
from an underlying refuse level, next to be described. It is not necessary to try to identify stratigraphic levels of occupation more than to say that the shell deposit was covered with 3 to 6" of loam, while at the bottom of the shell occurred a relatively thin 3/4" layer of crushed shell and bone refuse that was quite black and greasy, possibly as a result of much fish refuse.

Bone implements preserved by lime leaching from the shell, recovered from the site, consist of small pick-like 2" long flat bones, a pressure flaker, 2 antler-tine arrow points, and a few bone awls. Of the quantities of potsherds with mineral temper found in this refuse deposit, many belonged to one pot that has since been restored, and is on display at the Bronson Museum. For the purpose of dating the site at this bottom refuse level, it is important to describe the restored pot to determine where it belongs in the evolutionary development of pottery-making.

Medium in size, this pot stands 8" high with a 6 3/4" diameter mouth. It has a conoidal base and slightly constricted neck. It is made of mineral tempered clay with a thickness that varies from 3/16" to 1/4". Coiling technique is probable, while the ware has a smoothed-over surface on both sides. The rim is irregularly flattened with a notched decoration around its outer edge. Five dentate lines encircle the neck, in the midst of which is a horizontal row of large punctate impressions extending around the pot. Below, on the upper part of the body appears a bold 2-toothed trailed design of an irregular chevron effect that covers a width of 2". Finally, just below this design are 5 more dentate lineal elements encircling the pot's body.

This Stage 2 design treatment with rudimentary elements of the chevron motif represents some elaboration that in itself suggests a late position in Stage 2 times, probably just before emergence of Stage 3, or about A.D. 1300. This alone seems of little value, but when used as a time indicator for that which follows, becomes a most important element of this research. For it shows that occupation of the site occurred about two hundred years before arrival of the whites during the Ceramic-Woodland period. In more precise terms, this means that man's manual accomplishments at the site were performed with primitive tools, without the aid of those of metal that years later were available from the whites in Contact times. With these facts in mind, we are now ready to discuss a most significant recovery from the site.

It occurred while excavation was under way of the crushed shell and bone-blackened floor level, which lay below the larger accumulation of shell remains that covered the site. What is most important, it appeared on the level with the potsherds just described, with association indicated. At first, and until this research took place, this unique recovery was considered to be the broken remains of a ceramic Elbow pipe, of which the bowl was missing. Beyond this, it was seen to have an exceptional, finely worked shape. But that which lifted it out of the ordinary run of pipe recoveries was an intricate, well-extended, incised design that covered the stem. The pipe had taken on a nut brown color resembling some shades of ceramic pottery, which caused its true identity to be overlooked.

Recently this unusual pipe stem, along with other recoveries from the site were donated to the Bronson Museum by Milton Hall. Soon the thought occurred that restoration of the pipe should be attempted, so that it might be put on display along with the restored pot, which already was a part of an extensive pottery display at the Museum. And here is where a discovery was made that was to change the original ceramic identification of the pipe. A determining feature that first caught our eye, as being unlike ceramic ware that has smooth walls, was the deeply strated condition of the interior walls at the base of the bowl. This part of the bowl was intact, which made it possible eventually to restore the missing upper part by projection without resorting to conjecture. When a close inspection of the exposed inner surface of the bowl was made, it was found difficult to cut it with a sharp knife, and it lacked the coarse ingredients of ceramic ware. The striated interior now came under further scrutiny. It seemed to suggest that the material might be bone. The hardness of the material being unlike bone, the suggestion is made that the material might, in fact, be antler, which is denser than bone. The obtuse angle of the pipe at once suggested the bend often found in antler tines of a white tailed deer. And the thought arose: might not an antler tine have been used for the pipe? This conjecture soon appeared as a probability, although no previous occurrence of an antler pipe exists, so far as is known. Is the Squantum pipe, then, the first of its kind to appear? And if so, how was it made, committed as the maker would have been to the use of primitive stone, shell, wood, and bone tools? The accompanying illustration, showing it in a restored condition should serve to guide the reader in a better understanding of the following discussion about possible methods used in its manufacture (Fig. 4).
Making of the Squantum Pipe

For much of the information that follows about white tailed deer, the writer is indebted to Dr. Richard J. Goss, Biologist at Brown University, who has made a special study of this animal. He has been most helpful in furnishing facts about the growth and substance of deer antlers, as found on mature animals as well as the single spikes that appear on yearlings.

