THE SHAMAN OF LONG POINT

William A. Fox and J. Eldon Molto

Archaeological and osteological evidence is presented from a thousand-year-old burial of an adult male exposed by Lake Erie storm action on Long Point. The archaeological literature concerning similar faunal, osteal, and lithic items to those interred with this individual is explored, while a range of Iroquoian and Algonkian ethnographic and ethnohistoric observations relating to those objects is presented in an attempt to create meaning for the assemblage. It is proposed that this man functioned as a bear shaman in a transitional, Middle/Late Woodland hunting and gathering band whose summer range included the rich Long Point Bay environment.

Following upon a productive 1984 archaeological survey of Long Point on Lake Erie (Fox 1985), the senior author returned on July 19 of 1985 to investigate a burial exposed by the continuing high water levels and wave action (Fox 1986:12). Human bone had been discovered by a fishing party during a brief shoreline stop. A collection, including both human and bear bone, was subsequently deposited with the Norfolk detachment of the Ontario Provincial Police.

Inspection of the Pfingstgraef burial (AdHa - 9) with David Pfingstgraef and in the company of Jeff Robinson of the Canadian Wildlife Service indicated that little of this interment remained intact. Only a small deposit of bone, roughly 20 cm in diameter, remained lodged among the roots of a large toppled oak situated along the northeast shore of the Little Creek Ridges (see Figure 1). Brushing loose sand from the intact bone cluster ex-posed an otter maxilla with a cut bone tube projecting through the notched superior cranial portion. Further cleaning uncovered immature bear mandible sections and four drilled distal bear phalanges (Prevec 1990) which were directly associated with two clusters of human bones constituting the hands of the interred individual.

On August 30, the senior author returned to Long Point with a crew of four to continue survey activities and undertake limited excavations on the Upper Bluff Pond (Prevec and Fox 1989) and nearby Pfingstgraef sites. Two one-metre squares were excavated in the tree-throw depression on August 31. The only in situ human remains were six foot bones uncovered in a semi-articulated state at a depth of 24 cm from the surface (Figure 2). The remaining material found in these units was recovered to a depth of 37 cm from recent storm eroded and deposited sands.

Two rib fragments were submitted for dating to the Isotrace Radiocarbon Laboratory, with a result of 1110±60 B.P. (TO-1926) or 900, 912 or 953 A.D. dendro calibrated.

THE MAN

Figure 2 illustrates the scattered condition of most of the human remains documented during salvage excavation of the burial. The range of skeletal elements is suggestive of an articulated interment. Field observations indicate that the tree fell to the east, presumably as a result of gale force winds from the west, while waves from the bay immediately to the north pounded the exposed human remains in the resulting tree-throw depression. Assuming that the heavier innominate, sacrum, femur and scapula bones were displaced a lesser distance than the lighter vertebrae and rib fragments, and considering the location of the in situ foot bones, it is possible that the individual had originally been flexed on his left side, aligned east-west, with his head to the east (Figure 2).

As may be expected from the recovery circumstances, there is considerable post-mortem damage to the skeleton, though much of it was salvaged (Figure 3). Only the bones of the left foot (metatarsals I - IV, plus the lateral cuneiform and navicular) were found in anatomical position (Figure 2). None of the

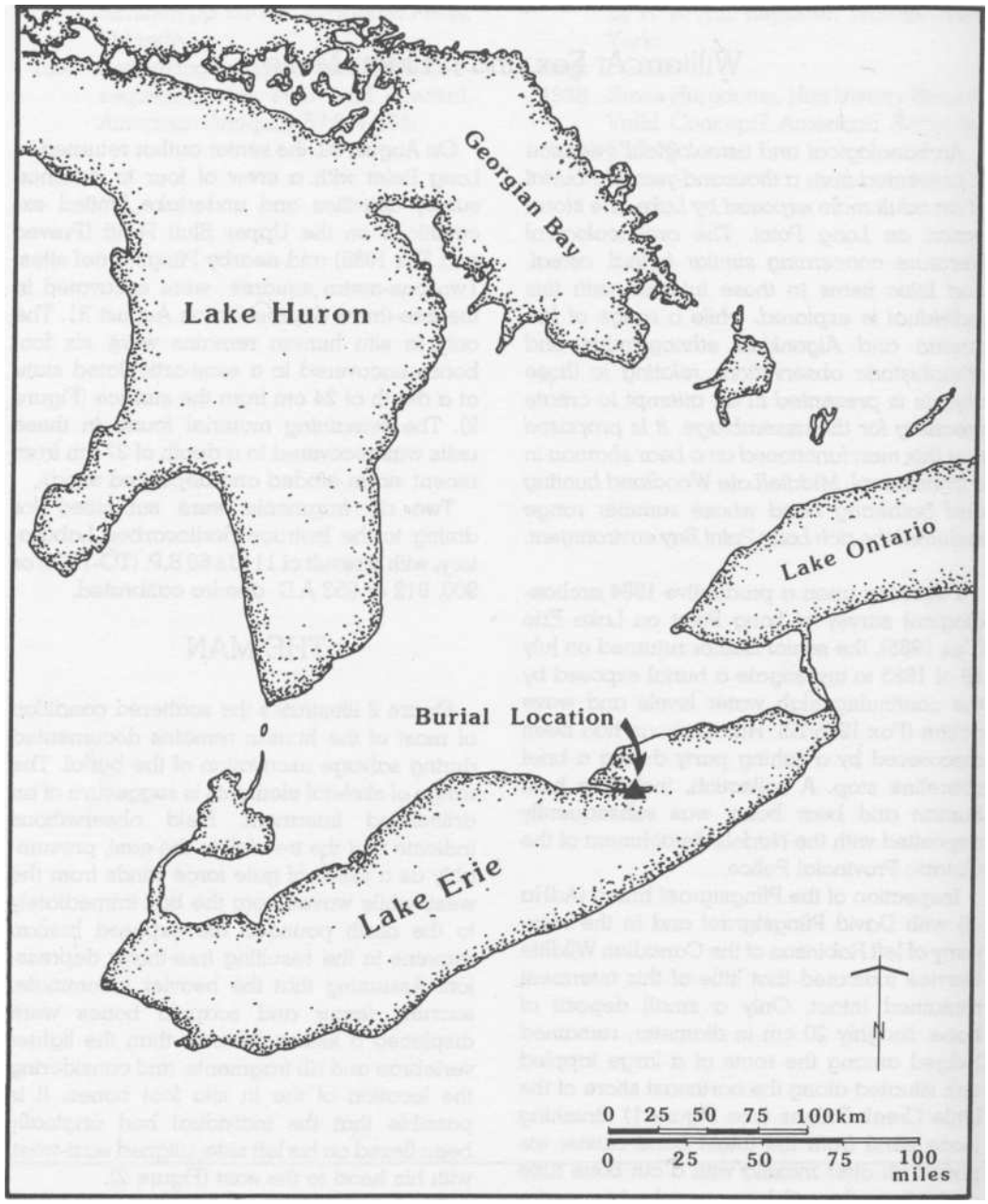

Figure 1. Location of the Pfingstgraef Site on Long Point.

