

# 1972 Salvage Excavations at DfRs3, the Whalen Farm Site

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## Introduction

In the summer of 1972, Mr. D. Stock of Maple Beach, Point Roberts, informed the S.F.U. Archaeology Department of his intention to bull-doze a section of undisturbed midden deposit on his Maple Street property in order to make way for a house addition. This deposit was part of one of the few remaining undisturbed portions of DfRs 3. Mr. Stock

invited the Department to undertake excavations on his premises. Subsequently, a volunteer salvage dig was organized by several students, including the author, in order to test the threatened deposits. Excavation continued intermittently from late August to the first of October, 1972.

## The Site

DfRs 3 is a coastal shell midden located on the east shore of Point Roberts peninsula in Washington State. The site fronts the waters of Boundary Bay and traces of it are visible in and around the present subdivision of Maple Beach (Fig. 23). The surrounding area was historically occupied by the Semiahmoo group of the Coast Salish. Although now largely bull-

dozed or otherwise altered by the construction of summer cottages, the site was once quite extensive, stretching parallel to the beach for perhaps 500 metres. Formerly there were two main midden mounds in the area, one located farther inland than the other.

## The Excavations

As mentioned previously, testing was undertaken in the mound closest to the shore of Boundary Bay. The excavation locus is ca. 125 metres inland from the beach. The portion of undisturbed midden which was located in the southeast corner of the Stock property (Lot 15 on the South side of Maple Street) measured roughly 8 x 3.5 meters. (Fig. 42). After test excavations were completed, this mound was bull-dozed.

A datum point was established at the southeast corner of the house that stands in the centre of Lot 15. From this point, a North/South base-line was set up on the East side of which two 2 metre x 2 metre

pits were laid out. The northern pit will be referred to as Pit A and the southern one as Pit B. The pits were separated by a 1 metre wide baulk. During the course of excavation two 1 x 2 metre extensions to Pits A and B were added onto their western sides. These will be referred to as Pits C and D. In addition a 1 x 1 metre test-pit was opened to the southwest of the main excavation locus. The stratigraphy of this unit, Pit E, confirmed the boundary between disturbed and undisturbed deposits which had previously been only assumed. The deposits of Pit E were extremely disturbed, apparently from landscaping activities. Excavation was terminated in Pit E at 70 cm.

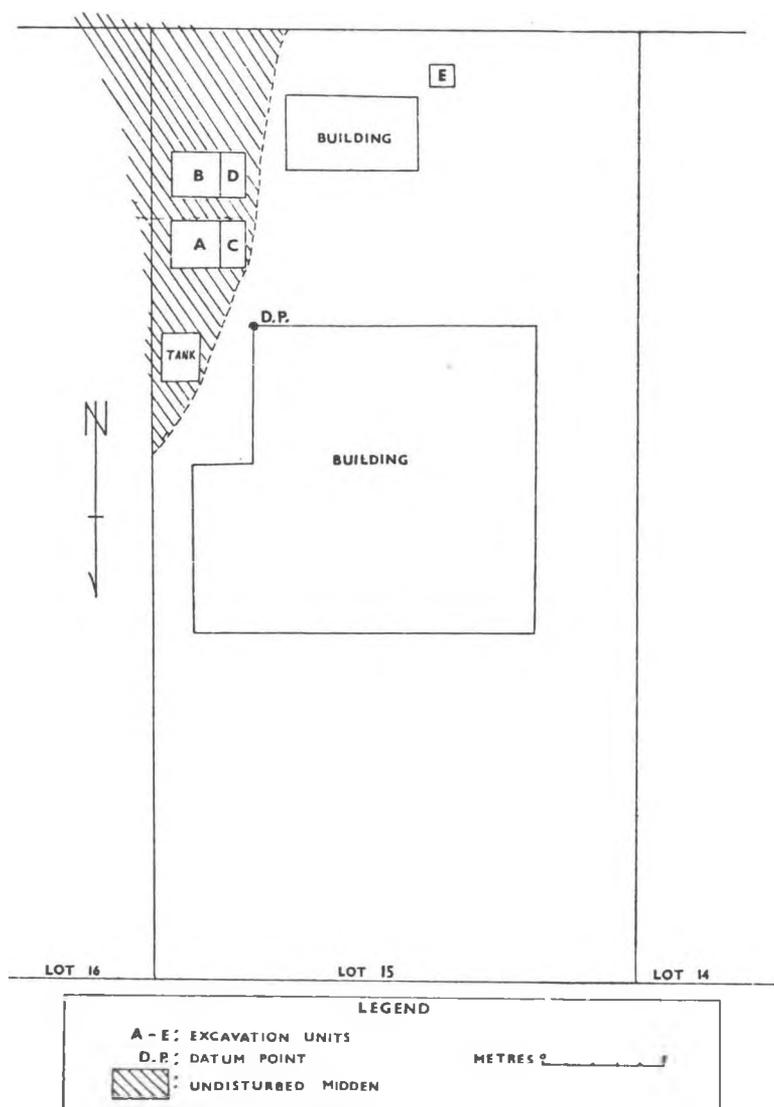


Fig. 42. Plan of excavations at the Whalen Farm site, DfRs 3.

below surface. Only one artifact, a fragment of ground bone, was recorded from this unit, at a depth of 60–70 cm. Digging was carried out largely by shovelling in arbitrary 10 and 20 cm. levels. Features were excavated with trowels and dust-pans and smaller tools when necessary. All excavated material was

screened through  $\frac{1}{4}$  inch mesh.

Pits A and B were taken down to sterile beach sand and gravel at approximately 4.30 metres below the surface. Units C and D were not fully excavated because of time limitations, but were dug to depths of .80 metres and 1.40 metres respectively.

### Stratigraphy

The stratigraphy of the portion of DfRs 3 that

was test-pitted can be divided into four major zones

(Fig. 43). From oldest to youngest, they are identified as Zones I to IV.

**Zone I:** The cultural deposits at DfRs 3 rest upon this stratigraphic unit. It is composed of light brown sterile beach sand mixed with fine gravel. It continues from approximately 4.1 metres below surface to an unknown depth, since excavation was terminated at 4.3 metres below the surface. The upper portion of Zone I, where it came in contact with the cultural deposits was streaked with a few thin lenses of highly disintegrated mussel and clam shell.

**Zone II:** This zone is composed largely of great quantities of highly fragmented, compressed, mussel shell (*Mytilus edulis*) in addition to smaller amounts of decomposed cockle (*Clinocardium nuttalli*), horse clam (*Schizothaerus nuttalli*) and butter clam (*Saxidomus giganteus*) shell, in fairly well defined layers. Small cobbles, some of which were firecracked, were scattered throughout this unit. There was little soil in evidence. However, towards the bottom of this deposit, the crushed shell was mixed with thin lenses of bluish-gray clay and occasional light-brown sand layers. It extends from about 3.0 metres below the surface to the top of Zone I at approximately 4.1 metres.

**Zone III:** This zone extends from 2.4 metres to 3.0 metres below the surface. The deposit consists mainly of highly compacted, dark brown to black soil containing relatively few shell remains and comparatively large quantities of small cobbles, some of which were heat fractured. Mollusc shells were invariably highly fragmented. A few thin lenses of ash and fragmented shell mixed, were also located in this unit.