As has already been indicated, the size and tilt of this Elbow pipe suggests that it was made from the tine of a white tailed deer’s antler. However, as it would appear, there were difficulties that had to be faced in procurement of an antler tine that may have made one option more desirable than another. For instance, one choice, that of cutting off a tine from a matured antler at its enlarged base, where it is attached to the main stem, to provide for the pipe’s bowl, might have been tried. However, since the antler is solid and tough from where it breaks off the deer’s head and throughout all its tines, the cutting of a large segment with a simple stone knife, such as the woodworking Notcher, would have been difficult. Somewhat different would have been the cutting off of smaller parts of the antler, such as required for tine arrow points, only 2 to 3” away from the tine’s point. This work would have posed less of a problem. As for the pipe a second option might have been preferred, since it would have eliminated the preliminary work of cutting or in other words, sawing off a tine. Presumably this choice could have been the unbranched antler spike of a yearling. It has an enlarged base near the deer’s head, quite appropriate for the pipe’s bowl. From this a bend often occurs with a taper of the spike up to its point, which would provide adequately for the stem. Whatever shortening of the spike at either end was required could have been done conveniently by grinding with a stone abrader, and so avoid tedious cutting.

Assuming that the second option was followed and an unbranched spike obtained, next came its preliminary shaping by abrading, not to be completed until after the bowl was reamed and the stem drilled. The work routine was doubtless similar to that used in making stone pipes, as observed from remains found at the Oaklawn steatite quarry. However, what technique was used in hollowing the relatively hard antler of the bowl is problematical—scant evidence exists to suggest the method employed. Reflectively, it seems probable that if the spike were taken shortly before maturity, it would have had a somewhat softer core than at the time it was shed. In this case, a pointed stone reamer might have been successfully used in hollowing the bowl by picking and twisting. Also, since it is known that the aborigines used fire in the form of red-hot coals or stones in the making of wooden products, there is every reason to believe that in this instance antler would have been no exception.

When it comes to assessing the method of drilling, used in perforating the 1/8” hole that extends 2” uniformly through the pipe’s stem, with only a slight taper at the bowl end, reference to the writer’s previous drilling experiment may help. With a tapering 1/8” wooden drill and fine sand, he succeeded in drilling a 2” long stem of a steatite pipe that he completed, using primitive stone tools. Careful examination of the Squantum pipe’s drilling with its slightly enlarged 1/8” hole leads to a belief that it too was drilled in a similar way. However, the wooden drill used, instead of having a prominent taper, would have been quite uniform with only a slight taper toward the bit end, 1/8” in diameter. As required for this work it would have been oscillated between the hands with sand added from time to time to produce the hole by abrasion.

That this presumed method of drilling an antler spike is no fantasy, attention is called to a tine arrow point, one of two, recovered from the site—an illustration of it shows side and end views (Fig. 5). As will be noted by the end view—disregard the fracture—a tapering, smooth, round hole about 3/8” in diameter at its top extends 1/2” into the large end of the tine, and terminates in a small, round depression. Also, this same small depression is noted at the bottom of the other tine arrow point’s hole. When further thought is given to these holes, one is struck with the realization that, since antler is solid, these holes must have been made by man, presumably manually drilled. In other words, they can no longer be thought of—as formerly—as being synonymous with the natural narrow-formed holes in points made of bone. Consequently, there is now good reason to believe that the antler tine points were drilled with a 1/2” diameter stick that had been shaped with an abrupt taper to a point at one end. Using this wooden drill with sand added, these tines apparently had been successfully hollowed, in the same way as the stem of the Squantum pipe. The small, rounded depression appearing at the bottom of each is now seen to have been made probably by the worn, blunt point of a wooden drill. Apparently, too little thought in the past has been given to how the holes were made, which are found in all tine points to enable fitting them on the end of arrow shafts. Seemingly, these holes have been carelessly taken for granted by many, as though occurring naturally like those found in bone points. This revelation becomes a fascinating discovery that opens up a wide horizon for further investigation of primitive manual skill in drilling with a wooden drill-and-sand tool by abrasion.

