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BRONSON MUSEUM
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This is the Society’s Museum, 5th Floor of the 8 North Main Street Building, Attleboro, Mass. — Museum hours are from 9:30 to 4:30, Mondays, Tuesdays, and Thursdays. For special arrangements to visit on other days, contact the Director, Maurice Robbins, or the Curator, William S. Fowler at the Society Office, Bronson Museum, Attleboro, Mass.

The Museum includes exhibits of artifacts and seven dioramas portraying man’s prehistoric occupation of New England. The displays are arranged so as to show man’s development through four culture stages, from early post glacial times.

The most recent diorama extends 15 feet across the front of the museum. It depicts an Archaic village of seven large and unique wigwams as indicated by their foundations, excavated at Assawompsett Lake by the Cohannet Chapter. Human figures to scale make the scene come alive and help create what unquestionably is an outstanding addition to our ever growing museum displays.
PROJECTILE POINTS

WILLIAM S. FOWLER

Projectile points the world over have been man’s chief means of survival both as providers of food, as well as at times as weapons of war. Throughout countless ages of struggle man has doubtless spent more time creating projectiles out of various materials such as stone, bone, antler, or in later days of metal, than in making any other kind of tool. This seems a fair assertion, if the multitude especially of stone projectiles points recovered from plowed or excavated sites over the past hundred years or more is any criterion. And while points are universally more or less the same in so far as the penetrating point is concerned, their body shapes and basal styles vary greatly from one end of the world to the other. However, by confining the study of projectiles within a regional area, a great deal of information about activities of the inhabitants has been possible. Some of this has been exposed in previous writings, but when one continues to study excavated evidence as related to projectiles, new facts about the past become apparent. Indeed our knowledge of aboriginal life would be noticeably lacking were it not for the persistent analysis through the years that archeologists have made of stone points. And, as stone is the most durable of all point materials, its lasting qualities have provided researchers with an endless quantity of projectiles to analyze.

With these facts in mind, the writer has found a study of stone points over the past 30 years of research quite rewarding. Certain deductions derived from projectile developments, involving modifications within a culture or extending from one culture to another, have become increasingly informative, as our archaeological investigations go forward. However, failure of researchers in various regions of the country to establish a uniform system for naming different styles of points has hampered comparative analyses over wide areas of the country. The common practice among professionals to affix a place name to a newly discovered point, representing the site where it was first recognized and reported, has confused point study with a multitude of names. Moreover, this practice unavoidably often produces two, three, and sometimes four different names for the same projectile point type, which prevents ready concentration in making comparisons. Also, type variations are often misinterpreted as distinct types in themselves, which tends to discourage an understandable approach to clear reasoning.

The Massachusetts Society has attempted to avoid these pitfalls by classifying projectile points of New England and the Northeast by names that tend to describe a salient trait of each type, with numbers used to identify variations of the type. By this method the number of significant types is reduced to a minimum that may be more easily memorized, and so satisfy a more comprehensive audience. The projectile study of this paper uses this method of approach, as found in the Society’s Stone Implement Classification, Bulletin, Vol. 25, #1. In dealing with this subject, stratigraphic culture levels, to which the various types mentioned belong, have been used to place the type under discussion in its proper time sequence. Strange as it may seem, for which no adequate explanation has been advanced to date, the sequence of changing point styles appearing in the West corresponds in general with that observed in the Northeast: from fluted points and their derivatives to basal pointed projectiles, then truncated stem variation to side-notched and corner-notched basal styling. So far, presence of the Sandia point, the earliest in the West, has not been substantiated as occurring in the East; presumably does not precede the Fluted point in New England.

PALEO PERIOD

The Fluted point of this earliest period of the Northeast arrived about 9,500 years ago as an import, brought in by nomadic big game hunters of the age (Fig. 1,a). Evidence indicates that it survived over a long period of several millenniums without much change, with its fluted faces remaining the chief trait throughout the period. However, sometime toward the close of this epoch a new cultural influence seems to have arrived that produced three new kinds of points. These have traits, which to some extent may have been influenced by the Fluted point. They consist of, Corner-removed /2 with a broad based stem having parallel reworked sides, slightly indented, with a worked base that tends to flute (Fig. 1,d); and Parallel-stem, a narrower point with a parallel stem having barely discernible retouched sides, which are usually ground, and with a slightly concave base that tends to flute (Fig. 1,b). Also, the Eden point of the West with a 3/4" retouched parallel base has recently been found here, and probably should be identified with these points (Fig. 1,c). These three types could be considered to be transitional between the Paleo and the Early Archaic, or, as expressed in previous reports, an Early Phase of the Early Archaic. With this in mind, we might hazard a guess that toward the close of the Paleo period new arrivals, integrating with the Paleo hunters, brought in new styled projectiles with traits inspired by the Fluted point perhaps designed to meet new hunting conditions. At least the narrower Parallel-stem point may suggest arrival of smaller game.

EARLY ARCHAIC PERIOD

Following the Paleo, projectile points of the next
period, the Early Archaic, have a mean stratigraphic low level at excavated sites underlying other culture zones except that of the Paleo. However, they are totally different in all respects from those of the Paleo, indicating arrival of a new tradition, about 7,000 years ago, powerful enough to assert itself over objections to change probably exerted by possible Paleo survivors. Recent discoveries lead to the belief that Corner-removed #8 was the principal point at the start of this period. With a somewhat triangular shaped body, this projectile has sharply contracted basal sides from noticeable shoulders to form a pointed base; sometimes this is somewhat rounded to become variation #9 of this type (Fig. 2,a).

Another projectile of this period, Corner-removed #5, now appears, as a result of a recent recovery, to have had a presumed development, emerging from Corner-removed #8. This #5 point type has the same contracted base as #8, but instead of a point, has about a 3/8" wide basal end that often is slightly bifurcated. However, the recent recovery just mentioned has a narrow 3/16" wide base, which seems to represent the probable start of #5 as it evolved from #8 (Fig. 2,b ref. is to upper point). And, as improved ideas about hafting took place, this narrow base evidently was widened somewhat to accommodate modified hafting conditions. Basically, hafting of these Early Archaic variations of the Corner-removed type is, we believe, unique, and tends to separate this cultural age from all others. As may be readily imagined, the haft probably consisted, first, of drilling a hole in the pith of the shaft at one end to hold the narrow to pointed basal end of the point. After this a notch would have been sawed in the shaft's end to receive the point's sloping shoulders. The projectiles of this period, as just described, evidently were used with thrown spears or darts, depending upon the size of point involved. The larger ones are thought to have been used in hunting caribou, which passed through New England, presumably at about this time; their bone remains have been uncovered here at various places.

Another type of point belonging to this era, appearing at low levels, is the Bifurcated projectile with its deeply bifurcated base and relatively sharp to well-defined barbs (Fig. 2,c). This rather wide and sturdily made point is thought to have been used as a harpoon projectile, hafted in a bone harpoon holder, for taking seal and other water mammals. It seems to have arrived as a new type with no clue as to its source. It may have continued as a projectile of the Late Archaic, but with rounded barbs or none at all, as found occasionally at higher levels.

**LATE ARCHAIC PERIOD**

Projectile points of this cultural period reveal a new age of settlement in New England. As in the preceding ones, migrants from regions to the west apparently began moving in very gradually, about 5,000 years ago. They seem to have occupied empty camp sites for the most part, which the Early Archaics had abandoned. These earlier hunters probably had pushed north after the caribou during about a 2,000 year span, as they slowly followed the retreating tundra, which in turn
followed the melting glacial ice pack, as it moved into Canada.

The new comers brought with them a society much advanced over that of the Early Archaics, inspired as it seems to have been by established spiritual beliefs and
ceremonial practices. Evidence of these has been uncovered and studied at several sites, notably Wapanucket 6 and 8 on Assawompsett Lake, where several radiocarbon measures of from 4,700 to about 4,300 years ago date this settlement as belonging to the first millennium of the Late Archaic. Understandably, these migrants, arriving in small family groups, required centuries to occupy available camp sites. And as they found their way into this region of the Northeast, they left evidence of their occupation in the form of stone implements, deposited ceremonially or accidentally lost and buried under foot.

One of the most outstanding pieces of such evidence, recently excavated, occurred at Wapanucket 8, where several secondary burials of the early days of the Late Archaic were uncovered. They yielded more than 30 large blades including spears and knives, some of which have well-developed basal ears, while others are side-notched. But the fact that with only two or three exceptions they are made of flint—not indigenous to New England—causes one to stop and ponder the meaning of this anomaly. As will be seen by the study of projectile points of this age that follows, the types displayed by these flint blades equate favorably with point types of the period. However, the immense quantity of flint flakes that would have resulted from their manufacture was absent at the site. This leads to a belief that they probably were imports from some outside region, where flint deposits existed. Considering that the date and culture significance of these deposits are known, might not the reason for their presence be postulated with some degree of confidence. Especially so, considering the fact that most of these blades show color variations, including apple green tints, identifiable as probable deepkill flint from Coxsackie deposits in the Hudson Valley near Catskill. Still others in black shades may be Helderberg flint from the same general area, although the Coxsackie deposits are known, also, to have veins of black flint.

Believing that the flint of these ceremonial blades was derived from out-of-state deposits, probably from the Hudson Valley, it appears likely they were brought into New England by a group of new settlers as a part of their equipment, representing tools made of the preferred stone, indigenous to the country from which they came. Performing burial rites soon after arrival, they would have given little thought, it would seem, to parting with these blades, believing, as they probably did that their replacement would not be difficult. However, they would have found out too late that flint was not to be had, and would have been forced to use available stone materials of this coastal region. In these ceremonial blade recoveries may be found evidence to support the belief that a new people with new types of projectiles were arriving in New England, replacing the former caribou hunters of the Early Archaic.
In this Late Archaic age a number of point types occur with traits that have no resemblance to those of the Early Archaic. In fact, they appear as imports brought into New England, as has just been postulated, by new settlers from culture centers to the west including regions in Pennsylvania and New York. However, during this period of about 3,000 years certain projectile point developments took place, some of which seem to have evolved from imported types of the age. Here again it appears, as in the Early Archaic period, a new tradition arrived with developed styles of points that replaced those of the previous culture. Evidently the former Early Archaics had moved out of the region, at least to the extent that those who remained exerted little influence over the new arrivals from the west.

Perhaps the most impressive Late Archaic points are those with basal corners that protrude like ears. Generally with broad bases, these points, including the Long Eared type, belong to the Eared type, with numerals that denote different variations (Fig. 3,a). Of the 5 classified variations, Eared#4 in the small size (Fig. 3,b) is believed to have become modified during the latter half of the period. Excavated evidence suggests that this point gradually emerged into a similar shaped point but without ears, to become Small Triangular#4 (Fig. 3,c). By the end of this era the latter type had become a dominant small projectile to the exclusion of the former. The salient traits of Small Triangular#4 are slight to prominent convex lateral sides, with usually a somewhat concave base, as illustrated. Seemingly, all variations of the Eared point, except Eared#2 and small Eared#4, died out by the end of the age without modifications. Eared points in general appear to have had their origin in culture centers far removed from New England, and cannot be said to have been created here—points with basal ears in various shapes are to be found in several regions across the continent.

Another small projectile that first puts in an appearance in the Late Archaic period is the Small Stem point (Fig. 3,d). It seems to have been brought in and used as an arrow point—indicating arrival of the bow-and-arrow—by migrants of this age as a part of their projectile equipment. It appears to have continued in favor throughout this period and on into the next and last culture period, the Ceramic-Woodland. As classified, it measures up to 1 1/2" in length, and may have most any point style including side-notching that produces a stem. Often it occurs in stubby irregular shapes with roughly worked bases, although at times it may have a carefully developed stem.

And now we come to an interesting point develop-
A STUDY OF PROJECTILE POINTS

Fig. 4. LATE ARCHAIC TO CERAMIC-WOODLAND. a, Eared #2 (Late Archaic); b, Large Triangular (Ceramic-Woodland); c, Corner-removed #7 (Late Archaic); d, Corner-removed #3 (merging with and into Ceramic-Woodland).

