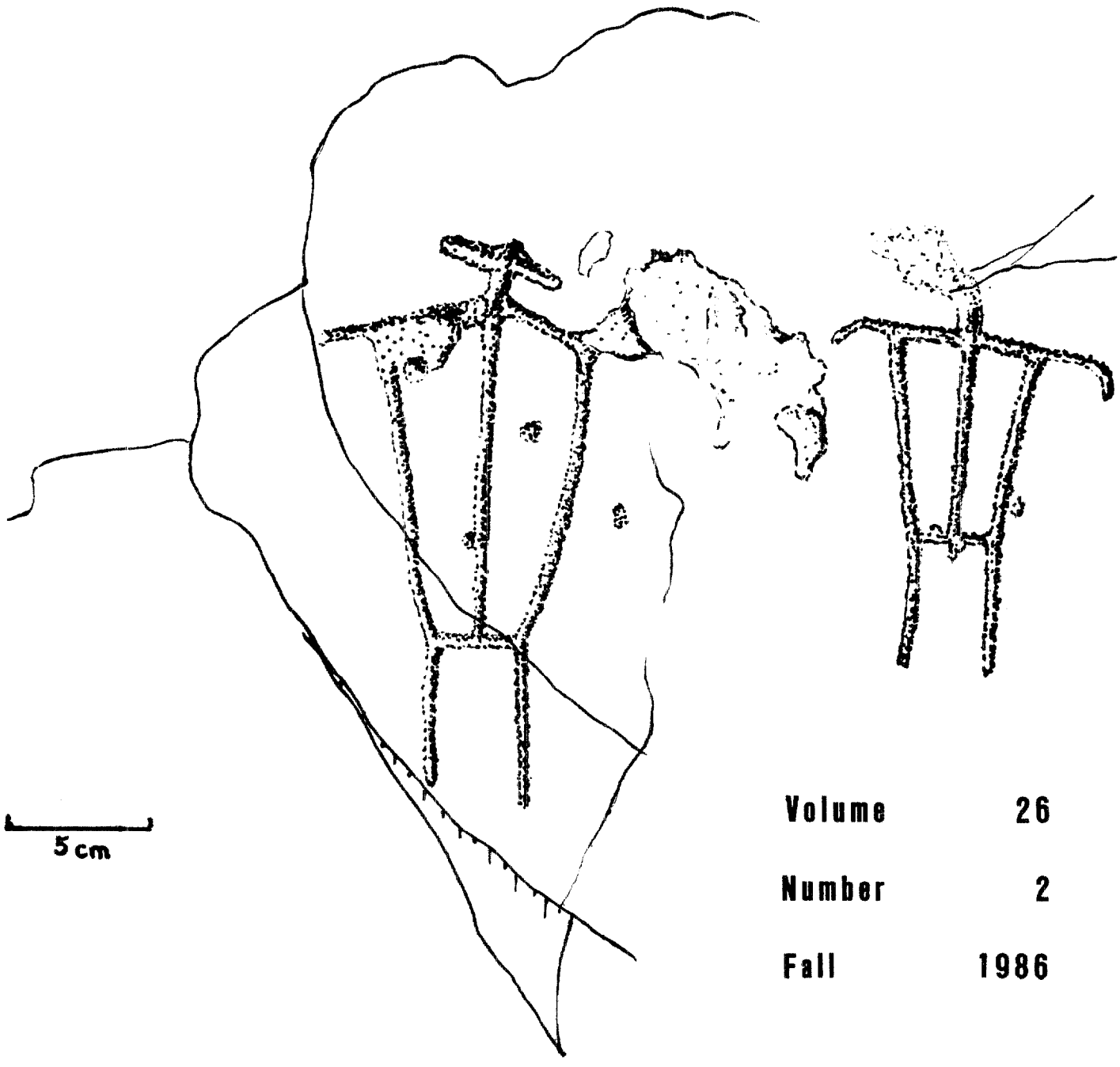
THE MAINE ARCHAEOLOGICAL SOCIETY INC. BULLETIN



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MAINE ARCHAEOLOGICAL SOCIETY BULLETIN

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Cover Design by Mark Hedden

LETTER FROM THE PRESIDENT

I was saddened to learn of the deaths of two valued members of The MAS this past year; Elizabeth Hartsgrove of Bath and George "Pete" Sawyer of Ashland. Mrs. Hartsgrove was raised on Moosehead Lake's Northwest Carry and, along with her father, had amassed a large collection of artifacts from there as well as much knowledge of the region which she graciously shared with MAS members and other researchers of prehistory. Pete Sawyer, a well known woodsman and farmer, maintained an intense interest in Aroostook prehistory and facilitated archaeological work in that region with information he had accrued over many years. On behalf of The MAS I extend condolences to their families and friends. They will be missed.

Several important projects were conducted during the past field season. Excavations in the interior at Milo and Eddington Bend promise significant results and coastal work in Penobscot Bay and Washington County may provide added insights into prehistoric life, and we eagerly await the reports.

A brief format, written by Dick Doyle, Jr., is included in this issue to aid members in reporting artifacts and sites. We hope that this will encourage members to report their finds in a systematic fashion which is important in advancing the archaeological work. The MAS has been a significant factor in the quickening archaeological efforts and use of this format will help streamline reporting potentially important finds and will enhance our future contributions. I would encourage the membership to also report any instances of vandalism and mindless "potholing" to me. There are, unfortunately, people who are actively pillaging the precious and unique archaeological resources of Maine for "the fun of it" or, worse, for personal gain. We cannot tolerate such destruction of remains that properly belong to all and should be vigilant in protecting archaeological sites until the time when they can be properly excavated and analyzed.

I look forward to seeing you at our Fall '86 meeting and hope that all is well with you and yours.

Davis S. Cook, President
The Maine Archaeological Society

The Rate of Sea Level Rise and Prehistoric Petroglyphs at Machias Bay

Mark Hedden
Maine Historic Preservations Commission

The two figures illustrated on the cover were found on a tide-washed ledge on the west shore of Machias Bay along with the damaged remnants of 20 other figures. They are stylistically distinct from other anthropomorphic forms found in Maine petroglyphs and resemble figures attributed to the Late Archaic period in rock art of West Texas and Utah (Cf. Newcomb 1961:37-80 and Schaafsma 1971: 128-135. Their situation on the lower section of a bedrock exposure that has been largely broken up by frost damage, ice scouring and tidal action suggests by itself that they represent older examples of Maine's prehistoric rock art.

The designs, originally discovered during a 1977 survey and recording of Site 62.1 by the writer for the Maine State Museum, are located about 30 meters from the nearest shoreline on an eastward sloping surface that is under 50 cm of water at high tide. The ledge on which they appear is separated from the present shoreline by a tidal channel which can be crossed at low tide. To the southwest another ledge, extending from the shore eastward, bears on its top and southern exposures anthropomorphic petroglyphs with stylistic features found in Late Prehistoric Algonkian rock art from Manitoba to Nova Scotia. Traces of what may be earlier forms and an atlatl with a weight are evident on the lower tidewashed surface of this ledge but no anthropomorphic forms similar to the two figures illustrated can be made out. Some examples of human and animal forms found on this ledge have been illustrated on previous covers of the Maine Archaeological Society Bulletin (Spring and Fall 1983 issues).

The presence of boulders resting on the surfaces of the outer and inner ledges indicates that both ledges had been covered by glacial till in the not too distant past. The end of Clark Point apparently extended outward another 35 meters or so from its present shoreline. This allows conjectural reconstruction of the process of erosion that initially exposed the ledges for the making of petroglyphs and eventually caused the breakup of their surfaces by frost action, weather and sea. The land mass around Machias Bay seems to be part of a tectonic plate that is tilting downward to the north and currently sinking in relation to mean tide level at a rate established by the Coast and Geodetic Survey of about 2/3rds of a meter a century. How constant or far into the past this rate extended has not been established. Sanger (1985), on the basis of an analysis of shell middens and radiocarbon dates in the Passamaquoddy Bay area, has postulated rates that vary from a rapid rate similar to the present up to about 3000 or 2500 years B.P. followed by a marked slowdown that allowed the establishment of mudflats with shellfish around 2500 B.P. That slowdown lasted until the past century or two. This scenario is not inconsistent with the situation at the Machias Bay petroglyph sites. If we were to project the current rate ahead two or three centuries, the entire site should be awash. On the other hand, the presence of probable Late Archaic style anthropomorphs on the Outer Ledge suggests that the removal of the glacial till overburden was well underway by 2500 years B.P. The effects of the recent increase in the rate of sinking are evident in a new exposure of bedrock unmarked by any designs for a distance of six meters beyond the last prehistoric petroglyphs.

The increased rate of sea level rise indicated here and predicted for the near future points up the need for concerted action to complete our records of this site - specifically by making exact and expensive casts of the designs - and to develop conservation procedures where feasible.

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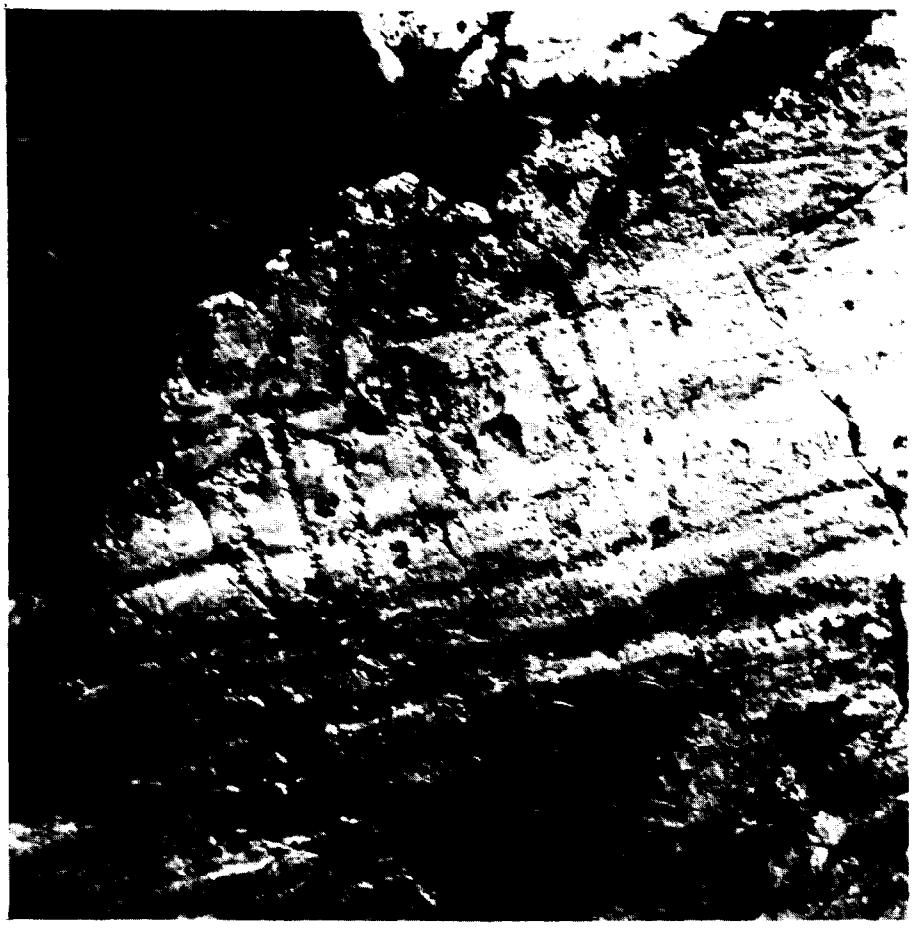

Archaic style anthropomorphs on the Outer Ledge at Site 62.1. Note glacial striation marks on original surface and various areas of recent spalling---on left shoulder of larger figure, area between the figures and at head of smaller figure. Most of the remaining petroglyphs on the Outer Ledge have already been badly damaged by spalling of the surface layer.