After reaming and drilling of the pipe came the final finishing, in which the aesthetic sense of the artisan came into play. In the case of the Squantum pipe a skillful workman performed a superb piece of work, in which the stem was narrowed on the lower side so as to form a sharp rib, as shown by the bottom view in the
A RARE PIPE DISCOVERY

illustration. Not satisfied with this artistic result, the pipe maker, using a very sharp edged tool—stone or shell—incised a complex, small design over the stem and part of the bowl. The thing to notice here is that its imperfect chevron effect is somewhat similar to that of the trailed design on the restored pot, already described. Therefore, this likeness, together with the source of each being the same refuse level at the site, suggests that the age of the pipe should be ostensibly the same as that of the pot, or as has already been stated, about A.D. 1300.

Several pertinent observations might follow, as a result of this review of the making of the Squantum pipe. For one thing, it seems strange indeed, considering the careful and exquisite development of this specimen, that other pipes of antler were not produced. Possibly, the pungent odor of scorched antler, while the pipe was being smoked, or a resultant unpleasant taste may have discouraged the production of antler pipes. However, considering all the time and careful effort that must have gone into the making of the Squantum pipe, it seems likely that other antler pipes would have been made. It is possible, of course, that antler specimens have been recovered but have been mistakenly identified as ceramic pipes, and are retained in collections under false identity. Unfortunate as such misconception may be, identity of the Squantum pipe as outlined in this report, seems to mark this as a discovery of note. It has added one more piece of evidence—unraveled from misguided thinking—to the human jigsaw puzzle of the what and how of man’s inventive progress. And as one thinks about the stick-and-sand abrasion method of drilling, known to have been used in stone and now in antler, we are left to speculate how many other materials may have been perforated in the same way. If research is to go forward with new discoveries, we should proceed with an open mind, but at the same time with one that is controlled by logical thinking.

Bronson Museum
January 18, 1975

A UNIQUE ARTIFACT FROM CAPE COD
MAURICE ROBBINS

Morris Island in Chatham, Massachusetts lies between that town and Monomoy Island. Actually, it is not an island, as it is connected to the main land by a narrow strip along which runs an access road. The island forms a protective barrier between Stage Harbor and Vineyard Sound. At the present water stage, there is considerable salt marsh on the island which makes it an attractive area for wild fowl at the proper season.

Early in the summer of 1973 an Indian artifact of particular interest was recovered from the surface near a marshy area on this island. It consisted of a wooden shaft with its stone point still solidly inserted, and the
lashing that held it in place, yet intact. The wooden portion of the artifact was in excellent condition, probably because of its frequent immersion in marsh water. Figure 6 shows the artifact after preservation.

Originally the finder had not realized the uniqueness of his discovery but, having shown it to a few friends, and having been advised that hafted artifacts were indeed a rarity, he brought the specimen to the Cape Cod Museum of Natural History in Brewster. Robert Lucas, the curator, immediately called the writer, and was advised to place the artifact in fresh water to prevent further drying. It was agreed that I should attempt to preserve the specimen and return it to the museum for display.

The initial step in the preservation process was to place the artifact in a fresh water bath for about ten days. Each day a test tube of water was checked for salt, and the bath was renewed with fresh water until several negative salt tests indicated that all of the mineral had been removed. It was then immersed in a 10% solution of PVB in acetone—the material was kindly furnished by Plimoth Plantations. The strength of this solution was increased from time to time over a period of about ten days. One unexpected and almost immediate result of immersion was that the solution turned jet black within an hour or so. Apparently some unknown substance was being dissolved by the acetone. When the artifact had become sufficiently hardened to handle without injury, it was removed and examined more closely.

The wooden portion of the specimen had warped to some degree and its color had altered from a dark red, resembling cedar, to a brown-black. The stone point, a Corner-removed #2 type of red or purple felsite, had become loosened and could be removed for typing without disturbing the lashing. The wooden shaft had been shaped by scraping and the longitudinal, minute grooves, caused by this process were quite apparent. The shaft was oval in cross-section, flattened on either side, about 1.2 cm. (1/2 in.) thick by 2 cm. (1 in.) wide. It

Fig. 7. Suggested use as a fore-shaft of a spear.
A UNIQUE ARTIFACT FROM CAPE COD

was 15cm. (7 in.) long, the proximal end formed a blunt point while the opposite end, in which the point was inserted, was about 1.8cm.—less than 1in. wide. The long sides were slightly excurvate; the greatest width being near the center of the artifact.

