

Bone Artifacts Recovered From Keatley Creek

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Introduction

Over 200 bone, antler, and shell artifacts were recovered from Keatley Creek. These include awls, wedges, needles, worked scapulae and antler, bone and shell beads, dentalia, and various decorated pieces (Table 1). Deer bones and antler (also elk antler) were used for most of the types of tools recovered. Bird bones were made into whistles or drinking tubes. Beaver incisors were used in woodworking. Marine and freshwater shells were used as decorative and prestige items and freshwater shells may have had practical functions, as yet undetermined. A complete and illustrated list of bone artifacts follows this discussion. Shell fragments and beaver incisors were given artifact numbers only if evidence of use or human alteration was visible on the object. Freshwater shellfish and beaver are discussed in (Volume I, Chapter 10), and their frequencies at Keatley Creek are listed in Tables (1, 2, and 6 of that chapter).

Awls were the most common artifact recovered, and most of these were recovered from HP 7. Ethnographically, the long, pointed awls were used for a variety of tasks such as basket making, sewing skins and bark containers, and punching holes in tools and ornaments (Teit 1900, 1906, 1909). Most of the awls were made from deer metapodial bones, although deer ulna awls, a deer scapula awl, and a dog radius awl were found. Many of the recovered awls consisted only of the broken tip. Bone needles, used in sewing skins and basketry, were also recovered.

Deer metapodial bones were also made into spatulate tools or wedges such as those described in Stewart (Stewart 1996:92). They probably had a

variety of uses such as making birch bark containers, punching hole in hides, bark stripping, hide softening, and basket making.

Elk and deer antler was used for wedges, points or awls, billets, bark peelers, flakers, and digging stick handles at Keatley Creek. These types of tools were also used during the early historic period (Teit 1900, 1906, 1909). Antler wedges and chisels were used to cut down trees. Antler billets were used for making bifaces. Many of the large antler artifacts were found in HP 7 and HP 9. HP 9 contained most of the large antler artifacts, including the digging stick handle and bark peeler. Ethnographically, digging stick handles and bark peelers were often made of hard wood, a more common material than antler. This suggests that the antler tools may have been prestige items (particularly elk antler because of its relative rarity). Similarly, a piece of worked moose antler found in HP 7 would have been a prestige item, since moose was not found in the Lillooet area prehistorically and was traded in from nearby areas.

Eleven deer scapulae and one sheep/goat? scapula were recovered. All except one were recovered from HP 7. The spines of all the scapulae except one have been either cut off, or broken, at their bases. Their dorsal edges are beveled, and longitudinal striations are present parallel to the spines (see Vol. III, Chap. 3). The spine on one scapula, found on the roof in HP 7, is different and was apparently broken after deposition. All the scapulae are given artifact numbers because their anomalous occurrence suggests cultural utilization after butchery and consumption.

The presence of largely intact deer scapulae in the Keatley Creek faunal assemblage is of interest because so few other large, identifiable artiodactyl bones are present. It appears that most marrow-bearing bones were smashed for marrow extraction and grease production. It is not expected that scapulae would be treated in this manner because of their low marrow

content and their presence in the assemblage may simply reflect this differential treatment of skeletal parts after primary butchering. According to ethnographic studies of modern hunter-gatherers, the entire front leg, including the scapula, of medium ungulates is generally carried back to consumption areas in one piece (Binford 1981; O'Connell et al. 1988). The large amount of meat attached to scapulae and apparent inefficient removal of tissue in the field may account for the fact that they are most often transported back to residential camps (O'Connell et al. 1988). The occupants of Keatley Creek seem to have been following this pattern.

The presence of longitudinal striations on some of the scapulae could have been caused by filleting meat from the scapulae at the residential camp (Binford 1981). Thus, the presence of the scapulae and their condition may be explained by normal butchering activity. This does not rule out secondary use for digging, scooping, cutting, or ritual. The scapulae are found primarily in storage/refuse pits where they may have been discarded after breaking during use. Burr (Vol. III, Chap. 3) describes and illustrates the scapulae in detail and provides evidence suggesting that some of the scapulae were used as tools such as knives and trowels.

In addition to utilitarian applications, bone and shell were used for ornamental purposes and as objects of status and wealth. Many of the recovered bone artifacts were fragments of incised, polished, and perforated objects. Shell and bone beads, whistles, fragments of freshwater shell (some perforated), an incised and notched elk canine, a blanket pin, part of a marine shell (purple-hinged rock scallop) bracelet, dentalium shells, and bone buttons were recovered. The 72 bone buttons (flat, rectangular, with a hole in the middle) from a storage pit in HP 105 were probably sewn onto a skin.

Most of these decorative and uncommon items, including the marine shells, were found in HP 7 and HP 9, structures apparently associated with high status individuals (see Vol. II, Chap. 1). HP 7 also contained unmodified bones of fur-bearers and raptors not found elsewhere at the site and HP 9 contained loon and eagle bones not found elsewhere at the site. The marine shells indicate trade with the coast and high status and wealth for the houses involved. Dentalia, in particular, were valuable trade items and worn as decorative beads to indicate wealth and status both on the coast and the interior. The presence of these items in some houses but not others supports the presence of socioeconomic inequality within the community.

Relative to other artifact classes, fewer bone artifacts were recovered at the site than expected. Preservation is not a problem because the bones recovered are in good condition; the dry environment allowing even small fish bones to preserve well. It is probable that those bone and antler tools and ornaments difficult to obtain and/or time-consuming to manufacture were highly valued. These objects may have been taken from the housepits when they were abandoned and their absence gives credence to an orderly abandonment of the houses. Most prestige bone artifacts may ultimately have been deposited in burials, as evident at Texas Creek (Sanger 1968) and Cache Creek (Pokotylo et al. 1987). However, the low frequency of even broken utilitarian bone tools like awls is intriguing.

One group of tools, fishing implements (of any material), is almost non-existent. This is noteworthy considering the importance of salmon fishing in the area and the extensive amount of salmon bones recovered from the Keatley Creek site. Fishing implements may either have been left at fishing stations by the river or may have been made of more perishable materials such as wood.

Bone Artifact Distribution in HP 3, HP 7, and HP 12

The investigation of the distributions of artifacts, and animal and plant remains within HP's 3, 7, and 12 has formed a large part of the work at Keatley Creek. The distributions of bone artifacts for these housepits follows.

Of the three housepit floors, HP 7 contains a relatively larger number of bone artifacts, as is true of bones in general (Vol. II, Chap. 7). These artifacts tend to be unbroken and found along the periphery of the floor, as do the largest unmodified bone fragments (**Fig. 1**). These may have been stored in these areas. A number of bone artifacts were found in the large pits in HP 7 also. The number of bone tools and range of types and unusual/exotic types found in HP 7 (i.e., marine shell bracelet, deer scapulae, elk canine) is consistent with the interpretation of HP 7 as a relatively high status habitation. HP 9 also contains a relatively large number of artifacts, including many large antler objects and dentalia. This housepit may have served a special function.

Very few bone artifacts were recovered from HP 3 and they are generally the remnants of broken and discarded tools. The artifacts from HP 12 are in better condition than those from HP 3 and the density on the floor is greater (although numbers are still small).

HP 3 Floor

One incised bone fragment was found on the floor in the northeast and an antler wedge was found in a pit in the northeast, one perforated bone fragment was found on the floor in the south, and two worked antler fragments were found in a small pit in the west. These appear to be remnants of broken and discarded tools.

HP 3 Roof

Two barbed bone points, one awl, and one incised bone fragment were found in roof bottom deposits in the north. Three polished bone fragments were found in roof bottom deposits and one incised fragment was found in roof deposits in the east. One polished fragment was found in roof deposits in the south and one awl was found in roof bottom deposits in the southwest. All the artifacts are broken, suggesting they were thrown out on the roof with other refuse, although some items in the roof bottom may have been stored in the rafters.

HP 7 Floor

Sixteen bone artifacts were recovered from the floor, 17 artifacts were recovered from pits associated with floor deposits, and a domesticated dog (*Canis familiaris*) skull was found on the floor near the center of the housepit near the northwest hearth. In the northwest there were two awls and an incised bone fragment on the floor and two dentalium shells, one deer scapula, one broken bone needle, two awls, and one worked fragmented antler in pits. In the northeast there were two awls, one wedge, one blanket pin, and one perforated elk canine on the floor along with most of the beaver incisors; and a deer scapula was found in a pit. In the southeast there were fragments of a possible shell bracelet, one scapula, three awls and two bone needles on the floor, and one incised bone and two worked antlers fragments in pits. In the southwest there was one awl on the floor and three scapulae, two wedges, and one broken bird bone whistle in pits. The artifacts are generally distributed near the periphery of the floor and many are unbroken (six of the eight awls found on the floor are unbroken) suggesting they may have been stored near the walls, perhaps under benches.

HP 7 Roof

Few bone artifacts were recovered from the roof and they were in a more fragmented condition than artifacts from within the structure, suggesting they were broken and discarded. One awl was found in the northwest; one charred awl, three charred incised bone fragments, and one polished bone fragment were found in the west; one awl and one incised bone fragment were found in the northeast; and one charred awl fragment and one polished fragment were found in the east.

HP 12 Floor

Four bone and antler artifacts, other than the beaver incisors, were recovered from the floor. An antler wedge was found near the western edge of the floor and an artiodactyl metapodial "wedge" was found against the eastern edge of the floor. A polished bone fragment was recovered from the northeast and a broken bone needle was recovered in the northwest. The artifacts suggest basketry and woodworking activities on the part of the occupants of the house.

HP 12 Roof

Five bone and antler artifacts were recovered from roof deposits in addition to beaver incisors: an artiodactyl metapodial awl in the west, an artiodactyl metapodial awl and a polished large mammal bone fragment in the northwest, and a fragmented, worked piece of antler (from roof bottom) and an antler tine with the tip ground to a point from the eastern edge of the roof.

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Descriptions of Bone Artifacts

* = illustrated artifact

Housepit 1 (Fig. 2)

**EeRI 7: 5256* One bone awl was recovered from test trench excavations in 1986. All measurements are maximum dimensions.

**EeRI 7: 21696* Rim spoil, Feature 1, 40ñ50 cm BS. Deer ulna awl. Extremely fragile and root etched. Only the proximal end of the ulna remains, it apparently came to a tip below the articular surface.

length: 9.5 cm, width: 3.5†cm.

**EeRI 7: 21686* Rim spoil, Feature 1, 40ñ50†cm BS. Worked antler fragment. Very friable. Outer surface is missing at the base (Burr) due to extensive longitudinal cracking. Impossible to tell if the beam was broken or cut off, and one cannot tell original length of the artifact, although it was fairly large.
width: 4.0†cm at base

Housepit 3 (Fig. 3)

EeRI 7:21856 Sq. I, Ssq. 8, roof fill. Incised bone fragment.

length: 2.6 cm, width: 0.5†cm.

**EeRI 7:21886* Sq. G, Ssq. 14, roof fill. Charred, flat perforated bone fragment.

length: 3.2 cm, width: 1.3†cm.