ARCHAEOLOGY OF THE COLLINS BRIDGE SITE BRADLEY, MAINE

David Sanger
Sharon Pekrul
Thomas Lowell

September 1985

INTRODUCTION

Otter Stream flows beneath Route 178 at Bradley, Maine, and from there into the Penobscot River. Due to a design oversight, at peak stream discharge the culvert beneath Collins Bridge could not handle the volume and periodic flooding of the highway resulted. Following a particularly destructive flood, the Maine Department of Transportation planned an enlarged capacity structure to be built in 1984. Because of the potential for an archaeological site where any stream meets with the Penobscot River, Arthur Spiess of the Maine Historic Preservation Commission conducted an examination of the impact area in the spring of 1984. Despite the fact that there was still frost in the ground, Spiess determined that a prehistoric site was present and would be destroyed by the planned construction.

Erosion of the stream bank by previous floods revealed a series of alluvial silts overlying sands and gravels. Under such depositional circumstances, there is a good possibility that discreet, isolated, cultural components can be located. Spiess arranged for a backhoe to dig three trenches perpendicular to the stream in an effort to determine if the lower levels were cultural. Unfortunately, heavy rains in May and June of 1984 resulted in extremely saturated soil conditions and a high water table, so that the trenches rapidly filled with water, making detailed examination of the sediments very difficult.

After a determination that the site met National Register eligibility criteria, the MHPC, representing DOT, contracted with the University of Maine, Orono, to conduct a salvage excavation in the fall of 1984. David Sanger directed the project. Sharon Pekrul supervised the field crews and assisted with the analysis. Thomas Lowell investigated the geology of the site and its surroundings. Arthur Spiess identified the faunal remains. Sanger and Pekrul (1985) submitted a report to DOT in April, 1985.

We would like to thank the crew members and laboratory assistants for their fine work and interest. Steve Bicknell drafted the figures and prepared the plates. Our thanks also, to members of the Department of Transportation and to the citizens of Bradley.

SETTING OF THE COLLINS BRIDGE SITE

The Collins Bridge Site (74-16) lies on a terraced surface (Plate 1) on the north bank of Otter Stream at its confluence with the Penobscot River in the town of Bradley (Figure 1). Otter Stream is joined by Great Works Stream at the upstream portion of the site. In order to place the site in a geological context, studies were conducted both at the site and in the surrounding area.

Information on the sediments at the site come from the active stream erosion (over 1 meter during the flooding of 1984) and the excavations conducted during this study. All of the site shows a glacial diamicton below at least nine layers of stream traction and overbank deposits. The overbank deposits range in thickness from 5 to 20 cm and represent overall deposition at the site. Several of the layers have thin soil zones on their upper surfaces which mark periods of nondeposition. Erosional surfaces cut across a few of the deposits; they are more numerous near the Penobscot River. In general the sediments show more variation in the stratigraphy near the

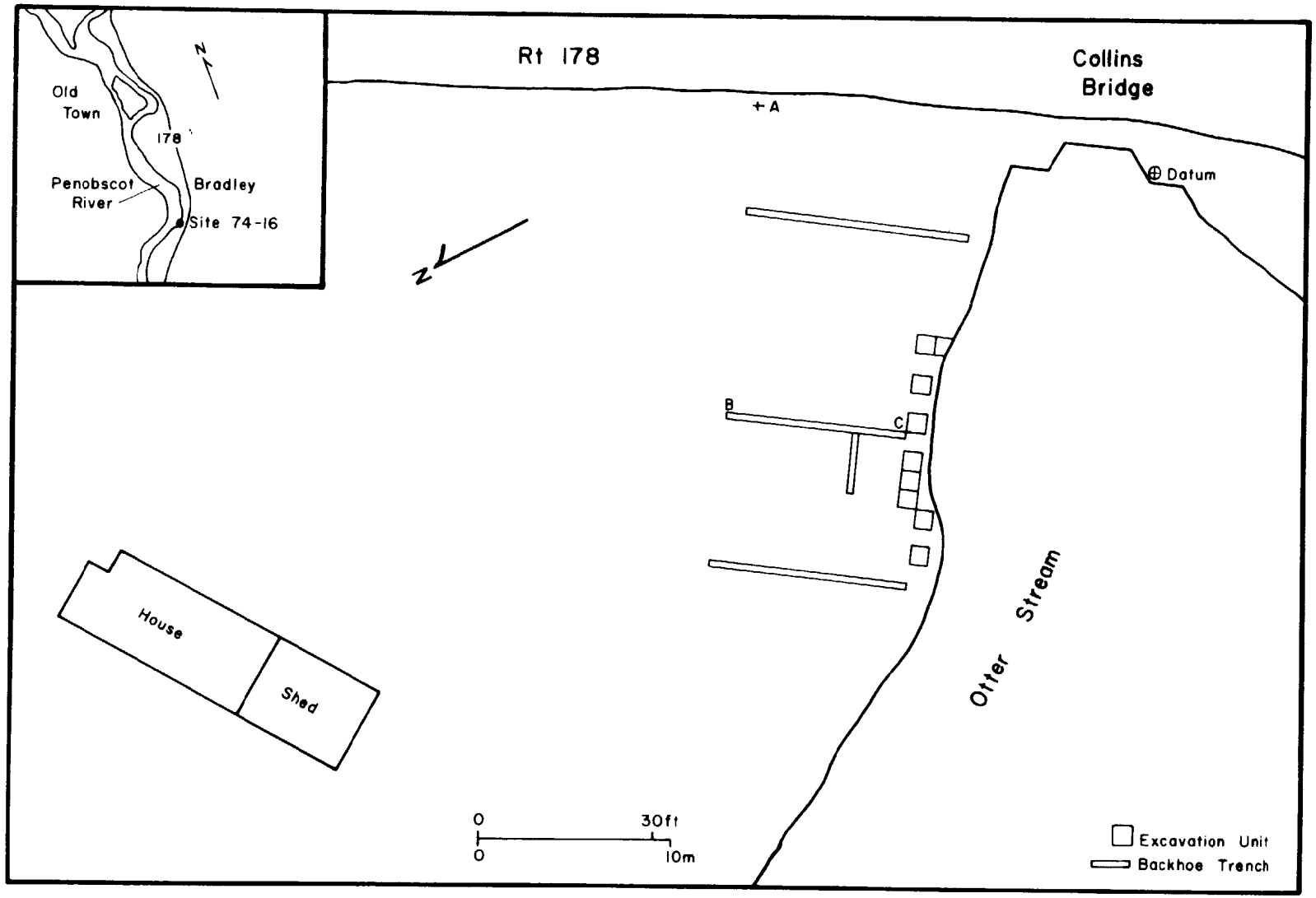

FIGURE 1 The Collins Bridge Site

Penobscot River than away from it. The upper sediments reflect the alluvial activity of the Penobscot River rather than Otter Stream.

In a more regional setting, the site and the town of Bradley lie on a large terrace surface that extends some 0.8 km north of the site; Otter Stream marks the eastern and southern limits of the surface. Although Otter Stream has imposed several smaller terraces on the eastern side of the landform, the large surface represents activity of the Penobscot River rather than Otter or Great Works Streams. Terraces and abandoned channels of the Penobscot River indicate that the main river had downcut back and forth across a 3 km wide strip during the Holocene. During one of the river's intermediate levels Otter Stream joined the Penobscot River near the Great Works Dam. Only after the river encountered bedrock during its downcutting did the path of the river stabilize and deposition of the sediments around Bradley begin. Otter Stream then moved south to its present position and began to cut into the terrace formed by the Penobscot River. The history of Great Works Stream is less well known, but it appears to have migrated north to its present position with the lowering of the Penobscot River. Sediment deposition may have increased at the site after Otter Stream moved to its present position. The valley of Otter and Great Works Streams offers an outlet for flood waters of the Penobscot River. As the water spills into Otter Stream it loses velocity and suspended sediment settles out. Sediment of this type blankets the western end of the site from the flooding in 1984.

The setting of the site is thus excellent for cultural studies. The site experiences fairly rapid sedimentation, and cultural events can be isolated from each other. Such is the case in one of the excavated units which contains stratified sands from a single flood event. The flood sands separate, in places, two of the cultural layers.

A filled-in, historic fieldstone foundation attests to a dwelling in the middle of the site area. Test pits further show that the grass and shrub covered flat of the site have been plowed.

EXCAVATION

After an examination of the eroded bank, the backhoe trenches, and test pits, it became clear that a fairly narrow portion of the site remained to be excavated. Accordingly, a series of 2 meter square pits was laid out parallel to the eroded bank (Figure 2). Excavation proceeded with flat nosed shovels and trowels depending upon whether the stratum appeared cultural or not. The presence of discrete depositional units indicated that natural levels could be followed. Standard 1/4 inch (6 mm) screening ensured the recovery of small objects, while bulk soil samples gathered for close examination in the laboratory resulted in the recovery of very small artifacts and bone fragments.

The excavation of 36 square meters of deposits all but exhausted the remaining site area. Initial excavations continued to the underlying gravel to depths of 1.83 m., but as no signs of culture bearing deposits emerged, later excavation units terminated at approximately 1 m.

A dark colored loam, resulting from plowing, caps the soil column. It contains assorted 19th and 20th century artifacts, such as bricks and iron scrap, in addition to prehistoric objects. A foundation and several other excavated features penetrate both the plow zone and the levels below it. Most of the prehistoric artifacts lie in cultural zones 2 and 4 (Figure 3), which sometimes blend into one and then bifurcate, separated by a sterile slit band. With the exception of the plow zone and the lower gravel and sand units, one cannot follow any level across the entire 36 m of excavation, a situation anticipated with the dynamic depositional regime encountered at the site.