**Zone IV:** This is a comparatively loosely compacted deposit, extending from the surface to a depth of approximately 2.4 metres. It is composed of well-defined lenses of whole and partially fragmented clam and cockle shells and relatively unconsolidated grayish-brown soil in small quantities. A few mussel lenses are located in this stratigraphic unit, along

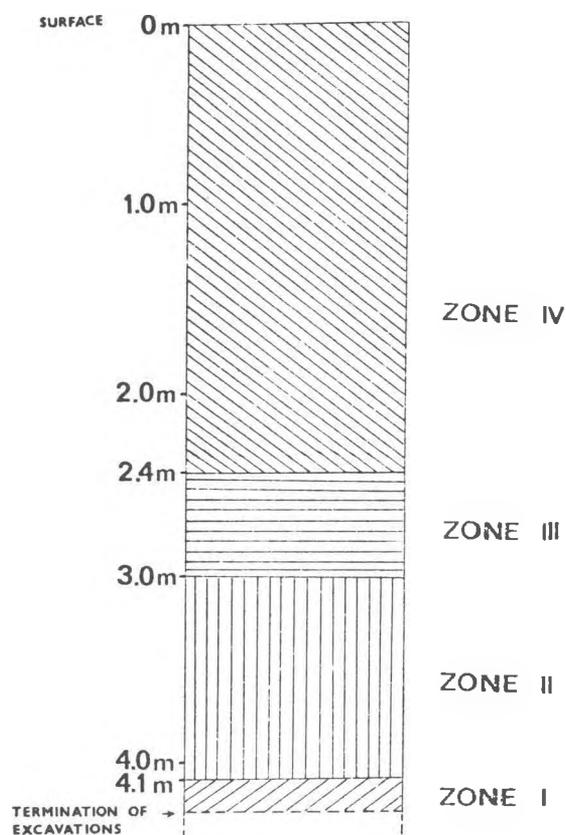


Fig. 43. Idealized strata at DfRs 3.

with numerous cobbles. Whelk (*Thais* sp.) shells were recovered in small numbers throughout this zone and in the upper levels of Zone III. A thin surface humus layer, approximately 10 cm. thick and containing numerous shell remains caps Zone IV.

### Faunal Remains

**Molluscs:** This food resource is represented in the excavations by profuse quantities of whole and fragmented shell. The most numerous species noted were cockle (*Clinocardium nuttalli*), butter clam (*Saxidomus giganteus*), horse clam (*Schizothaerus nuttalli*) and mussel (*Mytilus edulis*). Univalves such as whelks (*Thais* sp.) and limpets (*Acmaea* sp.) were also recovered in small numbers. A few small concentrations of sea-urchin (*Strongylocentrotus* sp.) spines

were noted in the uppermost layers of the midden.

**Fish:** Most of the fish bones collected from this site have not been quantified or identified as to species. However (*Squalus* sp.) spines were present in small numbers. Fish bones (the majority of which were vertebrae) were more abundant in Zones II and III than in Zone IV.

**Bird and Mammal Bones:** An analysis of the bird and mammal remains from Pits A and B has been

carried out. Of the 1128 whole and fragmented bones recovered, 701 (62%) were from mammals and 427 (38%) were identified as bird bone. In the case of deer and elk, antler fragments were included in the bone category. This analysis also includes artifacts of bone and antler. Over 85% of the bird and mammal bones excavated were spread throughout stratigraphic Zone IV. The rest of the faunal material was distributed rather evenly throughout Zones II and III.

**Mammal Bones:** 160 mammal bone specimens could be positively identified. Figure 44 shows the species breakdown and relative percentages (out of a total of 160) demonstrated by each. On the basis of the great number of bones (75% of the 160 specimens identified) with at least one unfused epiphysis, it seems reasonable to infer that a large proportion of the animals represented were not fully mature. Dog, (*Canis familiaris*) is the best-represented species, followed by deer (*Odocoileus hemionus*), elk (*Cervus canadensis*), harbour seal (*Phoca vitulina richardii*) and porpoise (*Delphinus* sp.). There were two unidentifiable sea-mammal bone specimens. One possible marten (*Martes americanus*) ulna was also found.

Because of the size of the faunal sample and the relatively tiny horizontal extent of the part of the site

tested, it is difficult to make any credible inferences regarding the respective abundance of the species identified. Perhaps land and sea-mammal hunting were only of marginal importance at this site, a factor possibly accounting for the lack of many game animal remains. Seasonal shellfish gathering or fishing may have been the primary occupations carried out. Ethnohistorically, various Coast Salish groups regularly occupied the southeastern corner of Point Roberts peninsula during the summer months in order to reef-net sockeye salmon, returning afterwards to winter villages on Vancouver Island and elsewhere (Suttles: 1951:152ff).

On the other hand, the differences between the amount of faunal material recovered per species may reflect a preference (or a lack of preference) on the part of the inhabitants for discarding certain types of bone in one particular area. The chance preservation or decomposition of bone specimens must also be considered in explaining the species breakdown. The great numbers of dog remains excavated are difficult to explain. The use of domestic dogs for hunting deer and elk as well as for the production of wool was well-established ethnographically among the Coast Salish (Barnett: 1955: 96-7). How far into prehistory

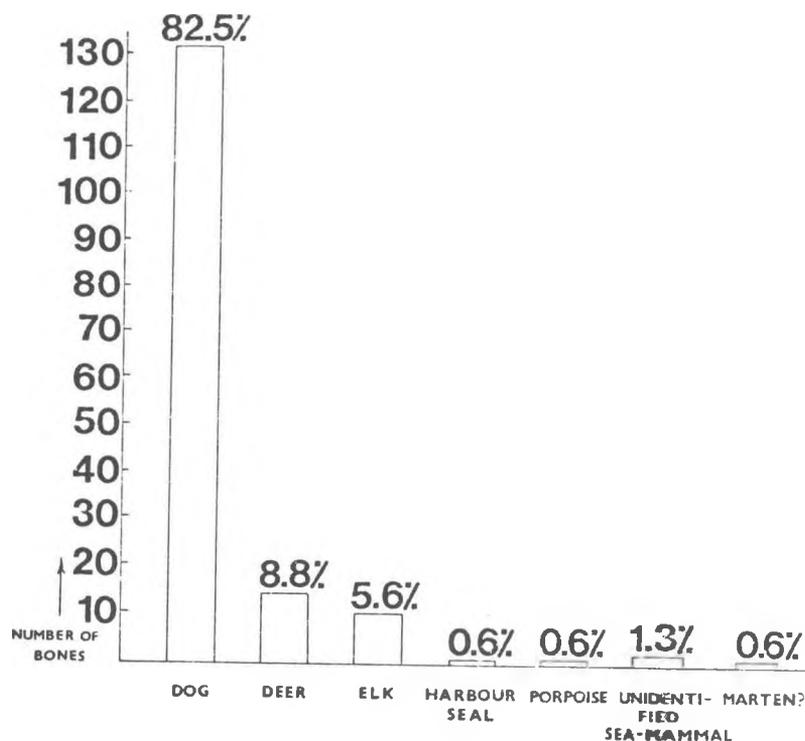


Fig. 44.

Frequency of mammalian remains.

these practises extend is unknown, though the relative abundance of dog remains at DfRs 3 may indicate a considerable time-depth. Again, differential preservation and the small size of the sample should be taken into account.

