THE PISTOL RIVER SITE OF SOUTHWEST OREGON

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INTRODUCTION

The coastal Indian village sites of Oregon, especially those of the southwestern section of the state, have been neglected archaeologically in the past, and today few remain which have withstood the forces of nature and wanton destruction by man. The Pistol River occupation site, anciently known to its inhabitants as Chetleshin or Chetlessentan, was located on a high bluff overlooking both river and ocean, about 8.5 miles south of Gold Beach, Oregon. For a time this was one of the few prehistoric sites to escape the constant spoilative activities of the pothunter, but in 1961 it finally became a victim of his aggressiveness. Prior to this, Chetleshin had been part of the W. H. Henry sheep ranch and had been held by the family for many years. Until a highway was constructed from Gold Beach to Brookings, the region was difficult of access and could be reached only by an old county trail. At various times the village area had been under cultivation and had produced bountiful crops due to its extremely rich soil, at other times it had been used for sheep pasture.

As a member of the Oregon Archaeological Society, one of the most active in the United States, I was interested in seeking out some promising site for excavation. In February, 1961, my wife and I located the site of the old village of Chetleshin, but learned to our chagrin that it was to be destroyed within a few months to make way for the new U.S. Highway 101. Disturbed by this information, I contacted the State Engineer who informed me by letter that he had no objection to me or members of my organization excavating the site, but that David L. Cole of the University of Oregon had previously made arrangements to undertake this work. The discouraging news tempered my interest in the project and I sat back to watch developments.

In June, 1961, Dr. Cole and his group of student workers excavated one house pit and cut a stratigraphic pit in the north section of the site. Four burials were removed and then the work was abandoned. In March, 1962, Dr. Cole wrote me saying that he had abandoned the project because of lack of sufficient time and funds. He also stated that his group had not obtained any material suitable for factorial or statistical analysis. Nevertheless it was unfortunate that the project was abandoned since the site was then left wide open to pothunters. Rather than leave Chetleshin to treasure hunters and to the utter destruction of all that then remained of its culture, I decided to make an effort to recover all the archaeological evidence I could before the site was destroyed to make way for the new highway.

Actual operations were begun in September, 1961, by which time it was certain that the University of Oregon would conduct no further work at the site. Test excavations had been made months before. Several members of the Kalapuya branch of the Society came down from the Willamette Valley to help. Four men from Pistol River—Ronald and Bill Crook, and George and Will Wasson—started excavations on the north section of the site where, the Wassons informed me, the University had definitely abandoned the project.

During that month the Crooks and Wassons unearthed seven burials at the site. Because of the proximity of the old Highway 101, the Crooks slept at the site in order to prevent vandalism. At this time one burial was unearthed by two members of the Society who had come from Washington to join the field party.

To add to our harassment, an overzealous reporter from Gold Beach published (in one California and two Oregon newspapers) accounts of fabulous treasures to be found at the Pistol River site. This publicity resulted in an "artifact rush"; people came from all over Oregon and northern California intent on collecting, yet none of them knew what they were looking for other than "pretty arrowheads." Some of these people brought spades, others had garden scratchers. There were those who carried rolls of chicken wire, hoping to snare arrowheads in the large meshes. Some came without tools but would zealously watch our efforts and, if a section were left unguarded for a few moments, they would jump into the excavation and start to dig, using our equipment. In all, it was a struggle against heavy odds to continue in our purpose.

One group of amateur archaeologists brought a motorized soil screen and, in their frenzy to find arrowheads, ruined at least two house pits which had been partially excavated. Others destroyed many of the house pits without knowledge of their existence, covering them with huge piles of tailings. In all of this there was no legal protection for those of us who had permission to excavate the site. Weekends were the worst, when many spectators and would-be diggers arrived. Certainly more archaeological data was destroyed in a few hours on these weekends than could be recovered in five years of careful investigation.

However, these unwanted, uninvited influences served only as a stimulus to our party and made us more determined to continue. But the time came when the Crook and Wasson boys had to go back to college, and the distance to the site proved too great for the OAS members to travel. Eventually I found myself trying to excavate a site of some forty house pits singlehanded. Then, bad weather set in. There were trying days of

gale-like winds and stinging sleet which changed first to snow and then to rain.

In February, 1962, the road crews of Babler and Halvorson started work on the new Highway 101 in the Pistol River area. Much credit goes to Donald Boots, supervisor of the road crew, and to the heavy equipment operators, especially Knute Texell. All casual visitors were compelled to leave the site, and we were then allowed to operate in the main village section until all burials had been removed and the first road cut made. During this period Ronald Crook divided his time between duties at the sheep ranch and working at the site.

April 5, 1962, was a sad day, for it meant the beginning of the end of Chetleshin. On that particular day I worked feverishly to finish excavation of a house pit that was 5 feet deep in shell midden, but was unsuccessful. Within a few days all of the main village section, with the exception of three or four house pits, had been leveled and hauled off or pushed into the flats below the cliff for road fill.

On April 19 the first cut was made in the north section of the site. This isolated a strip of partially dug over ground on the west and the upper terraces of that section near the old Highway 101, but most of the section was carried away for fill.

The utter disregard for our careful efforts and the wanton destruction by the pothunters only made me more determined to salvage all that I could of Chetleshin. I had to dig deep into my personal savings in order to carry on work at the site for several months. The price was high but it was worth it, for it is rewarding to know that now students and others may benefit from the information that was recovered.

To members of the Kalapuya branch of the Oregon Archaeological Society who worked with me at Chetleshin, even though for a limited time, I am very grateful, for from what they and others obtained and from the existing records of the area, plus my own finds, I have been able to form some conclusions relative to the way of life of the Chetleschantunne Indians of Pistol River.

Dr. Frank H. H. Roberts, Jr., Director of the Smithsonian Institution, gave me invaluable aid in my research when he furnished microfilm copies of two unpublished manuscripts: "Shell Mounds of Oregon and Notes on Native Tribes," by A. W. Chase, and "Athapascan Indians of Southwestern Oregon and Northwestern California," by T. T. Waterman. I am indebted as well to Dr. Lucile E. Hoyme of the Division of Physical Anthropology, U.S.

National Museum, for reconstruction and analysis of the cranial material from the site; and to Dr. J. Lawrence Angel, Curator of the U.S. National Museum, for making it possible for me to obtain analysis of other burial material from Chetleshin.

Acknowledgment is made of the assistance of the following persons who participated for a limited time in the dig at Pistol River and allowed me to examine and photograph certain artifacts in their collections: Ray Vincent of Creswell; Otto Hendrickson, Caryle Burgoyne, and Marjorie Zane of Eugene; James Kern of Springfield; Walter Rickson, W. H. Henry, Ronald and Bill Crook, and Will and George Wasson of Pistol River; Mrs. Ira Tucker, Mr. and Mrs. Jack Smith, and Mrs. Echo Nutt of Port Orford; Mr. and Mrs. Robert Howard of Albany; Mr. and Mrs. Earl Woodson of Cottage Grove; Mrs. Virginia Richardson of Wedderburn; Mr. and Mrs. Charles Krohn of Washugal, Washington; Don Philo of the U. S. Coast Guard; and last but not least, my patient, understanding wife, Ruth, who had enough faith in my convictions and efforts to add those of her own. Thanks must go also to Dr. Thomas Newman of the Department of Anthropology, Portland State College, for his encouraging letter in relation to the excavation of the Pistol River site.

GEOGRAPHICAL DESCRIPTION OF THE AREA

The coastal strand once inhabited by the Pistol River Indians extends from Cape Sebastian, six miles south of Gold Beach, to Mack Arch on the south. This region is very rugged, with steep cliffs and slopes which are subject to slides during the wet winter months. Narrow, poorly drained terraces, often covered with tangled masses of spruce, manzanita, wax myrtle, salal, fern, huckleberry, and salmon berry, offer refuge for bobcat, deer, grouse, and quail. The black brant winter here and feed off the eelgrass found in the river at low tide. Near the mouths of Pistol River and Myers and Sand creeks there are offshore rocks which provide a place of growth for many kinds of edible shellfish. Gulls and cormorants nest here, and Steller's sea lion and the harbor seal can be seen.

In the hills behind the coast are heavy forests of spruce, hemlock, fir, and other trees and shrubs which provide food and cover for cougar, bear, bobcat, deer, and elk, as well as many kinds of birds and small animals. The white oak (Quercus garryana) grows on the inland prairies and the Chetleschantunne Indians evidently utilized the acorns from these trees.

South of the river a stretch of sand dunes extends to the barren promontory known as Crook Point. The dunes halt at the borders of Sand Creek which flows into the ocean from the east. Some dunes are as much

as 100 feet high and many hide deep deposits of shell midden. Freshwater springs trickle through the dunes, creating marshy places which are matted with purple clover and the short-stemmed monkey flower. Dune vegetation is typical of the American northwest coast: yellow flowered tree lupine, the edible strawberry, yellow verbena, and sharp-leaved dune grass.

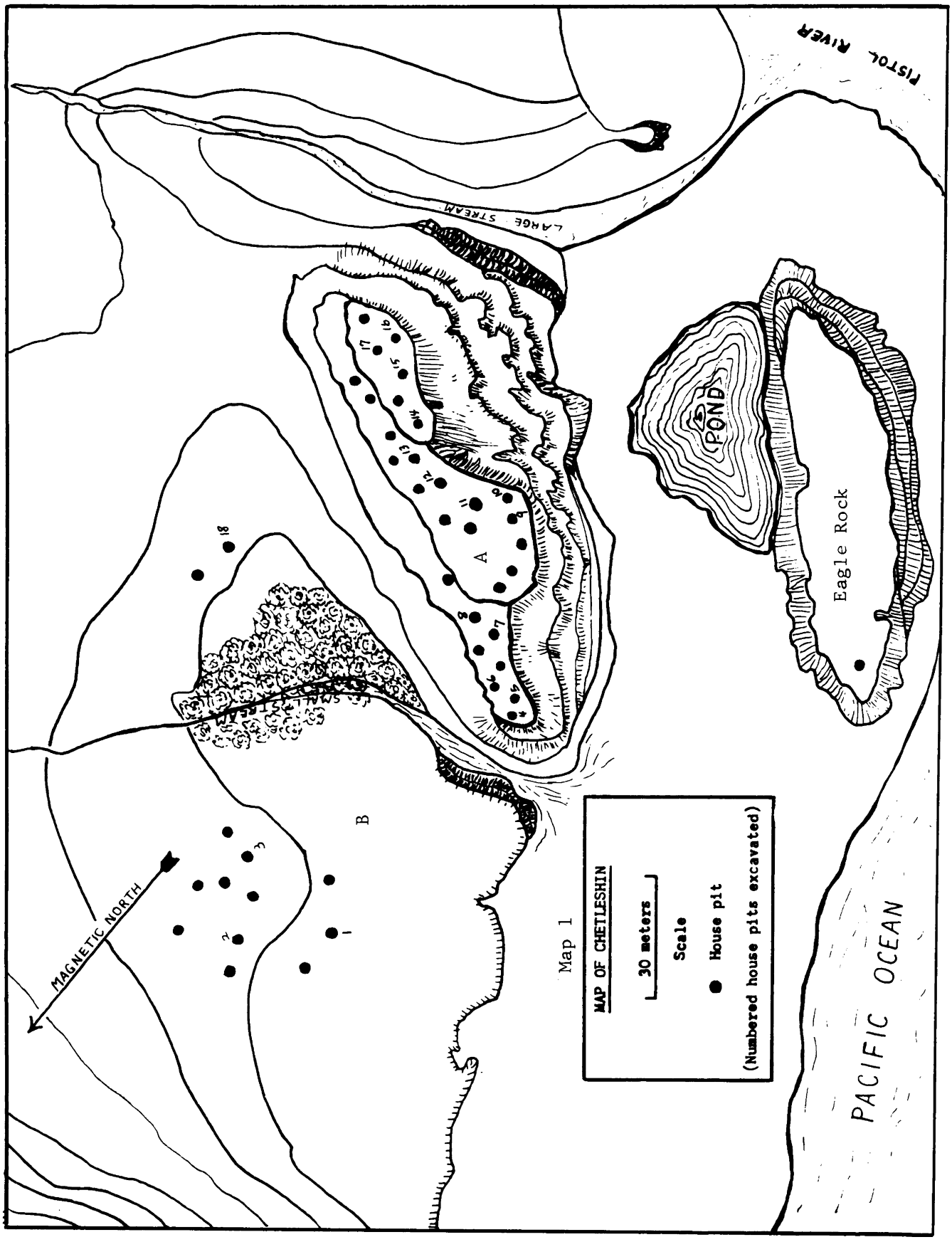
Fogs are frequent and heavy during the summer months, and torrential rains fall from November to May. Gales are violent at times, but generally both summer and winter are mild.

DESCRIPTION, HISTORY AND LOCATION OF SITE

The Pistol River site (known also as the Sheep site, the Henry site, the Daisy site, and Chetleshin) is located on the coast of Curry County, Oregon, Township 38S, Range 14W, Section 18. It lies atop a high terrace and bluff overlooking the ocean, just north of the mouth of Pistol River. At one time the river flowed past the west base of the bluff upon which the village stood, but through the years its course has changed many times. The Chetleschantunne, a branch of the Tututni, called the village Chetlessentan, the former name of the river. The Chetcos to the south called the village Chetleshin, and it was so named in Schumacher's reports (1874, 1877a). One small stream divided the village into two sections, while another flowed past the south base of the bluff upon which the main village section stood.

Schumacher (1877b:356) had this to say about the Pistol River site:

> If we take, for instance, the ruined settlement of Chetleshin, 1000 miles north of the Island of Santa Cruz, in front the wide ocean expands with a number of outlying rocks. Pistol River washes the base of the bluff upon which the station is situated. Its waters are stocked with trout, and in certain seasons abundantly with salmon. To the left or eastward a mountain brook empties into the river at the foot of the rancheria and a spring issues between the upper and lower town sites. Back of the coast the country extends in a gradual rise toward a steep and heavily timbered ridge, beyond which it becomes almost impenetrable owing to thick forests and their undergrowths and vines, the safe home of elk and bear. The rocky ground on which the town is located is covered with a deposit of sand and kjokkenmoddings of a great age in


PACIFIC OCEAN
PISTOL RIVER
LARGE STREAM
POND
Eagle Rock
A
B
MAGNETIC NORTH
MAP OF CHETLESHIN
30 meters
Scale
House pit
(Numbered house pits excavated)

Map 1

> its lower layers, with that peculiar mouldy, ash-like appearance sprinkled with particles of decayed shells so characteristic of aboriginal settlements.

The southern section of the village ("A" in map 1) covered an area approximately 57 x 336 feet, and the northern section ("B") was approximately 165 x 195 feet in area. Although Schumacher listed approximately 50 house pits, I located only 11 on the north side and 29 on the south, making a total of 40 house pits in the village.

About 300 feet west of the village stands Eagle Rock, a 90 foot high, flat-topped rock which contains some midden deposit and at least one house pit. It covers an area about as large as Chetleshin proper.

At the time of excavation there were no shrubs growing on the site itself other than a thicket of willows in the ravine dividing the village. Because of the enriched condition of the sandy refuse deposit, a lush carpet of grass and weeds covered the area. In season clumps of wild Iris (Iris tenax) and seaside daisies (Erigeron glaucus) grow there, as well as clumps of the purple-flowered edible thistle (Cirsium edule). An herb frequently found growing in house pits (Echinocystis oregana) proved a nuisance since the long, matted runners of its enormous roots hampered digging.

A heavy concentration of shell, mixed shell and ash, rock fragments, and bone, having a depth of 6 or 7 feet in places, fronted 8 house pits in the middle elevations on the north and west sides of the north ("B") section of the site (see map 1). On the slopes fronting 3 house pits on the lower terrace was a heavy concentration of occupational debris which faced the ocean on the west and spilled down the gully sides on the south.

There were apparently three occupation elevations of the south ("A") section. At the northwest end there was a deep concentration of mixed ashes, decaying shell, and sandy dirt. The middle and upper (south) elevations also supported a heavy shell deposit on the east, north, and west sides. Shell, ashes, broken rock, and other occupational debris, 3 feet deep in places, covered the slope facing the ocean for more than half way down. The middle portion of the main (south) village section had a stratified midden of shell and dirt that in places was 10 feet deep. The overall occupational depth of the south section was between 7 and 8 feet.

The earliest written record of the Chetleschantunne appeared in J. L. Parrish's "Report of Indian Affairs in 1854" (Dodge 1898:495). The last chief was Enetuse, and a census report indicated a population of 11

boys, 9 girls, 15 women, and 10 men, indicating that the epidemics of the 1820's and 1830's had made heavy inroads among the inhabitants. Veneral disease (brought in by the white man), fevers, and eye diseases also contributed to the decimation of the Indians (see Cook 1955; Mooney 1928).