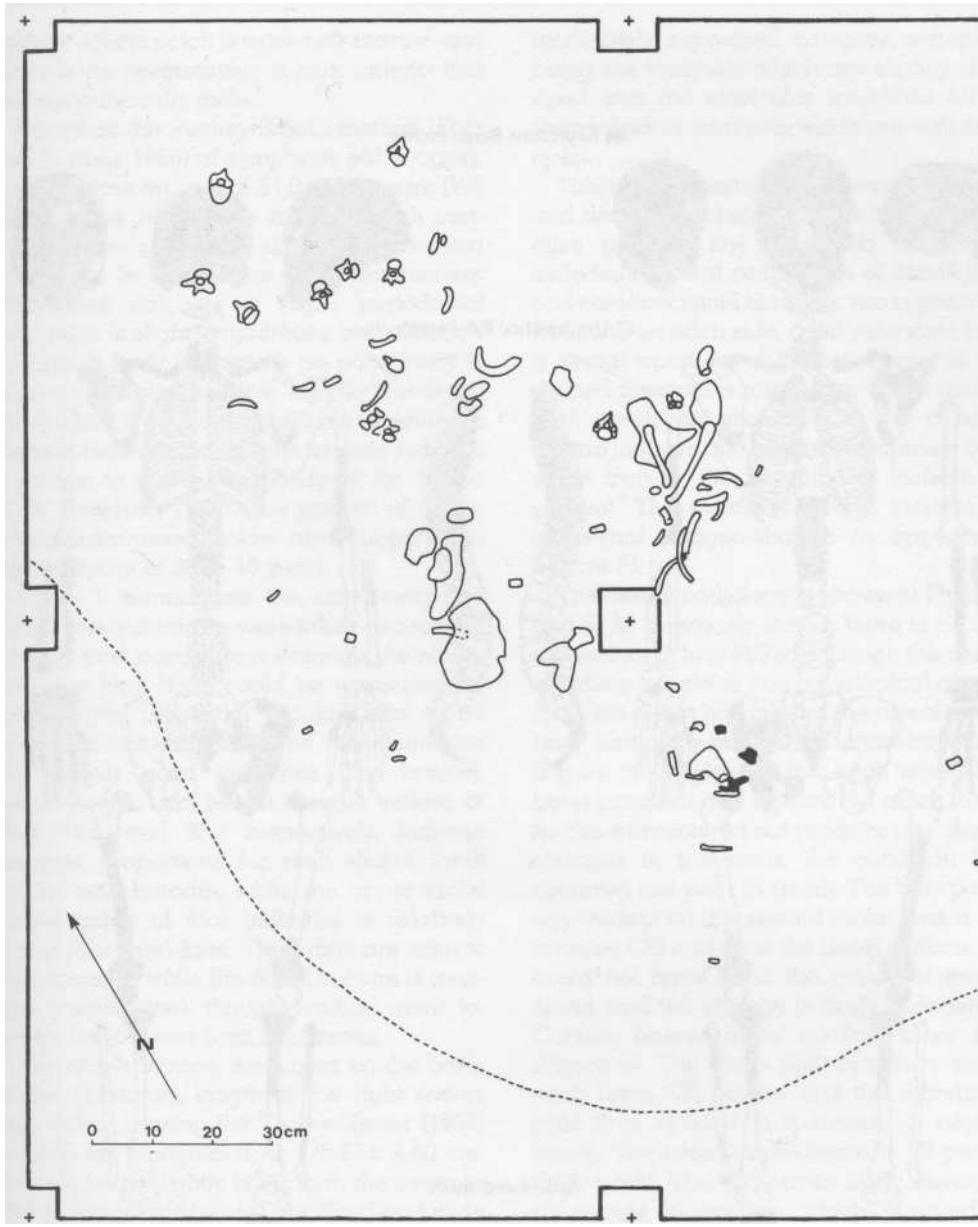

Figure 2. Human Bone Distribution in the Excavation Units.
Black elements = "in situ". Dashed line is perimeter of tree-throw depression.

bones recovered has cutmarks, which suggests but does not prove that this was a primary burial. From the standpoint of vital statistics identification, the recovery of most of the skull, dentition, and a hip bone, including a complete os pubis, is most fortunate. None of the long bones of the lower limb is complete, however, which reduces the accuracy of the stature estimation. Many of the bones show signs of water damage, although, in general, bone condition is excellent.

This person is a male likely in his thirties. Sex is determined on the basis of hip bone criteria (see Ubelaker 1989). There is no ventral arc on the os pubis, the region inferior to the symphysial face is thickened, the

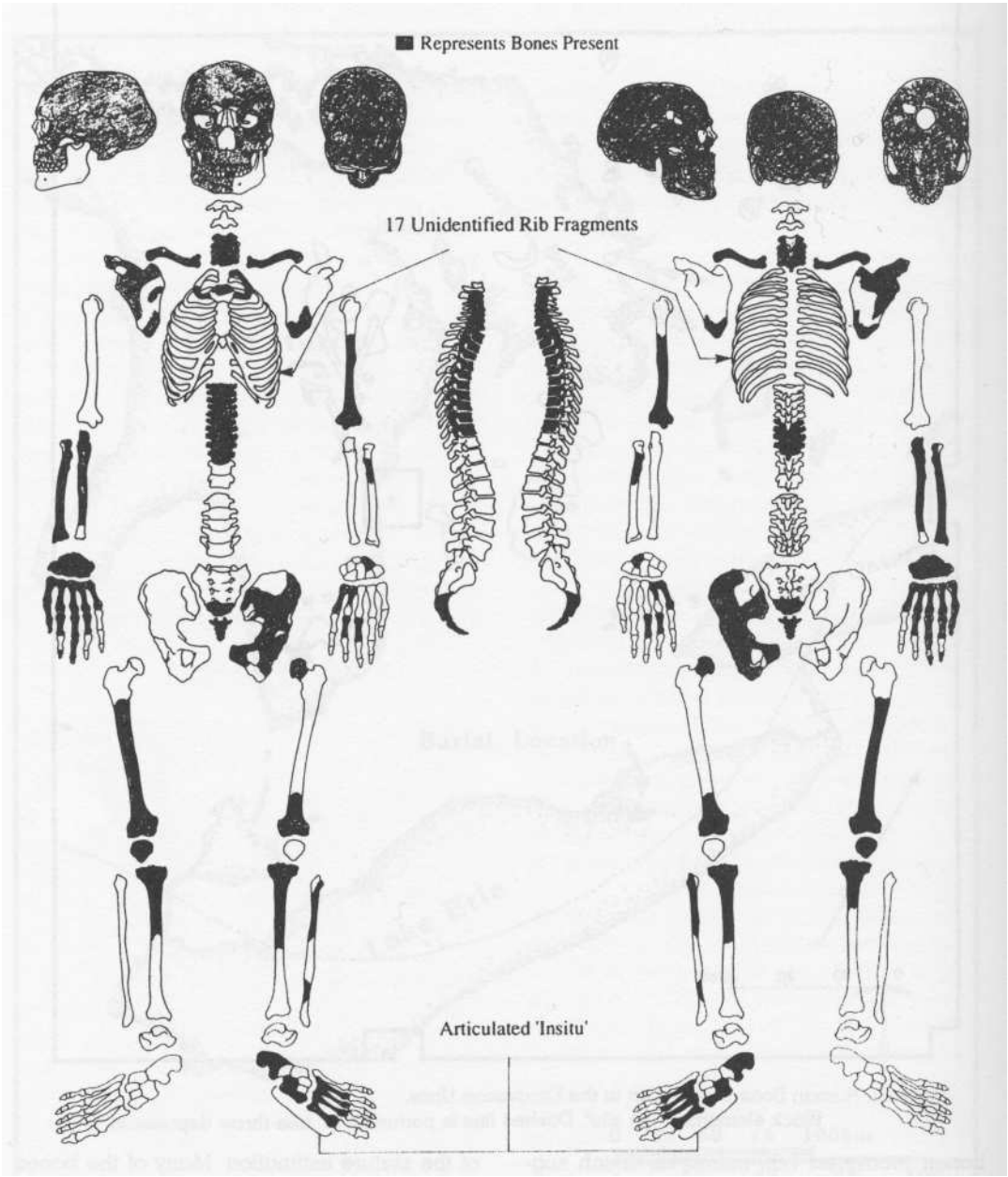

Figure 3. Skeletal Inventory.

greater sciatic notch is extremely narrow, and there is no preauricular sulcus; criteria that are unequivocally male.

Based on the Suchey-Brooks method (Katz and Suchey 1986) of symphysis pubis aging, we calculate an age of 51.0± 13.6 years (V-2 score). This mean age appears high considering the pattern of dental attrition and pathology. In brief, there is no antemortem tooth loss, calculus is slight, periodontal resorption is slight to moderate, and although attrition is fairly advanced, no pulp cavity is exposed. Relative to other Middle Woodland /early Late Woodland dentitions in southern Ontario these dental characteristics indicate a person in the third decade of life (Molto 1979; Patterson 1984). The pattern of osteoarthritis discussed below also supports an age estimate of 30 to 40 years.

Table 1 summarizes the osteometry. No dental measurements were taken because of attrition and postmortem damage. As noted, only one long bone could be measured for total length. Since the cranium had to be reconstructed (Figure 4), the measurements are merely good estimates. The cranial, height-length, and height-breadth indices of 78.3, 74.5, and 95.1 respectively, indicate average proportions for skull shape, vault height, and breadth, while the upper facial height index of 45.9 indicates a relatively broad (Euryene) face. The orbits are narrow (hypsiconch), while the nasal septum is aver-age (mesorrhine), though tending more to-wards narrowness than broadness.