Prehistoric features, limited to rock concentrations and organic stains, also provided charcoal which was collected for radiocarbon dating. Charcoal samples 5 and 6, gathered from a concentration of charcoal, combined to provide an estimate

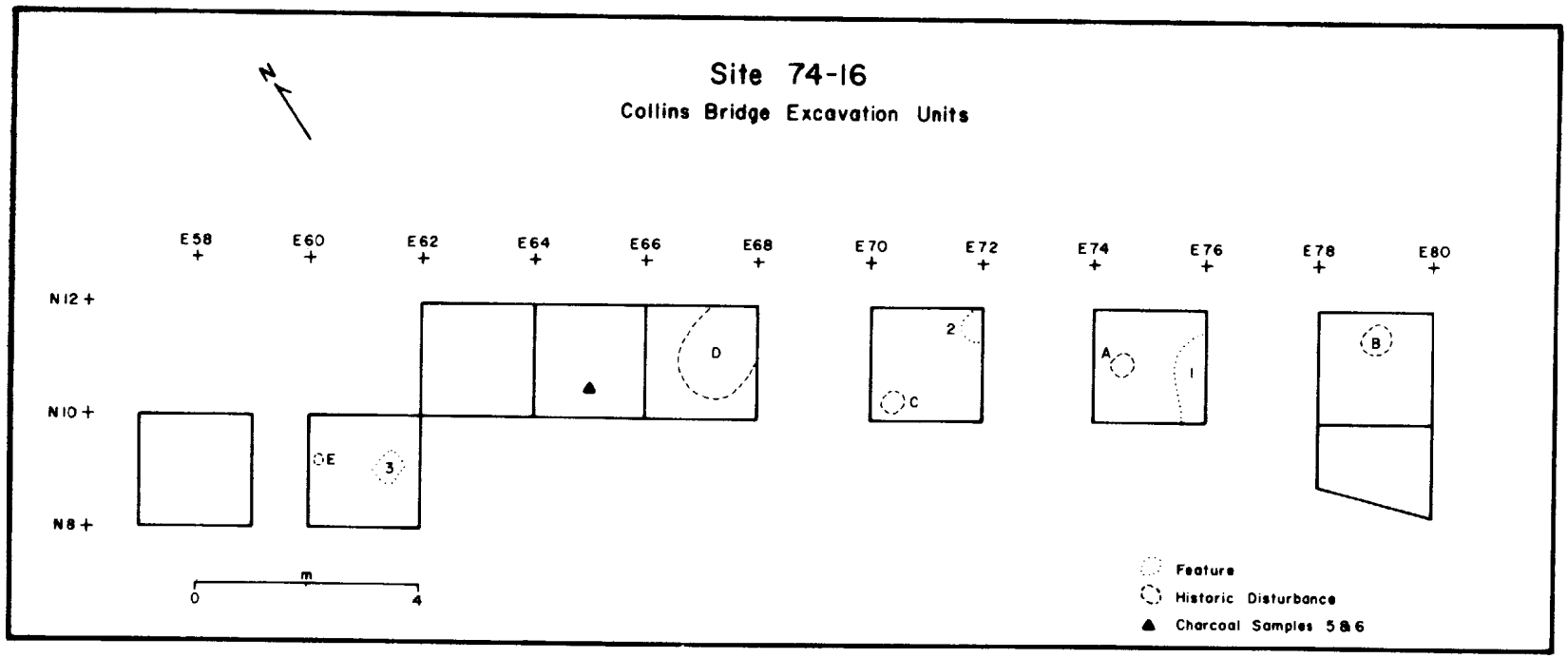

FIGURE 2 Excavation units and feature locations

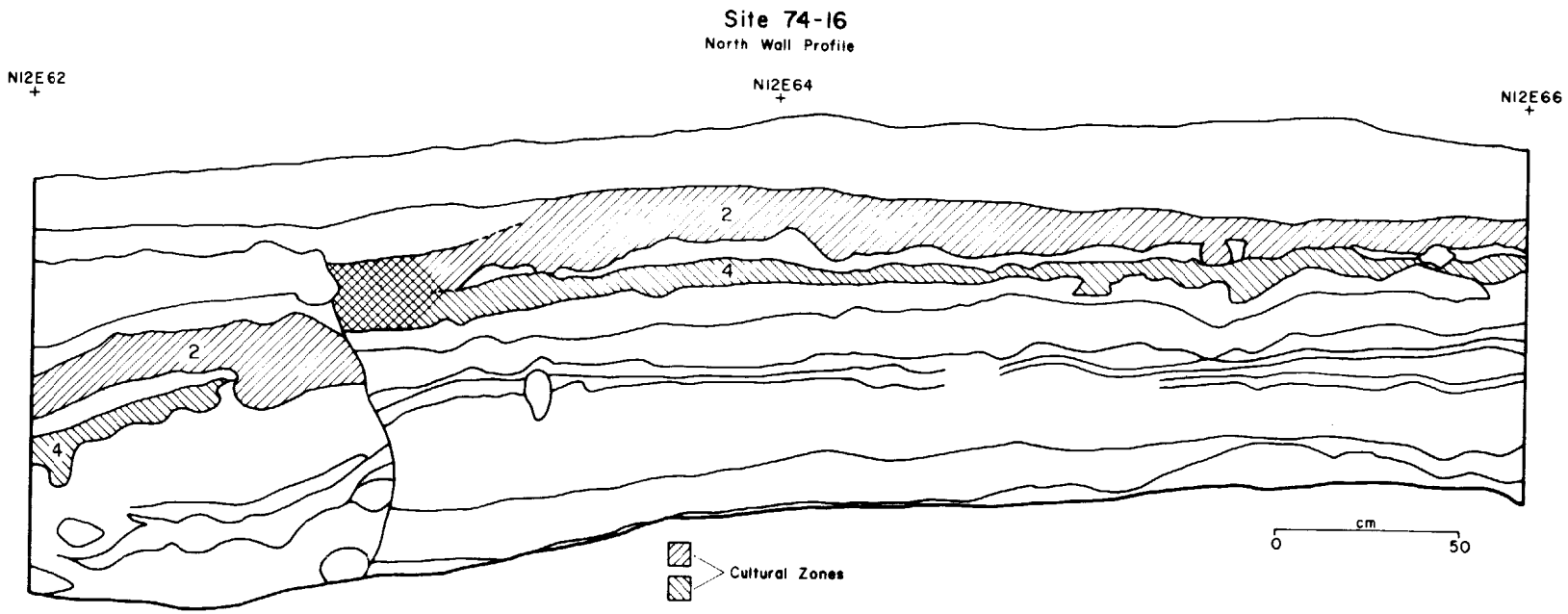

FIGURE 3 Profile of the north wall from E62 to E66. Note the slumped stratigraphy at the E62 end. Prehistoric culture bearing strata are hatched; others are non cultural.

PLATE 1 The Collins Bridge site prior to excavation in the fall of 1984.

of 2130±70 B.P. (Beta-11490).

While our excavation progressed, a different sort of operation took place just meters away. Three large culverts, designed to negate the overflow problem across Route 178, were installed (Plate 2), and following the departure of the archaeology crew, the Collins Bridge site was bulldozed.

ARTIFACTS

As Table 1 indicates, the artifactual assemblage at Collins Bridge is not large. Its ability to aid in our understanding of regional cultural chronology is quite substantial, however. Due to the poor preservation, only artifacts of stone and ceramic occur, although a number of fragmented, calcined bones survived.

Ceramics, the most diagnostic artifact class of the Ceramic Period, is represented by 217 tiny sherds that probably result from only two vessels. Vessel 1 is a thin, well-fired, fine grit tempered vessel with psuedo-scallop impressions. Vessel 2 is a rocker dentate decorated pot that has somewhat coarser grit tempering.

Among the 48 chipped stone artifacts, only two are stemmed bifaces (Plate 3). One fragmented biface, surface collected in a disturbed area, is reminiscent of the Susquehanna or Broadspear lithic tradition in Maine. Because of the nature of the find we cannot assume that this artifact is part of the buried assemblage. Indeed, we suspect that it is not. At this time we have no clear idea of how it came to lie on the surface of the site.

The second biface, recovered from Level 1, is a small, incomplete, parallel-

PLATE 2 Two kinds of excavation in progress. In the foreground is the excavation for new culverts; beside it is the archaeological project.

stemmed biface. It is not considered diagnostic for the region, although it is similar to bifaces from the Hirundo site, and some from New Brunswick.

A number of non-stemmed bifaces, both complete and fragmentary, occur (Plate 3). Some are probably preforms, while others may have functioned as hafted knives. Included in this category are bifacially worked tips which could have derived from either stemmed or non stemmed bifaces.

Six, convex, steep edged scrapers were scattered throughout the site, as were a number of slightly edge modified flakes, that may also have functioned as scrapers.

Perhaps the most unusual artifact from the site is a red jasperoid graver based on a sturdy flake.

A total of 3,559 flakes, mostly representing shaping and maintenance activities, include examples of felsite, other volcanics minus the feldspar phenocrysts, cherts, and jasperoids (chalcedony). The flakes are small, and few with cobble cortex remaining occur in the collection. Some of the cherts appear similar to meta-sedimentary lithics known to outcrop in the Munsungan Lake area of northern Maine, while the felsites could be gathered locally as cobbles incorporated in the glacial drift. A single fine-grained volcanic core, one felsite hammerstone, and three large chunks of battered volcanic rocks, complete the lithic inventory.

PLATE 3 Chipped stone artifacts from the Collins Bridge site.

Top Row: two stemmed bifaces and a jasperoid graver (tip up). The middle biface may not be of the same cultural component as the other specimens in this illustration.

Middle Row: two non stemmed bifaces and two scrapers

Bottom Row: Non stemmeed bifaces. The middle piece was found in two pieces.

TABLE 1

Class	Number	Percent of total artifacts
Stemmed bifaces	2	4
Non stemmed bifaces	20	40
Unifaces (formed)	6	12
Graver	1	2
Hammerstone	1	2
Core	1	2
Chunks	3	6
Modified flakes	14	28
Vessels (217 sherds)	2	4
Totals	50	100

FAUNAL AND FLORAL ASSEMBLAGE

In anticipation of recovering floral remains, a number of bulk samples were water screened and closely examined for seeds and nut fragments. None appear to have survived.

A total of 878 highly fragmented pieces of calcined bone, examined by Arthur Spiess, indicate a typical interior Maine faunal assemblage, dominated by beaver (28 pieces). Two bird bones (one of which could be a duck), and one each of a medium-sized mammal and large mammal were also identified.

DISCUSSION AND CONCLUSIONS

Prehistoric occupation at Collins Bridge occurred in the plow zone and in the silt deposits below. In the absence of clearly defined depositional events separating the artifacts, a single component prehistoric site seems indicated. The artifacts support that hypothesis.

The assemblage, though small, constitutes a valuable addition to the regional prehistoric culture history. The single radiocarbon date of 2130±70 B.P. is appropriate for the psuedo-scallop and dentate stamped pottery found in the site.

Unfortunately, the artifacts provide relatively few clues as to the nature of the activities carried out at Collins Bridge. The small size of the assemblage and the limited nature of the site deposits exacerbate the situation. Curation of artifacts seems evident from the number of small flakes, many of which appear to represent trimming and thinning flakes. The scarcity of felsite flakes with cortex still adhering suggests that cobbles of that material were not routinely brought back to camp. In fact, the wide range of lithics suggests that people who camped at Collins Bridge arrived with most of the necessary lithic raw material in hand.

Seasonality estimates based on the faunal assemblage are unwise considering the small number of identifiable pieces. That part of the assemblage is reminiscent of several interior Maine faunal collections where beaver is differentially preserved over other genera due to the compact nature of the beaver bone which resists mechanical breakdown and acid attack once it is calcined (Knight 1985).

Although artifacts similar to those from Collins Bridge occur in a number

of nearby sites on the Penobscot and tributaries such as Pushaw Stream, the multi-component nature of those sites makes it difficult to sort out discrete assemblages. For example, at the Hirundo and Young sites, ceramics like those of Collins Bridge occur (Borstel 1982; Sanger and others 1977). However, at the former sites there are no radiocarbon dates associated. For the same reasons, ongoing investigations by UMO into the archaeology of the region between Collins Bridge and the Eddington Bend site at the Veazie Dam will benefit from the Collins Bridge site analysis, and the geological background work.

Finally, the Collins Bridge research illustrates the value of small, single component sites, carefully studied with adequate resources and experienced personnel. It also vindicates those who claim that cultural resource management (CRM) archaeology can make a contribution to our knowledge of America's past.

