

BULLETIN OF THE
MASSACHUSETTS ARCHAEOLOGICAL
SOCIETY

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VOL. IV

NO. 3

APRIL, 1943



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PUBLISHED BY THE
MASSACHUSETTS ARCHAEOLOGICAL SOCIETY
BOSTON, MASSACHUSETTS

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REFLECTIONS UPON THE PAST AND PRESENT OF THE MASSACHUSETTS INDIANS

Frank G. Speck

For some years I have nursed a desire to express certain views in comment upon the conditions of fate which destiny has ruled over the Indians of Massachusetts from the seventeenth century to the present. Among the innumerable writers of history there has been an amazing diversity in the trends of interpretation adopted toward the causes which began the conflicts of colonial times and ended in the oblivion that engulfed the natives after their defeat following the French and Indian War. The attitudes taken by essayists of the times and by their successors, toward these events and toward the outcome of Indian and European association in Massachusetts subsequent to the Treaty of 1727 have been invariably voiced in one tone. They imply that the natives became extinct, their blood and their cultural life a thing of the past. In this assumption there is something to challenge. The occasion of recently sojourning again with the dwindling tribal remnants of the state in the aftermath of some years previously spent in exploring the vestigial treasure-house of their lore and legend, has provided the motive for writing what follows. As the title implies, it is contrary to the allegations of previous essayists. The blood of the Indian native peoples still continues to flow in the veins of a posterity bearing the names and conscious identities of the original nations. Their struggle to live, by which simple phrase we denote their cultural activities, likewise continues although the means and materials employed in its achievement have vastly altered in the three centuries of contact with Europeans. Facts and figures tell the story of survival in advance of the reports which will appear in due time from the pens of field-working ethnologists who know the living groups better than those who wrote their pre-mortem obituaries!

According to the records of the times there were 30,000 Indians within the bounds of the Massachusetts colonies prior to the

arrival of the English. By 1628 the number had decreased to 300 if we credit the statement of Josselyn (1672) with any degree of accuracy. We cannot, however, reconcile these estimates with others which bear the semblance of veracity without exaggeration. While we can reasonably believe the legend that a pestilence of smallpox or measles nearly destroyed the native population of the Massachusetts coast in 1617, the gross estimate of the original total of 30,000 is manifestly too high. If the authorities from which Josselyn drew his figures meant to include all the natives from Long Island Sound to the Kennebec, the estimate might be accepted. A more reliable estimate is that given by Daniel Gookin, who had the distinction of going down in history as the first Indian agent in America. As of 1674 he listed 300 Pequots, 1,000 Narragansetts, 300 Massachusetts, and 240 Pawtuckets (identified with the Wamesit of the Pennacook nation), making a total of 1,840 for the area designated within the State of Massachusetts. Several important nations are omitted from the listing, among them the Nipmuc and Wampanoag. In the destruction of the virulent Wampanoag nation the total was reduced by at least 1,000 at the close of 1678. Whatever deductions may be made from the supposedly exaggerated figures of the seventeenth century, a conservative approximate aggregate of 10,000 souls may be offered for the southern New England tribes at the time of first contact. Reductions of the population due to disease and warfare could have brought it to one half this number by the opening of the eighteenth century. (1) Thus the figures of the Indian population's decline in amazing strides while the English inhabitants augment their numbers through mass immigration and virility by leaps and bounds. (2)

At the present time, as near as one can come to the figures, the following bands of tribal descendants hold some semblance of their identity as Indians in the

- (1) The English population of New England just before the outbreak of King Philip's War (1675) was recorded as 120,000, of whom 16,000 were able to bear arms. By 1735 there were 35,427 males over 16 years of age, and 2,600 "blacks" in Massachusetts (Of Jeremiah Spofford, Gazetteer of Massachusetts, Newburyport, 1828, p. 43). The whole number of inhabitants was 220,000 by 1749. These figures are noted for reference in the following pages to the proportions of Indian and English inhabitants of the state from 1700 to the present time.
- (2) The number of ships that had "transported passengers to New England" was 298 as supposed by Josselyn by the year 1637, and the number of men, women and children, 21,200.

state. I have included some outside of Massachusetts to show collateral descent from the stock from which all the subdivisions are sprung. In the case of the Abenaki of St. Francis, for instance, now resident across the border in Quebec, the present blood proportion of this people comprises, to an unmeasurable degree, a strain from the Pennacook of the Merrimac Valley. Within the State of Massachusetts there are two Indian incorporate towns: Mashpee on Cape Cod and Gay Head on Martha's Vineyard; and three "reservations": Herring Pond in Plymouth County, Hassanamisco (Nipmuc) near North Grafton in Worcester County, and the Fall River lands (ante 1907) on Watuppa Pond in Bristol County. Recent estimates of the band constituencies, in round numbers, show approximately: 350, Mashpee; 160, Gay Head; 40, Herring Pond; 60, Hassanamisco; 20, Fall River; and 140 scattered over the eastern counties. This does not mean that the band registrants reside upon the tribal lands. Many of them are located in nearby towns and cities as temporary and permanent residents. Many are dispersed widely over New England carrying out their occupations in the general life of the people. Yet it should be emphasized that they retain with few exceptions full consciousness of their Indian identity. This statement applies, for example, to the descendants of the Punkapog, of Indian Lane near Canton, whose number in 1921 I gave as about 15, and for some Wampanoag holding claims to land on Lake Assawampsett near Middleboro. The total for the above makes 770 for the past decade as the numerical remainder of the native tribes, in varying degrees of blood mixture, still claiming Indian identity upon established grounds. They have formed an Indian Council of New England since 1923, with representatives from Maine to Connecticut. They have adopted the slogan "I still live," avowing their existence in the midst of a population enumerated at 564,000 for the four counties in which they dwell. The ratio, by rude estimate, is now about one Indian native of Massachusetts to 732 county inhabitants. Should this ratio seem appallingly indicative of extinction on the part of the natives of today, we may marvel at their tenacity of life and name through two hundred years of struggle to exist. For in 1749 there were estimated to be 220,000 inhabitants in Massachusetts while an estimate of the Indians at the time would yield a total of less than 5,000, using as a base Gookin's figures of 1674 (only 75 years earlier) which gave 1,840 for the eastern part of the colony. So almost two hundred years ago they were outnumbered by whites in Massachusetts, 44 to one Indian. And so again figures play pranks with our preconceived notions.

The one and only actual census of the Indians of Massachusetts treated by band subdivisions is from the pen of J.M. Earle, taken in 1861 and published in the Massachusetts Senate Papers (No. 96). His

report permits us to glimpse a perspective of the vital history of the natives through the last 80 years. The 1861 survey lists 1,438 Indians in the state, constituting 376 families. Earle found small groups of people in some localities in Bristol and Plymouth counties which he enumerated as follows: at Dartmouth, 111; at Mamatakesett 25; at Tumpum Pond, 15; at Middleboro, 10; while those at Herring Pond were 67, and at Fall River, 78. These families have evidently been dispersed since then, as I was unable to find traces of them between 1920 and 1928 when cruising through the territory seeking traces of such descendants. There are undoubtedly some officers of the Indian Council of New England who could be reached now to provide lists and locations of these families. The total for the Wampanoag proper of Earle's time was 306. On Cape Cod and Martha's Vineyard at the same time there were 403 at Mashpee, 126 at Yarmouth, 253 at Gay Head, with 53 at Christiantown, 74 on Chappaquiddick Island and 13 at Deep Bottom; in all 393 on the Islands. Earle's grand total for the Wampanoag and Nauset was then 1,228. For the Massachusetts proper he had 117 at Punkapog and 12 at Natick, total 129. The Nipmuc are definitely classified in his census; 90 enumerated for Hassanamisco and 94 for the Dudley branch. Earle was a state official having authorization with facilities provided for carrying out his survey which we do not possess today. He was able to trace the residence of the absentees in the adjacent towns and cities where they had gone for a livelihood.