**EeRI 7:52036* Sq. U, Ssq. 8, roof fill. Fragment of barbed point. Broken at both ends.

length: 4.5 cm, width: 0.7†cm.

EeRI 7:52066 Sq. I, Ssq. 13, roof bottom. Polished bone fragment.

length: 1.4 cm, width: 0.7†cm.

EeRI 7:52076 Sq. Q, Ssq. 16, roof bottom. Polished bone fragment.

length: 1.3 cm, width: 1.0†cm.

EeRI 7:52086 Sq. Q, Ssq. 16, roof bottom. Polished bone fragment.

length: 1.5 cm, width: 1.0†cm.

*EeRI 7:5205*Sq. U, Ssq. 8, roof bottom. Abraded awl tip. Burned.

length: 1.7 cm, width: 0.6+cm.

**EeRI 7:5204*Sq. N, Ssq. 4, roof bottom. Tip of bone awl(?). Relatively flat bone fragment with tip notched to a point.

length: 2.7 cm, width: 0.5+cm.

**EeRI 7:5200*Sq. V, Ssq. 10, filter collapse. Perforated and beveled bone fragment. Fragment of pendant has a hole drilled in one end and a decorative line of bevels.

length: 2.1 cm, width: 1.3+cm.

**EeRI 7:5202*Sq. U, Ssq. 8, filter collapse. Fragment of barbed point, broken at both ends.

length: 2.0 cm, width: 0.6+cm.

**EeRI 7:2175*Sq. AA, pit fill (AA1). Artiodactyl antler wedge.

length: 5.4 cm, width: 1.6+cm.

**EeRI 7:5201*Sq. M, Ssq. 2, pit fill, level 2 (89-1). Abraded artiodactyl antler tine.

length: 7.5 cm, width: 2.2+cm.

**EeRI 7:5217*Sq. M, Ssq. 2, pit fill, level 3 (89-1). Fragmentary, abraded antler wedge.

length: 6.4 cm, width: 4.0+cm.

*EeRI 7:2186*Sq. AA, Ssq. 15, floor. Incised fragment, possibly of an awl.

length: 3.1 cm, width: 0.8+cm.

*EeRI 7:2189*Sq. G, Ssq. 6, floor. Charred, flat, perforated bone fragment.

length: 3.2 cm, width: 1.3+cm.

**EeRI 7:5282*Sq. U, filtered collapse. Flat piece of shell with drill hole (Vol. II, Chap. 13, Fig. 3M).

Housepit 4 (Fig. 4)

**EeRI 7: 2001, 2002*Two bone awls and an incised rib fragment were recovered from test trench excavations in 1986.

Housepit 6 (Fig. 4)

EERI 7: 2003, 2004 One bone awl and a perforated fragment of flat bone were recovered from test trench excavations in 1986.

Housepit 7 (Fig. 5)

EERI 7: 2005, 2006 Two awls; **2007-80* one flat bone triangle; and **2000, 2010* three incised bone fragments were recovered from the test trench excavation in 1986.

EERI 7:2198 Sq. P, Ssq. 13, floor. Artiodactyl metapodial awl.
length: 5.0 cm, width: 1.5†cm.

EERI 7:2199 Sq. J, Ssq. 14, floor. Large mammal long bone awl.
length: 16.0 cm, width: 2.1†cm.

EERI 7:5239 Sq. LL, Ssq. 9, floor. Deer metapodial awl.
length: 6.0 cm, width: 2.1†cm.

EERI 7:5237 Sq. NN, Ssq. 7, floor. Bone fragment with parallel incised lines.
length: 2.2 cm, width: 0.8†cm.

EERI 7:5226 Sq. TT, Ssq. 12, floor. Tip of bone point or needle. Very sharp, polished, burned.
length: 1.6 cm, width: 0.5†cm.

EERI 7:5246 Sq. LL, Ssq. 10, floor. Bone wedge.
length: 4.5 cm, width: 1.7†cm.

EERI 7:5228 Sq. VV, Ssq. 10, floor. Tip of bone point or needle. Very sharp, polished, burned.
length: 2.0 cm, width: 0.4†cm.

EERI 7:5244 Sq. OO, Ssq. 4, floor. Elk canine tooth pendant. Tooth is incised and notched around root.
length: 2.4 cm, width: 1.4†cm.

EERI 7:5216 Sq. JJ, Ssq. 12, floor. Bone awl fragment.
length: 8.0 cm, width: 0.9†cm.

- *EeRI 7:52456Sq. NN, Ssq. 7, floor. Deer metapodial awl. Split and point made from proximal end. Very similar to EeRI 7:5238.
length: 7.6 cm, width: 2.1†cm.
- *EeRI 7:52356Sq. OO, Ssq. 12, floor. Notched blanket pin (?).
length: 7.1 cm, width: 0.8†cm.
- EeRI 7:52366Sq. U, Ssq. 11, floor. Deer metapodial awl. Burned, tip broken.
length: 6.0 cm, width: 1.5†cm.
- *EeRI 7:52346Sq. UU, Ssq. 13, floor. Deer metapodial awl.
length: 13.0 cm, width: 2.1†cm.
- *EeRI 7:52306Sq. UU, Ssq. 14, floor. Dog radius awl. Proximal end unfused.
length: 11.0 cm, width: 1.7†cm.
- *EeRI 7:52426Sq. QQ, Ssq. 13, floor (see Chap. 3, this Volume). Deer scapula.
Head and neck and most of body gone. No signs of working or use visible to the naked eye.
length: 16.5 cm, width: 4.4†cm.
- *EeRI 7:52686Sq. QQ, Ssq. 10, floor (see Vol. II, Chap. 13, Fig. 3H). Possible shell bracelet fragment, cut from purple-hinged rock scallop (*Hinnites giganteus*), a large marine intertidal bivalve.
length: 4.7 cm, width: 0.8†cm.
- *EeRI 7:19716Pit fill, roof beam foundation ? (88-P-5) (See Chap. 3, this Volume).
Right deer scapula. Dorsal section only is remaining, and is broken below the spine. It is weathered with longitudinal cracking.
length: 13.7†cm.
- *EeRI 7:19726Pit fill, roof beam foundation? (88-P-3) (See Chap. 3, this Volume).
Left deer scapula. Spine broken off at its base. The dorsal end is broken.
No evidence of utilization or longitudinal striations.
length: 16†cm.
- *EeRI 7:19756Pit fill, roof beam foundation? (88-P-4) (See Chap. 3, this Volume).
Left deer scapula. Almost complete. Cut marks present near glenoid cavity. The spine is broken off at its base. No evidence of utilization or longitudinal striations.
length: 23.3†cm.

EeRI 7:1979 Pit fill, roof beam foundation (88-P-2). Beaver incisor. Pointed tip of the incisor appears to have been utilized.

length: 3.5+cm.

**EeRI 7:2179* Pit fill (87-P-1) (See Chap. 3, this Volume). Small artiodactyl scapula (sheep/goat?). Spine cut off. Head, neck and body to left of spine are present. Cut edge is bevelled.

length: 18.0 cm, width: 3.8+cm.

**EeRI 7:2180* Pit fill (87-P-1) (See Chap. 3, this Volume). Deer left scapula. Only body remains; neck and body broken off. Spine cut off. Broken edge to the left of the spine has been ground and longitudinal striations parallel to the spine occur between the spine and left edge.

length: 16.0 cm, width: 5.6+cm.

**EeRI 7:2181* Pit fill (87-P-1) (See Chap. 3, this Volume). Deer right scapula. Spine cut off. Striations parallel to spine on body of scapula. Cut marks on neck. Body to left of spine is missing. This edge is ground and contains striations.

length: 7.5 cm, width: 4.2+cm.

EeRI 7:2182 Pit fill (87-P-1). Bone wedge from unidentifiable, flat, large mammal bone. Edges are ground and surface contains longitudinal striations.

length: 7.9 cm, width: 1.9+cm.

EeRI 7:5240 Pit fill (87-P-25, level 1). Deer scapula. Head and neck broken off.

Spine gone. Striations parallel to spine. Dorsal end of spine edge beveled to rounded edge.

length: 18.6 cm, width: 10.0+cm.

**EeRI 7:2170* Pit fill (87-P-22). Antler ibillet. Very friable and falling apart due to longitudinal cracking. The base of the antler fragment, which includes the burr, appears to have been ground; the other end is broken.

length: 10.5 cm, width: 2.8+cm at base.

EeRI 7:2171 Pit fill (87-P-9). Polished, striated, flat bone fragment.

length: 2.6 cm., width: 2.3+cm.

**EeRI 7:2172* Pit fill (87-P-4). Bird bone whistle. Mottled dark brown on

yellowish bone, polished. The edges of one end are rounded, the other end is broken at a large air hole in the top of the whistle.

length: 7.7 cm, width: 1.2+mm.

*EeRI 7:21736Pit fill (87-P-4). Flat, large mammal bone tool. One end is about 1.9+cm. wide and is blunted straight across; the other end is pointed and about 0.5+cm. wide.

length: 7.6+cm.

*EeRI 7:21746Pit fill (87-P-6). Worked antler fragment. Tip shows signs of working, perhaps it was used as a flaker. The other end is cut straight across and the base has been grooved into an indented, smooth surface perhaps to fit into a handle. The antler is in good condition.

length: 12.5 cm, width: 2.9+cm at base

*EeRI 7:21776Pit fill (87-P-8). Worked antler fragment similar to EeRI 7:2174. Tip is possibly worked, although the condition of the antler makes it difficult to tell. The other end is cut straight across. The antler is friable, with longitudinal cracking.

EeRI 7:52416Sq. WW, Ssq. 4, pit fill (89-P-3, level 1). Deer scapula. Head and neck present. Spine and body dorsal to spine broken off. Broken or cut edge of body beveled to form rounded edge. Artifact long and narrow.

length: 15.7 cm, width: 3.1+cm.

*EeRI 7:52276Sq. RR, Ssq. 9, pit fill (87-P-25, level 2). Bone point or needle.

length: 3.0 cm, width: 0.2+cm.

*EeRI 7:52336Sq. NN, pit fill (89-P-5, level 1). Bone awl.

length: 8.4 cm, width: 0.8+cm.

*EeRI 7:52386Pit fill (87-P-25, level 1). Deer metapodial awl. Split and point made at proximal end. Very similar to EeRI 7:5245.

length: 7.5 cm, width: 2.2+cm.

*EeRI 7:21676Sq. K, rim spoil. Pointed, polished bone fragment, probably of an awl.

length: 2.1 cm, width: 0.6+cm.

*EeRI 7:21946Sq. M, rim spoil. Bone bead. Burned. Few incised lines on one side.

length: 1.5+cm, thickness: 0.6+cm.

EeRI 7:21956Sq. L, rim spoil. Flat bone fragment with perforation.

length: 2.0 cm, width: 0.9+cm.

**EeRI 7:5229*Sq. O, Ssq. 4, rim spoil. Bone bead.

diameter: 0.8+cm, thickness: 0.2+cm.

