

II. ANALYSIS

The purpose of this section is to discuss the extent and methods of excavation, sampling and the factors influencing the selection of areas to excavate, and the typology and description of the archaeological materials recovered.

Data Requirements and Sampling Methods

The main objectives of the research, as stated previously, were to investigate areas outside house pits, and inside small 3 – 4.5 m diameter shallow depressions. Due to the limited amount of time (six weeks), it was decided that intensive excavations in a contiguous area outside one house pit would be of more value in determining activity patterning than a number of scattered test units over a large number of outside areas within the site. Consequently, the house pit exhibiting the least amount of disturbance around its perimeters and its surrounding area (H.P.1), was chosen for concentrated sampling. Within the time allowed, it was felt that a minimum of two small depressions could also be completely excavated for evidence of construction and structural function. Again, depressions exhibiting minimum surficial disturbance were chosen for excavation. Later, time allowed test excavation of four other small depressions at the site. In choosing these areas for excavation, it must be remembered that excavation within one or two locales, does not necessarily give representative information on total intra-site variation. Despite this limitation, data found in such areas may be useful for future inferences concerning the function of similar areas at this site.

Excavation areas were judgmentally selected. Considering the site disturbance by relic hunters and road activity, areas suitable for excavation were limited. Because of this and the fact that the original population, or site, boundaries could not be delimited, it was felt that judgmental sampling relying largely on the criteria of practicability and stated research goals, was the most appropriate sampling procedure to be employed.

Excavation Methods

A 1 x 1 m grid oriented to magnetic north was surveyed over the site by use of a transit. Wooden stakes were placed at 1 m intervals on the grid on those areas on the site that were to be excavated. The arbitrary horizontal datum at the

Curr site was placed to the southwest of the site, although a permanent iron stake was placed in the ground 6 m east of house pit 1, at grid coordinate N100/E121, to mark the grid system for possible future reference. Datum was marked at EeRa 4 by means of a small iron spike driven into the base (south side) of the first hydro electric power pole northwest of the most easterly house pit (H.P.1).

Excavations were carried out in arbitrary 10 cm levels throughout each 1 x 1 m excavation unit. Shovel-shaving techniques were used when excavating through roof fill and areas of little cultural material. Trowels were used on occupation floor areas, on features, and in areas of heavy cultural accumulations. All artifacts found in situ were given a vertical provenience measured below surface, and a horizontal provenience measured from the arbitrary datum. All portable cultural materials including faunal remains were placed in appropriate level bags, and features were drawn and photographed. All excavated deposits were screened through ¼" mesh.

Each excavated cultural depression or locus within the site was designated by a number, and consequently all recovered materials from each area were recorded and catalogued under their respective area numbers. The specific areas excavated within the site were numbered as: area 1 (or H.P.1), 2 (or locus 2), 4, 6, 13, 14, 15, and 16. Descriptions of each of these areas will be given below.

Stratigraphy was recorded at all four walls of each excavation unit by scaled profile drawings. Soil samples were taken from each stratigraphic layer within each excavation unit. All stratigraphy was also recorded on black and white, and color film.

A total of six excavation units were excavated within house pit 1 in order that the stratigraphy and artifacts from the surrounding area could be correlated with the house pit. Nineteen excavation units were dug in the outside area 2; six in area 4; four in area 6; one in area 13; one in area 14; eight in area 15; and two in area 16.

At site EeRa 4, similar excavation techniques were employed. Lack of time and field personnel permitted the excavation of only five 1 x 1 m test units within the house pit nearest the road, (designated H.P.1).

The schedule of field work included six weeks of excavation from the middle of May to the end of June at the Curr site, with the members of the field school, and three research assistants. Three weeks in July were spent in

mapping and test excavation at EeRa 4 by myself and two assistants. The last week in July and all of August were

spent in lab work and analysis.

DESCRIPTION OF AREAS OF EXCAVATION:

EdRa 22

The following is a description of the excavation, artifacts, stratigraphy and features of the eight areas of excavation at EdRa 22.

AREA 1 (HOUSE PIT 1)

House Pit 1 is the most westerly cultural depression on the site. It measures 6.5 m in diameter, and is approximately 70 cm in depth at the centre. It is somewhat dissociated from the other cultural depressions as the nearest one to it is 29 m to the east. However the road which lies directly east of House Pit 1, may have destroyed intervening depressions (Fig. 3).

Excavation

Six 1 x 1 m squares were excavated in 10 cm arbitrary levels, to a depth between 60 and 70 cm below surface. Trenching and alternate square excavation techniques were employed.

Stratigraphy and Features

Strata within the house pit include two main cultural zones: (1) roof-fill extending to approximately 40–45 cm below surface, and (2) the floor, lying directly under the roof-fill and extending to approximately 60 cm below surface. The two cultural zones are bracketed by a 10 cm humus-turf zone at the surface, and sterile non-cultural sub-soil underneath (Fig. 6; Fig. 7).

Table 1. Features Associated with Roof Fill in H.P. 1

Feature No.	Type	Excavation Unit	Dimensions
1-1	fire-cracked rock, burnt earth and charcoal	N100-101 E112-113	0.18x0.17 m 0.05 m deep
1-4	3 burnt wood beams	N98-99 E114-115	4.5x8.0 cm 3.0x8.0 cm 2.0x4.0 cm

Description: This feature was uncovered within the roof fill 19 cm below surface. It is possible that it represents redeposited hearth material that was thrown out onto the roof when the house was in use.

Description: This feature was 3 cm below surface, and it is doubtful that it is associated with the house pit structure. The wood appears to be too recent to represent a house pit beam, and may be historic fencing.

(1) Roof Fill – This is represented by a fairly compact dark yellowish brown (Munsell color 10YR 4/2), silty loam sediment. Pieces of charcoal, debitage, faunal remains, and artifacts were incorporated in the fill.

(2) Floor Zone – The floor zone in the house pit is not a well defined layer as it is the same colour as underlying sterile subsoil. The distinctions between the floor and sterile soil is made on the basis of compaction and cultural content. The floor soil is fairly compact, although not as compact as the underlying sterile soil. It is dark yellowish olive grey (5Y 5/1), and has the texture of silty clay. The vertical extent of the floor zone is between approximately 45–60 cm below surface, although some artifacts were found at 65 cm below surface. Artifacts, debitage, and faunal remains were found in this zone.

Table 2. Features associated with floor zone in H.P. 1

Feature No.	Type	Excavation Unit	Dimensions
1-3	pit	N101-102 E111-112	35.0x40.0 cm 20.0 cm deep
1-7	post hole	N99-100 E114-115	12.0x12.0 cm 15 cm deep

Description: This circular pit appeared in the north-east corner of the unit at 60 cm below surface, and extended to 80 cm below surface. The entire pit was not excavated as it extended into the wall of the unit. The pit contained a large amount of carbon, and very few pieces of fire cracked rock, burned bone and debitage. A sample for C-14 analysis was taken from the pit. Possible function may be a cooking pit. This feature is almost identical in form to Feature 4-4 in Area 4.

Description: This post hole appeared at 53 cm below surface and extended to 68 cm. It is located 49 cm west of the house pit floor/wall juncture, and angles slightly to the southeast. Its small diameter does not suggest any type of main support beam, but it may have functioned as a small support post going to the centre of the house pit.

AREA 2

Area 2 immediately surrounds House Pit 1 and is classified as an outside activity area. The entire area is very flat, containing only one small shallow surficial depression about 1 m east of the house pit. The boundaries of this area are necessarily nebulous, the southern boundary being defined only by the terrace edge.