The method of manufacture was very apparent. The wooden shaft had been split lengthwise along its long axis. The wide ends had been carefully hollowed out to accommodate the stem of the stone point. After the insertion of the point, the two wooden halves had been rejoined using some sort of adhesive, probably pitch. This is the substance that had dissolved in acetone solution. A lashing of vegetable fiber, possibly bast, had been braided and wrapped about the artifact where the stone point had been inserted. The wrapping was two layers thick and extended from about 1-1/2cm. (9/16in.) below the end of the wooden shaft to an equal distance along the stone point, completely covering the joint.

The object has been called by some who examined it a knife. The writer does not agree with that conclusion. When held in the hand the artifact does not seem to have the proper balance for use as a cutting tool. The wooden handle is too long and light for the purpose, the stone point is sharp on both lateral edges and the braided lashing would interfere if used with a cutting motion. Its general appearance is streamlined and a more probably function seems to be that of a fore-shaft for a spear or lance. The tapering proximal end would fit nicely into the end of a shaft as suggested in the accompanying illustration (Fig. 7). It is now on display in the Cape Cod Museum of Natural History in Brewster.

Bronson Museum
April 11, 1974

THE ARROWSIC ISLAND PETROGLYPH

EDWARD J. LENIK

In April, 1974, I received a letter from Mr. Harold Brown, Curator of the Bath Marine Museum, Bath, Maine, advising me of the discovery of a small stone with carvings on it, on nearby Arrowsic Island, Maine. Mr. Brown's interesting letter stated that the face of an Indian was carved on the Arrowsic stone and that the method in which the symbols were cut resembled the so-called "Map runestone" found at Spirit Pond in 1971. (Brown, 1974). This remarkable new find presented exciting possibilities for continued petroglyph research as well as an opportunity to compare the Arrowsic stone with the Spirit Pond Runestones. The Spirit Pond "runestones" were found at nearby Popham, Maine and are claimed to be of Norse origin (NEARA 1972).

Accordingly, on April 27, 1974, members of the New England Antiquities Research Association contacted Mrs. Forest H. Whitney of Topsham, Maine, seeking permission to examine the Arrowsic stone. Mrs. Whitney graciously extended us an invitation to visit her home to view the stone, and she also contacted Mr. Lee Rollins, the person who actually found the stone on the Whitney property on Arrowsic Island.

On Sunday, April 28th, a NEARA field survey party arrived at the Whitney home in Topsham. Mrs. Whitney brought out the stone on the porch of her home for us to examine, measure and photograph. A short while later Mr. Lee Rollins arrived and joined our group.

The examination of the Arrowsic stone revealed that it was basically rectangular in shape. The stone measured 11 5/8" long, 3" high at one end and 4 3/4" high at the other, and 5 1/2" wide. One long side on the stone was flat and smooth, and contained the carved symbols. One end of the stone was also flat and contained a partly drilled hole in the center. There was evidence of mortar or cement in this hole and on this side of the stone.

The Arrowsic stone contained several clearly incised symbols on its side (fig. 8). These symbols were interpreted as, from left to right, a river, six western Indian-style tepees, and an Indian with a tomahawk. There was some speculation that the "tepees" might represent "mountains" instead. However, two of these symbols have poles crossed at their tops which strongly suggests that they were indeed meant to represent tepees.
Furthermore, there was some discussion that the human figure might not necessarily be that of an Indian since it did not contain any specifically distinguishing characteristics.

The stone is probably sandstone and common to this area of Maine. The incised symbols on the stone are very distinct and were probably cut by a small and sharp metal tool. The incised lines of the “river” and the “tepee” on the far left are cut deeper than the rest of the symbols. It is also interesting to note that all the symbols are symmetrical and of balanced proportion with the exception of the two lines representing the river. In general, the workmanship shown in the carvings on the Arrowsic stone was much superior to that on the Spirit Pond “Mapstone”.

Furthermore, we saw no resemblance between the symbols on the Arrowsic stone and the symbols on the Mapstone. Both stones contained a representation of a human face. However, the face on the Arrowsic stone is nearly a perfect circle and contains two small circles representing eyes, a triangle representing a nose, and a slightly curving line for a mouth. The Spirit Pond Mapstone, on the other hand, contained only a face not a full figure, with straight lines representing eyes, two straight lines for a nose, a small straight line for a mouth, cheek marks, and incised lines representing straight hair.

