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MAINE ARCHEAOLOGICAL SOCIETY, INC.

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EDITORIAL POLICY

All manuscripts and articles should be submitted to the Editor. Originals will be returned if requested. Any article not in good taste or plainly written for the sake of controversy will be withheld at the discretion of the Editor and staff.

The author of each article that is printed will receive two copies of the Bulletin in which his work appears. Deadlines for the submission of articles and manuscripts are March 1st for the Spring issue and September 1st for the Fall issue.

Original manuscripts should be typewritten and single spaced with double spacing between paragraphs. Illustrations and photographs should be planned for half or full page reproduction. Line illustrations should be done on white paper with reproducible ink.

Please send exchange bulletins to the Editor.

Permanent address of the Society:
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Cover: by Penny Mauro. Petroglyph figures from the Hodgdon Site (69-4) Embden, Maine.

C O N T E N T S

Volume 22 Number 2 Fall 1982

LETTER FROM THE PRESIDENT

I would like to take this opportunity to express to the MAS my sincere thanks for the cooperation and consideration extended to me during my years as president. I am sure that the next president will benefit from your help as much as I have.

For the coming years our watchwords must continue to be cooperation and communication. The many threats to our priceless archaeological resources will prove to be disasterous if we are not sensitive to these threats and ways to mitigate their effects.

Once again, thank you for this wonderful chance that I have had to work with you in the effort to preserve our past.

David S. Cook, President
The Maine Archaeological Society, Inc.

NOTICE OF FALL MEETING

Date: Sunday, October 24, 1982.
Place: Winthrop High School, Winthrop, Maine.
Time: 10-11 A.M. Social hour and set up of displays
11-11:45 Mr. David Cook will speak on the topic "Overview of Munsungun, 1982".
11:45-12:30 Lunch. Bring your own. Dessert snacks and coffee will be provided.
12:30-1P.M. Business meeting and election of officers.
1P.M. Lecture by Dr. Steven Cox and Mr. Marshall Rice on the topic "Underwater Sites".

Robson Bonnichsen's Munsungun Lake project has had another successful field season. Several sites have been excavated, leading to the recovery of at least two fluted point fragments. More material that possibly relates to Late Paleoindian/Early Archaic time has been recovered. Also more geological and paleoenvironmental work is under way.

Bruce Bourque led a small crew in Penobscot Bay this summer. Bruce reports substantial completion of survey of the northern end of quadrangle 29, and especially the Castine area, with identification of many new sites. Some of them seem to be substantial shell middens possibly equal to the Turner Farm in size, and at least one other may have a 17th century contact period occupation. Bruce also conducted a small test in a shell midden on the north shore of North Haven Island. North facing sites are rare in the area, and Bruce reports an unusual faunal sample.

Steven Cox reports successful completion of two aspects of fieldwork in the Blue Hill/Deer Isle area. Steve's crew completed test excavation in two Late Ceramic Period shell middens in an effort to glean information about seasonal alternatives during the time the Goddard site was occupied. In one site Cox successfully excavated the majority of a Late Ceramic house floor. In another phase of his fieldwork, Steven directed a successful underwater survey for prehistoric material with the assistance of Marshall Rice, Warren Riess, and Shelly Smith. Steve reports the recovery of several more artifacts from two underwater sites off Deer Isle that may be in the 6,000 year old range. He also reports that underwater prehistoric archaeology is time consuming and difficult work.

Stuart Eldridge, working for the Maine State Museum, completed another summer of site inventory in the St. George River Basin. He has added substantially to our list of known sites in the area, and completed several small test excavations.

David Sanger led a crew in work in Washington County this summer, excavating a substantial sample of a shell midden on the Rocque Islands. He then ran a survey of archaeological sites on the large lakes in eastern Washington County. He reports that most of the sites on the freshwater lake systems in Washington County have been badly eroded by high water level.

This spring Arthur Spiess completed excavation of two sites on Kidder Point and Sears Island in Searsport, Maine. The site on Kidder Point was 90% excavated and appears to have been a single component early Middle Ceramic occupation. About thirty hearth-like features and a very intriguing group of data of lithic and bone horizontal distribution have been recovered from the site. Following that work Spiess ran a small excavation at The Evergreens site in Solon, Maine which recovered a large early Middle Ceramic period roasting pit feature filled with fire-cracked rock and charcoal.

David Yesner did not do fieldwork in Maine this summer.

Robert Bradley led a crew at Pemaquid in a successful survey and test excavation of a portion of a site that had been covered by alder growth and had not been previously tested. Their work located several early 18th century cellars, and provided negative evidence on 17th century use of that part of the site. Bob's data will be used by the Bureau of Parks and Recreation in the design of a Park entrance road, parking lot, and museum placement for future development at Colonial Pemaquid.

Alaric Faulkner spent a successful season at Fort Pentagoet in Castine. The importance of the Fort Pentagoet excavation to understanding the Acadian presence in Maine cannot be overstated.

Ted Bradstreet has continued fieldwork at Agry's Point. He was successful in further defining the 17th century European presence at the site.

The Incident at Meadowcroft

Arthur E. Spiess
Me. Historic Preservation Comm.

A 23½-month jail sentence and $12,000.00 fine for theft, criminal mischief, and criminal trespass were given to a Pennsylvania woman in April, 1982, in connection with massive vandalism at the Meadowcroft Rockshelter near Pittsburgh.

Meadowcroft is a shallow rock overhang on Cross Creek, a tributary of the Ohio River, southwest of Pittsburgh. For nine years a team led by Dr. James Adovasio (University of Pittsburgh) has been working on the site and collections, work that has cost well over $1 million. The site is on private land, on the National Register of Historic Places, and is protected by a locked fence and a roof. There are 11 geological strata in the site deposit, all of which, except number 1, contain cultural material. Cultural associations range from Late Woodland back through early Archaic to Paleoindian, and possibly beyond. Charcoal from fireplaces associated with flaked stone, bones, etc., have been dated between 12,000 and 15,000 B.P.

Perhaps most exciting, there is a level below the Paleoindian that contains a charcoal concentration (although not an unequivocal hearth), a carbonized fragment of cut bark-like material, and flakes of stone (no diagnostic stone artifacts). This level has 2 radiocarbon dates of around 19,000 B.P., making this the oldest occupation level known in the New World south of the Yukon. Thus the base of the site may hold a key to the "pre-Paleoindian" use of eastern North America south of the Wisconsin Ice Sheet. In sum, the importance of the site cannot be overstated.

At the close of excavations in 1978, Adovasio left an exposed wall or cut that showed the whole stratigraphic sequence. In November of 1981 a gang of several juveniles and one adult, Sharon D. McKittrick, 36 years of age, of Mt. Lebanon, Pennsylvania, burglarized the building protecting the site, vandalized the exposed stratigraphic face, and collected stone tools and bones from the unexcavated deposits in the site. The building, telephone, lighting system and stairs at the site were vandalized as well, according to Pennsylvania state police, although the primary motive seems to have been simply to obtain souveniers and then "cover up" the digging.

On December 14th, McKittrick was charged with several counts stemming from the incident. On February 18th, she pleaded guilty to theft, criminal trespass, and criminal mischief. April 5th she was sentenced by Judge Charles G. Sweat to the jail term and ordered to pay $12,000.00 restitution for damages. The Judge stated that he wanted to make an example and warn others of the seriousness of ruining archaeological sites.

The penalty was handed down in County Court under existing Pennsylvania criminal statutes. No antiquities laws were involved. Apparently some courts are willing to protect archaeological sites from premeditated destruction even without the existence of a state antiquities law. The public and American courts are beginning to appreciate the fragility of archaeological sites. There is, of course, no amount of money that can be used to recover the lost scientific data from Meadowcroft.

Early Woodland Ceramics and Associated Perishable Industries from Southwestern Maine

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University of Pittsburgh

James B. Petersen,
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INTRODUCTION

The previous recognition of Early Woodland period ceramic remains has been limited and less often well reported in New England in general, and Maine in particular, even though Early Woodland ceramics represent the earliest widely distributed form of ceramics in the broader Northeast. Likewise, prehistoric perishable industries of any temporal period have gone largely unrecognized and unreported in the Northeast.

In this light, this paper offers a discussion of Early Woodland ceramics, and associated perishables (impressed on their surfaces) from five perhistoric sites in southwestern Maine. A description of the distribution and characteristics of these sites is offered as a background to the technical study. The methods and results of the ceramic and perishable analyses are then discussed in some detail to provide empirical data and a stimulus for future analyses in both local and regional contexts. Finally, the Early Woodland ceramics and associated perishables from southwestern Maine are briefly discussed in relation to comparable materials from Maine and the Northeast.

Distribution of Sites

This research examined samples of ceramics and associated perishable industries from five prehistoric sites in southwestern Maine (Fig. 1.). The sites are located within three major river drainages and one lake system, including the Presumpscot, Androscoggin, and Kennebec Rivers as well as Sebago Lake. The Presumpscot River, at the southern end of the study area, drains Sebago Lake, Maine's second largest lake (Bloom, 1959). The Presumpscot River is the only outlet of Sebago Lake and flows southeastward until entering the southern end of Casco Bay. The Androscoggin River also flows southeastward from a rugged upland region and enters the southern end of Merrymeeting Bay. The Kennebec River enters the northern end of Merrymeeting Bay, after flowing south from Moosehead Lake, the largest lake in the state of Maine. Merrymeeting Bay flows into the Gulf of Maine just north of Casco Bay.

The sites can be separated into three settings including coastal, riverine and lacustrine locations. Coastal sites included one island location, the Great Diamond site, data from which are not discussed in this study but have been presented elsewhere (Hamilton & Yesner, 1981), and one protected bay location, the Hamilton site. The riverine site locations include the Vassalboro, Sebasticook I and Panther sites. The lacustrine locations include the Basin and Witch Cove sites. It is apparent that all sites are closely associated with water.

Great Diamond Island. The Great Diamond Island site is located on the southeastern shore of Great Diamond Island, the sixth largest island within Casco Bay. The island is located at the south end of Casco Bay, adjacent to the mouth of the Presumpscot River. Mrs. Helen Arey, an island resident, brought the site to the attention of professional archaeologists in 1977. Subsequently, an archaeological excavation was conducted at the Great Diamond Island site in the summer of 1979 as part of an intensive program of archaeological survey in the Casco Bay region of southwestern Maine (Yesner, 1980; Hamilton & Yesner, 1981). The site is currently located from five to ten meters above mean sea level (M.S.L.) on a gently sloping area adjacent to a small seasonal freshwater stream. Cultural components included Small-stemmed point occupations and a possible Moorehead phase component attributable to the Late Archaic period. The Early Woodland period, dated at the site to 365 $\pm$ 130 B.C., was represented by over 500 ceramic sherds representing nine discrete vessel lots, but these data have been presented elsewhere (Hamilton & Yesner, 1981). Following the Early Woodland period, the Middle Woodland period was represented by pseudo-scallop shell, rocker-dentate, dentate, linear rocker and cord-wrapped stick decorated ceramics.

Hamilton. The Hamilton site is located near the mouth of the Androscoggin River on the southwestern end of Merrymeeting Bay. The site was first examined in 1978 during the course of work conducted on the bay. The site has been only surface collected, but a good portion remains apparently intact. The site is currently ca. six meters above the mean tide level, located on a high level piece of ground and adjacent to a small stream. Cultural remains included probable Susquehanna phase materials, attributable to the Late Archaic period. The Early Woodland period was represented by numerous fragments of Vinette I ceramics distributed in small loci along the water's edge. The Middle Woodland period was represented at the site by pseudo-scallop shell, rocker-dentate and dentate decorated sherds. The site offers good potential for study of the Early and Middle Woodland periods in its undisturbed portions.