**EeRI 7:2200*Sq. O, Ssq. 11, pit under rim spoil (see Vol. II, Chap. 13, Fig. 2).

Worked moose antler. Split horizontally and scooped out. Inner surface exhibits wide, shallow chop marks, probably made with an adze. The edges are ground and bevelled.

length: 19.9 cm, width: 8.9+cm, thickness: 0.7+cm.

**EeRI 7:5232*Sq. PP, Ssq. 4, filtered collapse. Polished bone fragment.

length: 2.5 cm, width: 0.9+cm.

**EeRI 7:1970*Sq. GG, roof bottom (rim?). Engraved fragment of large mammal long bone. Burned. An eye-like figure incised on it and it is broken near the figure.

length: 3.9 cm, width: 1.7+cm.

**EeRI 7:1973*Sq. FF, roof (rim?) (See Chap. 3, this Volume). Deer scapula. Only the portion of the blade near the spine has been preserved. The spine is broken off at its base. Longitudinal striations, parallel to the spine are present on either side of the spine.

length: 8 cm, width: 3.5+cm.

**EeRI 7:1974*Sq. II, roof (rim?) (See Chap. 3, this Volume). Deer scapula. Highly weathered and root-etched left scapula. Glenoid and dorsal ends have been chewed by carnivores. Most of the spine remains, the outer end of the spine has been broken, apparently after deposition.

length: 11+cm.

*EeRI 7:1976*Sq. S, roof. 'Awl-like' object with rounded tip. The other end is broken. Triangular cross-section.

length: 2.6 cm, width: 0.7+cm.

*EeRI 7:1977*Sq. CC, roof (rim?). Three polished and burned long bone fragments.

**EeRI 7:1978*Sq. CC, roof (rim?). Ground and polished long bone fragment. The fragment is burned and is triangular in cross-section. One end has been ground to a blunt, square shape, the other end is broken.

length: 4.2 cm, width: 0.8+cm.

**EeRI 7:1980*6Sq. GG, Ssq. 5, roof surface (rim?). Fragment of an incised, long, flat object, broken off at both ends.

length: 1.3 cm, width: 1.8+cm.

**EeRI 7:1981*6Sq. II, Ssq. 8, roof surface. Bone awl.

length: 4 cm, width 1+cm.

*EeRI 7:2178*6Sq. H, Ssq. 16, roof. Burned bone awl. Made from an unidentifiable large mammal bone.

length: 6.0 cm, width: 0.7+cm.

**EeRI 7:2191*6Sq. W, Ssq. 1, roof surface. Burned fragment of bone awl. Made from an unidentifiable large mammal bone.

length: 12.5 cm, width: 0.7+cm.

**EeRI 7:2192 and EeRI 7:2193*6Sq. H, Ssq. 15, roof surface. Flat, charred bone fragments with an engraved, dotted line down their centers.

*EeRI 7:2197*6Sq. Z, Ssq. 5, roof. Burned, flat polished bone fragment with three incised parallel lines.

length: 1.8 cm, width: 0.5+cm.

*EeRI 7:5247*6Sq. RR, Ssq. 7, roof bottom. Polished bone fragment.

length: 4.1 cm, width: 0.7+cm.

**EeRI 7:5231*6Sq. KK, Ssq. 15, roof bottom. Perforated and decorated bone fragment. Fragment has 3 holes drilled in a row (broken at 2 of the holes) and small beveled pattern near one edge.

length: 2.3 cm, width: 0.9+cm.

**EeRI 7:5243*6Sq. NN, Ssq. 6, roof fill. L-shaped bone awl.

length: 12.4 cm, width: 1.2+cm.

Housepit 8 (Fig. 4)

**EeRI 7:2011*6One bone awl was recovered from test trench excavations in 1986.

Housepit 9 (Fig. 6)

**EeRI 7:2176*6Sq. C, Ssq. 5, Stratum VI. Large antler? (from 1987)

- EeRI 7:2183*Sq. B, level 8, floor. Fragment of bird bone tube artifact.
length: 1.7 cm, width: 0.5+cm.
- **EeRI 7:2184* Pointed piece of deer bone.
- **EeRI 7:5251*Sq. H, Ssq. 5, pit fill (feature 6) (see Vol. II, Chap. 13, Fig. 1). Elk antler wedge. Antler is sectioned and tip is flattened and rounded.
length: 42 cm, width: 4.8+cm. (Photo 8 & 9)
- **EeRI 7:5252*Sq. C, Ssq. 9, probably Stratum VIII (see Vol. II, Chap. 13, Fig. 1). Deer antler handle. Hole drilled in center of antler tine, tip rounded.
length: 22.5 cm, width: 4.5+cm.
- **EeRI 7:5253*Sq. D, Ssq. 7, Stratum VIII. Worked antler (probably elk) fragment.
length: 18.9 cm, width: 5.1+cm.
- **EeRI 7:5254*Sq. C, Ssq. 14, Stratum X. Perforated flat bone fragment. Pendant?
length: 4.0 cm, width: 1.5+cm.
- **EeRI 7:5255*Sq. C, Ssq. 9, Stratum IV. Bird long bone pendant, with hole drilled in one end of the bone.
length: 4.4 cm, width: 1.6+cm.
- **EeRI 7:5256*Sq. D, Ssq. 12, pit fill (feature 6, FU 1). Worked antler fragment.
length: 9.8 cm, width: 2.1+cm.
- **EeRI 7:5257*Sq. H, Ssq. 13, Stratum VIII. Nineteen charred, incised fragments.
- **EeRI 7:5258*Sq. D, Ssq. 14, Stratum X. Beaver incisor with worked tip.
length: 5.7 cm, width: 0.8+cm.
- **EeRI 7:5259*Sq. D, Ssq. 10, Stratum X. Piece of bird bone whistle or drinking tube.
length: 1.3 cm, width: 0.9+cm.
- **EeRI 7:5260*Sq. D, Ssq. 9, Stratum VIII. Bird bone needle fragment.
length: 3.0 cm, width: 0.3+cm.
- **EeRI 7:5261*Sq. C, Ssq. 2, floor. Bone point or awl.
length: 4.6 cm, width: 0.8+cm.
- **EeRI 7:5262*Sq. G, Ssq. 12, floor. Large mammal bone flake with diagonal grooves or striations.
length: 5.1 cm, width: 2.7+cm.

*EeRI 7:52636*Sq. G, Ssq. 15, roof fill. Tip of bone wedge.

length: 2.0 cm, width: 1.7+cm.

**EeRI 7:52646*Sq. C, Ssq. 2, Stratum X. Fragment of bird bone bead.

length: 2.7 cm, width: 0.7+cm.

**EeRI 7:52656*Sq. D, Ssq. 4, pit fill (feature 6, FU 2). Bird bone fragment, end of needle?

length: 1.4 cm, width: 0.2+cm.

*EeRI 7:52716*Sq. I, Ssq. 1, Stratum VI. Shell bead.

diameter: 3+mm.

*EeRI 7:52736*Sq. H, Ssq. 12, floor. Polished, flat long bone fragment, possibly bird.

length: 1.5 cm, width: 4+mm.

*EeRI 7: 52746*Sq. F, Ssq. 5, floor. Large antler (elk) artifact; digging stick handle.

length: 20 cm, width: 6+cm at midline

**EeRI 7: 52756*Sq. K, Ssq. 8, floor. Bone awl, complete and rounded at one end, pointed at the other.

length: 7.5 cm, width: 8+mm at rounded end

**EeRI 7: 52766*Sq. F, Ssq. 1, floor. Bone awl, flattened at one end, pointed at the other.

length: 9 cm, width: 1+cm at flat end

**EeRI 7: 52776*Sq. J, Ssq. 13, floor. Shell fragment, rounded, worn smooth edges.

length: 3.2 cm., width: 3.5+cm.

**EeRI 7: 52786*Sq. L, Ssq. 16, roof. Hare (*Lepus* sp.) tight tibia shaft, incised and broken at each end to form long tube/bead.

length: 4.3 cm, width: 5+mm at widest end

**EeRI 7: 52796*Sq. H, Ssq. 11, floor. Bird bone bead.

length: 2 cm, width: 1.8+cm at widest end

*EeRI 7: 52846*Sq. D, Ssq. 9, Stratum VIII. Shell bead.

diameter: 4mm

*EeRI 7: 52856*Sq. H, Ssq. 12, floor. Bone bead, round and flat with hole in center.

diameter: 4+mm.

*EeRI 7: 52866*Sq. I, Ssq. 1, Stratum VIII. Partial shell bead.

diameter: 4mm

*EeRI 7:52876*Sq. F, Ssq. 3, floor. Shell bead, round and flat with hole in center.

diameter: 5+mm.

*EeRI 7:52886*Sq. H, Ssq. 12. Dentalium fragment.

Housepit 12 (Fig. 7)

**EeRI 7:52106*Sq. I, Ssq. 14, roof fill. Artiodactyl, metapodial awl. One end sharply pointed.

length: 10.2 cm, width: 1.1+cm.

*EeRI 7:52136*Sq. G, Ssq. 9, roof fill. Hook-shaped, artiodactyl, metapodial awl.

length: 4.5 cm, width: 2.1+cm.

**EeRI 7:52116*Sq. I, Ssq. 2, roof fill. Polished large mammal bone fragment.

length: 3.3 cm, width: 0.8+cm.

**EeRI 7:52186*Sq. E, Ssq. 3, roof fill. Worked elk antler. The tip of an artiodactyl antler tine is ground to a point.

length: 23.2 cm, width: 2.8+cm.

**EeRI 7:52156*Sq. E, Ssq. 10, floor. Worked artiodactyl metapodial. Metapodial is split and distal end is cut straight across and polished.

length: 14.4 cm, width: 1.8+cm.

**EeRI 7:52146*Sq. G, Ssq. 5, floor. Antler wedge.

length: 5.6 cm, width: 3.1+cm.

**EeRI 7:52126*Sq. I, Ssq. 3, floor. Bone needle. Flat, one end pointed, the other end with an incised hole in it (broken beyond the hole).

length: 7.2 cm, width: 0.7+cm.

*EeRI 7:52096*Sq. J, Ssq. 10, floor. Polished bone fragment.

length: 5.5 cm, width: 1.0+cm.

Housepit 47 (Fig. 4)

**EeRI 7:19826*Sq. B, Layer 7, 10~30+cm BS (see Chap. 3, this Volume). Right deer scapula. Spine has been broken or cut off at its base. Cut marks are present

on the neck. There is no evidence of utilization or of striations parallel to the spine.

length: 21†cm.

**EeRI 7:19836*Sq. A, Stratum IX. Antler wedge. One end ground to a rounded wedge, the other edge is broken.

length: 3.5 cm, width: 1.9†cm.

*EeRI 7:19846*Sq. B, Layer 9 (floor). Twenty-four, burned fragments of a bone artifact made from a large, flat mammal bone (probably a scapula). Some of the fragments indicate the edges of the object were ground.

*EeRI 7:19856*Sq. B, Stratum VII. Calcined bone bead.

diameter: 4†mm.

