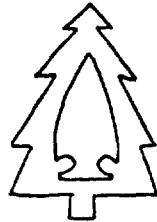


MAINE ARCHAEOLOGICAL SOCIETY



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PROJECTILE POINT CLASSIFICATION

Steve Feher

Projectile points are not only the commonest artifacts of Indian manufacture, they are also undoubtedly the most varied. The artifacts described herein were all found at one relatively small site in the Big Lake area of Washington County, yet they dramatically illustrate how great a variety of projectile points were produced by the Indians of Maine. They also show how great the problem of classifying said artifacts is.

While this article is not an attempt to formulate for the State of Maine a manual of classification such as Fowler's "Classification of Stone Implements of the Northeast" or Ritchie's "A Typology and Nomenclature for New York Projectile Points", it is an effort to help in the compilation and eventual publication of a badly needed guide that will serve Maine as these bulletins have served their respective areas.

The depicted artifacts were selected either because they occurred in sufficient numbers to clearly indicate they were a type, or because they resembled established types from other areas, or because the quality of their design and execution made it highly improbable that they were mere aberrants. Some unusual forms have also been included to indicate how wide a range of variation is possible. The recurrence of these forms at other sites throughout the State could eventually enable us to determine which are truly types and permit us to more explicitly describe their specific attributes, and perhaps determine some of their cultural affiliations.

A great variety of projectile forms found at a site may indicate a succession of occupations by craftsmen of different periods and cultures, or it may indicate that craftsmen of a few or even a single group chose to work in a variety of projectile styles. This article is concerned only with the typology of these points. Since the artifacts all came from one unstratified site no chronology or dating is possible, but similarities are noted as well as relative frequencies. Chipping

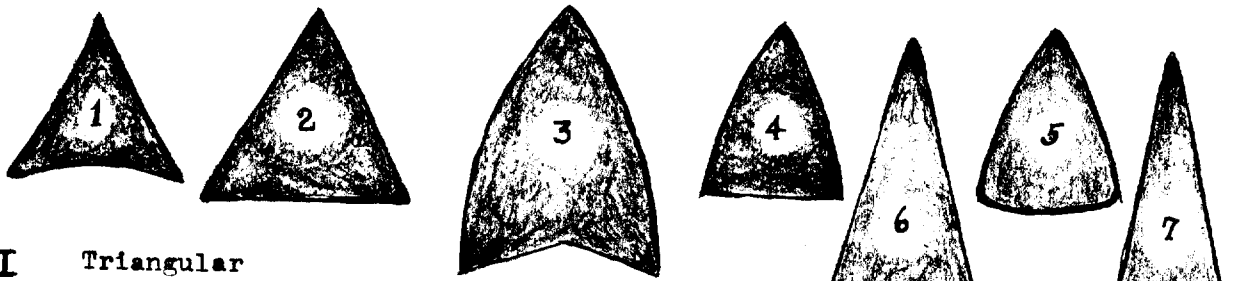
characteristics vary from type to type as well as from specimen to specimen within each type. Since no one chipping technique seems to be clearly typical of or assignable to any one type of point, chipping characteristics are not considered herein as a primary criterion of typing. This is not to say, however, that the great potential value of chipping characteristics as a criterion is not recognized.

The artifacts are illustrated diagrammatically in order to accentuate the characteristics that distinguish them. They are, however, drawn from actual specimens. Some materials are noted although no preference is clearly demonstrated for any one category. For the artifacts as a whole, felsite in a variety of colors was used most often by far. Quartz, quartzite, jasper, flint, chalcedony and argillite are also represented.

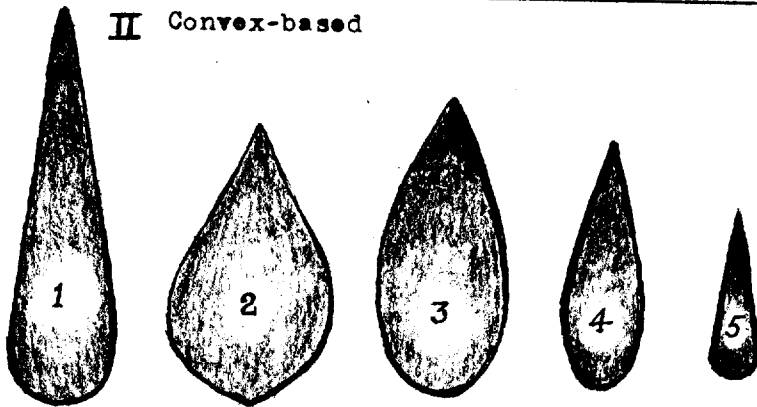
I have for the most part followed the classification of Fowler because of its merit and because his is probably most familiar to us in the Northeast. Other authorities are noted wherever pertinent.

In typing projectile points the most obvious distinction is whether the point is entire or whether its base has been notched or "stemmed." Relatively little variation occurs in the blade portion of projectile points. By contrast, variations in the basal portion are seemingly endless. It is therefore not oversimplification to say that, as a rule, "the base types the point."