The Arrowsic stone was found in the Fall of 1973 on the upper end of Arrowsic Island, in the Kennebec River opposite Bath, Maine. The Whitneys had recently purchased a summer cottage on the island and decided to make some repairs to the foundation of this 70-year old structure (Whitney, 1974). Lee Rollins, a 16-year old lad, was assisting Mr. Whitney with this repair project.

We questioned Mr. Lee Rollins regarding the circumstances under which he found the inscribed stone. Rollins indicated that it was found in the footing of a stone pier or pillar, one foot below ground level. The house did not have a foundation or cellar but was held up by cemented stone piers. The pier in which the carving was found was made of loosely cemented stone and the carved stone was found upside down in the pier (Rollins, 1974).

In summary, this is what we found and concluded: The Arrowsic Island petroglyph was a rectangular stone, containing symbols resembling a river, a human being, and western Indian-style tepees. These symbols were probably carved by a metal tool. Finally, the carvings were at least 70 years old. We concluded that it was probably not of Indian origin and certainly not related to the alleged Spirit Pond runestones. However, the mysterious question still remains: who carved the Arrowsic Island Petroglyph, when and why?

ACKNOWLEDGEMENT
I wish to thank Mr. Harold Brown of the Bath Marine Museum for bringing this stone to NEARA’s attention. We are deeply indebted to him for his continuing interest and enthusiasm in attempting to solve these mysteries on stone.

Wayne, New Jersey
June, 1974

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Fig. 8. THE ARROWSIC ISLAND PETROGLYPH, Maine.
NEW DISCOVERIES AT SWAN HOLD

WILLIAM S. FOWLER

Since 1952, when the Swan Hold site in Carver, Massachusetts, was first reported (Fowler 1952), numerous Society members have excavated there with several outstanding finds. Brief mention of them includes, 2 Channeled gouges and an Ulu, recovered at a low level in such a way as to confirm them as diagnostics of the Early Archaic. Also found were other artifacts accredited to this early period, including projectile points. Beside these recoveries, accounts of two well-documented cremation complexes of the Late Archaic, one at the site and the other nearby, were reported in Society Bulletins (Sautter 1967; Roach 1971). Both included exceptional assemblies of recovered artifacts used in performing the burial ceremonials, with important rites suggested that have added much to our knowledge of burial practices of the Late Archaic. Because of such valuable aid, Swan Hold has become an important name to those in touch with its past history. The writer is well acquainted with the site, as he has participated in all previous reports about it, and has excavated there on two occasions.

So, when recent word was received from an enthusiastic member of work he had been carrying on at Swan Hold, our interest was at once aroused.

When he told us about some of his recoveries and asked the writer to complete a report of them with illustrations for publication in our Bulletin, we gladly accepted. Not many sites are as fortunate as this one at Carver in continuing to yield important evidence. For instance, this paper is the sixth report from this now well-known site. We are grateful to the excavator, Raymond W. Benson, for giving us this opportunity not only to reexamine a site that was frequented by people in the three last culture periods, but also to describe and display evidence to show occupancy during an early phase of the Early Archaic. Although this evidence is not complete in any sense of the word, it is sufficient, as will be shown, to indicate the presence of hunters of this early period, who are generally thought of as not appearing this far east.

This opportunity has been made possible through permission granted Benson by Bud Forsman, on behalf of A.D. Makepeace, owner of the property that includes a cranberry bog adjacent to the site. We are indebted to Forsman for his grant that allowed Benson to carefully excavate the area and retain such artifacts as he might find for scientific study. Also, our thanks go to Mr. Makepeace, who through the years has been very generous in allowing scientific excavation of his property by members of this Society on several occasions.

Fig. 9. EARLY ARCHAIC RECOVERIES, Swan Hold Site. 1, Corner-removed#8; 2, Corner-removed#5; 4, Corner-removed#2; 5, Eden-like Projectile Points; 3, Expanded Base Drill; 6, Channeled Gouge; 7, Leaf Knife, double pointed . . . 4, 5 Early Phase of the Age, transitional from Paleo.
Swan Hold site covers a long sandy terrace extending along one side of Meadow Brook that is surrounded by a cranberry bog. The brook empties into the Weweantic River that flows into Buzzards Bay. From here dugout canoe travel in prehistoric times would doubtless have been possible. The sand terrace, with elevation of only a few feet above the brook, has received much fill over the years by water erosion that has brought sand down from a 15 to 25 foot elevation rising abruptly above the terrace. It extends up and down the brook as a high terrace, running more or less parallel to the lower one. An extensive tree growth covers it that in the past has tended to discourage excavation. After a distance of several hundred feet the high terrace slopes off toward the lower level, and it was near this end of the elevation that the major part of the excavation reported in this paper took place. However, the most significant recovery was made at another nearby location, which will be referred to as the Bluff. It is a high piece of land lying across the bog, from which a commanding view may be had of the entire low-lying marsh. Evidence shows that this was a frequented spot during early prehistoric times. It was here that Late Archaic artisans fashioned cache blades and flake tools from a special supply of felsite that became the grave goods of secondary cremation burials on the Peninsula (Roach 1971).