The man's stature, estimated on the basis of the maximum length of the right radius (see Table 1) using the Trotter-Gleser (1958) formula for Mongoloids, is 178.87± 4.60 cm. Overall, he is slightly taller than the average Middle Woodland/ early Late Woodland male reported for Ontario sites (see Anderson 1968; Cybulski 1968; Molto 1983; Ossenberg 1969), except for Saugeen culture males from the Donaldson site (Wright and Anderson 1963; Molto 1979). The clavicular lengths, the measurable articular surfaces, and the cranial module (155) fall in the mid-range reported for southern Ontario male data. Most key indicators of robusticity (deltoideus attachments on the clavicle and humerus, brow ridge development, supramastoidal crest, inion, and the facial tubercles) fall in the moderately expressed category, exceptions being the mastoids which are slightly developed and the clavicular insertions for the stemocleidomastoideus which are well developed.

Table 2 summarizes the nonmetric skeletal and dental morphology. There are no anomalies present. Key nonmetric morphology includes bilateral occurrence of clino-clinoid and caroticoclinoid bridging, two supraorbital foramina on each side, a left asterionic bone, a septal aperture of the left humerus, and divided foramen transversaria of C5 and C6. Well developed shovelling of the maxillary central incisors and slight development of the same trait in the mandibular incisors are present. The maxillary lateral incisors are somewhat pegged-shaped in appearance (Figure 5).

The dental pathology is shown in Figures 5 and 6. As previously stated, there is no antemortem tooth loss (0/32), although the second maxillary left molar has a periapical abscess (1/32 sites) that has eroded the alveolar bone and has penetrated the maxillary sinus (Figure 5). The loss of this tooth would have been imminent had he survived much longer. As this infection did not produce any skeletal changes in the sinus, the condition likely occurred just prior to death. The only pathology evident on the second molar was a non-invasive CEJ caries on the distal surface. This could not have been the cause of the abscess, and the etiology is likely endogenous. Carious lesions occur on four other teeth (Figure 6). The three right maxillary molars each have CEJ caries, and the mandibular right third molar has a superficial occlusal lesion. The overall prevalence is 20 percent (5/25 teeth). The CEJ caries likely developed as sequel to attrition, which removed the zones of contact between the molars resulting in lacunae for food impaction. This pattern of caries development, with an emphasis on impaction in the back teeth instead of on the crowns, with the anterior teeth being unaffected, suggests a diet low in carbohydrates and/or food that was unrefined when consumed. The slight development of tartar and the fact that all teeth had dentine exposure (Figure 5) support this view. The sclerotic quality of the diet is also shown by the fact that 48 percent (12/25) of the teeth have ante-

Table 1. Osteometry (measurements in mm).

Cranial Measurements	
Maximum Cranial Length	184
Maximum Cranial Breadth	144
Basion-Bregma Height	137
Basion-Prosthion Length	104
Basion-Nasion Length	106
Foramen Magnum Length	39
Biforamen Ovate Breadth	48
Bi-stylomastoid Foramina] Breadth	90
Biasterionic Breadth	108
Maximum Alveolar Breadth	71
Bizygomatic Breadth	[144]
Bifrontal Chord	-
Orbital Breadth	[39]
Orbital Height	36
Biorbital Breadth	97
Nasion-Prosthion Height	79
Nasal Height	54
Nasal Breadth	26
Simotic Chord	
Minimum Frontal Breadth	90
Nasion-Bregma Chord	114
Bregma-Lambda Chord	1106]
Lambda-Opisthion Chord	[114]

Cranial Measurements (coned.)	
Cranial Module	155
Cranial Index	78.3
Height-Length Index	74.5
Height-Breadth Index	95.1
Orbital Index	92.3
Upper Facial Height Index	54.9
Nasal Index	48.1

Infracranial Measurements	**Right**	**Left**
Glenoid Fossa Height	42	
Glenoid Fossa Breadth	**30**	
Maximum Clavicle Length	164	162
Maximum Clavicle Midshaft	14	13
Biepicondylar Breadth - Humerus	-	**63**
Femoral Head - Maximum		**49**
Tibia - Sagittal Cnemic	37	36
Tibia - Transverse Cnemic	26	25
Tibia - Cnemic Index	72.9	**69.4**
Maximum Calcaneal Length	85	
Patella - Maximum Height	42	
Patella - Maximum Breadth	45	
Patella - Thickness	21	

[ ] = estimate

mortem trauma, with 12 percent of the teeth (3/25) being fractured (Figure 5). The supporting alveolar bone shows only minimal to moderate resorption (Figure 6) at five sites (the maxillary right and left first and second molars and the right mandibular M 1 and canine). Overall, the pattern of dental pathology is typical of populations in this region with a transitional dietary regime between hunting - gathering and horticulture (Molto 1979; Patterson 1984). While stable isotope data are not available for this burial, unpublished data for several burials from the contemporaneous Varden fishing camp situated immediately to the east indicate limited amounts of maize (slightly enriched ^{13}C values) in a diet that incorporated considerable fish and other laccustrine foods (H. Schwartz, personal communication, 1987).

Degenerative skeletal changes are absent in the key synovial joints (knee, elbow, and shoulder), although osteoarthritis occurs in the clavicular articulations with the sternum and acromion, in the occipital condyles, and in cervical vertebrae 5, 6, and 7, and thoracic vertebrae 8 and 9. The sternal articulations for the clavicles also show slight arthritic changes although the lone acromial facet (right side) of the scapula was healthy. Both occipital condyles have slight osteoarthritic lipping with healthy surfaces. The most advanced arthritic changes occurred in the spine (Figure 5). All the articular facets (C3 to C7) in the cervical vertebrae are healthy with erosive degenerative changes (pitting and lipping) occurring in the interior centra of C5, on both surfaces of C6, and on the superior body of C7. Of the 10 thoracic vertebrae, degenerative changes (pitting and lipping) are restricted to the articular facets between T8 and TO.

The orbits of the skull were healthy at the time of death, although there is evidence of long-healed porotic hyperostoses. The latter is evidence of an anemic state most likely during infancy or childhood. Enamel hypoplasias are absent (0/25), however, suggesting that this person was spared long term bouts of malnutrition and/or infectious disease in his early childhood (B-7 years). Since x-rays of the long bones were not taken, the investigation of systemic disease processes in later childhood and adolescence via growth arrest line analysis is precluded. In the anterior parietal and frontal regions of the endocran-