Housepit 58 (Fig. 4)

**EeRI 7:21646*Sq. A, roof fill. Four fragments of an incised, flat mammal bone.

Housepit 90

*EeRI 7:52896*Sq. K, Ssq. 13, floor. Artiodactyl metapodial awl; charred and broken in six pieces.

length: 14.5†cm.

*EeRI 7:52906*Sq. I, Ssq. 3, floor dump area. Awl fragment.

length: 4.3†cm.

*EeRI 7:52916*Sq. F, Ssq. 8, floor. Flat-tipped knife or awl fragment; charred.

length: 4.2†cm.

Housepit 101 (Fig. 8)

**EeRI 7:52236*Sq. A, floor. Artiodactyl antler wedge.

length: 6.5 cm, width: 2.8†cm.

**EeRI 7:52226*Sq. A, floor. Polished and abraded artiodactyl antler tine.

length: 5.1 cm, width: 1.2†cm.

*EeRI 7:52196*Sq. A, Ssq. 15, floor. Two shell valves from freshwater shellfish (*Margaritifera falcata*). One valve fragment has a hole in it. The other valve is broken at the hole location.

**EeRI 7:52216*Sq. A, fire-reddened area (Stratum 4.1, Level 1). Oval-shaped bone (from large mammal) with hole drilled in one end. Probably a bullroarer. (cf. Stewart, 1973, p. 145, #v9).
length: 9.8 cm, width: 2.8±cm.

*EeRI 7:52206*Sq. A, Ssq. 13, roof surface / fill interface. Mountain sheep (*Ovis canadensis*) horn core. Fragmentary. Tip abraded into wedge shape.
length: 17.5 cm, width: 8.5±cm.

Housepit 104 (Fig. 9)

**EeRI 7:52806*Sq. A, Ssq. 13, feature 2, pit fill. spatulate tool from deer metapodial.
length: 22.2 cm, width: 2.8±cm at top end, 0.5±cm at spatulate tip

**EeRI 7:52816*Sq. A, Ssq. 14, Feature 2, pit fill. Curved, incised bone fragment, possibly ivory, highly polished, zigzag marks on one side.
length: 2.5 cm, width: 1.2±cm at wide.

*EeRI 7:52936*Sq. G, Ssq. 16, VIII, Level 2. Deer metapodial (IV) awl.
length: 7.2 cm.

Housepit 105 (Fig. 10)

*EeRI 7:19866*Sq. A. Worked deer ulna ìawlî, recovered from 35ñ40±cm. BS. The unfused proximal epiphysis was recovered 15-20±cm. BS. Right ulna from a large, immature deer. About 1/3 of the distal end is missing and has been ground to a point.
length: 1.9 cm, width: 4.3±cm at proximal end

**EeRI 7:19876*Sq. C, 0-25±cm BS. A large bird bone ìbead.î A hollow tube with rounded edges at one end.
length: 3.4±cm diameter: 1.2±cm.

*EeRI 7:19886Sq. C, 0-25cm BS. Bone needle, flat on one side. One end is very sharply pointed, the other end is broken.

length: 4.9 cm, width: 4cm.

*EeRI 7:19896Sq. B, level 7. Round bone needle. Polished and pointed at one end, the other end is broken.

length: 3.3cm, diameter: 1.5mm.

EeRI 7:1990-19926Sq. C, Stratum X. Three flat, rectangular bone objects with holes drilled near their centers. The following 69 artifacts are similar. They range in size from about 1.1cm x 0.9cm x 0.2cm to about 2.1cm x 1.4cm. x 0.2 cm. The majority were found lying cortex side down.

EeRI 7:1993-19956Sq. A, P1:1, level 9. Three of the above rectangular objects.

*EeRI 7:2119-21616Sq. A, P1:1, level 8. Sixty-four of the above rectangular objects.

EeRI 7:21626Sq. A, P1:1, level 7. One of the above rectangular objects.

*EeRI 7:52706Sq. C, P1:1, level 1. Large bone pointed object with perforation (netting needle?).

length: 12.4cm, diameter: 3.6cm.

Housepit 110

EeRI 7:52246Sq. B, trench, floor. Polished, incised, bone fragment. Parallel, incised lines perpendicular to length of fragment.

length: 2.1 cm, width: 0.6cm.

Extra-Housepit Excavation 3

EeRI 7:71326Sq. A, level 4. Shell bead.

diameter: 8mm, thickness: 1mm.

Extra-Housepit Excavation 8 (Fig. 11)

*EeRI 7:52696cache pit, level 2. Perforated shell fragment. Shell is too worn to determine species of shell or artifact function.

length: 6.8 cm, width: 3.2cm.

Extra-Housepit Excavation 11 (Fig. 11)

**EeRl 7:21636*Sq. C, Stratum IV, 20-30+cm BS. Artiodactyl metapodial wedge.
Proximal end ground to a wedge, distal end broken.
length: 8.5 cm, width: 1.5+cm.

Extra-Housepit Excavation 12

*EeRl 7:21656*Sq. C, 10ñ20+cm BS. Six calcined fragments of an awl-like tool.

*EeRl 7:21666*Sq. B, 20ñ30+cm BS. Six calcined fragments of an awl-like tool.

Extra-Housepit Excavation 24

*EeRl 7:52926*Sq. A, Ssq. 5, surface, Level 1. Flat piece of shell with drill hole.
length: 1.2 cm, width: 1.0+cm.

Extra-Housepit Excavation 28

**No catalogue number or provenience. Item is missing, but appears to have been a decorated piece of antler or bone with a tab for slotting into another element. Drawn from field note illustration.*

Dentalia At Keatley Creek (Fig. 5)

*HP+76**EeRl 7:5248 Sq. NN, Ssq. 14, rim slump, level 2.

EeRl 7:5249 Sq. MM, Ssq. 9 and 13, pit fill (89-36A, level 3, FU2A).

EeRl 7:5250 Sq. RR, Ssq. 13, pit fill (87-P-25, FU2, level 1).

*HP+96*EeRl 7:5266 Sq. H, Ssq. 16, Stratum VI (final floor).

EeRl 7:5267 Sq. D, Ssq. 11, Stratum VIII (2nd floor) (three fragments).

*EeRl 7:5272 Sq. K, Ssq. 8, Stratum VIII (2nd floor).

EeRl 7:5283 Sq. I, Ssq. 9, Stratum VIII (2nd floor).

EeRl 7:5288 Sq. H, Ssq. 12, Stratum VIII (2nd floor).

~~HP 109~~EeRI 7:5225 Trench B, stratum VI, level 1.

HP 7 Scapulae

See Chapter 3, this Volume.

*EeRI 7:5242*6Sq. QQ, Ssq. 13, floor. Deer scapula. Head and neck and most of body, or blade, gone. No signs of working or use visible to the naked eye. length: 16.5 cm, width: 4.4+cm.

*EeRI 7:1971*6Pit fill (88-P-5). Right deer scapula. Dorsal section only is remaining, and is broken below the spine. It is weathered with longitudinal cracking. length: 13.7+cm.

*EeRI 7:1972*6Pit fill (88-P-3). Left deer scapula. Spine broken off at its base. The dorsal end is broken. No evidence of utilization or longitudinal striations. length: 16+cm.

*EeRI 7:1975*6Pit fill (88-P-4). Left deer scapula. Almost complete. Cut marks present near glenoid cavity. The spine is broken off at its base. No evidence of utilization or longitudinal striations. length: 23.3+cm.

*EeRI 7:2179*6Pit fill (87-P-1). Small artiodactyl scapula (sheep/goat?). Spine cut or broken off. Head, neck and blade to left of spine are present. Cut edge is bevelled. length: 18.0 cm, width: 3.8+cm.

*EeRI 7:2180*6Pit fill (87-P-1). Deer left scapula. Only part of the body, or blade remains; neck and head broken off. Spine cut or broken off. Broken edge to the left of the spine has been ground and longitudinal striations parallel to the spine occur between the spine and left edge. length: 16.0 cm, width: 5.6+cm.

*EeRI 7:2181*6Pit fill (87-P-1). Deer right scapula. Head and neck present. Spine cut off. Striations parallel to spine on blade of scapula. Cut marks on neck. Blade to left of spine is missing. This edge is ground and contains striations. length: 7.5 cm, width: 4.2+cm.

*EeRI 7:52406*Pit fill (87-P-25, level 1). Deer scapula. Head and neck broken off. Spine gone. Striations parallel to spine. Dorsal end of spine edge beveled to rounded edge.

length: 18.6 cm, width: 10.0±cm.

*EeRI 7:52416*Sq. WW, Ssq. 4, pit fill (89-P-3, level 1). Deer scapula. Head and neck present. Spine and body dorsal to spine broken off. Broken or cut edge of body beveled to form rounded edge. Artifact long and narrow.

length: 15.7 cm, width: 3.1±cm.

*EeRI 7:19736*Sq. FF, roof. Deer scapula. Only the portion of the blade near the spine has been preserved. The spine is broken off at its base. Longitudinal striations, parallel to the spine are present on either side of the spine.

length: 8 cm, width: 3.5±cm.

*EeRI 7:19746*Sq. II, roof. Deer scapula. Highly weathered and root-etched left scapula. Glenoid and dorsal ends have been chewed by carnivores. Most of the spine remains, the outer end of the spine has been broken, apparently after deposition.

length: 11±cm.

HP 47 Scapula

*EeRI 7:19826*Sq. B, Layer 7, 10ñ30±cm BS. Right deer scapula. Head and neck present. Spine has been broken or cut off at its base. Cut marks are present on the neck. There is no evidence of utilization or of striations parallel to the spine.

length: 21±cm.

Table 1: Bone Artifacts From Keatley Creek.

Artifact	1	3	4	6	7	8	9	12	47	58	90	10 1	10 4	10 5	10 9	11 0
Antler, worked	1	1			3		6	1				1				
Antler, billet					1											
Awl	2	2	2	1	17	1		3			3		1	1		
Bead: bone/shell					2		8		1					1		
Blanket pin					1											
Bracelet: shell					1											
Button														72		
Dentalium					3		5									1
Drinking tube							2									
Handle: antler							2									
Horn, worked												1				
Needle/point					3		2	1						3		
Pendant: bone							1					1				
Pendant: tooth					1											
Point		2														
Scapula,worked					11				1							
Shell		1					1					2				
Wedge, antler		2					1	1	1			1				
Wedge, bone					3		1									
Whistle					1											
Incised, polished, or perforated fragments		8	1	1	17		4	2	1	1			1			1

Photographs

- Photo 1: Items 1970, 2000, 2006, 2007, 2008.
- Photo 2: Items 5202, 5203, 5221, 5243, 5270.
- Photo 3: Items 1980 - 1982, 1993 - 1995, 2119 - 2162.
- Photo 4: Rim Spoil.
- Photo 5: Items 5251, 5252, 5253.
- Photo 6: Antler "billet".
- Photo 7: Moose Antler.
- Photo 8: Antler.
- Photo 9: Antler.