Setting the figures of 1861 against those now at our disposal, we make the following comparisons. The 1,438 Indians listed in the state in 1861 stands out against 770 of the period 1921-8. The latter figures are undoubtedly too low since they are based upon the casual inquiries of an ethnologist engaged in other lines of investigation than collection of vital statistics. The factors of dispersion through outside employment likewise must be considered. I would venture to say that the Indian descendants of the tribes listed have not decreased by this time to the degree shown by the figures, if their whereabouts could be traced. To do so would call for extensive travel in the eastern counties, and systematic correspondence with some of the leaders of the Indian reconstruction movement.

The tone of disdain to which we take exception is harmonized with the trend of reference which has prevailed so long among writers dealing with the region. It is typically expressed in the following quotation from Kittredge, referring to the period after 1870 (H.C. Kittredge, Cape Cod Its People and Their History, N.Y., 1930): "About this time a new ingredient was added to the already miscellaneous nationality of Mashpees. Every returning New Bedford whaler brought home a few bravas, or black

Portuguese, among its crew. These Cape Verde savages -- a cross between exiled Portuguese criminals and the aborigines of the Islands -- began to drift into Mashpee and marry into the hybrid of Indian and African Negro that they found there. This vicious mixture caused what Mr. Pecknet called 'a drift of disgust against Mashpee' and has resulted in such a mixture of blood that the Indian strain is today almost lost. Only now and then, as one makes one's way through the village, is the eye caught by some leather-skinned veteran whose high cheekbones, thin lips, and straight hair suggest that his ancestors once chipped arrow-heads from the pebbles on the shores of the Cape and shot deer with them in the woods" (op cit., p.51).

In another place the same author shows a similar attitude in describing local conditions. He refers to the enumeration of 320 inhabitants of Mashpee in 1820. "What kept the numbers up was not a healthy birth rate, but the fact that Mashpee was a Utopia where no inhabitant was taxed. This halcyon state of affairs brought the scum of the Indian and Negro population from all over the State drifting to Mashpee like weeds to the Sargasso Sea. These worthless immigrants -- many of whom had little or no Indian blood in their veins -- intermarried with the remains of the Mashpees, until as early as 1792 at least two thirds of the inhabitants were of mixed blood. . . A few industrious and self-respecting families there were, no doubt, like the Pecknets and Attaquins, but on the whole the inhabitants were a lazy improvident lot. Well into the nineteenth century many of them still lived in sedge wigwams that crawled with vermin; and the few houses that they did build were 'dirty unfinished huts'" (op. cit. p.50)

Agnes Edwards, in her sentimental essay Cape Cod Old and New (Cambridge, 1918, p.226), does little better toward the Mashpee Indians in repeating the statement that the last pure blood lived there in 1793. Jeremiah Digges, the pseudonym of an off cape journalist, Josef Berger, wrote similarly in The Cape Cod Pilot (P.W.A. Project of Mass., Provincetown, 1937). Just and excellent in his history and estimate of Mashpee and its tribe, he repeated the account of the probable loss of the "pure strain" more than a century ago, "yet remarking upon the observation of people with high cheekbones, thin lips, straight hair, a red tinge to the skin" (op. cit., p.353). Wallace Nutting, in his Massachusetts Beautiful of 1923, eulogizes the colonies of the Portuguese and Italians lately settled in the state, ignoring the Indians. These are but a few. In our present concern we may pay them no further mind. One may evidently conclude that the presence of Indian native communities still surviving in the state does not add to the lure of its advertisement as a summer resort!

In the American Guide Series of the Public Works Administration, Massachusetts, a Guide to its Places and People (Boston, 1937, pp. 26-7) a more correct and concise source of information is available concerning the present Indian settlements of the state. The natives are referred to as Indians and a few sentences of description of their history and surviving crafts given in a compilation of data which does not assume to pretensions of defining racial status without statistics.

The ethnologist is frequently obliged to quote from historical sources in building up his references to customs of native groups in various geographical areas. It has long been the habit in seeking material from such historical write-ups to accord them a value beyond what may be gathered from contemporary accounts. --It is in many cases eminently justified. In other instances, to quote from them is to perpetuate, if not even to intensify, error. The quantity of reference material dealing with tribes of eastern North America and the necessity of relying upon it for so much of the cultural picture of peoples no longer existent, or those modified in custom by acculturation with European patterns, may thus prove to be a blessing or a curse. To pronounce judgment on the character of testimony thus printed in local histories is indeed no simple task in any case. When accordingly, an opportunity arises to check upon statements or implications put down in an accepted source on native institutions by the non-ethnologically trained historian, it is the time to speak.

The ethnologist naturally objects to this kind of ethnological barn-storming. Naivete is preferable to it. Better rather to describe the Indians of a region replete with historical associations as Washington Irving did in his essay on King Philip. For without the experience of having lived with a native group a writer's estimate of native cultural values must be as worthless as Anatole France's ornithology of the penguins. More serious is the effect when misinformation is carried into the second stage of guilt by being quoted in secondary sources. Since it is true that the Indian natives of Massachusetts now possess scarcely even the vestiges of their aboriginal civilization, an extra dose of the reserve attitude is called for in interpreting the past through the present, or vice versa. No reader can be expected to make his own judgment upon the character alone of an Indian community, depending upon a writer who defines the people known to him only by hearsay, either oral or scriptural. No one can tie such evidence together into significance.

Up to this point we have dealt solely with the subject of blood survival and vitality of the band subdivisions of old

Massachusetts. What has the cultural legacy among the descendants been? Over a span of some fifteen years, between 1920 and 1935, the writer and his family have visited here and there among the Indians of different settlements in the eastern districts of the state. Historic ethnology in its various ramifications of folk lore, religious beliefs and practices, arts, crafts, economic procedures, social customs, and band relationships with political associations, was the object of investigation. The survival of dialects was of especial importance. No study made of people who have been a minority element lingering on the borders of a large European population for almost three centuries could, however, be expected to show forth characteristics of the aboriginal mode of life. We do not look for these phases of culture now. It is surprising, nevertheless, that in all their settlements are to be discovered some memorials of the early life in the things they do, the things they use, what they eat and how they prepare it, in their speech and sayings, and noticeably in their attachment to the ways of their forebears in getting a living from the sea, the ponds, the marshes, the deep woods, and the small home gardens. The nonchalance of the Indian as he is known from coast to coast marks the bearing of men and women of the Bay State tribes. The distrust and dissimulation exhibited toward whites is as strongly displayed here as it is among the recently subdued Osage of Oklahoma. The oft-stressed Indian directness of manner and speech is a marked trait. Feelings of resentment over the injustices of the past are scarcely less poignant among them, even among individuals in whom the Indian strain is at its minimum. Through all runs a strong self-consciousness and "race pride." These generalities I have had many occasions to test by experience. One comes in time to expect them in his contacts with the Indian groups. Only by participating in the hospitality of the home, in the daily tasks, in the pleasures and perplexities that beset their lives, does the barrier of mistrust dissolve toward the new-American aliens. That is all very Indian in its substantial character. No one who has associated long with natives in other regions of the country would fail to be impressed with the persistence of the "Indian heart and mind" among Cape Cod and Island Indian towns and communities.

When we speak of culture we mean the sum total of methods and ideas by which a people meets the demands of subsistence, protection and self-propagation. The demands have phenomenally changed for the Massachusetts Indians since two centuries ago. They possess a type of culture nowadays as genuinely as they did then. The demands and fulfillments have materially multiplied and become complicated since then. It is this phase of culture in the process of change that has come to the

fore in social anthropology. We now study with particular zeal for detail, those emergency adjustments in the lives of natives due to changing animal and plant environment from the primeval period to the times of mass settlement of the country by invading hosts that cleared the forests to plant fields. Native architecture, clothing, utensils, furnishings, weapons, vehicles, amusements, ornaments, fishing, hunting and trapping methods did not die out. They changed. Their social habits, notions about government, morals, ideas of property, family structure, sense of individualism, modes of thought upon the realms of human, animal and plant existence did not die out. They changed. Their fancies concerning the universe, immortality, fatalism in philosophy of life, responsibility of duty to self and society, did not die out. They changed. Their legends of the countryside, tales of local demons, beliefs in haunts and witches, in spirits and wood sprites, lived on. These changed but little, some of them not at all. Their knowledge of herb curatives did not lessen. It grew with the advent of new plant forms naturalized in New England in the footsteps of the English, upon which Josselyn in 1672 found cause to comment. Much of the native fundamentals of culture did, nevertheless, go out to stay. Aboriginal speech, ceremonies of religious convocation, of conjuring, with their inseparable rituals in dance and song, went out to stay, as native convictions of religious teaching and performance gave way to those of the English and the Christians. Like mere collectors of antiques we have hunted and proved for the things and ideas of one age gone by, and looked in vain. Their continuity is only now being realized as an inevitable step in research among ancient peoples. Wherefore, as long as there are Indian groups in Massachusetts surviving under their national classification there will be problems to engage us in the history of their cultures, as the newer school of historical archaeologists breaks the way.