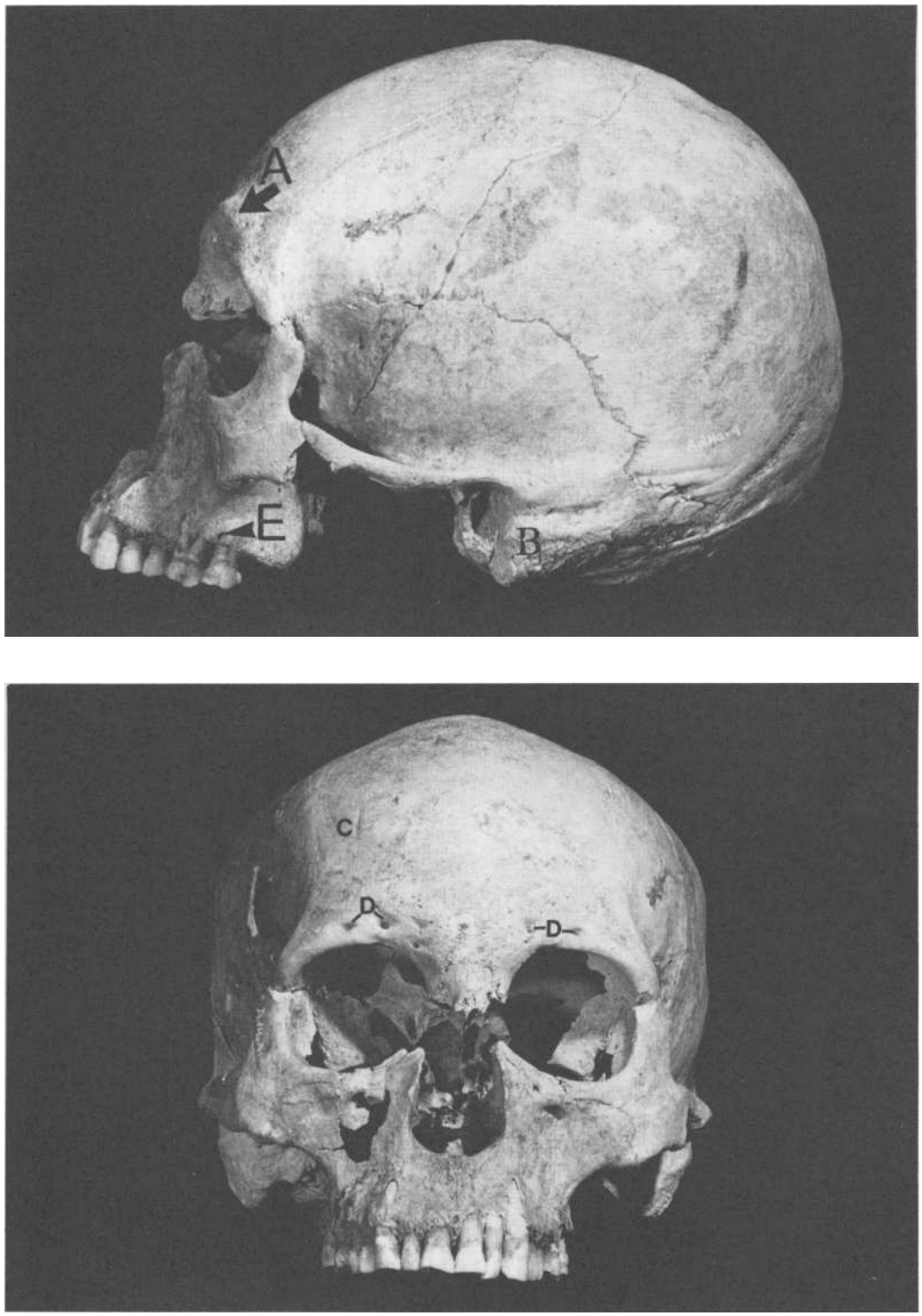

Figure 4. The Left Lateral (top) and Frontal Views of the Cranium. Note the moderately developed brow ridge (A), the small mastoid process (B), the frontal grooves (C) and the bilateral double supraorbital foramina (D). Also note the small periapical abscess of the second right maxillary molar (E).

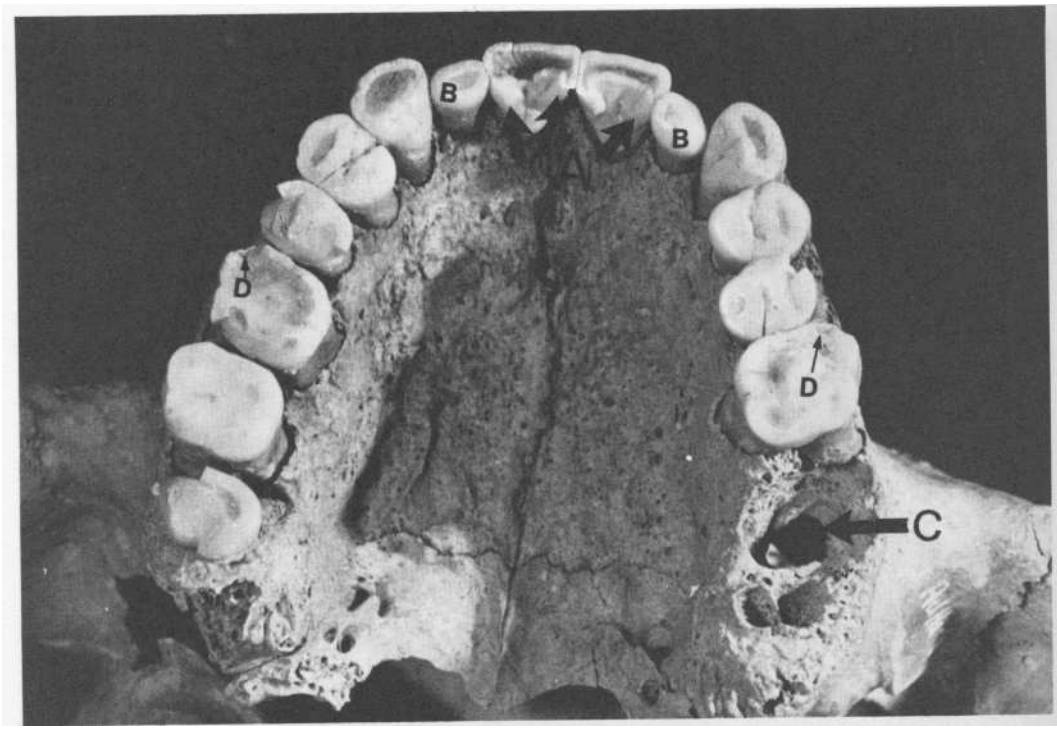

Figure 5. Occlussal View of the Maxillary Dentition. Note well developed "shovelling" of the central incisors (A) and small (peg-like) lateral incisors (B). The second left maxillary molar is removed to show an abscess that penetrated the maxillary sinus (C). Note the dentine exposure on all teeth and the antemortem fractures on the 1st molars (D).

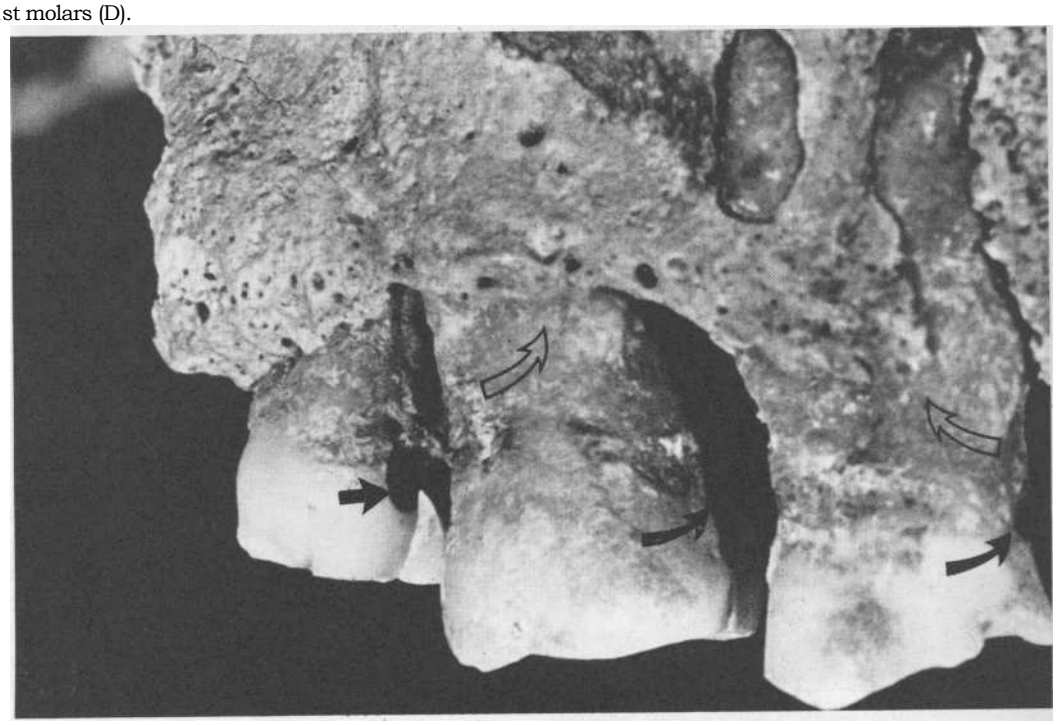

Figure 6. Interproximal Dental Caries (dark arrows) on the Maxillary Right M1, M2 and M3. These developed because of loss of contact between the teeth from attrition with sequel compaction of food that likely included carbohydrate containing maize. Also note the resorption of alveolar bone at Ml and M2 (light arrows).

ium, clusters of deep granular or archnoid fovea are associated with considerable bone resorption (Figure 7). Although the presence of such fovea is normal, the expressivity in this case, which has reached and atrophied the endocranium to the point of transparency, is unusual. The etiology of these cranial changes is unknown. There is no other macroscopic osseous evidence of disease.

THE MEDICINE

Intermingled among the human remains were 11 animal bone and three stone artifacts. The former include two bear cub mandibles, an adult bear mandible, four distal phalanges of a bear, a river otter premaxillae and maxillae, a long bone shaft tube, an antler tine, and the mid-section of an upper left beaver incisor (Prevec 1990). All three mandibles had the distal ends removed (Figure 8). The adult and one of the cub mandibles display grinding smoothing and polish on the severed distal end surfaces. Wear polish over the distal dorsal surface of the mature bear mandible is also evident. The four distal bear phalanges exhibit drill holes ranging from three to five millimetres in maximum diameter (Figure 9) and derive from the paws of at least two different bears (R. Prevec, personal communication, 1993).