**Bird Bone:** The 427 bird bones were not identified to the species or generic level. Of these bones, 296 could be identified as to specific skeletal elements such as humerii, tibiotarsii, etc. The most abundant types of skeletal elements proved to be wing and leg bones respectively. 284 wing bones and 10 leg bones were counted. Of the wing-bones, the carpometacar-

pus (the third bone from the distal end of the wing and which, in conjunction with the previous two elements makes up the distal segment of the limb) was the most abundant, with 209 specimens excavated. Only two non-wing/leg bones were found. Body bones were evidently not preserved or were discarded elsewhere. The great abundance of wing and leg bones cannot be satisfactorily explained at present, though it may be due to differential preservation between the more robust bones of the extremities (excluding the head and neck) and the delicate nature of the bones of the body proper.

### Human Remains

Human skeletal remains from at least three individuals were encountered. During the excavation of Pit D, a human burial was exposed between 30 and 40 cm. below the surface (Fig. 45). The burial was in a tightly flexed position lying on its back with legs leaning toward the west. The vertebral column was aligned in a North/South manner with the head to the South. Most of the long-bones were reasonably well-preserved, though the innominates and others were fragmented. The skull was in many pieces, but the mandible was still intact. The individual was a male, approximately 12–14 years of age (O. Beattie, pers. comm., 1973).

This burial was located very near the South wall of the pit, and the darker profile of a well-defined pit coinciding with the horizontal and vertical provenience of the skeleton could be clearly seen in the stratigraphy. Three large rocks, one of them covering the upper portion of the burial, were found in a row beside it. Five additional boulders, (features that were virtually absent in the other pits), were found approximately 10 cms. above the burial surrounding its perimeter. They may, in conjunction with the three stones directly associated with the burial, represent a cairn. Similar cairns or small burial mounds have previously been reported from the Point Roberts peninsula by Smith (1901:61), as well as other areas of the Gulf of Georgia region. No artifacts were found in association with the skeletal material, even though the matrix around the burial was screened through fine mesh.

In Pit A at 1.1 metres below the surface, two fragmented human innominates were discovered. They were from an adult male individual. No boulders, pits or artifacts were found in association. Several cranial fragments and a femur shaft were recovered from the 70–80 cm. level of Pit B. Other, scattered, very fragmented human remains were found in the

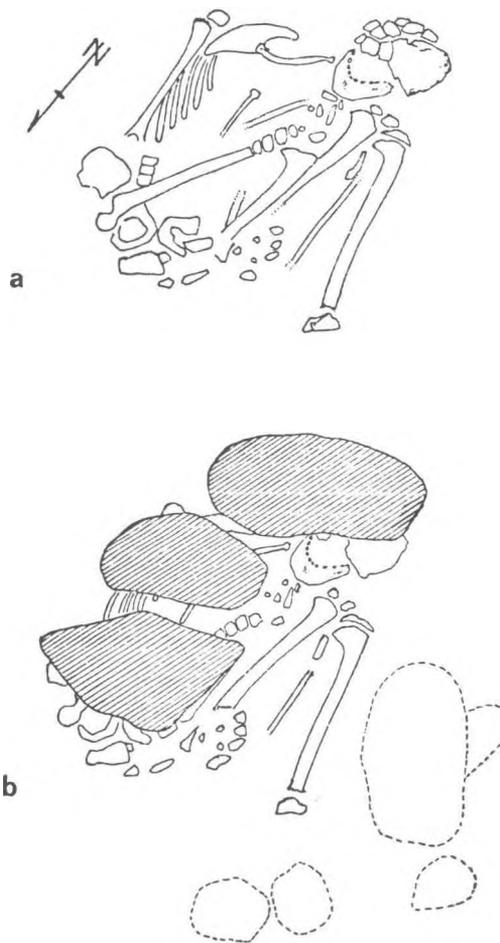


Fig. 45.

*Burial from Pit D with rock covering.*

excavated pits down to a depth of 1.3 metres. A conclusive statement about the number of individuals

represented by these latter finds is not justifiable.

## The Artifacts

A total of 163 stone, bone and antler artifacts were excavated from DfRs 3. In addition, another 20 were retrieved from surface collection nearby or from subsequent landscaping of the test-pitted area. This report deals only with the 163 provenienced artifacts. The upper 10 cm. of the cultural deposit contained a considerable number of historic items such as rusted

nails and broken glass which can be attributed with some certainty to activities since the turn of the century. The relative frequency of artifact types and their stratigraphic association by zone is shown in Table 1. Where not otherwise indicated, measurements given refer to the greatest length, width and thickness of the artifact under consideration.

### Stone Artifacts

A total of 29 chipped stone artifacts were recovered. They are primarily made of the local coarse-grained basalt, though 2 specimens are of quartzite, one is of agate, and another is of slate. There are 31 pecked, ground and incised stone tools made from a variety of lithic materials.

**Chipped Points:** Three basalt projectile points were excavated, having lengths of 4.0 cm., 4.4 cm and 5.2 cm. The largest is a rather slender, triangular, corner-notched specimen (Fig. 47a). The slightly smaller one shown in Fig. 47b is relatively thick leaf-shaped point with a concave base. The smallest point is fragmented and is triangular in shape (Fig. 47c). This last specimen is quite flat and shows evidence of unifacial reworking along one edge of the tip.

**Bifaces:** One complete biface and 3 biface fragments, all of basalt, are found in the sample. The complete artifact (Fig. 47d), probably functioned as a knife or scraping tool. It measures 6.1 cm. long. The thick bulb of percussion and striking platform of the flake that this tool was prepared from are located on the upper end of the artifact.

The smaller biface fragments measure 2.0 x 1.6 x 0.5 cm., 4.9 x 3.2 x 1.6 cm. and 5.8 x 2.1 x 1.3 cm.

**Boulder-spall Tools:** The two representatives of this category are relatively robust artifacts, the larger one measuring 13.0 x 8.6 x 2.1 cm. and the smaller one 11.2 x 6.3 x 1.9 cm.

The smaller of these artifacts was made from a flake retaining part of the cortical surface of the core from which it was removed (Fig. 47f). It is bifacially worked and made from a pinkish quartzite. The larger specimen is made of basalt and has been unifacially worked along one edge.

**Cores:** Two basalt cores were excavated in the 1972 work. One measures 9.5 x 4.4 x 3.4 cm. while

the smaller of the two measures 5.0 x 4.7 x 3.3 cm. Basalt beach cobbles of a size similar to the cores described above are readily available on the beach in front of the site.

An agate core measuring 2.6 x 2.0 x 1.8 cm. was recovered from near the middle of Zone IV. It was fashioned from a small waterworn pebble.

**Unifacially Worked Flakes:** 15 of the 16 specimens in this category are of basalt, the 16th being of quartzite. The modification of the flakes ranges from the removal of a few random chips from a single edge to one specimen that has small flakes struck off in a patterned manner from two edges (Fig. 47e). However, only 7 of these flakes exhibit a well-defined retouch pattern. The bulk of the edge alteration on the flakes of this class probably come about as the result of their utilization as cutting and scraping tools.

**Chipped Slate:** There is one thin, chipped slate slab in the sample, measuring 8.7 x 4.5 x 0.5 cm. It shows evidence of rough, bifacial chipping all around its perimeter.