Apart from these reflections upon the nature of our future course in discovering the past through examining the present, we may turn to a brief survey of what the Indians of the state still do possess that is of distinct enough character to arouse interest in their existence.

The food quest of man in all ages lies primarily in the pursuit of subsistence derived from the soil, from the floor of the forest, from the marsh, the river, bay and lake. Except for those bands in the state who have become engulfed in the industrial world, it remains true that the Massachusetts Indians still living on the fringe of the thickly populated area are interested in sylvan and rural vocations. The original animal and plant life of the state's rich endowment by nature is yet largely undepleted on the coasts and adjacent woodlands. Hunting, fowling, fishing, shell-

fish gathering and trapping devices are employed among them as blends in construction and material between European and what we conclude to be aboriginal forms. They hook, net, spear and trap fish on the southern coasts. They hold to beliefs and "superstitions" in respect to these activities that we still know little of. The documents of early travellers and colonists, when elucidated by our reasoning from an unchanging ecology, will throw light upon the history of these pursuits. The whole corn or maize industry is basically native American, we know for sure, and there is yet to be finished the study of its characteristics among the extant Indian descendants. Some of the hand-made implements of cultivation have been collected from Indians of the Islands and Cape that compare in originality with those of the Iroquois and other Algonkian tribes. Traps and taking devices for fur bearers and food animals are known as manifestly original in material and form. And still more significant is the bare knowledge we have of the rich lore of tales and legends of a master and mistress of living things whose good will must be sought before success results in the food-seeking excursion. Mashop and "Granny" Squant are the mysterious invisible personages who control the destiny of creatures. Already the collection of anecdotes of these "owners" of wild life has reached the number of several score. Some of them are real myths in quality, their elements corresponding with the literary traditions of the more conservative Abenaki and Penobscot. From personal knowledge of them I can credit the sagas with a quality measuring up to the standards of any American Indian nature epic as yet published. If worked up in literary hands they would rank with the myths of classical Greece and Rome. They are not only true American products of composition but products of Massachusetts Indian minds. Does it seem preposterous to equate such with the originators of the Odyssey and Iliad? We are loath to give up our worship of the Old World ancients.

In the realm of primitive medicine a word may suffice to point out that a partially completed study of herbalism of the Mashpee and Gay Head people shows almost a hundred plant and drug cures known to them. The collection exhibits remarkable aboriginal features. I venture to state that no one will ever exhaust the store of knowledge still retained in their tradition.

To scan the properties of material culture preserved, or perhaps developed by the remnants of the Massachusetts tribes in modern times, is less exciting. The accessibility to stores and trade manufactures for over a century has obliterated their handiness with materials. The use of stone and bone has passed generations ago. The use of bark has left no traces. Plant materials have, however, continued until recently to furnish the means of making

baskets and containers. Nine forms of these may be listed as known to the last generation. Some of them are probably aboriginal. The process of hide tanning and the smoking of herring for preservation has continued down to the present. The making of nets with hand-made needles, of mats of witch hazel splints, brooms, ladles, ax handles and some other wooden products in demand among the English, has lasted until recently. Machinery has killed these crafts now. The fashioning of unbaked pottery objects as small containers desirable for tourists has been kept alive among the Gay Head people. The art has certain characteristics of the people since others do not pursue it, but there is nothing about it which could be designated as aboriginal in technique or function. In short, Massachusetts Indian craftsmanship has long been obsolete.

To almost everyone there is a stereotyped mental image of what the Indian face and features should conform to. When he goes to a settlement, it may even be a government reservation in the north or west, where Indians dwell, he is apt to remark that they do not look like Indians. We have heard this observation scores of times in reference to Indian communities in Canada and Oklahoma. It is more than usually applicable to the Indian communities of Massachusetts. And here we might stop. To the habitue of regions where Indians exceed others, however, the diversity of physiognomy becomes familiar. There is beneath this a cast of countenance, a structure, a mold of exotic quality by which the man, woman or child of Indian blood may be discerned. This distinguishing mark is present in the Massachusetts tribal communities to an extent which few have questioned. In some families the native strain is overshadowed by negroid inheritances, in others it appears under long-bred dilution with Caucasoid blood. But there are many individuals, besides whole families, in which not a feature, tint of skin or eye, or trait of hair, evinces ancestry other than the Algonkian aboriginal. One observes a fair proportion of persons who not only possess the one-quarter Indian blood required as a minimum by the standards set by the Bureau of Indian Affairs for classification as Indian, but who would pass as full-bloods. Considering the average run of types among such tribes as the Cherokee and Catawba of the Carolinas, the Iroquois confederates of New York state and Canada, the Wabanaki bands from Maine to Cape Breton, even the Montagnais of the Lower St. Lawrence, the Massachusetts tribesfolk fit into the pattern. The force of this observation has impressed me since first I met their ranks. It has instilled in me as one observer, a respect for their tenacity of race, and with disgust for those who pass through their hamlets in swift moving vehicles and describe them in spoken or written word as "mongrels." This attitude reveals the vanity of an obsolete and decadent aristocracy

which deserves the same name. If the Creeks and Choctaw of Oklahoma are Indians by criteria of racial classifications despite their blood admixtures, then the tribal communities and their scattered members in New England are also Indians. It is no credit to the literary quality or scholarship of New England writers on people, places and events that a statement of an author a century back has been repeated down to the present to the effect that the last Indian in Massachusetts died before 1805, 1807 or 1820. A picture comes to my mind of old William Simonds, who lived at Bourne and died a few years ago, of Eben Queppish killed at Mashpee less than ten years ago, and his sister, of Rhoda Sturgis, Ella Gardner, Roxie Mye, among others of the same town, of Solomon Attaquin's family, Lucina Jeffers, William Manning, of Indian Town on Gay Head. In these individuals it would be difficult to discern the features of another type than the Indian. Some of them may even have

been of nearly pure Indian extraction. If the casual visitor in the Indian districts sees on the by-roads and in the dooryards a group of urchins of dark skin, sometimes curly hair, in tattered play togs, he carries home the impression that he has seen some "colored people," and tells it about. Among a group of animals in the pasture the odd black sheep and the white sheep stand out from the herd! Look more closely, my friends, next time. And, above all, find the way to enter the homes of those dwelling back and away from the highroads and sojourn with them overnight, a week or, better, a month, as I have. He who does will know, as some others do, that the Indian people of New England still live, and that they still live in Massachusetts.

University of Pennsylvania
Philadelphia
October, 1942

AN UNUSUAL POTTERY JAR FROM EAST MILTON

Edmund S. Carpenter

A unique earthenware, cup-like container (Fig. 10), discovered in 1892 in the Blue Hills of Milton, seems to possess sufficient interest to warrant comment in these pages. The discovery was made by a lad named Michael Murray near some Quincy granite outcroppings and quarries across from the Murray home on Gun Hill Road, East Milton. Shortly after it was unearthed, the cup came into the possession of my father, Fletcher H. Carpenter. Nothing more is known of its background.