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THE KIMBALL COLLECTION FROM BEAR POND INLET
(Site 22.8)

by
Arthur E. Spiess
August, 1985

INTRODUCTION

In late 1982 or early 1983, Richard Coleman, Maine Department of Transportation, mentioned to me that he had seen a large collection of stone artifacts from South Waterford, Oxford County, when he was living there as a boy. The collection had been made by Mr. Harold Kimball before World War II. Mr. Kimball was a store owner in Waterford, and so the story goes, would surface collect artifacts eroding into the north end of Bear Pond on his way to and from work. Inquiries by Mr. Coleman, and by myself of William and Margaret Sawyer of Waterford, located Mr. and Mrs. Rodney Kimball of South Waterford, son and daughter-in-law of Harold Kimball. They had the collection packed away securely in several boxes. The Kimballs graciously lent the colection to the Maine Historic Preservation Commission for a period of several months in 1984, during which time the collection was photographed, the artifacts were catalogued and labelled with ink (KMB 001 through 206) and a catalogue was produced (Spiess and Hedden, 1984). I would like to thank Mr. Coleman, the Sawyers, and the Kimballs for the opportunity to study the collection.

The prehistory of Oxford County, Maine is poorly known. Aside from excavation at the Vail Paleoindian site on Aziscohos Lake, archaeological work has been limited to reconnaissance surveys (Gramly, 1981, 1985), and a review of collections containing Early Archaic (10,000 to 8,000 B.P.) and Middle Archaic (8,000 to 6,000 B.P.) collections (Spiess, Bourque andGramly, 1984). Our impression from this work is that Early and Middle Archaic and Laurention Late Archaic material is relatively more common in the area compared with Ceramic Period material than elsewhere in the state.

The Kimball collection contained a few pieces obviously from out-of-state, but they were labelled "S.D." (South Dakota?), or otherwise, in faded ink. They were not inclued in this report. the Kimball family tradition, independently confirmed by Coleman, is that all the material from Maine in the collection was picked up at the inlet stream mouth to Bear Pond. Thus, we can with reasonable assurance, consider all the Kimball collection Maine material as coming from site 22.8, the Bear Pond Inlet site.

DESCRIPTION OF SITE 22.8
BEAR POND INLET

Bear Pond is a small (1½ km..) lake with normal pool elevation at 376 feet. Bear Pond is fed by Mill Brook, which runs out of Keoka Lake 2 km. northeast (495 feet pool elevation). Bear Pond outlets through the Bear River (4 km.) to Long Lake (pool elevation 268 feet). Long Lake is a tributary of Sebago Lake to the north. The outlet of Mill Brook into Bear Pond was the location of site 22.8.

Spiess visited the site area on April 19, 1984, and obtained permission of the tenants of the Bear Pond House to inspect the site area. Bear Pond was still covered with ice (90% cover "black" ice, which is rotting and melting thin ice). Plate 1.

Climax vegetation in the vicinity of Bear Pond seems to be white pine with mixed hardwood sub-climax. The Bear

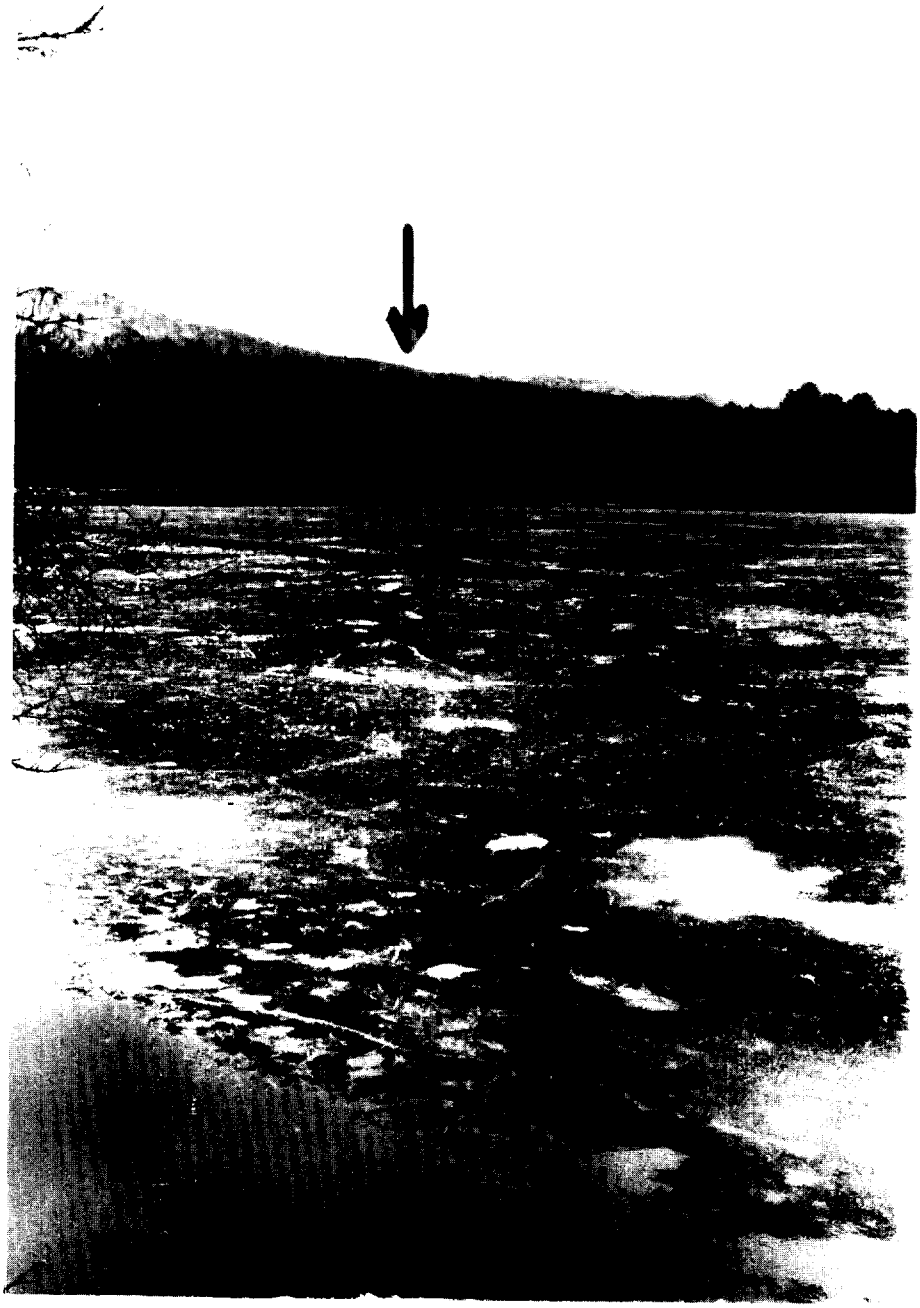

PLATE 1

Pond inlet is flooded and alder choked. Immediately upstream from the mouth of the inlet is a pine grove growing on a 1 to 1½ meter high terrace (Plate 2). Careful inspection of the erosion scarp along the stream bank failed to locate any evidence of prehistoric occupation. The bank is actively and rapidly eroding. It is very likely that all of the matrix of site 22.8 has been eroded into the lake.

Plate 3 shows the Bear Pond House, the inlet, and the edge of a forty-foot high knoll that rises to the northeast of the inlet and upon which sits the Bear Pond House. This knoll is the key to the geological history of the site. It has been cut into a small borrow pit, and is composed of bedded gravelly sand. The knoll is sloped gently downward toward the lake side; it is probably a localized outwash delta. the top of the delta is approximately 420 feet elevation. We assume that the delta was being deposited during the terminal Pleistocene when water in the Bear Pond basin stood at least at 420 feet elevation. Assuming that post-glacial rebound has not tilted the ground surface in the region significantly, we can trace the 420 foot contour to reconstruct the body of water to which Bear Pond basin was connected. This procedure connects Bear Pond and Bear River as a northwest arm of a much larger glacial Long Lake. (Crystal Lake becomes a northeast arm.)

PLATE 2

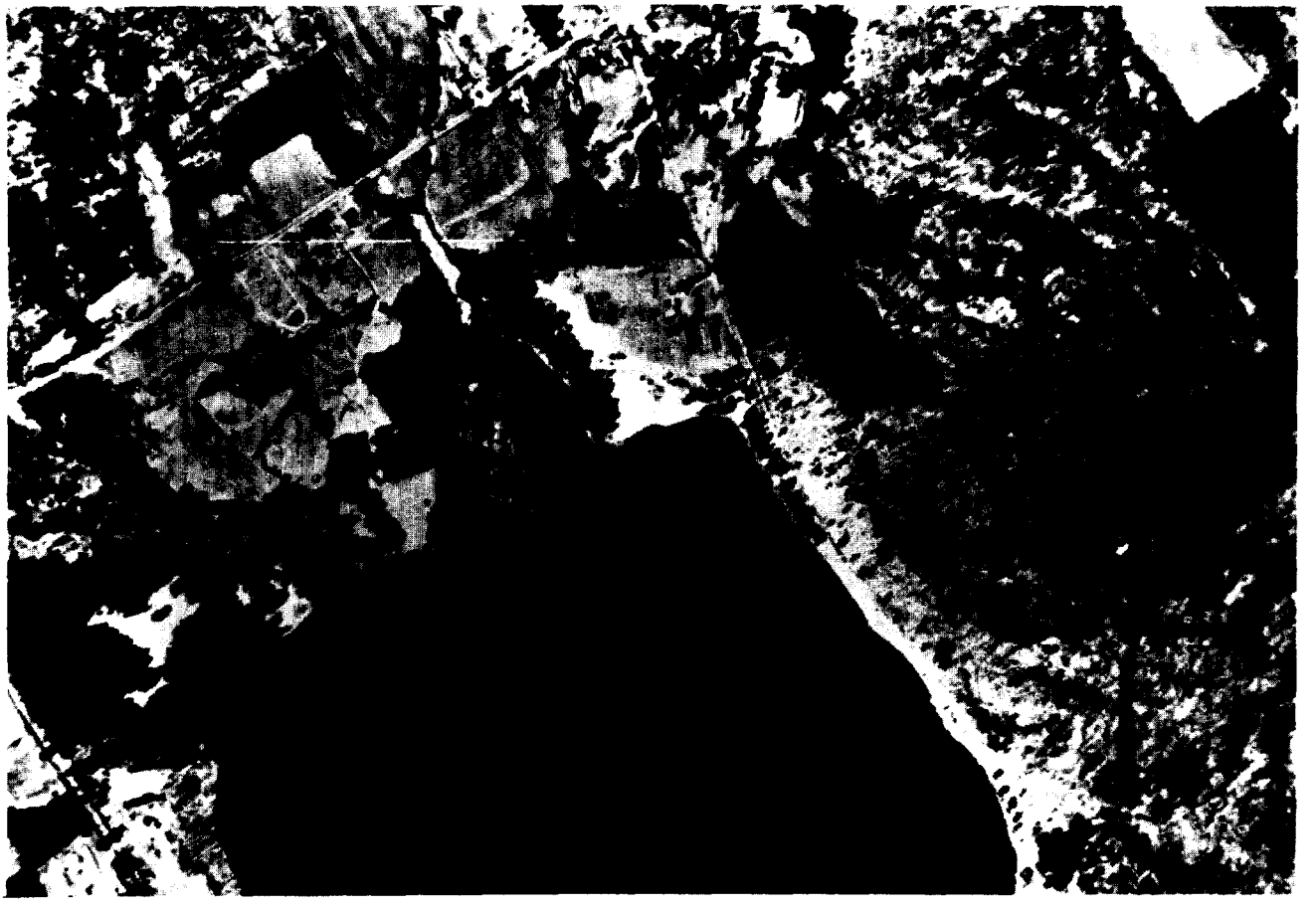

PLATE 3

The lake margin of the delta surface in front of Bear Pond House had been plowed for a large garden at the time of Spiess' visit. The garden surface was carefully examined, with negative results. Moreover, the collection from the Bear Pond Inlet site apparently includes Early Archaic material (circa 9,000 B.P.). The delta surface therefore must have been formed and dry by circa 11,000 B.P., and it shows no evidence of settlement. The Bear Pond inlet at about 378 feet elevation must have been dry and attractive to settlement by 9,000 B.P.