**Stone Vessels:** Two mortar or bowl fragments were excavated, one of which is decorated on the side with a carved anthropomorphic face (Fig. 46). This specimen measures 11.2 cm. long by 5.6 cm. wide and along its outside rim it is 4.3 cm. high. The unembellished bowl fragment is 9.4 cm. long by 5.4 cm. wide and is 5.4 cm. high (Fig. 48a). The process for creating the vessels appears to be a combination of pecking and grinding. The latter process has eliminated most of the pecking marks. The anthropomorphic bowl is made from a tough, igneous stone, while the other example is of a fine-grained vesicular stone, also igneous.

**Maul Fragments:** The single maul fragment found is ground very smooth and polished. Its cross-section resembles one half of a bisected circle with

Table 1. Artifact distributions by stratigraphic zone.

	Zone I	Zone II	Zone III	Zone IV
<u>Bone Artifacts</u>				
Split Cannon Bone Awls				2
Ulna Awls				3
Bone Points		1	2	1
Needle			1	
Composite Toggling Harpoon Valve			1	
Worked Rib		1		
Spatulate Tool			1	
Worked Bird Bone		2		1
Bone Beads				2
Perforated Bone Fragment		1		
Worked Bone Fragments		4	4	12
<u>Antler Artifacts</u>				
Unilaterally Barbed Points				3
Unbarbed Antler Points				2
Antler Wedges			1	7
Worked Antler Object			1	
Chopped Antler Tines		2		2
Chopped Antler Beam				1
Worked Antler Fragments		2	3	13
<u>Artifacts of Other Materials</u>				
Dogfish Spine "Awls"	1	3	2	20
Perforated Bird Claw			1	
<u>Chipped Stone Artifacts</u>				
Chipped Stone Points			1	2
Bifaces/Biface Fragments			1	3
Boulder-spall tools				2
Cores			1	2
Unifacially Worked Flakes				16
Chipped Slate Slab				1
<u>Pecked, Ground and Incised Stone</u>				
Stone Vessels		1		1
Maul Fragment				1
Pecked Pebble		1		
Hammerstones				2
Nephrite Adze-Blade				1
Ground Slate Point				1
Lignite Pendant				1
Abrasive Stones		1		12
Worked Siltstone		1		8
Totals	1	20	20	122

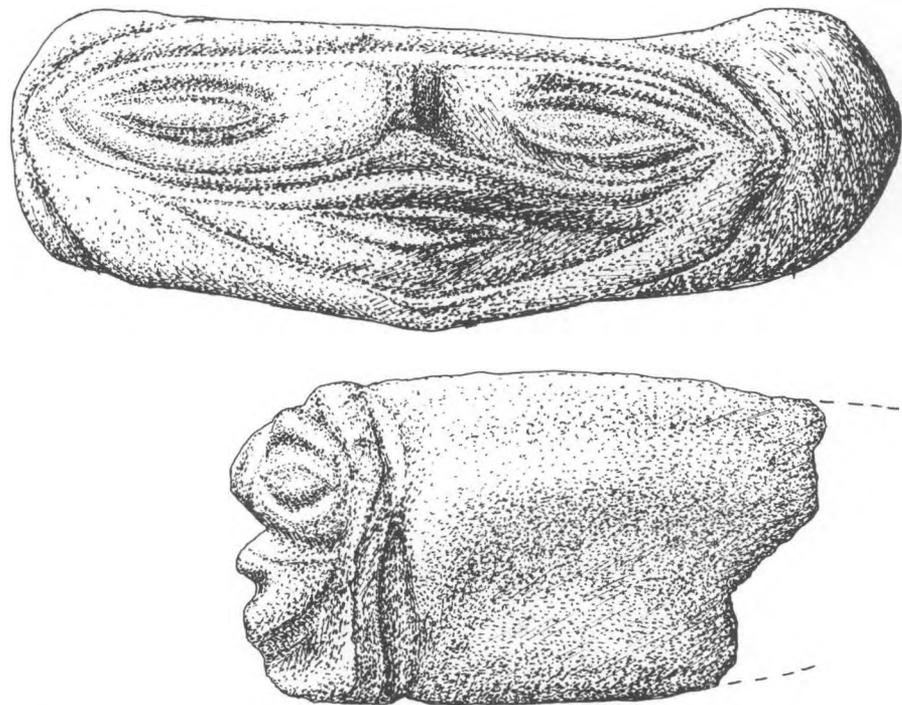


Fig. 46.  
Carved stone bowl from Zone IV,  
at DfRs 3.

the worked portion of the stone being the convex side. It is 4.8 cm. long, 4.9 cm. wide and 2.2 cm. thick. It is made from a dense igneous stone (Fig. 48c).

**Pecked Pebble:** This artifact is an oval, flattened, waterworn pebble 6.0 cm. long, 4.5 cm. wide and 2.5 cm. thick. It has shallow depressions pecked into each of its opposing flat sides (Fig. 48d).

**Hammerstones:** Two hammerstones were discovered. One is an almost perfectly round, waterworn cobble, plano-convex in cross-section, 8.9 cm. across and 3.8 cm. thick. There are small hammering marks along its edges and on both of its faces. The second hammerstone, roughly rectangular in shape, is 9.8 cm. long, 6.5 cm. wide and has a maximum thickness of 1.6 cm. It is extensively pock-marked from repeated blows all along the edges of its long axis, and to a lesser degree at either end. Several small flakes have been removed from the edges, probably in the process of this pebble's use as a hammerstone.

**Nephrite Adze Blade:** A single, complete, nephrite adze blade was excavated which measures 7.7 cm. in length with a maximum thickness of 1.3 cm. (Fig. 49a). The slightly convex bit is 3.5 cm. wide while the poll measures 1.9 cm. across. This artifact

is roughly rectangular in cross-section, with all faces being gently convex. There is evidence of wear on the bit in the form of several small chips that have been removed.

**Ground Slate Point:** The lone representative of this artifact type in the collection is leaf-shaped and 5.8 cm. in length, with a base 1.9 cm. wide (Fig. 49b). It has a maximum thickness in its midsection of 0.2 cm.

**Pendant:** This highly polished decorative piece measures 2.7 cm. long, 1.4 cm. wide and 0.9 cm. thick (Fig. 49c). The stone it is made from is deep reddish-brown in colour and is probably lignite. The perforation at the top is biconical in form.

**Abrasive Stones:** A total of 13 sandstone abraders were excavated. 8 of these have two separate abrasive surfaces on opposite faces, while the other five have been utilized on one side only. The specific abrasive surfaces themselves range from solitary very smooth sections on the stone to one or more shallow depressions to a deeply worn groove. The latter feature is shown in the specimen illustrated in Fig. 49d. The groove is 8.5 cms. long, 0.8 cms. deep at its deepest and has a maximum width of 2.6 cm. Another particularly interesting abradar exhibits 8