The Late Archaic appears to have been a period of change, for during this age several more projectile point types probably were modified to form new styles that became popular in the following Ceramic-Woodland period. First, we might consider how Corner-removed #7 with a half inch or more wide stem, formed with nearly parallel sides under a relatively broad body (Fig. 4,c) probably evolved into narrower bodied stemmed points, as may be observed by the 5 illustrated specimens of Corner-removed #3 (Fig. 4,d). These relatively smaller points appear more in evidence in the Ceramic-Woodland zone to the exclusion of Corner-removed #7, presumably as a result of the accelerated use of the bow-and-arrow.

Another important typological change is that of the Tapered-stem point of the Late Archaic, with basal sides that taper to a truncated base. Sometimes this type is referred to as Pentagonal (Fig. 5,a). At excavated sites the finding of another type of point, known as Diamond (Fig. 5,b), invariably in the upper Ceramic-Woodland zone has led to the conclusion that this latter-day point might be a modification of the Tapered-stem, since its tapered basal sides seem similar, except that they converge to a point, not a truncated base. Also, the Leaf type of point of the Ceramic-Woodland (not illustrated) may be derived from the Tapered-stem, as it is similar, except that its basal side-taper is in convex lines, which form a rounded leaf-shaped base.

With an apparent increased use of small points in this last period, it seems appropriate to examine another probable evolutionary change. Referred to is a type modification, now generally accepted by most archaeologists, wherein the Small Triangular #4 of the Late Archaic with convex lateral sides and concave base (Fig. 5,c), becomes Small Triangular #5 of the Ceramic-Woodland (Fig. 5,d). What seems to have happened is a modification of the former, in which lateral sides have become straight, often slightly concave with a straight to sometimes extreme concave base. In this rather obvious evolvement, as supported by the examples just described, there appears reason to believe that racial continuity is indicated, in which Ceramic-Woodland artisans have improved upon and modified points of their racially related predecessors of the Late Archaic.

Still one more example of a possible emergent projectile type should be noted. This relates to the Meadow Brook site in Rhode Island, where a heavy shell deposit beginning at the start of the Ceramic-Woodland clearly marked the transition from the Late Archaic. Eared #2 points were uncovered at the bottom of the shell, and just above them appeared repeatedly the Large Triangular point, which became a diagnostic of this pottery-bearing zone; similarly, a Ceramic-Woodland diagnostic at many other sites to the exclusion of Eared #2.
appearing in the zone of merger between the Late Archaic and Ceramic-Woodland levels at excavated sites, are modifications derived from the former to accommodate some new hunting requirement. While this side-notched point development is conveniently disposed of in this way, we are left with the important Late Archaic Side-notched#1 type (Fig. 6, c) to evaluate, which seems to have no recognized connection with the following Ceramic-Woodland period. In other words, it appears solely as a diagnostic of the Late Archaic, with its broad body and extreme in-sloping basal sides to generally broad-based Side-notched#5, a significant point found throughout the Late Archaic (Fig. 6, a). While convincing proof is lacking, it may be that the narrower Side-notched#3 and 6 variations (Fig. 6, b),
form a constricted, widely side-notched stem. This type of point evidently went out of favor upon arrival of the Ceramic-Woodland, as it fails to recur during this last culture period, even in modified form.

**CERAMIC-WOODLAND PERIOD**

After reviewing these probable examples of point evolvements from the Late Archaic to the Ceramic-Woodland, we now come to an examination of what else may have occurred in this last culture epoch, which covered a period in New England of about 1,300 years up to the time of the whites. Unlike previous ages this was one of tribal warfare. But, as with the others, there seem to have been opportunities from time to time for infiltrations of settlers seeking a new home. At least the repetitious presence of two well-known projectile types of foreign extraction appearing in the Ceramic-Woodland zone at site excavations leads to the belief that there were more than a few isolated instances of migrant arrivals. Perhaps the most prolific of the two point types is the Corner-notched (Fig. 7,a). Especially is this so when it appears in small sizes that often display a pentagonal development, although large sizes sometimes occur. Basal notches extend obliquely from the two corners, usually with rather wide openings that give this type a unique appearance. This point usually occurs made of yellow jasper, or of a fine grained brownish-gray felsite. Both stone materials are thought to be from Pennsylvania deposits, where like points made of these stones are numerous. For this reason, the probability exists that the presumed settlers, who brought these points into New England, and who apparently continued to make them here, came from regions to the west including New York. For there, as well as in Pennsylvania, this type is found and is called, Jack’s Reef Corner-notched point.

The second point referred to as a probable import from some outside region is Side-notched#7 (Fig. 7,b). It is clearly identifiable by its rounded fan-shaped base below well-defined side notches, and usually appears made of some kind of flint. As flint is not indigenous here, the inference is that a connection of some kind existed with flint-producing regions, the nearest of which is the Hudson Valley. Looking over New York points we find this type listed as Meadowood, with a description that equates perfectly with its New England counterpart. Here again is evidence to justify a belief that new migrants from outside regions at times continued to settle in New England during the Ceramic-Woodland period.

**CONCLUSION**

The process of trying to deduce cultural events, involving the various peoples, who once lived in this area, through an evaluation of the projectile points they made and left behind, is work considered essential by most archaeologists. So, in this study the writer is doing no more that the next analyst might do, after having excavated and studied the stone points of New England for many years. However, this does not mean that he has discovered the ultimate meaning of the examined evidence. On the contrary, he realizes other interpretations of it are inevitable. What he has tried to do is present a constructive and logical evaluation, more as a basis for further discussion than as an expression of finality.

In thinking back over the reviewed stone point evidence of the four culture periods as found in New England, certain fundamental facts about it are worth considering, in order to acquire a coordinated picture of what may have happened over the 9,500 years of man’s occupation of this area of the Northeast. One fact is quite clear, that the peoples who settled this coastal region, evidently moved into it from western centers, the Atlantic was reserved, as it would seem, for the latter-day sea-borne white settlers arriving from the east. Thus, New England became the final stopping place for most in aboriginal times, a kind of dead-end road, with not much chance for further movement except to the north. However, of all arrivals before the whites, apparently only the Early Archaics made an
exodus toward the north in sufficient numbers to be noticed.

Perhaps one of the most significant facts derived from our study of stone projectiles is the realization that the several cultures of New England were dependent to a considerable extent upon migrant settlers for their material and spiritual development. Whether or not the early arrivals—the Paleo Fluted point hunters and the Early Archaic caribou hunters—had well-established spiritual beliefs with attendant ceremonial burial customs is a moot question. But so far as this writer has been able to learn from reported excavated recoveries, no evidence has yet been uncovered to show that any such sophisticated cultural formalism existed before arrival of the Late Archaics. However, by about 4,700 years ago, as radiocarbon dated at Wapanucket 8, where several impressive red ocher-treated cremated burial deposits appeared, some Late Archaics were arriving probably from their former New York homeland. With such discoveries, supported by an increasing number of like recoveries at other sites, radiocarbon dated within the succeeding 1,000 years, knowledge now seems convincing that settlers in this Late Archaic period brought with them a fully developed culture. It was attended, as has been postulated, by a complete complement of variously styled stone projectiles. And informatively, its cremated burial remains reveal observance of spiritual formalism, which only could have existed as a result of conformity to shamanistic leadership. From this it is evident that this cultural epoch was one step ahead of the purely hunting-fishing economy of the former periods, exhibiting a more mentally awake people, who were to become the creative stone bowl artisans of this age. More precisely we are witnessing here the development of a society made up of people with creative ideas. Therefore, as might be expected from such an advanced beginning, they were able to move ahead industrially beyond a simple food-gathering state of existence.

With the arrival of the next and last culture period, the Ceramic-Woodland, it is worthwhile to note from our study that the influx of new migrants into this northeastern region continued, perhaps to a diminishing extent, but enough to have brought new culture influences to bear upon the economy. Beside those instances previously mentioned, there is strong evidence of another important settlement during the early part of this period. It consisted of Adena migrants, who, coming from their Ohio homeland, brought to this area new ideas. Their presence is indicated by distinctive projectiles with prominent bases. However, these points are not illustrated, as their types apparently never became accepted by the local inhabitants, so as to become a part of the projectile equipment of this area.

From this study it is hoped that something has been learned about the settlements in New England before the whites. Deductions have been made, which are believed to be more than hypothetical guesses, in an attempt to advance our knowledge of the prehistoric past. But the amazing thing about this research is the observance of the great diversity of point types that were used over man’s long upward struggle. Does each one mean an adaptation to a specific hunting requirement? Or are the myriad of styles merely fanciful creations of various toolmakers throughout the ages? More than likely they are a little of both, aided by an adherence to traditional patterns once they had become established. For traditional impulses in any primitive society are known to have had an impelling influence over man’s actions.

Bronson Museum,
December 1971

A NATION-WIDE ATLATL WEIGHT SURVEY
GUY GRAYBILL

PRELIMINARY REMARKS

In 1971, as faculty advisor to a newly-formed archaeology club in Middleburg High School, Pennsylvania, the author decided to attempt to test a theory. The theory was that a survey of archaeologists—one from each state across the nation—could reveal the diffusion of the prehistoric spear-throwing device, the atlatl; and further that perhaps it might indicate where in the present-day United States it appeared first—with a reminder to the reader that there is evidence of the use of the atlatl in prehistoric Europe several millennia before the first inferred dates for its use in North America.

The Middleburg High Archaeology Club members,
who are all now seniors, were receptive to the idea; and Dale Spigelmeyer, its president, was especially helpful in initiating the survey. This year's president, Dave Maneval, also contributed much toward bringing the survey to a proper conclusion.

Briefly, three reasons existed for making the survey. Firstly, to see if a pattern of diffusion for one prehistoric device could be developed. Secondly, to learn more about a weapon that is virtually unknown beyond archaeological circles. And thirdly, to provide a major project for a high school archaeology club.

**TAKING THE SURVEY**

The two initial steps involved in the survey included developing a survey form and a mailing list. Our survey form asked the following questions: 1) Is there evidence of the use of the atlatl in your state? 2) What is the earliest approximate verified date for the use of the atlatl in your state? 3) What is the precise location for the earliest known use of the atlatl in your state? 4) Do you wish a copy of the survey results?

A mailing list was developed by first sending the forms in a blind manner to state historical commissions. Some replies came back. Some were returned unanswerable, but contained references to individuals whom we might contact. Several forms simply were never returned. We then sent forms to chairmen of departments of anthropology at major universities in those states not responding; plus the earlier references. A small third mailing to other references finally produced a survey response from 49 of the 50 states, and one each from Canada and Mexico.

After the survey was virtually concluded, a man in the archaeological field, whose opinion we respect, suggested a follow-up survey emphasizing the atlatl weight instead of the atlatl. This was willingly undertaken, with results that in effect negated much of the initial intent of the original survey. This follow-up survey asked five questions: 1) Is there evidence of the use of the atlatl weight in your state? 2) If so, what is the earliest approximate verified date for the atlatl weight in your state? 3) What is the site or location for the earliest known atlatl weight in your state? 4) Have both Oval and Wing atlatl weights been found in your state? 5) If both types have been found, which is the older; based on what evidence?

A few of the last forms mailed also asked for an estimate of the number of specimens found in each state. While it was painful to admit that the initial objective had to be discarded as unattainable, the wisdom of advising a follow-up survey became obvious as we studied the returns of the second survey. The reasons for this can be stated simply. Firstly, a strong correlation appeared in the listing of the first-known dates for use of the atlatl with those for the appearance of atlatl weights. A dozen states listed as their earliest dates for use of the atlatl the same or very similar dates as those for the weights. Similarly, most instances of Carbon-14 dating on the first survey were given as dating of material contextually related to the atlatl weights. The weightless spear-thrower left little evidence for dating. Thus, while some of the first survey dates were based on the atlatl itself, and some on the weights, all of the second survey dates were associated with the weights only. Secondly, the atlatl information, alone, is limited, with only a few states having hard data regarding the atlatl's early appearance. However, there is much solid data now available regarding the weights.