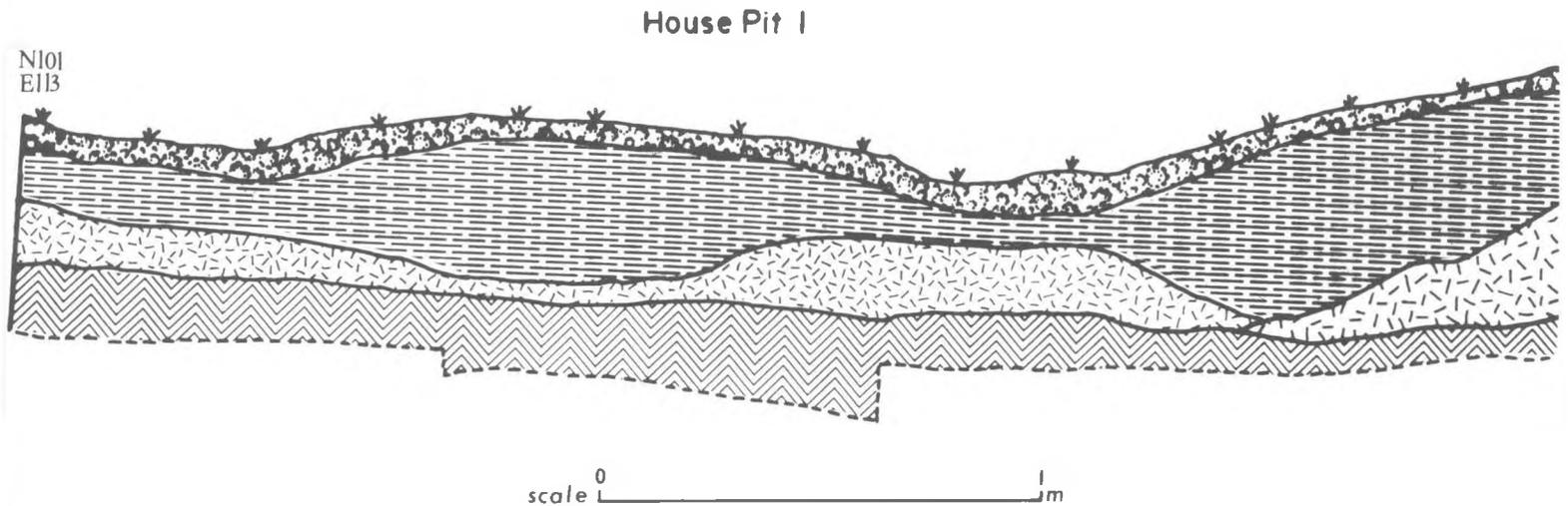


Fig. 6. Stratigraphic Profile of H.P. 1 and Area 2 West (EdRa 22): N101: E106–113.

Excavation

Nineteen 1 x 1 m excavation units were excavated west, east, and south of the house pit. The area north of the house pit was too disturbed by the road to warrant excavation.

Five units were excavated to the west, three to the south and 11 to the east and southeast (Fig. 3).

Stratigraphy and Features

West and South Area:

Within this area, cultural deposits extend only to 30 cm below surface. Major stratigraphic zones delimited are:

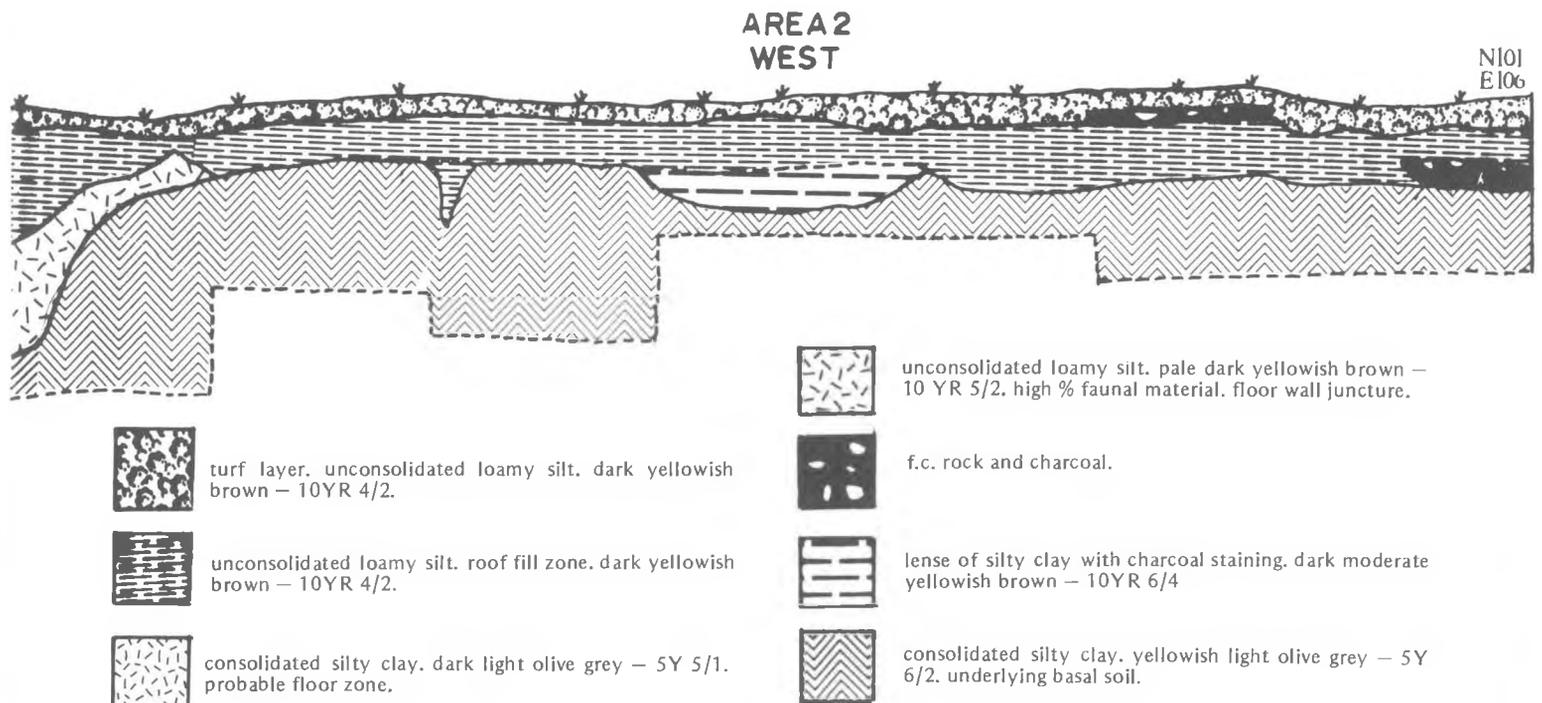
- (1) Turf zone – Unconsolidated silty loam with a high humus content. Dark yellowish brown (10YR 4/2) in colour, and approximately 10 cm in depth. This layer contained approximately 20% of the recovered artifacts.
- (2) Major Cultural Zone – This extends under the turf to about 30 cm below surface. The sediment is fairly consolidated dark yellowish brown in colour (10YR 3/2), and a silty loam in texture. All features were recovered in this zone, and approximately 80% of the artifacts.
- (3) Sterile Zone – Below 30 cm from the surface, no cultural material was recovered. This sediment is light olive grey in colour (5Y 5/2), and silty clay in texture. This would have been the original sediment that the house pit was excavated into (Fig. 6).

Stratigraphy and Features – East Area:

Stratigraphy within this area is essentially the same as that of the west and south area, except that two dark 2 cm

Table 3. Features associated with Area 2 – West

Feature No.	Type	Excavation Unit	Dimensions
2-1	hearth	N99-100 E107-108	15.0x53.0 cm 10 cm deep
<i>Description:</i> The top of this hearth lies 15 cm below surface, and extends to 25 cm below surface. The entire hearth was not excavated as it extended into the south wall of the unit. It contained a large number of fire cracked rocks and charcoal, and appeared to be roughly circular in shape.			
2-5	hearth	N100-101 E106-107	54.0x34.0 cm 5.0 cm deep
<i>Description:</i> The top lies at 15 cm below surface, and extends to approximately 20 cm below surface. The entire hearth was not excavated as it extended into the northwest corner of the unit, but it appeared to be circular in shape. It contains a large concentration of fire cracked rock and charcoal.			
2-7	post hole	N100-102 E106-107	13.0x13.0 cm 18.0 cm deep
<i>Description:</i> This circular post hole extends from 15 to 28 cm below surface. It is directly on the house pit rim.			
2-15	post hole	N101-102 E108-109	8.0x8.0 cm 18.0 cm deep
<i>Description:</i> This circular post hole extends from 12 to 29 cm below surface. It is directly on the house pit rim.			
2-18	artifact cache	N101-102 E107-108	N101.10-101.35 E107.70-107.87 24.0-27.0 cm below surface
<i>Description:</i> A group of 21 artifacts was found piled together at the edge of the house pit rim. A small piece of birch bark was found directly underneath these artifacts and may be the remains of a bark container. The formed artifacts include three graters, one concave-sided biface, one endscraper, one continuous scraper, and two backed knives. Unformed artifacts include nine bifacially retouched flakes, and four unifacially retouched flakes. It is possible that this group of artifacts may represent a tool kit, probably used in hide preparation activities (Fig. 25, Fig. 26).			



thick strata are present in the middle of the major cultural zone. These are thought to represent buried 'A' horizons separating two seasonal occupations. These two strata have been truncated in some spots, and particularly noticeable truncation occurs with the beginning of pit feature #2-2. Why these strata were not visible in the west and south areas is difficult to determine. Perhaps humus accumulation was more rapid on the east side of the house pit due to greater use by the inhabitants (Fig. 7).