While further evidence of the bowl's origin is lacking, this subtracts little



Fig. 10

from its unusual character. It is brick to brown in color and small, measuring 3.6 cm. high, 6.8 cm. in outer diameter, 4.6 cm. in inner diameter and 5.7 cm. in diameter at the bottom. Tempering, if any, consists of fine sand. Firing was slight, and hardness is only 2 to 2.5. Unquestionably, the pot was shaped by holding a single piece of red clay in one hand and molding and shaping the bowl with the thumb and index finger of the opposite hand. Next, the soft clay was probably rolled on an old, worn down witch-hazel or cornhusk mat, producing a rough and uneven surface. (1)

In casting about for a possible prototype in nature, the jar could theoretically be duplicated in essential form and size by a robin's nest.

Flat-bottomed vessels, though rare, were not unknown to the prehistoric groups living along the Atlantic littoral. Streaks of red ochre in the niches of the outer surface suggest that this specimen might once have served as a paint pot.

University of Pennsylvania
Philadelphia
December, 1942

(1) Experiments conducted by the late Dr. V.J. Fewkes failed to disclose the technique employed in decorating this bowl. It was suggested by Dr. Frank G. Speck that the vessel was rolled on a mat.

PIPE STEM THEORY

William S. Fowler

(The method of drilling pipe stems outlined in this article is an idea formulated by the writer who admits that although there is probably no evidence to prove that it was used by prehistoric Indians, he still believes it may have been an accepted method.)

For years we have heard that the origin of tobacco was among the American Indians and the many types of pipes seen in almost every collection of Indian relics offers conclusive evidence that these people smoked. After looking at these exhibits, day after day and year after year, it must be evident to all that something is missing. To be sure there are the pipe bowls, row after row of them, representing many different types and mostly taken from grave excavations. Most of them are beautifully worked with different colored stones and clay, with carvings of men, animals and other figures laboriously worked on their sides. In fact the types are so numerous and the carvings so elaborate in many cases that one stands before them in utter amazement, trying to imagine how such intricate work could have been accomplished with the use of stones for tools. But a pipe is not a pipe unless it has a stem, even though it may be Indian; and to most of us at least comes the question of what has become of the stems. There are the bowls, yes, but where are the stems? What were they made of; how did they look and how were they made?

To be sure, in some museums we see the whole pipes with the stems in place, but these are for the most part from the Plains Indians of perhaps 50 or 100 years ago. The perishable pipe stems from archaeological Indian cultures dating from years ago, when men lived by the use of stones alone, remain for the most part undiscovered. Occasionally it is true, we find a fragment of a stem made from clay, molded by hand and perforated with a stick or reed during the molding, and sometimes an entire pipe, including the stem, all of clay. However, it is the pipe with bowl a unit separate from the stem to which we refer. Due to the relatively small size of the stem hole in all of the bowls it is fair to say that for the most part pipe stems were probably made from wooden sticks or reeds. In a region in which hollow reeds were not obtainable one cannot lightly dispose of the matter by such a statement for the most important question concerning the stem remains still unanswered. Just how would the early Indians with only stones, wood or bone perforate the pipe stem? Sometimes no doubt it even had a slight curve and a length of possibly up

to a foot, judging the length required by the size and weight of some of the larger bowls as used for ceremonial rites. (1)

We shall not attempt to disclose every possible method that may have been employed for the various stem lengths, as no doubt the workman was governed a great deal by his limitations, depending upon the kind of wood that grew in his locality and whether or not it had a soft or medium pithy center. It may be true, that for short stems for small bowls, where the length was no more than four to six inches, it may have been possible to work out the pith by means of a slender stone drill two or three inches long, driving through from both ends. If this was done, however, the stem in such cases must have been perfectly straight on account of the rigidity of the stone drill. But few of such slender stone drills are found in any locality, leading one to the belief, that some other method was probably used, with tools made of a perishable material and long since destroyed. As possibly the only other materials available to early man besides stone were wood and bone, it seems reasonable to assume, that for the longer stems, at least, and probably for most of the shorter ones, either one or the other of these materials was used for the perforating tool.

Though the theory of using wood or bone sounds good, when you try to work out a plan, by which a slender bone, twig, or stick will dig out the pith from the center of a larger stick to be used for the pipe stem you will meet with difficulties. You will find that a dried bone or twig slender enough for the hole will break too easily before the proper amount of pressure is exerted to remove the pith. Conversely a green bone or stick, of the slender dimensions required for the hole, will bend and split without accomplishing any results. What then is the next move? Most experimenters at this point give up and consider the early Indian a super-man. We refused to stop here, however, and began asking for information from everyone we met, who might know the secret. At last we came across an Indian by the name of Joe, who claimed to have had acquaintance with an old Sioux chief of the Dakotas. The chief was ninety two years old and had given Joe, among other things, an old Sioux peace pipe with

(1) Some specimens from the West Coast have stems very much shorter than those which we would expect. See also the broken off clay pipe commonly smoked by the older Irish people as well as short stemmed pipes used by many country people.

stem, a family possession handed down from chief to chief. We noticed that a part of the stem was perforated wood and we asked Joe how the Indians managed to make the perforation in the early days, with only stones as tools. After thinking a little Joe replied, "I dunno, the ole man didn't tell me."

Days passed by, but the unsolved pipe stem riddle continued to worry and torment us. Continuing our quest for the answer, we finally questioned a Society member, who has lived on many occasions with the Plains Indians of the west and is well versed in most of their habits and history. His answer came quickly, for he spoke from experience, having been accepted into their tribe as an Indian brother. He said that for years, since the coming of the whites, the perforating of the stem, when made of wood, has been done many times by means of a red hot wire, which burns a hole through the pith of the stick. According to him, the old way of doing it, when there was nothing but stones and wood to use, is a lost art today and his Indian friends do not know how the work was done. He ventured a suggestion, however, that by laborious work, little by little the pith was probably worked out by means of a stick.

So here we were, back at our starting point, but with the old stick theory now being advanced by a man, who ought to have known more about the subject than most of us. With this thin ray of encouragement, we set our minds to work and determined, that if it took us a year we were going to find the answer, through actual experiments to be performed, with only stones, wood and possibly bone. So it was that a possible solution of the problem was found and is here set down as it happened.

We selected wood rather than bone for our experiment as being the most likely material, although we have no doubt that bone could have been worked down and would have served as well. We decided that if a drill was made of wood, it must have had a long straight, strong fiber, and was well seasoned. Accordingly, we selected a piece of dried oak and after working it down part way with a knife, for speed, completed the work with nothing but Indian grinding stones. One that did the best work, was a fragment of a trap rock slab, which had flat sides with rough surfaces. When completed, the oak drill measured $7\frac{1}{2}$ inches long over all, with a 6 inch bit only $\frac{3}{32}$ inches in diameter. A point was quickly fashioned with a sharp edged stone flake. This work all told, had taken about two hours time, but although we had been successful in making a wooden drill with stones, we had no idea how effective it would prove, when it came to the actual work of perforating the pipe stem.

Our next step was to find a shrub, whose stems were straight and thick enough

to make them suitable for the stem of a pipe. We had a red catlinite pipe bowl from a grave in Illinois, which served as the subject of our experiment, and with this in hand we searched the woods. In selecting the proper wood, we kept in mind that whatever qualifications it might have, if it did not have a soft pithy center it would not do. Finally after testing many shrubs, we came across one, that seemed to have all the desired qualifications. Now this experiment was made in the winter, a most unfavorable season; which might indicate, that with proper moisture treatments like ours, an Indian could as easily do his wood work in one season as in another.

Our test branch, which measured $\frac{1}{2}$ inch in diameter, was soaked in hot water for two hours. When thoroughly softened through out, the bark was easily peeled off, revealing a smooth slightly curved stick. It was then cut off to a length of $11\frac{1}{2}$ inches, being $\frac{1}{2}$ inch shorter than twice the length of our wooden drill, which was to be inserted from both ends. We hoped in this way, that the drill when completely inserted would extend $\frac{1}{2}$ inch past the middle of the stick and when applied from both ends, would thus complete the perforation.