THE KIMBALL COLLECTION

The Kimball collection from 21.8 contains 23 possibly diagnostic points, and sherds from 16 ceramic vessels (at a minimum). In addition there are untypable biface fragments (points and drills), plus gouges, axes, stone rods, plummets, gravel pebble net strikers, a gorget fragment, and one large endscraper.

Of the 23 possibly diagnostic points, I cannot place 9 of them with any certainty. The rest are comprised of:

- 2 corner notched, shallow bifurcate base points probably Early Archaic;
- 2 Neville points;
- 2 Otter Creek points and a stemmed slate point, probably Vergennes Phase Late Archaic;
- 1 possible Brewerton eared point;
- 1 small stemmed quartz Late Archaic point;
- 2 possible Susquehanna broad points; and

3 small, thin triangular points that are probably Late Woodland Levanna points. Interestingly, there are none of the classic lobate-base, side-notched, or corner-notched ceramic points so familiar from the central coast of Maine.

The ceramic vessels include: one with this dentate stamping and a circular punctate (late Middle Ceramic) and three cord-wrapped stick or cord-wrapped tool impressed vessels (Late Ceramic). The majority of the ceramics (9 vessels) are exterior cordage or fabric impressed: 5 are cordage, knotted cordage, or fabric impressed, and 4 appear to be cord or fabric-wrapped paddled vessels.

Missing from the ceramic collection are Vinette I (Early Ceramic) and pseudo-scallop shell or dentate rocker-stamped decorated ceramics (Middle Ceramic).

If the cordage impressed and cordage/fabric paddled ceramics are Late Ceramic in age, contemporary with the Levanna points, then there is indeed a virtual absence of Early and Middle Ceramic evidence from the site.

The oldest points in the collection are two corner-notched, shallowly bifurcate-base points (Plate 4). Both are slightly serrated and both exhibit one broken tang. The right-hand point is made of quartz, the left-hand point is thick, made on a Ledge-Ridge-like chert.

Kuhn (1985) has recently concluded that northeastern bifurcate points cannot be sub-divided typologically on the basis of metric attributes. They appear to date between 7,000 and 9,000 B.P.

Two classic Middle Archaic Neville-related points are present in the collection (Plate 5: two right-hand specimens). Both are made on a large-grained rhyolite or quartzite. These points have been dated about 7,500B.P. elsewhere in the northeast. The rhyolite drill fragment (Plate 5, middle) may also be Middle Archaic.

Spiess et. al. (1985) identified lake inlet and outlets as the most likely spots to find Early and Middle Archaic points in western interior Maine. Site 22.8 does not break this pattern.

If any time period dominates this collection of stone tools, it is the Laurentian Late Archaic. The middle two points in Plate 6 are classic Otter Creek Vergennes Phase points. Neither raw material, a dark volcanic (left) and a honey-colored chert (right), is familiar to the author. A classic Brewerton Eared triangle is present (Plate 6, right) made on a rhyolite. A badly worked stemmed black ground-slate point base is the only ground slate artifact in the collection (Plate 6, left), although there is some debitage and a few utilized flakes made of red slate.

Other Late Archaic points include one classic, quartz small-stemmed point with striking platform on the bottom (Plate 7). Small-stemmed quartz points such as this, and the Laurentian material in Plate 6, probably dates about 5,000 B.P.

The two left-hand points in Plate 5 (certainly the lower, possibly the upper) are identified as Susquehanna Broad points, a type current around 3,500 to 3,200 B.P.

The three points in Plate 8 are identified as Late Ceramic (Late Woodland) Levanna points. The two right-hand specimens are made of chert.

Plates 9 and 10 illustrate 9 points that, for one reason or another, we hesitate to assign to a type or time period.

Descriptions of the 17 ceramic vessel lots are presented in Table 1. At present, cordage twist direction (S or Z) appears to be an important marker of interior versus coastal affiliation of the ceramics (Petersen, ref.). Both S and Z twist is present in the Bear Pond ceramics, but S twist predominates, which is typical of "interior-affiliated" ceramics. It should be noted that one vessel (16) is shell tempered (presumably marine shell).

Ceramics are shown in Plates 11 (Vessel 7), Plate 12 (Vessel 1, right), Plate 12 (Vessel 3), and Plate 14 (Vessel 17, left, Vessel ?16, right).

Stone rods are common (Plate 15). All are regularly round or oval in cross-section. None are faceted or edged.

There are three knobbed plummets (Plate 16) and two grooved pebble net sinkers with the groove pecked around the long axis (Plate 17). Perhaps the plummets belong in the Laurentian Tradition material (Vergennes and Brewerton complexes), while the grooved net sinkers

Abrasive stones, other than the stone rods, are present in a variety of forms (Plate 21). There are two full grooved stone axes (Plates 22 and 23), and a wide variety of gouges (Plates 24, 25, 26, 27, 28, and 29) and adzes (Plate 30). The full-grooved axes may belong with the Susquehanna Tradition material. The rest of the heavy woodworking equipment, we suspect, belongs with the Early Archaic, Middle Archaic and Laurentian Late Archaic However, we do not yet have a site where we can separate the assemblege of heavy woodworking equipment into these components.

belong with the Middle Archaic flaked stone.

Quartz is a common material in the collection, including crystal quartz (Plate 18). R. Gramly (pers. comm.) reports that crystal quartz is relatively common in collections from the Maine-New Hampshire border interior area.

Plate 19 illustrates a fragmentary gorget. I associate these artifacts with Early Ceramic in the collection. Perhaps it should be associated with the Susquehanna Broad point(s) in a Terminal Archaic complex.

Endscrapers are rare in the collection. The only example is (Plate 20) a large eared endscraper made on a Canadian shield quartzite: sugary texture, translucent white with a dark streak through it. It is most probable that this endscraper is associated with the Late Ceramic assemblage.

Table 1. Ceramic Vessel Lots from Site 22.8

Catalogue #	Artifact Description	
KMB 001	Vessel Lot #1	Waterworn and eroded medium to coarse quartz grit tempered ceramics with circular
002	Vessel Lot #1	Punctuates and oblique linear dentate stamping below lip. Stamp: Narrow (0.5 mm.
003	Vessel Lot #1	wide) oblong closely set tooth - 4 per cm. Wall thickness: 0.8 mm. Diameter of circular punctuation: 4.8 mm. Rim Profile: PS 1.
KMB 004-	Vessel Lot #2	Twelve smoothed, undecorated body sherds with fine to medium quartz/mica grit. Surface has a slightly straited or brushed look and feels sandy. Wall thicknesses range from 6.4-7.4 mm.
KMB 016-	Vessel Lot #3	Four cord wrapped stick impressed body sherds thick walled (11.0-12.0 mm. thick), coarse frit tempered with CWS impressions as series of alternating obliques. Cord: Compound 2 sz (2 Z-spun S-twist cords combined into a final Z-twist). Nonspaced 6 to 7 r.p.c.
KMB 020-028	Vessel Lot #4	Nine body sherds with coarse grit temper and lightly brushed surface - possibly an undecorated section of Vessel Lot #3, but slightly thinner (Walls: 9-10 cmm.).

TABLE 1 (continued)

KMB 029 031	Vessel Lot #5	Three undecorated small to medium quartz grit body sherds. Slightly sandy exterior wall. Eroded. Wall thickness slightly over 7mm.
KMB 032-034	Vessel Lot #6	Three smallbody sherd fragments with medium quartz grit. Thin S-twist cord impressions on one fragment. Only exterior surfaces survive. Walls over 5mm. thick.
KMB 035-040	Vessel Lot #7	One rimsherd and five body sherds of thin walled (6 - 7 mm.) coarse grit (quartz) tempered pottery finished with a cord or fabric wrapped paddle. Cord: Z-twist, thin (ca. 0.5 mm. thick) very tightly laid. Oblique cord wrapped cord or stick impressions across lip (7 r.p.c.). Ps 1 profile. Lightly scraped interior with irregular facets that indicate paddle and anvil finish.
KMB 041	Vessel Lot #8	Rimsherd with irregular knotted S-twist cordage impressions, Cord: Z spun, S-twist, 0.8 mm.; twisted: 1.5 mm. thick. Plain lip. Wall thickness: 5.5 to 6.5 mm. Smoothed interior. Profile: PS 1b (concave). Medium to coarse quartz grit.
KMB 042	Vessel Lot #9	Body sherd with corded exterior. Thin walls (4.5-6 mm.). Medium quartz grit. Smoothed interior. Probably paddle and anvil finish.
KMB 043	Vessel Lot #10	Body sherd from shoulder with walls thinned towards neck and knotted cordage impressions on shoulder and body wall. Fine to medium quartz grit. Wall thickness: 6-8.3 mm. No cord twist visible.
KMB 044	Vessel Lot #11	Thin walled body sherd with corded exterior Cord: Relatively thick (2 mm.) Z-twist(?) cord. Coarse quartz grit. Smoothed interior. Probably paddle and anvil finish, with cords spaced about 3 mm. apart.
KMB 045	Vessel Lot #12	Thin walled body sherd with cord-impressed medium to coarse quartz grit. Cord: 0.8mm. (spun) and 1.5 mm. Z-twist. Spaced about 2 mm. apart with paddle and anvil finish. Very thin wall: 4-4.3 mm.
KMB 046	Vessel Lot #13	Rimsherd with collared rim (EC 1b) and fine oblique cord impressions on exterior wall. Fine mica/quartz grit Lip plain and slightly rounded. Cord: Z-twist 1.0 mm.

TABLE 1 (Continued)

		diameter closely laid. Walls: from 4.5 mm. thick at lip to 7.6 mm. at collar to 5.5mm. below collar.
KMB 047 & 048	Vessel Lot #14	Two rimsherd fragments with corded exterior (horizontal lines) overlaid with oblique cord wrapped stick impressions from lip. Cord: 0.5 mm. spun, 10 mm. Z-twist. Flat undecorated lip. Thin walls: 6.0-6.3mm. Slight S-shaped (remnant collar) profile - (PS 1c), fine crushed quartz grit. Stick wrapped 8 to 9 r.p.c.
KMB 049	Vessel Lot #15	Single shoulder(?) sherd with row of knotted cord or cane(?) impressions below incised perpendicular lines. Very thin walls ranging from 2 mm. to 4.3 mm. with sparse fine grit (quartz) and collared profile (S-shaped). Late "Iroquois" style possibly.
KMB 050	Vessel Lot #16	Single body sherd with corded exterior and shell temper. Wall thickness: 4.8 mm. to 5.5 mm. Paddle and anvil finish. Cord raintly visible appears to be Z-twist.
KMB 123	Vessel Lot #17	Single rimsherd with cord-wrapped cord or fabric impressions as a series of alternating obliques similiar to vessel lot #3. Plain lip. EC 4b rim profile (collared). Fine to medium quartz grit. Cord: Z-twist wrapped tightly, 9r.p.c. with traces of fine horizontal Z-twist weft cords connecting the CWC segments. Cord diameter: 0.6 mm. and 1.0 mm. (wrapped). Possible corded surface treatment prior to fabric impressions. Wall thicknesses: 5.5 mm. at lip. 7.2 mm. at collar and 6.2 mm. below collar.
KMB 124	Vessel Lot #16(?)	Large body sherd, shell tempered, with post-firing drill hole. Exterior corded. Possibly from same vessel as KMB 50.