Vassalboro. The Vassalboro site is located on the Kennebec River ca. 10 km. below the junction of the Kennebec and Sebasticook Rivers at Waterville. The site is located at an elevation of ca. 30 meters above M.S.L. on a small knoll overlooking a minor tributary of the Kennebec River. The site was located in 1977 on the basis of a surface collection. Cultural remains from the site indicated initial occupation in the Susquehanna phase of the Late Archaic period. The Early Woodland period was only represented by ceramic remains. Other Woodland period remains included Late Middle Woodland shell tempered ceramics with corded exterior surfaces.

Sebasticook I. First visited in 1978, the Sebasticook I site is located on the Sebasticook River several km. east of Waterville where the Sebasticook flows into the Kennebec River. The site is located at an elevation of ca. 36 meters above M.S.L. on a visable knoll and adjacent to a stream and marsh area. A good view is afforded both up and down the river from the site. Surface collected cultural remains from the site documented extensive occupations of the site during the Late Archaic period with diagnostic materials including Squibnocket, Small-stemmed, Moorehead and Atlantic Phase materials. The Early Woodland component was represented by numerous ceramic sherds generally collected in one spatially delimited locus. A subsequent Middle Woodland period occupation was represented by rocker-dentate, rocker-dentate with notched castellations as well as cord-wrapped stick decorated ceramics. Most of the ceramics recovered from the site seemed attributable to the Early Woodland period, however.

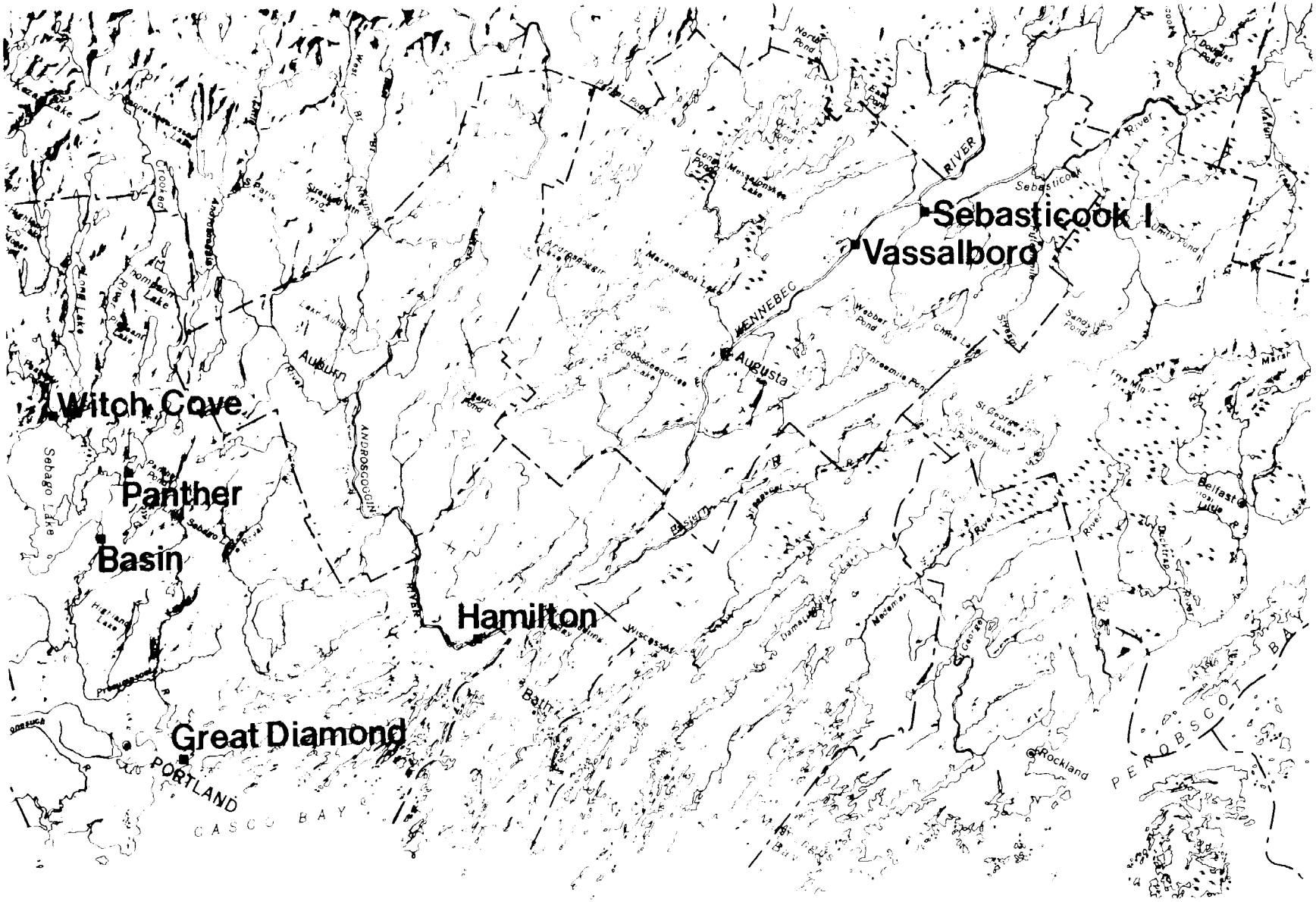


Fig. 1, Distribution of Early Woodland Sites in Southwestern Maine

Panther. The Panther site is located near the outlet of Panther Pond just northeast of Sebago Lake. Panther Pond is connected to Sebago Lake through Panther Run Stream. The site was first located in 1977 and was reexamined through survey conducted by the University of Southern Maine in 1980. Currently, the site is located ca. 73 meters above M.S.L. and lies on a low flat area adjacent to Panther Run. Surface collected cultural remains included diagnostic Otter Creek points of the Late Archaic Period and apparent Early Woodland ceramics without obviously associated lithics. A Late Middle Woodland occupation was represented by corded exterior ceramic sherds (Hamilton & Doyle, n.d.).

Basin. The Basin site is located on the south end of Sebago Lake, very close to the head of the Presumpscot River. The Presumpscot River drains into the southern end of Casco Bay just north of Portland. The Basin site is currently inundated at high water levels created by a dam on the lake, but once provided accessability to good fishing areas at the outlet rapids. The site, at 70 m. above M.S.L., was first discovered by Mr. P. Kennard, a resident of the basin and later surveyed and surface collected by the University of Southern Maine (Hamilton & Doyle, n.d.). Although the site is somewhat eroded and frequently inundated, cultural remains included Middle Archaic period Neville and Stark points. The Late Archaic period included points attributable to Moorehead, Laurentian, Brewerton, Susquehanna, Orient and Atlantic Phase components. Early Woodland period artifacts included a single Meadowood point as well as Vinette I ceramics. Interestingly, one of the Susquehanna points and the Meadowwood point are manufactured from Normanskill chert from the Hudson valley of New York State (Wray, 1948). Later Woodland Period cultural remains have been recovered at the site.

Witch Cove. The Witch Cove site is located on the northwestern shore of Sebago Lake. The site is situated on a low flat beach area on the east side of the mouth of Muddy River. The site is inundated at high lake levels resulting from the construction of a dam on the lake. The Early Woodland period ceramic remains were recovered by W. Penny in the 1890's when the lake was at its original level (Penny, 1907). In 1980, the University of Southern Maine examined the site but little new data was recovered due to high lake levels (Hamilton & Doyle, n.d.). Late Archaic materials are known from the site. An Early Woodland period occupation was represented by ceramics, which have not been discussed in this report due to their inaccessibility. Numerous Middle Woodland dentate ceramics were also apparently recovered from the site on the basis of material in the Penny Collection.

Analytical Procedures

Ceramics. An assemblage of 118 sherds was analyzed using a procedure best termed "vessel lot" analysis (Dincauze, 1975; Petersen, 1980), which is based on the identification of discrete ceramic vessels as the most appropriate level of analysis. In the present study, vessel lots have been based solely on body sherds since no rim sherds were available for study.

The attributes discussed for each vessel include surface treatment, method of manufacture, temper material, temper size and sherd thickness, all of which are summarized in Table 1 by vessel. These attributes have been defined and discussed elsewhere (Hamilton & Yesner, 1981; Petersen, 1980; Petersen & Power, 1981). Surface treatments were differentiated using the perishable categories enumerated below, as well as a smooth category. Only a single method of manufacture, coiling, was distinguished. Maximum diameter of individual coils was also recorded, when possible. The temper materials included quartz, feldspar, mica and possible fibers in one specimens. Temper size was divided into three categories, including fine (< 1 mm.), medium ($\geq$ 1 $\leq$ 3 mm.) and coarse ($>$ 3 mm.). The maximum length of the largest visible temper fragment was also recorded. Additionally, maximum sherd thickness was recorded for each specimen. All specimens were measured using metric calipers and recorded to the nearest 0.1 mm.

TABLE 1

CERAMIC ATTRIBUTES FOR VESSEL LOTS

Vessel Number	Cord Impressed Surface		Twined Impressed Surface		Temper							Max Size	Coil Diameter	Thick-ness
	Interior	Exterior	Interior	Exterior	Quartz	Feldspar	Mica	Fiber	Fine	Med.	Course			
1	*	*				*				*		10.9 mm.	10.2	10.8
2	*					*				*		3.8 mm.	10.8	8.5
3	*	*			*	*	*		*			5.0 mm.		9.8
4	*	*			*	*	*	*			*	5.7 mm.	9.1	9.7
5	*	*				*			*			2.4 mm.		5.7
6	*	*				*				*		3.3 mm.		8.8
7			*	*		*					*	7.4 mm.		8.5

Perishables. A small assemblage of 51 perishable impressions was analyzed here using positive casts made from the total sample of 118 sherds. The discrepancy between these two samples was due to the fact that many of the sherds were too fragmentary or otherwise too poorly detailed to permit full analysis. It should be noted, however, that at least one, and often times many positive casts were studied for each vessel, thereby permitting delineation of the range of variability for each.

All specimens were carefully cleaned and positive impressions were taken with soft plasticene impressed on the sherd surface. Care was taken to evenly apply the plasticene across the sherd surface since this procedure produces better positive impressions, increases clarity and facilitates interpretation. All measurements were taken with Helios needle nose calipers accurate to 0.01 mm.

Impressions from the seven analyzed vessels include six specimens of cordage (Table 2) and one specimen of twined fabric. The six specimens of cordage have been assigned to two structural types based on number of plys, direction of initial spin (S or Z), and direction of final twist (S or Z) (Fig. 2), following standard criteria summarized below (See also Adovasio & Andrews, 1980: 38-39; Andrews & Adovasio, 1980: 29-30; Hurley, 1979: 5-7; Hamilton, Petersen & McPherron, 1982; Emery, 1966).

A like set of criteria was used in the analysis of the one structural type of twining. Twining is a form of basketry or fabrics "manufactured by passing moving (active) horizontal elements called wefts around stationary (passive) vertical elements or warps" (Adovasio & Andrews, 1980: 33). Determination of warp and weft elements was attempted in the present case using the above mentioned criteria.

Ply is used to describe a strand or bunch of fibers that is usually twisted to form simple ply cordage, when used alone, or multiple ply cordage, when used in groups of two or more single plys.

Spin is used to note the final twist of two plys of compound cordage, whereas twist (Fig. 2) is the final direction in which the plys are twisted together to form a complete piece of cordage. The direction of spin or twist can be only S or Z, that is twisted to the right or left, respectively (See Hurley, 1979: 6).

Besides the attributes of construction, each specimen was examined for the presence of splices, segments (revolutions) per 1 cm. (Fig. 3), angle of final twist (Fig. 4). Segment and twist measurements were taken using procedures specified by Hurley (1979, Fig. 1 & 2).

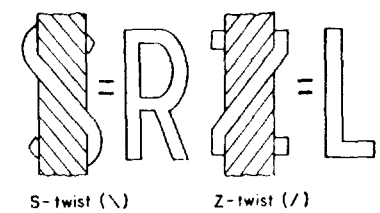


Fig. 2 Criteria for identifying the direction of twist or spin and the symbols employed for description (After Emery 1966: Diagram 1).