We applied the drill at one end, pressing lightly its point directly against the softened pith of the stick, at the same time twisting it clockwise. This proved ineffective, so we tried more pressure and less twisting and were amazed at the comparative ease with which the drill penetrated the pith. By pulling the drill out after each subsequent penetrating thrust, small particles of the pith were removed, before they could clog the hole. In this way the wooden drill that had been fashioned with stones, was very gradually worked into the stick, until it had penetrated $\frac{1}{2}$ inch past the middle from both ends. The drill had stood the strain, with no sign of a splinter or split, and the stick had been completely perforated, although slightly curved. Near the middle, however, were numerous particles of pith, which at first clogged the hole. These had to be gradually worked out, by continuously inserting the drill to its full length and pulling it rapidly out again. This process was repeated from each end some fifty or more times, until a passage of air was finally effected. All told the perforation of the stem had taken about three hours. Now came its final shaping at both ends, one to fit snugly into the tapered hole in the pipe bowl, the other to be shaped for the mouth. This work was readily accomplished with the same piece of trap rock used in making the drill and took another hour to complete. Although we had at least found a possible way to make a pipe stem out of wood, by the use of stone tools only, we were not satisfied. We knew that most Indians thought so much of their pipes that they would go to considerable trouble to decorate them and with this idea in mind we decided to try our skill at carving the stem

by the use of stones only.

Still using stone fragments, recovered from Indian camp sites, we selected a pointed one with a fairly sharp edge slightly rounded. With this stone as a tool, we quite easily carved a snake, entwined around the stem, with its fangs pointing toward the mouth of the smoker.

As a finishing touch we colored the snake with red ochre, using a stick as a brush. This carving and coloring required perhaps another two hours, so that altogether the making of the pipe stem, not including the initial soaking, required about eight hours.

Holyoke, Massachusetts
October, 1941

THE STATUS OF COLONIAL ARCHAEOLOGY IN MASSACHUSETTS IN 1941

Henry Hornblower II

Three 17th Century Pilgrim sites were under investigation in 1941 in Plymouth County: the John Howland site at Rocky Nook (c.1637-87), the Edward Winslow site at Marshfield (c.1637-1700), and the John Clark site at Chiltonville (c.1627-50). None of these sites have been completely excavated, although preliminary reports are available for the Howland and Winslow sites. (1)

The John Howland Site:

Excavation was started by Sidney Strickland in 1938 and is now practically complete. Detailed study has been made of the early land grants by Bertram White and the 17th century property lines are known for Rocky Nook and for much of the larger area of the Plymouth Plantation. Plans are available for detailed reconstructions of the main house and the several outbuildings uncovered at the Howland site. Ms. notes, maps, plans and specimens are in the possession of Sidney Strickland at his house in Brookline. This work is being carried out under the auspices of General Howland of the Howland Society and Strickland.

The Edward Winslow Site:

Excavation commenced in March, 1941, by J.O. Brew and a group of Harvard students and was carried on for two weeks. Later, week-end expeditions were made to the sites by members of the Excavator's Club of Harvard until June when Henry Hornblower II continued excavation with four assistants for the months of July and August. Week end expeditions were continued by the Excavator's Club in September and October so that at the present time the main building and part of one outbuilding have been excavated and about 60,000 specimens recovered. Ms. notes, maps, photographs and specimens are in possession of Henry Hornblower II at Plymouth. The Winslow site has been excavated under the auspices of the Peabody Museum, the Historic Winslow House Association and Hornblower.

The John Clark Site:

Excavation began in July, 1940, by Jesse Brewer and Henry Hornblower and has continued sporadically to date. The area under examination had been intensively plowed so that few colonial features have been found in situ. These include one stone boundary line, several pits, two hearths and part of the foundations of one building. In all about 15,000 specimens have been recovered. Ms. notes, maps, photographs and specimens are in possession of Hornblower at Plymouth. This site has been excavated under the auspices of Hornblower.

The Excavator's Club had plans to excavate a 17th century house foundation on Harvard property near the Peabody Museum and some slight preliminary work was done under the leadership of John Rowe in June, 1941. Probably the notes and specimens are now at the Peabody Museum.

During 1941 Strickland and Hornblower located and mapped many 17th century sites and houses in the area of the Plymouth Plantation. Ms. notes, maps and photographs are in their possession in Brookline and Plymouth.

During 1942 Strickland will probably do further work at the Howland site and continue to locate 17th century sites in the Plymouth area. Hornblower will try to finish the excavation of the Clark site, the laboratory work on the specimens recovered from both Clark and Winslow sites, and to publish a preliminary report on the work to date on both sites. The Winslow site will be closed in and work resumed some time in the future. It is doubtful that the Excavator's Club will resume work on their site during 1942.

Boston, Massachusetts
March, 1942

(1) Howland site Ms. in possession of Sidney Strickland. Winslow site preliminary report Ms. in the Peabody Museum Library or in possession of J.O. Brew at the Peabody. Copies also at Pilgrim Hall, Plymouth, the Historic Winslow House association, Marshfield. Short notice in AMERICAN ANTIQUITY, Vol. VII. No.1, July, 1941, p.75.

Vol 4 No 3

SOAPSTONE BOWL MAKING AS PRACTICED AT THE WESTFIELD QUARRY

William S. Fowler

During the summer of 1941 the Connecticut Valley Chapter of the M.A.S. excavated for the first time what may prove to be an important Indian steatite quarry in Westfield, far up the Little River Valley. Near the top of a wooded, lonely mountain, adjacent to a large serpentine deposit is an outcropping of steatite in a ledge, that today extends only about two feet above the floor of the forest. Wild crags of serpentine rise precipitously above it and an old serpentine quarry worked some fifty years ago lies right next to it. The tailings from this quarry in the form of tremendous blocks of stone, have been thrown around, so that much of the original forest floor has been covered up and destroyed. Fortunately, however, about ten feet of the steatite ledge, with five or six partly pecked pot-forms still intact on its face, remain exposed. Besides this there was a small area adjoining, not covered up, which proved to be part of the workshop. This spot as well as the area adjoining the ledge was excavated.

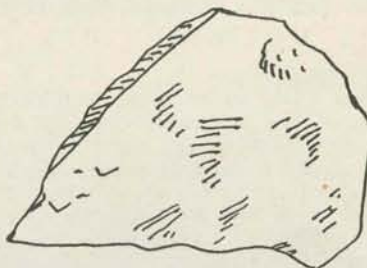
An examination of the tailings from the fifty-year-old serpentine quarry, disclosed large segments of steatite, apparently from another ledge on which partly pecked pot forms could be seen in a few places. This discovery seemed to indicate a more extensively worked steatite quarry than we at first had thought possible.

The excavation of the quarry produced nine types of artifacts, which were dug out of about a foot-and-a-half accumulation of loam, steatite dust and flakes. In our desire to find perfectly shaped picks, we at first discarded certain small stones, which later were found to be important finishing tools. However, in the end, all our tailings were sifted again and all artifacts saved, no matter how inconspicuous they at first seemed. Generally speaking we found the implements to be rather roughly shaped, except in a few cases, and, for the most part, designed for hand use. Always the cutting edge would be finely worked, and the hand grip rounded and smoothed, although the rest of the artifact most always would be roughly chipped.

Serpentine was the stone that was most commonly used; many of the pieces had tourmaline crystals scattered throughout. These served as a cutting edge and no doubt gave unusually fine wear. Quartz crystal, quarried from local deposits, gave perhaps longer wear with a sharper cutting edge than the serpentine, but was apparently used for heavy work less. A classified

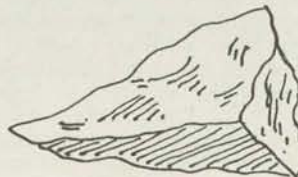
description of the finds follows.

1. Quarry Picks - These picks were probably used, for the most part, to rough out the pot-forms and split them from the ledge. They were all made in one way, so that they would receive a perpendicular thrust with the hand held at the end or side. There were eighteen in all, of which sixteen were made of serpentine, one of quartz fused with felspar and one of trap rock, (also three broken trap rock pick points). Those made of trap were evidently transported to the quarry from the nearest trap deposit, some ten miles distant. These picks were from 6" to 10" long and were generally quite heavy, weighing from two to five pounds.