Table 4. Features associated with Area 2 – East

Feature No.	Type	Excavation Unit	Dimensions
2-2	pit	N97-101 E115-118	N97.82-100.03 E115.25-117.40 45.0-112.0 cm below surface
<i>Description:</i> Oval in shape, 221 cm long axis, and 215 cm short axis. It extended from 45-112 cm below surface, although it was difficult to visualize at first and conceivably could have started higher up. Small steps or benches were discovered around the inside wall of the pit at approximately 70 and 90 cm below surface, 12 cm and 8 cm in width, respectively. Stratigraphic indications suggest that this feature was excavated after the construction of the house pit as it partially truncated the house pit wall. A large amount of bone, debitage, and artifacts were found in this pit. Several scrapers, projectile points (including one obsidian point), bifaces, etc. were also found. Presumed function may have been a cellar or cache. No surficial indications of this feature were evident (Fig. 8).			
2-3	pit	N99-100 E117-118	N99.70-100.00 E117.70-118.00 50.0-90.0 cm below surface
<i>Description:</i> This feature shows up surficially as a small depression			

approximately 2 m east of the house pit. Only one corner of the pit was excavated, but it appeared circular in shape. The pit contained a fairly large amount of charcoal.

2-4	post hole	N99-100 E117-118	N99.55 E117.78 30.0-44.0 cm below surface
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Description: This post hole is 14 cm in diameter, and 14 cm deep, although the feature was not identified until excavation had reached the level of the yellow sterile basal sediment and so may have started higher than 30 cm below surface. The post hole is circular in shape with a small projection off to the north side indicating that a stake may have been driven in beside the post. The feature fill consisted of a moderate yellowish brown (10 YR 5/4) silty clay. It is associated with two pit features (#2-2, #2-3), and it may have served as a support post for a superstructure over one of these pits.

2-10	pit or post hole	N97-98 E113-114	south wall profile E113.42-113.72 18.0-32.0 cm below surface
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Description: This feature is on the edge of House Pit 1, and may indicate a large roof support post for the house pit. It is oriented at a 30° slant towards the west.

2-11	post hole	N97-98 E113-114	west wall profile N97.10-97.20 36.0-54.5 cm below surface
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Description: Small post-hole near rim of House Pit 1.

AREA 4

Area 4 is a small cultural depression near the centre of the site. It measures approximately 5 m in diameter, and 40 cm in depth at the centre.

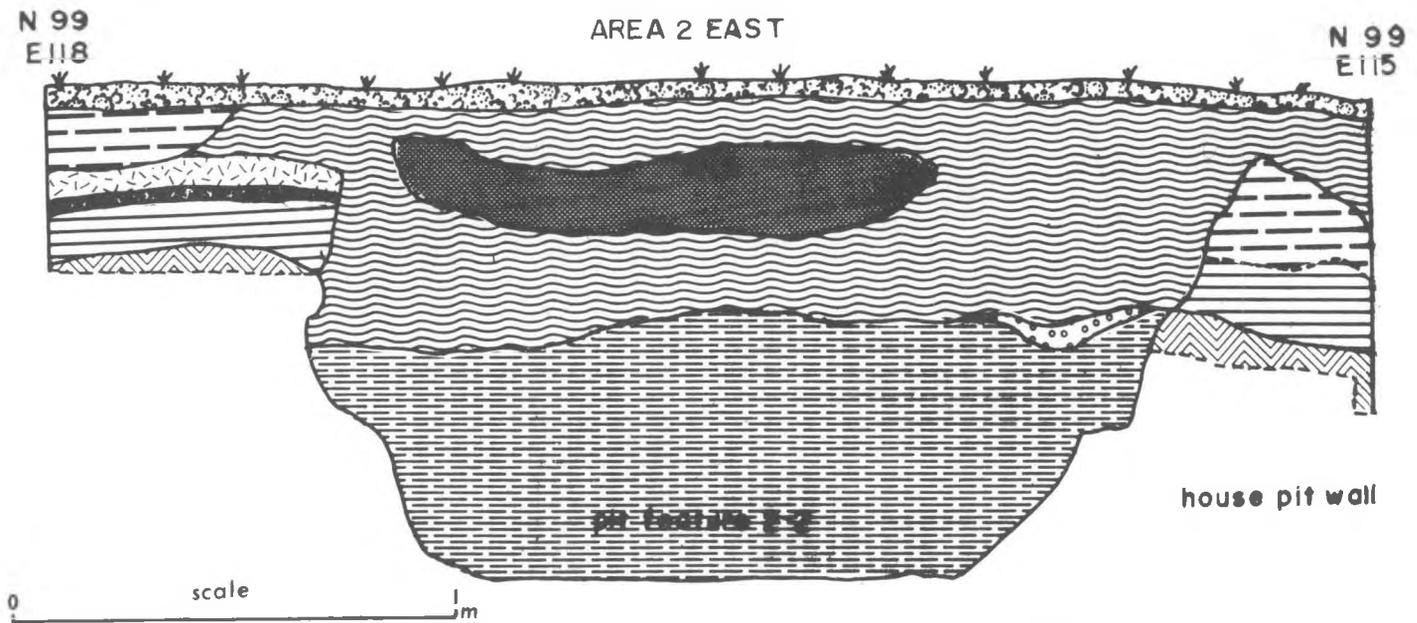


Fig. 7. Stratigraphic Profile of Area 2 East and H.P.1 (EdRa 22): N99: E113-118

	turf layer. high humus content greyish brown — 5YR 3/2		silty clay. artifacts and debitage. moderate brown — 5YR 4/4
	silty loam. artifacts, debitage, fauna greyish brown — 5YR 3/2		clay silt lens. orange in color — 10R 4/6
	lense of charcoal staining and charcoal flecks. dusky brown — 5YR 2/2		compact silty clay. charcoal, artifacts, debitage, shell, fauna. 10YR 4/2.
	silty clay. artifacts, debitage, fauna dark yellowish brown — 10YR 4/2		silty clay. artifacts, debitage, fauna. light olive grey 5Y 6/1.
	silty clay. artifacts and debitage. orange yellowish brown — 10YR 6/4		compact silty clay. probable floor zone. dark yellowish olive — 5Y 5/2.
	probable buried 'A' horizon. dusky yellowish brown — 10YR 2/2		well consolidated silty clay. underlying basal soil. yellowish light olive grey — 5Y 6/2.

Excavation

Six 1 x 1 m squares were excavated in 10 cm arbitrary levels to 60 – 70 cm below surface.

Stratigraphy and Features

Stratigraphy within Area 4 consists of three main cultural zones bracketed by overlying turf and underlying sterile basal sediments. The three cultural zones consist of:

(1) Fire Cracked Rock and Charcoal Zone — This deposit ranges from approximately 8 – 30 cm below surface, and

contains a very heavy concentration of fire cracked rock and charcoal, interspersed with faunal remains, debitage, and some artifacts including a bone awl and a side-notched projectile point. It is possible that this layer indicates that Area 4 was used most recently as some sort of oven or fire-pit.

(2) Roof-Fill Zone — This layer is barely visible, as it is only approximately 15 cm in depth, and is the same colour as the overlying deposit, but contains no fire cracked rock and charcoal. It ranges from approximately 30 – 45 cm below surface.

Table 5. Features associated with Area 4

Feature No.	Type	Excavation Unit	Dimensions
4-1	possible hearth and 2 associated post holes	N114-115 E155-156	50 cm below surface
<i>Description:</i> A circular hearth consisting of fire cracked rock and charcoal, measuring approximately 41.0 cm diameter, and 3.0 cm deep. Two post holes were associated with this hearth, one 4 cm to the northeast of the hearth, and one 25 cm west. The north post hole is 15 cm in diameter, and 29 cm deep with a pointed end. The west post hole is 14 cm in diameter, and 15 cm deep.			
4-2	post hole	N115-116 E154-155	N115.29-115.48 E154.81-154.97 45.0-73.0 cm below surface
<i>Description:</i> One roughly oval shaped post hole, approximately 17 cm in diameter, associated with the floor zone.			
4-4	pit	N114.85-115.30 E155.84-156.18	55.0-75.0 cm below surface
<i>Description:</i> Circular pit measuring approximately 45.0 cm diameter, and 20.0 cm deep. It is associated with the floor zone and may have served as a cooking pit. It is very similar to the pit excavated in House Pit 1 (feature 1-3).			

(3) Floor Zone – The floor zone is indicated by an olive grey (5Y 4/1) silty clay layer containing 4 post holes, and possible hearth and pit features. There is also an increase in debitage from the above zones. The approximate depth of the floor zone is 45 – 55 cm below surface, although this is difficult to definitely determine as it is essentially the same colour and texture as underlying non-cultural sediments (Fig. 9).



Fig. 8. Feature 2-2. Large Pit from Area 2.

AREA 6

Area 6 is a small cultural depression near the centre of the site. It measures approximately 5.50 m in diameter and is approximately 80.0 cm deep.