With the above in mind, our conclusions are based largely on the atlatl weight survey, with the earlier-acquired information of the atlatl use, alone, used as supporting evidence wherever possible. The chart, presented with this paper, reflects this too, using a limited amount of information from the first survey, as it relates directly to the weights. With this stated, we can now proceed to examine the response to the survey and present our conclusions.

**SURVEY RESPONSE**

Numerical response to the two surveys was excellent. On the initial survey—regarding the spear-thrower only—replies eventually came back from Mexico, Canada, and every state but Montana, for a 98.1% return! The second survey produced replies from 42 of the 52 states involved, for a response that amounted to 80.8%. Replies from the neighboring countries, while they will not be used in our analysis or in the appended chart, were obtained for the purpose of lending additional perspective to those persons involved in taking the survey. That purpose they fulfilled.

It was decided at the outset of the survey that two criteria would be used to judge the validity of the survey. Firstly, if any patterns developed, as hoped, and secondly if a goodly number of respondees expressed interest. It was with the second criterion in mind that we included the fourth question on our initial survey form. Of the 48 states from which replies were obtained, 43 or 87.8% requested the results, some with encouraging comments.

Further evidence of both the interest shown and the cooperative spirit of the archaeologists replying was in the many fine comments and enclosures they included. Brochures, reprints, photocopies—even photographs—numbered nearly two dozen, which created a sizable atlatl file that permitted the making of facsimile illustrations of weights from eastern, middle western, and western areas of the nation for comparative purposes (Fig. 8).

**FOUR PRIMARY CONCLUSIONS**

The first conclusion offered by this atlatl weight
survey is that there is a presence of weights throughout the United States. Hawaii, our isolated insular state, is the only exception not recorded in returned forms. In this conclusion the survey probably does little more than substantiate, and perhaps tie together existing data.

The second conclusion is that the basic types of atlatl weights in the United States are not of the Oval and Wing types, as we had assumed. Instead, they
Earliest estimated dates for the appearance of Atlatl Weights

- Prior to 6000 B.C. —
- 3000 to 5999 B.C. —
- 1000 to 2999 B.C. —
- Post 999 B.C. —
- Unknown —

United States
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A=1 to 10; B=10 to 100; C=100 to 500; D=500 or more.
appear to be either perforated or unperforated. That is, all of the specimens either possess a carefully drilled hole through a bulky mid-section—presumably for the insertion of the shaft of a spear-thrower—or they lack such a drilled bore.

The perforated form is predominant in the eastern section of the country, with a very few unperforated exceptions. On the other hand, the unperforated type is clearly predominant, if not the exclusive type, in the area of the Rocky Mountains and beyond to the Pacific Ocean. Throughout the central part of the United States there is some overlapping of types. As will be discussed later, there are many different forms of atlatl weights known in this country, both among the drilled, and the undrilled types.

A third and rather interesting conclusion is that, while the Sandia and Clovis dart points—or points used on atlatl-thrown spears—tend to give the American Southwest the earliest probable use of the spear-thrower, the survey indicates that the weights for the spear-throwers may have appeared earliest along the eastern seaboard (see map and chart).

So that one may ponder the above conclusion, an imaginary line should be drawn, running north to south along the eastern boundaries of North Dakota, South Dakota, Nebraska, Kansas, Oklahoma, and Texas. To this should be added four selected time categories as follows: 1) Prior to 6000 B.C.; 2) 3000 B.C. to 5999 B.C.; 3) 1000 B.C. to 2999 B.C.; and 4) Post 999 B.C. We have probable dates from 12 of the states west of the imaginary line, with ten of these, including Alaska, offering dates in the category of 'most recent', or post 999 B.C. The two exceptions, falling in the next category (1000 B.C. to 2999 B.C.) are California and Oklahoma.

East of the designated line there are no states presenting dates in the post 999 B.C. period. With some hint of a pattern they are divided about evenly (10 to 9) between the next two time periods (1000 B.C. to 2999 B.C., and 3000 B.C. to 5999 B.C.). In the entire United States just one estimated date precedes 6000 B.C., and that is in the state of North Carolina.

In view of the fact that North Carolina gives us the earliest estimated date in the nation for the appearance of the atlatl weight, it is gratifying to note that the suggested date is based upon sound documentation. The basis of this documentation is the dating of some weights at the Lowder's Ferry Site at 6201 B.C. (Coe, 1964, Formative Cultures of the Carolina Piedmont, Trans. Amer. Phil. Soc., Vol.54, Pt.5, p.122).

A final conclusion that we would consider to be a primary one for this survey is that there is a much greater number of atlatl weight specimens in the eastern part of the country than in the Midwest or West. Replies from 13 eastern states estimated the total number of specimens found in each respective state. Four categories were offered for checking the returns of each answering archaeologist. These categories were: 1) to 10 specimens; 11 to 100; 100 to 500; and over 500 specimens.

Three western states suggest the presence of not more than 10 atlatl weight specimens. Alaska, the fourth western state replying, estimates from 100 to 500 specimens. Of the eight states east of the Mississippi River—all generally smaller than the western states—five have estimates of 100 or more (see appended chart). Delaware and Florida list less than 100, and Rhode Island’s reply says 10 or less. While no such information on the Great Plains states was returned on the survey forms, one article by Robert W. Neumand, 1967, Atlatl Weights from Certain Sites on the Northern and Central Great Plains, American Antiquities, Vol.32, No.1, suggests specimen numbers approaching those of the states further west. This clear pattern is supported by several articles and reprints from the various sections of the country.

SECONDARY CONCLUSIONS

Less significant conclusions resulting from the survey will be noted briefly. Firstly, no conclusion, as was hoped, can be drawn about whether or not the Wing weight pre-dates the Oval, or vice versa. Results indicated that, where the perforated weights are common, there is a wide range of shapes from the Oval to the Wing type. The question of which of the two forms—Oval or Wing—might have appeared earlier was answered by eight of the respondents. Four replies suggested the Oval came first. One stated that they both were found in the same context. Establishing the evolutionary development of the perforated, as well as other weight forms, presumably will have to await further excavations.

Secondly, there still lingers a minority opinion regarding the purpose and utility of the weights. Two replies questioned the use of the weights on spear-throwers. The two skeptical quotes follow: From a midwestern state “Only bannerstones, which are perhaps atlatl weights;” a reference to an article—no date given—to the contrary followed; and from an eastern state, “It is not universally accepted that bannerstones are atlatls [weights].”

Thirdly, and sadly, there are still several states with virtually no state or university-sponsored archaeology programs. This is intimated from the admission of limited knowledge available in the case of several states, and is openly stated by four respondees, who express their laments thusly: 1) “Archaeological activity in this state is almost nil.” 2) “... with our newly-initiated program of state archaeology...” 3) “... in lieu of a
state archaeologist—there is none at present . . . ."
4) "... is one of those northwestern states where very little professional archaeology has been conducted."

SUMMARY
While limited information prohibited the development of a pattern of cultural diffusion for the atlatl, several clear patterns did emerge from the survey of atlatl weights in the United States. While the atlatl, itself, might have made its first United States appearance in the Southwest, the atlatl weight appears to have been used first in the eastern half of the nation; possibly in North Carolina. Two basic atlatl weights—yesterday's bannerstones—are recognized: the perforated—primarily in the Eastern United States—and the unperforated principally found in the western half of the country. Weights are very likely found in every state but Hawaii, with a paucity of specimens in the western United States.

Peripheral information included the propositions that more field work and research is required in order to learn the evolution of types among all of the atlatl weight forms. Some few archaeologists questioned the notion of the use of weights on spear-throwers, and several states are doing little or nothing to rescue prehistory's evidence from the ravages of modern construction or the over-zealous amateur.

One would hope that further results from the field and the library shelf would give the atlatl weight a place of identification and ready cognizance similar to that held by that other fine lithic artifact, the projectile point. For it would seem that the atlatl weight is as worthy a subject of study as the point and as fascinating an artifact.

Middleburg, Pennsylvania
May 5, 1973

TWO INDIAN BURIALS IN NORTH MIDDLEBORO
WILLIAM S. FOWLER

Across the Taunton River from the Seaver farm lies the Taylor farm in North Middleboro. Here in 1951 were discovered two intriguing Indian burials of colonial days, in which the grave goods seem to have a story to tell. As will be gleaned from the burial descriptions that follow, they are obviously Indian, and include numerous grave goods, some of which were derived from the whites. At the time of exhuming, the grave furnishings seemed so unusual that it was decided to display the larger of the two burials as a part of a diorama in the Bronson Museum, where it may be seen today.

Location of the graves came about as a result of a prior discovery of an adult male burial found nearby. A woodchuck had conveniently dug up fragments of human bones, which lay about the entrance to his hole. These incited test digging by the late William H. Taylor, who discovered the burial lying 3 or 4 feet in the ground. Society members were notified, and under the direction of Maurice Robbins the work of exhuming was then undertaken. While the grave goods of this interment were of interest, they contained nothing to indicate close association with the two graves described in this report, which were found later.

After the excitement had somewhat abated, Taylor decided to plow the area surrounding the exhumed male grave for a considerable distance, extending through his apple orchard. While nothing of note turned up, a belief persisted that where there was one grave there should be others. Proceeding on this theory the area was laid out in grids, and a systematic exploration of it was undertaken by Society members. Long-handled hoes were used to remove the loam, and then to carefully scrape the subsoil in search for the brownish discolored oval area that would mark the presence of a grave shaft. Before long the outlines of a grave were discovered, and the exhuming of it soon was under way.

This was an adult burial about the same depth as the first, but with several distinctive characteristics that tended to separate it from the former. Surrounding the walls of the grave shaft appeared the decomposed remains of some sort of woven mats, which indicated special attention had been given to the one being buried. The skeletal remains were in such a poor state of preservation that identification of the flexed body, whether female or male, was impossible; even when submitted to a physical anthropologist for a qualified
TWO INDIAN BURIALS IN NORTH MIDDLEBORO

This grave was the larger of the two burials of this report, and contained several kinds of artifacts. Of 2 aboriginal ceramic pots found in the grave, the larger one measures about 5' across its top. Here, 4 prominent unmarked outflaring castellations are in evidence. The large rounded bands, which extrude, display an embellishment not found in native pottery of this area of New England. The full globular body of the pot is reminiscent of late Ceramic times. This, together with the colonial articles of the interment, place this burial in contact days of the 1600's (Fig. 9,#1).

In order of importance, the next grave good to be mentioned is a small colonial copper kettle, no more than about 6" across its top; its handle is missing. Beside this lay a broken hand mirror, with about a 4" fragment of a metal handle. Nearby were 2 colonial iron hoes badly rusted, but otherwise well preserved. One has a 3" blade some 7" wide, while the other has a 6" long blade shaped something like an adz. Both are presumed to have served as hoes. Then there appeared a native well-made stone pestle about 10" long, ground smooth all over. Lying beside this were 2 rust decomposed objects that may have been colonial knives or some kind. Spread about near the head were a great many small sized colored glass beads, and many bone beads of native manufacture. Not as a deliberately placed grave offering, but coming doubtless from a cape that may have covered the corpse were 3 brown, round-headed buttons. This completes description of the various objects found with the adult burial.

In April of the following year the writer assisted in the further excavation of the site, where up to then no more burials had been discovered. Luck favored him, when he selected a few squares to dig that lay only about 20 feet removed from the place where the adult burial had been exhumed. After removing the loam with a long-handled hoe from one square without finding signs of disturbance in the subsoil, he extended his search into the adjoining square. Suddenly he noticed a brownish disturbance in the yellow subsoil, which seemed to be extensive. And upon further loam removal the oval outlines of what looked like the top level of a grave shaft appeared. As compared to the adult grave this darkened area seemed to represent a relatively smaller one.