2. Medium Quarry Picks - These picks were apparently designed, as were the larger ones, to be operated with a perpendicular thrust, but were smaller and many showed evidence of having been used for abrading and scraping. This should indicate

that they were used not only for roughing, but for finishing the larger bowls. In all there were 24 of which 18 were of serpentine, 5 of quartzite and 1 of quartz crystal.



3. Finishing Picks - Small, and many with a flat pick point, these picks were probably used in shaping the outside of the smaller bowls, where the size of the pot form would not stand the vigorous thrust of the heavier picks. There were two distinct types, both designed for use with a light sidewise thrust from the wrist. This was an important feature of these picks, apparently designed to prevent the shattering of the steatite. The fact that we found more of these small picks than of



any other kind, might lead to the conclusion, that many small bowls were made at the quarry. In all, 41 picks were saved, of which 37 were serpentine, 1 of quartzite and 3 of quartz crystal. Subsequently 2 tiny quartz picks were found like those found at the nearby quartz quarry.

4. Abrading Scrapers - Much like soapstone bowl scrapers that have been associated with other quarries, the 19 recovered here were 3" to 4" long with roughly chipped oval blades. They were all probably held in the hand without hafting, as there were none of a triangular shape. Moreover the back, which was gripped, always had the sharp edges chipped off to prevent skin chafing. Several had notches made near the hand grip on either side. These may have been used to hold in place leather thongs wound around the stone for a finger grip. No doubt this type of scraper was generally used with a sawing motion, as has been previously described by R.P. Bullen, in his article on the excavation of the Dolly Bond Quarry in Vol. II, No.1 of the BULLETIN.

5. Special Scrapers - One straight edged scraper made of a quartz crystal was found. This type was later substantiated by similar recoveries at an adjacent quartz quarry, to be described later. At the end of the sharp crystal edge, one corner had been carefully rounded. Under actual use in making a bowl out of a pot-form, it was found that evidently this scraper had been used to smooth the inside edges of the bowl, as the curved end fitted the bottom inside curved edge of the bowl perfectly. This proved to be a most useful and efficient tool.

6. Chisels - Ten chisels were found and these seem to have filled an important function.

From tests made with them in the actual work of scooping-out the bowl it would seem that they were probably used in rounding out the end and side walls on the inside. They were all made of ser-



pentine, with curved-edged blades measuring only $\frac{1}{2}$ to 1" across. We found, in making small bowls and ladles, that chisels like these were quite indispensable for gouging out the inside, as picks of any size would frequently open up seams in the steatite.

7. Abraders - Apparently the Indians at this quarry depended a great deal upon abraders, no doubt for the fashioning of the inside of the bowl, for a great number were found in various shapes. We recorded 32 in all, but many others were not saved. One particular type is worthy of note, as



it was distinctly shaped with a handle and measured 8" over-all. All but two or three were made of serpentine, including those with handles. The others were of quartz. Those of serpentine were full of large tourmaline crystals, that undoubtedly made a fine abrading surface.

8. Polishers - A great many polishing stones were found, of which we recorded 23 in all. Every one was a broken fragment of steatite, with its sides smooth from polishing. Actual tests proved that by rubbing the bowl with these fragments, after the abrading was finished, a high finish could be obtained. These polishers, of all sizes, might seem to indicate that a great many bowls, large and small, were finished at the quarry.

9. Hammers - Actually only 6 hammers were found and these were made of a sort of schist with quantities of small garnets mixed throughout. It would seem therefore, that at least a part of the making of serpentine tools was carried on at this steatite quarry, although it is quite possible that many of them were made at an adjoining serpentine quarry. We know that the quartz tools were made nearby, as we will show in a later article on the quartz quarry.

10. Pot-forms - One of the best clues as to what kind of bowls were made at any quarry are the pot-forms of steatite. The 26 recovered from this quarry were comparatively small, measuring in length all the way from 6" to 12". Nine of the pot-forms were pecked with a tapering projection at one end, and were cut square at the other, by a deliberately pecked, clean fracture. In as much as nearly all the forms, which were shaped at all were left in this condition, it would seem as though they were intended for bowls with only one handle, which was to be a prominent part of the bowl. Furthermore, as there was a preponderance

of small pot-forms not more than 6" to 8" long, it also seems likely that the work at this quarry dealt chiefly with the making of eating ladles and dishes. With this thought in mind, the writer determined to try his hand at making suitable bowls out of several small pot-forms and to confine his tools exclusively to the same stone implements as used by the Indians.

The experience gained in making these bowls with stone tools prompts us to suggest the following work procedure as the most likely way that the Indians at this quarry went about making their bowls or ladles. First, the form was pecked out with large quarry picks from the steatite ledge. With a medium sized pick one end would be squared by a clean fracture, after a straight row of pick holes were made top and bottom and opposite each other. Next, with the same pick, the other end of the form would be tapered to a blunt point, which would ultimately be the end of the handle. At this point a small pick for finishing was probably used, and the outside shaping of the ladle would be completed with a 1½" to 2" handle, projecting at one end. Then the abrading scraper and abrader would finally be used to bring the outside shape into correct proportions.

With the abrading scraper, small quartz pick, chisel and abrader the inside would then be dug out. This required patience and a strong hand, as the work had to be done, for the most part, without the use of a pick in order to prevent the natural seams in the steatite from opening up. Before the walls of the bowl became too thin, the straight razor-edged scraper, with curved end was probably used to smooth the inside walls and reduce their thickness as desired. After this, came the polishing and smoothing of the entire bowl, inside and out with steatite polishers. The

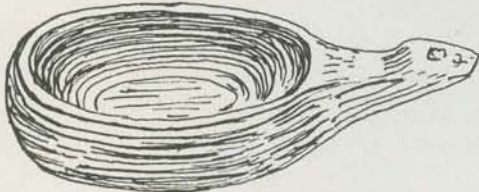


illustration shows the ladle made by the writer as described above using only stone tools. It has the capacity of a water glass. The time required to make this ladle was about six hours.

11. Pipe-forms - Two steatite blocks of similar proportions were found, shaped in such a way as to leave no doubt that they were to have been made into platform pipes. Other than this, we found nothing to show that pipes had been made at this quarry.

In all 195 artifacts were found as well as innumerable broken implements of all kinds. As you consider the similarity

of all the pot-forms that were semi-finished, one conclusion seems to grow upon you, that the workers of the quarry were guided by some central instruction. Also it may be that the apparent uniform style of a projecting handle and the method of first roughing it out when shaping the pot form, was an established method of work passed on from generation to generation.

No arrow points or other evidence were found that would in any way give us a yard stick, with which to measure the age of this quarry with the exception of the platform pipe forms, which would place the quarry in Willoughby's Old Algonkin. However, the amount of quarry dust and steatite litter would indicate an extensive period of work. It is also worthy of note, that not only the stone adjacent to the quarry, but also trap-rock, was used in making picks and scrapers. As the nearest trap deposit is ten miles distant it is obvious that implements made from it were transported and as no trap flakes were found, it is likely that the tools of this stone were made at distant camps. Where these camps were can only be a conjecture, but they may have been as far off as North Hadley and Sunderland on the Connecticut River. We have found soapstone bowl fragments, closely resembling the Westfield Steatite, on seven camp sites from the Westfield Valley, all the way up the Connecticut River to M-18-95. Furthermore all other bowl fragments found on these camps resemble closely the pinkish, more granular formation of the North Wilbraham steatite. Could it have been that these two quarries only, served the Indians of the entire Connecticut River area from Springfield north?

Holyoke, Massachusetts
May, 1942

"Prologue to New England," Henry Howe's book has been published by Farrar & Rinehart New York at \$3.00. We regret that there was no space for a review in this issue of the BULLETIN but we will have a review for you in the next BULLETIN. The book covers the voyages made to New England before the arrival of the Pilgrims at Plymouth, discussing the difference between the treatment accorded the Indians by the French and the British, and the effects on colonization and exploration. Much light is cast on the "contact period." It is a book which should be of much interest to all who are genuinely interested in the history and archaeology of New England, for it includes many passages describing the life of the Indians, as observed by the first Europeans to describe our New England tribes.