Figures

- Figure 1: The distribution of Bone artifact types on the floor of HP 7
- Figure 2: HousePit 1 Bone Artifacts
- Figure 3: HousePit 3 Bone Artifacts
- Figure 4: HP 4, HP 6, HP 8, HP 47, HP 58 Bone Artifacts
- Figure 5: HousePit 7 Bone Artifacts, Dentalia Keatly Creek
- Figure 6: HousePit 9 Bone Artifacts
- Figure 7: HousePit 12 Bone Artifacts
- Figure 8: HousePit 101 Bone Artifacts
- Figure 9: HousePit 104 Bone Artifacts
- Figure 10: HP 105 Bone Artifacts
- Figure 11: Extra-HP 8, Extra-HP 11 Bone Artifacts

HOUSEPIT 7

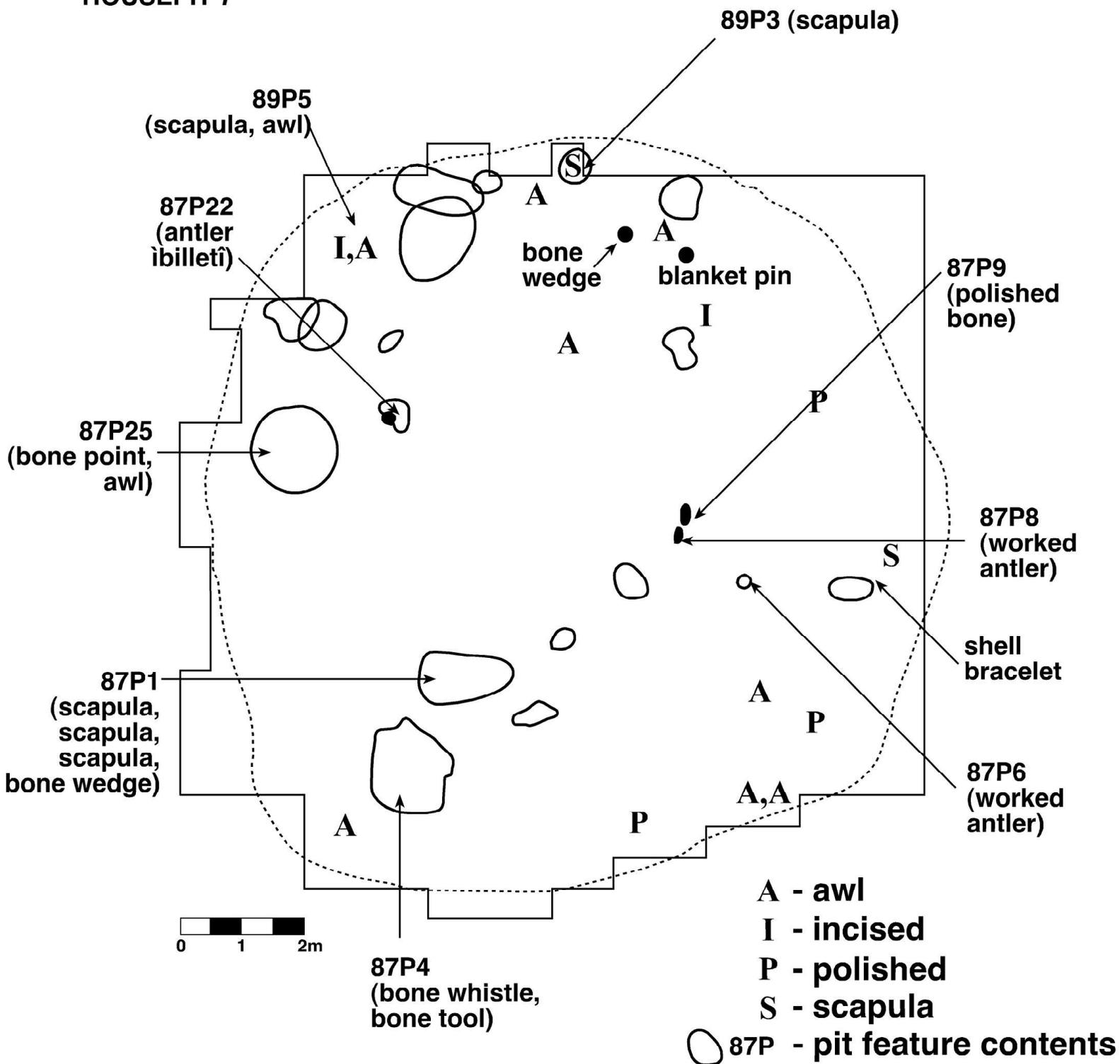