As removal was made of the discolored dirt-fill from the grave, the disintegrated remains of woven mats, like those found in the adult grave, were detected lining the walls of the shaft. At a depth of about 3 feet, similar to that of the other grave, the skeletal remains of an infant appeared in a poor state of preservation. At one end, probably the head, potsherds were uncovered, apparently the remains of a small pot. In all, there were 41 sherds recovered, which subsequently were found to fit together contiguously to form one vessel. After restoration had been completed the resultant small pot proved to be as unique as the two other pots from the adult burial, all differing from known pottery styles attributed to native potters of this New England area.
This infant burial pot measures about 4" across its top, which has 4 prominent outflaring castellations. A row of small impressed jabs surrounds the outside rim, while at the collar's base are pinched-out triangular lobes, with a single short vertical incised line appearing on each; 5 lobes occur between every two castellations. The ware is brownish-gray in color with finely crushed mineral temper, smooth both sides (Fig. 9, #3). In this respect the pot is like the two pots from the adult grave, and has the appearance of having been made under similar conditions. Also, small colored glass beads were recovered from among the skeletal remains, which resembled those taken from the adult burial. Such similarities existing between the two, including that of the woven mats lining both grave shafts, gives rise to the belief that they may have been closely related in some way.

Excavation of the area continued and a large section of the site was carefully searched, but without a scrap of evidence of further burials. Now, more than ever, a relationship between the two interments appeared probable, and the site was finally closed with this impression remaining in the minds of many.

ANALYSIS OF THE POTTERY

At this point, to leave the problem unsolved as to the story the two burials may have to tell would serve no good purpose, nor advance the study of archaeology. Therefore, it seems desirable to examine the grave recoveries more carefully in an effort to establish their meaning. This becomes partly possible through a typological analysis of the pottery involved, which has certain unique traits that compare favorably with pottery from another section of New England. It appears to equate with pottery known as Shantok, first found at Fort Shantok in southern Connecticut, presumed to have been made by the Pequots. These Indians had two stockaded forts not too far removed from the mouth of the Thames River, from one of which in 1637 they were driven by a merciless attack of the whites and their Mohegan allies.

However, before discussing the historic aspects of the burials, it seems important to consider ceramic Shantok traits, with which the three burial pots of this report may be related. Information dealing with this subject is derived from W. R. Young, as found in a publication of the Springfield Museum of Science. Young says that Shantok pottery is tan to gray in color, with grays predominating; is fairly hard and well fired; and both interior and exterior surfaces are smooth. Vessels are elongate-globular with round bottoms. All vessels have collars usually with 4 castellations, and decorations include impression, punctuation, modeling, and extrusion. In general, these traits seem to fit closely those of the three burial pots, all of which have hard, well-fired ware.

Examination of the larger of the two pots from the adult grave shows traits similar to those Young lists for Shantok style (Subtype C): "Around the neck of the vessel below the collar are raised bands or rings, usually four in number . . . The bands are formed by extrusion." Beside these similarities, the pot is elongate-globular, a Shantok trait previously mentioned by Young.

The pot from the infant burial has traits, which seem to equate nicely with those Young reports for Shantok style (Subtype B): " . . . the neck below the collar is encircled by triangular lugs [lobes], each usually decorated with a single vertical impressed line . . ." Also, this pot has the round bottom, as do the other two, a Shantok trait listed by Young.

So here are described pottery traits from the homeland of the Pequots in southern Connecticut that are suspiciously like those of the three burial pots from the Taylor farm. With this presumed pottery relationship in mind, might it not be desirable to go one step further, and try to envision the pottery ownership that may have existed. This will be dealt with in the conclusion.

CONCLUSION

One theory that attempts to explain presence of the adult burial suggests that there is a striking resemblance between its grave goods and those paid for Indian land, which includes that of the burial area. An Indian deed of 1657, known as the Titicut purchase and covering the Titicut section of Taunton, lists certain goods given in payment by a Mrs. Elizabeth Poole to Chickatawbut, who appears as the grantor. Payment consisted of the following: 2 iron hoes, 2 copper kettles, a kettle of beans, a jackknife, and 2 great coats.

At first glance this may seem to be a likely association, especially in view of the burial's 2 iron hoes, a copper kettle, and the 2 rust-eroded iron tools, which might have been knives. But if this is so, where are the other two copper kettles, speculating that the burial's small kettle was the one that held the beans? And one might further question the presence among the grave goods of the broken hand mirror and the large quantity of small glass beads of colonial origin, not mentioned in the purchase price; that is if the burial and Titicut purchase actually are related. As far as the beans and great coats are concerned, they of necessity would have completely disintegrated no doubt, which might explain their absence.

However, whatever similarity is found between the goods of the deed and those in the grave, this material-matching seems less convincing when consideration is given to the probability that the interment may have been that of a woman. For, it would seem more logical that a man would have been the recipient of the
purchase payment, since the deed states it was Chickataubut who received the goods from Mrs. Poole. Also, would it seem probable that any such material payment for land would have reverted to one person, whether man or woman, to be cached away in a grave out of reach of other tribal members. And further, in what context should we try to explain presence of the burial pottery, occurring as it did in styles not found among the native pots of this area? And how should we account for the nearby infant grave, similarly lined with woven mats, and having the appearance of being closely related through its burial pot of Shantok provenience like those of the adult grave?

Against this land purchase explanation that attempts to associate the adult burial with the Titicut purchase, and in so doing, ignores the infant burial, an archaeological explanation is offered. This will give the reader a chance to make a choice between the two. The following reasoning is based on the premise that the 3 pots involved in the discussion have been shown in all probability to be Shantok type pottery of southern Connecticut, presumed to have had a Pequot source. Looking for a reliable confirmation of this pottery analysis, the writer submitted illustrations of the 2 larger pots to Professor Irving Rouse of Yale University. In his reply, Rouse stated that they appeared to be Shantok, especially the pot from the infant burial (Exhibit #3). Add to this the fact that no pottery style from this central New England area equates even remotely with either of these pots—the tiny vial seems too small to serve for comparative purposes, although its traits in general are also Shantok, as has been shown—and their Shantok origin appears all the more convincing.

Searching history to learn what events of the 1600's took place in southern Connecticut between the Indians and colonists, De Forest was found to give a vivid account of the Pequot war and what followed. While the date of interment of the burials is not known, it might well have been some time subsequent to a certain episode that took place, involving the defeated Pequots and their dispersal as captives of war.

In 1637 Capt. Mason with a colonial force, aided by Mohegan allies, burned out the Pequots with great loss of life to the enemy. However, some escaped and fled into the woods, where, in a swamp near Fairfield, Connecticut, a group of survivors was surrounded. Of this group—as derived from the Journal of John Winthrop, 1630-1649—De Forest relates: "... the remainder of the men ... were massacred in cold blood ... [of the] eighty women and children ... thirty were given to the Narragansetts, three to the Massachusetts Indians, and the remainder sent to the Bay as slaves."

This reference to the "Bay" doubtless refers to the Bay Colony of Massachusetts, indicating that the remaining captives would have become slaves of the whites.

Relating this historic incident to the burial evidence, and using but little imagination, a possible connection might be concluded not too far from the truth. Pertinent to this possibility, it seems important to note the custom among Indian tribes in those early times, wherein captured women customarily married into the tribe of their captors and so became full-fledged members, thereby relinquishing all connections with the tribe of their birth. With these facts in mind the concluding postulation is offered, based upon evidence from the two Taylor burials.

First, as previously mentioned the adult grave is believed to be that of a woman, on account of certain of its grave goods normally the property of women: stone pestle, 2 iron hoes, broken hand mirror, and the two small pots of female provenience—women are known to have been the planters and the potters. Of less significance are the 3 buttons from some sort of a cape, possible a female garment.

Second, if the infant burial was related to the adult grave, as its nearness, type of pottery, and its woven mat-surrounded grave shaft would appear to indicate, then it is possible that the infant may have been the child of the interred woman.

Third, with this a possibility a natural deduction might result that the infant burial pot had the same source as that of the other 2 pots. And if this is so, then the make of pottery would in all probability have been of a similar type, doubtless made by the same potter, who might well have been the woman of the adult burial.

Fourth, with this seemingly related evidence and the likelihood formerly presented that the type of pottery involved is Shantok of southern Connecticut, then two possibilities might follow. Either the pots were imports from there, or the woman, who made them, came from this southern region of New England on the Sound, known to have been the tribal home of the Pequots. Of these two possibilities the latter seems more probable, as Shantok style pottery is unlike that attributed to the Massachusetts Indians of this area, and seldom if ever is found here. In fact, this instance is the first known to the writer of the presence here of authenticated Shantok pottery.

After consideration is given to this chain of reasoning, does it not seem probable that the adult interment may have been a captured Pequot squaw—might even have been one of those Pequot women from the swamp ambush given to the Massachusetts Indians. She would then have become the wife of a Wampanoag—to judge from the region where the burials were found—with full tribal status. And by the time of death she would have become a respected member of the tribe. In fact, because of her richly
furnished grave with prized articles obtained in one way or another from the whites and her cherished pottery, made as she had been trained from the time of her childhood, she may have been the wife of an important tribal leader.

With the infant grave presumed to have relationship, might it not be probable, as previously suggested, that the infant was her child to whom death came simultaneously with that of its mother. Just what occurred will, of course, never be known, but it might be opined that death came to both in childbirth, although other causes could be conceived. However, it seems likely that no cause would have consisted of an act of violence from within the society because of the presence of the generous grave offerings, indicating esteem and concern for the departed by grieving survivors.

Bronson Museum, November 11, 1971

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THE PURCELL SITE: EVIDENCE OF A MASSACRE ON CAPE COD
FRANK SCHAMBACH AND HOWARD L. BAILET

INTRODUCTION
This is a belated report on a salvage project at a small cemetery and camp site in West Yarmouth, Massachusetts. This site is of interest because it seems to testify to the methodical extermination of the adult females and younger children of a little band of summertime foragers and shellfish gatherers on the Cape Cod shore in early historic times. Also, three of the six skeletons recovered there are among the best preserved specimens we know of from coastal Massachusetts, so it seems desirable to put them on record in a regional journal.

The site is on an inconspicuous knoll some two hundred yards north of James Bay and Nantucket Sound. This is an exposed and windy location so it was probably suitable for warm weather occupation only. A spring located off the edge of the knoll about 20 yards southeast of the site was probably the chief attraction of this particular spot.

THE SITE
The Purcell site came to light in March 1966 when Mr. Edmund Purcell (76 Pine Cone Drive, West Yarmouth) struck portions of two human skeletons while he was digging a new cesspool in his backyard. He notified the Peabody Museum, Harvard University, where we were then doing graduate work, and we decided to investigate.

Habitation refuse was very light, consisting of scattered fragments of oyster, quahog, soft clam and scallop shell and some fire cracked rock lying just beneath the original humus line, which in turn was buried under 10 inches of trucked in top soil. We found no artifacts amongst this debris. Our excavations and test pits (Fig. 10) and subsequent excavations by Purcell, who enlarged our excavations substantially in hopes of finding additional graves, show that the midden was quite small, covering only about 200 square feet. All the indications are that this was a temporary camp occupied by a small group of people for a few days, possibly over one or two seasons.

FEATURES AND BURIALS
There were two small hearths, visible as roughly circular patches of heat reddened sand 12 to 14" in diameter (Fig. 10). These appeared just beneath the original humus line and were apparently related to the midden.

There were two pits (Fig. 10) that probably served as earth ovens for roasting or steaming shell fish. Pit 1 had been intruded by Burial 2 and was further disturbed by Purcell’s cesspool hole so that we only saw enough of it to confirm that it had been a pit. A single grit and fiber tempered sherd with a trailed design came from some loosened soil next to this feature; it was probably from the pit fill (Fig. 11,H). Pit 2, uncovered and excavated by us, was a shallow basin shaped hole 21" in diameter and 11” deep that had been dug down from the midden zone. It was packed with refuse shell consisting mainly of soft clams; there were also a few quahog shells, a single knobbed whelk and a few splinters of deer bone but there were no artifacts.
THE BURIALS

The six burials were in a tight cluster of individual graves, adults in the middle, children on the outside, with the skeletons oriented more or less head to head as if to represent a small group of sleepers (Fig. 10). Burials 1 and 6 were removed by Purcell so we have no data on the position of these skeletons but burials 2 and 3 were exposed and left in place for us to see and we discovered and excavated burials 4 and 5. The individuals in these latter four graves lay closely flexed on the right or left side with the knees drawn up above the waist and the hands arranged in front of the face. All the grave pits were quite shallow, extending a mere 12 to 19” into the subsoil. The grave pit for burial 4, an adult female, is probably typical of those for burials 2, 3, and 6. It was oval, 41” long by 30” wide and 14” deep. The bottom had been completely lined with organic material, which left a regular dark stain 1/2” thick. Fragments of shell and a slight midden staining throughout the grave fill indicated it had been dug down through the midden. Burial 5, a child’s skeleton, was 19 inches deep, at the bottom of a circular pit five feet in diameter. The pit fill was stained much darker than the fill in burial 4 and contained more refuse, suggesting that interment was in a conveniently open storage pit or earth oven rather than a specially dug grave.