As noted, the long bone shaft tube was discovered in direct association with the river otter rostrum, positioned as illustrated in Figure 10. The tube is 36.4 mm in length and 7.9 mm in maximum exterior diameter. Fractures at both ends have been smoothed. The otter maxillae distal ends have been neatly severed from the frontals and smoothed on the dorsal surface (Prevec 1990:2).

The antler tine measures 47.1 mm and 10.9 mm in maximum length and diameter, respectively. It has been scored, snapped and then ground at the distal end, and the tip has been blunted (flaked and smoothed) from use, perhaps as a flaker (Figure 11). The beaver incisor is 34.2 mm in length and displays damage at both ends and along the ventral side (Figure 11).

Among the lithic artifacts is a red and white feldspar pebble measuring 19.5 mm, 13.8 mm, and 13.5 mm in maximum length, width, and thickness (Figure 12a). It is not evidently modified and would not have been identified as culturally significant, were it not for its association with the burial in a pure sand context. There are no pebbles in the sand deposits in this area of the point. A milky quartz pebble measures 33.7 mm, 26.1 mm, and 18.2 mm in maximum length, width, and thickness, and may have been split by bipolar percussion (Figure 12b). Finally, a lenticular black shale pebble measuring 71.7 mm, 20.7 mm, and 6.7 mm exhibits grinding striations and facets along both lateral edges, as well as flake scars at both ends (Figure 12c). All grinding and flake facets exhibit edge rounding due to soft material abrasion, perhaps as a result of bag wear.

THE MEANING

During the early tenth century, a robust male in his thirties passed away and was buried on Long Point, accompanied by a non-subsistence related assemblage of stone and bone possessions. What additional perishable organic goods were included in the grave can never be known for certain, al-though some hypotheses will be considered in trying to interpret the evidence. That he may have resided on occasion at the nearby, contemporary Varden seasonal camp site (MacDonald 1986) and have died during a spring or summer fishing expedition seems likely, although the cause of death remains unknown. His special role in a transitional Middle to Late Woodland hunting and gathering society is evidenced by the unusual nature of his preserved possessions.

Thomas Campbell Wallbridge (1860:416, Plate 2), in describing a Middle Woodland mound excavation in eastern Ontario, makes mention of artifacts associated with a burial which "appeared to be the contents of a magician's or conjurer's bag". Subsequently, one of the first archaeologists to identify animal bones as medicine bag components was J. R. Swanton in his report on the 1897 excavations at the sixteenth century Madisonville site in southwestern Ohio (Hooten 1920: 32-33). Swanton notes that 'The finding of the skulls of the marten and otter with burials without other bones of these animals indicates that they formed portions of medicine bags made of the whole skins of these ani-

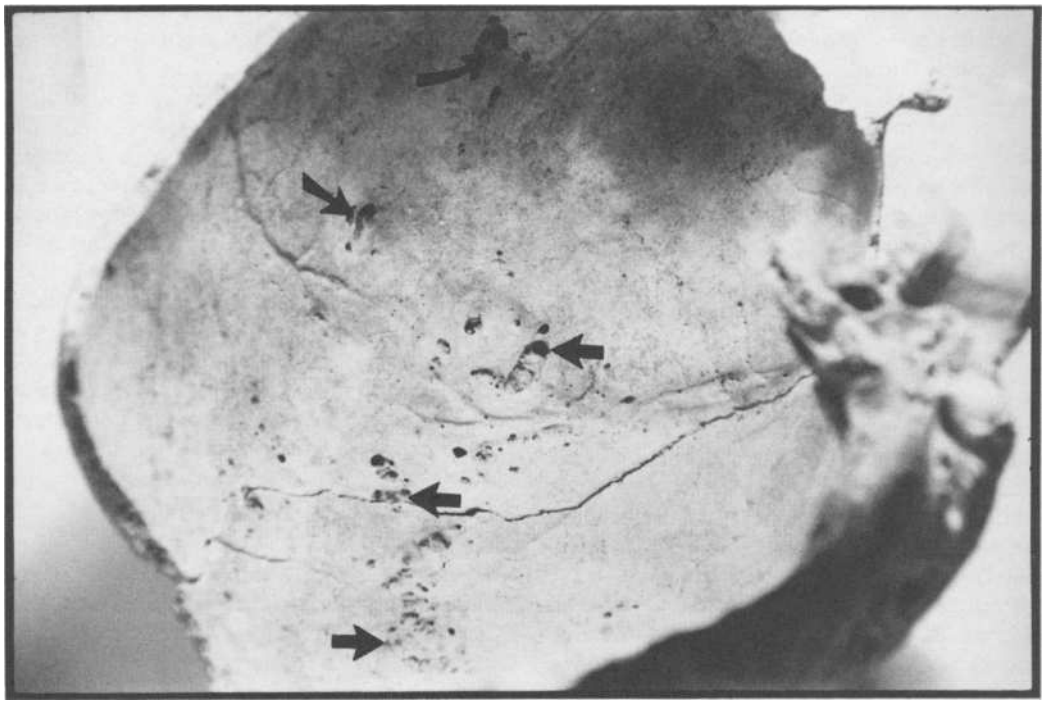

Figure 7. Enlarged and Numerous Archnoid Fovea (arrows) in the Left Frontal and Parietal Regions. These are associated with considerable bone resorption of the endocranium.

mals with skull attached. Similar bags of otter skin were used in the well-known Shell Society and the presence of these skulls seems to indicate that this ceremony was known to these Indians" (Hooten 1920:33).

William S. Webb in his report on the Carlson Annis Mound (1950:336-343) discusses rostra in mortuary contexts as "evidence of the use of 'medicine bags'." He cites nineteenth century observations by George Catlin for the Blackfoot and Walter Hoffman among the Menomini concerning the use, significance and form of medicine bags (Webb 1950:336-338), and presents information on the distribution of animal rostra, mandibles and foot bones among Archaic period burials on the Indian Knoll and Annis Mound sites (Webb 1950: Tables 8 and 9).

While the composite otter cranium and bone tube object in the vicinity of the man's hands is likely to have been a medicine bag component, the bear mandibles are not so convincing. Just as portions of the human skeleton were storm scattered and not recovered, it is almost certain that some of the possessions of the deceased were also lost. It is probable that an otter mandible rests somewhere within the shoreline beach sands; however, the number and type of missing bear elements is more difficult to ascertain. If the drilled phalanges do represent two paws, then other elements remain missing. The fact that no bear maxillary bones or teeth were recovered with the three mandibles suggests that these elements may not have been among the interred objects.

Bear cranial elements, especially teeth, are often represented in mortuary contexts. Two males in the Terminal Archaic Hind cemetery were provided with bear masks, as evidenced by modified rostra (Spence and Fox 1986:131; Ellis et al. 1990:117). Similar mask components have been documented for Glacial Kame mortuary sites in Ohio (Converse 1980: 31, Figure 8), while modified bear mandibles and canines are relatively common as Woodland period burial offerings in this region (Seeman 1979:371-373). A native copper headdress in the form of a bear is reported from an Ohio Hopewell cremation at Mound City (Converse 1983:21). Dragoo (1963: Figure 20f) illustrates a bear mandible from the

Table 2. Nonmetric Skeleton Morphology.

Metopic suture	A	Extra ethmoid foramen	- / -
Os japonicum	Al	Coronal ossicles	A/A
Ovale-spinosum open	A/A	Bregmatic ossicle	A
Infraorbital suture	A/A	Sagittal ossicle	
Open spinosum	P/A	Lambdic ossicle	A
Tympanic dehiscence	A/A	Lambdoidal ossicle	A/A
Psuedo-mastoid suture	A/A	Asterionic ossicle	A/A
Mendosal suture	A	Occipito-mastoid ossicles	A/A
Marginal foramen	A/A	Parietal notch ossicles	A/A
Pterygo-spinous bridge	A/A	Pterionic ossicles	A/A
Pterygo-basal bridge	A/A	Sagittal sinus right	P
Spino-basal spur	S / S	Pharyngeal fossa	A
Clino-clinoid bridge	P / P	Discrete occipital condyles	A/A
Carotico-clinoid bridge	P / P	Mylo-hyoid bridge	A/-
Squamoparietal synostosis	A/A	Mandibular torus	A/-
Trochlear spur	A/A	Staphne defect	A/-
Intermediate condylar canal	A/A	Accessory mental foramen	P / -
Divided hypoglossal canal	A/A	Accessory mandibular foramen	A/ -
Odonto-occipital facet	A	Mastoid foramen absent	P / P
Precondylar tubercle	A	Squasmosal ossicle	A/A
Ossified apical ligament	A	Unfused acromial epiphysis	A/-
Paracondylar process	A/A	Suprascapular notch	S / .
Palatine torus	S	Supratrochlear spur	-/A
Maxillary torus	A/-	Septal aperture	- / P
Foramen of lateral pterygoid plate	- / -	Vastus lateralis emarginate	A/-
Frontal Grooves	P / P	Spina Bifida Occulta C5-T 10	A[1]
Supra-orbital foramen	P / P	3rd molar agenesis - maxilla	A/A
Parietal foramen	A/A	3rd molar agenesis - mandible	A/-
Posterior condylar canal	P / P	Shovelling - Max. I I	P / P (+++)
Parietal process of temporal	A/A	Shovelling - Mn. 11 + 12	P / P I+)
Vesalian foramen	P / P	Enamel Extensions - Mx.	A/A[2]
Zygomatico-facial foramen	P/A	Enamel Extensions - Mn.	A / - [3]
Accessory optic canal	A/A	Carabelli's trait - Mx MI	-/A

A = absent, P = present, S = slight development
[1] = 0/13, [2] = 0/5, [3] = 0/3, + = degree of development

Adena Westenhaver Mound which displays grinding modification similar to that of the Pfingstgraef adult bear mandible.