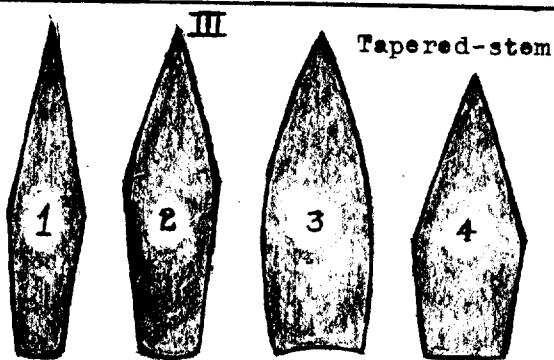
Five classes of unnotched points are readily discernible. Group I forms are all distinctly triangular. #1 and #2 are equilateral triangles; #1 is incurved on the sides and base while #2 is straight-sided and straight-based. Only one specimen of #1 was found and #2 was relatively rare. #3, #4 and #5 are all excurvate-sided and differ mainly in the base. #3 and #4 are well made points, usually of flint, while #5 points are invariably of felsite and quite crudely chipped. #6 and #7 are isosceles triangles. #6 has a deeply concave base while #7 occurs in straight and slightly convex-based forms and as such are the most common of all forms. Usually flat in cross section, they range in size from 1 1/4" to 3 3/4".



I Triangular



II Convex-based



III

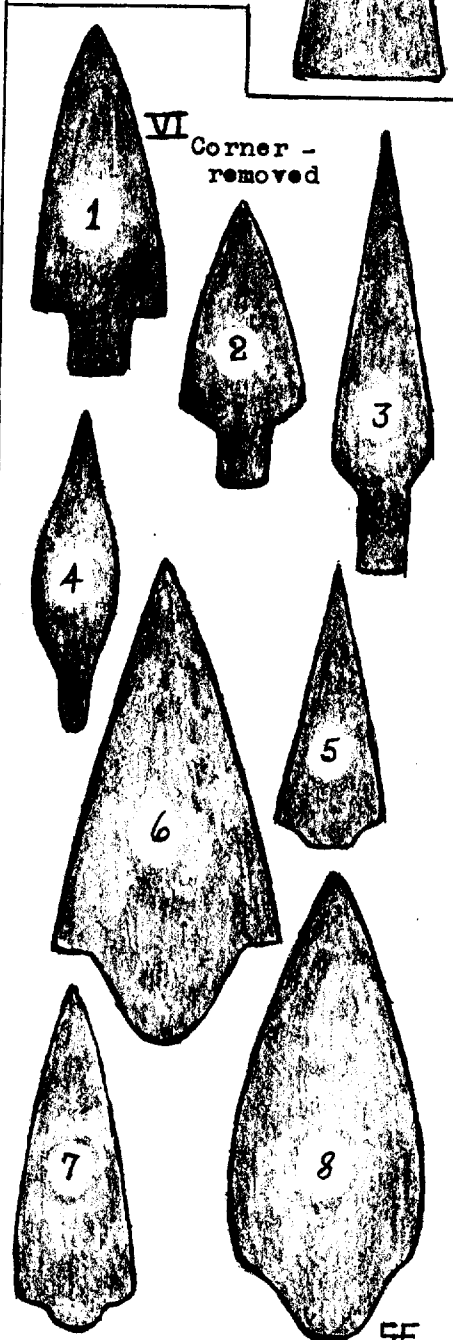
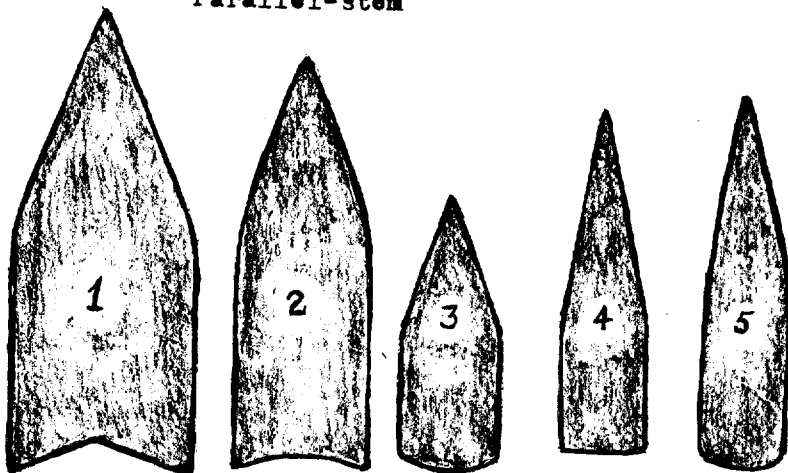
Tapered-stem

IV Willow-leaf



V

Parallel-stem



VI Corner - removed

Their high frequency may be partly due to the fact that the larger forms could have served as knives.

Group II convex-based forms are second only to the isosceles triangles in relative frequency. All varieties are well represented. #3 is the ovoid type, termed leaf-shaped by Fowler and Ritchie.