The skeletons from burials 2, 3, and 4, are in extraordinarily good condition with most bones present and the skulls intact and not visibly distorted by soil pressure. Burials 1 and 5 were in equally good condition considering the immaturity of the individuals. The burial 6 skeleton was badly decayed and fragmentary, raising the possibility that it was a considerably more ancient interment than the other five and only accidentally in proximity with them. However, a large tree was growing directly on top of this burial, its roots penetrating the grave, and it is likely that root action speeded the deterioration of this skeleton. Hence it is probable that burial 6 was part of this small cemetery as its position suggests.

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Fig. 10. MAP OF SITE.
The individuals in burials 2, 3, and 4 unquestionably died violent deaths, quite probably simultaneously in the course of a single attack. In burial 2 the tip of a large felsite knife or projectile point was imbedded in the body of the fourth lumbar vertebra, the blade completely severing the spinal cord (Fig. 11,B). The angle of entry indicates a wound inflicted from the left rear while the individual was lying prone or stooped over. In burial 3 a socketed bone projectile point had completely penetrated the body of the ninth dorsal vertebra (Fig. 11,C), the wound having been inflicted from the extreme left front or the left side, and three more bone points were clustered in the vicinity of the lumbar vertebrae (Fig. 11,D-F). In burial 4 a bone projectile point had penetrated the proximal end of the left humerus, from the rear, just below the joint (Fig. 11,A). There was also a broad puncture wound in the left temporal, the size and shape of the hole, indicating it was made by a weapon similar to the felsite point imbedded in the lumbar vertebrae of the person in burial 2 (see Table Nos. 1 and 2).

THE SKELETONS

Our observations on the skeletons are presented in Tables 1 and 2. The sex and ages of the adults were determined according to criteria established by Elliot (1960) and Brothwell (1963). The all female sex distribution of the three intact adult skeletons is somewhat unusual, but since the skeletons were exceptionally well preserved we think our observations are reliable within the well known limitations of attempting to sex so few individuals from an unknown population, and we offer another interpretation of this one sided distribution in our conclusions. The dental ages of the two children were determined from the standards of dental maturation published by Moorrees, Fanning and Hunt (1963) which involves x-raying the mandibular teeth. Trotter and Gleser's regression equations (1958) were used to obtain the estimates of the living stature of adult skeletons 8887 (burial 2) 8888 (burial 3) and 8889 (burial 4). Femora and fibulae were intact in skeletons N8888 and N8889 permitting the use of the equation: 1.22 (femur & fibula) + 70.24 = ±3.18 cms. The fibulae were smashed in skeleton N8887 so we had to use the less reliable equation: 2.12 (femur) + 74.03 = ±3.92 cms. All the skeletons are in storage at Peabody Museum, Harvard University.

ARTIFACTS

The bone projectile points found in or with the skeletons in burials 2, 3, and 4 are of a unique type made by cutting, sharpening and socketing the spinous processes of cervical vertebrae of the white-tailed deer. The only specimens similar to these that we know of came from burial 15 at the Titicut site in Bridgewater, Massachusetts where they evidently occurred as grave goods (Robbins 1967, p. 72 fig. 6 #11-14, 16-19). They were associated with the stem of a European clay pipe (Robbins 1967: 75).

The large felsite point found in the spine of the individual in burial 2 is non-diagnostic since the base was missing.

The two pot sherds shown in Figure complete the assemblage. Specimen H may have come from pit 1, as we've noted, while specimen G was recovered by Purcell while he was excavating burial 6 and it could have come from the grave fill or the midden. Specimen G is plain and H has a trailed criss-cross design; both are tempered with fine grit and are shot through with small holes where some material, evidently plant fibers, was burned out during firing or rotted out afterwards. These sherds resemble the "vegetable tempered" pottery reported by Bullen for his "Intermediate Ceramic"
period in northeastern Massachusetts (Bullen 1949: 133). Ritchie reports no vegetable tempered pottery anywhere within his stratigraphic column for Martha’s Vineyard and, assuming that the Vineyard and mainland sequences parallel each other, it’s possible that this peculiarity in northeastern ceramics came into vogue after the latest archeologically recorded occupations on the Vineyard which carry a radiocarbon date of A.D. 1565 +90 (Ritchie 1969: 220).

CONCLUSION
The two grit and fiber tempered sherds place the midden somewhere in the Middle to Late Woodland time range; our guess is it is very late in the sequence, probably early historic, since this pottery does not appear in the Vineyard sequence. Burial 4 intruded the midden, and though we had no opportunity to observe their points of origins we think it most likely that burials 2 and 3 did too, because of the shared evidence of violent death, involving in the case of burial 3 bone projectile points identical to the one found in burial 4. The full time range of the unusual deer vertebra projectile points is not established but on the evidence from the Titicut Site they were being made in contact times. The excellent preservation of the skeletons from burials 2, 3, and 4 accords well with a recent date for these specimens and we think it likely that these are post contact graves.

The acts of violence recorded in these graves may have been the results of a local feud, and thus of little historic significance. However, we note that in the Titicut cemetery, with its estimated span of A.D. 1500 to 1620 (Robbins 1967: 76), two of the twenty-six skeletons (B6, and 10) had stone Small stem points, while B7 had a Small Triangular point imbedded in probably fatal wounds in the skulls or lumbar vertebrae, and two others (B16 and 17) had stone

<table>
<thead>
<tr>
<th>Burial</th>
<th>Peabody Museum Catalogue Number</th>
<th>Remains</th>
<th>Age (yrs.)</th>
<th>Sex</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>N/8886</td>
<td>Cranial fragments, femora, tibiae fibulae, ribs and vertebral fragments, left ilium and ischium, 3 epiphyses and the navicular bone.</td>
<td>3.3</td>
<td>?</td>
</tr>
<tr>
<td>2</td>
<td>N/8887</td>
<td>Cranium, pelvis, scapulae, femora, tibiae, fibulae, humeri, radii, ulnae, clavicles, sternum, ribs in 35 pieces, 22 vertebrae, patella, calcanei, and a few hand and foot bones.</td>
<td>30-34</td>
<td>Female</td>
</tr>
<tr>
<td>3</td>
<td>N/8888</td>
<td>Cranium, pelvis, femora, tibiae, scapulae, sternum, clavicles, patellae, ribs in 36 pieces, 22 vertebrae, and most hand and foot bones.</td>
<td>55-60</td>
<td>Female</td>
</tr>
<tr>
<td>4</td>
<td>N/8889</td>
<td>Cranium, pelvis, femora, tibiae, scapulae, ulnae, radii, fibulae, clavicles, right humerus, ribs in fragments, sternum, patellae, 22 vertebrae, and several hand and foot bones.</td>
<td>60-65</td>
<td>Female</td>
</tr>
<tr>
<td>5</td>
<td>N/8890</td>
<td>Cranial fragments, mandible, ilia, femora, tibiae, fibulae, humeri, ulnae, radii, scapulae, left ischium and pubis, and fragments of ribs, vertebrae, epiphyses, and hand and foot bones.</td>
<td>5.5</td>
<td>?</td>
</tr>
<tr>
<td>6</td>
<td>N/8891</td>
<td>Skeletal and cranial fragments: in very poor condition.</td>
<td>50+</td>
<td>?</td>
</tr>
</tbody>
</table>
Table 2
Cranial and Skeletal Measurements (in cm.) of the Three Well-Preserved Adult Skeletons.

<table>
<thead>
<tr>
<th></th>
<th>N/8887</th>
<th>N/8888</th>
<th>N/8889</th>
</tr>
</thead>
<tbody>
<tr>
<td>Head length</td>
<td>16.8</td>
<td>17.8</td>
<td>16.8</td>
</tr>
<tr>
<td>Head breadth</td>
<td>12.7</td>
<td>12.8</td>
<td>12.6</td>
</tr>
<tr>
<td>Head circumference</td>
<td>48.5</td>
<td>49.2</td>
<td>46.5</td>
</tr>
<tr>
<td>Bizygomatic</td>
<td>12.7</td>
<td>12.9</td>
<td>-</td>
</tr>
<tr>
<td>Bigonial</td>
<td>9.9</td>
<td>10.3</td>
<td>?</td>
</tr>
<tr>
<td>Minimal frontal</td>
<td>9.0</td>
<td>9.1</td>
<td>8.7</td>
</tr>
<tr>
<td>Nose height</td>
<td>5.0</td>
<td>4.8</td>
<td>5.3</td>
</tr>
<tr>
<td>Nose breadth</td>
<td>2.6</td>
<td>2.3</td>
<td>2.4</td>
</tr>
<tr>
<td>Nasion-incision</td>
<td>7.0</td>
<td>7.3</td>
<td>7.1</td>
</tr>
<tr>
<td>Basion-Bregma</td>
<td>12.9</td>
<td>13.6</td>
<td>12.6</td>
</tr>
<tr>
<td>Basion-Nasion</td>
<td>9.2</td>
<td>10.6</td>
<td>9.6</td>
</tr>
<tr>
<td>Fibula</td>
<td>-</td>
<td>35.4</td>
<td>33.7</td>
</tr>
<tr>
<td>Femur</td>
<td>41.1</td>
<td>43.8</td>
<td>44.3</td>
</tr>
<tr>
<td>Stature</td>
<td>161.2± 3.9</td>
<td>166.9± 3.2</td>
<td>165.4± 3.2</td>
</tr>
</tbody>
</table>

projectiles in loose association with the bones, possibly the result of flesh or visceral wounds. This suggests that the killings in evidence at the Purcell site may have been part of a widespread pattern of violence brought on by the social disruption and the displacement of peoples from their traditional territories that must have resulted from European contact.

There is absolutely no hard evidence that all six burials were made at the same time but the occurrence of six graves in such a briefly occupied site, their placement and orientation, and, above all, the sex and age distribution of the skeletons, suggest to us that there were not three killings but six. We cannot prove this but we think it probable that these are the remains of about half of an extended family, three or four women and the two youngest children, who were surprised and killed near camp, the children perhaps clubbed to death, while the males and older children were off hunting or gathering.

ACKNOWLEDGEMENTS

We thank Mr. Edmund Purcell and his family for promptly reporting this interesting find and for their enthusiastic assistance and their hospitality while we were examining the site. We have not seen the Purcells for some years now but we recall our brief time together with pleasure. Mrs. Catherine Papadopoulis, Osteological Laboratory Assistant at Peabody Museum assisted with the skeletal measurements and observations described herein and Dr. Jon Muller, now Associate Professor of Anthropology at the University of Illinois joined us on one of our working weekends at the site.

Southern State College, Magnolia, Ar. (Schambach)
University of Connecticut (Bailet)
April 12, 1973
RECOVERY OF A FINELY DECORATED PIPE
CONSTANTINE ZARIPHES, JR.

Few people can boast of having found a ceramic pipe in almost perfect condition during their lifetime, not to mention one that is embellished with an intricate design. Yet one such person is Jim Tyrol of Glastonbury, Connecticut. When only 12 years old, he happened upon such a find just by accident, while walking along the banks of the Connecticut River in the vicinity of East Windsor Hill, now a part of South Windsor. One hot summer day, egged on by a friend, he had gone surface hunting, although at the time he had only a passing interest in Indian artifact collecting. However, after the incident related in this paper, he became an avid fan for aboriginal research.