PLATE 4

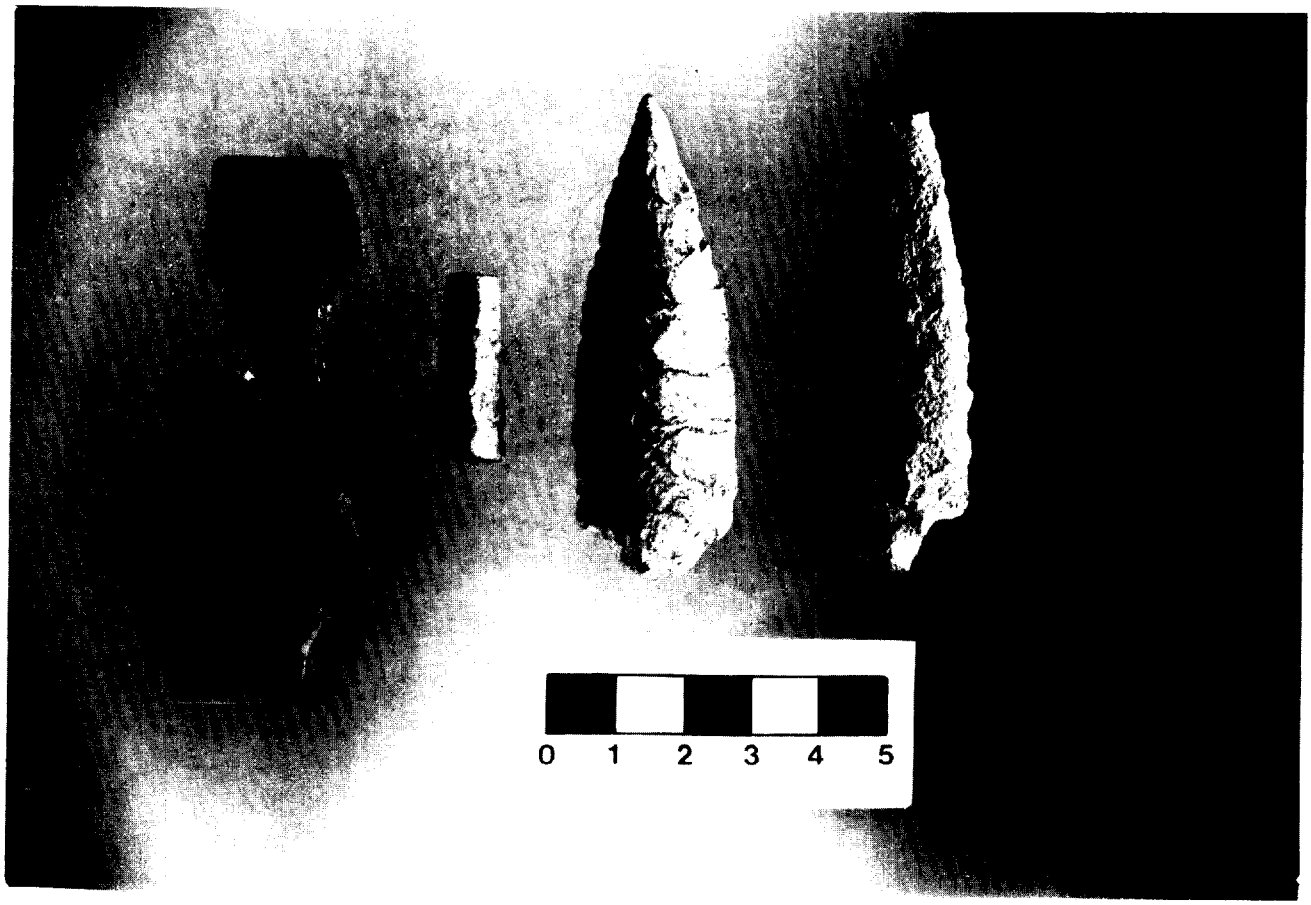

PLATE 5

PLATE 6

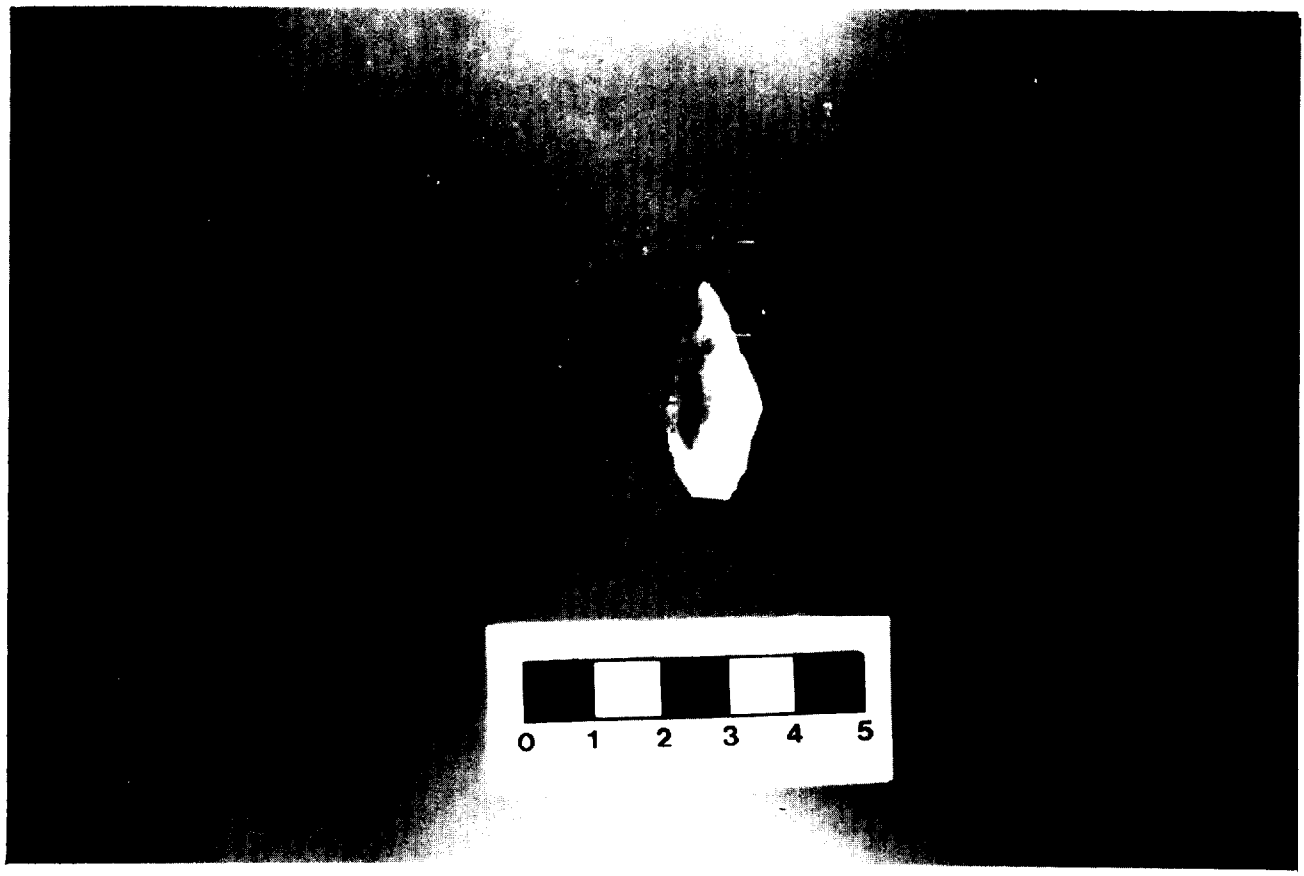

PLATE 7

PLATE 8

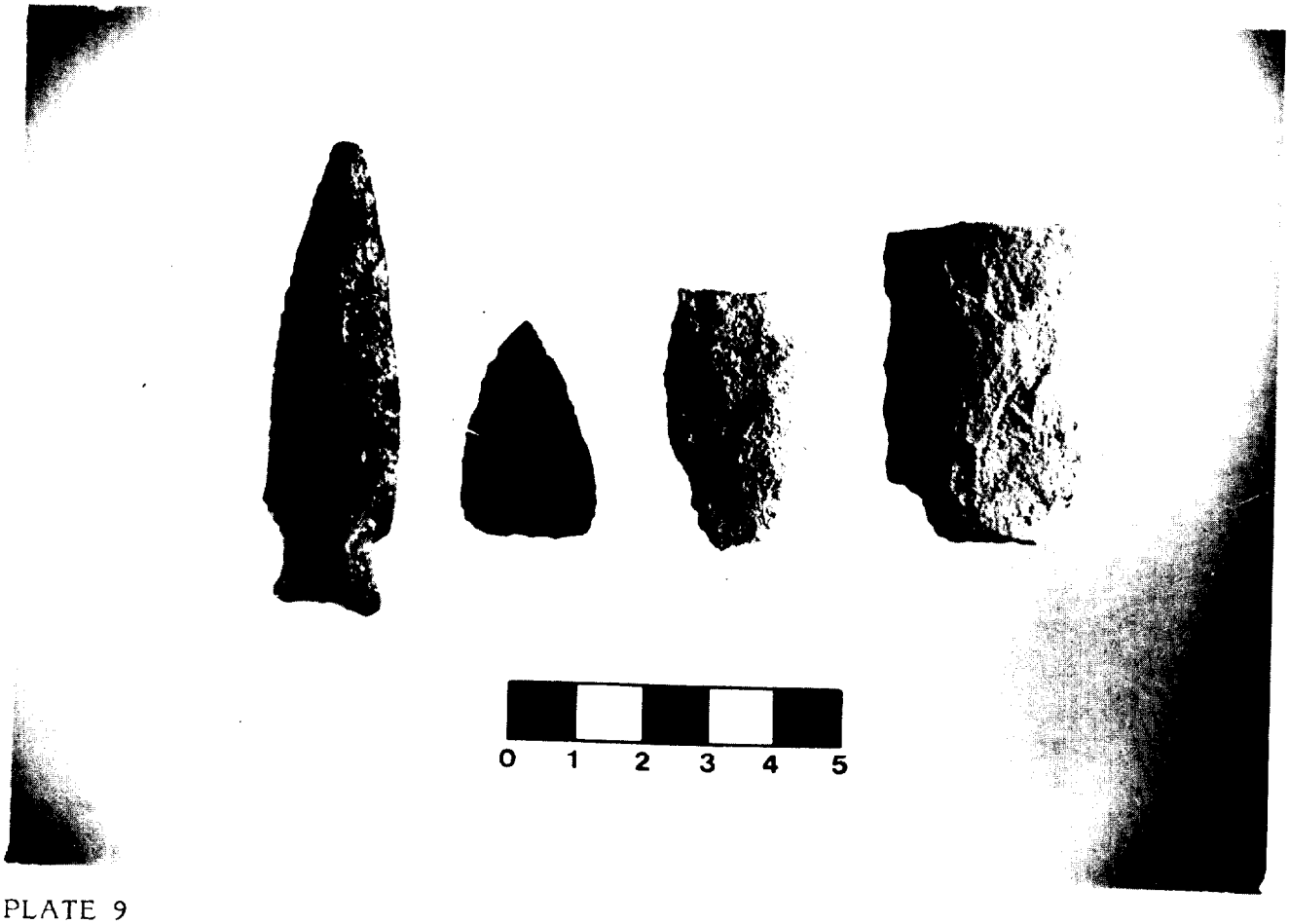

PLATE 9

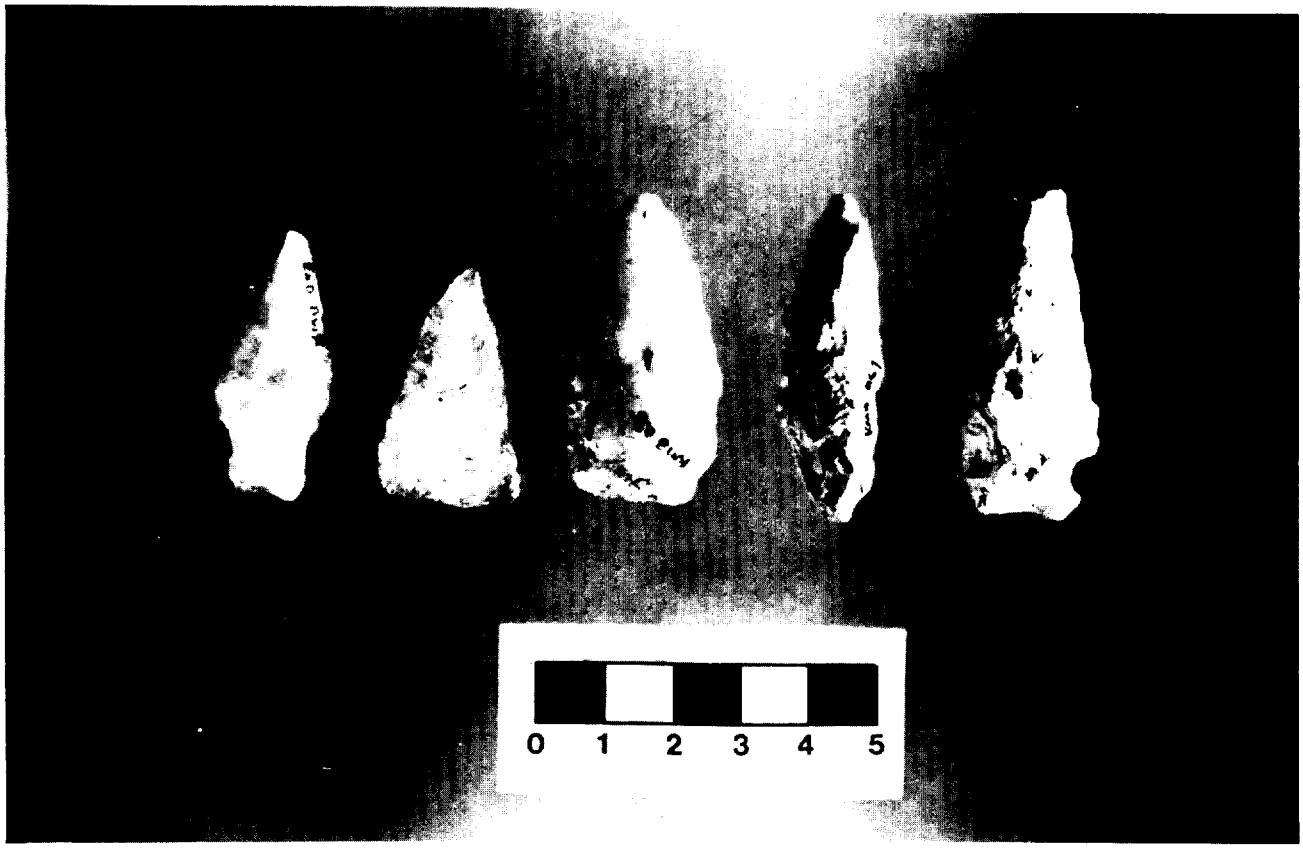

PLATE 10