In 1856, without provocation, a glory-seeking, Indian-hating white man named George H. Abbott, together with thirty-four other whites, burned the village of Chetleshin to the ground. The survivors joined roving bands of Rogue River Tututnis and Chetcos in an all-out war against extermination. Most of these were eventually rounded up and sent to the Siletz and Grande Ronde reservations in the following year. However, the Chetleschantunne chief, his son, and four others managed to escape and fled to the Tolowa Indians on Smith River in California for refuge. Their safety was short-lived, however, for the whites found out where they had taken refuge and delivered an ultimatum to the Tolowa chief demanding that the Pistol River chief and his followers be killed or the Tolowa villages would be "burned to the ground one by one." Rather than have this happen, the Tolowa chief held a special feast for his Pistol River guests and while they feasted had them slain. The bodies were buried together in a common, unmarked grave in California soil (Chase n.d.:52-53).

Indians of pure Chetleschantunne blood are unknown. In 1921, while doing field work for the Museum of the American Indian, T. T. Waterman visited the Siletz Reservation. He claimed (Waterman n.d.) that none of the Athapascan groups mentioned at the reservation—which included Chetcos, Pistol Rivers (Chetlessingtons), Sixes, and Lower Rogues—exhibited any real tribal origin, and that the Tolowa were the most important culturally and numerically. Waterman located very few Pistol River Indians, and those to whom he talked knew little or nothing of original habitations.

Mr. J. F. Endert of Crescent City, California, who has spent many years among the Indians of northwestern California, talked to several Tolowa and Yurok Indians at my request, in order to learn if they knew anything about the Chetleschantunne. The name seemed familiar to them, and more than one person claimed that there had been a village named Tututni. The grandfather of a Tolowa named Joe Seymore was supposed to have come from the Pistol River area during the Rogue River wars. Mr. Endert is investigating further, but so far has elicited nothing more than these few clues.

A. W. Chase, of the U.S. Coast Guard Survey, visited the Pistol River area in 1872. Although he published an account of his discoveries in the American Journal of Science in July, 1873, I quote instead from his unpublished manuscript (Chase n.d.) deposited with the Smithsonian Institution.

> The next large mounds were of the Tchit-la-schins near the great cluster of rock known as Mack Arch. There are five dwelling places, the first in latitude 42° 15', and others at intervals of a few miles, the last being at the dwelling place of a man named Dolan, at the mouth of the Pistol River and about five miles [north] from Mack Arch.
>
> The constant sweeping of winds over these mounds has obliterated nearly all traces of distinct shell heaps by which one could judge the position of a grave. In some places it has piled up sand and in others cut the shell heap down to the clay.
>
> A detailed examination is impossible. The inhabitants were skilled stone workers as shown by the character of the jasper and other stone works found on the surface. One human skull was found on the surface and detached fragments of human bones.
>
> On Mack Point (Crooks Point) and above the lowest of the mounds of the Tchit-la-schins is a level plateau from which the wind has swept the sand leaving a hard floor of earth. Many arrow and spearpoints have been found here.

Chase claimed the Chetleshin village near Dolan's house was the oldest. Among the artifacts he listed as found there were spearheads an obsidian knife, a yellow soapstone tubular pipe, an earring of serpentine, an engraved knife, pestles of serpentine and soapstone, serrated and barbed spearpoints, jasper chisels and scrapers, bone awls, a yellow sandstone mortar, hatchets of sandstone (probably cobble choppers of the kind which are very common in Willamette Valley sites), blue steatite pipe blanks, steatite shallow dishes, and grooved pieces of sandstone (shaft smoothers).

Paul Schumacher explored and surveyed the northwest coast from Crescent City, California, to Rogue River, Oregon, for the Smithsonian Institution in 1873. Two years later he revisted the area on a joint expedition for the Smithsonian Institution and the Bureau of Indian Affairs. In his report on this journey Schumacher (1877a) wrote: "The next day we established our camp and began excavations at the main rancheria of the Chetleshin on the elevated ground at the last bend, near the mouth of the stream called Pistol River."

In the 1800's the Pistol River site was on the property of a white man named Thomas Dolan. Apparently it became the property of the Henry family sometime during the early 1900's. Cultivation and wind erosion no doubt lowered the occupational depth of the site in several places. In 1961, W. H. Henry, the last owner, sold the ground upon which the old village had stood to the State of Oregon.

Other Settlements of the Chetleschantunne

The literal translation of the word "Chetleschantunne" is "people among the rocks." This name probably originated from their habit of locating settlements on rocky promontories overlooking rivers, creeks, and the ocean. Such a settlement, called Ts'ene or Little Ridge, once existed at the southwest tip of 700 foot high Cape Sebastian, a little over two miles north of Chetleshin. Maski, an islet known to the whites as Hunter's Island, just south of the Cape, was a favorite spot for otter hunters and those seeking cormorant and gull eggs.

Just opposite a large cluster of offshore rocks, about three-quarters of a mile south of Myers Creek and one mile north of Chetleshin, was another settlement. In making a road-cut through the area, house pits and shell middens were revealed, as well as several burials. All were destroyed.

There was a site area on the bluffs just south of Chetleshin, and a village called Ae-ne-ten was located upriver on the south side of the first bend. About eight miles farther up the river, on the north bank, was another small settlement.

Campsites, mostly seasonal, were near the beach in what is now the dune area south of the river. One such camp was located half a mile inland, near the headwaters of Sand Creek. A site called E-naset was situated on a knoll (165 ft. elevation) known as Mack (Crook) Point. Another village in this vicinity was designated Selkus or Split Rock, and was named after what is today called Mack's Arch.

Indian site names mentioned in this section have been taken from Waterman (n.d.).

EXCAVATION OF THE SITE

Maps and Method of Locating House Pits

Not all house pit locations were indicated by circular depressions

and other means of locating them had to be found. A copy of Schumacher's (1877a:pl. 7) map of Chetleshin was referred to constantly. His original map measured only 7 by 4¼ inches, and the village area shown with the house pits was so small that it was difficult to work from in its original reproduced format. To remedy this I photographed the map, then made a slide from the negative, and projected this on a 12 by 18 inch sheet of paper and traced it. My next step was to convert the map scale, which was in meters, into feet. When this was done, using the west edge of the village as a datum point, lines were drawn to each house pit and the distance marked off in feet. The resultant map looked much like a drawing of molecular design but it served to locate the house pits.

House Pits

The maps showing the location of house pits were never shown to anyone other than the few members of the OAS who worked at the site and Ron Crook. Trophy hunters plagued me continually to divulge the location of the house pits or to let them see the maps, but I refused. Many of the house pits were never excavated. This was most regrettable for they no doubt contained choice artifacts such as larger stone objects—mauls, pestles, shaft-smoothers—and, possibly, salmon grease bowls.

The only evidence of what might have been a part of a sweat house was a clay-lined draft trench which I excavated on the north section. The trench was 15 feet long, 2 feet deep, and 2 feet wide. The house had been destroyed.

One house excavated on the upper terrace of the north section of the village appeared to be of an ethnographic type similar to that described by Drucker (1937). It had a width of 11.5 feet and a length of 24 feet. There were charred pieces of corner posts, charred horizontal base boards, and stubs of vertical wall boards. Some pieces appeared to be thick bark slabs. Since the site had been under cultivation at various times over the years, much of the original top soil may have blown away. On excavation the pit area of the house was found to be only one foot in depth, but it may formerly have been deeper. Bits of charred wood were scattered about the dirt floor which was orange colored from burning. A stone encircled fireplace, having a diameter of 29 inches, was filled with clean ocean gravel and sand. A post near the center of the south wall was somewhat puzzling, but may have been a support for a single ridgepole although it seems probable that most houses had two ridgepoles.

In this house we found fragments of a badly charred basket hat, a brass uniform button, a brass bracelet, a stone maul, a corroded iron key,

pieces of amber-colored bottle, and an arrowhead chipped from a piece of the same colored glass. What appeared to be a cache of trapezoid copper pieces was located at a depth of 3 feet near the northeast end of what must have been the anteroom. Some square nails, a 4 inch piece of rolled iron, two 11 inch iron bars, a 7 inch copper bar, and a 9 inch rusted iron knife were also found.

Other houses, partially or fully excavated on the south section, appeared to be older. They averaged about 12.5 by 15 feet in size, had vertical wall boards and corner posts of cedar, white or bluish clay floors, and an excavated area which ranged from 2 to 4 feet in depth. Fireplaces were stone encircled. Many fire lenses were encountered at various depths in both village sections, indicating outdoor cooking.

Dwellings were rectangular pit houses judged to have been about 8 feet high, with vertical planking on the walls and with probably gabled roofs of bark, cedar planks, or grass thatch. Living quarters were in an excavated area or pit which ranged in depth from one to 5 feet, sometimes extending to the outer walls, but often separated from the rest by a surrounding ledge of dirt and a vestibule in front. Floors were of hard-packed clay, gravel, or beach sand. A stone encircled fireplace was near the center of the rear of the pit.

When an access road was cut through the north section in 1962, it removed most of that occupied area, but did leave three unexcavated house pits on the upper slopes between the access road and the old U.S. highway 101. Three house pits remain on the south section, but as both sections are now subject to erosion and slides they will almost certainly never be excavated.

Composition of Site and Actual Occupational Depth

The actual occupational depth of the south section of Chetleshin was 7 feet, as indicated by test shafts and the strata revealed in the road cut. I am not certain about the north section since most of my activities were confined to the main village section until about the last of April, 1962, but believe it to be about the same. The University of Oregon crew dug a strata pit on the north section and had a carbon-14 test made of some of the material; however, their results have not so far been published.

Soil composition was sandy, loose, almost spongy; reddish and black in color; intermixed in places with decayed shell, ashes, broken and fired rock, bone, artifact fragments, decayed vegetal matter, and other occupational debris. The blackish soil was extremely "greasy" to the touch.

Molluscan and Other Remains Found in Shell Midden Deposit

At least 70 to 80 per cent of the shells found in the deposits were mussels—*Mytilus edulis* Linné and *M. californicus* Conrad. Other species of shell were found mixed in with them. These were as follows:

Mollusks: Black katy chiton or sea cradle (*Katharina turnicata* Wood.)
Giant Pacific chiton or gum boot (*Amicula stelleri* Middendorf)
Nuttall's cockle (*Clinocardium nuttalli* Conrad)
Gaper clam (*Schizothaerus nuttalli* Conrad)
Littleneck clam (*Protothaca tenerrima* Carpenter)
Common Pacific littleneck (*Protothaca staminea* Conrad)
Emarginate dogwinkle (*Thais emarginata* Deshayes)
Frilled dogwinkle (*Thais lamellosa* Gmelin)
Lurid dwarf triton (*Ocenebra lurida* Middendorf)
Dove shell (*Amphissa versicolor* Dall.)
Rough keyhole limpet (*Diodora aspersa* Eschscholtz)
White cap limpet (*Acmaea mitra* Eschscholtz)
Shield limpet (*Acmaea pelta* Eschscholtz)
Purple dwarf olive (*Olivella biplicata* Sowerby)
Rock oyster or giant rock scallop (*Hinnites multirugosis* Gale)
Black Tegula or turban shell (*Tegula funebralis* A.)
Giant western Nassa snail (*Nassarius fossatus* Gould)
Western fat Nassa snail (*Nassarius perpinguis* Hinds)

Echinoderm: Tests or dead shell of sea urchins of the family *Strongylocentrotus*; these could have been the red variety *franciscanus* or purple *purpuratus*.

Anthropod: The edible rock crab of some species of *Cancer*. Only the pincers.

Bone Remains

Elk and some deer detritus were encountered at varying depths, often at the bottom of the black soil deposits and in places where shell was heavily deposited. Found and identified were elk and deer antler burrs, various sizes of tines, and scored and cut sections of antler—probably intended for the manufacture of spoons and purses. Mandibles, teeth, pelves, scapulae, hind and fore limbs, metatarsals, and phalanges were scattered at various levels throughout the deposits of dirt and shell but were better preserved in the shell. Many pieces of broken or split cannon bones were found, indicating they were broken to extract the marrow or to obtain choice pieces of the compact outer layer for the manufacture of fishhooks, bipointed objects, headscratchers, and other items requiring a hard, ivory-like surface.

Whalebone was dug up in various spots about the site, principally in the north section.

Fish vertebrae, bird bones, and bones of rodents were found at various depths, especially in the heavy shell deposits, but no positive identifications of these have been made.

Pelvic and shoulder girdles of bear, elk, and sea lion were found at depths to 5 feet. Intact and fragmentary pieces of bobcat, sea lion, and bear mandibles were found, as well as a large number of sea lion and bear canines. Occasionally we would come across a perforated bear claw while screening—only the inner bone remained, the outer nail coating having deteriorated.

Stone Artifacts

Projectile points (pl. 1) were found at depths ranging from just a few inches below the surface to 3 feet (rarely deeper), and were most common at the one and 2 foot levels. The predominant type is a thin, well made, basically triangular point with indented concave or square base. Some points have straight sides, others are of lanceolate shape with convex edge. A few have straight bases except for one extended barb. Stems are straight, contracting, pointed, and expanding. Notches are basal, side, and wide corner. Many points are serrated.

Knives (pl. 7e-i) are ovoid and were found in depths ranging from one to 3 feet.

Perforators or drills (pl. 6) indicate a great degree of skill in pressure chipping; some are needle-thin and sharp. These were found at depths ranging from 2 to 6 feet, mostly in black soil but occasionally in heavy shell layers.

Scrapers (pl. 6q-v) from different sizes of spalls are well made and were found at about the same depths as the drills (2-6 ft.).

Reamers and gravers (pl. 6h, j-n) were found in shell and dirt deposits and were fairly numerous. Depth range for scrapers, reamers, and gravers was approximately 2 to 6 feet.

Materials used in the manufacture of projectile points, knives, reamers, gravers, scrapers, and drills are jasper, agate, and a greenish type chalcedony. A few obsidian points were found. Jasper, agate, and chalcedony materials were gathered in the dunes, on the beaches and bluffs,

and on Crook's Point. Obsidian undoubtedly reached the Chetleschantunne from a northern California source.

Mauls (pl. 2a-e, h, i, l) of stone were usually found in the house pits or near the outside walls at depths ranging from one to 3 feet. One unusual type (pl. 2i) is rounded on top with vertical grooves radiating from the top center to the wide base. This specimen may have been used as a fist maul. Another type (pl. 2h) resembles the stone pile drivers used by the Quinault of Washington (Goddard 1924:71). Materials used are granite and sandstone, basalt, and granite porphyry.

Pestles (pl. 2f, g, j, k, m, n) of different types were found, some of which were finished and others unfinished. All specimens taper from the base to a narrow, hand-held end. One type has a raised ring or flange near the base; others have raised rings near the pointed proximal ends. Like the mauls, the pestles were usually encountered in house pits or near the houses at depths ranging from one to 3 feet. Materials are sandstone, metamorphosed sandstone, and basalt.

Shaftsmoothers (pl. 7a-d) of sandstone, varying in length, design, and width of groove, were found in great numbers at 2 to 3 foot depths in or near house pits.

Adze handles and blades (pl. 8a, b) of two kinds were discovered, the elbow or Yurok type and the straight type. The elbow specimen is of aphanitic basalt. It is highly polished, possibly from long use. The straight type is of metamorphosed sandstone. Both types were found at a depth of one foot. Adze blades were scarce. Those found are of slate or serpentine, and were uncovered at depths of from one to 5 feet.

Stone pipes (pl. 3c-i) of two types were found: (1) tubular, and (2) funnel-shaped bowl mortised into a wooden stem. All show a great deal of skill in their making, and many have paper-thin walls. Some are engraved. Serpentine, chlorite, and steatite were used in their manufacture. They were located at all depths in the deposit to bedrock, but were most common at the 2 to 3 foot levels.

Charmstones (pl. 3k-q) of steatite and serpentine, grooved and polished, were discovered near house pits and in shell middens at depths ranging from one to 4 feet. One was discovered on top of a gopher mound.

Stone beads (pl. 3t-v) were scarce, and the few specimens recovered are circular and flat with a hole in the middle for string suspension. The beads were mostly found with burials. Materials used in their manufacture are serpentine and chlorite.

Stone pendants (pl. 7j-o) of steatite, chlorite, and serpentine were found at various depths to 4 feet in several house pits.

Stone bowls and dishes (pl. 4) presumably meant for catching salmon grease in the smoking process were found in both sections of the site. There were many fragments of these bowls but very few pieces matched. Enough matching pieces were found to reconstruct one-half of a boat-shaped dish, but the fragments needed to complete it were never recovered. I was fortunate in finding two small intact bowls at a depth of 2.5 feet in the deposit. Apparently most of the dishes and bowls had been "killed" after the whites burned the village.