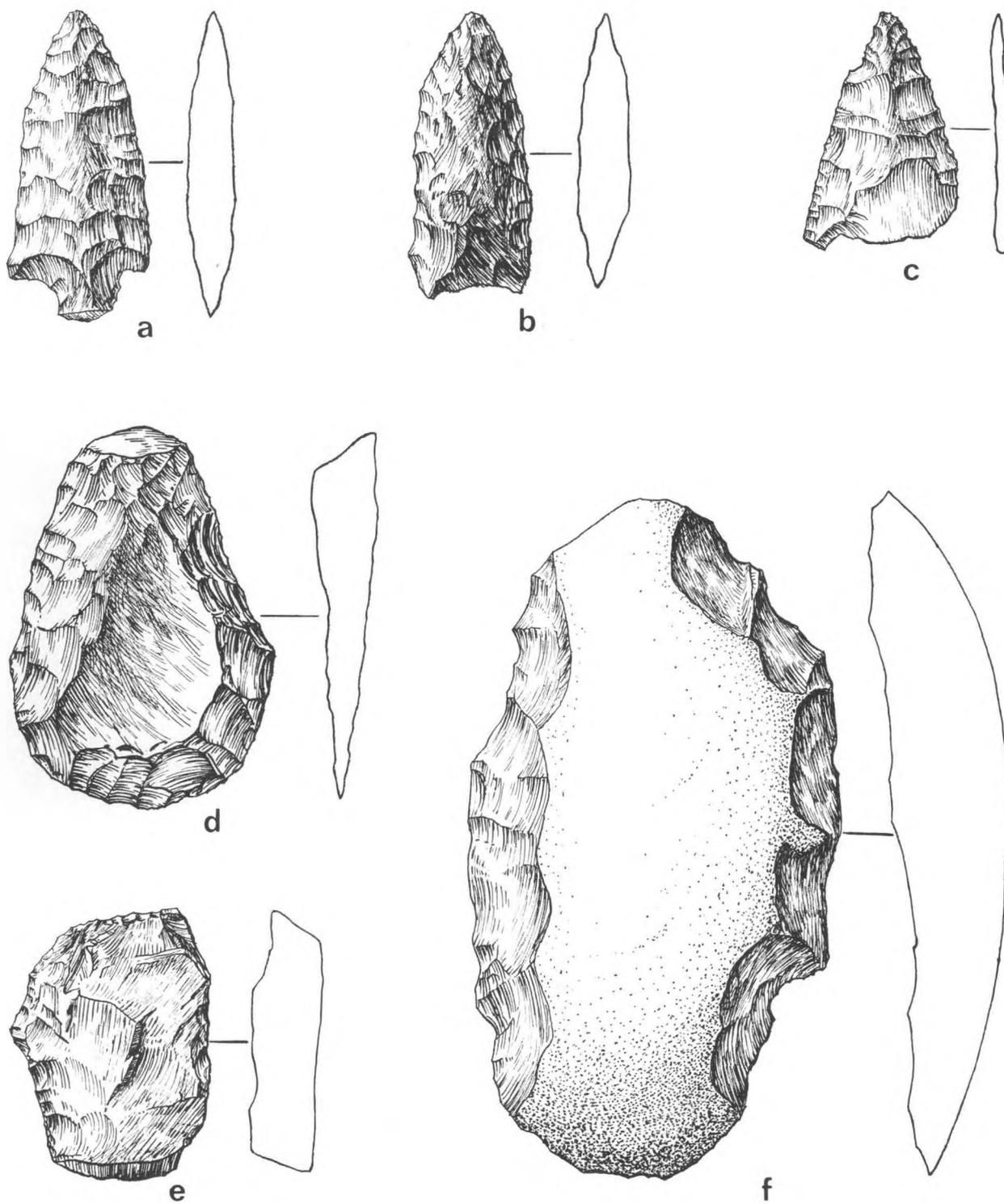


Fig. 47. Chipped stone artifacts from DfRs 3. All are from Zone IV except c from Zone III.

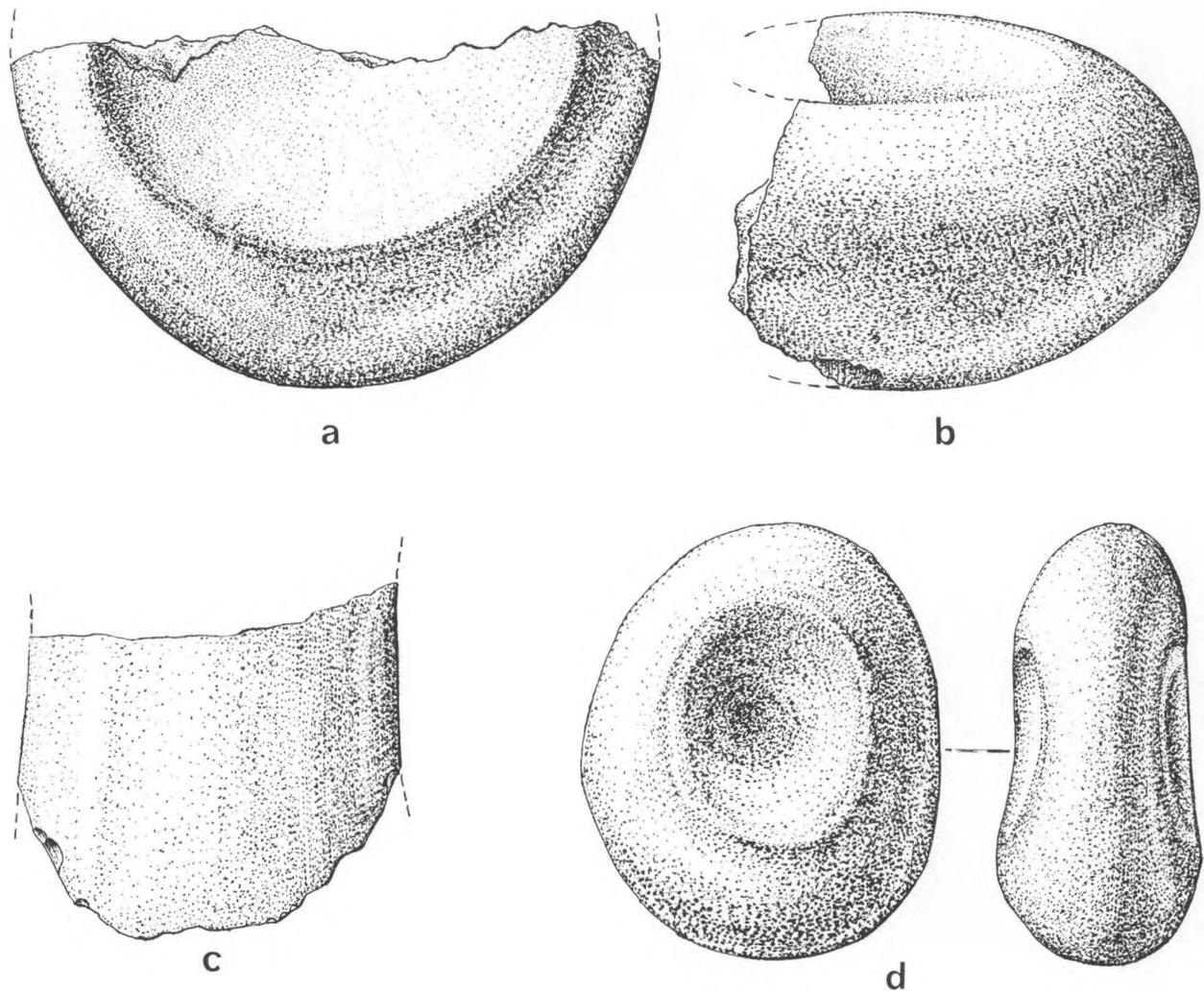


Fig. 48. Pecked stone artifacts. a – b, top and side views of bowl from Zone II. c, maul fragment from Zone IV. d, bi-concave stone from Zone II.

narrow grooves, each approximately 0.2 cm. wide and up to 4.1 cm. long (Fig. 49e).