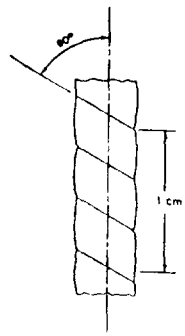
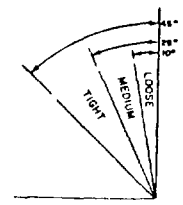


Fig. 3 Reference points for measuring angle of twist of a cord and the number of twists per centimeter (After Emery 1966: Diagram 2).

Fig. 4 Ranges differentiating loose, medium, and tight angles of twist (After Emery 1966: Diagram 3).

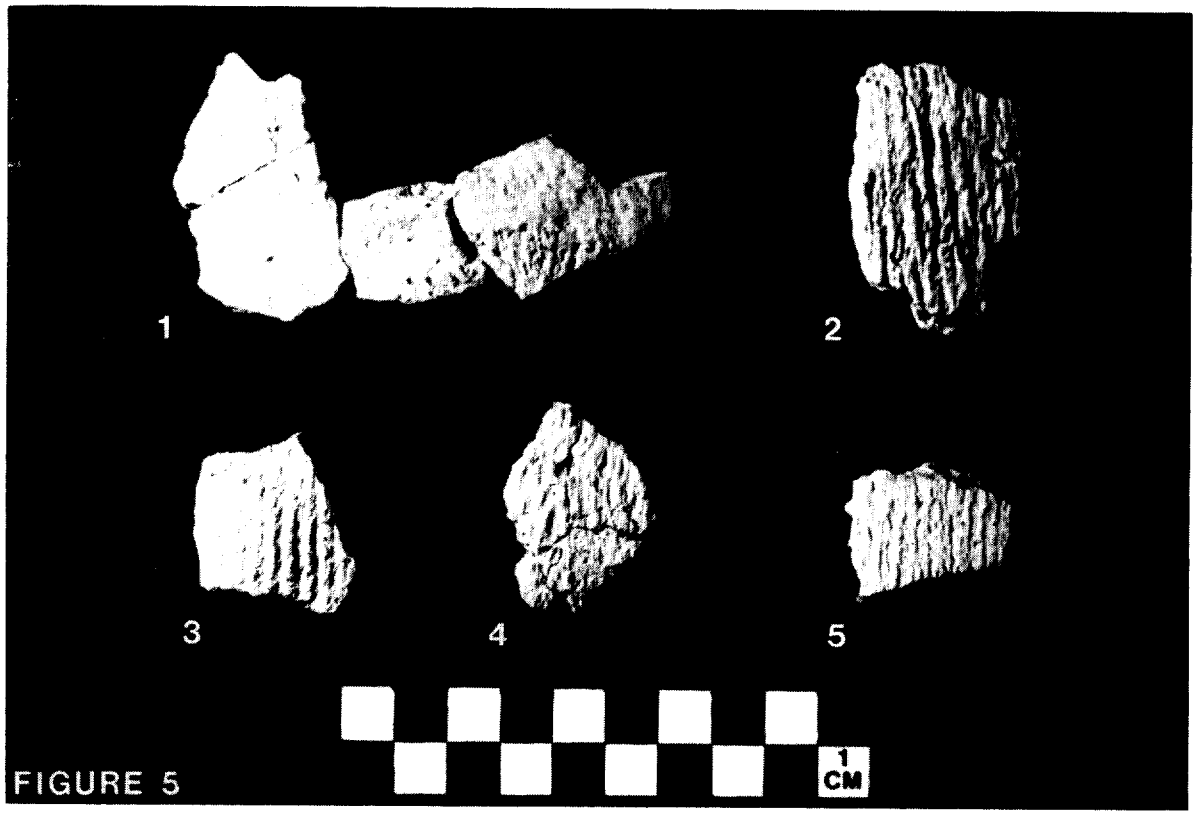


Designation of angle of twist

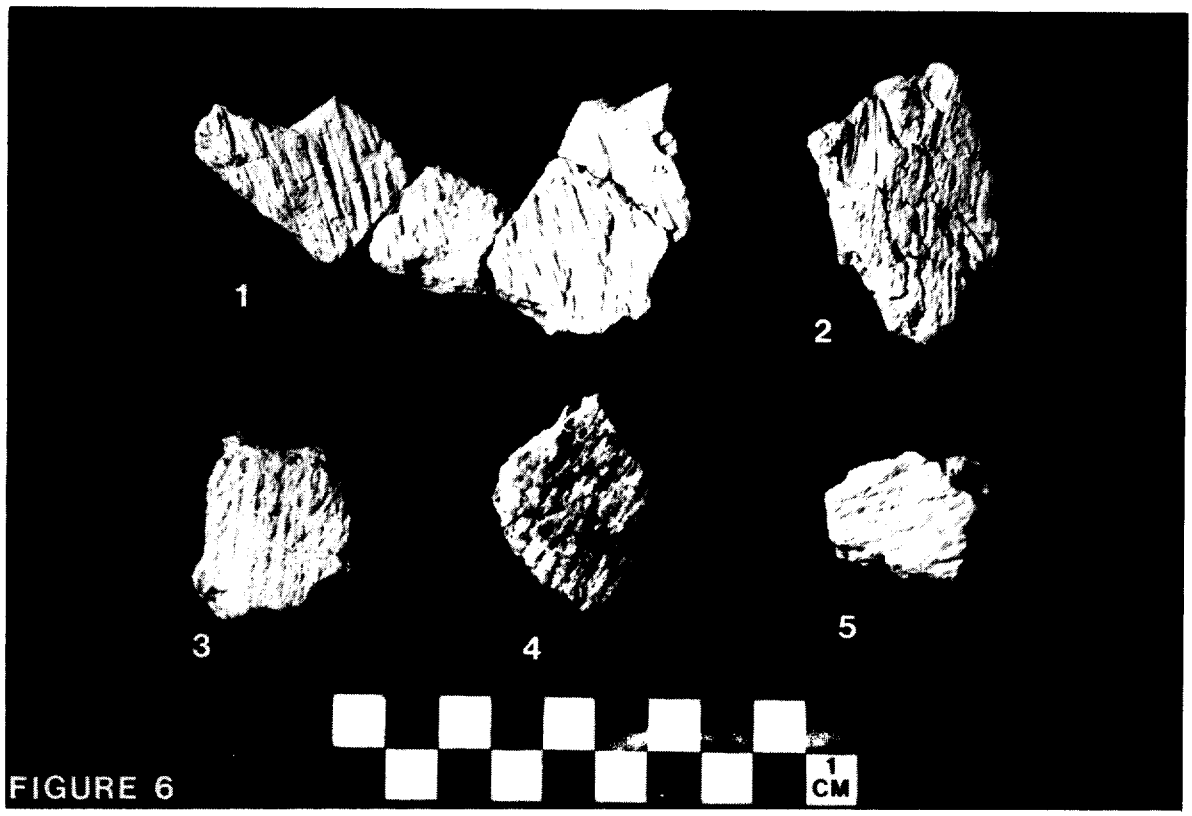
TABLE 2

CORDAGE ATTRIBUTES FOR VESSEL LOTS

Vessel Number	Cordage Twist	Twists per Cm.	Angle of Twist	Strand Diameter Range	Strand Diameter
1	Z^S_s	4.5	15°	0.95 - 1.15 mm.	1.05 mm.
2	Z^S_s	4.0	20°	1.50 - 1.70 mm.	1.60 mm.
3	S^Z_z	3.0	25°	1.15 - 1.65 mm.	1.40 mm.
4	S^Z_z	4.0	18°	0.80 - 1.55 mm.	1.18 mm.
5	S^Z_z	3.5	30°	n.a.	0.95 mm.
6	S^Z_z	3.0	n.a.	n.a.	1.60 mm.
		$\bar{x}$ = 3.7	$\bar{x}$ = 22°		$\bar{x}$ = 1.14 mm.



Figs. 5 and 6, Exterior and Interior Surfaces: 1, Hamilton Site; 2, Basin Site; 3, Sebasticook Site; 4, Hamilton Site; 5, Hamilton Site.



Corded Exterior/Interior Ceramic Assemblage

No. of Specimens: Seven vessels, 118 total sherds (Table 1, Figure 5 & 6)

Description: All of the vessels were finished by malleating the interior and exterior with a cord or fabric-wrapped paddle before drying and firing. The interior pattern was horizontal and the exterior both horizontal and vertical. One vessel, No. 2, exhibited secondary smoothing on the exterior surface which had eliminated impression marks. Three of the vessels (43%) clearly exhibited coil fractures. The maximum diameter of these coils ranged from 9.1 mm. to 10.8 mm. with a mean of 10.0 mm. Along these fractures, the vessel walls revealed a thin wiped layer of clay on the interior and exterior surface. This wiped surface was up to 1 mm. thick on one vessel.

The temper included crushed feldspar in all vessels. Additionally, crushed quartz and flaked mica were present in two vessels. One vessel included fiber, which was apparent only on the surface rather than in the coils. The temper ranged from fine to coarse, including three medium, two fine and two coarse. In all vessels the maximum temper size ranged from 2.4 mm. to 10.9 mm., with a mean of 5.6 mm. In all cases, the temper was angular and sharp, apparently crushed for the purpose of ceramic manufacture. The body thickness ranged from 5.7 mm. to 10.8 mm., with a mean thickness of 8.8 mm.

Perishable Fiber Assemblage

TYPE I: Two Ply, Z Spun, S Twist ($S\overset{Z}{Z}$) Cordage

No. of Specimens: Four vessels, 19 sherds (Table 2, Figure 7 & 9)

Description: Two strands of fiber were initially Z spun and then S twisted together. On the four vessels impressions apparently represent single strands of cordage without knots or splices. The angle ranged from 18° to 30° with a mean of 24°. Notably higher than the mean of Type II: Two Ply, S Spun, Z Twist ($Z\overset{S}{S}$) cordage, this angle of twist was defined as medium according to Emery's (1966) classification. The segments per centimeter ranged from 3.0 to 4.0 beads with a mean of 3.4 beads per centimeter. There was some variability in the diameter of individual cordage strands on individual sherds. Individual strands ranged from 0.95 to 1.60 mm. in diameter with a mean of 1.28 mm. for these vessels. This structural type of cordage corresponds with Cord Number 2 in Hurley's classification (1979: 16-17).

Fig. 7

Technique: The cordage was wrapped around a flat, broad, rigid "paddle" foundation. The foundation was not observable on any of the specimens. In each case, the cordage was wrapped in a parallel, non-interlocking fashion, with variable spacing. As observed, spacing of the cordage ranged from no gaps to ca. 3.0 mm. between each element.

Provenience: Vessel 3. Sebasticook I Site
Vessel 4. Basin Site
Vessel 5. Panther Site
Vessel 6. Vassalboro Site

TYPE II: Two Ply, S Spun, Z Twist ($Z\overset{S}{s}$) Cordage

No. of Specimens: Two vessels, 31 sherds (Table 2, Figure 8 & 10)

Description: Two strands of fiber were initially S spun and then Z twisted together. On the two vessels impressions apparently represent single strands of cordage without knots or splices. The angle of twist was 15° and 20°, slightly lower than the overall mean. The twist was defined as medium according to Emery's (1966) classification. The segments per centimeter were 4.5 and 4.0 respectively. The range in strand diameter was 1.05 to 1.60 mm. for these specimens. This structural type of cordage corresponds with Cord Number 1 in Hurley's classification (1979: 16-17).

Fig. 8

Technique: The cordage was wrapped around a flat, broad, rigid "paddle" foundation. The foundation was not observable on any of the specimens. In each case, the cordage was wrapped in a parallel, non-interlocking fashion, with variable spacing. As observed, spacing of the cordage ranged from small gaps to ca. 2.5 mm. between each element.