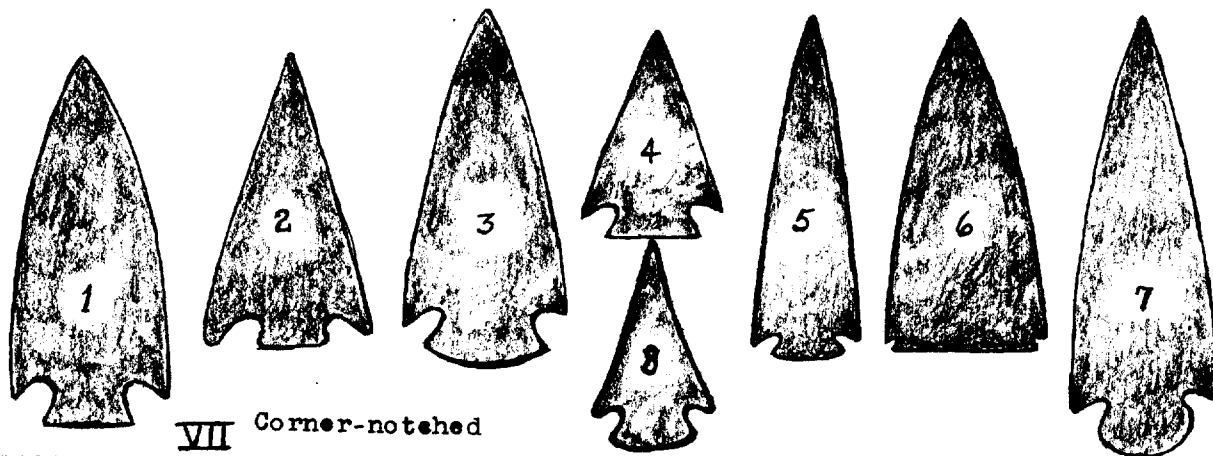
Group III includes the truncated or boat-shaped forms which Fowler has called tapered-stem. All forms are widest at about the mid-point and are flat in cross section with the exception of #1 which is diamond shaped in cross section. #2 is quite common, especially in larger specimens up to 4 1/2" in length. #4 is the pentagonal form of Ritchie and others.

A single specimen of Group IV willow-leaf form was found. It is quite thin, made of felsite, and is slightly concavo-convex in longitudinal section. A medial ridge runs the entire length of the convex side.

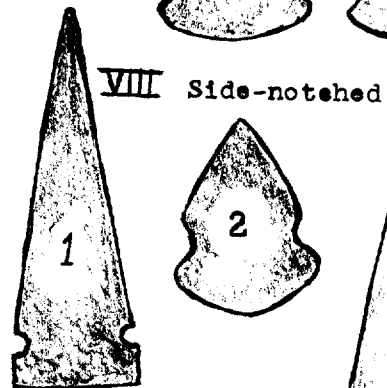
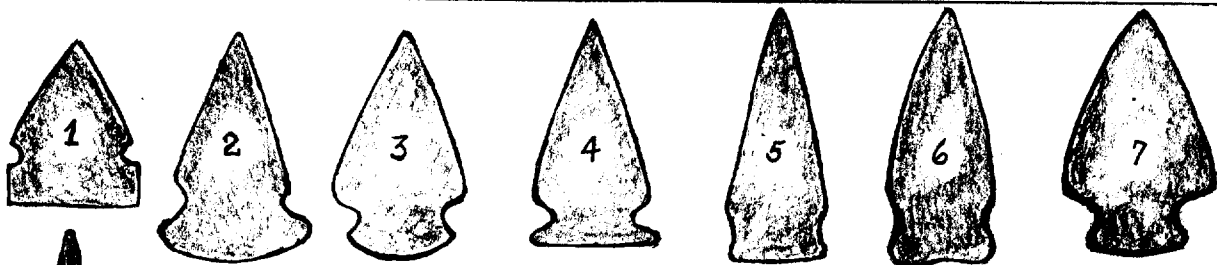
The parallel-stemmed forms of Group V are all essentially pentagonal. #1, a fairly thick point of exotic jasper, shows considerable thinning of its base and a suggestion of fluting. #2 forms are rather thin and usually made of flint. Forms #3, #4 and #5 are very common, especially the larger specimens of #4 and #5 which range up to 4" in length. Some of these may have served as knives also.

Turning now to the points with notched or "stemmed" bases we can readily recognize four distinct groups. Eight corner-removed forms are shown in Group VI. #1 is termed right-angle-stemmed by Cross since the stem and blade meet at a right angle. #1, #2 and #3 are all termed straight-stemmed by Ritchie. He refers to #4 as lobate and describes forms #5 through #8 as contracting-stemmed. Cross refers to these as plain-stemmed.