Table 6. Features associated with Area 6

Feature No.	Type	Excavation Unit	Dimensions
6-1	burnt beams	N123-124 E176-177	17.0-22.0 cm below surface
<i>Description:</i> This feature covered the entire unit at approximately 16.0 cm below surface. It consisted of charcoal flakes and chunks. The majority of these were randomly oriented, but one definite beam was uncovered. This piece was burnt on only one side. This feature probably represents the remains of a burnt and collapsed roof structure.			
6-2	post hole	N123-124 E174-175	N123.70-123.84 E174.73-174.86 50.0-60.0 cm below surface
<i>Description:</i> Post hole 14.0 cm in diameter associated with the floor zone.			

Excavation

Three 1 x 1 m square units were excavated in 10 cm arbitrary levels to 60 cm below surface. These were joined in a trench crossing east-west through the depression.

Stratigraphy and Features

Two major cultural zones occur in this area – a roof-

fill layer and a floor layer. These are bracketed by turf and non-cultural basal sediments.

(1) Roof-Fill – This layer ranges 15 – 40 cm below surface and consists of an unconsolidated silty clay with some charcoal, debitage, and artifacts.

(2) Floor Layer – The floor zone is distinguishable from underlying sterile sediments by its compaction and large amount of debitage. It ranges approximately 40–45 cm below surface (Fig. 10).

AREA 13

Area 13 is a small cultural depression near the eastern end of the site. It is approximately 3 m in diameter, and very shallow. It is somewhat oval in shape, and the northern edge has been disturbed by road grading activities.

Excavation

One 1 x 1 m unit was excavated to a depth of 50.0 cm below surface.

Stratigraphy and Features

One homogeneous cultural zone of compact dark yellowish brown (10YR 4/2) silty clay is present. It contained only four pieces of debitage, and one small shell fragment. Its depth ranged to approximately 40.0 cm below surface (Fig. 11).

Table 7. Features associated with Area 13

Feature No.	Type	Excavation Unit	Dimensions
13-2	post hole	N140-141 E204-205	south wall profile E204.48-204.76 5.0-33.0 cm below surface

Description: Large post hole with tapering pointed end.

AREA 14

Area 14 is a small cultural depression measuring 2.5 m in diameter. It may be a small cache pit associated with Area 15.

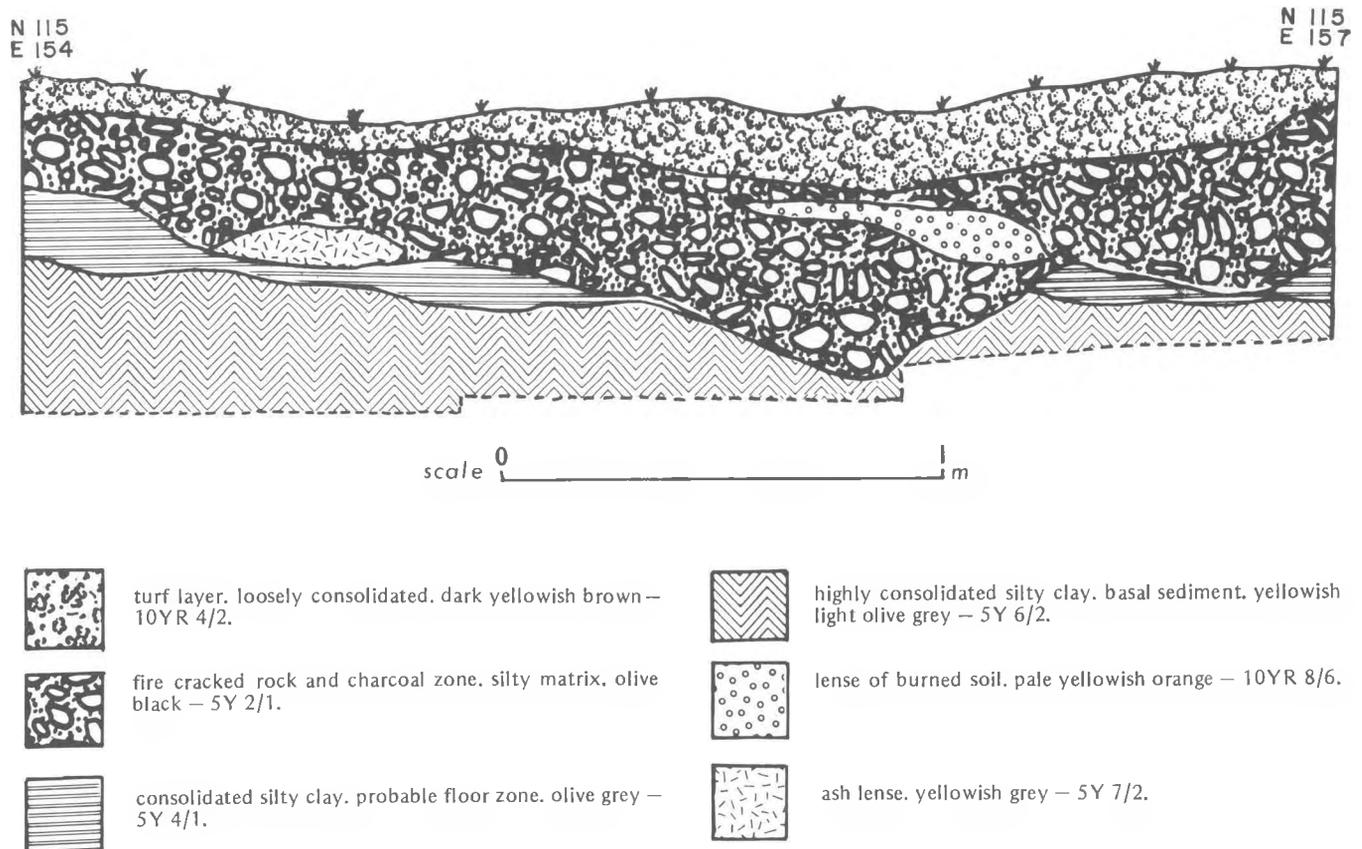


Fig. 9. Stratigraphic Profile of Area 4 (EdRa 22): N115; E154-157.

Excavation

One 1 x 1 m unit was excavated in the centre of the depression to 60 cm below surface.

Stratigraphy and Features

One homogeneous cultural zone of a compact silty loam was present. It contained a total of one unifacially retouched flake, six pieces of debitage, two small pieces of birch bark, and a small amount of fire cracked rock. No features were present (Fig. 12).

AREA 15

Area 15 is a 5 m diameter circular depression located at the eastern end of the site. It is approximately 40 cm deep at the centre.

Excavation

Eight 1 x 1 m units were excavated in arbitrary 10 cm levels to 40 cm below surface.

Stratigraphy and Features

Two main cultural layers are present, a roof-fill deposit,

Table 8. Features associated with Area 15

Feature No.	Type	Excavation Unit	Dimensions
15-1	fire cracked rock and charcoal concentration	N144-145 E213-214	N144.00-144.15 E213.37-213.80 18.50-23.00 cm below surface
<i>Description:</i> This feature appears to be a dump of fire cracked rock and charcoal within the roof fill deposit.			
15-3	hearth	N143-144 E212-213	N143.47-144.15 E212.49-213.00 25-33 cm below surface
<i>Description:</i> Hearth feature roughly circular in shape, full of charcoal and fire cracked rock. Associated with the floor zone of Area 15.			
15-9	hearth	N144-145 E212-213	N144.82-145.00 E212.18-212.55 30-40 cm below surface
<i>Description:</i> Circular area of fire cracked rock and charcoal, thought to represent another hearth area associated with the floor zone.			
15-12	post hole	N143-144 E213-214	N143.73-144.03 E213.06-213.36 40-61 cm below surface
<i>Description:</i> Large 30 cm diameter circular post hole associated with the floor zone.			