Provenience: Vessel 1. Hamilton Site
Vessel 2. Hamilton Site

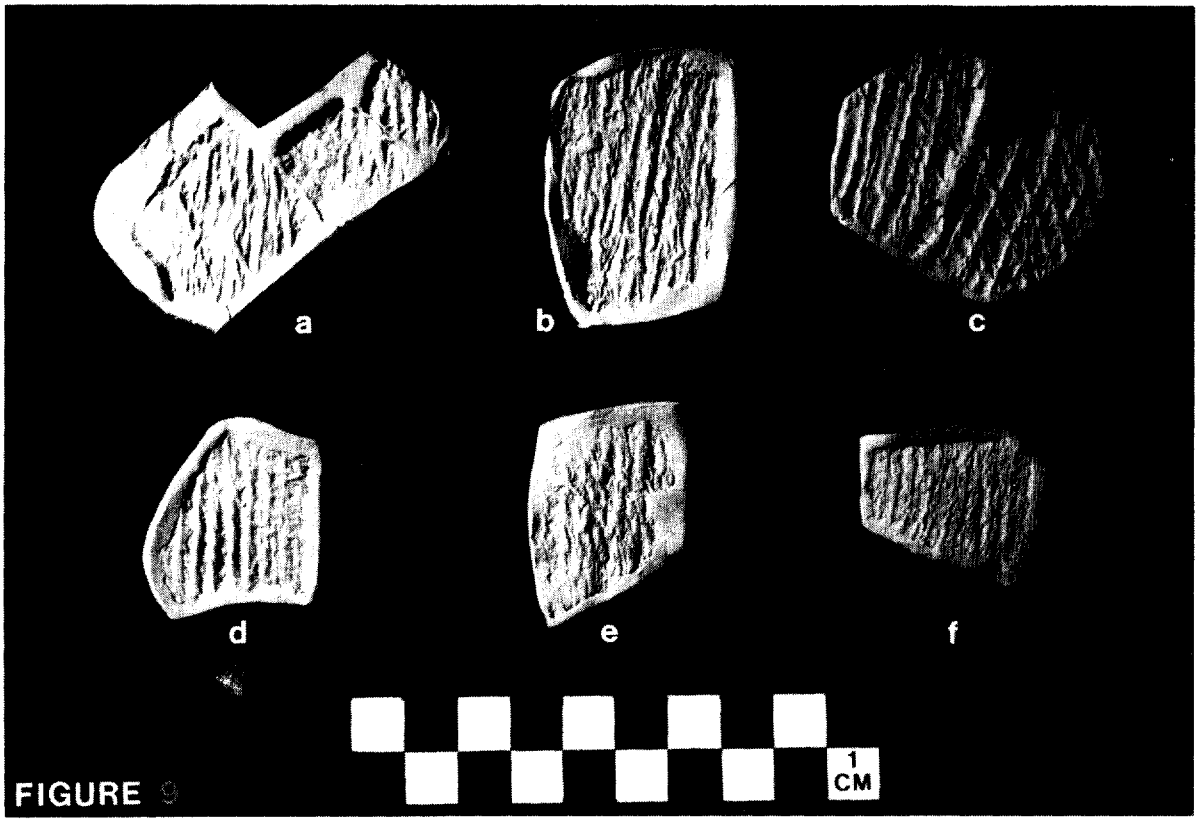


Fig. 9, Cordage and Twining Impressions: a, Cordage ($Z\overset{S}{s}$) impressed, Hamilton Site; b, Cordage ($S\overset{Z}{z}$) impressed, Basin Site; c, Open Simple Twined, Great Diamond Site; d, Cordage ($S\overset{Z}{z}$) impressed, Sebasticook Site; e, Close Simple Twined (Z wefts), Hamilton Site; f, Cordage ($Z\overset{S}{s}$) impressed, Hamilton Site.

Type III: Close Simple Twining, Z Twist Wefts

No. of Specimens: One vessel, eight sherds (Fig. 9 & 10)

Description: Plain twined weaving with Z twist wefts was evident over unknown warps. Since weft rows were closely spaced, the warps were completely concealed. One weft splice was evident in the impression. The texture was clearly flexible on these specimens, which appear to be a wall/body fragments without selvage.

Technique: The plain twined weaving was wrapped tightly around a flat, broad, rigid "paddle" foundation, which produced some stretching of the twined weaving. The foundation was not observable on any of the specimens.

Fig. 10

Measurements: Range diameter of the weft, 1.6 - 1.8 mm.
Mean diameter of the weft, 1.70 mm.
Range and mean gap between weft rows, 0.0 mm.

Provenience: Vessel 7. Hamilton Site

External Correlations

Ceramics: The corded exterior/interior ceramics are clearly related to ceramics of the "Vinette I" type as recognized in New York state and elsewhere in the Northeast (Ritchie & MacNeish, 1949: 100). In many areas of the Northeast this form of ceramics represents the earliest known form, although similar ceramics with distinctive steatite temper have been recognized at a few sites (i.e., Brumbach, 1979; Kenyon & Foster, 1980; Weeks, 1971). These latter ceramics have been recovered in the context of the Orient and Frost Island phases and share corded exterior/interior surfaces with Vinette I ceramics, but seem to have been modeled after steatite vessels from contemporaneous contexts (Ritchie, 1969a; Ritchie & Funk, 1973).

Corded exterior/interior ceramics have been recovered at a number of sites in New York (Ritchie, 1959; 1969a; Salwen, 1968; Smith, 1950), with dates between 1043 B.C. and 763 B.C. on sites of the coastal Orient phase, and to 1250 $\pm$ 100 B.C. at the O'Neil site for the Frost Island phase in interior New York (Ritchie & Funk, 1973). Dates from sites of the Early Woodland period in New York, which have yielded Vinette I ceramics, include 998 $\pm$ 100 B.C. at the Oberlander No. 2 site, 870 $\pm$ 60 B.C. at the Scaccia site, 841 $\pm$ 68 B.C. at the Hunter site, and 630 $\pm$ 100 B.C. and 563 $\pm$ 250 B.C. at the Morrow site (Ritchie, 1969a).

Relatively small amounts of corded exterior/interior ceramics have been reported from undated components in Ontario (Spence et al., 1978; Wright, 1967; Wright & Anderson, 1963), Quebec (Levesque, 1962; Levesque et al., 1964; Wright, 1979), Vermont (Petersen, 1979; Snow, 1980), New Hampshire (Dincauze, 1976; Kenyon, 1981; Sargent, 1980), Connecticut (Lavin, 1980; Pope, 1953), and Massachusetts (Bullen, 1948; Byers & Rouse, 1960; Dincauze, 1975; Moffett, 1959). The only well dated series of corded exterior/interior ceramics in New England has been investigated on Martha's Vineyard, including dates of 590 $\pm$ 105 B.C. and 360 $\pm$ 100 B.C. at the

Peterson site, and 520 ± 120 B.C. and 430 ± 80 B.C. at the Pratt site (Ritchie, 1969b).

Corded exterior/interior ceramics have been recognized at a very small number of sites in Maine. These include the undated Cobboseconte site in the Kennebec River drainage (Dunn & Fowler, 1951), the undated Young site in the Penobscot River drainage (Borstel, 1980; Sanger et al., 1977), and the Wasp Island and Smith Farm sites on the Union River (Byers, 1959). In addition, corded exterior/interior ceramics, likened to Vinette I ceramics, have been recovered from the coastal Turner Farm site in Penobscot Bay (Cross, 1976), but remain incompletely reported.

Significant ceramics in the context of this discussion have been recently recovered from New Brunswick (Allen, 1980, 1981a, 1981b). The earliest ceramics from the stratified Oxbow site, dated from 690 ± 50 B.C., to 530 ± 105 B.C., appear contemporaneous with corded exterior/interior ceramics, but have been described as having plain, undecorated surfaces or dentate/pseudo-scallop shell decorated surfaces. It should be noted, however, that the limited extent of the excavations, complex stratigraphy, possibility of ground water contamination, and particularly, the eroded condition of some of the sherds render this description and early dating somewhat equivocal.

Perishables. Perishable industries clearly predate the earliest ceramics in the Northeast, as in the Eastern United States and elsewhere in North America, although their recognition has been hampered in many regions by generally poor conditions of preservation (Adovasio, 1974, 1977). In point of fact, perishables have been clearly identified in Early Archaic contexts in Missouri and Tennessee, dated to 7000 B.C. in the latter case (Chapman & Adovasio, 1977; Logan, 1952), and quite probably in a Paleoindian context in Pennsylvania (Adovasio et al., 1978). More recent Archaic, Woodland and Historic period perishables have been recognized in other excavations conducted in the Eastern United States (i.e., Adovasio & Andrews, 1980; Hamilton et al., 1982; Hurley, 1975; Maslowski, 1973; Michels & Smith, 1967; Petersen & Power, n.d.,; Scholtz, 1975; Ritchie, 1969a; Watson, 1969; Willoughby, 1935). These and other excavations have documented the early presence of cordage, and cordage employed in twined basketry and netting by at least the onset of the Early Archaic period, with subsequent, diverse elaboration later in the span of prehistory and history.

More specifically, a variety of actual perishables (i.e., Dragoo, 1963; Jeppson, 1965; Keith, 1965; Kraft, 1976; Mayer-Oakes, 1955; Ritchie, 1969a), and negative impressions of perishables (i.e., Adovasio & Andrews, 1980; Petersen, n.d.) have been derived from a limited number of Early Woodland components in the Northeast. In the local region, important Early Woodland ceramic and associated perishable assemblages have been described from the Great Diamond Island site (Hamilton & Yesner, 1981). Although it should be obvious that the available sample of Early Woodland perishables and perishable impressions is small and generally unreported, all of the structural types represented in the present study, including Z-twist cordage, S-twist cordage, and close twining, have clear, contemporaneous analogues in local and regional contexts.

OVERVIEW

The presence of describable ceramics and associated perishable industries has been demonstrated in this study for five sites, with another two known sites and possibly a third site in the southwestern Maine study area. These ceramics have provided significant data for the earliest ceramics currently known in Maine, although the number of reported ceramic vessels is relatively small, including seven vessels in this study and nine to ten others discussed elsewhere (Hamilton & Yesner, 1981). Dated to 365 ± 130 B.C. at the coastal Great Diamond Island site (Hamilton & Yesner, 1981), these corded exterior/interior ceramics have been recovered at both coastal and interior riverine/lacustrine sites. Likewise, a limited but well executed variety of perishables have been identified in both settings. Several significant, if slimly documented, differences seem evident in the available sample of perishables, however.

While the ceramics seem relatively uniform throughout their range of distribution in the study area, the perishable industries provide a different perspective. The occurrence of TYPE I: Two Ply, Z Spun, S Twist cordage was associated with interior sites, including the Basin, Panther, Sebasticook I and Vassalboro sites, although data from the Witch Cove and Cobbosecontee sites have not been analyzed. TYPE I: Two Ply, Z Spun, S Twist cordage has also been identified at the Great Diamond Island site (Hamilton & Yesner, 1981). On the other hand, TYPE II: Two Ply, Spun, Z Twist cordage was only discerned in the samples from coastal settings, the Great Diamond Island and Hamilton sites.

A dichotomy between coastal and interior samples was further evident upon examination of the inferred techniques of applying surface treatment to these vessels. In particular, only simple cord-wrapped paddle applications were noted in the samples from the interior sites, whereas a combination of simple cord-wrapped paddle and close twining-wrapped paddle applications was noted for both coastal sites. In addition, an open simple twining-wrapped paddle application was present in the sample from the Great Diamond Island site (Hamilton & Yesner, 1981).

It has been generally recognized that aboriginal populations manufactured cordage of only one predominant twist, either S twist or Z twist, with only minor concurrent manufacture of cordage of the opposite twist (Andrews & Adovasio, 1980). In this light, cordage twists can be used to differentiate aboriginal populations as demonstrated elsewhere (i.e., Fry & Adovasio, 1970; Maslowski, 1981). While the present sample cannot provide unequivocal documentation of different interior and coastal populations in southwestern Maine during the Early Woodland period, this matter bears further investigation in the context of local and regional prehistory.