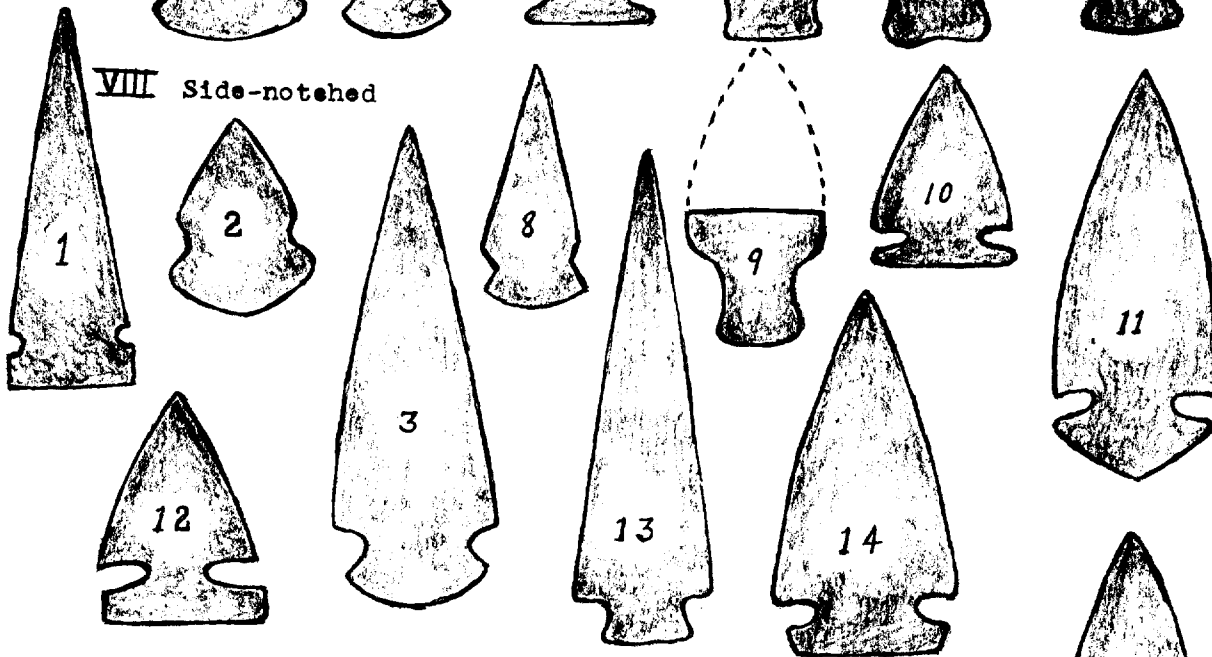
Considerable variety is shown in the corner notched points of Group VII. Notching varies from V-shaped to U-shaped to nearly circular. Convex-sided #1, which also occurs in a short spade-bladed form, and triangular #2 both exhibit well defined



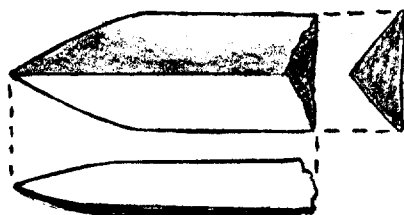
VII Corner-notched



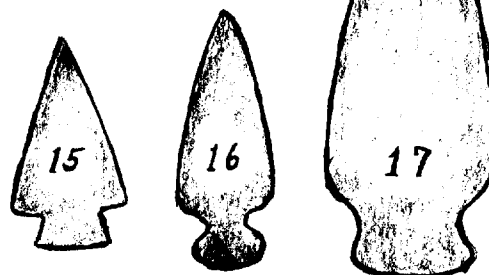
VIII Side-notched



X Slate point



IX Eared



barbs. In #2 the barbs extend to the base and thus constitute what might be termed basal notching. #3, very symmetrical, with a fan shaped base that thins to a scraper edge, also occurs in a short triangular form. #4 is flat in cross-section and triangular bladed. #5, lenticular in cross-section, has well defined notches and a lanceolate blade. In some specimens the sides are nearly parallel for much of their length. #6, a very thin, finely chipped specimen of white and purplish-pink quartz, is triangular overall. The well made notches are the smallest seen on any specimen. #7 is quite thick throughout with a knob-like base and is rather crudely chipped. #8 is one of the very few notched forms whose blade has incurved edges.

The greatest variations in any group occur in the side-notched points of Group VIII. Here, too, as in Group VII, notching varies from V-shaped to U-shaped to nearly circular. #1 forms are square based with circular notching. A more broadly triangular form was also found. All are relatively thin and flat in cross-section. #2 forms have expanded bases and are widest at the base. In one form, as shown, the base constitutes one half of the point's length. #3 forms are fan based; the smaller specimens are flat in cross-section while the larger lanceolate forms are lenticular in cross-section and show considerable basal thinning. #4 and #10 are straight based well notched forms; in #10 the notches are slot-like. #5, #6 and #8 are shallowly notched, differing mainly in the base. #6 is similar to the "fishtail" points of some authorities. #9, represented by a basal portion, is smoothly ground and resembles the ground slate points of Newfoundland and Labrador. #7, a spade-bladed form and #13 are deeply notched by the removal of the basal corners. #13 with its angular shoulders also occurs in a broadly triangular form as well as a lanceolate form with nearly parallel sides. #14 is distinctive in that the "ears" of the base are cut at an angle. Binford refers to this as a "bivectoral" base. #11, a single specimen of fine quality red jasper, has deep notches and a well made triangular or "turkey tail" base. Binford terms this a "trivectoral" base. #12, another single specimen of purplish felsite, is so deeply notched that the stem retains only one-third of the blade's width. The base is straight with squared tangs. #15 is thin, flat and very angular. #16 represents a group of points with a characteristic knob-like base. #17, rather

thin for its size, has very sloping shoulders and was probably a spear point.