Stone pins (pl. 3b', c') were scarce. Those found were curved for the most part; however, a few were straight with a point at one end. Materials were steatite and serpentine. These specimens were found at depths ranging from one to 3 feet. The designation of these specimens as decorative objects, such as "nose-pins," is suggested.

Miscellaneous stone artifacts. Notched sinkers (pl. 5e-g) made from flat, ovoid river cobbles and pebbles were the most common and abundant artifacts at the site. These were gathered literally by the bucketsful. Not so common were doughnut-shaped and girdled specimens (pl. 5b, d). Sinkers were found at various depths to the bottom of the occupation deposit.

Cobble shoppers (otherwise unworked cobbles with crude flaking on one edge) were discovered throughout the site at varying levels.

Whetstones or sharpeners showing the marks of stone or bone tools, probably knives or awls, were encountered in or near house pits.

Stone mortars of the slab variety (pl. 5a), with shallow, circular depressions, to be used in conjunction with basket hoppers, were found on the shelves (ledges) of house pits and on the floors and often near the houses.

A puzzling artifact of dark brown serpentine, with grooves all around the edges and on both sides, as well as through the middle section, was discovered. This may have been a charmstone. Another unusual artifact was a stone 21 cm. in length, which had the upper end pecked out to resemble the end of a phallus. It is believed to be an unfinished pestle.

Several flat stones covered with red pigment and several rough, cup-like basalt containers were found. Their use has not been determined.

Mended stone artifact. At a depth of 3 feet, in midden of mixed shell and dirt, a large, pitted piece of sandstone was uncovered. Its size was 9.5 by 3.5 inches and there were indications that it had been patched. It had apparently been broken in two pieces and then patched with a white material, probably white clay. It had been broken again but the patch held; the second break was through the middle. It seems unlikely that if this were an ordinary hammerstone—large numbers of which were found at the site—trouble would have been taken to mend it.

Sculpture

The Pistol River Indians knew something about modeling in clay, as evinced by a tiny baked clay bear figurine (pl. 19h) discovered in a pile of tailings left by a careless pothunter. A carved bear(?) head (pl. 19i) of steatite or pre-dried yellowish clay was also found.

Clay pipes (pl. 3a, b). Many baked clay pipes were found at depths ranging from 6 inches to 3 feet, in both dirt and shell middens. Colors ranged from yellowish-orange to brown.

Bone Artifacts

The majority of artifacts found at Chetleshin were of bone, and to find these we had to resort to the shell midden deposit outside of the house pits where bone material was found to be intact. Specimens were located at depths varying from near the surface to the bottom of the deposit (approximately 6 feet). Implements found were probable spear points, awls or "eel slitters," bipointed implements, curved fishhooks, simple single and double-barbed sea lion harpoon foreshafts, "composite" or toggle harpoon head barbs and blanks, fishhook shanks, and sharp, straight points for use in conjunction with the shanks. In addition some sharp edged tools were found which may be presumed to have been used for such purposes as prying open clams.

A large number of elk horn wedges (pl. 8c-e) of various sizes were recovered as well as net mesh measures (pl. 11h, j). Elk horn blanks for the manufacture of purses and blanks for spoons were found, also one engraved box or "Dentalium purse" (pl. 15b-1, b-2) and several spoons (pls. 15a, 16). The latter were made from the burr or coronet and are about 7 inch pieces of the beam of the antler.

Needles and whistles complete this list, except for numbers of specimens which have unknown functions.

Engraved bone artifacts (pl. 12). A number of intact or fragmentary engraved bone specimens, which have been described variously in the ethnographic literature as headscratchers, hairpins, nose, and ear pins, were found. Some of these specimens were located in shell concentrations at various depths ranging from near the surface to bedrock; others were found in mixed debris of half-rotted shell and dirt near or in house pits at depths of from one to 4 feet. A few bone artifacts were found not far from burials, though not directly associated with them.

Dentalia. A few engraved dentalia (pl. 12s) were found with burials. They could have been put in the ears and the nasal septum as was customary with the Hupa (Goddard 1903), or have been part of a necklace or ear pendants.

Whalebone. Two specimens which may have served as fish dispatching clubs, made from whale ribs, were found, one near a burial at a depth of about 27 inches, the other (pl. 18a) in occupational debris at a depth of 2 feet.

A seat or stool carved from a vertebra (pl. 18b) was discovered in the north section of the site at a depth of 2.5 feet in a shell deposit. Also, a "killed" bowl made from a vertebra was dug up in a heavy shell concentration at a depth of 1.5 feet.

Beaver incisors. A few beaver tusks (pl. 12q) were found in shell deposits. One was engraved and could have been either part of a dice game or a headscratcher.

Burials

Chetleshin had no regular cemetery. The dead were deposited in depressions in the floors of houses or between houses, always in a flexed position. Some burials faced west, others faced northeast or southwest.

Fourteen burials were removed from the north section of the village and six from the south section. There was a child and an infant burial in the northwest end of the south section; the remains of an adolescent were uncovered in the north section. The University of Oregon group discovered four of the graves.

Beads of digger pine nuts, glass and stone beads, a few brass uniform buttons, a "killed" abalone pendant, and a "killed" obsidian blade were the only burial goods found. Schumacher (1877a:32) mentions finding remains of matting and furs with the burials he discovered, but considering

the fact that some eighty-seven years have passed since his explorations, it is possible that the furs and matting in other burials have disintegrated long since.

Most of the burials were in excellent condition, possibly due to the preservative effect of fish oil and lime impregnated soil. After a burial was exposed and the bones cleaned without disturbing their position, they were sprayed with clear acrylic spray or painted with a preparation of Elmer's Glue-All and soap. Next they were isolated on an earthen pedestal which was sawed through at the base and a piece of plywood or sheet iron inserted. Dirt and burial were then removed intact.

A smashed pelvis of one of the female burials may have been due to an act of violence or an accident. One male burial showed a deformity of the sacrum; an infant burial disclosed an injury to the skull, possibly from a fall or blow. Burial data are summarized in Table 1.

Three of the crania were sent to Dr. Lucile E. Hoyme of the U.S. National Museum, and her observations and measurements are expected to be published in due course along with other observations on skeletal material from the Pistol River region collected during the last century by Paul Schumacher.

Items of Caucasian Manufacture

One corroded lock from a muzzle-loading rifle was found in the south section of the village at a depth of about 3 feet in a house pit.

One orange colored ceramic trade pipe with the face of George Washington on the bowl and the name "Washington" on the stem (pl. 3j) was recovered.

Two iron bars 11 inches in length, one very rusted iron knife 9.75 inches long, one 4 inch piece of rolled iron, and one corroded key were found.

Seventeen polychrome glass beads, their overlaid design almost entirely worn away, and 21 blue and green faceted beads found in the north section at a depth of 26 inches, were recovered.

One 7 inch copper bar; and eight copper plates, 4 to 6 inches in length, were unearthed.

There were five square nails, 2.5 to 5.0 inches in length.

TABLE 1

Data on Chetleshin Burials

Burial No.	Age	Depth (in.)	Location	Position	Orientation	Associated Artifacts
1	-	22.0	House pit 1	Flexed, on back	East	80 glass trade beads, metal buttons, one Chinese coin
2,3,4	-	-	In corners of house pit 1	-	-	None
5	Child	23.0	House pit 8	Flexed, on back	Northwest	None
6	-	22.5	House pit 8, 3 ft. from burial 5	Flexed, on back	East	Stone fish knife, maul found between burials 5 and 6
7	-	20.0	6 ft. S of burial 14	On back, disarticulated	South	Dentalium shells, whale rib fish dispatching club
8	-	24.0	Few ft. E of house pit 1	Flexed, on back	East	None
9	Adult	24.0	4 ft. SW of burial 8	Flexed, on side	East	2 pieces Dentalium shell
10	Adult	25.0	4 ft. W of burial 9	Flexed	East	3 pine nut beads, one broken abalone pendant, one Dentalium shell nose ornament (in place)

11	Adult	24.0	3 ft. SW of burial 10	Flexed	South	None
12	Child	8.0	Few ft. W of burial 14	Flexed, on back	-	One trade bead
13	Adult	25.0	Near house pit 1	Extended, disturbed	-	None
14	Adult	18.0	In trench vent of sweat house, N section	Flexed	-	One pine nut bead
15	-	26.0	Just N of house pit 1	Flexed, on back	West	21 glass trade beads, 3 pine nut beads
16	Child	28.0	SW corner of house pit 5	Flexed, on back	South	None
17	Infant	24.0	W side of house pit 5	Flexed, on back; skull smashed	-	None
18	Infant	25.0	Between house pits 5 and 6	Flexed, on back; disturbed	South	3 Dentalium shells, 4 pine nut beads, 3 stone beads, 16 glass trade beads
19	-	24.0	NW corner of house pit 5	Flexed, on back	-	None
20	Child	26.0	SE corner of house pit 6	Flexed, on back	East	None

Three copper pendants (pl. 19b-d) were recovered.

One embossed piece of copper, 5.25 by 3.50 inches in size, was found. It had probably been the side of a powder flask (pl. 19a). A hunting scene is suggested, and the costume of the hunter and type of gun he is using suggests the New England Colonial Period.

One Chinese coin, 75 or 80 blue faceted beads, and a large number of brass or copper buttons were discovered with a burial in the north section of the village. We may recall that numbers of Chinese workers were engaged in gold mining in the Pistol River area and other parts of southern Oregon and northwestern California in the 1850's.

CONCLUSIONS

There is much remaining to be done in Oregon coast archaeology. The locations of over 175 sites are filed with the Department of Anthropology at the University of Oregon, the results of archaeological survey carried out in 1935 and 1951. Very few excavations have been conducted south of the Coquille River. Thomas Newman excavated some house pits on a knoll overlooking Flores Lake, near Langlois, Oregon, for the University of Oregon in 1958 and 1959. Marcus Seale of Salem, Oregon, made some excavations in a Yukichetunne village near the mouth of Euchre Creek, Curry County, some years ago (exact date unknown). A Kwaishtunnetunne site on Huastenatin Creek was excavated in 1961. Lone Ranch, six miles north of Brookings, was excavated in part by Berreman in 1935.

Of the sites mentioned as worth digging, three major Athapascan villages on the southwest coast would possibly answer some questions relative to earliest occupancy of our Pacific coast by aboriginals, and their origin. The now destroyed Chetleshin was one; the remaining two are the unexcavated Whalehead site located on both sides of Whalehead Creek about 9.5 miles south of Pistol River, and the partially excavated Lone Ranch site.

Whalehead has been encompassed by a state park and possibly will never be scientifically excavated, but surreptitious digging by indiscriminate amateurs will no doubt cause all vestiges of the Kwaishtunnetunne culture to vanish in the years to come.

A Stanford University party led by Joel V. Berreman worked at Lone Ranch. I have visited the site many times and believe that if Berreman had had more time and funds to carry on extensive excavations, he would

have uncovered more interesting examples of the culture and possibly some Caucasian items. A large section on the north side of the creek has never been excavated, and not more than a third of the site area on the south side. However, like Whalehead, Lone Ranch has now become a park, with washrooms and tables placed at various points on the midden. Despite the signs which warn against digging in the shell middens, tourists and pothunters have dug and will continue to dig in the site unless it is policed.

Chetleshin was a very rich site, with most artifacts and burials recovered in good condition. If it could have been excavated properly and in its entirety, without the constant incursions of pothunters, I believe the ultimate results would have been an important link in the chain of events in early Oregon, especially in coast archaeology. As it was, Chetleshin's occupational area was only about one-fourth excavated, the rest was destroyed.

The Chetleschantunne are a vanished people, but in their time they no doubt put up a valiant struggle to preserve their identity. The terrible epidemics of the 1800's took heavy toll among them, and the Rogue River wars of the 1850's further reduced their numbers. Those Indians sent to the Grande Ronde and Siletz reservations soon lost their identity through intermarriage and absorption into other tribes.

Vegetal food gathering, hunting, fishing, birth and childhood, rituals, dances, taboos, and mortuary customs apparently closely parallel those of their Athapascan brothers, the Lower Rogue people, the Tolowa, and the Algonkian-speaking Yurok.

The origin of the Chetleschantunne is not known. They could have been a riverine people who gradually worked their way down the Rogue and Pistol rivers to establish themselves permanently along the coast. With the exception of some of the river valleys, inland Curry County is a rugged, primitive wilderness, very little explored and hard of access. Eight miles upriver is an old Indian village site near ancient quarries worked by the Indians for lithic materials. There are probably other sites scattered along its 18 mile course and beside feeder streams to the headwaters near Sugarloaf Mountain.

It is difficult to date Chetleshin. Despite the presence of certain Caucasian items, I believe the site to be predominantly or entirely late prehistoric in the sense that no direct contact was made between its later occupants and the intruding whites. It is known that between 1790 and 1818 there were no fewer than 108 American trading ships dealing with the Indians

on the Pacific coast as well as 22 vessels belonging to the English. Although no record has been found so far to indicate that white traders had contact with the occupants of Chetleshin, they may have done so. The ceramic trade pipe could have come from Virginia in the mid-1700's or early 1800's, and the embossed copper plate with the hunting scene could have been traded from Boston men at about the same period. The iron bars and brass bracelet could have come from the same sources.

Let us assume that the Chetleschantunnes were contacted by traders in 1788. We believe that the site was abandoned in 1856 and not excavated until 1961. That would make the site 173 years old. If we assume it was occupied at least 150 years prior to 1788, the site would be 323 years old, dating back to 1640, which would put it securely in the late prehistoric period.

Of course this reasoning as to the age of Chetleshin is hypothetical, and may be wrong. The University of Oregon is reported to have secured a carbon-14 dating on material from the north section of the site but they have not announced this date. If we compare Chetleshin with the old site of Tsurai on Trinidad Head, California, excavated by archaeologists from the University of California in 1949 (Heizer and Mills 1952), we note that the artifacts from Chetleshin are very similar to those from Tsurai and were found at depths that run more or less parallel with those at the California site.

Many artifacts found at Chetleshin are similar to those from other sites in northwestern California, and I agree with Dr. Thomas Newman of Portland State University that a cultural break occurs at or very near the Coquille River rather than near the California-Oregon line. Nevertheless the Chetleschantunne were different in some aspects of their culture from the Indian groups to the north and south if we judge by their clay sculpture, charmstones, and method of mending broken stone implements.

EXPLANATION OF PLATES

Plate 1. Stone projectile points. Typology after Elsasser and Heizer (1966:21 herein).

a-c	Type 1
d-f	Type 2
g	Type 3
h-p	Type 4
q	Type 5b
r,s	Desert side-notched point(?), serrated
t-w	Type 6
x-b'	Type 7a
c'	Odd type, possibly related to Type 4

Plate 2. Stone artifacts. Located with reference to house pits and depth from surface. Shown in varying scales.

a	Maul, near house pit 14, 54 inches. Length 17.7 cm.
b	Maul, house pit 3, 12 inches. Scale same as "a."
c	Maul, house pit 2, 24 inches. Scale same as "a."
d	Maul, house pit 15, 18 inches. Scale same as "a."
e	Maul, house pit 14, 12 inches. Scale same as "a."
f	Simple pestle, house pit 14, 36 inches. Length 68.5 cm.
g	Flanged pestle, near house pit 12, 24 inches. Scale same as "f."
h	Skillet-shaped maul, house pit 15, 24 inches. Scale same as "i."
i	"Fist-maul," house pit 8, 24 inches. Diameter 9 cm.
j,k	Two views of unfinished pestle(?). No location. Length 33 cm.
l	"Pestle-maul." No location. Length 33 cm.
m	Flanged pestle. No location. Same scale as "l."
n	Flanged pestle. No location. Scale same as "l."
o	Hammerstone, near house pit 3, 36 inches. Length 24.2 cm.

Plate 3. Various prehistoric and historic artifacts. Located with reference to house pits and depth from surface.

a	Baked clay pipe, house pit 8, 36 inches.
b	Baked clay pipe, near house pit 1, 33 inches.
c	Tubular stone pipe, house pit 14, 30 inches.
d	Same as "c," near house pit 14, no location.
e	Same as "c," house pit 11, 24 inches. Note engraving on sides.
f	Stone pipe bowl blank, near house pit 14, 36 inches.
g	Stone pipe bowl, engraved on edge, near house pit 9, 30 inches.