Further west, Parmalee and Stephens (1972:72, Figure la) report cut and ground bear maxilla remains from the Middle Woodland Palestine site in Illinois. Four drilled bear canines were interred with an adult female in Mound Co8 and drilled bear canines were also recovered from Mounds Co16 and Co22 at the Knight site in Illinois (Griffin et al. 1970:79, Plates 76b, 92, 95a, 116b). Likewise, bear canines are reported from Mounds C, D, H, and M at the Middle Woodland Norton site in southwestern Michigan (Griffin et al. 1970). A pair of elaborately carved bear mandibles were discovered in the vicinity of an adult male's hands in Burial 16 of Mound C (Griffin et al. 1970:154, Plate 143b).

Further east in New York State, Skinner (1919:46, Plate 2e) reports "a bear's superior maxillary cut with a stone knife, possibly part of a headdress or head ornament" from a Middle Woodland adult's grave. A "large adult male" burial at the Point Peninsula Sea Breeze site on Lake Ontario included four "unworked bear canines" (Ritchie 1944:130, Plates 56-32). Ritchie (1969:223, Plate 77) also reports "cut maxillary sections of the bear, probably representing animal headdresses" from the Rector Mound to the east. Grave 32 at the seventeenth century Neutral Iroquois Van Son cemetery on Grand Island contained a polished bear canine and fragments of a bear mandible and maxilla (White 1968:237). White (1968:237) suggests that certain of the faunal grave offerings "may have been charms, others, part of medicine bags".

Bear bone articles have been reported from several Middle Woodland burials in Southern Ontario. Two ground and perforated bear canines were components of a child's necklace in Burial A of the Donaldson I cemetery (Wright and Anderson 1963:6, Plate 26). In Burial 7 of the Serpent Mound, an adult male in his early forties (Anderson 1968:6) was interred with two cut bear *(Ursus americanus)* mandibles and maxillary elements in the pelvic area" (Johnston 1968:22, Plate 11). The maxilla appears to be cut down to the tooth roots, similar to Middle and Late Wood-land examples from the Ohio valley (Smith 1910:221, Plate 51). The Serpent Mound mandible sections lack the distal ends

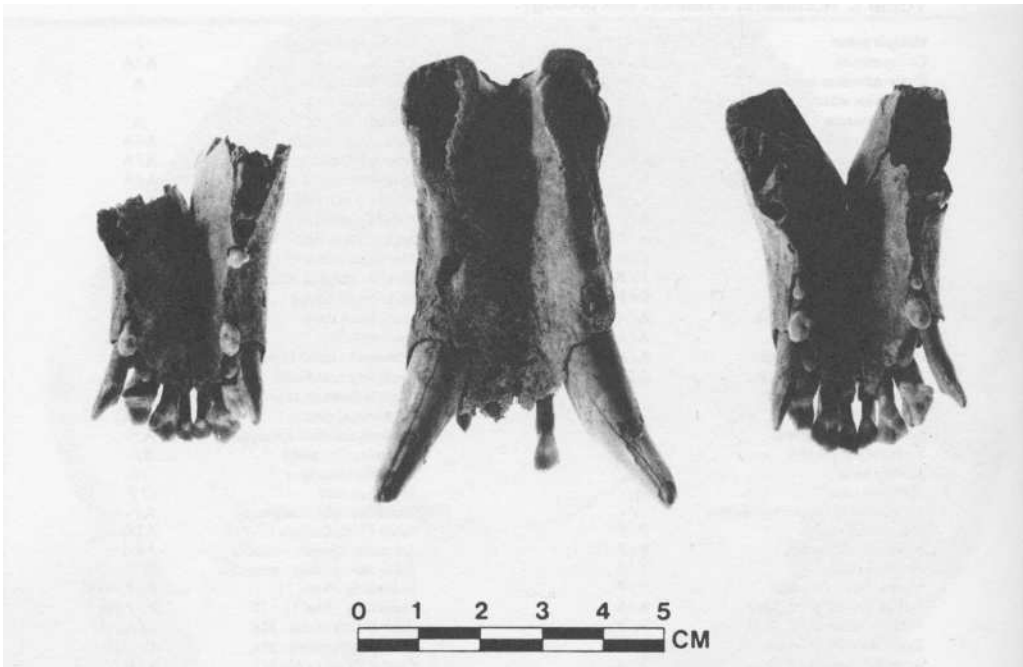

Figure 8. Modified Bear Mandibles.

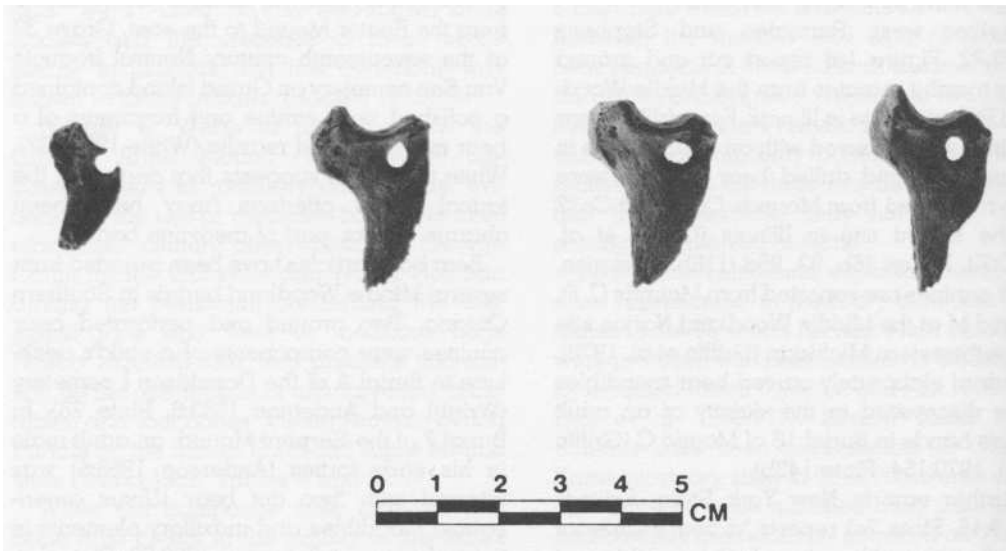

Figure 9. Drilled Bear Phalanges.

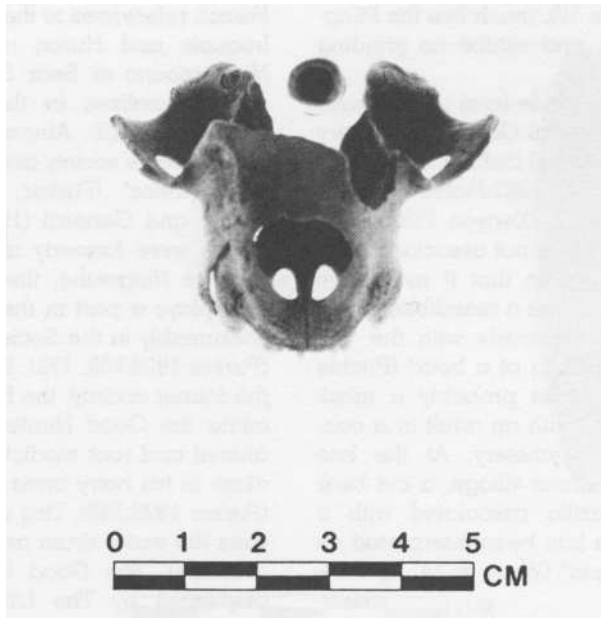

Figure 10. Otter Maxillae and Bone Tube (superior aspect).