Only one Group IX eared point was found. Such points are referred to by Ritchie as eared-notched.

As noted earlier, the base usually types the point. Seldom does a fragment of the blade indicate the type. The tip shown in Group X is an exception to the rule. Obviously the tip of a ground slate spear point, it is similar in its triangular cross-section to certain slate artifacts from the Lower Ontario region. Slate spears from Maine are usually lozenge-shaped or lenticular in cross-section.

I have compared the points described herein with points illustrated in recent issues of this bulletin. Practically all of the latter points can be matched with points shown in these diagrams. This would seem to indicate that the greater part of this assemblage of points is neither unusual nor atypical. I am sure that counterparts to even the more exotic forms can be found throughout adjacent areas and even these will prove to be definite types.

The previous issue of this bulletin discussed the advantages of the attribute analysis technique as compared with the type analysis technique in classifying artifacts.

Judging from this and other literature on this subject I am led to think that attribute analysis is a technique of the laboratories while type analysis is a technique of the field or "digs." Although the latter may often err in being too general, the former is as often guilty of splitting hairs. The chief value of attribute analysis may well lie in the recording of data on atypical forms which cannot be included in any named classification.

The value of named types to the layman and amateur archaeologist is immense. These are literally the tools of the trade and without them it is impossible to discuss artifacts in any but the most general of terms. Nor is it of any less value to professional archaeologists. The literature of American Archaeology could not have evolved without this traditional workable approach. It would be extremely foolish not to take full advantage of the wonderful ways in which modern data processing

procedures can be utilized in artifact classification. It would be equally foolish not to realize that there still is and will be, for the foreseeable future at least, a need for the time tried and proven traditional technique of named types.

I believe that a binomial name is most satisfactory in designating types, e.g. *Susquehanna Broad*, *Fulton Turkey-tail*, *Orient Fish tail*, *Brewerton Eared-notched*. This method has been extensively used in ceramic classification. The first term is locative, referring either to cultural attributes, the site or area where the point was first found or recognized, or where it occurred most plentifully. The second term is descriptive and deals with the morphology of the artifact.

The aforementioned article states that when a type named for one area is transferred to another area some distance away, a problem can be created by attaching a new label to a previously described type. As Ritchie points out, this can be overcome by simply demonstrating that the type in question has already been described, named and duly credited.

Regardless of how well the proposed attribute analysis system succeeds (and I for one wish it well) I feel that most of us will continue to exercise that all too human penchant for putting a name on things and will continue referring to our arrowheads and other artifacts by names rather than punch cards.

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- Ritchie, William A. 1961 *a typology and Nomenclature for New York Projectile Points. New York State Museum and Science Service, Bulletin No. 384. Albany.*
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PROBLEMATICALS?

Marshall L. Rice Sr.

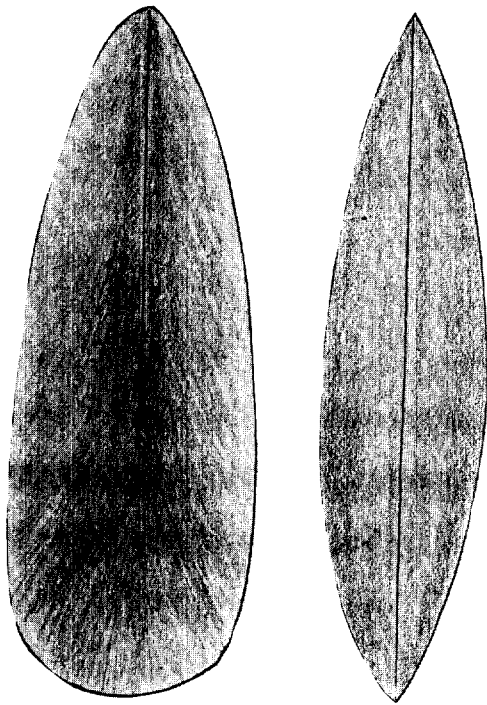
The word *problematical* has long been used to categorize objects which do not readily fit into a group or whose use is not readily definable. I feel that the term is occasionally misused and that specialized tools are often classed incorrectly as "problematicals".

Over a long period of time I have amassed a collection of Maine artifacts, accumulated mostly through my own digging efforts. To these I have added a few pieces received from others. Among them are three pieces which I would class as "problematicals". They came in a box with two plummets; the box bore the notation "Webber Pond, East Vassalboro, Maine". Although I have consulted many sources, to date I have found nothing of similar shape in any of my research. Two of these objects are almost identical in size, shape and material and, no doubt, belong somewhere among the chisel type tools. They are illustrated in numbers 1 and 2. Both are polished to a fine finish, number 1 has a blade more curved than that of number 2 and has on each side two definite faces which merge into a third which forms the blade. Visible in illustration number 2, are three distinct faces on each side; the center face is elongated to the full length of the piece. Both artifacts are of porphyritic material. Number 1 looks to be made of a dark gray Kineo rhyolite, and number 2 is of a slightly coarser grained material, definitely not Kineo.