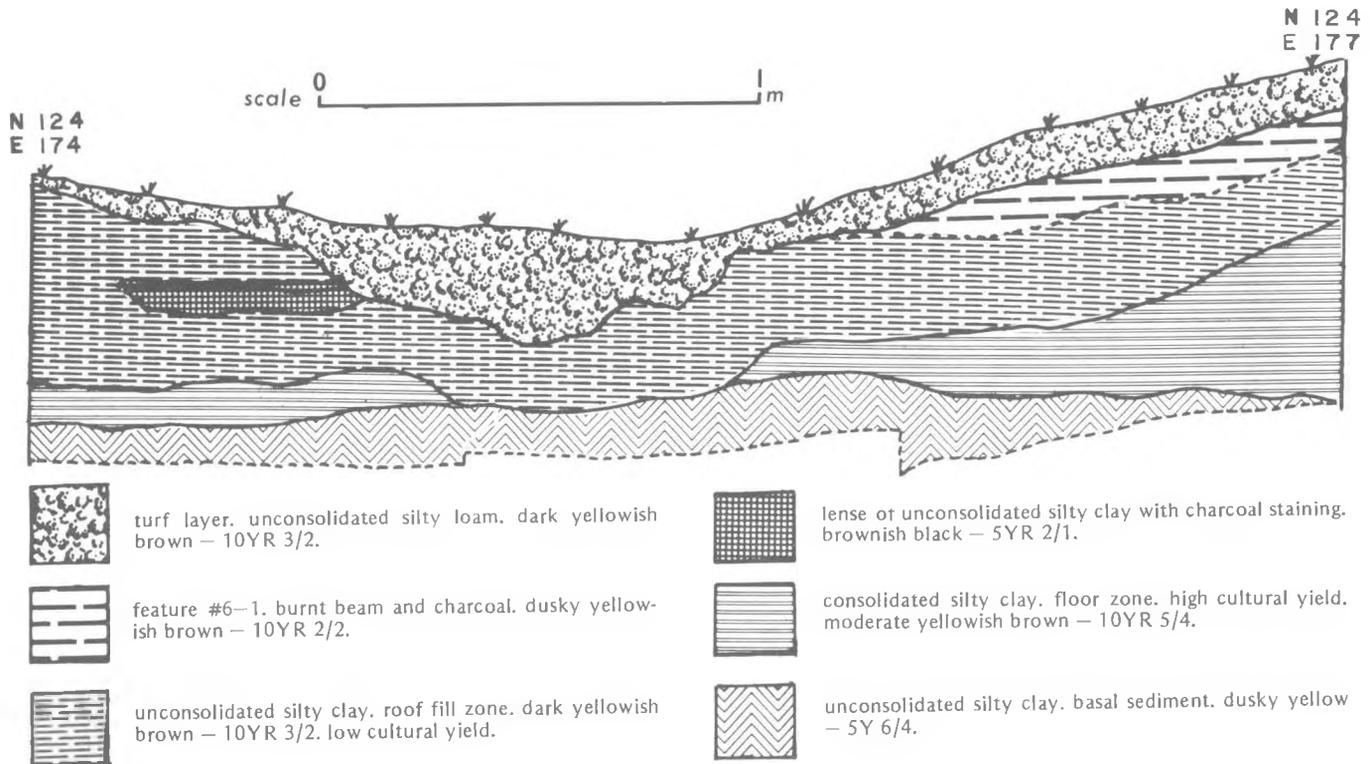


Fig. 10. Stratigraphic Profile of Area 6 (EdRa 22): E124; E174-177.

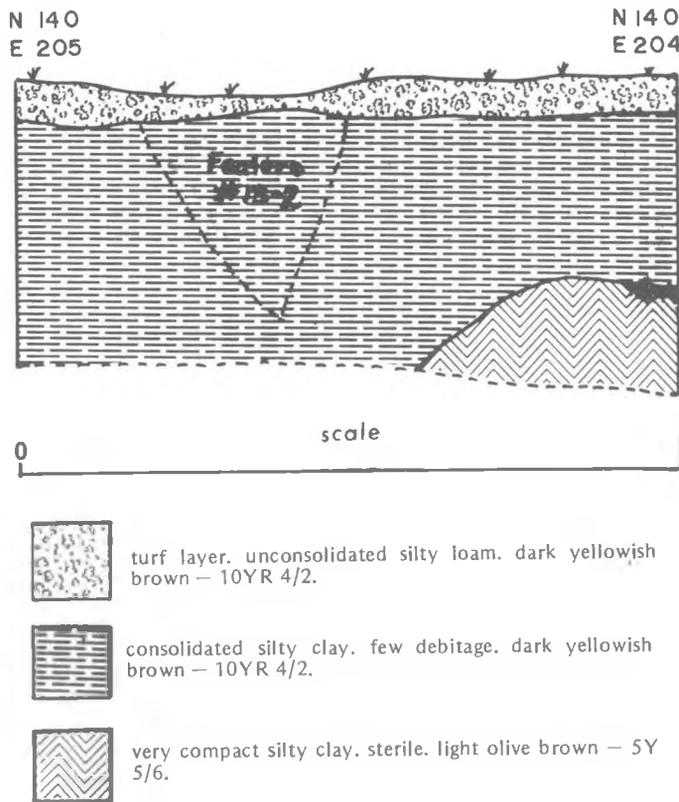


Fig. 11. Stratigraphic Profile of Area 13 (EdRa 22): N140; E204-205.

and a floor zone. The roof-fill extends to approximately 30.0 cm below surface, and consists of consolidated silty loam with fire cracked rock, charcoal, artifacts, debitage, faunal remains, and shell. The floor zone is approximately 30-40 cm below surface, and contains two hearths, and one large post hole. It is somewhat indistinguishable from the underlying basal sediment, but is defined by the degree of compaction, and artifacts and features (Fig. 13).

AREA 16

Area 16 is a 6 m diameter cultural depression at the eastern end of the site. It is almost identical to Area 15

House pit 1 at EeRa possessed a well defined roof-fill deposit of silty loam with debitage, charcoal, artifacts, and faunal remains, extending approximately 50 cm below surface. Underlying this is a poorly defined floor zone of compact silty clay with a high percentage of artifacts, and

in size and shape. The southern side of the depression has been cut by the road.

Excavation

Two 1 x 1 m units were excavated to 70 cm below surface.

Stratigraphy and Features

Two cultural zones are present: a dark yellowish brown (10YR 4/2) compact silty clay containing some fire cracked rock and debitage; and a compact silty clay, dusky yellow (5Y 6/4) in colour, containing some debitage, and three unifacially retouched flakes. These zones probably represent roof-fill and floor deposits (Fig. 14).

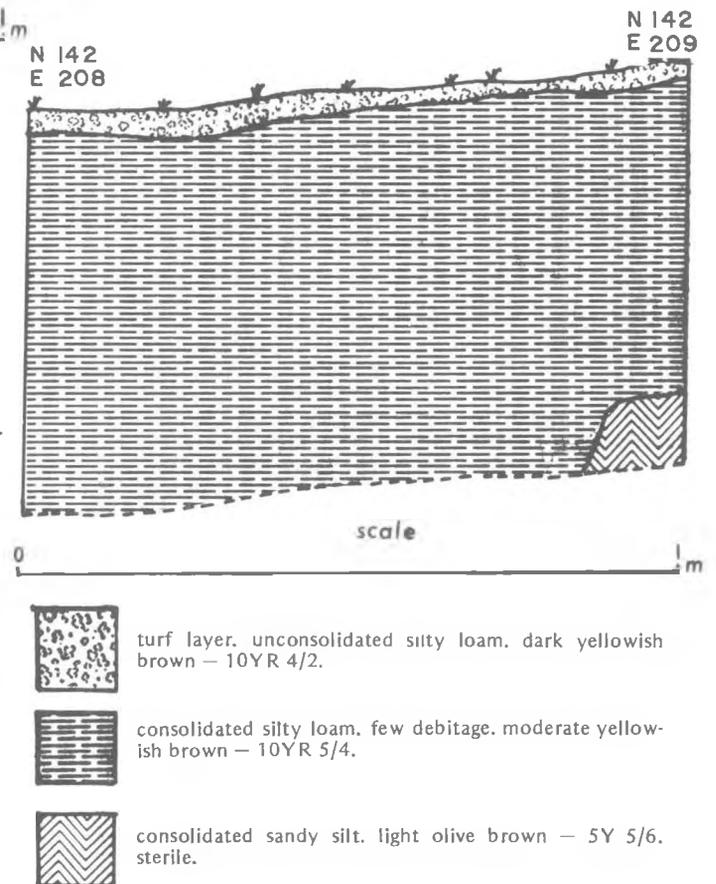


Fig. 12. Stratigraphic Profile of Area 14 (EdRa 22): N142; E208-209

EeRa 4

some faunal remains. This extends to approximately 60 cm below surface, where the sediment, of essentially the same colour and texture, becomes sterile of cultural materials (Fig. 15).