A PROPOSED MASSACHUSETTS PROJECTILE POINT CLASSIFICATION

Ripley P. Bullen

We need a tool to demonstrate significant similarities and differences among our Massachusetts Indian sites. To meet this need the following projectile point classification is offered. While logical considerations regarding classifying have been kept in mind, they have been modified to produce a tool designed for our special use. Over 5,000 points were reviewed and those found to be present less than $\frac{1}{2}$ of 1% have been omitted in the interests of simplicity and statistical treatment. For the same reasons any consideration of the material, the crudeness of the point, or the skill of the maker have been disregarded. It is anticipated, however, that in reporting points from a site special forms and other comments would be mentioned. All classifications are arbitrary and so is this one.

It will be noticed that, to a certain extent, size has been considered. This was found necessary to differentiate between certain forms which occur both large and small, but not together on the same site. In classifying, it will be found easiest if the material is first sorted into four groups; (1) stemless trianguloids, (2) small points around 1 inch and less in length, (3) those up to 2 $\frac{1}{2}$ inches long, and (4) those over 2 $\frac{1}{2}$ inches. The latter, for purposes of classification, should be called spear points. In dealing with the points on the last page, they should be divided first into groups by base types and then the blade form letter added as a descriptive suffix. The length width ratios given are to be used as a guide in this last determination but bear no relationship with the actual length. Intermediate forms will be found and it is up to the classifier to determine in which group they should be placed.

With this system comparisons between sites may be made by types or by groups of types. If the latter method is used the following groupings are recommended:

- | | | | |
|------------|------------------|------------|------|
| Group I | - Triangular | - Types 1 | - 6 |
| Group II | - Knobbed | - Types 7 | - 8 |
| Group III | - Small miscel. | - Types 9 | - 20 |
| Group IV | - Corner removed | - Types 21 | - 28 |
| Group V | - Intermediate | - Types 29 | - 32 |
| Group VI | - Side notched | - Types 33 | - 37 |
| Group VII | - Corner notched | - Types 38 | - 43 |
| Group VIII | - Geometric | - Types 44 | - 50 |

This has been tried on various sites and similarities and differences do show up. It is believed that if the Massachusetts Archaeological Society will do this

on a state-wide basis, covering sites with a reasonable quantity of points, that certain recurring patterns will be found which will be of inestimable help to us all in our study of our local areas.

This work was started as a project of the Essex County Group. The writer wishes to thank that group for the inspiration to make up a system and Maurice Robbins and William Fowler for material assistance in making up the final draft.

Andover, Massachusetts
March, 1943

New Members

- Miss Louise A. Klebes
7 Holden St., Attleboro, Mass.
Miss Cecilia J. Guida
139 Union St., Westfield, Mass.
Mr. & Mrs. Fayette F. Read
34 Amherst St., Holyoke, Mass.
Mr. Charles T. Sanderson
Mrs. Winifred L. Sanderson
Miss Jessie E. Sanderson
P.O. Box 44, Plymouth, Mass.
Mr. Charles C. Woodward
260 Locust St., Holyoke, Mass.

In the Armed Forces

- Richard T. May

Errata

Membership List, Vol. IV, No.2

Omissions: (Family Members)

- Mrs. C.W. Hanson
155 Granby Rd., So. Hadley Falls, Mass.
Mrs. Frank H. Jones
11 Silver St., So. Hadley Falls, Mass.
Mrs. H.H. Plough
85 Dana St., Amherst, Mass.

Corrections: (Active Members)

- Mr. Harold W. Mohram
19 Ford St., Springfield, Mass.
Mr. C.W. Hanson
155 Granby Rd., So. Hadley Falls, Mass.

In Robbins' article (Vol. IV, No.2, page 22, right hand column, paragraph one) the measurements should read 3.16 feet and .057 feet.

Vol 4 No 3

STEMLESS TRIANGULOIDS AND SMALL POINTS
(Approximately full size)

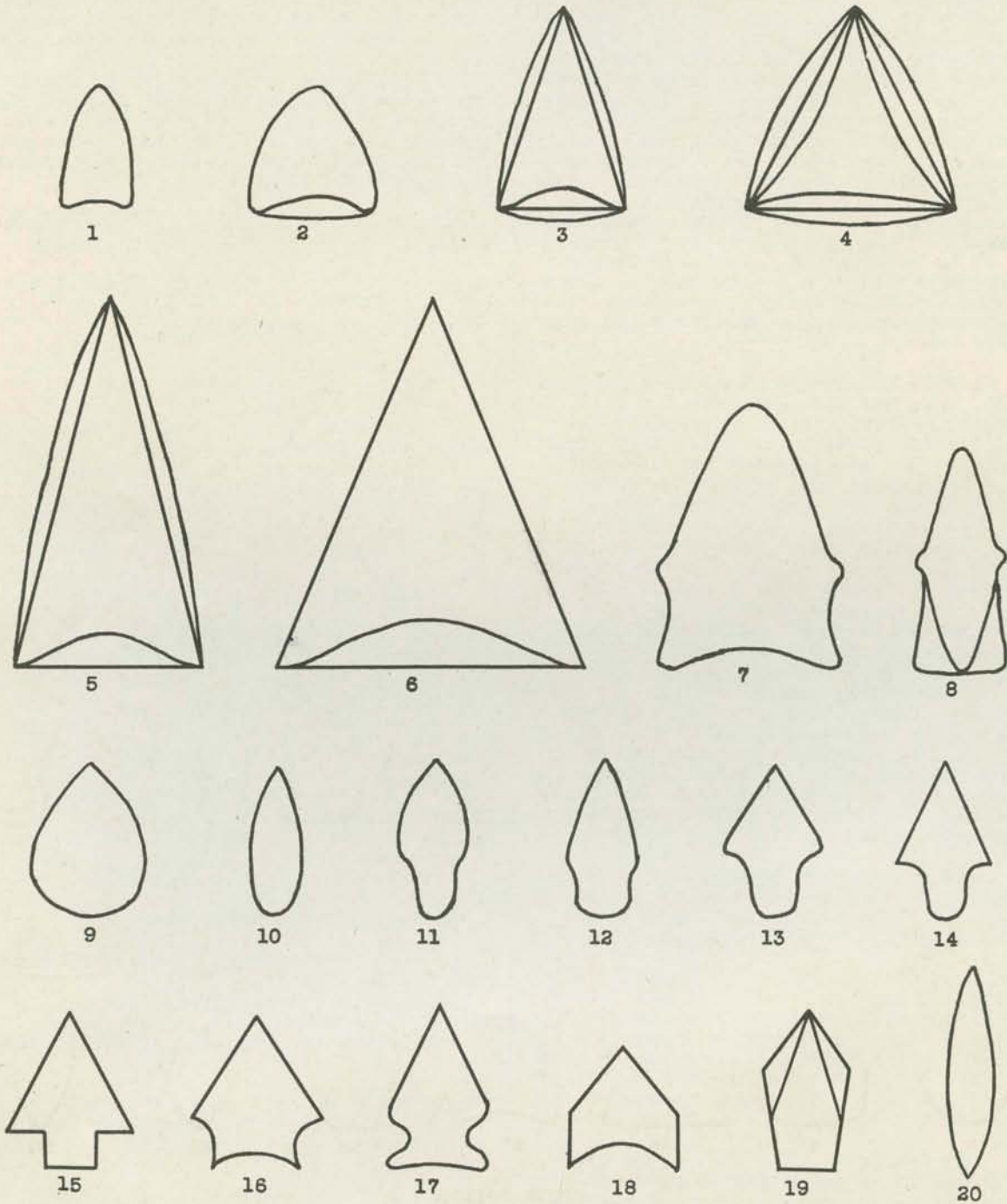


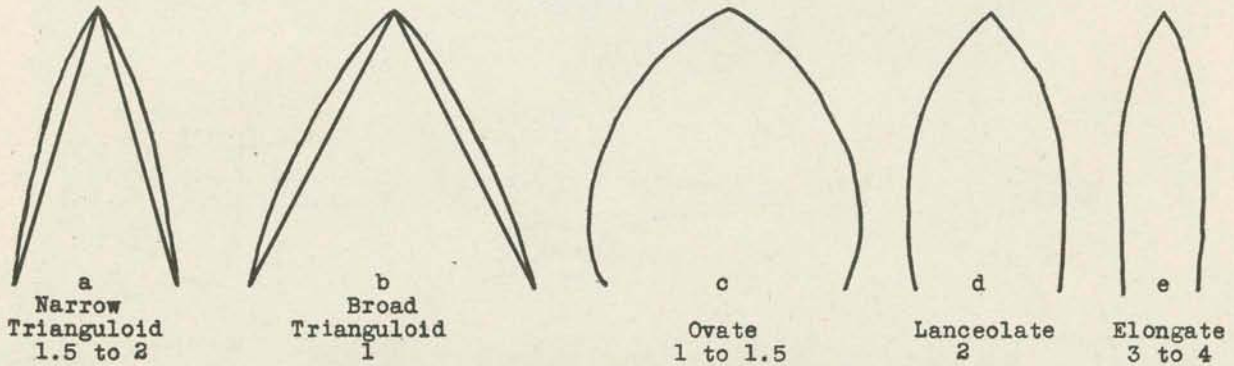
Fig. 11

STEMMED POINTS

(Reduced - length of point approximately 1 to 2½ inches)