Figure 1. The distribution of Bone artifact types on the floor of HP 7

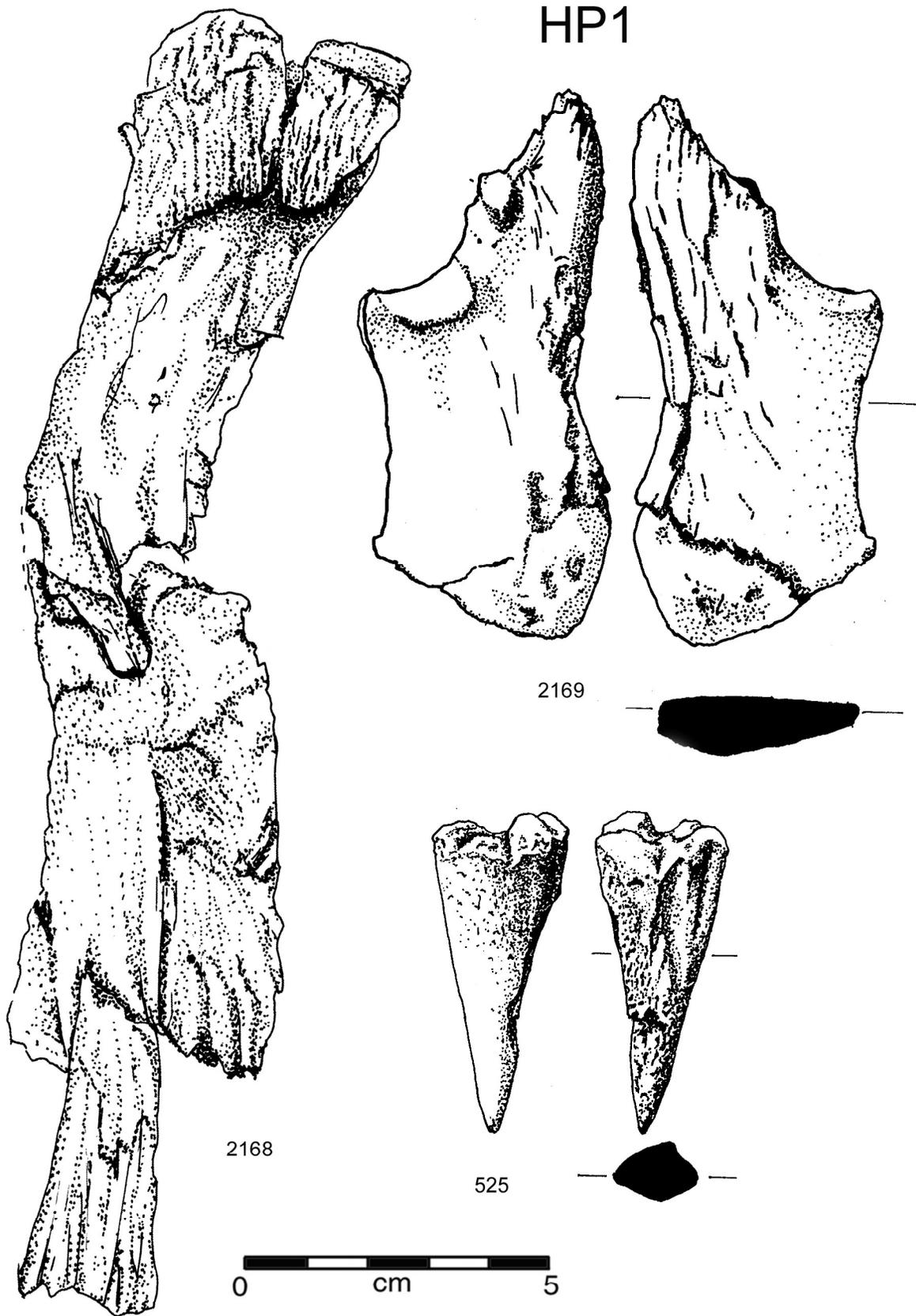


Figure 2. Housepit 1 Bone Artifacts

HP3

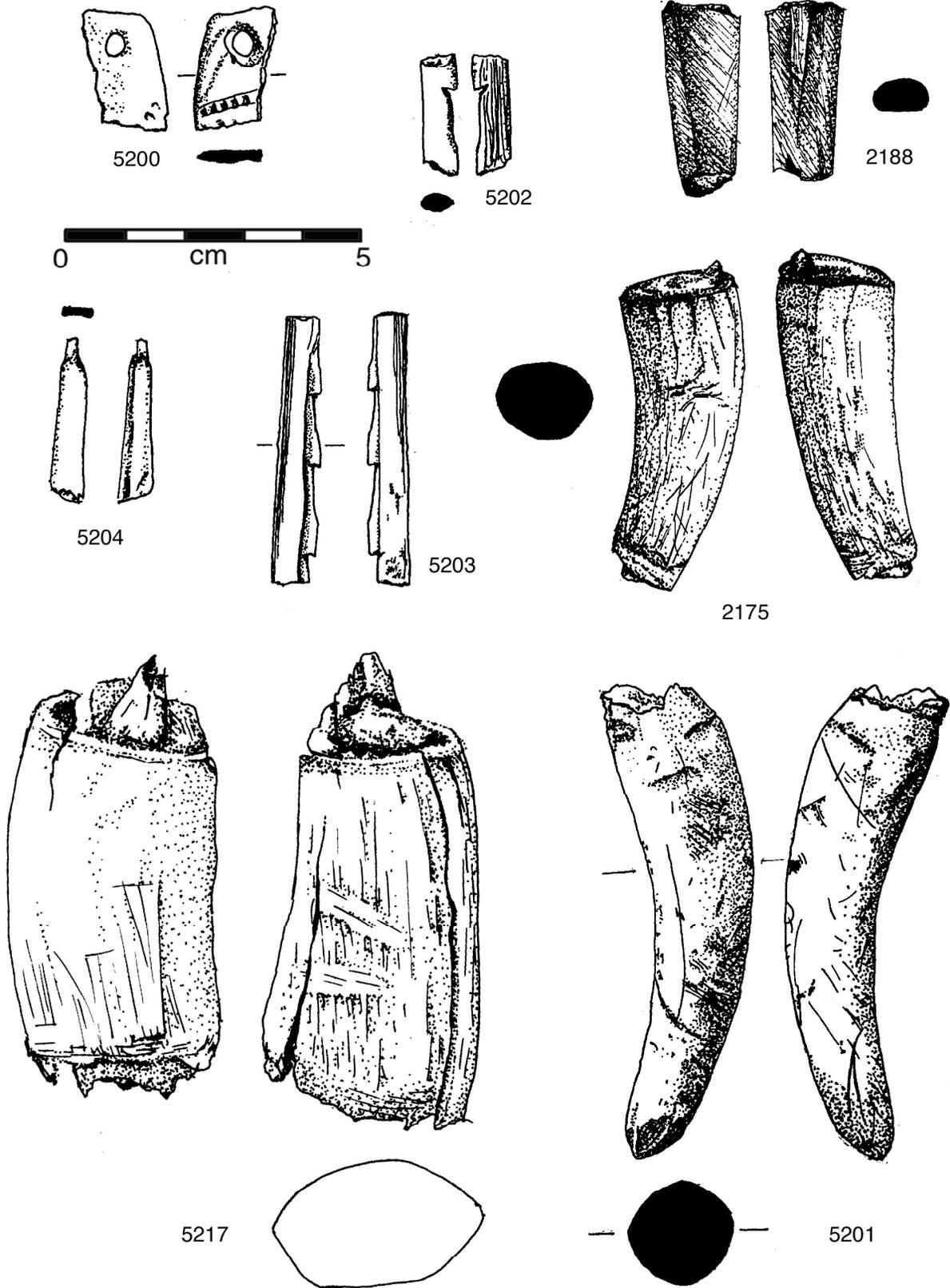


Figure 3. Housepit 3 Bone Artifacts

Figure 4. HP 4, HP 6, HP 8, HP 47, HP 58 Bone Artifacts

HPs 4,6,8,47,58, 90

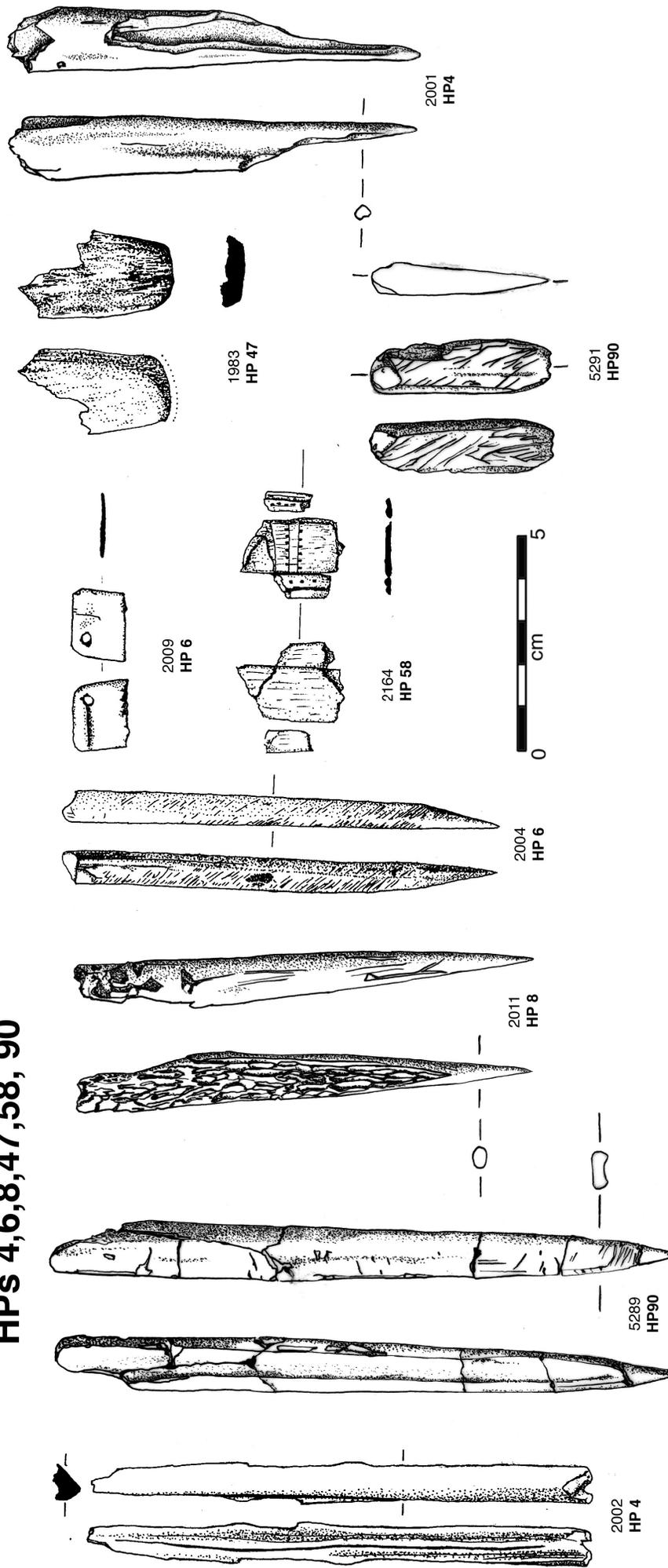


Figure 5. Housepit 7 Bone Artifacts, Dentalia Keatly Creek

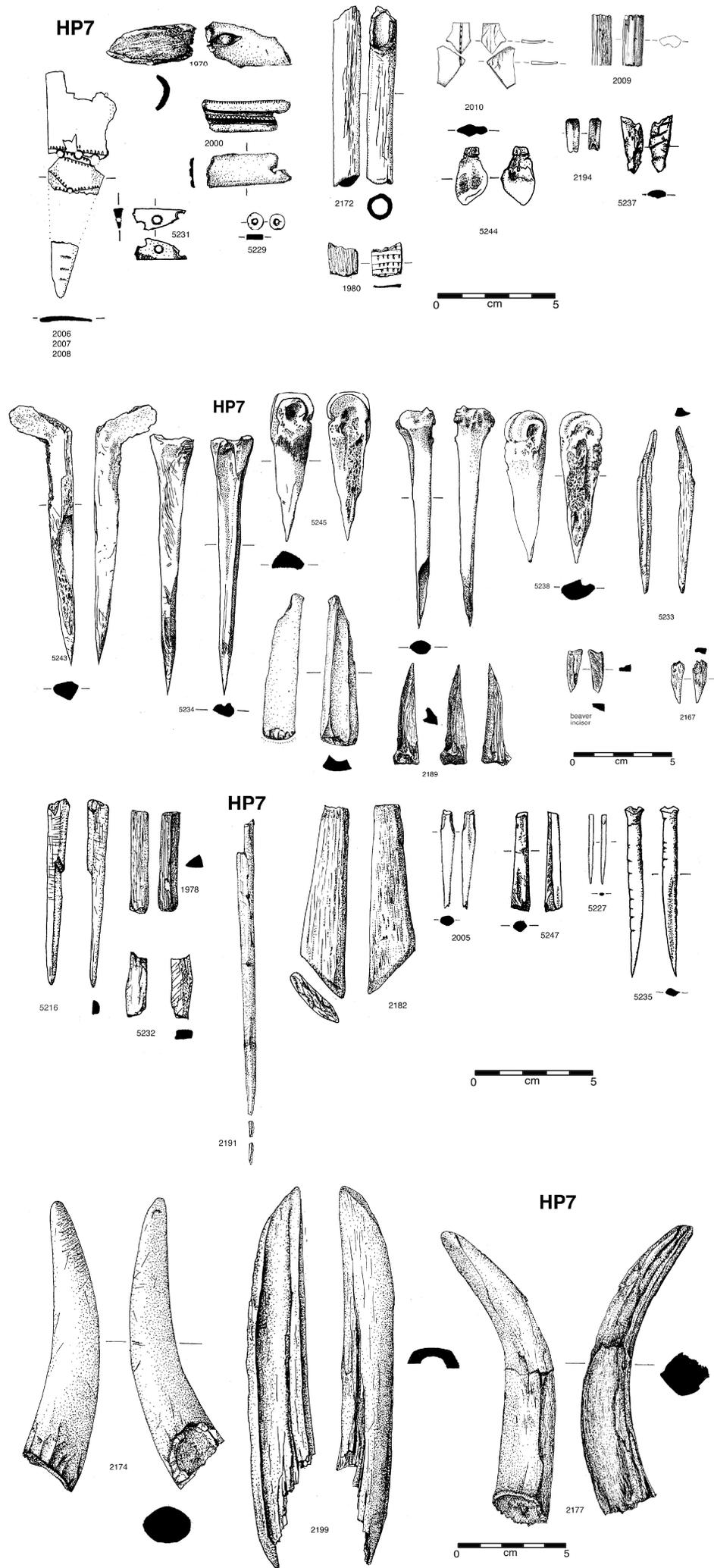


Figure 6. Housepit 9 Bone Artifacts

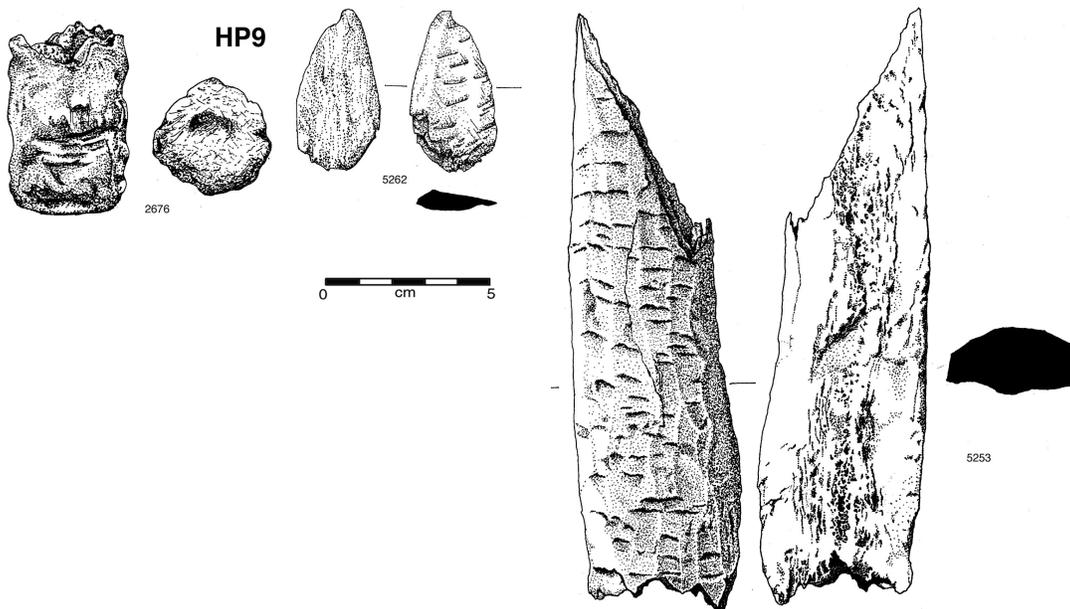
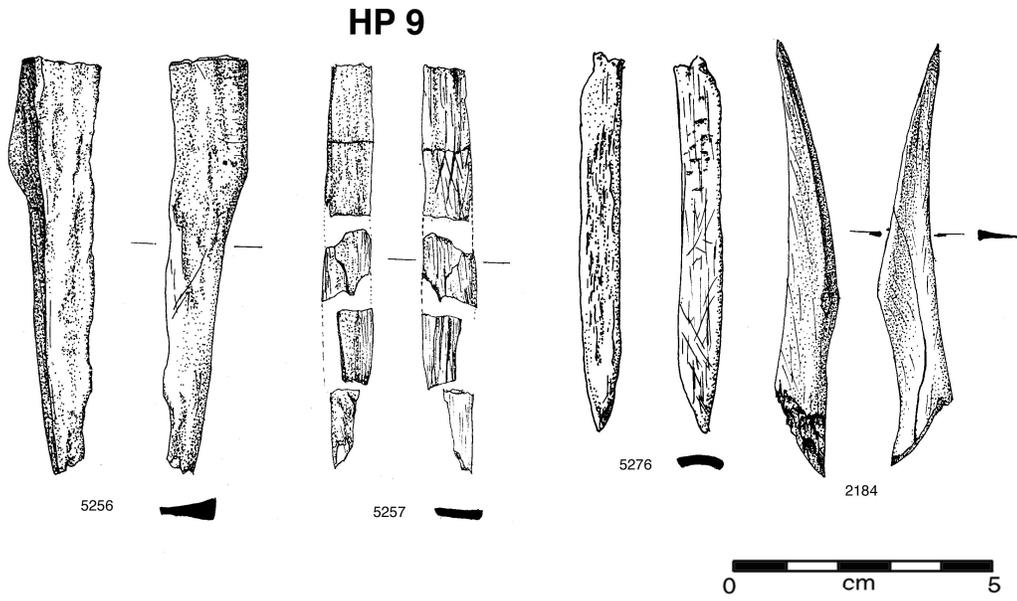
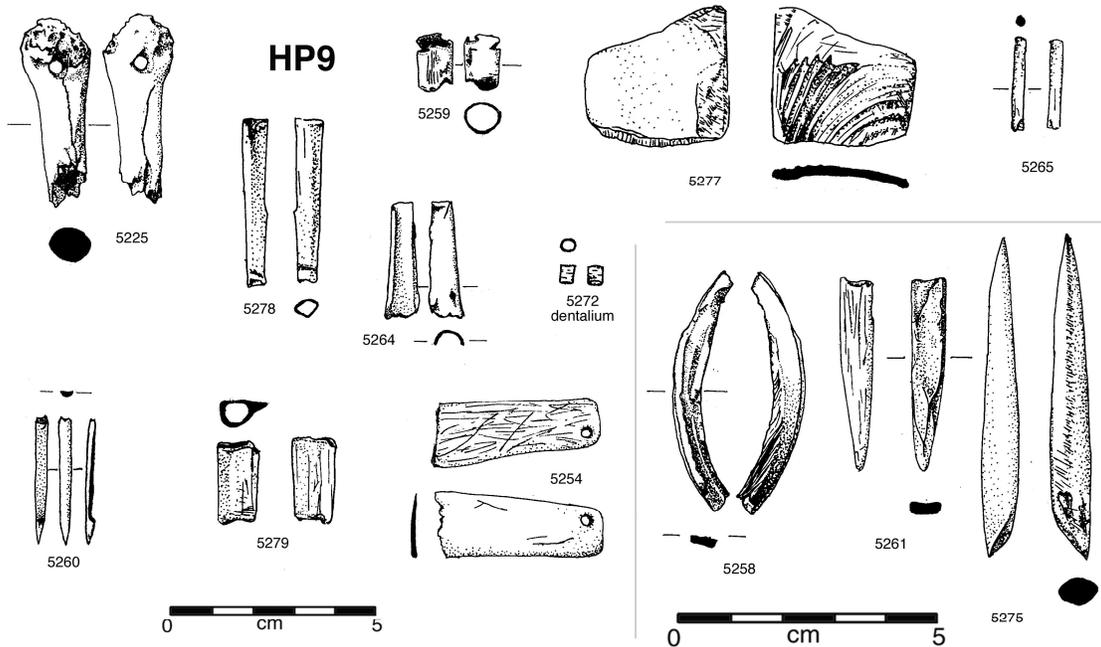