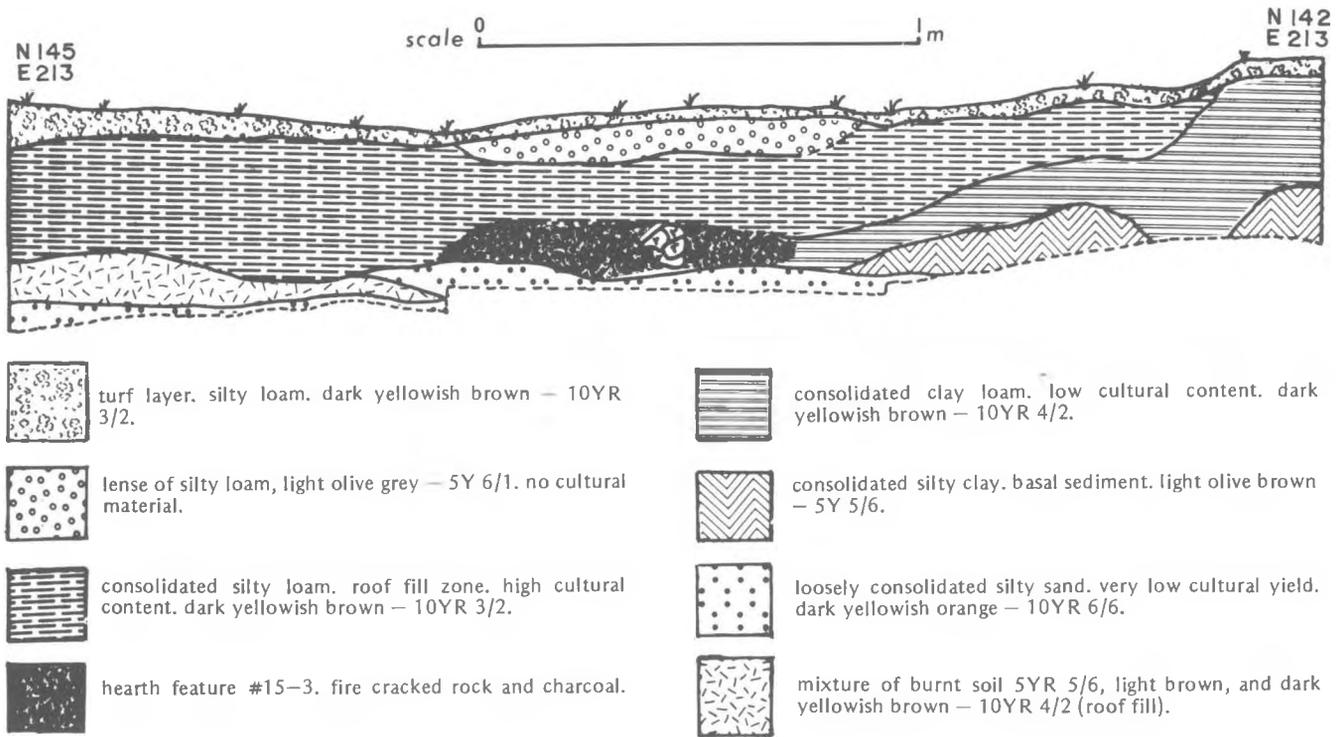


Fig. 13. Stratigraphic Profile of Area 15 (EdRa 22): N142-145; E213

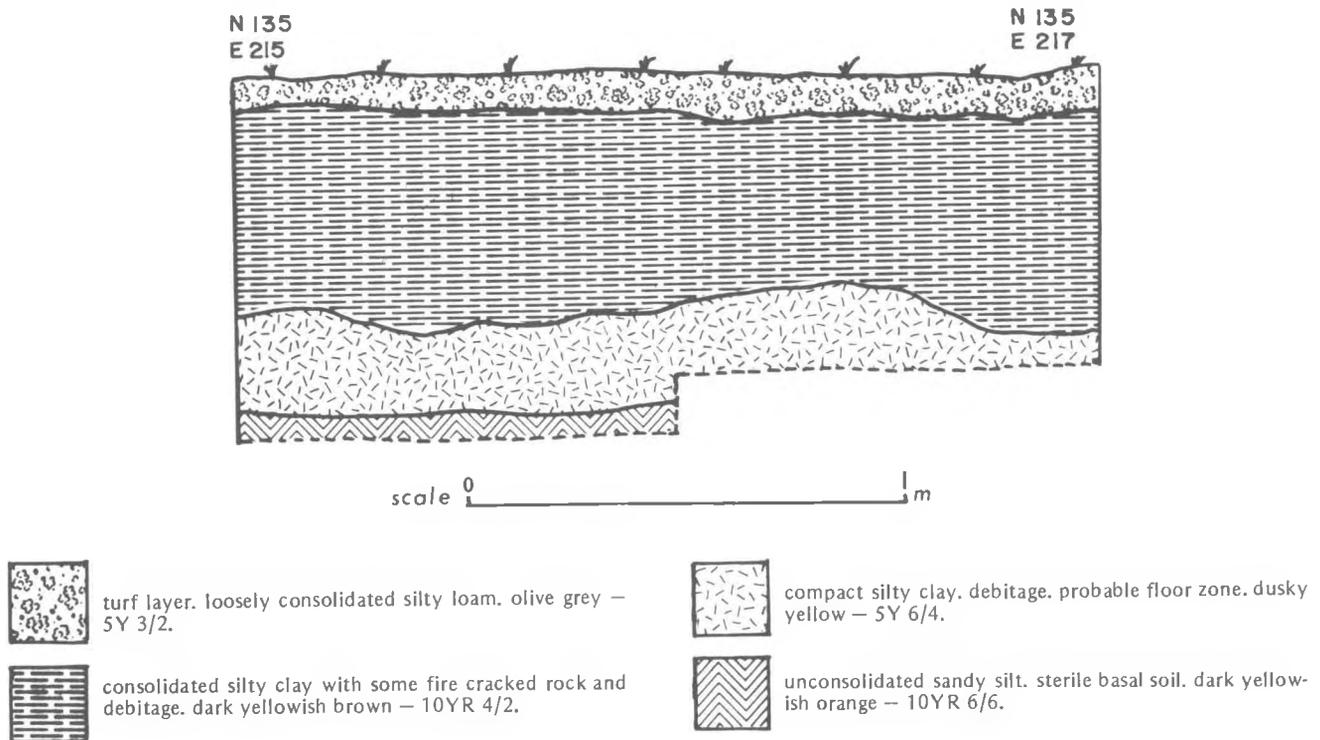


Fig. 14. Stratigraphic Profile of Area 16 (EdRa 22): N135; E215-217

Table 9. Features associated with house pit 1 (EeRa 4)

Feature No.	Type	Excavation Unit	Dimensions
1-1	burnt roof beams	S10-11 W30-31	15-20 cm below surface
1-2	charcoal concentration	S10-11 W30-31	S10.60-10.85 W30.00-30.48 41-56 cm below surface

Description: Four burnt beams and charcoal associated with the roof-fill.

Description: Rectangular area of charcoal concentration associated with the house pit floor. C-14 sample taken.

1-3	post hole	S10-11 W28-29	S10.28-10.40 W28.13-28.27 41-56 cm below surface
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Description: Circular post hole, 13 cm diameter.

1-4	post hole	S29-30 W11-12	S11.57-11.69 W29.78-29.92 60.0-68.5 cm below surface
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1-5	post hole	S10-11 W28-29	S10.20-10.41 W28.87-29.00 62-105 cm below surface
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Description: Post hole 21 cm diameter, tapering at the bottom. Associated with the house pit floor.