Both blades are exquisite, in that there are no nicks or breaks, while on each piece the opposite end is pointed to perfection. Whatever their use the objects were never abused.

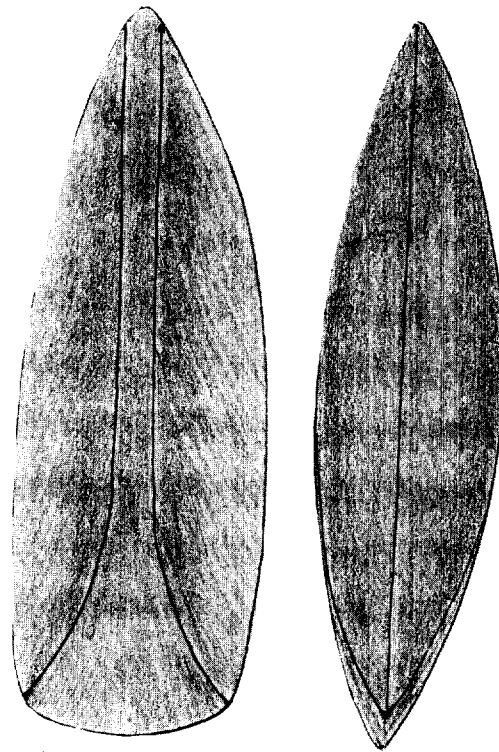
Number 3 which looks like a hoe, is of a different character. This piece is curved and has been pecked and polished on both sides and the curved back. The under, or front side, is pecked only, except for about 1/2 inch of the blade end. Total length of the curved back is 13 7/8 inches; the greatest width is 2 5/16 inches. The material appears to be a granite-like substance. Had it been hafted in the usual manner, the upper end would not have been damaged by use; but it

FIGURE 1



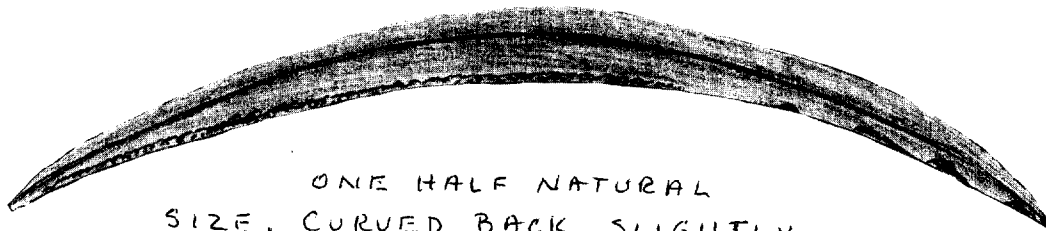
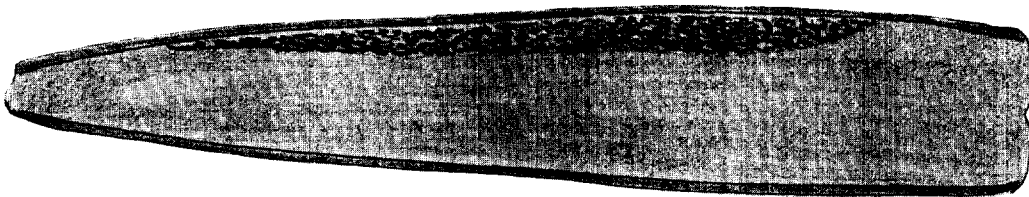
ACTUAL SIZE
 POLISHED KINED TYPE
 MATERIAL, DARK GRAY
 TWO FACES MERGING
 TOWARD BLADE

FIGURE 2



ACTUAL SIZE
 POLISHED PORPHYRYTIC
 MATERIAL. THREE
 DISTINCT FACES ON
 EACH SIDE

FIGURE 3



ONE HALF NATURAL
 SIZE. CURVED BACK SLIGHTLY
 NARROWER THAN PECKED UNDERSIDE.
 LENGTH $13 \frac{7}{8}$ " WIDTH $2 \frac{5}{16}$ " THICKNESS $1 \frac{7}{16}$ "

shows appreciable wear, almost as if it had been hafted in the center in the manner of a present day pick or grubhoe.

Although I have met with no success in finding any likenesses in the books I have read, perhaps some of our readers have and can tell me more about these pieces.

These and other artifacts will be on display at our spring meeting.

+/+/+/+/+/+/+/+/+

Instructions for POINT ATTRIBUTE SHEETS

In the last issue we discussed the analysis techniques known as "attribute analysis" in which each artifact is divided into a series of discrete portions, or attributes, which can then be tabulated and manipulated statistically. Although this technique is not entirely free of subjectivity, it does appear to offer the best alternative to "types" which are notoriously dependent upon the individual analyst. All artifact analysis at the University of Maine (Orono) is done by the attribute method and we are presenting our projectile point system in this installment.

Accompanying the sample attribute sheet are outline drawings illustrating our terminology and directions as to how and where to take the measurements. We recommend the acquisition of an inexpensive sliding metric calipers for the measurements. All measurements are in millimeters -- no inches please.

If you have a collection of projectile points that you would like to analyze please write for forms indicating the number of points to be described. Fill in what you can on the form being sure to include an accurate outline tracing. Some points may not fit within the limits of the sheet; these can be described individually using the attributes indicated in the outline drawings. All your Clovis and other fluted points would probably best be described in this manner.