**Worked Siltstone:** Nine pieces of ground, gouged, and incised siltstone were excavated. The most interesting of these artifacts are a small, abraded, siltstone pebble with a shallow, gouged-out depression (Fig. 49f), and a flattened piece with lines incised on its two opposing faces (Fig. 49g). The

small gouged pebble is 5.0 cm. long, 2.7 cm. wide and 1.5 cm. thick. The gouged depression is approximately 0.5 cm. deep. The larger example is 7.3 cm. long, 5.1 cm. wide and 2.2 cm. thick. There are five roughly parallel lines incised approximately 1.5 mm. deep into each flat face of the pebble. The patterns on each face are almost identical.

#### Artifacts of Bone

**Split Cannon-Bone Awls:** Two split cannon-bone awls were recovered, one of which is illustrated in Fig. 50a. These tools were made from deer cannon bones that were split in half longitudinally before the

proximal portions of each half were ground into shape. The butt-ends are unaltered. The specimens measure 11.4 cm. and 8.3 cm. in length.

**Ulna Awls:** There are two complete ulna awls

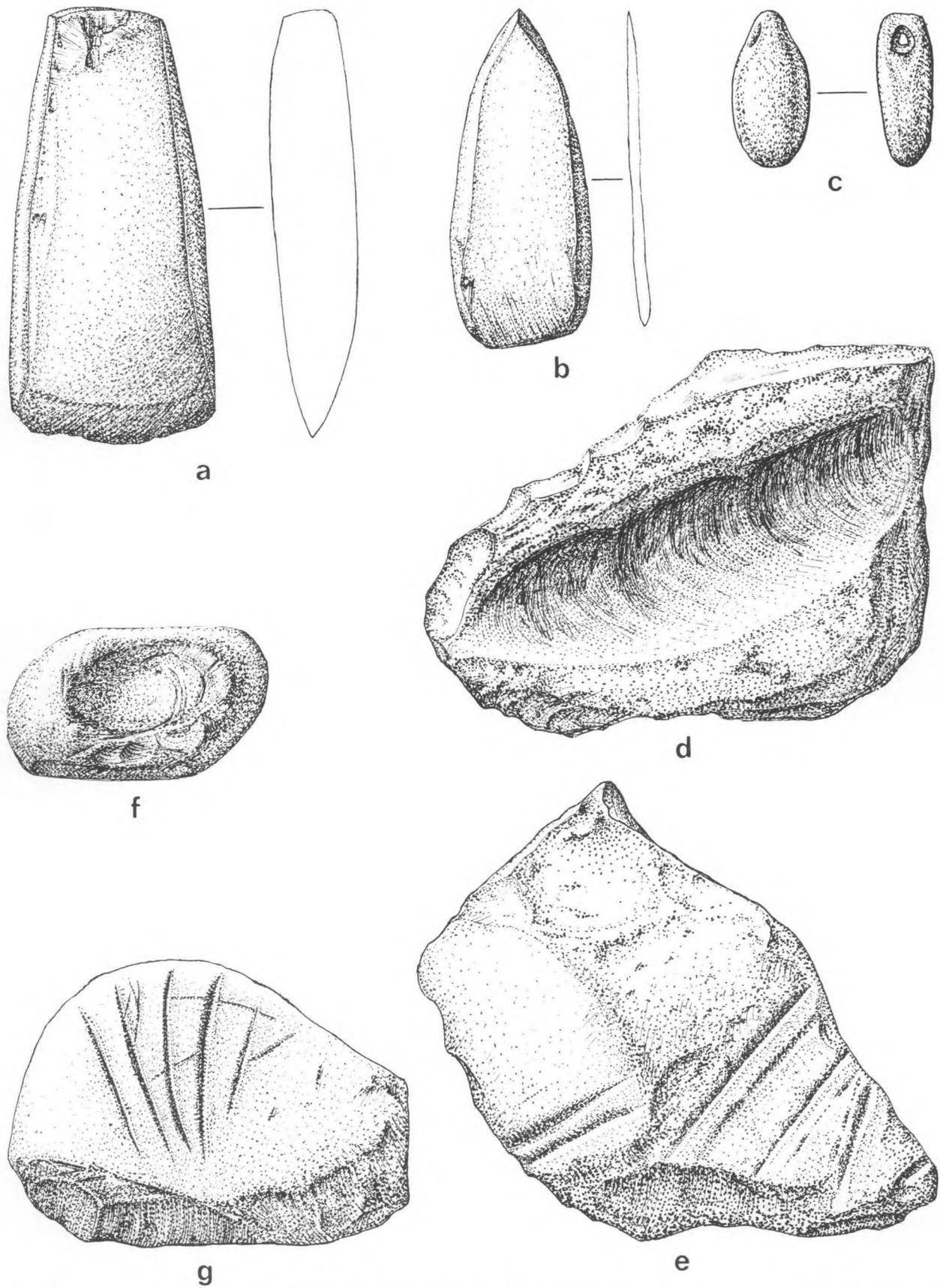


Fig. 49. a, nephrite adze blade. b, slate point. c, lignite pendant. d, e, sandstone abraders. f, g, siltstone objects. All from Zone IV.

and one tip fragment in the assemblage. The distal portions of all these tools are polished. The two incomplete awls are made from deer ulnae and measure 10.7 cm. and 9.7 cm. in length. The larger specimen is illustrated in Fig. 50*b*. The tip fragment is 3.1 cm. long and exhibits evidence of reworking on both edges.

**Bone Points:** Four bone points were recovered. The lengths of the two largest of these points are 4.5 cm. and 3.6 cm. The former is a well-polished specimen with a round cross-section and may represent the distal end of a needle, though no perforation is evident (Fig. 50*c*). The smaller tool is similar to a flattened rectangle in cross-section, its distal portion having been rather crudely worked to a point, (Fig. 50*d*). A thicker point-tip, 2.5 cm. long, with a rectangular cross-section (Fig. 50*e*), and a smaller, burnt point, (Fig. 50*f*) that is 1.8 cm. long and which has a rounded cross-section, complete this category.

**Needle:** One complete needle was recovered in the 1972 excavations. This specimen resembles a flattened rectangle in cross-section and is 15.7 cm. long (Fig. 50*g*). An oblong perforation is located 2.2 cm. from the distal end and is 0.3 cm. across at its widest point.

**Composite Toggling Harpoon Valve:** The single specimen excavated is 6.3 cm. in length and shows no evidence of a lashing groove or socket for a cutting blade or point (Fig. 50*h*). The blade-bed is ground flat, possibly for the insertion of a thin ground slate or bone cutting blade. The socket for the shaft is comprised of a section of the unmodified medullary cavity of the section of long bone used to make the valve.

**Worked Rib:** This broken tool, 11.1 cm. long, 1.5 cm. wide at its widest point and 0.3 cm. thick, is made from the midsection of a mammal rib. Both edges of the medial face of the rib show numerous

striations and a high degree of polish (Fig. 50*i*). The lateral face and fragmented ends of rib show no signs of working or usage.

**Spatulate Tool:** This fragmented artifact is highly polished and has a shallow groove running the length of one face which widens toward the distal end (Fig. 50*j*). The tool is slightly curved with the groove being on the convex side. It is 11.3 cm. long, 1.3 cm. wide and 0.2 cm. thick at its midsection. It is fashioned from a piece of mammal long bone.