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WHITE CLAY TOBACCO PIPES

by

Helen Camp

White clay tobacco pipes became fashionable in England as early as the 1570's, a custom picked up from the American Indians. The pipemakers worked under a guild. The purpose of guilds was to act as a protector for a certain trade. They were also a means of keeping industrial control and discipline. From 1628 onwards all guilds had their ordinances approved by the Mayor, Alderman, and Common Council. The pipemakers guild was approved in this manner.

Freemen practicing their trade were masters, while journeymen were those who had their apprenticeships under a master. They could be free or not, but did not have their own business. They worked for masters. In London, and later in Bristol, apprenticeship as a means of obtaining freedom had become popular, although they had to serve seven years as an apprentice and be twenty-four years old. By the early seventeenth century there were many pipemakers in England.

At the end of the sixteenth century the pipe bowl was very small and the stems averaged only 1 3/4 to 3 3/4 inches in length. As tobacco became cheaper and more available, the bowls became larger and the stems longer. By the eighteenth century the stems averaged 13 1/2 inches in length, with a somewhat larger bowl.

The change in the size of the bore is most helpful in dating and classification. When the pipe was still in the mold, prior to being put in the kiln, a wire was used to make the stem hole. The early stemswere short and a fairly large wire could be used to make the stem hole. However, as pipe stems became longer the wire would come out the side. Thus thinner wires were used which enabled the pipemaker to insert the wire which would then penetrate the full length of the stem. J.C. Harrington evolved a table showing the percentages of different diameters gauged in 64ths of an inch. The following classifications may be used with a reasonable degree of accuracy: 4/64ths--1750-1800: 5/64ths--1710-1750; 6/64ths--1680-1710; 7/64ths--1650-1680; 8/64ths--1620-1650; 9/64ths--before 1620.

The bowls of seventeenth century pipes are helpful in dating, not only because of their shape, but also by the line or rouletting around the mouth of the bowl. Dutch pipes used this feature into the early eighteenth century.

The heel first appeared ca. 1620. It was large, flat and low, enabling the smoker to put his pipe down without its rolling over. Makers' marks were often placed on the base. During the third quarter of the seventeenth century, heels became smaller, but were more prominent. About the middle of the seventeenth century the spur appeared, a pointed protrusion in place of the heel. As the heels and spurs were becoming too small to have room for the maker's initials on their base, the initials were put on either side of the heel or spur. The first initial was on the left and the last on the right as the pipe was held in the smoker's mouth. The maker's initials appeared on the stem by 1650, and full names by 1670. By 1659, the maker's initials were on occasion spiralled around the stem. In some cases the letters of the maker's name were blocked in sections on top of the stem.

Many pipes in the seventeenth century bordered the initials with denticulated lines around the stem, and filled in between these lines with a diamond pattern. This was not to be confused with Dutch pipes which were highly decorated for the full length.

About 1690 pipes were produced for export to the colonies. These had neither heels nor spurs. Either the initials were engraved on the bowl facing the smoker, or were in a cartouche on the side of the bowl.

At Pemaquid, 12,868 pipe fragments have been recovered to date. Of these, 4,860 were from the Officers' Quarters. This might seem like a large number compared to the 8,008 from the fourteen foundations. However, there were three occupations in the Fort area: Fort Charles 1677 to 1689, Fort William Henry 1692 to 1696, and Fort Frederick 1729 to 1775. When the mouthpieces are counted, even those that had been broken and new mouthpieces shaped by filing, it would reduce considerably the number of whole pieces.

Fort Frederick was built on the same foundation as Fort William Henry, with few changes or additions. Both of these forts were of stone. Fort Charles, which has not yet been located, was in the same area. Many pipes have been found from that date (1677-1689). Also, it is possible that Shurte's Fort (1630-1676) was also in the same area, or there may have been an early seventeenth century dwelling, thus accounting for the 8/64ths (1620-1650), and the 9/64ths (before 1620) stems.

It might be added that quite a number of red clay pipe fragments were recovered. These all date to about the middle of the seventeenth century. The Harrington Method of measuring the bore cannot be used here as they all are 7/64ths, and have neither heel nor spur. They may have been manufactured for the Indian trade. Up to this time no one has been able to find their place of origin.

Some nineteenth and early twentieth century pipes were recovered. These, of course, were not there at the time of any of the forts. However, it does show that the fort area was not entirely forgotten. The following explanation is purely hypothetical, but it might be the answer as to the source of these recent pipes. People were living in the large white house just outside the curtain wall of the fort. They could have tossed their broken pipes into the hollows left by the former officers' quarters, or when Fort William Henry was rebuilt in 1908, the workmen may have also discarded their broken pipes.

Identification of Makers' Marks on White Clay Pipes from COLONIAL PEMAQUID

by

Helen Camp

Pipe No.	Page *	
1.	-	Possibly Robert Tippett (c. 1660) Bristol. From: Lowest stratum of Officers' Quarters Ft. Wm. Henry occupation (1692-96)
2.	138	There were 16 makers in London in the period 1680-1710 with the initials "IH". (Note the dot before the initial). From: Ft. Wm. Henry occupation (1692-1696).
3.	138	"IH" on sides of heel. There are 6 makers in London in this period (1718-1739). From: The Officers' Quarters in the stratum containing 17th and 18th C. material.
4.	117 118	Figure of Crusader c. 1670-1700. Shows the development of the decorated bowl. From: Structure 2A, near the surface, in the older part of the Tavern. 17 C. Structure 7, Town Building (17th C.) "J" test pit north of road leading from the cemetery to the fort. "K", test pit south of road leading from the cemetary to the fort.
5.	152	Bristol - Lluellin Evans 1661-88 (died). Bristol Apprentice Rolls - Elizabeth Evans - widow took apprentice - 1688. From: - - - Structure 7, Town Building - 17th C. Structure 11, 17th C. dwelling. "K", test pit south of road leading from the cemetery to the fort.
6.	133 151	There are 4 makers with the initials "IC" from London, and 5 makers from Bristol. From: "F", test pit south of Structure 8, 18th C. dwelling.
7.	152	Same as No. 5. From Structure 6, Jail. 17th C.
8.	158	Robert Tippett (3) 1713-20 - Bristol. Apprentice Rolls. Rob Hemsley his apprentice 1720. From: Structure 2A, near the surface in the older part of the Tavern. 17 C.

* (Page numbers refer to Clay Pipes for the Archaeologist by Adrian Oswald unless otherwise indicated)

Pipe No.	Page	
9.		"A cartouche on the side of the bowl, like this, is typically Bristol, but no examples of this particular mark are known from Bristol. They occur at Louisbourg" - from correspondence with Dr. Iain C. Walker. In Dr. Walker's "An Archaeological Study of Clay Pipes from the King's Bastion, Fortress of Louisbourg", see page 65, figure 6, and tables on pp. 63, 72, and 88.
		From: Officers' Quarters, Ft. Frederick occupation 1729-75.
10.	152	William Evans (1) 1660. 1653 apprenticed to Jane Wall, Bristol Apprentice Rolls. 1674 married to Catherine or Janet.
		William Evans (2) 1667. 1660 apprenticed to Jane Wall, taken over 1661 to R. Tippett. 1660 married to Mary. Bristol Apprentice Rolls 1696. One or other living. Inhabitants of Bristol.
11.*		From: Structure 2A, the older part of the tavern.
		Structure 5, 17th C. dwelling.
		Structure 7, town building.
		"J", north of the road leading from the cemetery to the fort.
12.	153	Charles Hicks, Bristol 1721-46. Apprentice Rolls. G. Viner his apprentice -5.
		From: Officers' Quarters in stratum containing both 17th and 18th C. material.
13.		Possibly Jamestown, Virginia.
		From: Structure 2A, older part of the tavern, 17th C.
14.	152	Phillip Edwards (1) 1649-c. 1680. Son Francis free in 1683. Phillip then deceased. Bristol Apprentice Rolls.
		From: Structure 2, newer part of the tavern. 17 C.
15.	145	Francis Stray (Stace, Staw) 1732.
		From: Officers' Quarters, Ft. Frederick occupation, 1729-75.
16.	135	Thomas Dormer 1748-70. Hermitage Directories 1768. Bones Yard Lane, Heale.
		From: Structure 2, newer part of tavern. 17 C.
17.		Unknown.
		From: "K", south of road leading from the cemetery to the fort.
18.		Dutch. Shape of bowl would date this to c. 1700.
		From: Structure 2A, older part of tavern, 17 C.
		Structure 4: Town building.
		"K", south of the road leading from cemetery to the fort.
		Officers' Quarters (Ft. Wm. Henry occupation 1692-96).

* Not described, Ed.

Pipe No.	Page	
19.		This is a typical 19 C. "TD" bowl shape. It seems to have appeared by c. 1840 and was continued well into the 20th C. From: Structure 2, the newer part of the tavern. 17 C. (Near the surface) "H", north of Structure 8.
20.	135	Thomas Dormer. From: "G", west of Structure 8.
21.	153	Probably a product of William [illegible], free 1733 in Bristol. Moved to London by 1754. From: Structure 13A, 18 C.
22.	135	Thomas Dormer. From: Structure 12, an 18th C. dwelling.
23.	135	Thomas Dormer. From: Structure 2, newer part of the tavern. 17 C.
24.	135	Thomas Dormer. From: Structure 8, 18th C. dwelling.
25.	135	Thomas Dormer. From: Structure 2, newer part of the tavern. 17 C.
26	135	Thomas Dormer. From: "K", south of road leading from the cemetery to the fort.
27.	135	Thomas Dormer. From: Officers' Quarters, Ft. Frederick occupation, (1729-1775).
28	135	Thomas Dormer. Same as No. 19, with the exception of measurement, which is 5/64 while No. 19 is 4/64. From: Structure 2, newer part of tavern, near surface.
29.	152	See No. 10 (William Evans). 153 From: Structure 4, Ft. Pemaquid (1630).
30.	98	Probable Mulberry pattern from Hadleigh, Suffolk. From: Structure 2A, older part of tavern. 17 C.
31.		Unknown. Possibly Dutch. From: Structure 2, later part of tavern.
32.	170	Possibly P. Andrews, c. 1700. Gloucester period pipe. From: Structure 2, later part of tavern.
33.		This bowl is Turkish-East European-Near East in form. This example is probably a 19 C. imitation, perhaps made in France. From: "J", north of road leading from the cemetery to the fort.
34.	152	Phillip Edwards 1649-c. 1680. Son Francis free 1683. Phillip then deceased. Bristol Apprentice Rolls. From: Structure 2, newer part of Tavern, 17th C.

Pipe No.	Page	
35.	158	Robert Tippett, Bristol. 1660-c. 80. Joan his wife in 1660. Bristol Apprentice Rolls.
		From: Structure 11, 17th C. dwelling, Officers' Quarters, AIIIc, BIII 10f.
36.		Unknown. (On P. 192 under "Somerset" there is an R. Symes c. 1700 Bridgewater Pipe - but here the spelling is wrong, and the date too recent.
		From: Structure 2A, older part of Tavern, 17th C.
37.		This form of mark looks Dutch, though the bowl looks to be 18 C. London.
		From: Officers' Quarters, Ft. Frederick occupation 1729-1775.
38.	158	Robert Shephard, Bristol 1669-90. J. Pickering his apprentice free 1700.
		From: "K", south of road leading from the cemetery to the fort, Officers' Quarters, AIII 10e.
39.	158	John Sinderling, 1668-99. Bristol Apprentice Rolls 1699. On his death his apprentice, Nathan Chilton by Joseph Stanford.
		From: Structure 2A, older part of tavern, 17C
		Structure 4, Ft. Pemaquid, 1630-76.
40.	156	Jacob (Isaac) Prosser 1662-80. Bristol Apprentice Rolls. His apprentice Wm. Phillips or John (James) Prosser, 1673. 1715 Polls; 1722 Rolls (? Joseph).
		From: Structure 4, Ft. Pemaquid 1630-76.
41.	152	Same as No. 5 (Lluellin Evans), but an earlier period.
		From: Structure 4, Ft. Pemaquid, 1630-76.
		Structure 7, Town Building, 17th C.
		"K", south of road leading from the cemetery to the fort.
		"J", north of road leading from the cemetery to the fort.
42.		Dutch. See "An Archaeological Study of Clay Pipes from the King's Bastion, Fortress of Louisbourg" by Iain C. Walker, p. 92, figure 22. All of these are c. 1716-49/50.
		From: "K" south of road leading from the cemetery to the fort.
43.		Unknown: Structure 2A, older part of tavern.
44.		Dutch. See p. 108, fig. 40 and p. 113, fig. 44 of "An Archaeological Study to Clay Pipes from the King's Bastion, Fortress of Louisbourg" by Iain C. Walker.
		From: Structure 2, newer part of Tavern, 17 C.
		Structure 3, forge, 17th C.
		Structure 4, Ft. Pemaquid, 1630-76.
		Structure 5, 17th C. dwelling.
		Structure 6, Jail, 17th C.