Plate 3. [cont'd.]

h	Stone pipe bowl, house pit 5, 24 inches.
i	Same as "h," near house pit 17, 30 inches.
j	Historic ceramic pipe bowl, near house pit 18, ca. 48 inches.
k-q	Grooved objects (charmstones?) of steatite and serpentine, all except "p" from or near house pits in south section, depths range from 18 to 54 inches.
r	Historic brass bracelet, house pit 3, 12 inches.
s	Pine nut beads, with burial, 31 inches.
t-v	Steatite disk beads, same source as "s."
w-x	Historic glass trade beads, same source as "s."
y-a'	Historic copper bangles, house pit 7, 33 inches.
b'	Nose pins(?) of steatite, house pit 7, 36 inches.
c'	Same as "b'," no location.

Plate 4. Stone vessels and fragments. Located with reference to house pits and depth from surface.

a	Engraved steatite dish fragment, near house pits 11 and 12, 36 inches. 9 cm. wide at break.
b	Fragment of serpentine or chlorite bowl, near house pit 4, 36 inches. 4 cm. from bottom to upper edge.
c	Boat-shaped vessel fragment of serpentine or chlorite, no location. 9 cm. wide at break.
d	Vessel of unidentified material, near house pit 14, 33 inches. Maximum diameter 11.5 cm.
e	Serpentine or chlorite bowl, house pit 17, 30 inches. Maximum diameter 10.2 cm.
f	Sandstone vessel, house pit 9, 18 inches. Maximum diameter 10.2 cm.
g	Sandstone vessel, house pit 10, 21 inches. Maximum diameter 10.2 cm.
h-l	Rim fragments of steatite or serpentine vessels; "h" and "i," house pit 14, 36 inches; "j," house pit 16, 24 inches; "k," house pit 4, 30 inches; "l," house pit 12, 21 inches. All shown approximately half size.

Plate 5. Stone artifacts. Located with reference to house pits and depth from surface.

a	Hopper slab mortar, house pit 2, 48 inches. Slab is 13.0 cm. thick; pitted area, 2.5 cm. deep.
b	Perforated stone sinker, house pit 16, 30 inches.
c	Either a slate pendant or sinker, house pit 15, 36 inches, thickness 7 mm.

d Grooved sinker, near house pit 16, 36 inches.
e-g Notched sinkers, examples from different depths in the deposit.

Plate 6. Chipped stone implements. Located with reference to house pits and depth from surface.

a-g Drills. "a," house pit 6, 24 inches; "b," near house pit 15, 18 inches; "c," near house pit 9, 36 inches; "d," near house pit 8, 24 inches; "e," near house pit 8, 36 inches; "f," house pit 14, 60 inches; "g," near house pit 5, 72 inches.
h Small graving tool, near house pit 10, 18 inches.
i Drill, probably for use with wooden hafting; house pit 6, 30 inches.
j-n Drills or reamers found at various depths, 18 to 60 inches, in south section of site.
o,p Drills, house pit 12, 30 and 42 inches respectively.
q-v Scrapers. "q," near house pits 11 and 12, 30 inches; "r," near house pit 17, 18 inches; "s"-"v," near house pits in south section of site. Found at various depths, from 12 to 36 inches.

Plate 7. Chipped and ground stone artifacts. Located with reference to house pits and depth from surface.

a Sandstone shaft smoother, house pit 9, 48 inches.
b Same as "a," near house pit 15, 24 inches.
c Same as "a," house pit 3, 36 inches.
d Same as "a," no location.
e Chipped stone knife, house pit 14, 30 inches.
f Same as "e," house pit 8, 48 inches.
g Same as "e," house pit 5, 24 inches.
h Same as "e," house pit 10, 18 inches.
i Same as "e," house pit 10, 42 inches.
j Stone pendant, house pit 15, 48 inches.
k Same as "j," house pit 8, 18 inches.
l Same as "j," house pit 8, 24 inches.
m Same as "j," no location.
n Same as "j," house pit 16, 24 inches.
o Same as "j," house pit 16, 36 inches.

Plate 8. Stone and horn artifacts. Located with reference to house pits and depth from surface.

a Curved adze handle, basalt; house pit 14, 18 inches.
b Straight adze handle, basalt; house pit 8, 12 inches.
c-e Elkhorn wedges of types found at all levels.

Plate 9. Bone artifacts (typology after Bennyhoff 1950). Located with reference to house pits and depth from surface.

a-d Simple bone harpoons. "a," Type IA2b, near house pit 15, 24 inches; "b," Type IA'ab (unilateral line shoulder), near house pit 11, 18 inches; "c," Type IB2b, near house pit 17, 18 inches; "d," Type IB2b, near house pit 2, 27 inches.

e Bone awl or "eel slitter," near house pit 2, 27 inches.

f Bone object (clam prying tool?), no location.

Plate 10. Bone artifacts. Located with reference to house pits and depth from surface.

a-c Bipointed pins, showing probable relationship between points and toggle harpoon spurs. "a," near house pit 1, 54 inches; "b," near house pit 17, 24 inches; "c," near house pit 2, 36 inches.

d Curved fishhook, near house pit 2, 30 inches.

e Same as "d," near house pits 12 and 13, 33 inches.

f Barbed bone arrow foreshaft, possibly reworked, near house pit 12, 24 inches.

g Large fishhook shank, near house pit 12, 36 inches.

h Large toggle harpoon spur, unfinished; near house pit 2, 30 inches.

i-l Toggle harpoon spurs, Type IIIa (Bennyhoff 1950:306); all near house pit 9, 54 inches.

m,n Possible barbs for eel-gig, near house pit 9, 24 inches.

o-r Probable bone points for composite harpoons, between house pits 5 and 6, 36 inches.

s,t Same as "o," near house pit 11, 30 inches.

u Same as "o," near house pit 10, 24 inches.

v Same as "o," near house pit 7, 36 inches.

Plate 11. Bone artifacts. Located with reference to house pits and depth from surface.

a,b Bipointed objects (harpoons?), near house pit 1, 50 inches.

c Bipointed object (for use with composite fishhooks?), near house pit 7, 24 inches.

d-f Three views of same specimen, a fishhook shank; "f" with point attached; near house pit 3, 18 inches.

g Another type of fishhook shank, location same as "d."

h Perforated fish net measure(?), near house pit 12, 18 inches.

i Bone object, spatulate at one end, pointed at other; no location.

j Perforated fish net mesh measure, near house pit 12, 30 inches.

k Bird ulna whistle with square hole, near house pit 14, 12 inches.

Plate 12. Bone and shell artifacts. Located with reference to house pits and depth from surface.

a Bone headscratcher, near house pit 14, probably 30 inches.
b Bone headscratcher fragment, near house pit 1, 24 inches.
c Bone headscratcher, near house pit 1, unknown.
d Bone headscratcher fragment, house pit 15, 36 inches.
e Bone headscratcher fragment, near house pit 5, 30 inches.
f Same as "c," near house pit 4, 27 inches.
g Same as "c," house pit 7, 24 inches.
h Same as "c," between house pits 9 and 11, 30 inches.
i Bone hairpin(?), near house pit 3, 18 inches.
j Bone headscratcher, house pit 3, 33 inches.
k Bone pin or lip plug(?), near house pit 3, 24 inches.
l Same as "k," near house pit 6, 18 inches.
m Same as "k," near house pit 3, 24 inches.
n Same as "k," near house pit 9, 24 inches.
o Bone headscratcher fragment, near house pit 14, 48 inches.
p Bone nose pin(?), house pit 16, 30 inches.
q Engraved beaver incisor, near house pit 9, 36 inches.
r Engraved bone fragment, possibly cover for elk horn "purse"; near house pit 1, 48 inches.
s Engraved Dentalium shell, with burial 18.

Plate 13. Bone or horn artifacts. Located with reference to house pits and depth from surface.

a Perforated needle, 29.5 cm. long; near house pit 3, ca. 18 inches.
b Needle blank, near house pit 10, 24 inches.
c Headscratcher or paint spatula(?), near house pit 14, 30 inches.
d Elk horn spoon, near house pit 11, 36 inches.
e Curved, perforated needle, near house pit 15, 18 inches.
f Hairpin, near house pit 9, 27 inches.
g Small needle or perforated pendant, near house pit 7, 42 inches.
h Perforated pendant, near house pit 14, 33 inches.

Plate 14. Bone artifacts. Located with reference to house pits and depth from surface.

a Dagger or hairpin, no location.
b Perforated dagger, between housepits 15 and 16.
c Clam prying bar fragment, near house pit 11, 18 inches.
d Knife or dagger, near house pit 17, 48 inches.

Plate 14. [cont'd.]

e "Eel-slitter," near house pit 10, 18 inches.
f Same as "e," near house pit 10, 30 inches.
g Clam prying bar, near house pit 6, 30 inches.
h Same as "g," near house pit 1, 42 inches.
i-k "Eel-slitters," various locations.
l Awl with incised marks on side, near house pit 1, 36 inches.
m Clam prying bar fragment, near house pit 1, 39 inches.

Plate 15. Bone or horn artifacts. Located with reference to house pits and depth from surface.

a Elk horn spoon or ladle, near house pit 13, 30 inches.
b-1 Decorated elk horn purse for Dentalium beads, near house pit 2, 24-36 inches. View of top side.
b-2 Same as "b-1." View of bottom of purse.
c-1 Decorated elk horn purse, near house pit 14, ca. 24 inches. View of bottom of purse.
c-2 Same as "c-1." View of top of purse.
d Bone cover for Dentalium purse shown in "c-1" and "c-2," same location.

Plate 16. Elk horn spoons. Located with reference to house pits and depth from surface.

a Fragment, reconstructed length ca. 19 cm.; house pit 14, 42 inches.
b Fragment, near house pit 17, 36 inches.
c Fragment, no location.
d Fragment, near house pit 15, 33 inches.
e Complete specimen, near house pit 2, 30 inches.
f Complete specimen, near house pit 3, 30 inches.

Plate 17. Stone and horn artifacts. Located with reference to house pits and depth from surface.

a Elk horn gouging or digging implement, near house pit 2, 18 inches.
b Elk horn spoon(?) blank, near house pit 2, 36 inches.
c Slate adze blade, near house pit 1, 36 inches.
d Slate adze blade, same location as "c."
e Side-notched projectile point made from bottle glass, house pit 3, 15 inches.
f Fragment of twined basketry, charred; house pit 3, 15 inches.
g Worked antler fragment, no location.

Plate 18. Bone and horn objects (scale varies for each specimen). Located with reference to house pits and depth from surface.

a Whalebone fish dispatching club(?), near house pit 7, 24 inches.

b Whale vertebra seat(?), house pit 2, 30 inches. Width 24 cm., thickness 17.5 cm.

c Elk antler worked into form of small bowl, house pit 14, 48 inches. Length 10.5 cm., width 9.5 cm., thickness 2.0 cm.

d Whale vertebra bowl, near house pit 14, 33 inches. Maximum outside diameter 36.0 cm., maximum diameter of depression 22.5 cm., depth of depression 0.9 cm.

Plate 19. Miscellaneous artifacts. Located with reference to house pits and depth from surface.

a Embossed copper plate, one half of a gun powder flask; near house pit 2, 60 inches.

b-d Perforated copper pendants. From cache in "vestibule" section of house pit 3, 30 inches.

e Bobcat tooth, slightly polished, near house pit 14, 18 inches.

f Decorated metal button, no location.

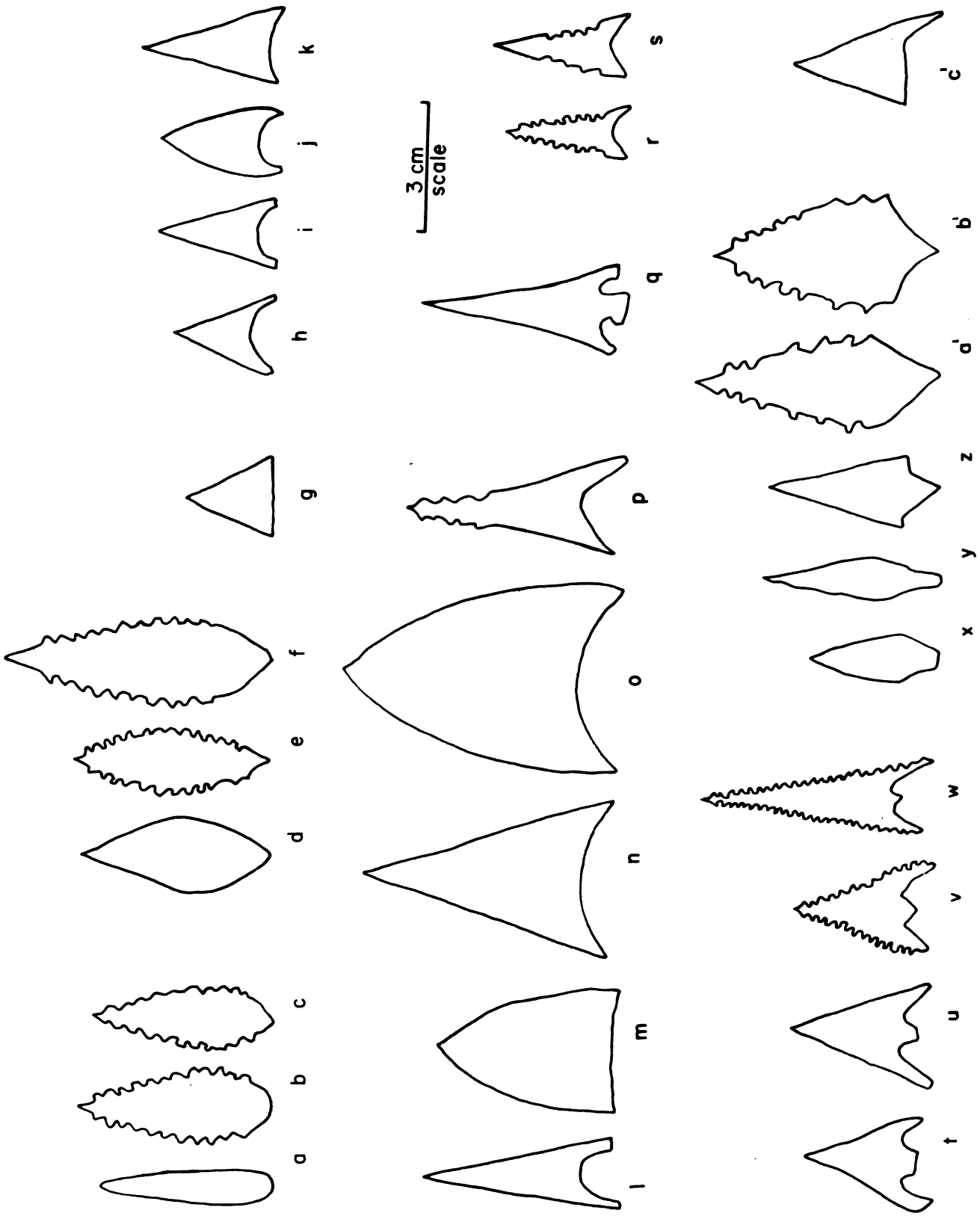
g Perforated bear claw, near house pit 14, 36 inches.

h Baked clay figurine of bear, in tailings on south section of site.

i Baked clay animal figurine, near house pit 15, 24 inches.

j-l Sea lion teeth, various depths throughout midden.