PLATE 11

PLATE 12

PLATE 13

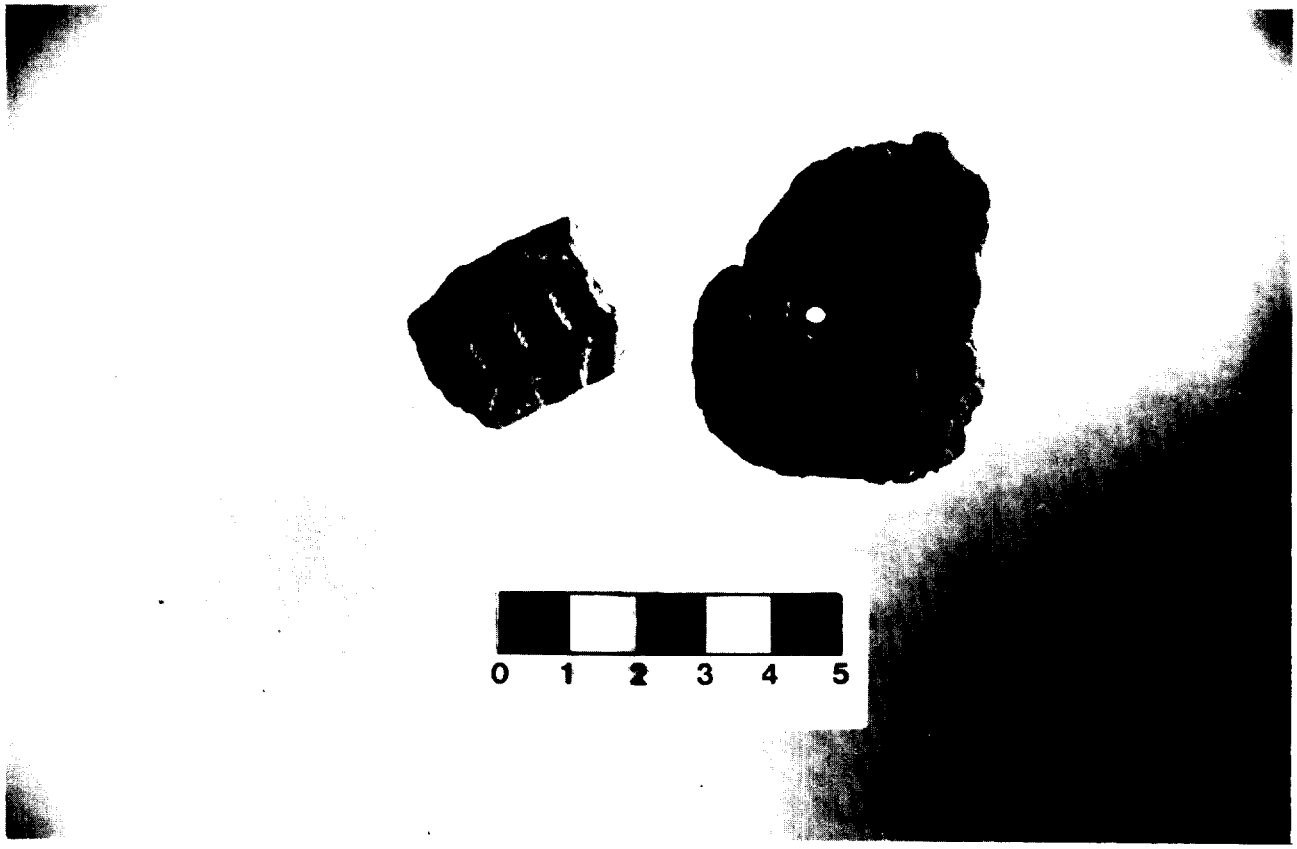

PLATE 14

PLATE 15

PLATE 16

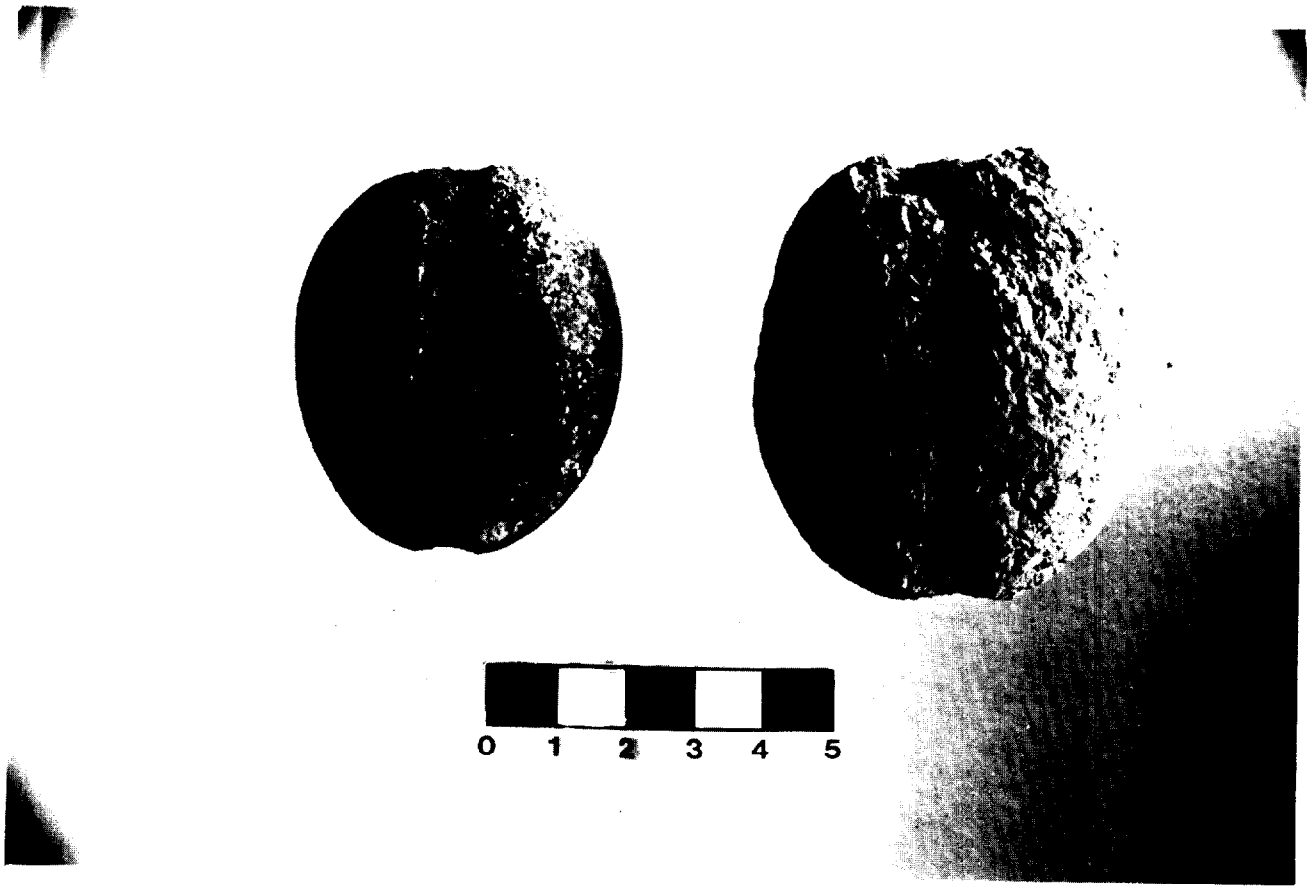

PLATE 17

PLATE 18

PLATE 19

PLATE 20

PLATE 21

PLATE 22

PLATE 23

PLATE 24