Pipe No.	Page	
		"J", north of road leading from the cemetery to the fort. Officers' Quarters, BIII 7c, BIII 7d, BIII 8d, BIII 10c, CIII 7e.
45.		Probably Dutch. See pp. 111, 114, 115, "An Archaeological Study of Clay Pipes from the King's Bastion, Fortress of Louisbourg" by Iain C. Walker. Context 1720-32. From: Structure 2, newer part of Tavern, 17C. Structure 6, Jail, 17 C. "K", south of road leading from the cemetery to the fort. "J", north of road leading from the cemetery to the fort.
46.	153	James Fox, 1651-68. 1651 resisting duty. Bristol deposition books 1654. From: "F", test pit south of Structure 8 (18 C. dwelling).
47.		See No. 10. From Structure 7, Town Building, 17th C.
48.	158	Robert Tippett (1) 1669-c. 1680. Joan his wife in 1660. Bristol Apprentice Rolls. From: Structure 2A, older part of Tavern, 17th C.
49.	173	John Stephens 1708-51. 1708 Bondsman Newport. See also pp. 107 and 110 of "An Archaeological Study of Clay Pipes from the King's Bastion, Fortress of Louisbourg" by Iain C. Walker. Context 1720-32. From: Structure 4, Ft. Pemaquid, 1630-1676. Found near the surface.
50.		Unknown. From: Structure 7, Town Building, 17th C.
51.		See No. 10. From: Structure 6, Jail, 17th C.
52.		Unknown. From Officers' Quarters in stratum containing both 17 C. and 18th C. Material.
53.	205	Glasgow Directories - 1873. From: "G", test pit west of Structure 8.
54.	206	3 William Whites in Glasgow; 1 in London Office. All are 19th C. From: Structure 2, newer part of Tavern, 17 C.
55.	205	Duncan McDougall & Co. (Glasgow manufacturing) 1847-1968 - Glasgow Directory. From: the shore.

Pipe No.	Page	
56.	150	Edward Battle 1660-85. His apprentice J. Webb 1669. Free 1685. From: Officers' Quarters, Ft. William Henry occupation (1692-96).
57.		Unknown. From: Officers' Quarters, Ft. Frederick occupation. (1729-75).
58.		Unknown. From: Officers' Quarters, Ft. Frederick occupation. (1729-75).
59.		See p. 64 of "An Archaeological Study of Clay Pipes from the King's Bastion, Fortress of Louisbourg" by Iain C. Walker. Dutch. Gouda coat of arms (ordinary) 1740. Mark on base of heel is unknown. From: Officers' Quarters, Ft. Frederick occupation. (1729-75).
60.	137	William Goulding (1) 1712 Apprentice Rolls. His apprentice J. Gay Stephney. From: Officers' Quarters, stratum of both 17th C. and 18th C. material.
61.		Dutch. (Correspondence with Iain Walker). From: Officers' Quarters in stratum of both 17th and 18th C. material.
62.	344	Because of the lack of country of origin, namely Scotland, following Glasgow this pipe would date prior to 1891. From: The Officers' Quarters A III 19a.
		(Beginning with Pipe No. 62, all page numbers refer to History and Archaeology, Vol. 11a and 11d, by Iain C. Walker unless otherwise indicated.
63.	344	These William White and Son pipes were manufactured in Glasgow from 1805 to 1955. Since Scotland, the country of origin, appears, it would probably date after 1891, although some pipes with "Scotland" were made prior to this date. From: Officers' Quarters A III 19a.
64.	344	Duncan McDougall & Co. manufactured pipes from 1847-1968. The "T D" on the bowl, and the country of manufacture on the stem (Scotland) would place it in the 20th century. From: Officers' Quarters A III 12a.
65.	No Ref.	There were several almost obliterated letters preceding "AL". Whatever was in front of this had been broken off. The 6/64 measurement does not follow the Harrington method of dating. The numbers and letters are raised, not incised. This pipe has not as yet been identified. From: Officers' Quarters A III 12a, quad. 1.
66.	344	This bowl shape differs slightly from the others. It measures 5/64 and has a raised "H" on the heel. This may possibly be an earlier "TD", or mid 18th C. From: Officers' Quarters AIII 12a, quad. 1.
67.	1533	Because of the decoration on the spur, this could post date

Pipe No.	Page	
		1840 - whether this is also true of a McDougall pipe is not certain.
		From: Officers' Quarters A III 19a.
68.	352	(See also Oswald p. 206) Possibly manufactured by John Waldie & Co., Glasgow 1870-1929.
		From: Officers' Quarters A III 12a - quad 1.
69.	No Ref.	Only half of bowl. The leaf pattern in relief follows the molding seam. Maker unknown. Probably 19th C.
		From: Officers' Quarters A III 13a.
70.	1554	McDougall of Glasgow's Woodstock Pipe. Nothing shows on the reverse side. It may have been "McDougall" preceded by the mold number. The measurement, 6/64, does not follow the Harrington method. Date, about 1900?
		From: Officers' Quarters A III 13a.
71.	355	One of the first pipe makers in Montreal, Canada in the 19th C. is a William Henderson. It would appear that the bowl had some decoration, but it is too badly broken to identify. Here again, the measurement 6/64 does not follow the Harrington method for dating.
		From: Officers' Quarters A III 17a.
72.		(See also Oswald p. 158) Robert Tippett (1 or 2) Bristol. (1660-1680 or 1678-1713).
		From: Officers' Quarters A III 12c.
73.	1531	Typical Bristol pipe bowl shape. 1680-1710).
		From: Officers' Quarters A III 12c.
74.	No Ref.	Complete bowl and 3" of stem. Red clay, 17th C. 8/64 does not apply to the Harrington method of dating by size of stem bore.
		From: Officers' Quarters A III 12c.
75.	143	In London there were three makers with the initials "I P" in this period (approximately 1650-1680). In Bristol there were also three makers with these initials in this period. None of these have been identified as being shipped to America.
		From: Officers' Quarters B III 12.

Beginning with pipe No. 75, all page numbers refer to Clay Pipes for the Archaeologist by Adrian Oswald.

76.	156	In Bristol, William Nicholas 1730-1775.
		From: Officers' Quarters B III 24b-1.
77.	156	There were three Thomas Owen's in Bristol from 1698 to 1739 - Thomas Owen #1 1698-1725. Died 1725. Thomas Owen #2 1725-1739. F. Polls Thomas Owen #3 1727-1739. F. Polls
		From: Officers' Quarters B III 17 (wall C III 12d, C III6c.

Pipe No.	Page	
78.	152	In Bristol. Possibly Thomas Dennis who was apprenticed to Wm. Tippet in 1723, although this maker has not been identified as shipping to America. More probably in London Thomas Dormer. Hermitage Directories 1768 Bones Yard Lane. This may be a little late, but dates overlap. From: Officers' Quarters B III 18b.
79.		Unknown.
80.		Unknown.
81.		Dutch - Canadian Historic Sites, Vol. 2. P. 112. Context 1720-32 Iain Walker From: Officers' Quarters B III 15W
82.		Evans Cheever 1741 Canterbury, Kent. Clay Pipes for the Archaeologist Adrian Oswald P. 175