Plate I



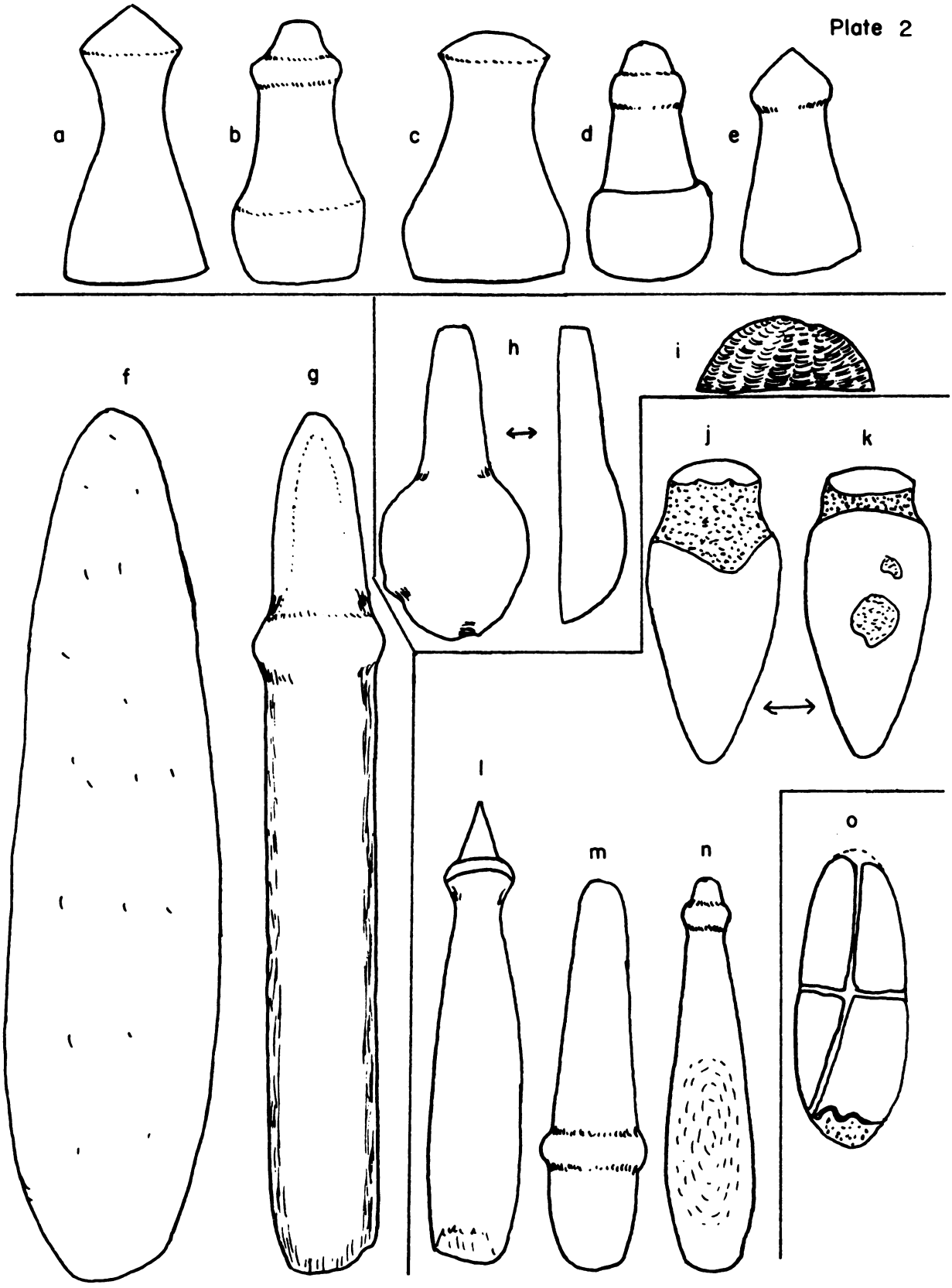


Plate 2
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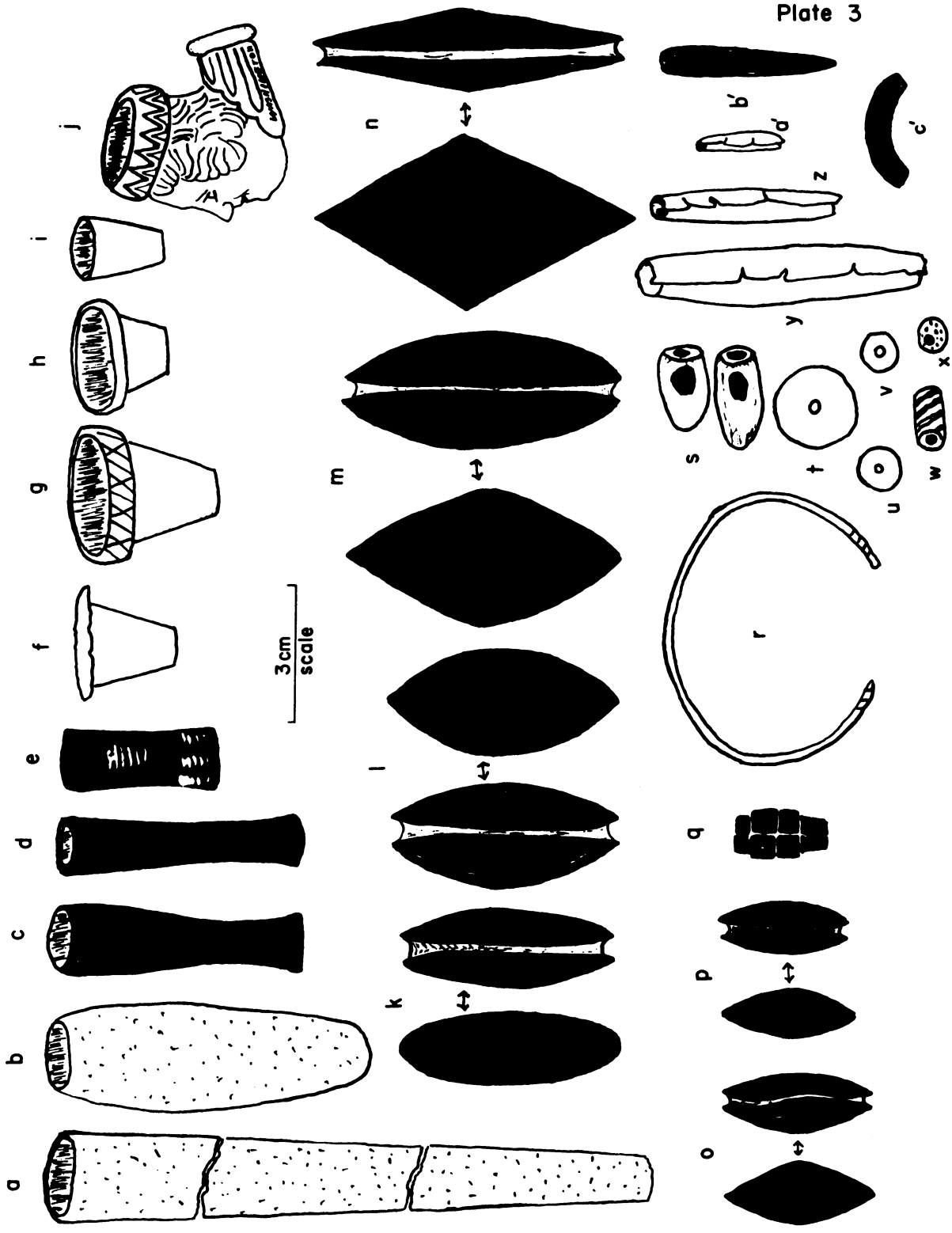
Plate 3



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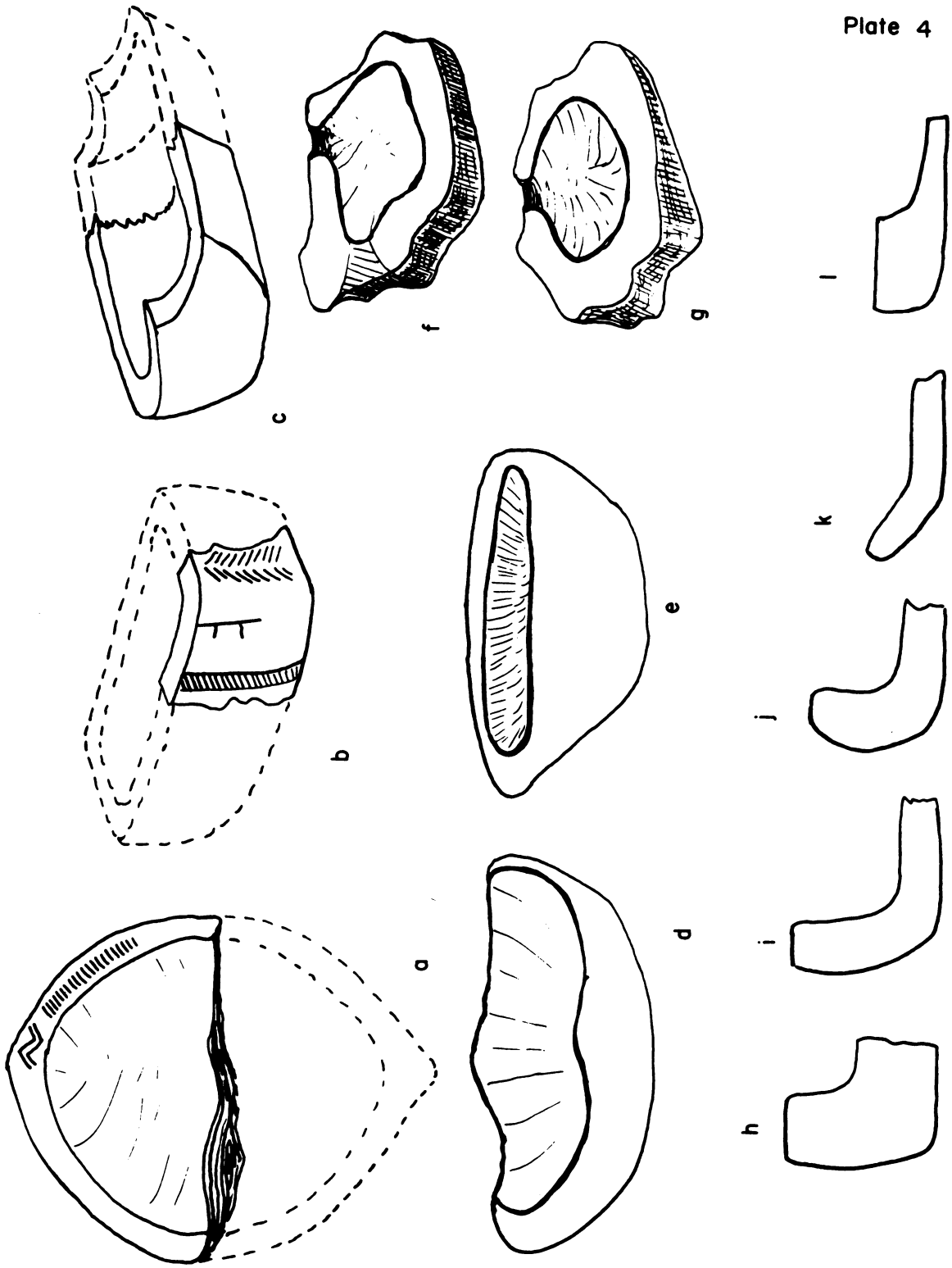

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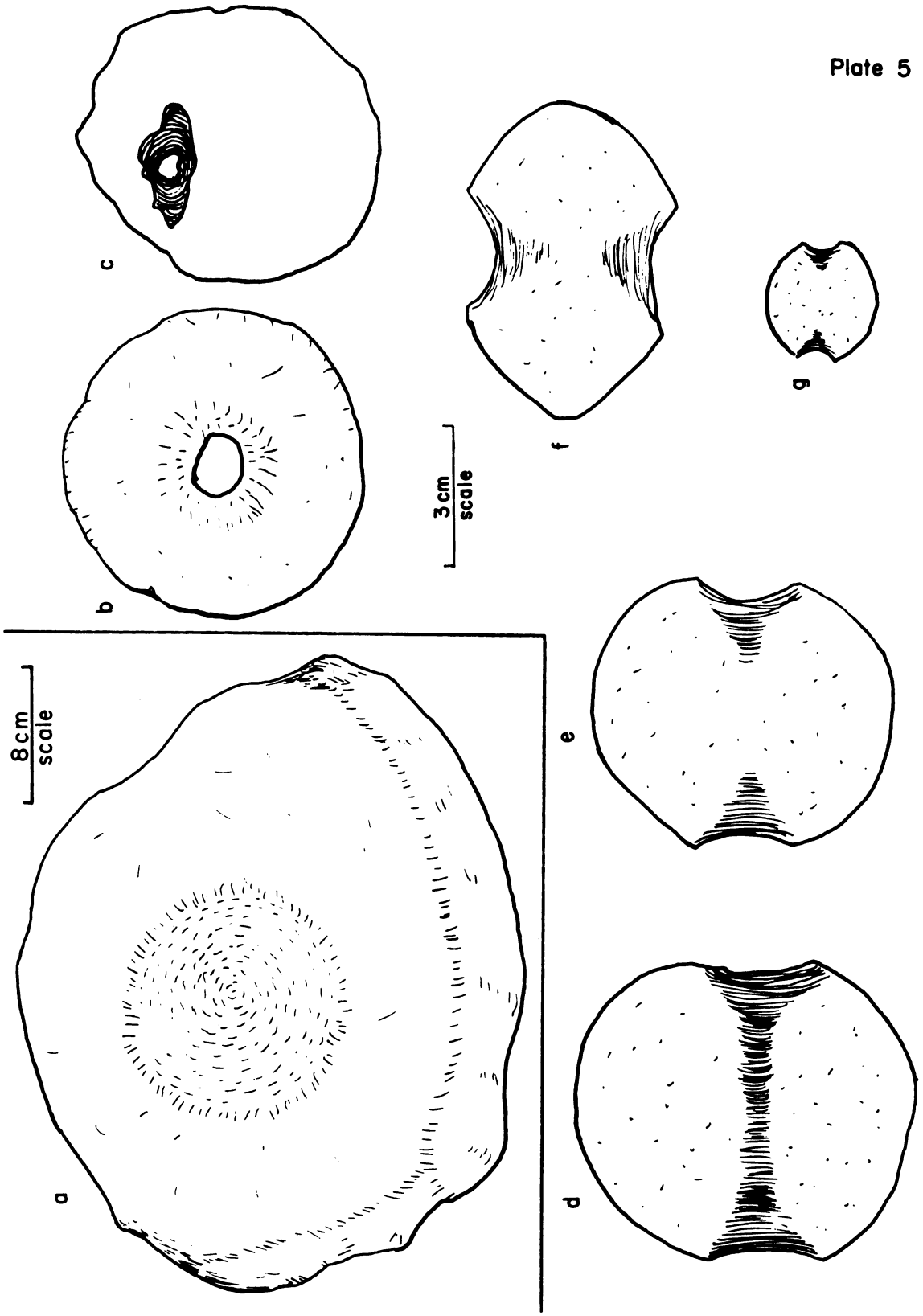

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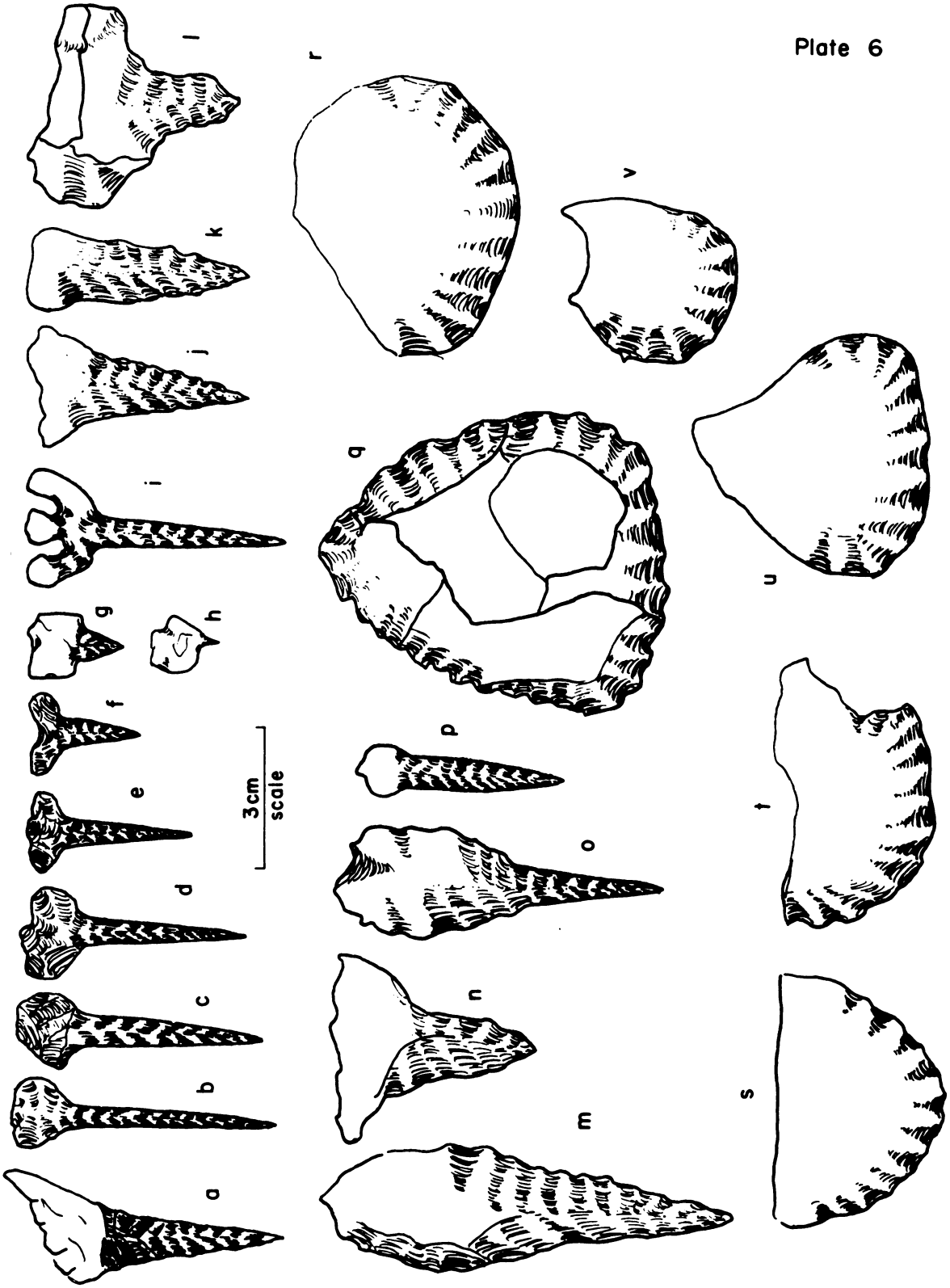