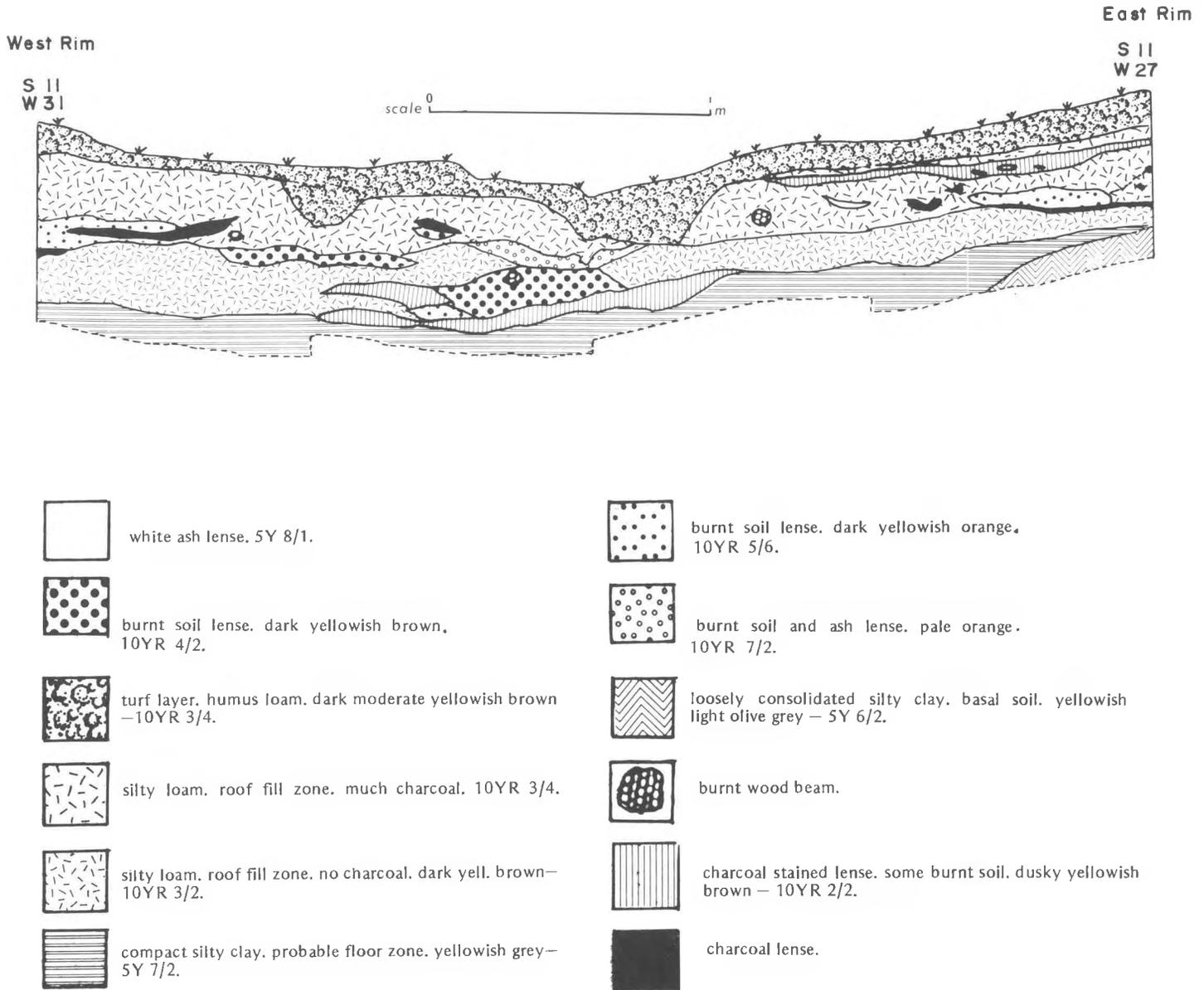


Fig. 15. Stratigraphic Profile of H.P.1 (EdRa 4): S11; W27-31

ARTIFACT DESCRIPTION AND TYPOLOGY
(EdRa 22)

It is the purpose of this section to describe the recovered archaeological materials from the Curr site. The total sample numbers 591 prehistoric artifacts and 21 historic artifacts from the surface. Lithic debitage is not included under the total number of artifacts, and is dealt with only briefly in this report. The prehistoric artifacts are classified into three major categories on the basis of primary manufacturing technique, and type of raw material. These categories are: (1) the chipped stone industry, (2) the pecked and ground stone industry, and (3) the bone and antler industry. Standard deviations have been calculated for sake of consistency even though it is realized that they are of doubtful value in frequencies less than 4.

CHIPPED STONE INDUSTRY

This industry makes up the bulk of the assemblage, with a total of 574 chipped stone artifacts, representing 97.12% of the prehistoric assemblage. Table 10 gives the percentages of raw materials utilized for artifacts.

Table 10. Percentages of raw materials used for artifacts

Material	Percentage of Artifacts
vitreous basalt	83.93
non-vitreous basalt	8.39
quartz	3.39
chert	1.96
chalcedony	1.61
welded volcanic tuff	.36
green chrysocolla	.18
obsidian	.18

The single piece of obsidian recovered was a basally notched projectile point. On visual examination only, Dr. Erle Nelson (Simon Fraser University), identified its source as probably the Oregon Glass Butte area, although the possibility exists that it could be from the Mackenzie Pass source in British Columbia. Positive identification will have to await x-ray fluorescence (Nelson 1977: pers. comm.).

I. Bifacially Flaked Artifacts N = 144

These artifacts exhibit bifacial flaking along 1 or more edges. They are subdivided into formed and unformed bifaces on the basis of shape and extent of retouch.

A. Formed Bifaces N = 68

These artifacts represent an attempt by the manufacturer to achieve a preconceived form (Sanger 1971:71).

A well defined outline with extensive bifacial retouch are the primary characteristics of these artifacts.

1. Points N = 15

Points are those objects exhibiting a hafting element and thin edges converging to a sharp tip (Loy and Powell 1977:59). Hafting elements include notching and stemming in this assemblage. Functional distinctions between dart, arrow, and spear points have not been attempted due to the small sample size. Wilson, (this volume) in doing metric analyses of the neck widths of points from sites within the Kamloops locality, has suggested a neck width of 10 mm as the most likely measurement dividing arrow and dart points. If this can be applied directly to the points from the Curr site, then it would appear that the assemblage contains 12 dart points and two arrow points.

The points have been subdivided for descriptive classification into three basic types based on the type of notching present: (1) corner notched, (2) basal notched, and (3) side notched.

a. Corner Notched N = 11

These points exhibit notching over parts of both the reconstructed blade and base (Loy and Powell 1977: 45). There are two basic varieties within this type which warrant further subdivision: (1) those with barbs, and (2) those with shoulders.

i. Barbed Corner Notched N = 7 Fig. 16: g-l

These corner notched points exhibit a slanting lateral projection at the base of the artifact instead of a shoulder.

Material: vitreous basalt (7)

Attribute	N	Range (cm)	Mean (cm)	S.D.(cm)
length	6	2.80-4.30	3.64	.57
width	4	1.35-2.50	2.04	.49
thickness	7	0.35-0.55	0.47	.06
neck width	6	0.75-1.35	0.92	.45
weight (g)	3	1.30-3.80	2.47	1.26

ii. Shoulder Corner Notched N = 4 Fig. 16: b-c

These corner notched points exhibit an upward and lateral expansion of the stem from the width of the base to the width of the widest part of the blade, forming a shoulder (Loy and Powell 1977:63-4).

Material: vitreous basalt (4)

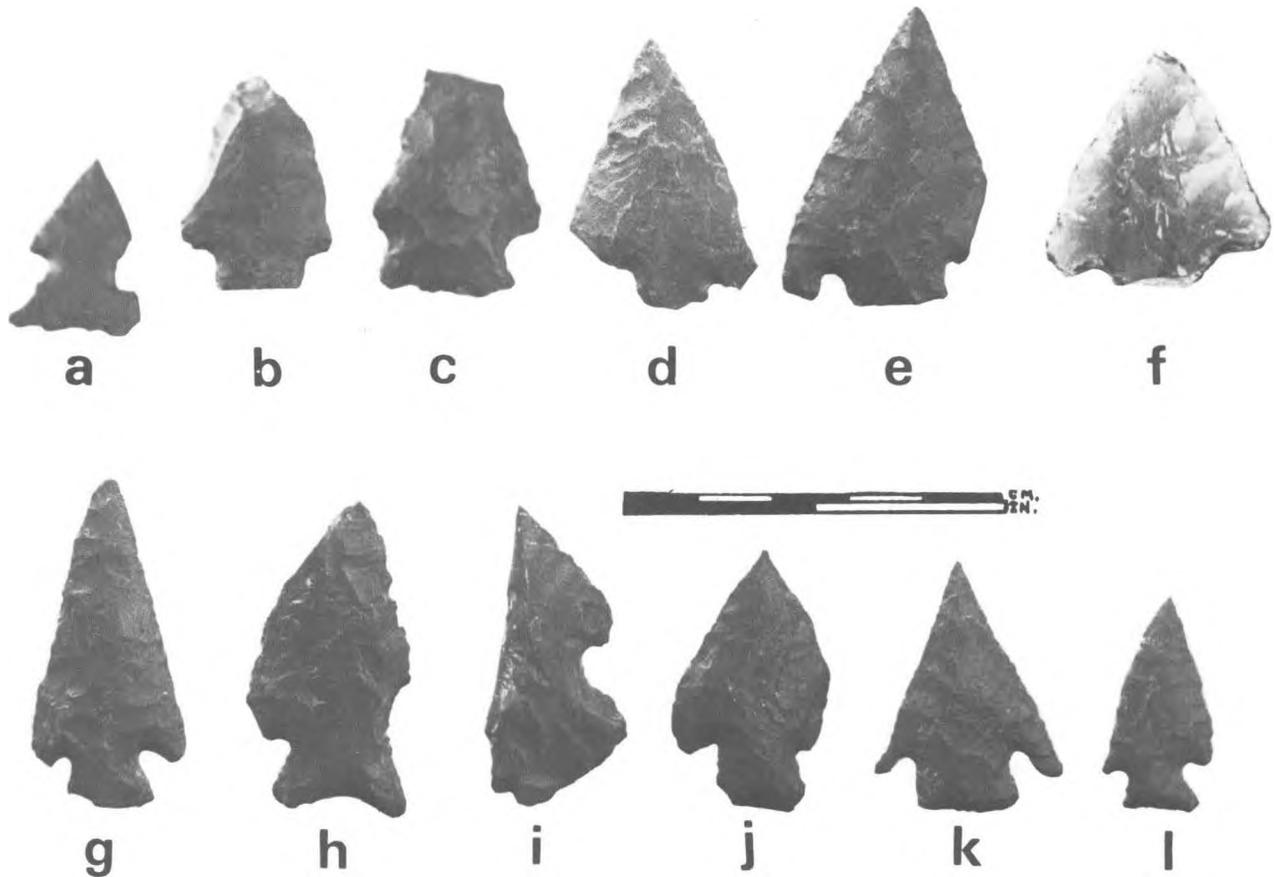


Fig. 16. Bifacially Chipped Stone Points. (EdRa 22). Side-notched Point (a); Barbed Corner-notched Points (g-l); Shouldered Corner-notched Points (b-c); Basal-notched Points (d-f).