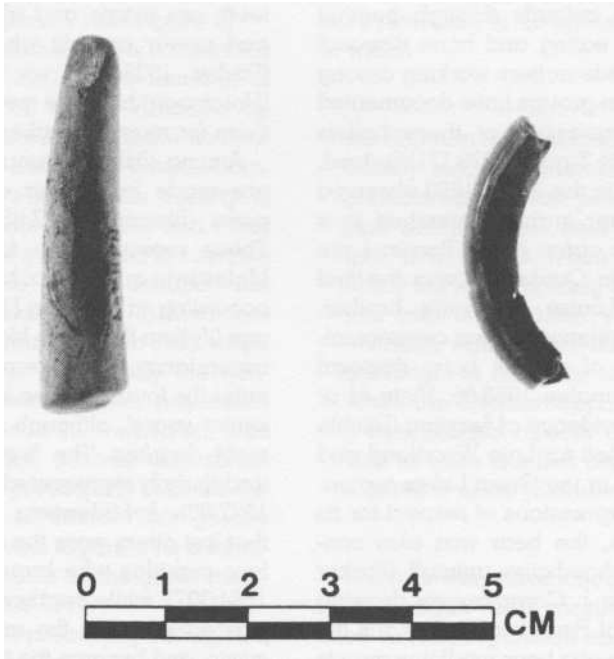

Figure 11. Antler Tine and Beaver Incisor.

(Johnston 1968:Plate 12), much like the Pfingstgraef specimens, and exhibit no grinding modification.

An adult bear mandible from mass Grave 62 at the Historic Neutral Grimsby cemetery is modified in an identical fashion to the Long Point specimen (Kenyon 1982:Plates 183, 184). The situation in the pit (Kenyon 1982: Plate 182) indicates that it was not associated with a maxilla, and suggests that it may have been deposited simply as a mandible, rather than a mask. This contrasts with the "cut anterior superior maxilla of a bear" (Ritchie 1954:Plate 10), which is probably a mask component, interred with an adult in a con-temporary Seneca cemetery. At the late sixteenth century Adams village, a cut bear mandible and maxilla associated with a Seneca adult male has been interpreted as "part of a headdress" (Wray et al. 1987:44, Figure 3-11a).

The special relationship between bear and hunter/ consumer has been considered from a circum-polar perspective by Hallowell (1926) in his seminal doctoral dissertation on bear ceremonialism. Much of this work focus-es on the respect paid to this most human-like of American animals through hunting ritual, as well as eating and bone disposal etiquette. Other researchers working among northern Algonkian groups have documented the continuing expression of these beliefs (Skinner 1911:68-73; Tanner 1979:171). Indeed, the senior author in the fall of 1990 observed a red painted bear cranium attached to a tree at a summer camp of the Barrier Lake Algonquin band in Quebec. It was the first bear killed by Louise Wawati s brother. Archaeological evidence of bear ceremonial-ism, in the form of careful bone disposal (Ritchie 1950; Parmalee 1963:66, Plate 1) or association with evidence of feasting (Ritchie 1947) is documented for Late Woodland and post-contact sites in the Great Lakes region.

Beyond such expressions of respect for its subsistence value, the bear was also considered to be a "medicine animal" (Parker 1923:388; see also J. Cornplanter's drawing "The Restoration of Red Hand"). Perhaps the best known image of a bear medicine man is Catlin's (1973:Figure 19) painting of a Blackfoot on the upper Missouri River. Prisch (1982:58) provides a useful overview of early French references to the use of bear skins by Iroquois and Huron curers. The Iroquois *Niagwaioano* or Bear Society (Parker 1909: 176) specializes in the control of fevers (Parker 1928:13). Among the instruments of this medicine society are the water-drum and horn rattles" (Parker 1909:177), although Speck and General (1949:65) note that the rattles were formerly made from bark. The bear or *Niagwahe,* the Great Naked Bear, also plays a part in the Pygmy Society and presumably in the Society of Mystic Animals (Parker 1909:169, 172). In an origin legend of the former society, the Bear helped to resuscitate the Good Hunter using a wonderful animal and root medicine and "hugged him close in his hairy arms and kept him warm" (Parker 1923:388). This medicine society also uses the water drum and horn rattle (Parker 1909:168). The Good Hunter's medicine is dispensed by The Little Water Company (Parker 1909:165), another medicine society which uses "medicine-bundles, the flute, gourd rattles for each singer, the sacred tobacco-basket and a bark dipper" (Parker 1909:167). Finally, according to the legend of "The Boy and Niagwahe", the monster bear's teeth are magic and all its "magic strength and power are his who holds these teeth" (Parker 1923:361), so that "medicine men *(Hotcinoga)* have the teeth to this day and use them for magic." (Parker 1923:362).

Among Ojibwa groups, medicine bundles are made from bear cub skins and bear paws (Blessing 1977:93, 94, Figures 5, 6). These represent the fourth degree of the Midewiwin or Spiritual Medicine Society and, according to Blessing (1977:95), "In the aver-age lifetime this is the highest level of spiritual ascendancy. The average individual would enter the fourth degree in conjunction with his senior years", although there were a total of eight degrees. The first or initial degree is traditionally represented by the otter (Blessing 1977:80). A Midewiwin origin legend states that live otters were the medicine bags of the four manidos who brought the rites (Nelson 1984:397), while another states that "the otter was educated in the mysteries of the Midewiwin and became the intermediary between *Nanabozho* and the Ojibway" (Harrison 1989: 83). This probably explains the numerous references to otter skin medicine bags among

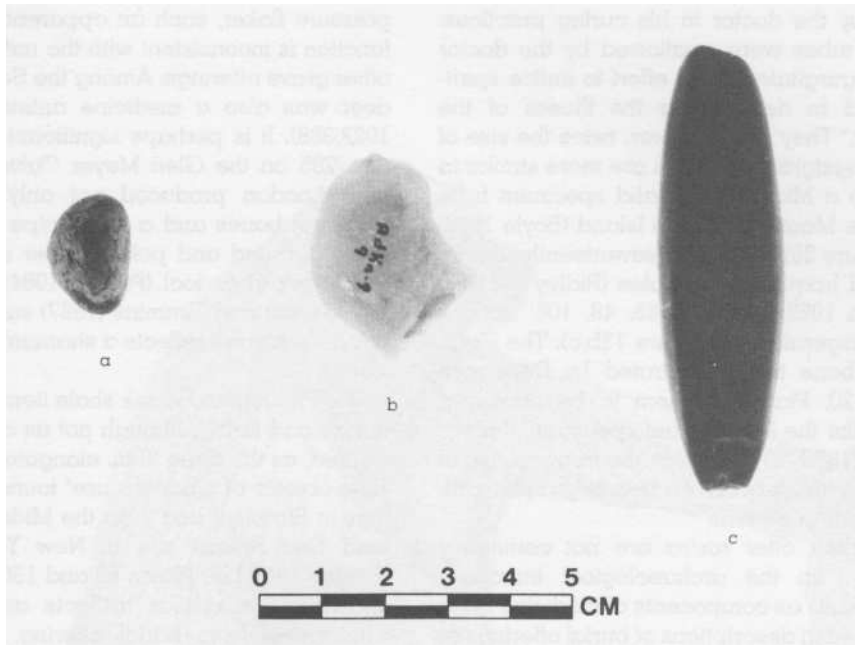

Figure 12. Lithic Artifacts. Feldspar Pebble (a). Quartz Pebble (b). Shale Piece (c).

the Ojibwa or Chippewa (Jameson 1838:231; Slight 1844:92-93; Hoffman 1888:Figure 3).

Among the Iroquois, the otter is a medicine animal (Parker 1923:388) and a member of the curing Society of Mystic Animals, although it also has its own medicine society, the *Dawando* or the Society of Otters. Composed primarily of women, this society is "organized to propitiate the otters and other water- animals who are supposed to exercise an influence over the health, fortune, and destinies of men" (Parker 1909:170). Members sprinkle medicine water with corn husk wisps at public ceremonies, particularly the Mid-winter Ceremony where, When possessed with the spirit of the otter, the women are said to be unaware of their actions, and some-times, when they are particularly zealous, the whistle of the otter is heard. This greatly frightens the people who regard it as a manifestation of the presence of the great medicine otter" (Parker 1909:171).