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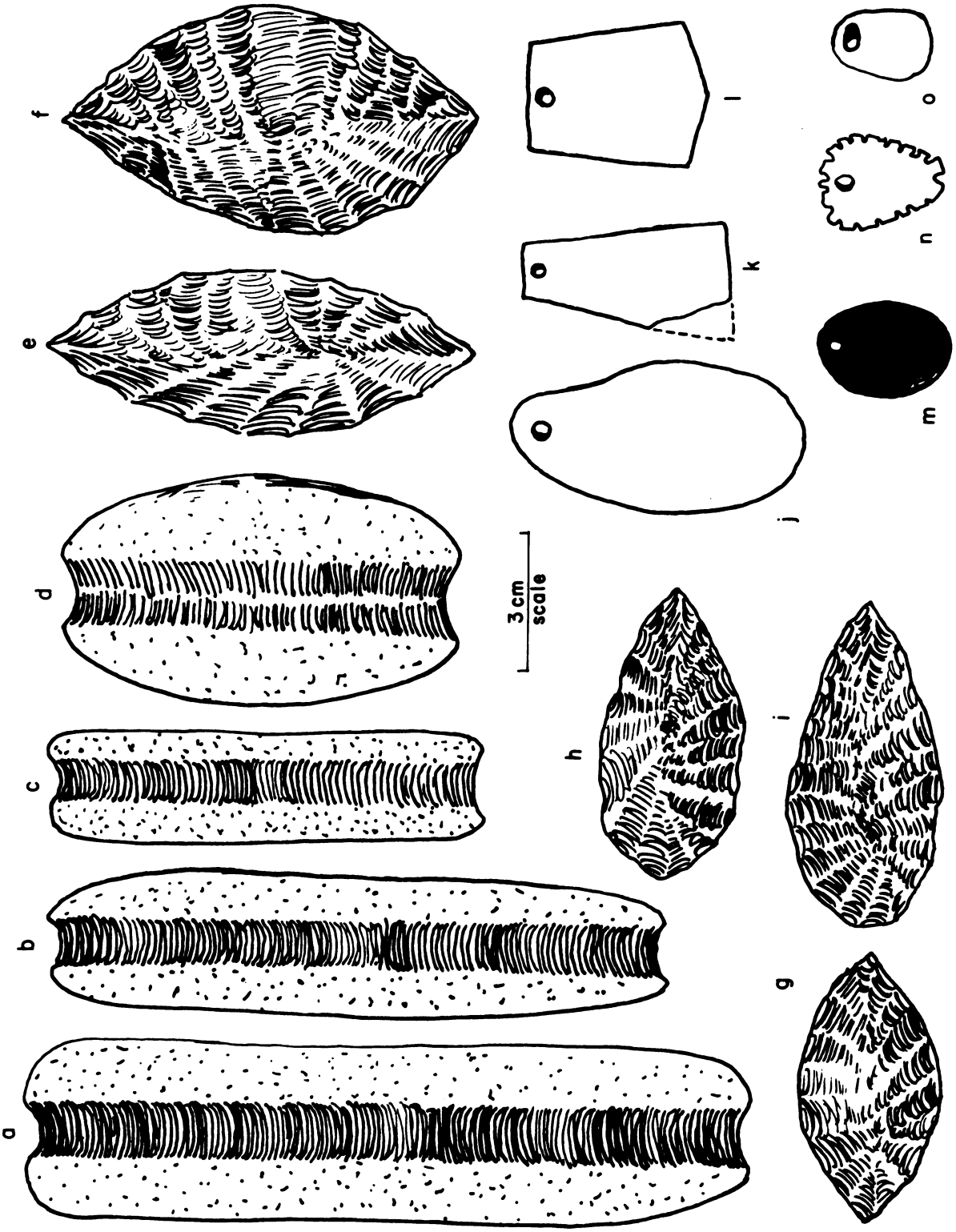

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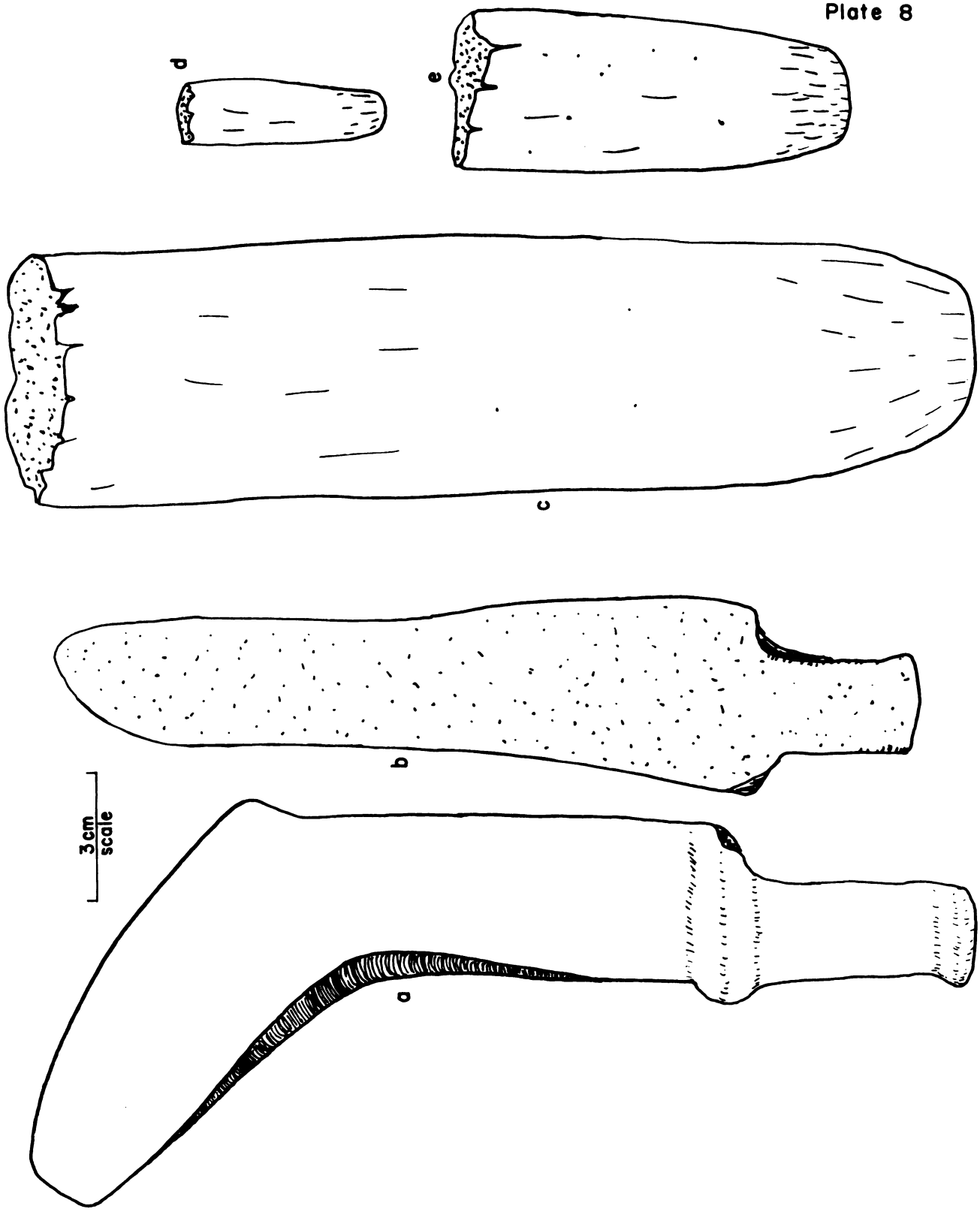

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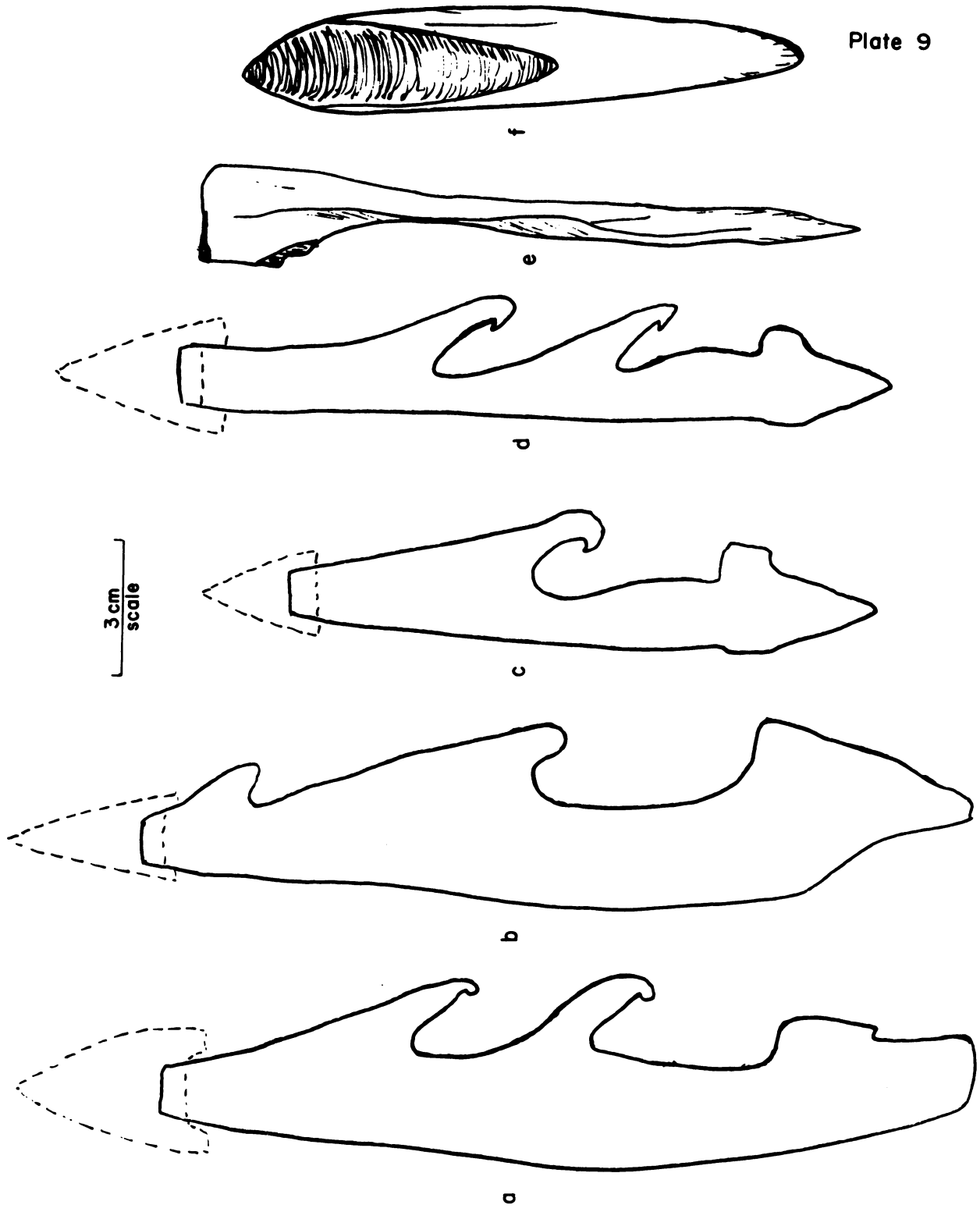

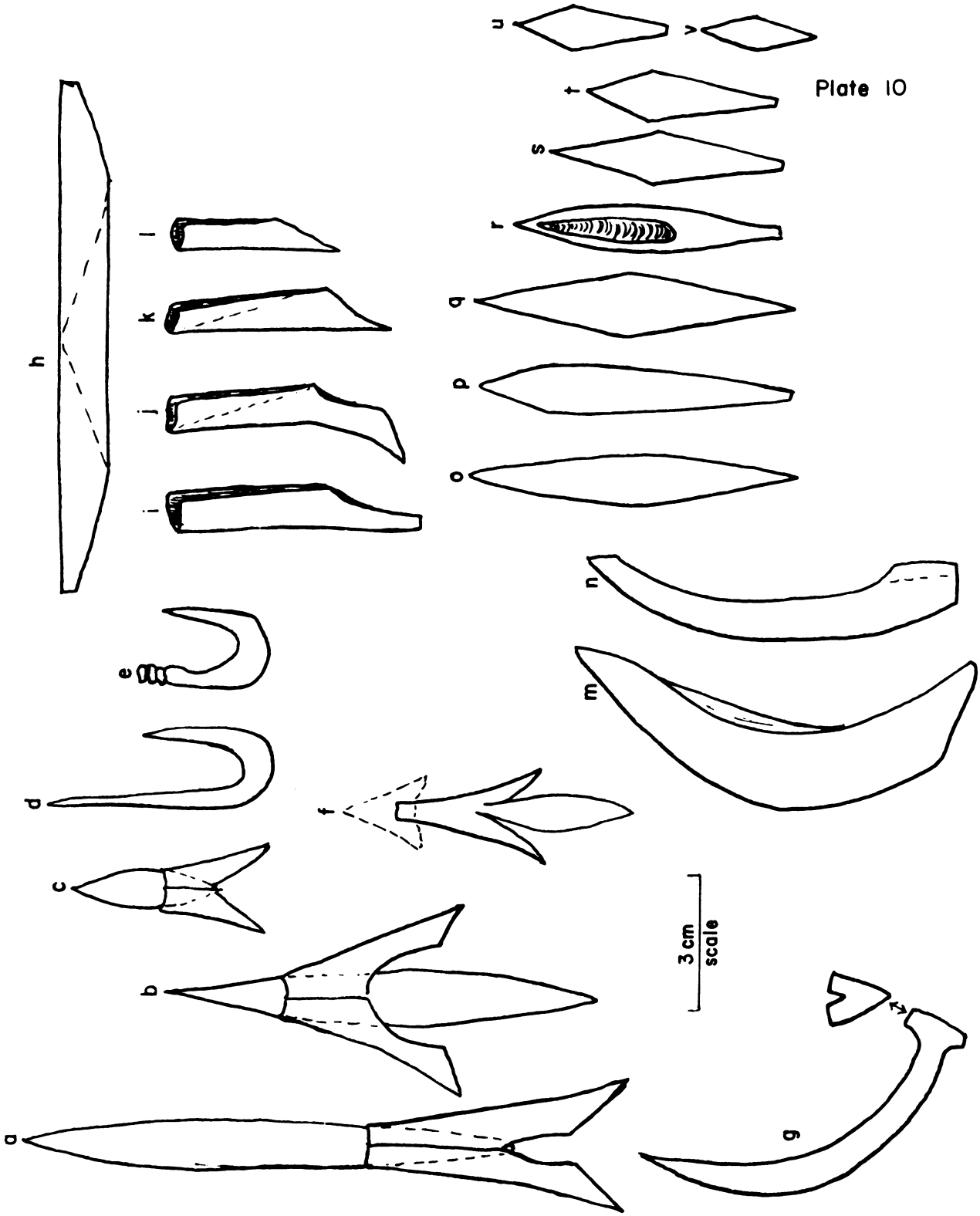
Plate 10
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3cm
scale