Please return the sheets so that we can put the data on computer cards for storage and have the information ready for analysis. If you wish to have the sheets returned please so indicate.

The attribute sheets are of little scientific value if the site location is not specified. Please indicate on a separate piece of paper the location of the site(s) so that this information can be coded and kept with the data sheets.

We hope that all serious amateurs in the state will cooperate with us in our attempt to inject some order into the existing chaos. Projectile points are especially sensitive artifacts for documenting cultural change and stability so we are starting our program with point attributes. In following issues we will include attribute sheets for other common artifacts found in the area.

SPECIFICS:

"Site name", "Quadrangle number", "Site number", "Location", & "Level" are for Maine Site Survey form, enter only if known.

Portion; "whole" -sufficiently complete so that all attributes can be distinguished.

"medial" -if neither tip nor base is present.

Blade edge; "asymmetric" - if both edges are not the same shape.

Base form; use for either base of stem or base of blade if stemless.

Notch form; "Basal" -interrupts the base only.

"Corner" -interrupts the base and edge both.

"Side" -interrupts the edge only.

"narrow" - measures 3mm or less.

Shoulder form; "narrow" -included angle 90° or less.

Barb form; - a shoulder becomes a barb when it extends below the top of the notch.

Serrated; - saw toothed.

Basal thinning; - thinned by flaking.

Material; - a code number will eventually be provided.

Outline; - if the artifact is numbered(as it should be) enter it within the outline.

POINT ATTRIBUTES

Site name _____ Quadrangle number
 Surface find Site number
 Excavated Location Level
 Portion; whole , tip , medial , basal .

BLADE EDGE		STEM FORM		BASE FORM
Convex	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Contracting blunt	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Convex
Straight		Contracting pointed		Straight
Concave		Expanding		Concave
Recurved		Straight		Pointed
Asymetric		Rounded		Bifurcated

NOTCH FORM		SHOULDER FORM		BARB FORM
Basal	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Wide angle	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Long
Wide corner		Narrow angle		Medium
Narrow corner		Wide rounded		Short
Wide side		Narrow rounded		Lateral
Narrow side		Asymmetric		

	TRANSVERSE SECTION		LONGITUDINAL SECTION
Biconvex	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Biconvex	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Biplano		Biplano	
Convex-concave		Convex-concave	
Plano-convex		Plano-convex	
Diamond			
Diamond-convex			
Diamond-concave			