Figure 7. Housepit 12 Bone Artifacts

HP 12

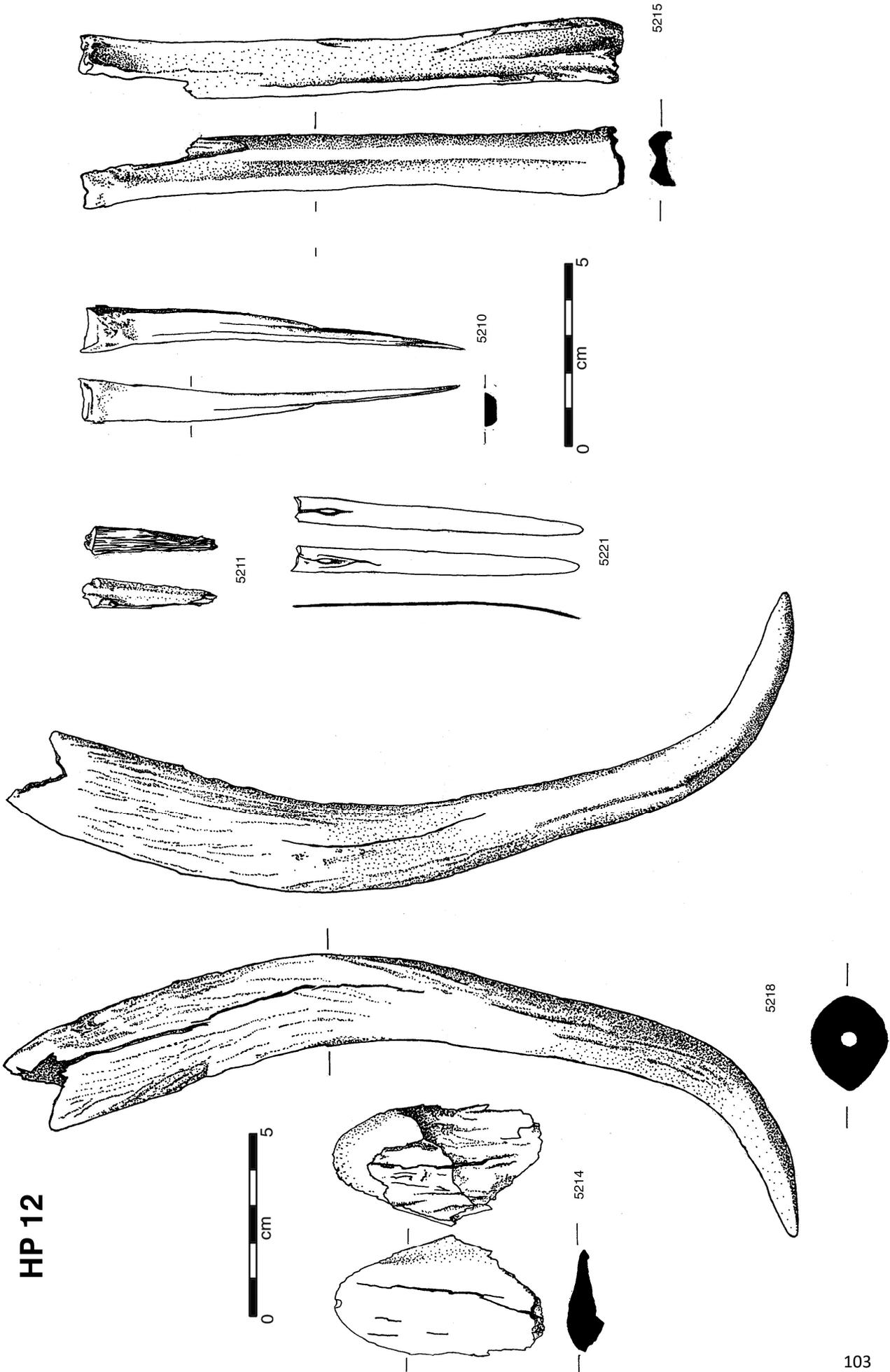


Figure 8. Housepit 101 Bone Artifacts

HP 101

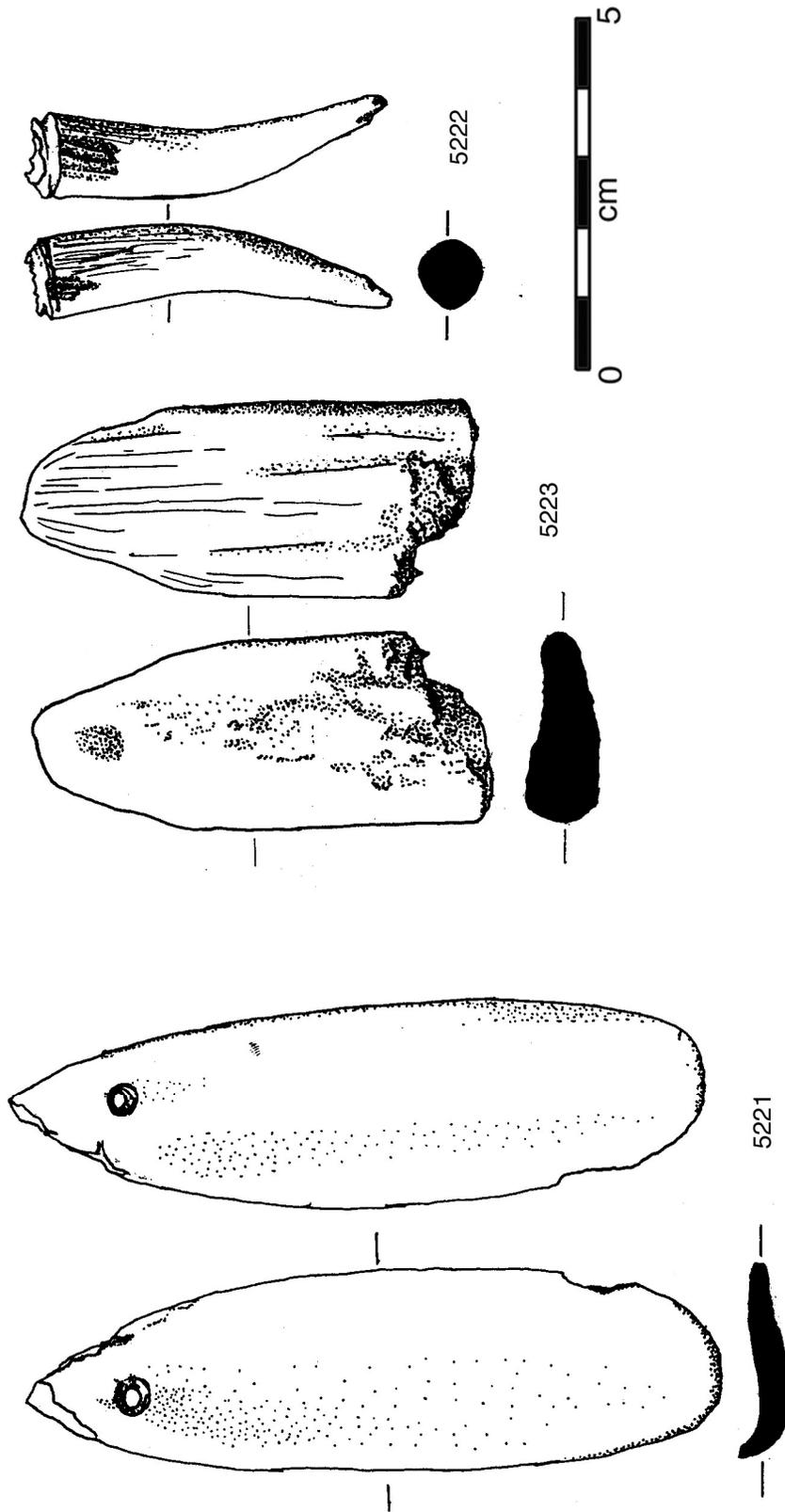
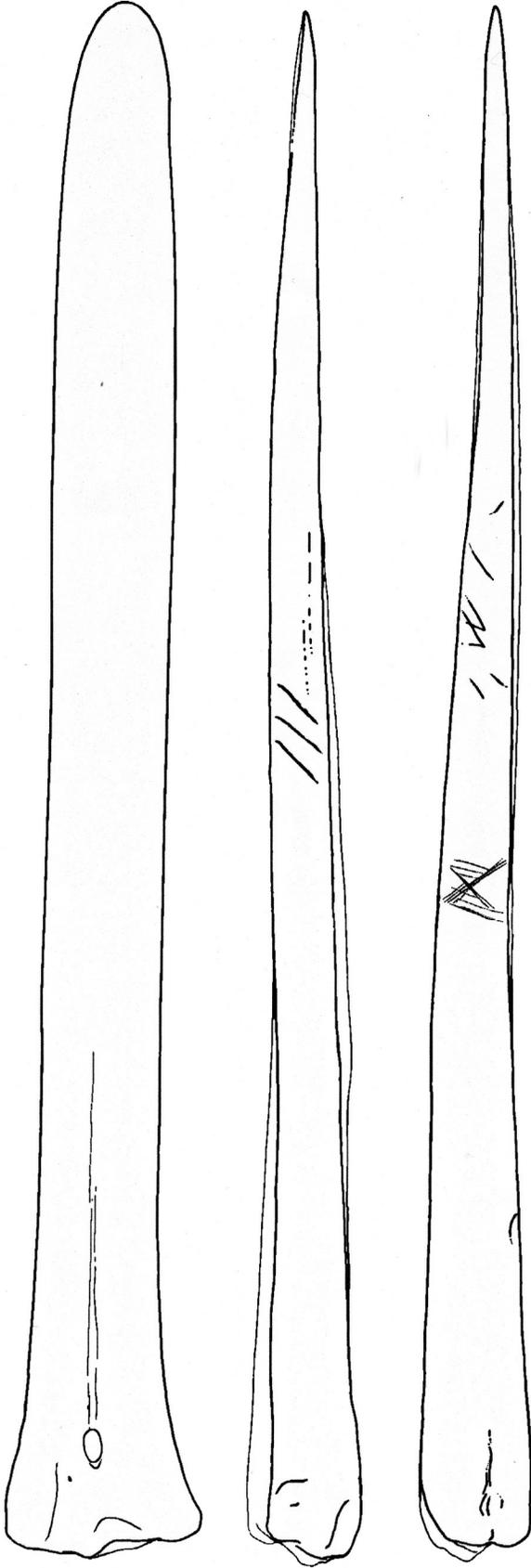
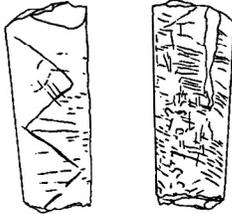


Figure 9. Housepit 104 Bone Artifacts

HP 104



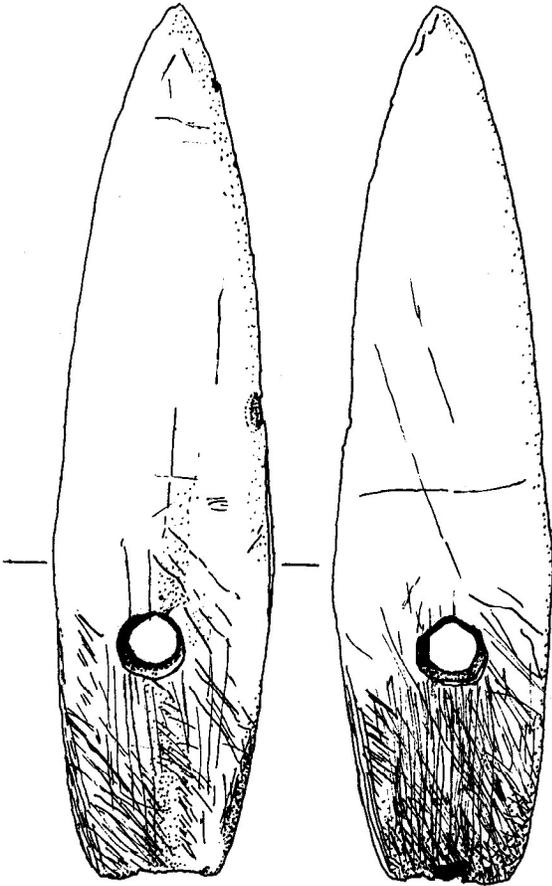
5280



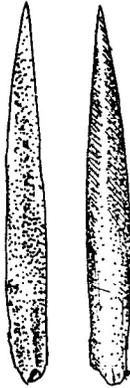
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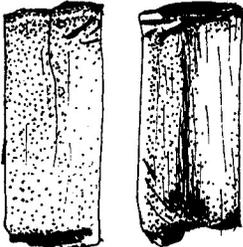
Figure 10. Housepit 104 Bone Artifacts



1989



1988



1987



HP 105

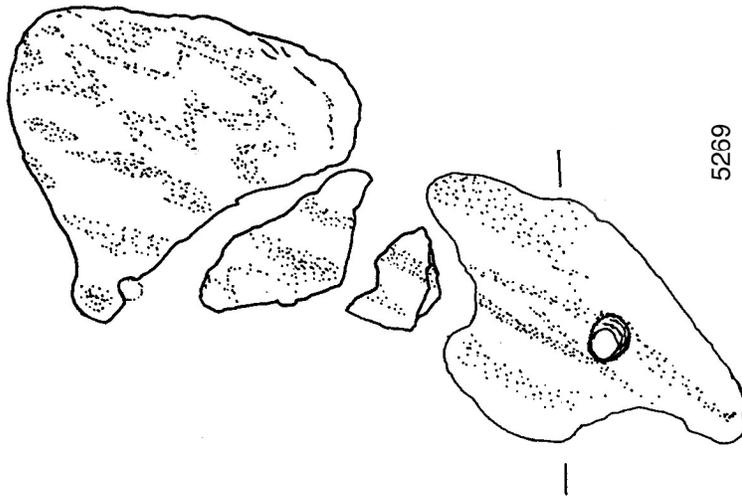


1980 -1982; 1993-1995; 2119-2162