Excavation at Swan Hold was carried on by Benson from 1970 to 1974, the work being done by approved methods of procedure. The site was laid out in 5 foot grids, and measurements were made of depths below the bottom of loam, wherever artifacts appeared. Horizontal measurements were also made, locating artifacts and features in the squares where found. The work of excavating was done with either a short-handled hoe, or a trowel. All recoveries of artifacts occurred in the sandy subsoil; the loam was sterile. When comparing depths of the various types of artifacts to their respective culture associations, irregularities were found to exist with many artifacts appearing out of context—this reference applies to the main site on the upper high terrace. Here it became evident that in some places due to erosion, the sandy soil’s levels had been altered to such an extent that stratigraphy was unstable and could not be relied upon as a culture measure. Therefore, in discussing the culture position of site artifacts it has seemed desirable to treat them topologically, placing them in whichever culture group they have been found to belong at other less disturbed sites.

In the four year period devoted to excavation of the upper terrace Benson recorded 500 identifiable artifacts from an area of 7,500 sq.ft. A number of occupational features appeared that provide evidence of the site’s acceptance as a campsite. For example, there were 34 stone hearths consisting of irregular assemblies of stones, and 15 refuse pits that unfortunately were without artifacts. And, while scattered bone refuse occurred at times, no shellfish remains appeared in or out of these pits, to indicate consumption of this seafood. Another interesting feature worth mentioning was fractured remains of projectiles being made in a workshop. They consist of what were probably intended to be 3 Tapered Stem points and a Flake scraper. As was soon discovered, the fractured segments of the points fitted together that has made restoration of them possible; the scraper was unbroken. They were made of felsite, chips of which were scattered about the workshop area.

After a study of site recoveries, artifact types were found to indicate a preponderance of the Late Archaic occupation, with only scant evidence of the Early Archaic. It included one or two projectile points of Coroner-removed#2, 5 and 8 types; possibly a small Leaf knife; and—what is most important—a well-shaped Channeled gouge, a significant diagnostic of the Early Archaic.

Among Late Archaic recoveries were several types of projectiles, the most important of which were Corner-removed#7, and Eared#3 points; Plain gouge; Grooved weight; Nut pestle—identified by smoothly worn ends indicating use in a small stone mortar; and Plain drill, one of which has an extreme length of about 4 1/2’’ and is made of black flint with superior knapping and uniformity, most unusual for such a long, spindly stone drill.

Ceramic-Woodland recoveries were limited, identified principally by 100 or more small sherds from a broken pot of an unidentifiable ceramic Stage; and one large sherd of a Stage 2 pot. Both were found out of context, mixed with Late Archaic artifacts, one or two inches in the subsoil below the loam.

Representative specimens selected from these three culture groups, including the workshop material, have been illustrated (Figs. 9, 10, and 11). Shown with artifacts in the Early Archaic group is a projectile believed to be transitional between the Paleo and Early Archaic periods. The finding of this unusual point is of major importance in the archaeological study of the Northeast. Therefore, details concerning its recovery should be examined in an effort to discover possible evidence about the early period to which this type of point belongs.

Across the cranberry bog from the high terrace rises an imposing elevation, referred to as the Bluff, and it was here that the rare projectile just referred to appeared. As previously mentioned, it was on this Bluff that evidence was recovered of a workshop, where artifacts were made for use as grave goods. Whether or not the imposing height of the Bluff had any significance, the fact that the ceremonial workshop was here at this sightly place seems suspiciously suggestive of its related importance. However, so far as the discovery
Fig. 10. LATE ARCHAIC RECOVERIES, Swan Hold Site. 1-3, Small Triangular; 4-7, Small Stem; 8, 9, Side-notched; 10-14, Corner-removed; 15, 18, Eared; 19, 21-23, Stem Scraper; 24-26, Cache Knives and Scraper; 27, 28, Plain Drill; 29-32, Cache Knives and Scraper; 33, Grooved Weight.
about to be described is concerned, the foregoing reference merely serves to show that the Bluff has had an appeal that has attracted men to it for different purposes through the years.