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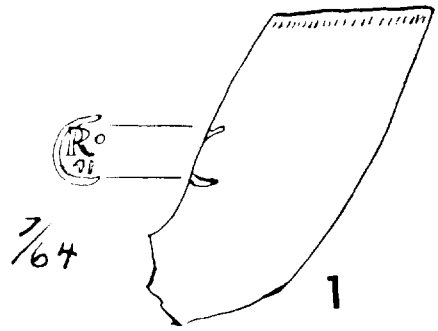
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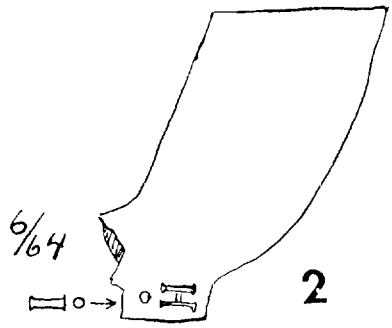
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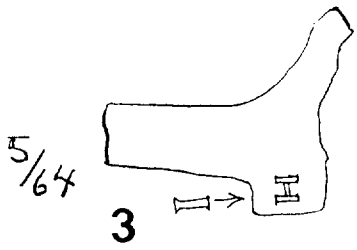
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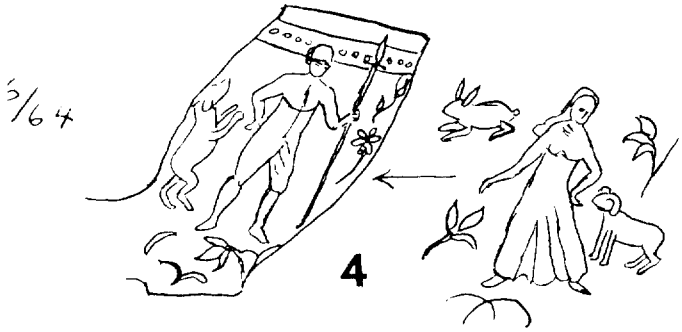
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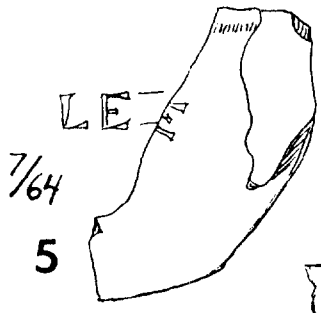
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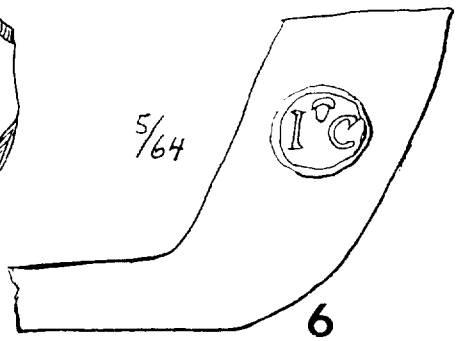
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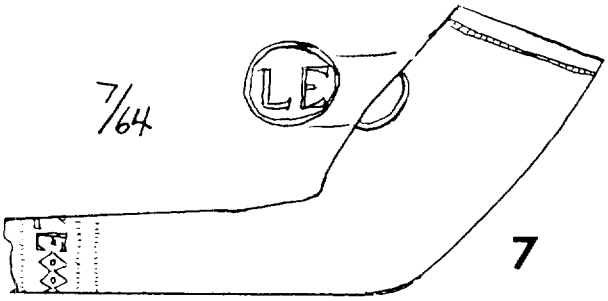
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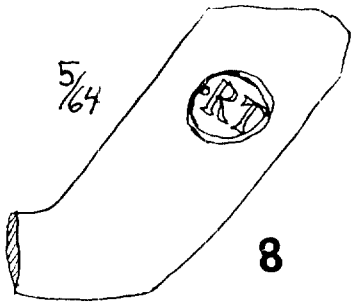
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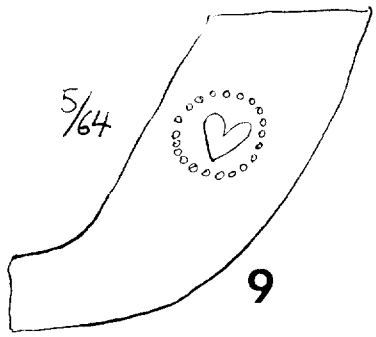
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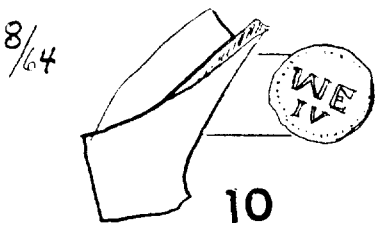
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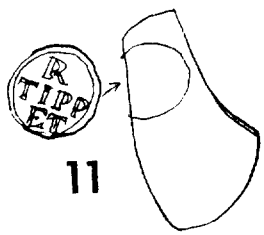
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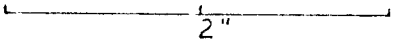
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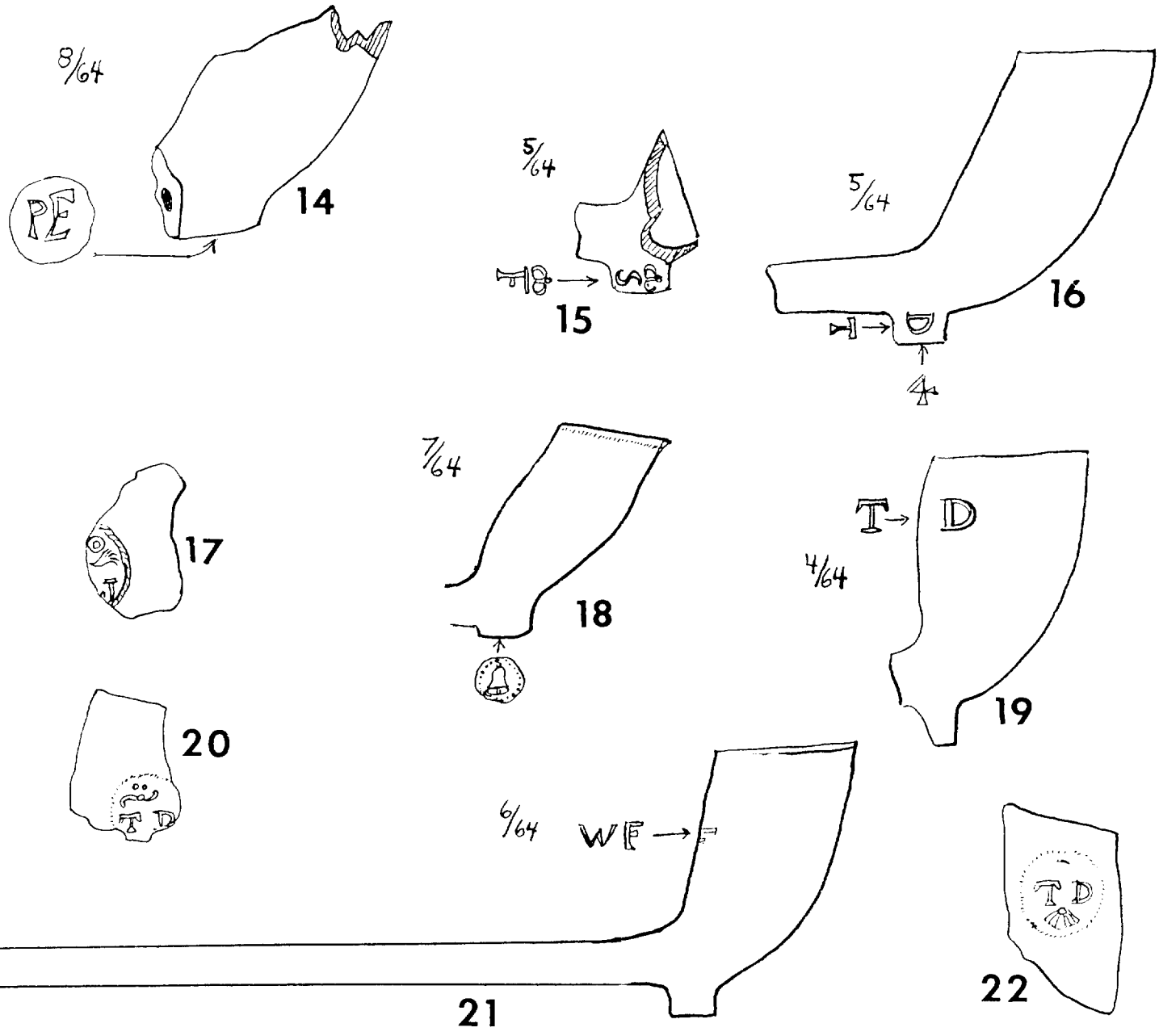
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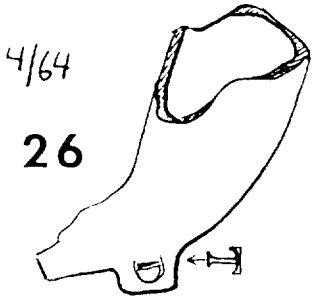
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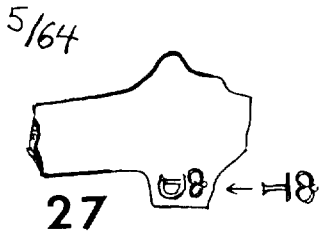
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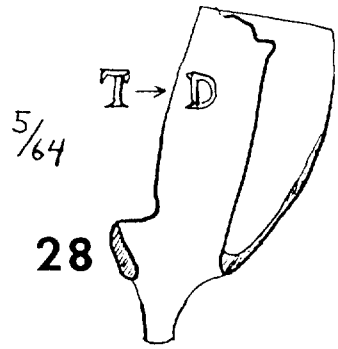
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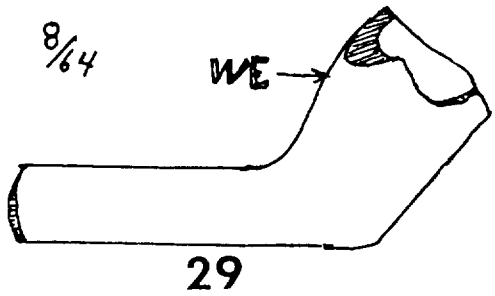
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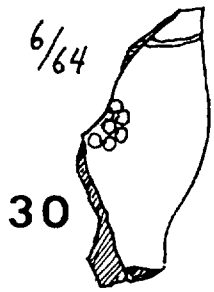
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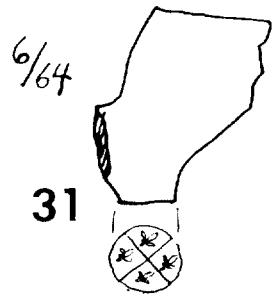
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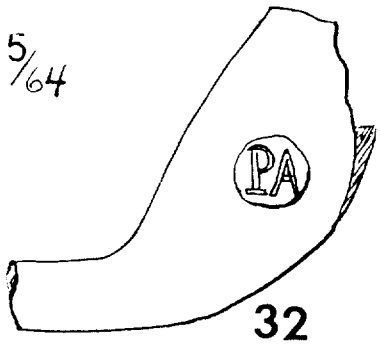
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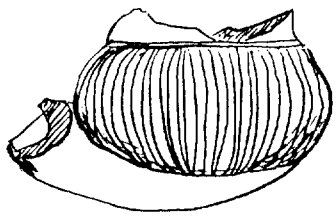
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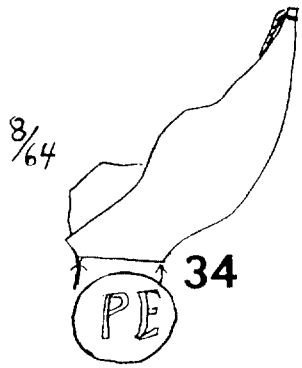
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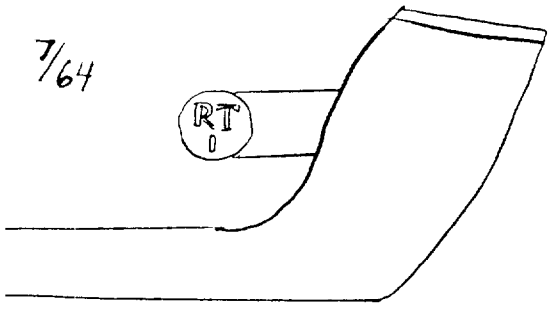
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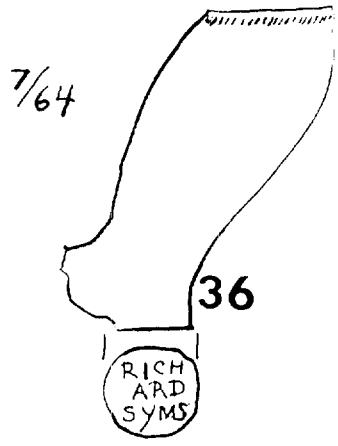
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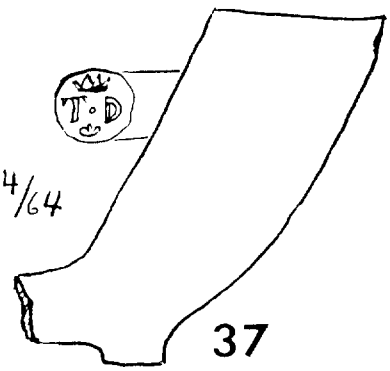
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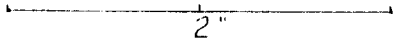
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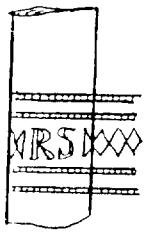

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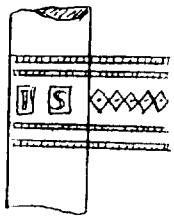

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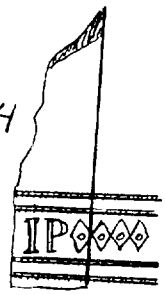

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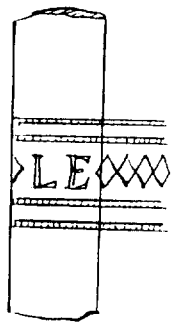

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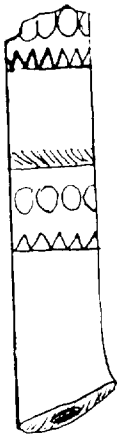

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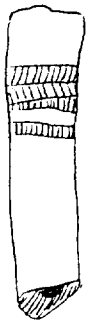

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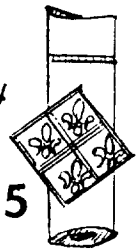

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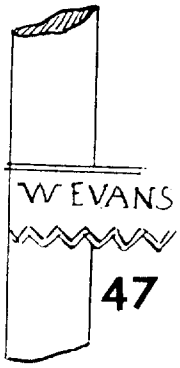

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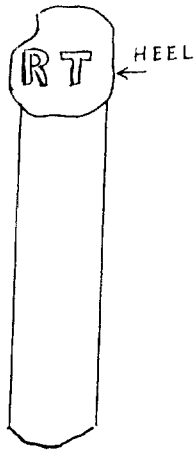

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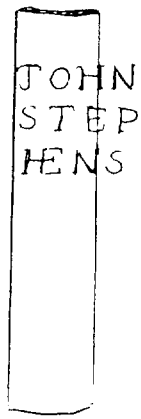

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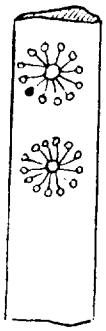

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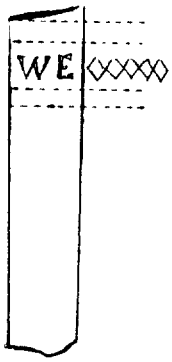