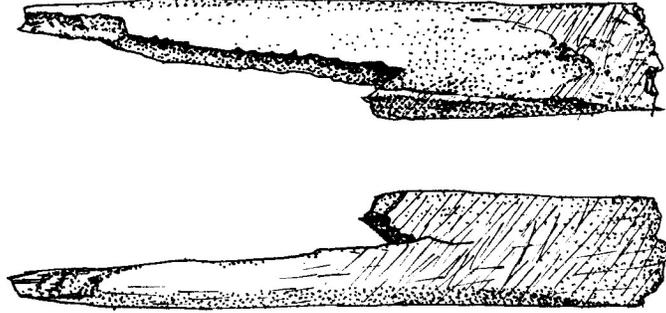


Figure 11. Extra-HP 8, Extra-HP 11 Bone Artifacts

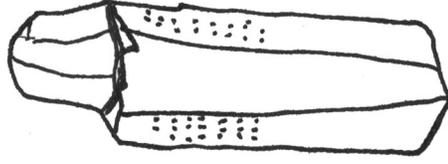
EHPE 8



EHPE 11



EHPE 28



5269

2163





Photo 1. Items 1970, 2000, 2006, 2007, 2008.



5243



5270



5202



5203



5221

Photo 2. Items 5202, 5203, 5221, 5243, 5247.



Photo 3. Items 1980 - 1982, 1993 - 1995, 2119 - 2162.



Photo 4. Rim Spoil.



5251

5252

5253



Photo 5. Items 5251, 5252, 5253.

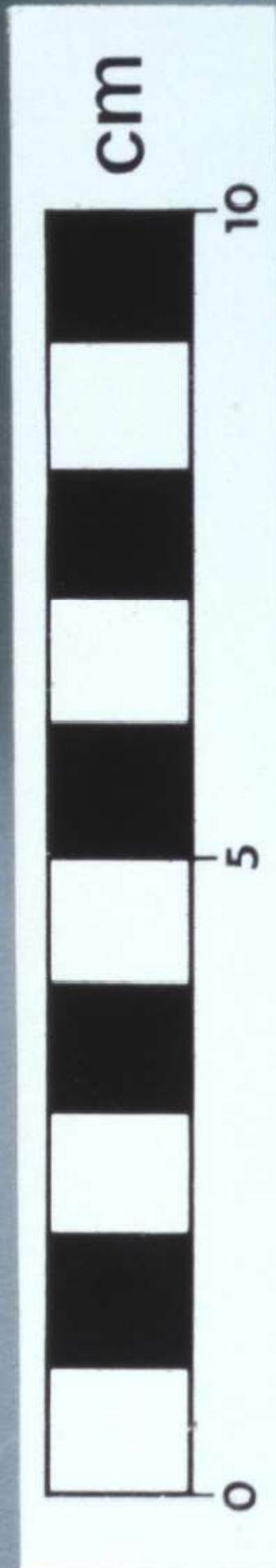


Photo 6. Antler "billet".



Photo 7. Moose Antler.



Photo 8. Antler.

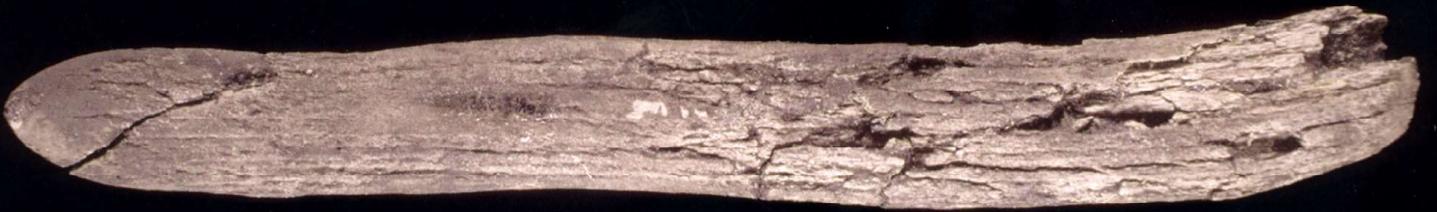


Photo 9. Antler.

5 cm