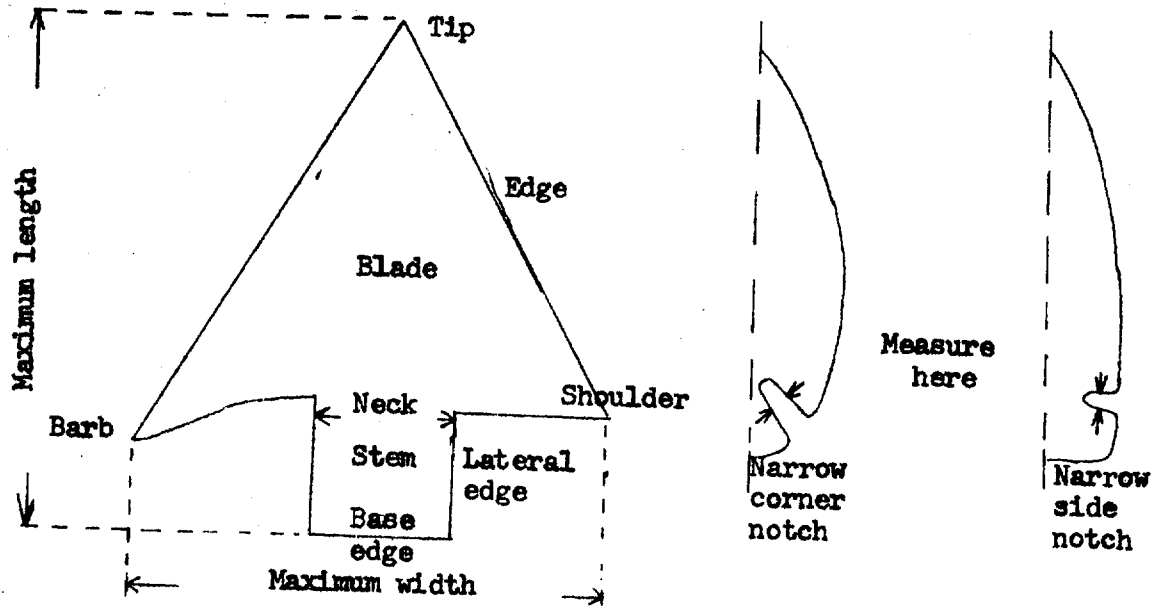
Edge serrated Basal thinning

Stem grinding; Lateral
 Base
 Lateral & base Material

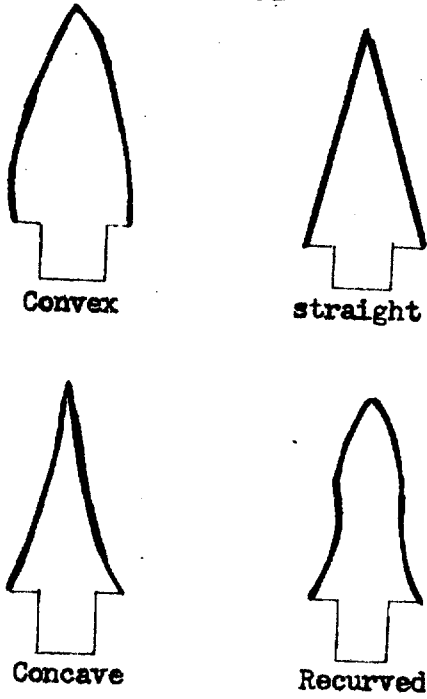
Measurements; length , width mm, thickness mm,
 width of neck mm, Weight grams.

Comments and outline;

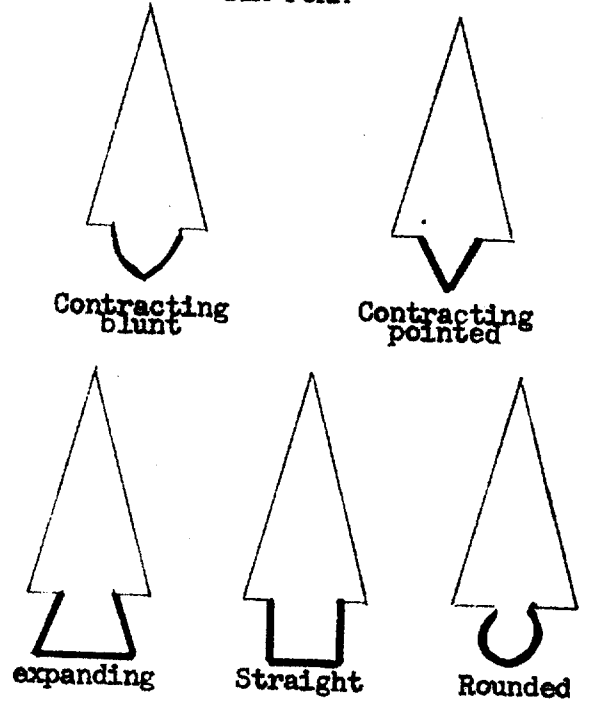
POINT ATTRIBUTES



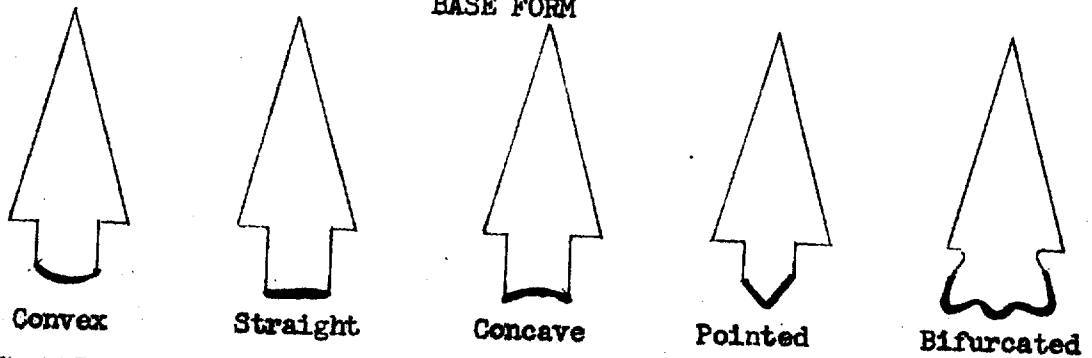
BLADE EDGE



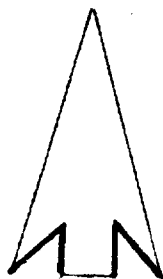
STEM FORM



BASE FORM



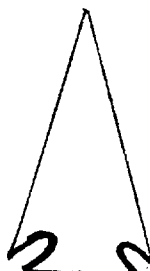
NOTCHING FORMS



Basal



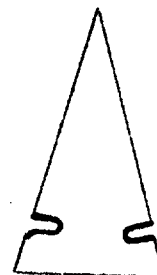
Wide
corner



Narrow
corner



Wide
side



Narrow
side

SHOULDER FORM



Wide
angle



Narrow
angle

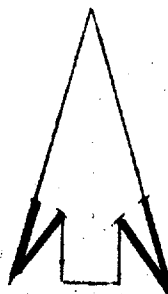


Wide
Rounded

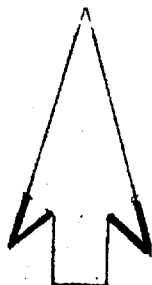


Narrow
rounded

BARB FORM



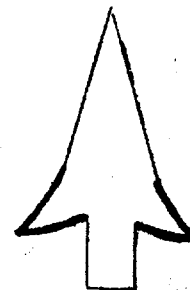
Long



Medium



Short



Lateral

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** * * * **

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Any article not in good taste or plainly written for sake of controversy may be withheld at the discretion of the editor and editorial staff.

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