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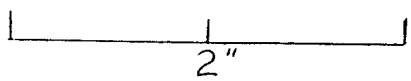

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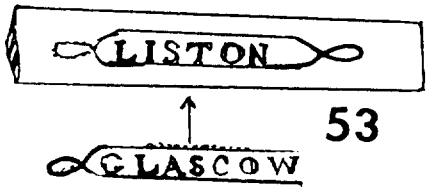

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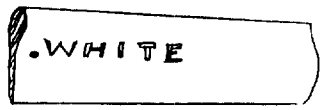

54

19th C (SURFACE)

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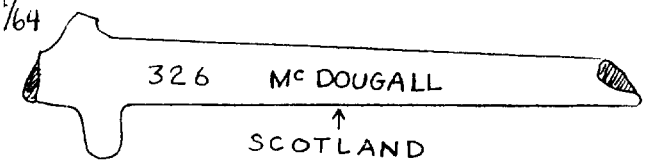

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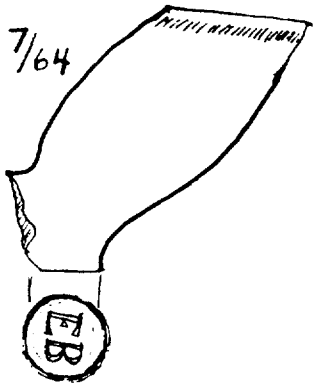

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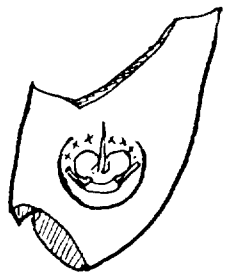

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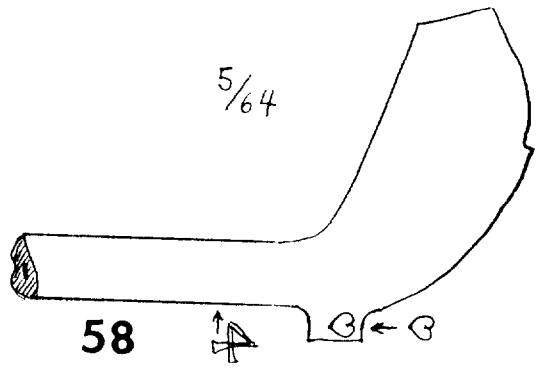

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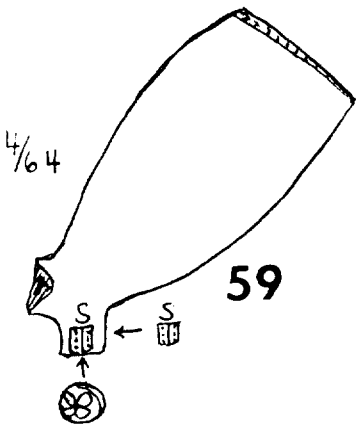

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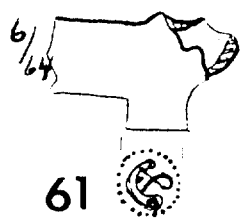

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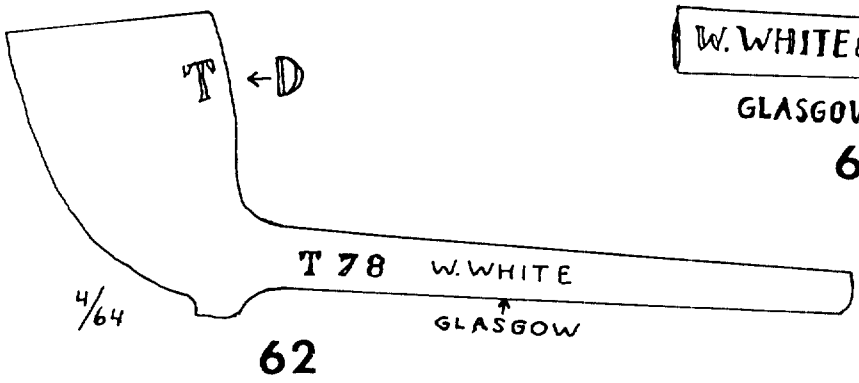

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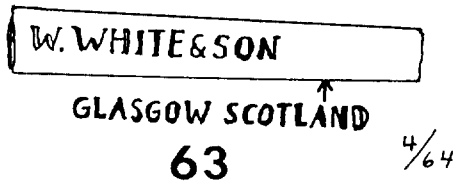

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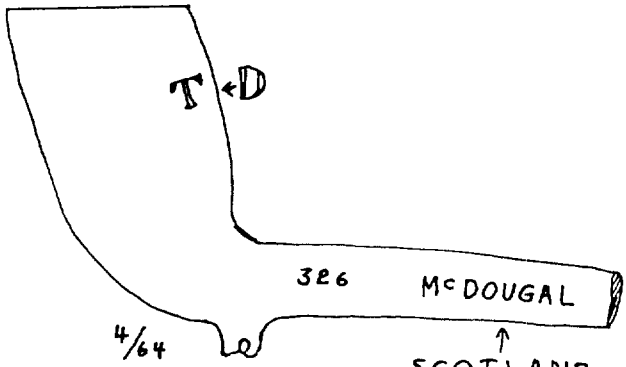

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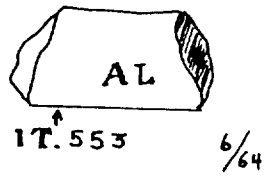

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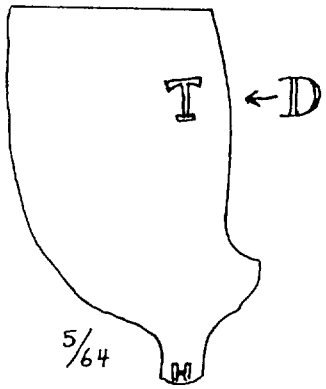

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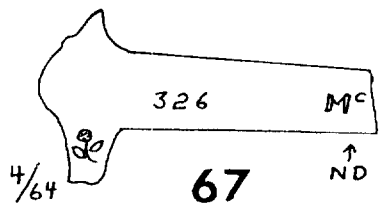

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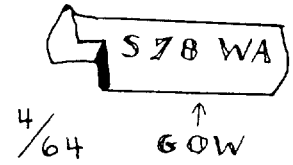

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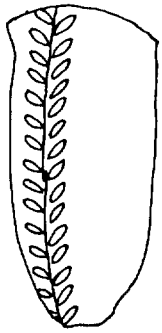

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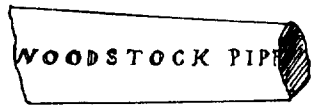

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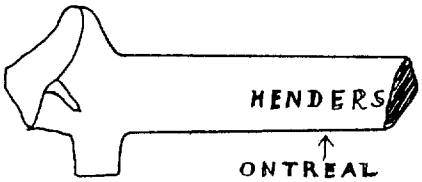

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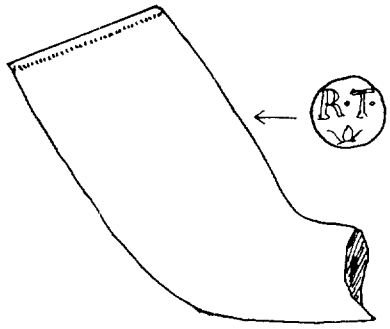

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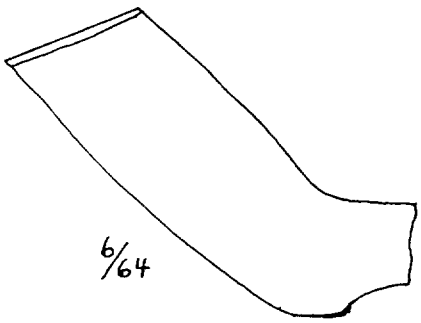

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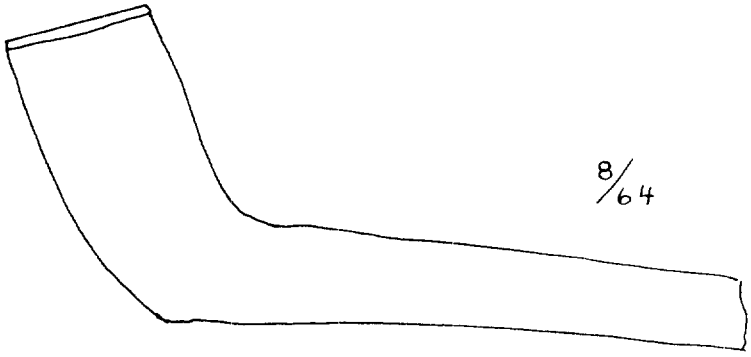

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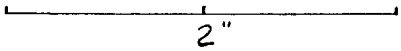

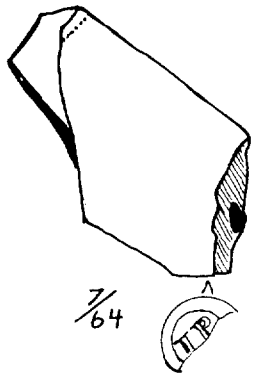

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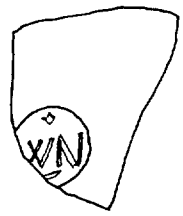

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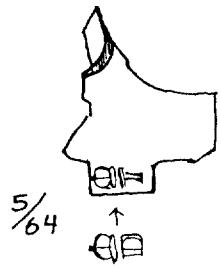

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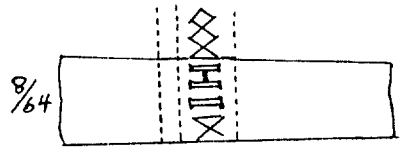

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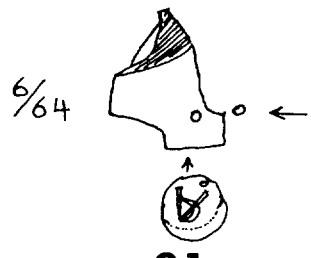

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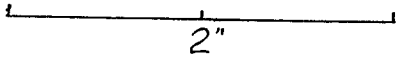

TREASURER'S REPORT
September 10, 1982

Paid members: 170	**Institutions: 40**	
Checking account	**$508.48**	
Savings account #1	**$778.21**	
Savings account #2	**$334.51**	
Income, April 25-September 10		**$258.20**
Expenses April 25-September 10		**$649.59**
(Bulletin printings and mailing)		

Margaret G. Cook,
Treasurer

Treasurer's note: Due to apparent confusion about subscription renewal time; the M.A.S. Directors voted to bill members for annual dues. The M.A.S. membership year runs from January 1 to December 31 and includes 2 Bulletins, Spring and Fall. Many members renew their subscriptions at the Fall meeting. Now, anyone not renewing at this time will be sent a renewal notice before January 1. (Some people have mailed dues whenever a notice appeared in the Bulletin and are now paid into 1984). So, pass the membership form in the Bulletin, on to a friend. The M.A.S. will mail you a notice when it's time to renew your subscription.

SECRETARY'S REPORT

Directors' meeting: June 20, 1982.
Directors present: Lahti, Lahti, Spiess, Cox, Sunderland, Cook, Cook, Doyle.
Topics Discussed: lending library, membership drive, sale of MAS Bulletins by State Museum and Robert Abby Museum.
Action taken: 1. Lifetime membership may be paid over a three year period in $50.00 installments. 2. Long and distinguished service to the MAS may be recognized in the form of a new Emeritus status of membership. Recipients shall receive lifetime membership.

Directors' meeting: August 29, 1982.
Directors present: Lahti, Lahti, Cook, Cook, Spiess, Hedden, Cox, Sunderland.
Topics discussed: booth at ESANE Book Fair September 11th, nominations for officers and directors, clarification of Emeritus status, status of Eckstorm book, possibility of jointly sponsoring speakers with the Center of Early Man at UMO.