Could the bone tube protruding through the Pfingstgraef otter cranium have functioned as a whistle? Perhaps the song verse recorded by Densmore (1910:47) "There comes a sound from my medicine bag" refers to a whistling otter sound. This is also reminiscent of Skin ners reference to an eastern Cree ceremony in which

> the Shaman took his medicine bag which is usually made of otterskin, the otter being considered the most powerful of the medicine animals, and held it in front of him with both hands. Then he began to go about the lodge holding the otter in front of him with both hands. At every step, the otterskin, which was held head up at about the height of the chest was thrust forward. When the Shaman approached the novice it was pushed directly at the young man until its nose touched him, and as it did so it made a noise [Skinner 1911:62].

The tube may have functioned alternatively or in addition as a sucking tube commonly used among Algonkian sucking shamans or Nibikiwinini (Cooper 1936:8) in curing "soul darting" (Brown and Brightman 1990:64). Blessing (1977:61, Plate 7) illustrates a Mide-wiwin charm which includes "two bone tubes

used by the doctor in his curing practices. These tubes were swallowed by the doctor and regurgitated in an effort to entice spiritual aid in determining the illness of the patient." They are, however, twice the size of the Pfingstgraef tube and are more similar in form to a Middle Woodland specimen from the See Mound on Tidd's Island (Boyle 1889: 34, Figure 26) and larger seventeenth century Neutral Iroquoian examples (Ridley 1961:53; Kenyon 1982: Plates 9, 35, 48, 106; Lennox and Fitzgerald 1990:Figure 13b,c). The Chippewa bone tubes illustrated by Densmore (1910:120, Plate 10) seem to be narrower, more like the Pfingstgraef specimen. Finally, Smith (1883:72) describes the Iroquois use of a hollow "thigh-bone of a beaver" to spit medicine upon a patient.

Modified otter rostra are not commonly reported in the archaeological literature. Otter skulls as components of medicine bags are noted in descriptions of burial offerings at the Fort Ancient Madisonville site in Ohio (Hooten 1920:33), and Kenyon (1982:109, Plate 104) reports "the right and left premaxillae and maxillae of a river otter, the left half of the mandible of the same animal" from Grave 26 at the Historic Neutral Grimsby cemetery. The otter remains were adjacent to a cranium near the north end of this multiple bundle interment (Kenyon 1982:Figure 67), but the sex of the individual was not determined (Kenyon 1982:109). Another seventeenth century site to the west, the Historic Fox Bell site in Wisconsin, produced an otter cranium from a storage pit which had been modified in much the same manner as the Pfingstgraef specimen. Parmalee (1963:67, Plate 2) describes it as "a complete mandible and the corresponding anterior half of an otter skull; the condyloid process of the left mandible bore several cut marks (made during removal from mandibular fossa) and the posterior half of the skull had been cut off (across the frontal)" and suggests that it may have been part of medicine bag." To the south, Burial 2XB on the sixteenth century Anker site included an otter skull "with sheet copper inlaid in eyes and on back of head; red ochre on teeth" This was interpreted to be part of medicine bag." (Bluhm and Liss 1961:129, Figure 52).

While the antler tine tip may have been a pressure flaker, such an apparently secular function is inconsistent with the nature of the other grave offerings. Among the Seneca, the deer was also a medicine animal (Parker 1923:388). It is perhaps significant that Feature 285 on the Glen Meyer Calvert village near London produced not only Carolina parakeet bones and a stone pipe bowl, but also a ground and pointed deer antler tine and black slate tool (Prevec 1984:Figure 3). Von Gernet and Timmins (1987) suggest that this assemblage reflects a shamanistic world view.

The Pfingstgraef black shale item is similar in size and form, although not as completely worked, as the three "thin, elongate, polished slate objects of unknown use" found as offerings in Burials 6 and 7 on the Middle Woodland Sea Breeze site in New York State (Ritchie 1944:127, Plates 56 and 130). Kenyon describes six similar artifacts as "pointed whetstones" from burial offering Cluster 1 (1986:25), Cluster 2 (Kenyon 1986:32-33, Plate 8e) and Cluster 5 (Kenyon 1986:36, Plate 8b,c) at the LeVesconte Mound in the Trent valley. Pointed "whetstones" are also reported from the Middle Woodland Cameron's Point site on Rice Lake (Spence and Harper 1968:47, Plate 4), from a grave on Noncon Island, Lake Scugog (Wintemberg 1928:183), and from the See Mound on the St. Lawrence River (Spence et al. 1990:159, Figure 5). Spence and Harper (1968:47) note, however, that "Though these objects have been called whetstones in the literature their frequent polish, the lack of whetting scars, and the presence of points on most suggest they were meant for another use."

It seems possible that the grinding striations and facets along the lateral edges of the Pfingstgraef specimen do not reflect purposeful shaping of the piece, but were generated in the production of a powder residue. George Nelson documents the use of stone powder mixed with water as a medicine among the early nineteenth century Cree (Brown and Brightman 1990:57), while Dens-more (1928:331) states that grated red pipe-stone powder washed down with water was a remedy for "scrofulous neck" among the Chippewa.

Parker (1923:17) records that for the Iro-

Figure 13. The Shaman, with Bark Rattle and Otter Skin Medicine Bag. Artist's reconstruction by W. Fox and J. Ravenhurst, based on Catlin (1973:Figure 19).

quois the bones of the Monster Bear "form important parts of 'magic medicine' and the dust from one of his leg bones if taken as a medicine is reputed to make a runner invincible". Could the grinding on the Pfingstgraef bear mandibles have been for powder production and not for shaping or smoothing? In the Seneca legend The Horned Serpent Runs Away With a Girl Who is Rescued By The Thunder", the 'Thunderer showed them a medicine bag filled with black scales" from the back of the horned serpent and it is noted that "there are those scales in medicine bundles to this day" (Parker 1923:222). Parker (1923:368) also reports that a charm holder's bundle should contain "scales of the great horned serpent" and "bones or bone powder of the *Niagwahe* or monster bear", and that "Individuals also had other charms, as different kinds of stones or wooden tablets that they scraped into a powder as 'medicine'." Is the black shale pebble a "great horned serpent scale" to be scraped for medicine?

Charm bundles should also include a "round white stone given possessor by a pygmy" (Parker 1923:368). DeCost Smith (1889:278), for the nineteenth century Onondaga, relates an incident where "a stony object of a whitish color" was removed from a bewitched woman by sucking shamans. Small white stones are powerful items in several Seneca legends. They could be used to dispatch a bewitched white beaver (Smith 1889:189) or a pair of "great white" otters (Smith 1889:260). They could even be used to magically create an "immense escarpment" to slow the progress of a murderous sorceress (Smith 1889:265). Another use for such pebbles is reported by Alanson Skinner involving a Middle Woodland grave offering at Cayuga, New York, where a box turtle shell rattle contained "half a dozen small, white, quartz pebbles" (Skinner 1919:47). Similar box turtle shell rattles from the early seventeenth century Neutral Iroquois Grimsby cemetery all contained various numbers of small pebbles (Kenyon 1982:39-41, 196, 198), including one from Grave 19 which contained 47 small water-rounded pebbles, mostly of "quartzite" (Kenyon 1982:94). Given the range of Pfingstgraef burial items, there is a possibility that at least the smaller of the two pebbles and perhaps others not recovered were contained within a rattle of organic material such as bark or gourd.

While we can never know the nature of those grave offerings which have been lost due to storm action or lack of organic preservation, there is little doubt that the majority of the man's possessions buried with him are forever gone. What remains is suggestive of magic and curing. The drilled bear phalanges near his hands may have been part of a necklace or may even represent claws which were once attached to a bear skin garment similar to that illustrated by Catlin (1973:Figure 19). The bear cub mandibles may have been attached to hide medicine bundles or they may have been included with the adult mandible, antler tine, and shale item in an otter skin medicine bag, perhaps itself within a woven textile bag (Slight 1844:93). The pebbles *may* have been contained in the type of bark rattle traditionally used by the Bear Society (Figure 13).

Whether this man actually practiced the soul flight and deeper ecstacy characteristic of shamans, or was a medicine man who transformed into a bear while attempting to remove the spells and objects of witchcraft (Hultkrantz 1979:88-89), his possessions and isolated grave suggest that he was a special member of his band. As Hultkrantz (1979:101-102) has observed, such a man "cures the sick, he reveals things hidden in time and space, leads ceremonies and rites, and is in many places the foremost authority on the traditions of the tribe". His passing may have been greatly mourned a millennium ago in the region we now know as Long Point.

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