When Benson surveyed the Bluff, he found it had been greatly disturbed of late, as a result of bulldozer operations in search for white sand for the bog. However, noticing a section that seemed undisturbed he decided to excavate in hopes of locating occupational evidence of some kind. Below the loam came the usual yellow sandy subsoil. Here he ran into enough evidence consisting of chips to keep his interest from lagging. At a depth of 19" below the loam, on a level nearly touching the white sand, a thin, fairly short but finely chipped piece of felsite appeared. It seemed almost too insignificant to cause more than casual notice, until its precision chipping attracted closer scrutiny. Even then, little could be gleaned from the artifact, which appeared to be the broken section of some kind of blade. Soon, another similarly worked stone was uncovered on the same level, and then still a third, all seeming to be broken segments of a thin implement. The reality of the find became more impressive, when all three segments were found to fit together contiguously to form all but the tip end of a parallel sided, relatively long projectile point. It was unusually thin and evenly proportioned, displaying workmanship of the highest order. At this point Benson began to realize he had found something quite remarkable, and remembering a recent report about similar points in the Society Bulletin (Fowler 1972), he wondered if he had actually recovered an Eden point. Assurance has now been given of its identity as probably one of these points, never previously claimed to have reached this far east from Eden, Wyoming, where they were first identified at the Finley site.

For the purpose of comparative study, a description of this Bluff point seems important, in order to establish its relationship to its Wyoming counterparts. But before its traits are enumerated a few words about Eden points seem worthwhile that there may be no mistaking the important position of these points in the annals of early man about 8,000 years ago. Dr. H.M. Wormington of the Denver Museum of Natural History, an eminent authority on the subject has this to say about recoveries from the Homer site near Cody, Wyoming: "The 210 artifacts recovered included some of the most magnificent specimens of Scottsbluff and Eden points that have been found. The men who made them were truly great craftsmen." (Wormington 1957:128). The truthfulness of this statement will become apparent, we feel sure, after the description that follows is concluded.

The Bluff Eden-like point is made of felsite, a local igneous stone, and, although of medium grain, must have given its maker considerable trouble in maintain-

ing its superb uniformity. Covering both faces of the blade is a ferrous-tinted patina, indicative of an extensive period in the ground undergoing corrosive surface changes. This together with its low depth where found, near white sand of early post glacial deposition, suggests an early age between the Paleo-hunters and the following Early Archaics.

With only about an inch of its tip missing, its even proportions are impressive, considering the relatively coarse stone from which it is made. Its central thickness tapers gradually from 1/4" near the tip end to 3/8" at the base, which is truncated. Extending up 3/4" on both edges from the base occurs slightly indented retouching of the parallel sides. Continuing further along the blade an undeviating width of 23/32" is maintained throughout with probable narrowing having taken place on the missing end near the tip. While surface flaking is somewhat obscured because of felsite's unyielding characteristics, there appears an apparent attempt of the point maker to maintain transverse flaking, as found on some western Edens that are made of flint. Along the entire length of both edges of the blade there occurs fine retouch chipping in an apparent effort to maintain uniform straight edges.

**DISCUSSION**

This excavation at Swan Hold has proved one thing about the site not previously believed. It is now known from Benson's work that a campsite did exist on the high, heavily wooded terrace, not too far removed in a northerly direction up Meadow Brook from the cremation complex, reported by Sautter in 1967. At that time occupational evidence was reported absent in an explored area surrounding the cremated burnt bone remains and secondary burials. But perhaps the most outstanding analyses will come from interpretations, typologically directed, of several recoveries already mentioned in part.

**Plain Drill [Fig. 10 #28].** This unusual 4 1/2" drill, made of flint, belongs in the Late Archaic period. It is exceptional not only in its extreme length, but in its even uniformity, and causes one to wonder what the operation was that would have required such a long drill. As to its source, a guess might be made that it was an import from outside New England, such as in the Hudson River Valley. It is most unlikely that a drill made of flint with such outstanding characteristics would have been the work of local artisans—no comparable drills made of any kind of stone, not to mention flint, have appeared in this New England area, so far as is known.