**Bird Bone Artifacts:** Three artifacts of bird bone were recovered. Two of these, having lengths of 3.8 cm. and 4.3 cm. have pointed ends which exhibit polish and wear patterns probably indicative of their use as piercing tools. The larger of these specimens is shown in Fig. 50*k*. The third example, which is 6.0 cm. long, has numerous shallow, apparently unpatterned incisions running at right angles to the long axis of one side of the bone.

**Bone Beads:** Two bone beads were recorded. The largest of these (Fig. 51*a*), is fashioned from a section of mammal long bone. This ring is ground and polished on all faces except for the inside walls. The second example (Fig. 51*b*) shows no signs of grinding or polishing. It too, is cut from a section of thin long bone, probably that of a bird.

**Perforated Bone:** This enigmatic artifact is 4.5 cm. long, and consists of a section of bone with a 0.4 cm. wide hole drilled completely through it (Fig. 51*c*). The concave face of this artifact has been ground and slightly polished.

**Worked Bone Fragments:** 20 amorphous cut, ground, or polished bone fragments were recovered, two of which have been burnt. 6 of these pieces exhibit traces of the "groove and split" boneworking technique, in the form of long, regular striations along one or more of their edges.

### Antler Artifacts

**Unilaterally Barbed Antler Points:** Three incomplete specimens of this artifact type were found. Two of these are the butt-ends of fixed points while the third is the distal portion of a harpoon or fixed point. These specimens have respective lengths of 10.3 cm., 8.4 cm. and 6.3 cm. (Fig. 51*d, e, f*).

**Unbarbed Antler Points:** The larger of these two incomplete points is 4.1 cm. long, while the smaller one is 2.3 cm. long. The former (Fig. 51*g*), has a flat, tear-drop shaped cross-section while the latter is rounded (Fig. 51*h*). These points are quite possibly tip or butt fragments from larger barbed antler points.

**Antler Wedges:** Wedges are the most numerous of the classifiable antler artifact types. All 8 of these tools were incomplete, ranging in length from 2.1 cm.

to 16.3 cm. Four of them show signs of having been uniaxially bevelled at the distal end while three others appear to have been worked bifacially. The distal end is missing from the eighth specimen. Five of these wedges were fashioned from antler tines while the remaining three were probably made from portions of the antler beam. Judging from the length and thickness of these tools, most of them appear to have been made from wapiti antler. Fig. 51*k* illustrates a wedge made from an antler beam while Fig. 51*i* shows an antler tine wedge.

**Worked Antler Object:** This enigmatic specimen is made from the distal portion of an antler tine (Fig. 51*l*). A series of four rounded grooves have been cut and ground around the circumference of the tine, giving it a pronounced ridged appearance.

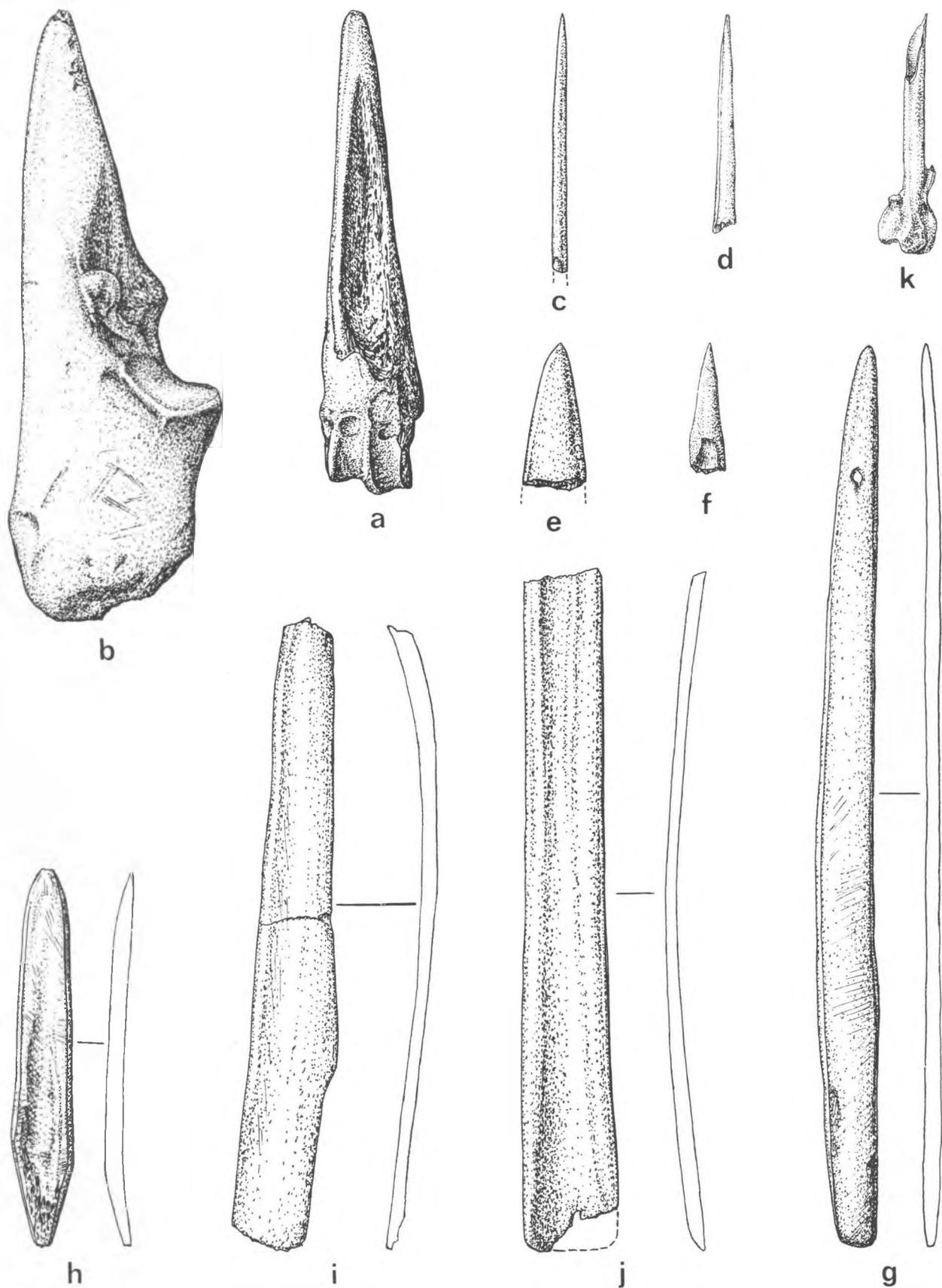


Fig. 50. Bone artifacts. a, b, awls. c - f, point fragments. g, needle. h, harpoon valve. i - k, miscellaneous. a - c, Zone IV. d, i, k, Zone II. e - h, j, Zone III.