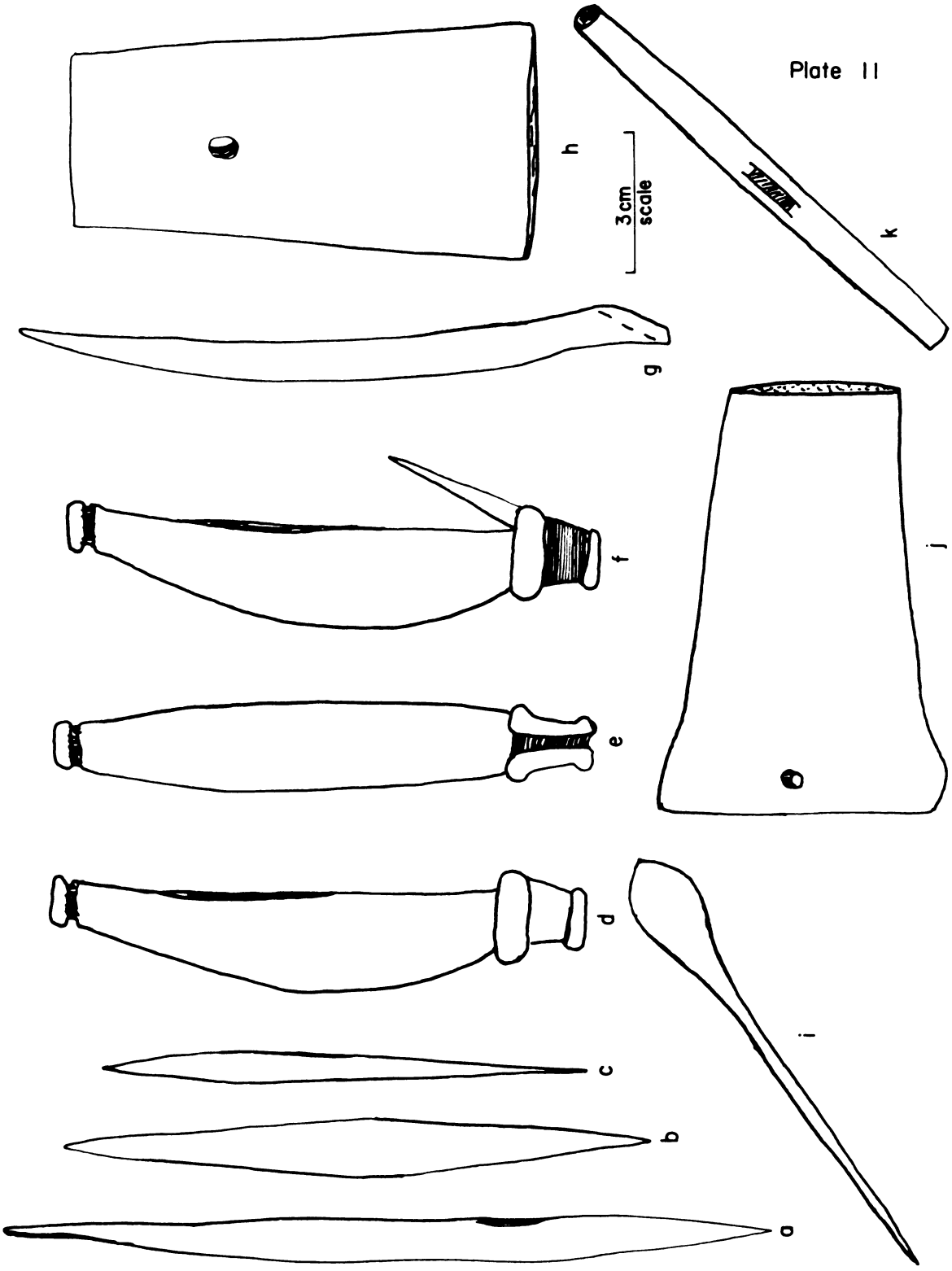
Plate II
3cm scale
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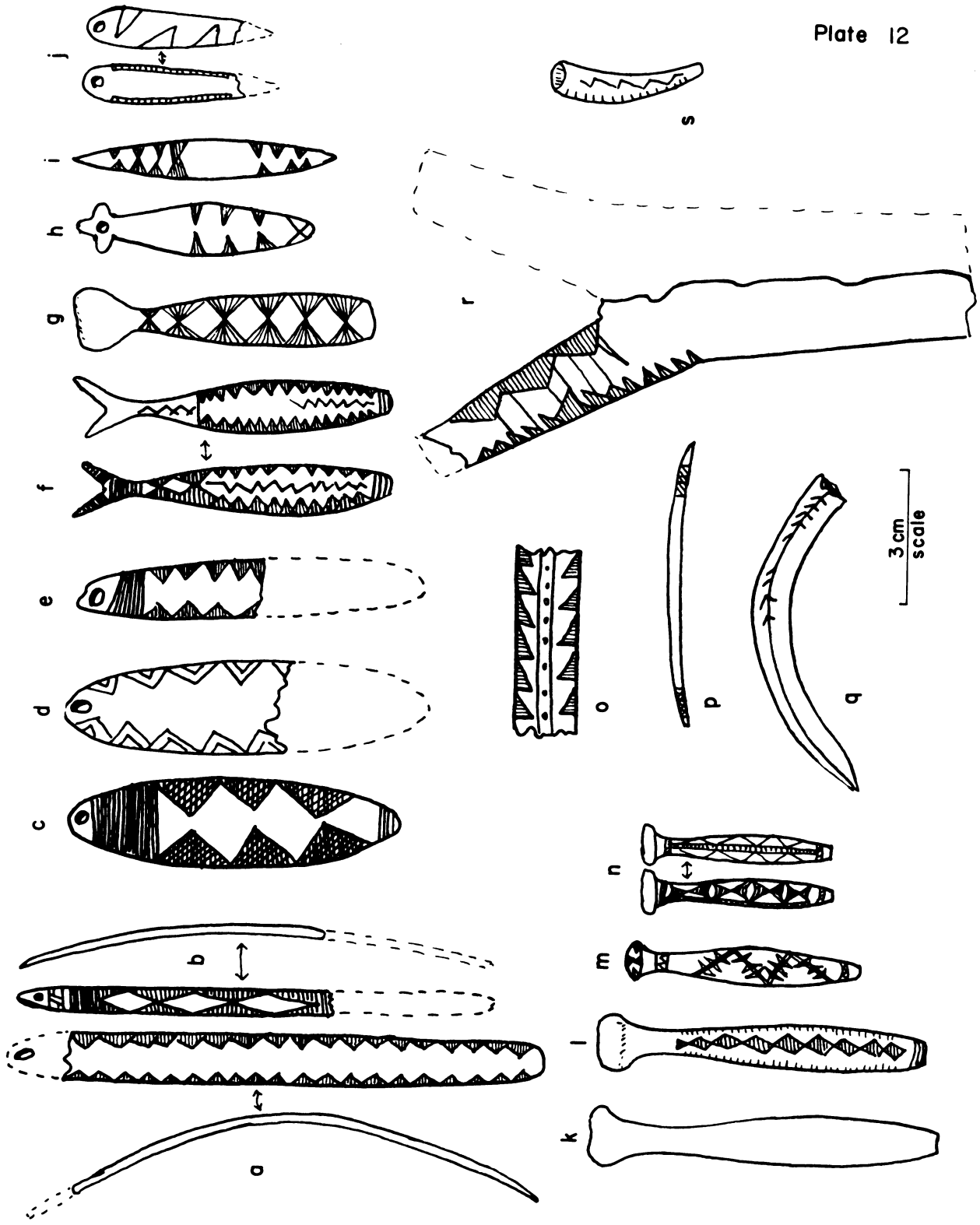
k

Plate 12



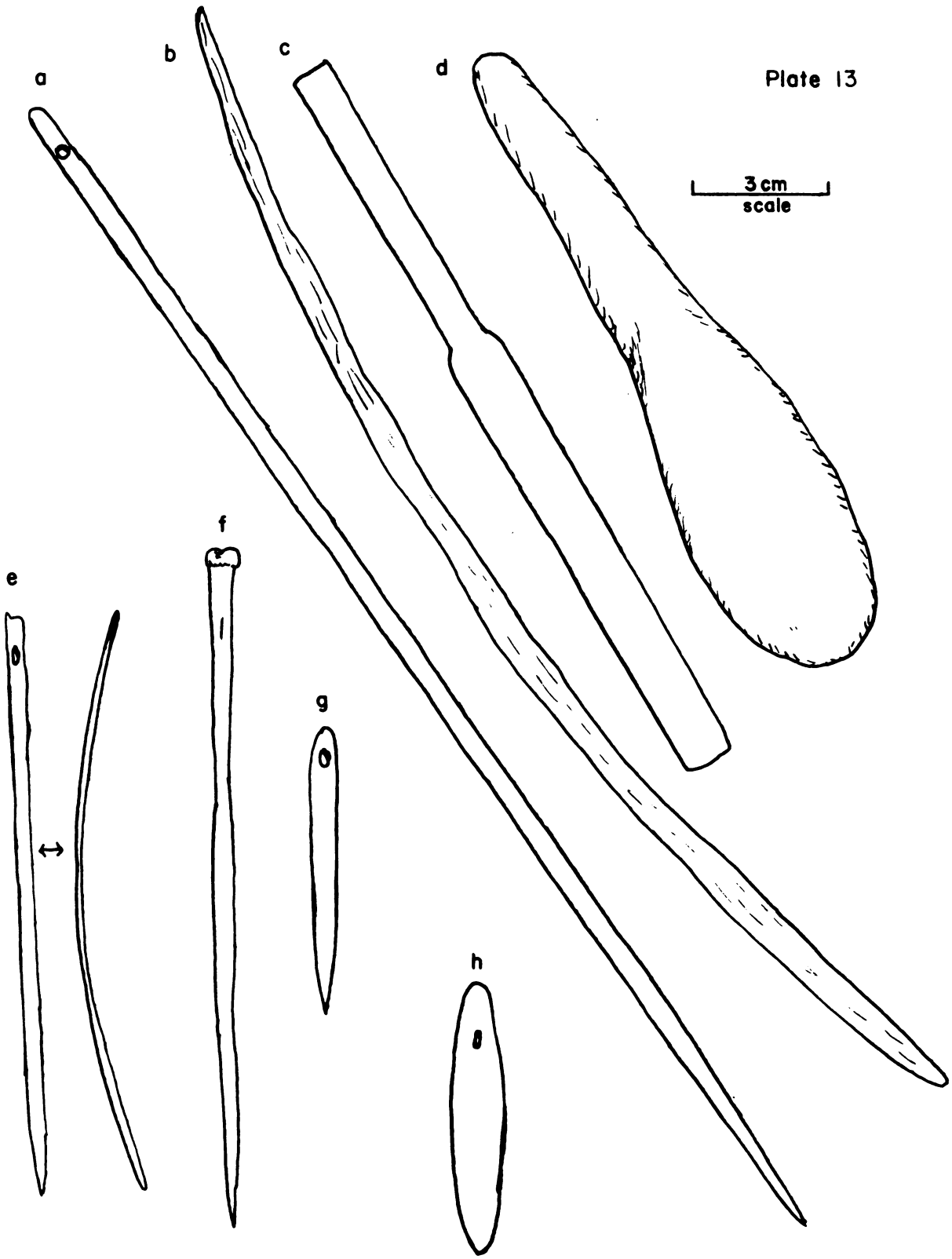


Plate 13
3 cm
scale
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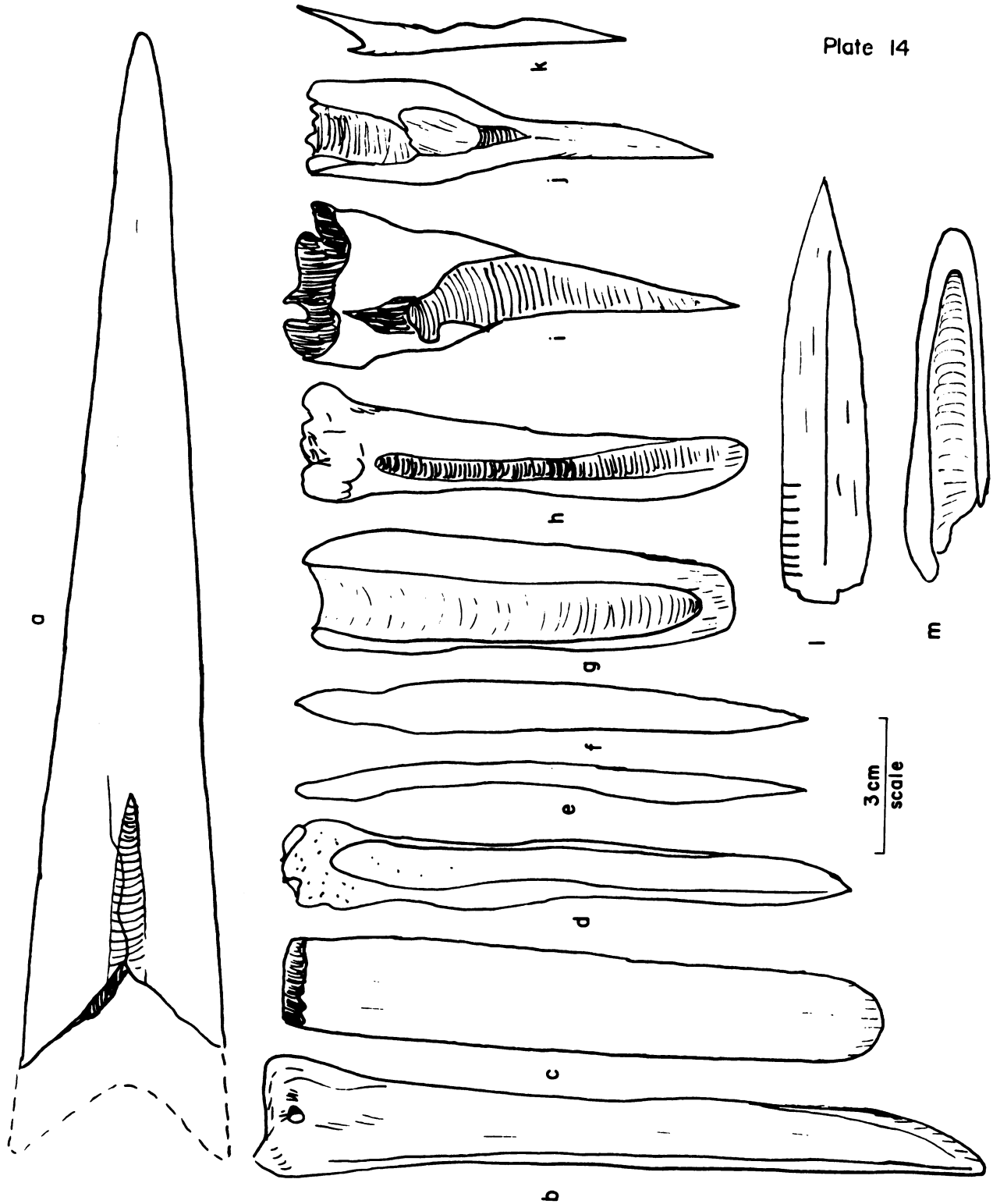
Plate 14



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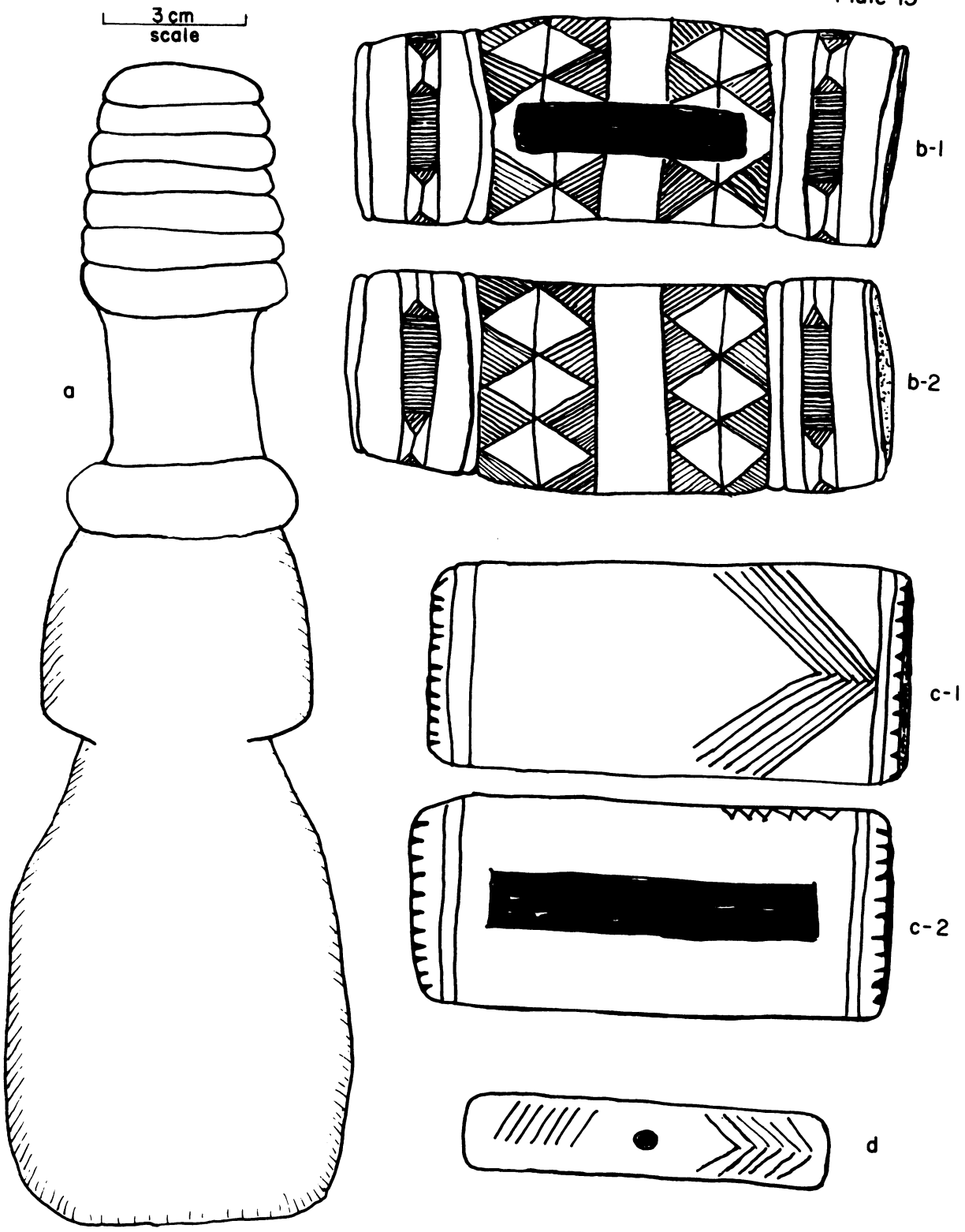