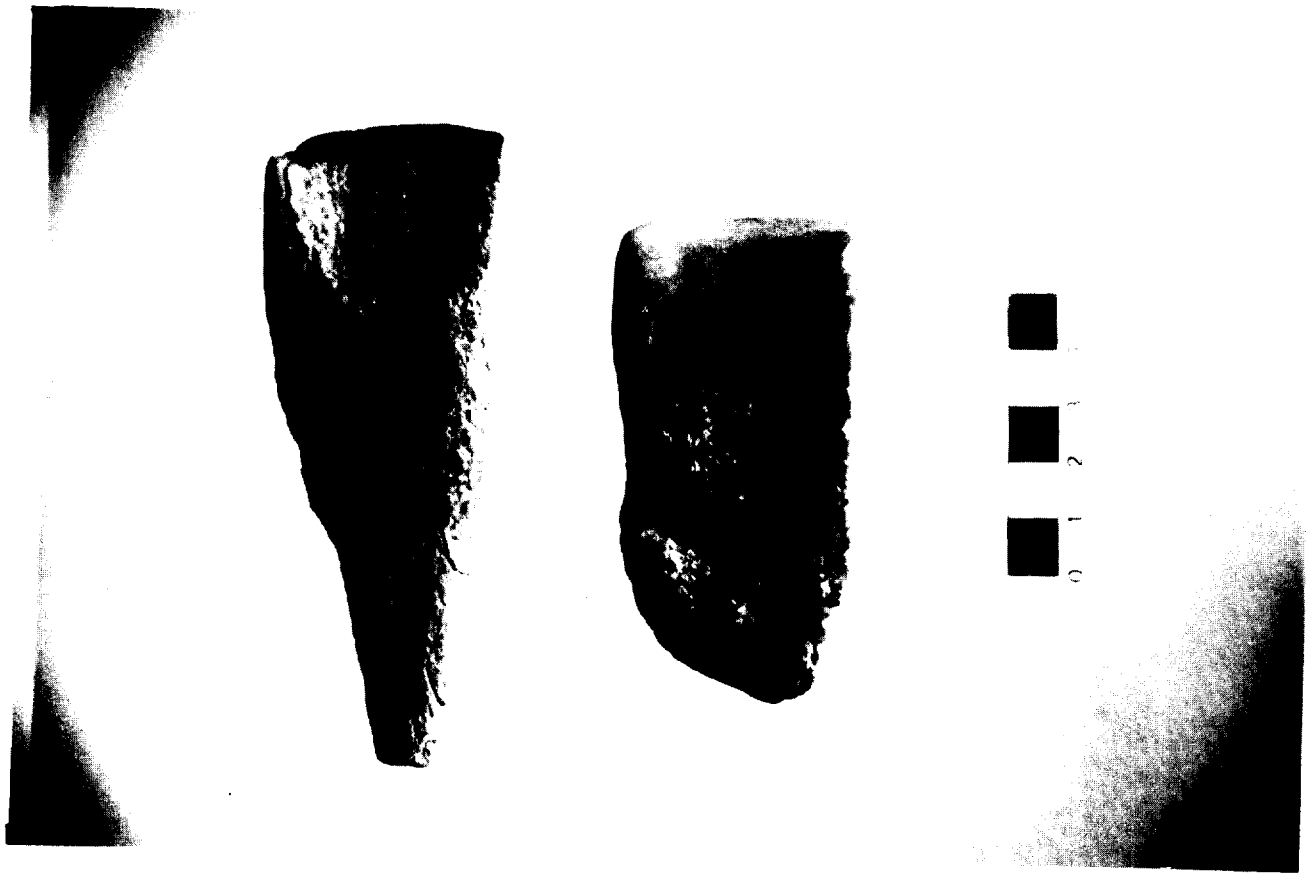

PLATE 25

PLATE 26

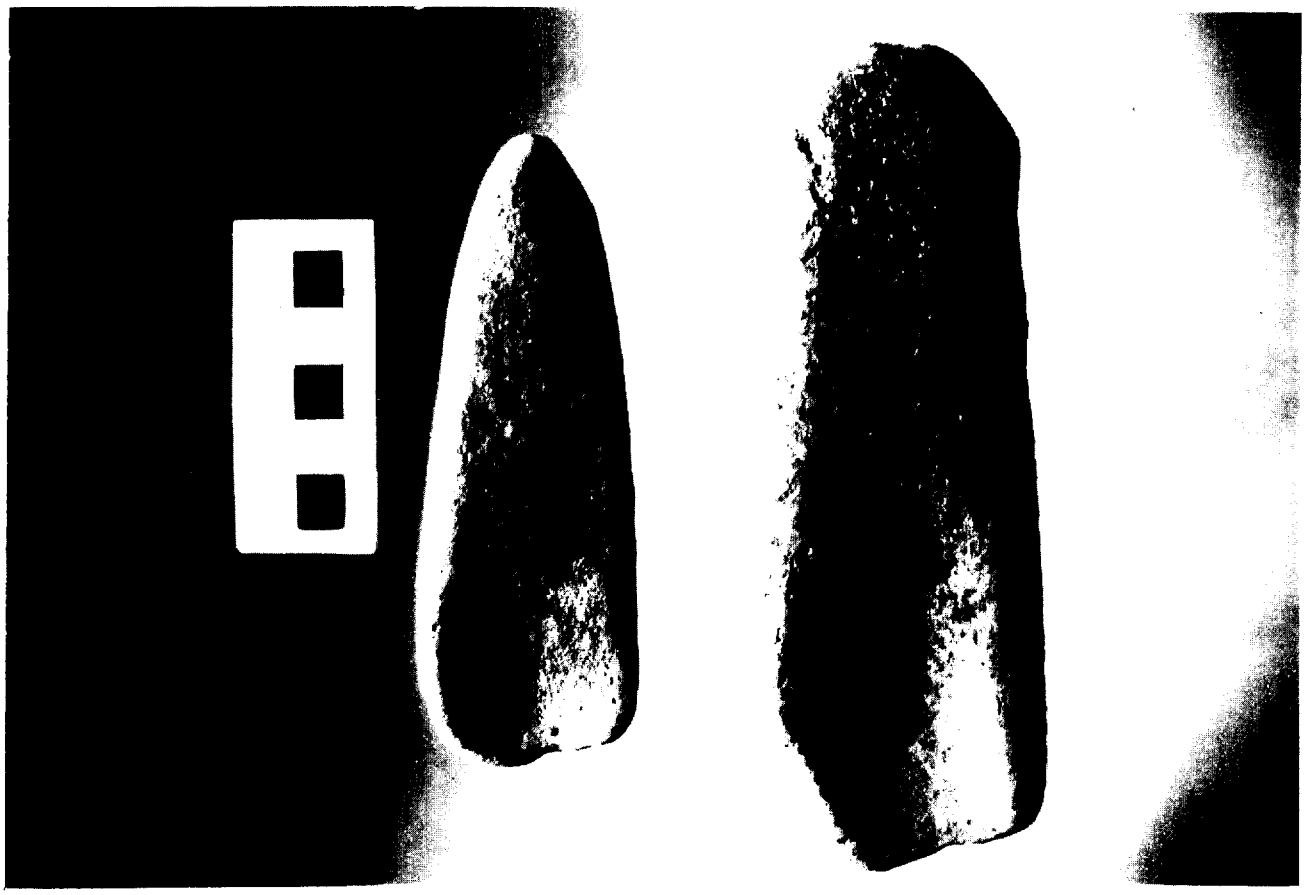

PLATE 27

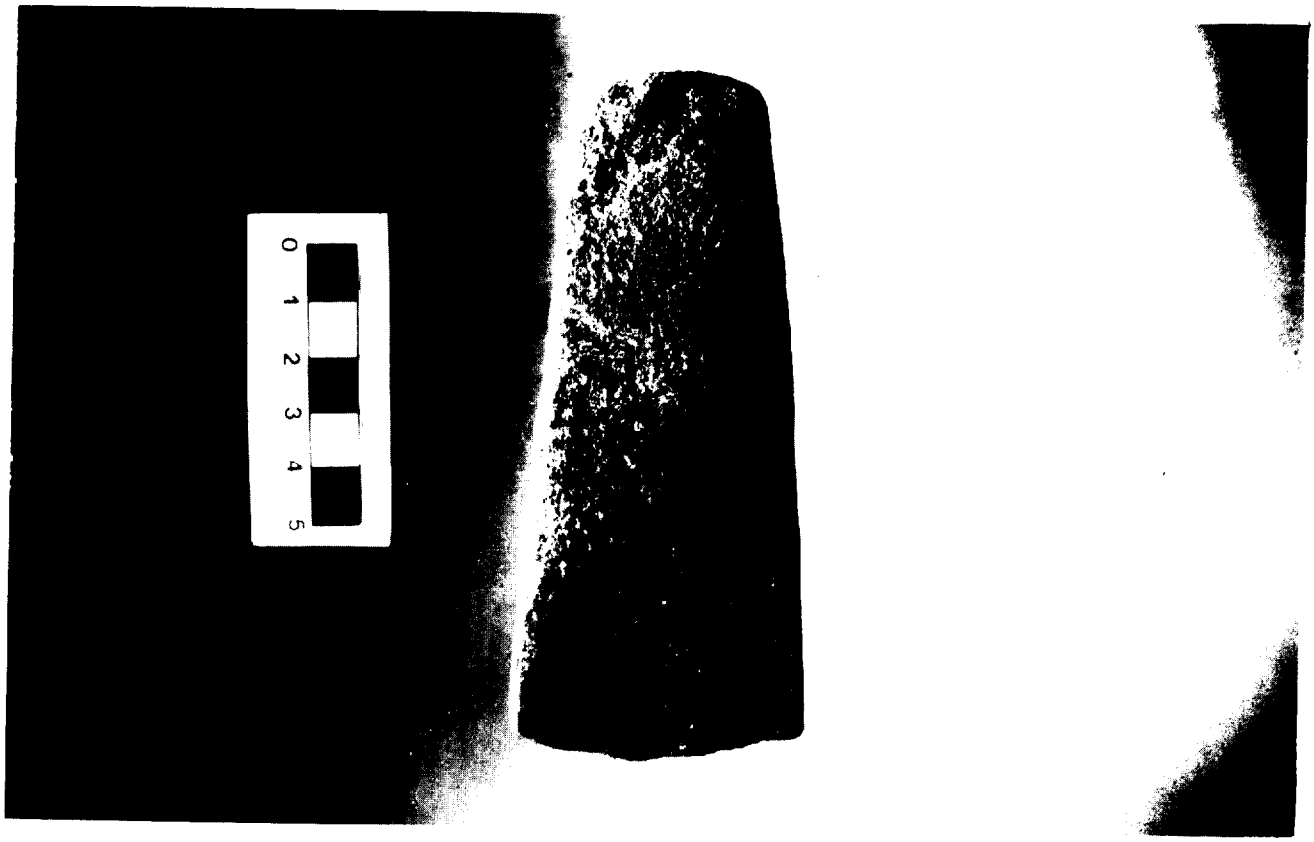

PLATE 28

PLATE 29

PLATE 30

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