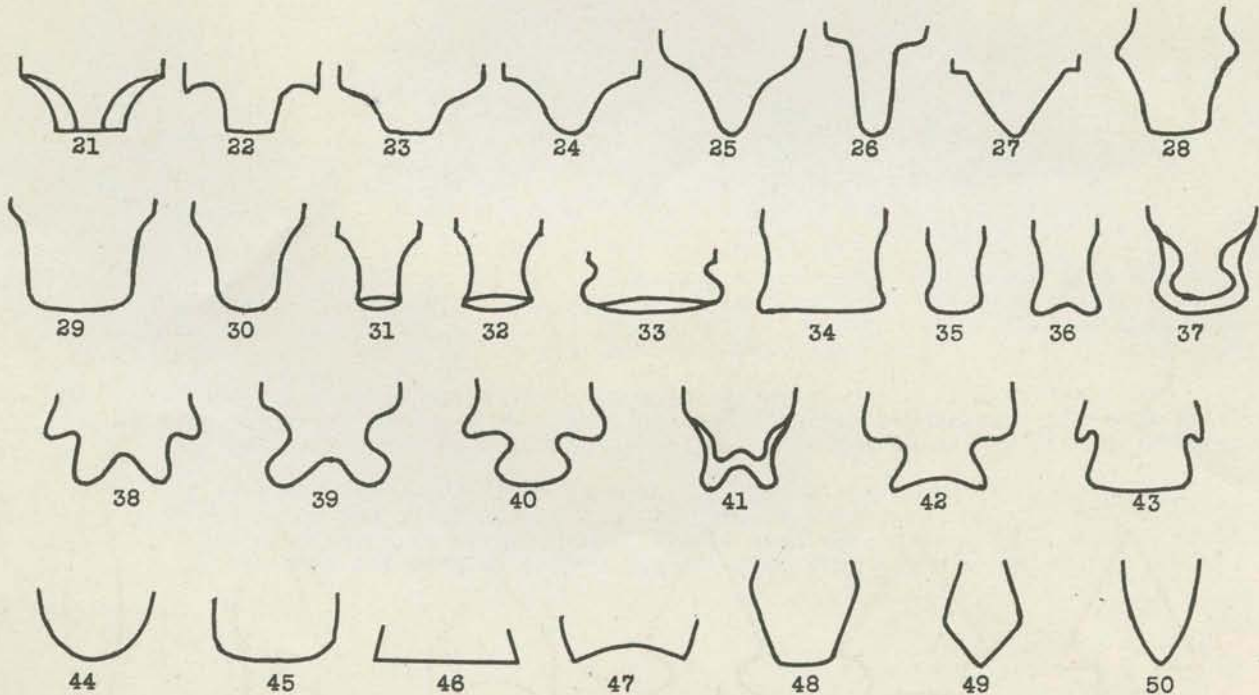
BLADE ~~POINTS~~ ^{Forms}

(Add to base type as a suffix letter)



Blade $\frac{\text{Length}}{\text{Width}}$ Ratios (Approximate)

BASE TYPES



SPEAR POINTS

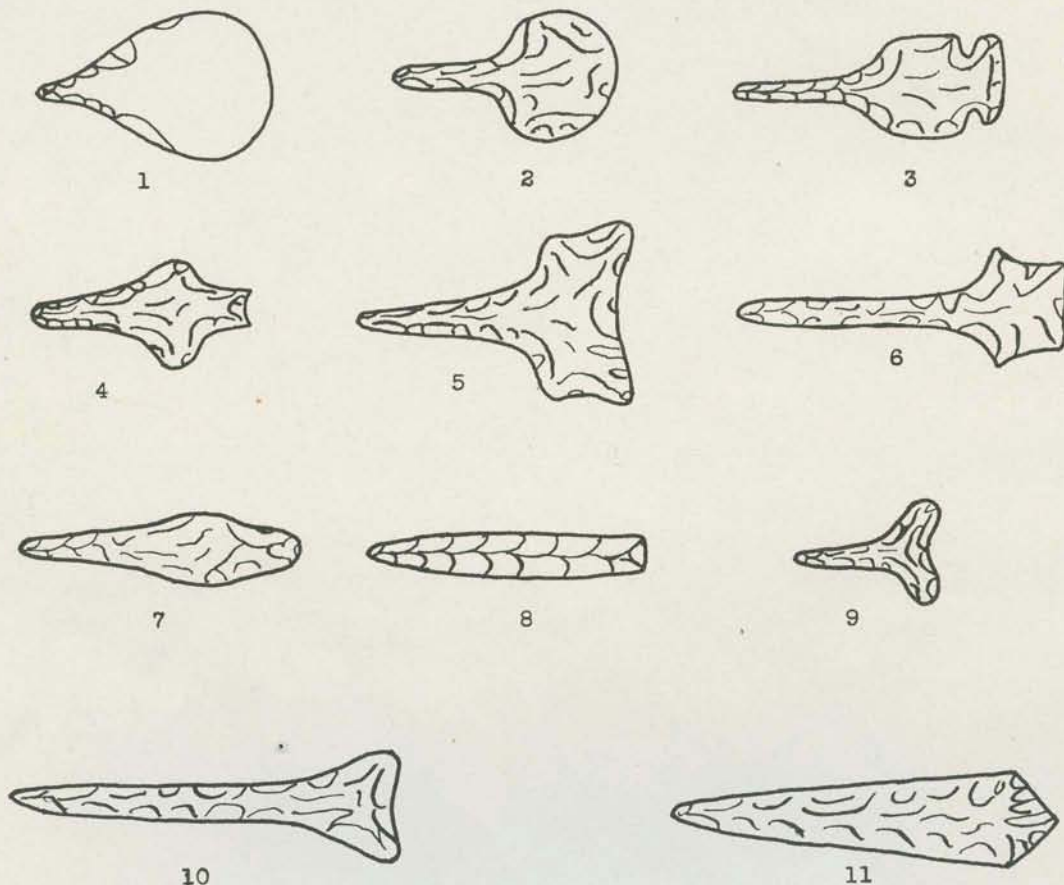
For points longer than 2½ inches use this page but designate as SPEAR POINTS.

Fig. 12

Vol 4 No 3

PROPOSED DRILL CLASSIFICATION

Ripley P. Bullen



The Site Survey Committee feels the need of a uniform state-wide nomenclature so that we will all talk in the same terms, and sites reported by different members can be compared. As a step in that direction the Committee would like to propose the above classification for stone drills for the Massachusetts Archaeological Society.

It is believed that the above arrangement is self-explanatory and that most of the drill types for Massachusetts have been included. It might be mentioned that Type 1 is chipped only at the sides and point while the rest are chipped all over.

It is not only important to us to know what drill types occur where, but, also, the Society should be in a position to help if, at a later date, the whole "Woodland" area is being studied. At present the rest of the country knows practically nothing about New England and we cannot tell them, accurately, unless we have the information.

Andover, Massachusetts
March, 1943