East Windsor Hill, ever since colonial times, has been known as a prolific area for recovery of fine examples of aboriginal artifacts. Here have appeared burials that, during spring freshets, have yielded various prized articles including, stone bowls, Gorgets, a Birdstone, ceramic pots, and an iron tomahawk of the 1800's. So, it is not surprising that young Tyrol was fortunate enough to have been favored. Along the river brink by the meadows, where the movement of high water had washed out the bank, he picked up an exquisite Elbow ceramic pipe, small in size, but finely embellished with a well-developed design that covers both the bowl and the entire length of the stem on its top side. After being preserved for years in a private collection, it has finally come to rest in the Wood Memorial Library, East Windsor, Connecticut, in the Museum of the Albert Morgan Chapter of the Architectural Society of Connecticut.

The Tyrol pipe as illustrated (Fig. 14) has a comparatively small elbow shape, only 2¼" long, and yet its ¾" diameter bowl is large enough to accommodate a fairly elaborate design. This is stamped into the clay by the dentate technique. But in this case the tool used
must have been one that would produce not only straight dentate lines, but somewhat curved ones, as shown by the top lines of the design on both sides of the bowl. It may have been a roulette of some kind, such as a disc or semi-disc with very fine, evenly spaced teeth that could have been rolled slightly to form curved dentate lines when desired. In The Archaeology of New Jersey, Volume 2, Cross speaks about this design technique as "rouletting." She says that this type of decoration often covers the bowl, as well as part of the stem on pipes found in the Delaware River Valley, although on these pipes the teeth marks are seen to be less minute than those on the Tyrol pipe. This pipe's decoration also includes an incised 4 linear band encircling the bowl just below its rim. The dentate design motif on opposite sides of the bowl suggests independent invention, as it does not appear to follow any known standard motif. However, when it comes to the dentate work on the top flattened face of the stem that extends its entire length, the situation is different. Here the potter has utilized a filled-in form of the chevron motif, although it is difficult to detect on the pipe stem itself on account of the minute teeth marks, which are spaced very close together.

Perforation of the stem is rather large, and was probably formed by a stick or reed inserted in the wet clay, and then removed after firing, when it would have been reduced to char. The pipe's clay has very fine mineral temper, which has allowed a smooth overall surface to be formed.

DISCUSSION

Analysis of aboriginal ceramic pipes of New England has been the subject of several writers in the past. The Smithsonian Institution published a report in 1897, in which the author refers to a small obtuse angled Elbow pipe of chlorite as being "the Atlantic Coast type pipe." It is now known that, while the stone pipe preceded the ceramic pipe, the former continued to be made along with the latter doubtless down to the coming of the whites. Possibly the reason for this dual manufacture might be traced to the probability that stone pipes were made by the men, while ceramic pipes would have been the products of women, who were the potters, a condition that could have introduced the factor of competition.

In Antiquities of the New England Indians, by C. C. Willoughby, a full discussion of the subject includes illustrations of several Elbow ceramic pipes similar to the Tyrol specimen, but without decoration, indicating that this relatively small pipe was a favorite type.

The most recent report on the subject is included in an illustrated classification, Ceremonial and Domestic Products of Prehistoric New England, by William S. Fowler, published by the Massachusetts Archaeological Society, Bulletin, Vol.27, #3&4. Here may be found good examples of Elbow ceramic pipes in typical small sizes, one of which is decorated with an incised design. Here, also, one may read of the probable development of ceramic Elbow pipes from a simple to a more complex form. Fowler presents evidence showing to which stage of pottery-making the several different pipe styles belong, and indicating that decoration at times appears on the more acutely angled type, as in the case of the Tyrol specimen. The suggestion seems to be that such embellishment might have taken place during the closing days of pipe-making.

It may be of passing interest to call attention to Elbow pipe recoveries made by the writer and another member of the Archeological Society of Connecticut at Aircraft Road Rock Shelter, below Middletown, Connecticut in the Connecticut River Valley; reported in the Massachusetts Society Bulletin, Vol.31, #3&4. Three Elbow pipes comparatively small in size were recovered. One was made of steatite, the other two were ceramic. All were without design decoration and are shown here again for comparative purposes (Fig. 15). The stone specimen and undamaged ceramic pipe were so close together on the same level—only 2 feet apart—that it is safe to postulate they were contemporaneous. Both have their bowls tilted away from the stem at about the same obtuse angle, while the damaged ceramic specimen shows a more extreme obtuse condition.

In general, it seems significant that here again are small Elbow pipes appearing in the same Connecticut Valley with the Tyrol pipe, all quite similar in size and...
characteristics, except the shelter specimens are without decoration. Potsherds at the shelter were from Stage 3 and Stage 4 pots, which might indicate a possible change in pipe styling from a more to a less obtuse bowl tilt, extending from the third pottery stage to the last. Also, it may be inferred, since these pipe specimens are undecorated, that the highly embellished Tyrol pipe would suggest more sophistication, which might be expected toward the close of Stage 4 pottery-making. This then might tend to place such intricate design work as that of the Tyrol pipe even as late as colonial days, with the concomitant opportunity at that time of acquiring some sort of an appropriate fine toothed metal disc for its roulette dentate design treatment.

Rocky Hill, Conn.
June 5, 1972

MARY ROWLANDSON AND INDIAN BEHAVIOR
WILLIAM S. FOWLER

In the course of archaeological research, in which investigation centers around the study and interpretation of stone implements left behind by aboriginal settlers, it seems helpful to stop occasionally and learn what history of contact days has to offer. Reference here has to do with accounts of colonial contacts made with the natives of this area of New England, especially those in which white captives were forced to live with their Indian captors. Often information is gained in this way about native characteristics that add a sense of finality to archaeological postulations. For, to read about Indian behavior in the 1600's at the close of the last millennium of human struggle that went before. These Indians, descendants of the wandering nomadic settlers of archaeological lore, were our neighbors in colonial times to study as we wished for two long centuries. Fortunately, numerous unusual experiences had with them have been recorded in historical accounts. These furnish some idea of the probable changes in native characteristics that had taken place over the preceding millennium or more of tribal warfare; changes that doubtless represent a cultural decline from the industrial imaginative activities of the days of stone bowl-making. And yet, with all the evidence of a degenerate people that meets our gaze, there appear signs, once in a while, of qualities of respect, perhaps throwbacks to former ancestral peaceful days of labor in the stone bowl quarries.

There are several outstanding accounts during King Philip's War and for a generation or more following of white captives and their often grueling experiences at the hands of their Indian masters, who led or dragged them off into captivity. The well-known and often told episode of Eunice Williams, the young child of the minister of Deerfield, and her strenuous trek over the snow to Canada with her captors, is a good example. The account relates how in 1704 the town was attacked, burned, and over 100 captives taken north to the St. Lawrence region; and how Eunice grew up as an Indian, finally marrying her captor and refusing redemption at the hands of her father. When we read of this rejection of repatriation, we wonder what characteristics the white girl found in her Indian captors that could have induced her to remain an Indian convert.

Then there are other accounts, not so suggestive of Indian respect. One will suffice to reveal the lower side of Indian marauders. On July 26, 1708, seven or eight Indians rushed into the house of Lt. Abel Wright in Springfield and killed two soldiers, one from Northampton, the other from Enfield; scalped his wife, who died October 19; took Hannah, wife of Lt. Wright's son, Henry, and probably slew her; killed her infant son in a cradle; and knocked on the head her daughter Hannah, aged two, who later recovered.

During these trying years it is said the people lived with the fear of Indian attacks from childhood to old age, which brings us to the subject of this paper. Nearly all accounts of captivities come to us second hand, the work of later writers, relating events of former days passed on by word of mouth. However, the captivity of Mary Rowlandson, wife of the minister of Lancaster, a Bay town that was burned with many slaughtered and others taken captive, was written by herself. Because of this, it is frequently used by historians for reference as being more reliable than accounts resulting from hearsay. Mary Rowlandson relates in her stirring narrative—frequently accompanied by passages from the Bible—not only her experiences during twenty
removes, as she calls them, but often comments on Indian behavior. This, most of all, should be of interest to us in revealing something about the personalities of the last of New England's aboriginal settlers, whose predecessors through their tool remains have been studied by archaeologists from the time they first moved into New England.

The writer of this paper is indebted to an energetic Society member, Raymond Lemire, who seems to derive his archaeological zeal from his Indian ancestral ties. A descendant in the fourth generation from a maternal grandfather, who was a Blackfeet chief in North Dakota, Lemire has been active in field and library research. Recently, admitted to the rare book department of the Worcester Public Library, he came across the early Nourse and Thayer edition of the Rowlandson narrative. In it he found a map of the area through which the captive was taken, showing all twenty of the removes as well as the various nearby towns throughout the region traveled. Realizing the value of this information to researchers of today, he obtained permission to secure a copy, which has been somewhat enlarged with trail and removes emphasized for easy reference (Fig. 12).

It occurred to the writer that here was an opportunity not only to exhibit the map, but what may be of equal importance to our readers, to present a recounting of Mary Rowlandson's impressions of Indian behavior, as experienced first hand. Portions of the account in each remove, reflecting Indian attitudes and emotions, have been selected and are herewith set down with occasional comments by the writer.

**SELECTIONS FROM THE ROWLANDSON NARRATIVE**

"On the 10th of February, 1675, came the Indians with great numbers upon Lancaster: their first coming was about sun-rising ... the Indians gaping before us with their guns, spears, and hatchets ... the house on fire over our heads, and the bloody heathen ready to knock us on the head if we stirred out ... No sooner were we out of the [burning] house, but my brother-in-law—before being wounded—fell down dead, whereat the Indians scornfully shouted and hallowed, and were presently upon him, stripping off his cloaths ... It was a solemn sight to see so many christians lying in their blood, some here and some there, like a company of sheep torn by wolves. All of them stript naked by a company of hell-hounds, roaring, singing, ranting, and insulting, as if they would have torn our very hearts out; yet the Lord preserved a number of us from death, for there were twenty-four of us taken alive and carried captive ... The Indians laid hold of us ... and said, Come, go along with us; I told them they would kill me; they answered, If I were willing to go along with them, they would not hurt me."

Note: The Indians in the attack on Lancaster are estimated to have numbered about 400, according to Job, an Indian spy for the whites, composed mostly of Nipmucks with some Narragansetts. There were 42 inhabitants, including 5 soldiers, in the Rowlandson's house—all were killed or taken captive.

**First Remove.** "Now away we must go with those barbarous creatures, with our bodies wounded and bleeding [a bullet had gone through her side] and our hearts no less than our bodies. About a mile we went that night, up upon a hill, within sight of the [burned] town ... There was hard by a vacant house ... I asked them whether I might not lodge in the house that night? to which they answered, What, will you love Englishmen still? This was the dolefulest night that ever my eyes saw. Oh the roaring, and singing, and dancing, and yelling of those black creatures in the night, which made the place a lively resemblance of hell:"

**Second Remove.** "But now—the next morning—I must turn my back upon the town, and travel with them into the vast and desolate wilderness, I know not whither ... One of the Indians carried my poor wounded babe [6 years old] upon a horse: it went moaning all along, I shall die, I shall die. I went on foot after it ... At length I took it off the horse, and carried it in my arms, till my strength failed and I fell down with it. Then they set me upon a horse with my wounded child in my lap, and there being no furniture on the horse's back, as we were going down a steep hill, we both fell over the horse's head, at which they like inhuman creatures laughed, and rejoiced to see it."

**Third Remove.** "I sat much alone with my poor wounded child in my lap, which moaned night and day, having nothing to revive the body, or cheer the spirits of her; but instead of that, one Indian would come and tell me one hour, your master will knock your child on the head ... Thus nine days I sat upon my knees, with my babe in my lap, till my flesh was raw again ... About two hours in the night, my sweet babe like a lamb departed this life ... One of the Indians that came from Medfield fight, and had brought some plunder, came to me, and asked me if I would have a Bible, he had got one in his basket: I was glad of it, and asked him if he thought the Indians would let me read? he answered yes; ..."