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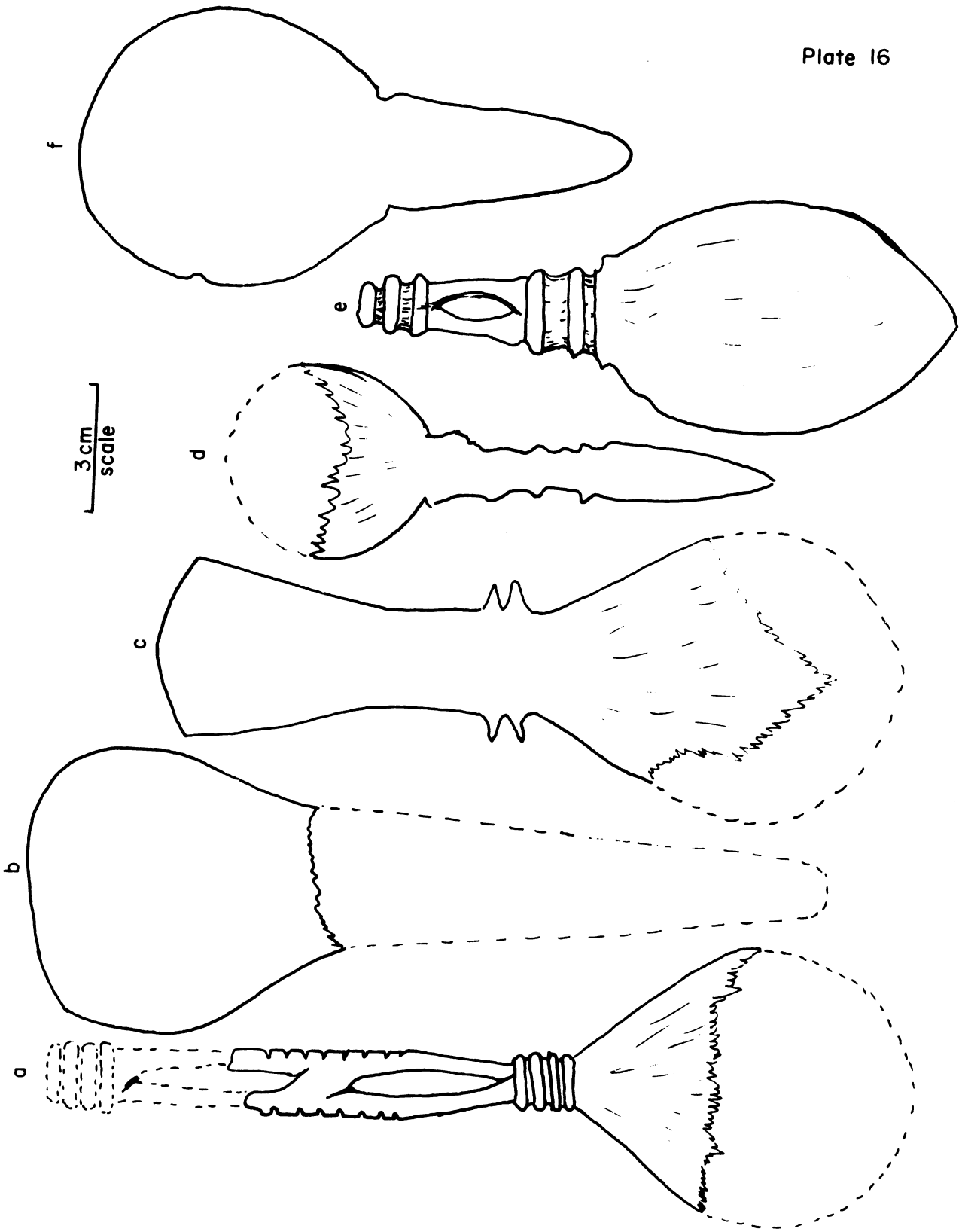

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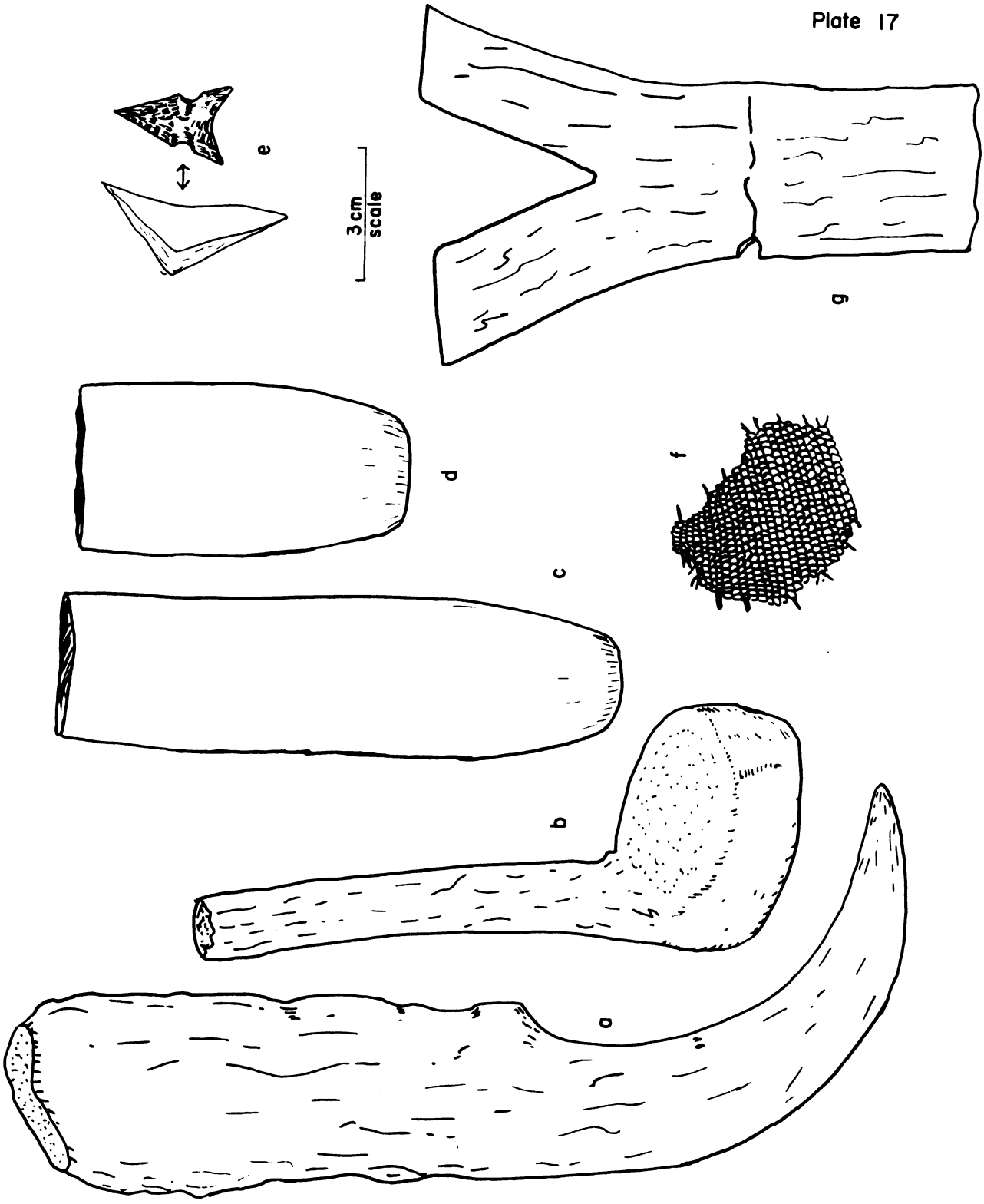

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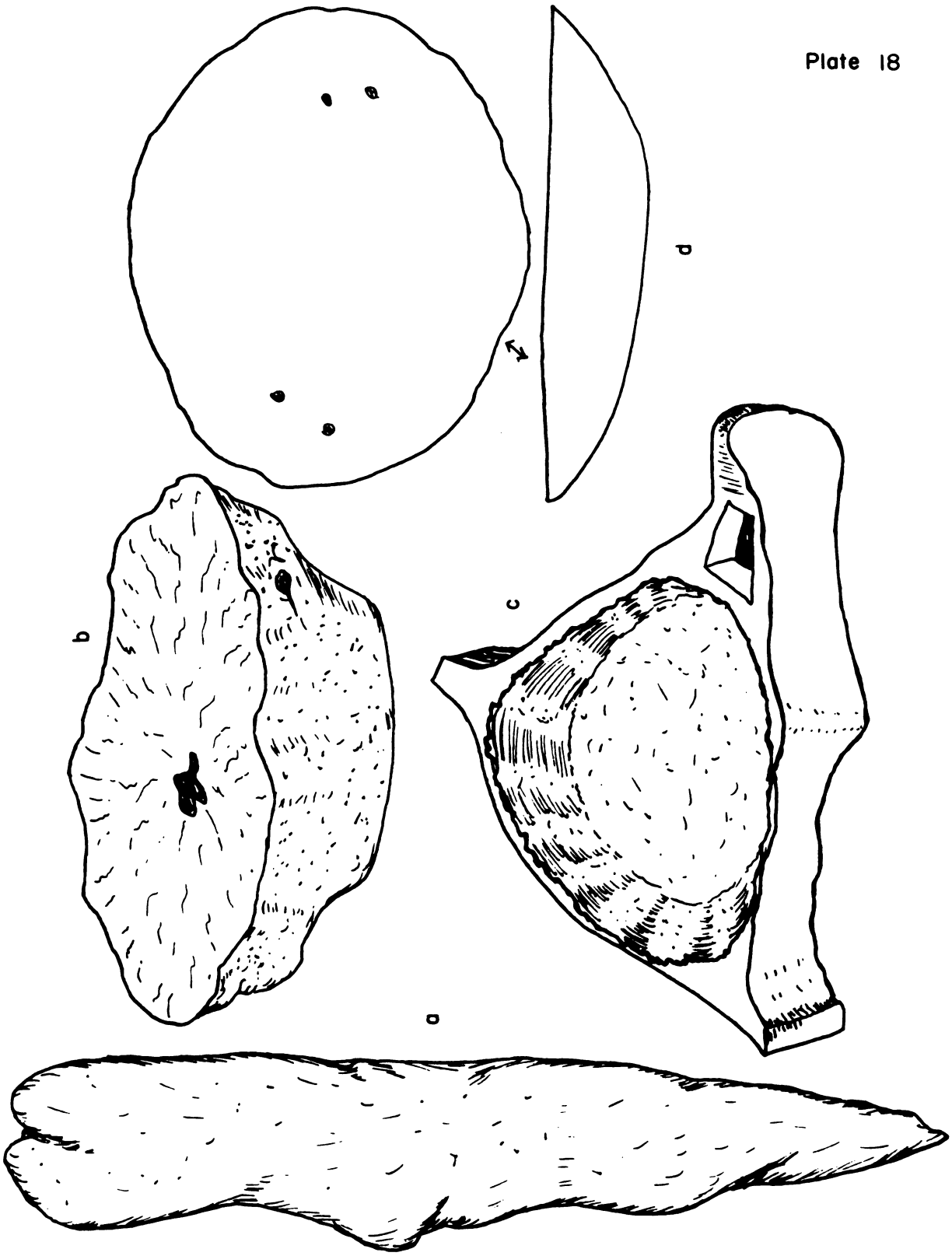

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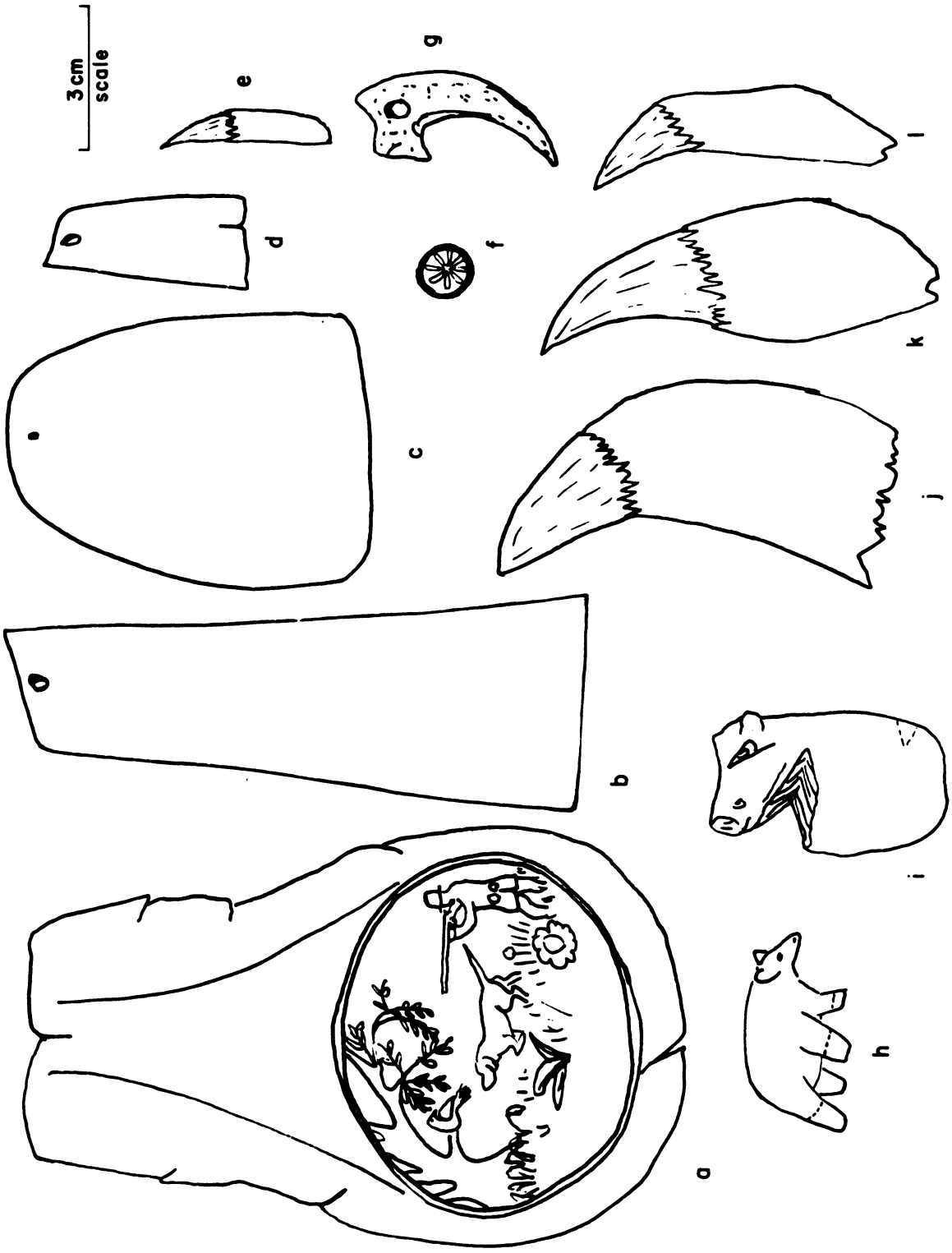

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Abbreviations Used

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-M	Memoir
AA	American Anthropologist
AMNH	American Museum of Natural History
-H	Handbook
-M	Memoir
BAE	Bureau of American Ethnology
-B	Bulletin
OHS	Oregon Historical Society
-Q	Quarterly
SI	Smithsonian Institution
-AR	Annual Report
-MC	Miscellaneous Collections
UC	University of California
-AR	Anthropological Records
-PAAE	Publications in American Archaeology and Ethnology

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