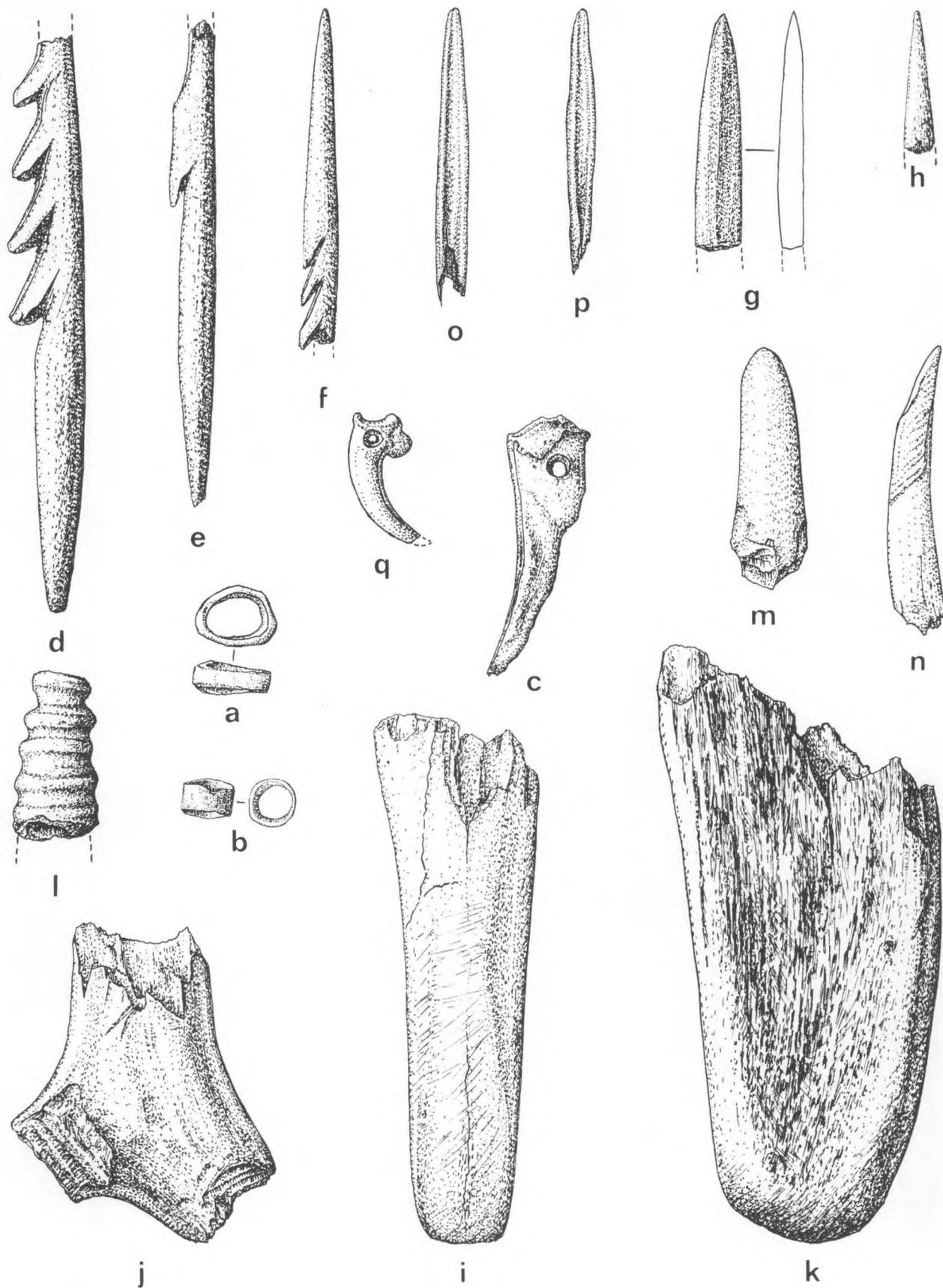


Fig. 51.

*a, b, rings. c, perforated bone. d - f, barbed point fragments. g, h, point fragments. i, k, wedges. j, l, m, object fragments and beam ends. n - p, dog fish spines. q, perforated claw. a - c, bone. d - m, antler. a, b, d - k, m - p, Zone IV. c, Zone II. l, q, Zone III.*

The tine-tip has been removed and the top of the artifact ground smooth. The relatively wide base of the specimen has not been worked and it appears as though the artifact has been broken from the rest of the original tine at this point. It is 3.0 cm. long and 1.7 cm. wide at the base.

**Chopped Antler Tines:** Four chopped antler tines are included in the assemblage. They vary in length from 2.0 cm. to 4.2 cm. The tines were possibly removed during the process of working the antler beam. However, three show evidence of grinding, and one specimen shows polish as well as grinding marks (Fig. 51m).

**Chopped Antler Beam:** A single specimen, 5.8 cm. long, 4.0 cm. wide and 1.6 cm. thick is found in the collection (Fig. 51j). It is a part of the mid-section of the beam at a point where a smaller tine was formerly attached. Chopping marks are evident at the former confluence of the tine and beam as well as above and below it. Because of its small size, it is assumed that the antler fragment was that of a deer.

**Worked Antler Fragments:** 18 miscellaneous pieces of worked antler were catalogued, 8 of which showed possible signs of having been sectioned by the "groove and split" technique.

### Artifacts of Other Materials

**Dogfish Spine "Awls":** 26 dogfish spines exhibiting use-wear and polish on their pointed distal ends were found (Fig. 51n). They range in length from 2.3 cm. to 5.2 cm. In most cases, the shiny outer coating of the spine has been worn down to the bony substructure, though in some instances, even the latter tough material has been eroded through use on the tip. Most of the wear seems to be concentrated on the dorsal side of the distal ends of spines. In 6 cases, the pointed end of the tip has been broken off. The tip of one specimen has been burnt. Varying amounts of polish and numerous, though apparently unpatterned striations usually accompany the wearing away of the chitinous outer covering.

The proximal ends of 10 specimens in the collection show clear signs of having been pinched. This constriction of the normally laterally flaring proximal end of the spines would be the expected result of holding the spine between forefinger and thumb while using it as an awl.

Fig. 51 o and p show ventral views of two utilized spines. The proximal end of the spine in Fig. 51o shows little evidence of having been pinched, while that in Fig. 51p shows very marked constriction.

**Perforated Bird Claw:** Fig. 51q illustrates a comparatively large bird claw core with a perforation completely through its proximal section. The perforation is biconical in form.

### Conclusions

The artifact assemblage recovered in the 1972 excavations at DfRs 3 is for the most part indicative of a Marpole Phase occupation. This culture is clearly represented in stratigraphic Zones III and IV. So few artifacts of diagnostic value were retrieved from Zone II that it is impossible to apply the same phase designation with any certainty. However, no sterile layer or major stratigraphic break was noted in the lower reaches of the excavations other than the definition between Zone II and Zone III. This stratigraphic differentiation may well have been the result of altered shell-dumping activities or occupation-area re-alignments rather than culture change.

Artifacts excavated at DfRs 3 that are to a greater or lesser extent indicative of the Marpole Phase include unilaterally barbed, fixed antler points; small triangular, chipped basalt projectile points; a stone-bowl fragment with an anthropomorphic design;

a nephrite adze-blade; a polished lignite pendant; and several incised siltstone fragments. The bone composite toggling harpoon valve (Fig. 50h), though not a common artifact type in assemblages from this culture has previously been found in Marpole Phase contexts at other Gulf of Georgia sites (Mitchell 1971a: 56). The phase designation I have applied to this assemblage is further supported (though weakly) by the absence of such traits as large, thick, ground slate points, heavy ground slate knives, and large bone points indicative of the Locarno Beach Phase. Artifacts or artifact combinations diagnostic of the later San Juan and Stselax Phase are also absent.

The assemblage described in this report appears to resemble quite closely Marpole Phase material recovered from other Gulf of Georgia area sites such as DgRs 1, Beach Grove; DfRu 8, Helen Point; and DhRs 1, the Marpole type-site.

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