Note? Here, in this offer, is the first instance of kindness being shown.

**Fourth Remove.** "Among them also was that poor woman [with a small child] before mentioned, who came to a sad end, as some of the company told me in my travel ... she would be often asking the Indians to let her go home: they not being willing to that, and yet vexed with her importunity [great with child] gathered a great company together about her, and stript her naked and set her in the midst of them; and when they had
sung and danced about her—in their hellish manner—they knocked her on the head, and the child in her arms with her. When they had done that, they made a fire and put them both into it, and told the other children that if they attempted to go home they would serve them in like manner."

**Fifth Remove.** "Being very faint, I asked my mistress [King Philip's wife's sister] to give me one spoonful of the meal, but she would not give me a taste. They quickly fell to cutting trees, to make rafts to carry them over the river [Miller's River], and soon my turn came to go over. By the advantage of some brush which they had laid upon the raft to sit on, I did not wet my foot—while many of themselves at the other end were mid-leg deep—which cannot but be acknowledged as a favour of God to my weakened body, it being very cold time . . . And here I cannot but take notice of the strange Providence of God in preserving the heathen: They were many hundreds, old and young, some sick, and some lame; many had Papooses at their backs; the greatest number at this time with us were Squaws, and yet they traveled with all they had, bag and baggage, and they got over this river aforesaid; and on Monday they set their wigwams on fire, and away they went; . . ."

*Note: Could the pile of brush actually have been an Indian favor?*

**Sixth Remove.** "We came that day to a great swamp, by the side of which we took up our lodging that night. When we came to the brow of the hill that looked toward the swamp, I thought we had been come to a great Indian town—though there were none but our own company—the Indians were as thick as the trees . . . If one looked before one there was nothing but Indians, and behind one nothing but Indians; and so on either hand; and myself in the midst."

**Seventh Remove.** That day, a little after noon, we came to Squaheag [Northfield], where the Indians quickly spread themselves over the deserted English
field, gleaning what they could find... Myself got two ears of Indian corn, and whilst I did but turn my back, one of them was stole from me which much troubled me. There came an Indian to them, with a basket of horse-liver; I asked him to give me a piece: What, says he, can you eat horse-liver? I told him I would try, if he would give me a piece, which he did; and I laid it on the coals to roast, but before it was half ready, they got half of it away from me; so that I was forced to take the rest and eat it as it was, with the blood about my mouth, and yet a savory bit it was to me.

_Eighth Remove._ We traveled on till night, and in the morning we must go over the river [Connecticut] to Philip's crew. When I was in the canoe, I could not but be amazed at the numerous crew of Pagans that were on the bank on the other side. When I came ashore, they gathered all about me, I sitting alone in the midst... Then my heart began to fail, and I fell a weeping; which was the first time to my remembrance, that I wept before them... Then one of them asked me why I wept? I could hardly tell what to say; yet I answered, they would kill me: No, said he, none will hurt you. Then came one of them, and gave me two spoonfuls of meal to comfort me, and another gave me half a pint of peas... Then I went to see King Philip; he bade me come in, and sit down; and asked me whether I would smoke it?—a usual compliment now a days, among the saints and sinners—but this no ways suited me. For though I had formerly used tabacco, yet I had left it ever since I was first taken... I remember with shame, how formerly, when I had taken two or three pipes, I was presently ready for another; but I thank God that he has now given me power over it; surely there are many who may be better employed than to sit sucking a stinking tobacco-pipe... At this place—the sun now getting higher—what with the beams and heat of the sun, and smoke of the wigwams, I thought I should have been blinded.”

Note: This sympathetic attention with gifts of food is worth noting.

_Ninth Remove._ “But instead of either going to Albany or homeward, we must go five miles up the river, and then go over it. Here we abode a while... My [captive] son being now about a mile from me, I asked liberty to go and see him they bid me go, and away I went; but quickly lost myself, traveling over hills and through swamps, and could not find my way to him. And I cannot but admire at the wonderful power and goodness of God to me in that though I was gone from home and met with all sorts of Indians, and those I had no knowledge of, and there being no christian soul near me, yet not one of them offered the least imaginable miscarriage to me. I turned homeward again, and met with my master [Quannopin], and he showed me the way to my son.”

Note: This acknowledged respect seems to be indication of favorable behavior cropping out.

“But I was fain to look after something to satisfy my hunger; and going among the wigwams, I went into one, and there found a Squaw who showed herself very kind to me, and gave me a piece of bear. I put it in my pocket, and came home; but could not find an opportunity to broil it for fear they should get it from me: and there it lay all the day and night in my stinking pocket. In the morning I went again to the same Squaw, who had a kettle of ground nuts boiling: I asked her to let me boil my piece of bear in the kettle, which she did, and gave me some ground-nuts to eat with it, and I cannot but think how pleased it was to me... now that was savoury to me that one would think was enough to turn the stomach of a brute creature.”

_Note:_ Here again a sense of sympathy for a starving individual is exhibited. This sort of kindness was experienced on several occasions by the captive.

_Tenth Remove._ “When they came to the place they intended to lodge, and had pitched their wigwams, being hungry, I went again back to the place we were before at, to get something to eat; being encouraged by the Squaw’s kindness, who bid me come again. When I was there, there came an Indian to look after me [to search for me]; who, when he had found me, kicked me all along. I went home and found venison roasting that night, but they would not give me one bit of it. Sometimes I met with favour, and sometimes with nothing but frowns.

_Eleventh Remove._ “The next day in the morning, they took their travel intending a day’s journey up the river; I took my load at my back, and quickly we came to wade over a river, and passed over tiresome and wearisome hills. One hill was so steep, that I was fain to creep up upon my knees, and to hold by the twigs and bushes to keep myself from falling backward. My head also was so light that I usually reeled as I went.”

_Twelfth Remove._ “My mistress, before we went, was gone to the burial of a Papoos, and returning, she found me sitting and reading in my Bible. She snatched it hastily out of my hand and threw it out of doors. I ran out and catch it up, and put it in my pocket, and never let her see it afterwards. Then they packed up their things to be gone, and gave me my load; I complained it was too heavy, whereupon she gave me a slap on the face and bid me be gone... their insolence grew worse and worse... I found six acorns and two chestnuts, which were some refreshment to me. Towards night I gathered me some sticks for my comfort, that I might not lie cold; but when we came to lie down, they bid me go out, and lie somewhere else, for they had company... I told them I could not tell where to go, they bid me go look... I went to one wigwam and they told me they had no room. Then I went to another, and they said the
same: At last an old Indian bid me come to him, and his Squaw gave me some ground-nuts; she gave me also something to lay under my head, and a good fire we had \ldots I had a comfortable lodging that night. We went in the morning—to gather ground-nuts—to the river \ldots I went with a great load at my back \ldots I told them the skin was off my back, but I had no other comforting answer from them than this, that it would be no matter if my head was off too."

**Thirteenth Remove.** "I must go with them five or six miles down the river, into a mighty thicket of brush; where we abode almost a fortnight \ldots I had not seen my son a pretty while, and here was an Indian of whom I made enquiry after him, and asked him when he saw him? He answered me that such a time his master roasted him, and that himself did eat a piece of him as big as his two fingers, and that he was very good meat. But the Lord upheld my spirit under this discouragement; and I considered their horrible addictedness to lying \ldots there is not one of them that makes the least conscience of speaking the truth."

"In this place one cold night, as I lay by the fire, I removed a stick which kept the heat from me, a Squaw moved it down again, at which I looked up, and she threw an handful of ashes in my eyes, I thought I should have been quite blinded and never have seen again \ldots by the morning I recovered my sight again \ldots I told them I had been seeing the English youth [her son] and that I would not run away. They told me I lied, and getting up a hatchet, they came at me and said they would knock me down if I stirred out again; and so confined me to the wigwam. If I keep in, I must die with hunger; and if I go out, I must be knocked on the head."

**Fourteenth Remove.** "Now must we pack up and be gone from this thicket, bending our course towards the bay-towns. I having nothing to eat by the way this day, but a few crumbs of cake, that an Indian gave my girl [daughter], the same day we were taken. She gave it me, and I put it in my pocket. There it lay, till it was so mouldy—for want of good baking—that one could not tell what it was made of; it fell into crumbs \ldots and this refreshed me many times, when I was ready to faint \ldots When night came on, we sat down: it rained, but they quickly got up a bark wigwam, where I lay dry that night. I looked out in the morning and many of them had lien in the rain all night, I knew by their reaking \ldots and I fared better than many of them."

Note: This apparent sympathetic care for their captive beyond that allowed for themselves might not be what it seems, for it was, of course, to their advantage to deliver her alive for ransom.

**Fifteenth Remove.** "We went on our travel. I having got a handful of ground-nuts, for my support that day. We came to Baquaug river [Miller’s River] again that day, near which we abode a few days."

Note: As may be gathered from the frequent references to groundnuts, this bulbous rooted wild plant was relied upon as food to a considerable extent, as may be seen from this passage from the narrative: "and the enemy [Indians] in such distress for food, that our men [English] might track them by their rooting the ground for ground-nuts, whilst they [the Indians] were flying for their lives:"

**Sixteenth Remove.** "We began this remove with wading over Baquaug river. The water was up to our knees, and the stream very swift, and so cold that I thought it would have cut me in sunder. I was so weak and feeble that I reeled as I went along, and thought there I must end my days at last, after my bearing and getting through so many difficulties. The Indians stood laughing to see me staggering along \ldots Then I sat down to put on my stockings and shoes, with the tears running down my eyes, and many sorrowful thoughts in my heart \ldots Quickly there came up to us an Indian who informed them that I must go to Wachuset [Princeton] to my master, for there was a letter come from the council to the Saggamores about redeeming the captives \ldots My heart was so heavy before, that I could scarce speak, or go in the path; and yet now so light that I could run."

**Seventeenth Remove.** A comfortable remove it was to me, because of my hopes. They gave me my pack and along we went cheerfully; but quickly my will proved more than my strength; having little or no refreshment \ldots At night we came to an Indian town \ldots but I was almost spent and could scarce speak. I laid down my head and went into the wigwam, and there sat an Indian boiling of horse-feet. I asked him to give me a little of his broth \ldots He took a dish and gave me one spoonful of samp, and bid me take as much of the broth as I would. He gave me also a piece of ruffe, or ridding of the small guts, and I boiled it on the coals \ldots Now is my spirit revived again."

Note: This spirit of generosity at times occurs, although more often little or no consideration could be expected for the captive's famished condition.

**Eighteenth Remove.** "We took up our pack, and along we went. Then we came to another Indian town, where we stayed all night. Then I went to another wigwam, where they were boiling corn and beans \ldots but I could not get a taste thereof. Then I went into another wigwam \ldots The Squaw was boiling horse's feet, she cut me off a little piece \ldots Being very hungry, I had quickly eat up mine \ldots and savory it was to my taste. Then I went home to my mistress' wigwam, and they told me I disgraced my master with begging, and if I did so any more, they would knock me on the head: I told them they had as good do that as starve me to death."
Nineteenth Remove. They said when we went out, that we must travel to Wachuset this day. Then we came to a great swamp, through which we traveled up to our knees in mud and water. Being almost spent, I thought I should have sunk down at last, and never get out. Philip, who was in the company, came up and took me by the hand, and said, Two weeks more and you shall be mistress again. After many weary steps, we came to Wachuset, where he [her master Quannopin] was. He asked me when I washed me? I told him not this month; then he fetched me some water himself and bid me wash and bid his Squaw give me something to eat. So she gave me a mess of beans and meat, and a little ground-nut cake. Then I went with the maid [Quannopin’s third Squaw] and lodged there. The Squaw laid a mat under me, and a good rug over me; the first time that I had any such kindness showed me. About that time there came an Indian to me, and bid me come to his wigwam at night, and he would give me some pork and ground-nuts. Which I did and as I was eating another Indian said to me, he seems to be your good friend but he killed two Englishmen at Sudbury, and there lie the [bloody] cloathes behind you. Yet the Lord suffered not this wretch to do me any hurt. Five or six times did he and his squaw refresh my feeble carcase. Another Squaw gave me a piece of fresh pork, and a little salt with it, and lent me her frying pan to fry it, and I cannot but remember what a sweet, pleasant, and delightful relish that bit had to me, to this day.”