**Channeled Gouge [Fig. 9 #6].** This proven Early Archaic gouge is totally different from the Grooved gouge of the Late Archaic, in that the hollowing of its stem to hold the hafted thongs represents an extended channel and not a narrow groove as found on the latter. This recovery is important, not only because of its well-
formed traits, but because it is the third perfect specimen of this not-to-often-found type of gouge to appear at Swan Hold. The first two were recovered together by Bielski from the lower terrace, lying deep in the subsoil, undisturbed, well within the Early Archaic zone (Bielski 1964). Bielski’s find strengthened previous recoveries of this type of gouge as belonging to the Early Archaic Age. Now, with the third gouge of this kind to appear here, we can be reasonably sure that the Early Archaics camped at Swan Hold, although probably in smaller numbers than the Late Archaics, who followed. The unusually well-shaped characteristics of the Benson recovery should not be passed over lightly. Its relatively small proportions are true to type, and in good form, especially the deeply hollowed and well sharpened cutting blade of this beautiful specimen.

Eden-like Projectile Point [Fig. 9 #5]. Unquestionably, recovery of this unusual spear point at a relatively deep level represents the highlight of this report. If for no reason other than that of wonder, we should stop a moment and try to analyze the meaning of this revelation. For in fact it is just this, as only one other similar specimen has been recovered by excavation in the New England area, to the best of our knowledge. It was in Plymouth on an Eel River site that Charles Sherman uncovered a perfect specimen in two pieces from deep in the yellow subsoil—now on display in the Bronson Museum (Fowler 1972). The Eel River point is made of local felsite, similar to the Benson specimen, with the same thin and carefully worked characteristics. The fact that both recoveries were brought up from low levels at neighboring sites strongly suggests the early presence of Eden hunters, doubtless in small numbers. Their points probably should be associated with Corner-removed #2 and Parallel Stem points, both recovered at Oak Island on North River on the low white sand level, just below remains of the Early Archaic. Consequently, they are believed to represent an early phase of the Early Archaic, transitional from the Paleo-hunting era.

In order to better understand the similarities of the East’s Eden-like points, as compared to those of the West, descriptive statements by Dr. Wormington are worth noting. She says: “There is another type of projectile point... This is the Eden point. It is much narrower in relation to its length than the Scottsbluff and has a less strongly indented stem. It is horizontally flaked, but the flaking, although sometimes of the transverse type, is more frequently of the collateral type, which produces a diamond-shaped cross-section.” (Wormington 1957:124).

The Bluff’s Eden-like point seems to fulfill these specifications, except that its horizontal transverse flaking does not produce the pronounced central ridged cross-section of western points. The reason appears quite obvious, that whereas the latter are made of flint with clear-cut flaking, the former is of felsite that tends to produce more irregular results.

At this point it may be helpful to analyze the peculiar type of flaking found on some Eden points, and referred to as transverse. Turning to Webster’s New Collegiate Dictionary we find transverse defined as: “extended or lying across.” Examination of the Bluff Eden-like point illustration reveals a tendency in the flaking to place one horizontal flake next to another not only on one, but both faces, which is the more remarkable in an attempted consecutive order. This would seem to justify the term “transverse” as applied by Wormington. Evidently, the maker of the Benson point used the same techniques to obtain thin, uniform characteristics, as those of his western cousins.
However, he was denied the same clear-cut results, limited as he was by use of local felsite in place of the more easily worked flint of western points—hence absence of a centrally ridged cross-section. Nevertheless, the unusual thin uniformity throughout such a long blade as that of the Bluff specimen aptly supports Wormington’s assessment that the makers of these points were “truly great craftsmen,” and, we might add, in fashioning Eden points they accomplished an artistic triumph.

As to recovery of the Bluff specimen in three broken segments, all at the same level and lying fairly close together, it appears they were a normal deposit on the occupational level, not as a result of a refuse pit. Apparently, they may have been accidentally stepped on by the hunter, who had just replaced the broken point on the shaft with a new one. With the probability that the Bluff was frequented on occasion because of its advantage as a lookout, further exploring there at the 19” level or below might be worthwhile, in hopes of uncovering more evidence of Eden point hunters.

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