Note: Often it seemed to be the women more than the men who showed her kindness.

Twentieth Remove. “We went about three or four miles, and there they built a great wigwam, big enough to hold an hundred Indians, which they did in preparation to a great day of dancing. On a Sabbath day, the sun being about an hour high in the afternoon, came Mr. John Hoar together with the two fore-mentioned Indians, Tom and Peter, with the third letter from the council.”

“On Tuesday morning they called their General Court—as they stiled it—to consult and determine whether I should go home or no. And they all seemingly consented that I should go, except Philip, who would not come among them. But before I go any further, I would take leave to mention. Their chief and commonest food was ground-nuts, they eat also nuts and acorns, artichokes, lilly roots, ground beans, and several other weeds and roots that I knew not.”

“... to return to my going home. I have been in the midst of those roaring lions, and savage bears, that feared neither God, nor man, nor the devil, by night and day, alone and in company; sleeping all sorts together, and yet not one of them ever offered the least abuse of unchastity to me in word or action.”

“So I took my leave of them [ransomed, May 2, 1675; came to Boston, May 3rd.] myself, and the two Indians came to Lancaster, and a solemn sight it was to me. Not one christian to be seen, or one house left standing. Before noon we came to Concord. Being recruited with food and raiment, we went to Boston that day where I met with my dear husband.”

Note: The ceremony of the ransoming of Mary Rowlandson took place at the foot of Mt. Wachusett, probably on Redemption Rock (Fig. 13), located on Route 140, about 3 miles north of East Princeton, on the west side of the road. To stand on the spacious, relatively flat top surface of this interesting rock, carries one’s thoughts back to the presence there of Indian captors and Mr. Hoar from the colonial council. What the ransom consisted of is not specifically stated in the narrative. However, some idea of it may be had from a meeting of the general court [Indian assembly].

Fig. 13. REDEMPTION ROCK, at the foot of Mt. Wachusett. Reported to represent the place where the redemption ceremony took place that freed Mary Rowlandson from her captivity among the Indians. Photo shows the steep end of this outcrop that has a relatively flat table top of about 12 x 18 ft. in size, to which at the opposite end a steep rise of the surrounding terrain provides an easy approach with a step-up of no more than a foot.

On the Nineteenth Remove; at this meeting Mrs. Rowlandson was asked what her husband would give to redeem her. Realizing that all they had was destroyed in the burning of Lancaster, she reasoned as follows: “I thought if I should speak of but a little; it would be slighted and hinder the matter; if of a great sum, I knew not where it would be procured: yet at a venture, I said twenty pounds, yet desired them to take less; but they would not hear of that, but sent the message to Boston, that for twenty pounds I should be redeemed.” Also mention is made of “trading cloth, a part of the 20 pounds agreed upon.” And it seems probable that the council at Boston met the Indian demands.
COMMENTS

These few selections from Mary Rowlandson's narrative are offered with the belief that they will show the reader some sides of the character of the Indians of early colonial times. True it is that their behavior was probably influenced to a considerable extent by the prevalent warfare and its resultant hot tempers and hatreds, nevertheless it is probable that similar behavior might have occurred under less trying circumstances, although perhaps to a lesser degree.

While we have no way of gauging the behavior of those ancestors of the Indians, who preceded them in the Late Archaic peaceful age of stone bowl-making, it would be contrary to good common sense to associate colonial Indian incivility with those former peaceful industrial workers, who presumably would have been living on a more elevated level. Making stone eating ware for the well-being of family life would inevitably have produced satisfaction of accomplishment along with respect for the personal needs of others. And subsequently, an attitude of sympathy and solicitation might well have appeared as side results. These and other cultural qualities that doubtless accompanied free industrial activity of people, who labored because they wanted to—not because they were paid to work—would seem to suggest a quality of happiness of a higher type than that experienced by the Indians as a result of their burning and pillaging of colonial towns.

With the probability that such a cultural comparison reflects a reasonable hypothesis of culture dissimilarity, the conclusion seems inescapable that a cultural decline took place during the intertribal warfare of the Ceramic-Woodland period. A resultant lowering of social standards would before long have brought about a moral decline, weakening the foundation of the former peaceful existence. As a result, by the close of the age, colonial arrivals would have found a decadent people, and, without knowledge of what had gone before, would have assumed that the Indians they fought had always been savages.

In agreement with this point of view is a statement by De Forest in 1850, concluding his report of The History of the Indians of Connecticut: "Their own barbarism has destroyed them; they are in a great measure guilty of their own destruction."

Bronson Museum, February 26, 1973

FOLLOWING THE TRAIL OF EARLY MAN
EDITORIAL

For some time, especially over the last century, an increasing interest has developed in research that has been digging up the story of man's upward climb from his shadowy beginning. Anthropologists have lived among aboriginal peoples, stranded in various parts of the world, and have studied their physical and social attributes in an effort to derive factual information about their heritage. From this research of the living, much has been gleaned concerning what went before during mankind's often interrupted advance. Knowledge has resulted concerning tribal myths, mores, forms of dress, language, and what may have greater appeal to many, primitive house construction, besides methods used in making fire, and especially stone tools. Stone implements, more perhaps than any other evidence, may be used to trace cultural development from the beginning of human existence. And it is here that archaeology steps in to dig up worked stone remains, study how they may be related to evidence recovered by anthropologists, and so commence to analyze, construct and piece together events of man's evolvement from his primitive beginning.

But why be interested in such monotonous labor, often unsuccessful, delving into the sometimes questionable—from our moral-conceived civilized standpoint—activities of early man? Why spend time trying to discover and describe the rough uncouth actions of aboriginal peoples, which often seem to resemble those of animals more than of humans? Several plausible reasons suggest themselves that may provide a clue to the mounting interest today in archaeological research; that also may tend to explain the continuing advance in this Society's membership.

First and foremost is the realization that in the study of early man from his fossilized remains dating back a
survive; and how such a study might even explain some characteristics of modern man as derived from his the Old World Paleolithic were our ancestors. There­ fore, what better reason might one have for showing what they may have looked like; how they managed to and are continuing in man’s development, not only in his physical form but what is of more concern to us today, it would seem, in his outlook on life as it may effect his social status in its ultimate advance or decline. For our study of man’s rise, so far, reveals not only steps forward that improved his mental capacities to reason and comprehend natural phenomena as well as begin to develop an understanding of his spiritual being, but, at times, steps backward that momentarily stopped his forward progress. The important thing about all this is the realization that throughout countless ages, in spite of numerous setbacks, man has managed to advance. That is, figuratively speaking, he has not reverted to his original status of ape-man—at least not in physical form. From an overall standpoint, human progress through the years seems to have succeeded true to form, in which man has been elevated above his original ape-like being. Of course, as always, hazards existed along his way that threatened many good intentions, the outcome of which was seldom known in advance.

While such reasoning tends to serve a purpose in placing the study of man in evolutionary perspective, an important fact is too often lost sight of. That is, in this sophisticated age it is next to impossible for most to imagine themselves in the form and mind of an uncouth primitive being, be it male or female. And yet we should remind ourselves that just such ape-like cave-dwellers of the Old World Paleolithic were our ancestors. Therefore, what better reason might one have for showing an interest in archaeological research, than to crave to know more about the life of these primeval forebears; what they may have looked like; how they managed to survive; and how such a study might even explain some characteristics of modern man as derived from his primitive past.

But you might ask: What has this to do with New World archaeology, especially that which pertains to New England about which reports in this Bulletin are most concerned? The answer is that it has much in common with the prehistory of this corner of the Northeast. For, the fact is, the people who occupied this area, from as far back as the Paleo era, appear to have arrived in earliest times from Asia by way of the Bering Straits land bridge that connected Asia with North America, while in later days possibly by boat, after the sea had risen sufficiently to cover the land connecting the two continents. While other hypothetical envisioned entries to the New World by Paleo-Man by way of ice-covered routes originating in Europe and extending over water and ice to the Northeast have been advanced by a few, the Asian entry by way of Alaska is subscribed to by most. Whichever theory you may care to support, there seems no denial of the fact that human life in the New World had its origin somewhere in the Old World—presumably in Asia.

A Museum of Natural History publication in 1944 discusses this subject. It uses facial photos of living peoples to illustrate similar traits that are evident between certain Plains Indians of our western regions and Chinese and Mongolian types from Asia. In fact, the late Clark Wissler, who wrote the report, finds that not only western Indians of the plains but also the Iroquois of the East have eyelids that usually turn down at the inner corners, as do those of many Mongoloids. Also, he reports that similarity with Asiatic Mongols is seen in the Indian face structure that is usually much wider across the arches, or cheekbones, than across the temples. And finally, Indians and Mongolians have straight, coarse black hair, while upper incisor teeth are shovel-shaped. This dental trait is almost never found among Europeans.

From a review of this research, it appears probable that New England was occupied during its several culture periods by migrants moving in from the West, whose ancestry reached back into Asia. Hence, as products of a part of the Old World they differed little in this respect from us with our European ancestral ties. Therefore, the fact that the earliest Paleo-Americans reached America first, some 15,000 years or more ago, seems reason enough for us to be interested in knowing more about them and all those who followed in their wake.

When you come to think about it in the light of these disclosures, perhaps a better understanding will be had of the reasons for today’s increasing interest in archaeological study of New World prehistoric peoples. For with the realization that an Old World origin pertains for them as for us, we may come to have a deeper feeling of interest in them. We may realize through our study that their successful evolvement probably was as a result of survival efforts quite similar to those of our European Paleolithic ancestors. The time lag between our civilization and their culture of several thousand years would be represented by the time required for them as hunters to wander half way around the world, with little chance for sedentary cultural development before their arrival in the New world.

While the exact stone tool forms may differ somewhat between the Old World and the New, utilization of them for survival undoubtedly followed more or less the same pattern. For whatever color or race is involved, in whatever part of the world, man,
because he is human, tends to perform his work similarly. Perhaps here basically is the underlying reason why many become seriously concerned with archaeological research in this northeastern region and elsewhere. Through it we are given an opportunity to envision how our primitive ancestors in Europe managed to survive, from a study of their human counterparts here in the New World, who doubtless passed through similar stages of existence in somewhat later times.

Bronson Museum, January 19, 1972

COMMENTS

FREDERICK J. POHL

Dr. William S. Fowler needs no apology for his "Tangible and Intangible Evidence" in the Bulletin of the M.A.S., Vol. 35, Nos. 1 & 2. An archaeologist is necessarily concerned with anthropology, history, art, religious beliefs, philosophy, etc. Dr. Fowler remains quite within the field of archaeology when he submits "debatable probabilities." He points to the rise of human "reason" (shaping of tools) through a million or more years up to "civilized" behavior, and he expresses his belief that this could not have happened unless by the push upwards of "an infinite supernatural being." He presents what at first glance appears to be a telling point that "man alone of all ape species received and developed the power of reason, which seems to support the argument for man's origin as being of an exceptional kind "bordering on the supernatural."

But perhaps he will admit as a probability that primitive man with shaped weapons and tools had power which he used to exterminate any rival species which threatened his supremacy. Early man prevented the rise of reason in other apes. If he accepts the view that the tendency toward reason may be in all forms of life, he should feel a larger opening for his concept of a God who does not pick and choose, but is "infinite."

If we are asked to define the infinite, can we do any better than to say it is that which cannot be defined. Since Dr. Fowler refers to the concepts of primitive man, it is fair to ask whether he himself holds to those primitive concepts, or has as a civilized man acquired new and larger concepts. Will he not agree that ideas are changing factors, and that any man who never welcomes new ideas is one who is resisting the evolutionary push upward. The human race is beginning to realize that ideas or beliefs are not the permanent factor in men and are not the essential thing in religion. Emotion is the constant. Emotion is alike in all human hearts. Every human being has the religious emotion, which is the same in all of us. The essential unity of the human race is in emotion. When enough men realize this, we will no longer have conflicts.