Attribute	N	Range (cm)	Mean (cm)	S.D. (cm)
length	3	2.80-6.30	4.80	1.80
width	4	1.75-2.20	1.93	0.20
thickness	4	0.50-0.80	0.68	0.15
neck width	4	1.00-1.55	1.26	0.23
weight (g)	3	3.00-6.90	5.37	2.08

b. Basal Notched N = 3 Fig. 16: d-f

On these specimens, the notch is produced from the base of the point.

Material: vitreous basalt (2) obsidian (1)

Attribute	N	Range (cm)	Mean (cm)	S.D. (cm)
length	3	3.10-3.95	3.52	0.43
width	1	2.90		
thickness	3	0.45-0.60	0.53	0.08
neck width	3	1.05-1.40	1.27	0.19
weight (g)	1	4.70		

c. Side notched N = 1 Fig. 16: a

On this point, notches are produced in the lateral blade edges.

Material: vitreous basalt (1)

Attribute	Measurement
length	2.25 cm
width	1.75 cm
thickness	0.30 cm
neck width	0.89 cm
weight	1.00 g

2. Ovate Bifaces N = 3 Fig. 17: a-c

Those artifacts exhibiting a roughly oval outline with pointed distal ends, excruciate blade edges, and convex to straight bases. No wear-polish was evident on any of these specimens, so inference concerning function is difficult. However they probably would have been used as some form of cutting tool or knife (Sanger 1970).

Material: vitreous basalt (3)

Attribute	N	Range (cm)	Mean (cm)	S.D. (cm)
length	0	-	-	-
width	3	2.63-3.00	2.81	0.19
thickness	3	0.60-0.80	0.72	0.10
weight (g)	3	7.80-14.90	10.97	3.61

3. Triangular Bifaces N = 2 Fig. 17: d–e

These bifaces are equilateral triangles in outline. One specimen possesses a square notch in one blade edge. Wear-polish is evident along the steeply retouched edge of the unnotched specimen, indicating that this artifact may have functioned as a scraping tool.

Material: vitreous basalt (2)

Attribute	N	Range (cm)	Mean (cm)	S.D. (cm)
length	2	3.25–3.75	3.50	0.35
width	2	3.00–3.20	3.10	0.14
thickness	2	0.42–1.00	0.71	0.41
weight (g)	2	4.90–11.00	7.95	4.31

4. Pentagonal Bifaces N = 1 Fig. 17: g

This five-sided biface has an incipient stem, with the distal blade edges converging to a sharp tip. Crude flaking on this artifact may indicate that it is unfinished. No wear polish is evident.

Material: vitreous basalt

Attribute	Measurement
length	3.45 cm
width	2.80 cm
thickness	0.85 cm
weight	5.30 g

5. Concave-Sided Biface N = 1 Fig. 17: f

This single specimen is a finely made pointed biface with a concave cutting edge. It may have functioned as a hafted carving knife like those shown by Teit (1900:184). Wear-polish is evident along the lower lateral edges, indicating possible hafting.

Material: vitreous basalt

Attribute	Measurement
length	5.30 cm
width	3.20 cm
thickness	0.83 cm
weight	10.40 g

6. Backed Knives N = 5 Fig. 18: a–e

Wilson describes similar implements in his assemblages from the Kamloops locality. None have bifacial flaking on their entire surfaces, but all have small retouch along one thin lateral working edge. The other lateral edge is thick, probably to be held in the hand. Four of the five specimens' thick lateral edges are formed by a single long burin-like scar. The fifth artifact has a back formed by natural cortex. Material: vitreous basalt (5)

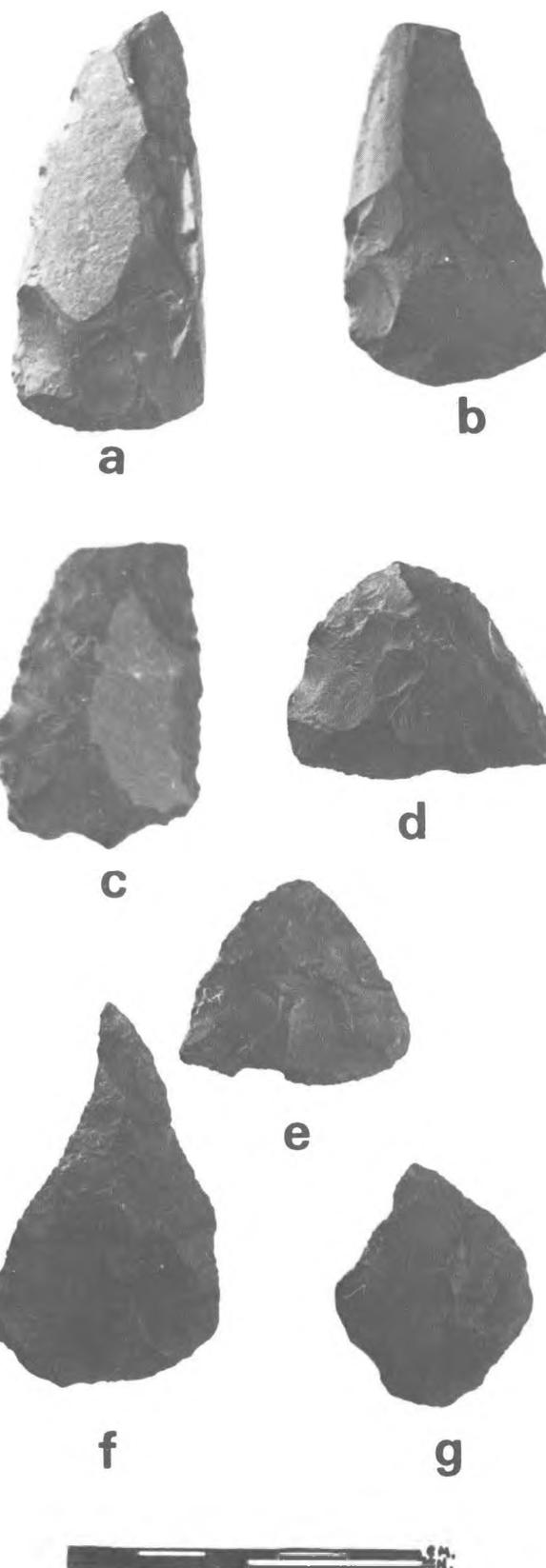


Fig. 17. Formed Bifaces. (EdRa 22). Ovate Bifaces (a–c); Triangular Bifaces (d–e); Concave-sided Bifaces (f); Pentagonal Biface (g).

Attribute	N	Range (cm)	Mean (cm)	S.D. (cm)
length	4	6.14–7.15	6.78	0.32
width	5	2.58–3.25	2.92	0.27
thickness	5	0.80–1.05	0.94	0.10
weight (g)	4	13.70–20.7	16.33	3.03

7. Spall Tools N = 1

Fig. 23: d

This single specimen is a primary flake struck from a granite cobble with bifacial retouch along all its edges. Wear-polish is difficult to detect due to the granular raw material, although possible functions of these tools include hide preparation, fish processing, and sawing stones (Von Krogh 1976:119).

Material: granite

Attribute	Measurement
length	8.10 cm
width	6.40 cm
thickness	2.00 cm
weight	91.60 g

8. Formed Biface Fragments N = 40

These are fragments of artifacts that cannot be assigned to any of the previous categories due to their fragmentary nature. The fragments are subdivided into four groups based on their place in the original artifact, and one indeterminate group.

a. Tips N = 16

i. Point Tips N = 13

Material: vitreous basalt (11) quartz (1) chert (1)

ii. Other Biface Tips N = 3

Material: vitreous basalt (3)

b. Bases N = 8

i. Point Bases N = 6

Material: vitreous basalt (3) non-vitreous basalt (1) quartz (2)

ii. Other Biface Bases N = 2

Material: vitreous basalt (1) non-vitreous basalt (1)

c. Mid-sections N = 5

i. Point Mid-sections N = 2

Material: vitreous basalt (1) quartz (1)

ii. Other Biface Mid-sections N = 3

Material: vitreous basalt (3)

d. Indeterminate N = 11

Material: vitreous basalt (9) non-vitreous basalt (1) quartz (1)

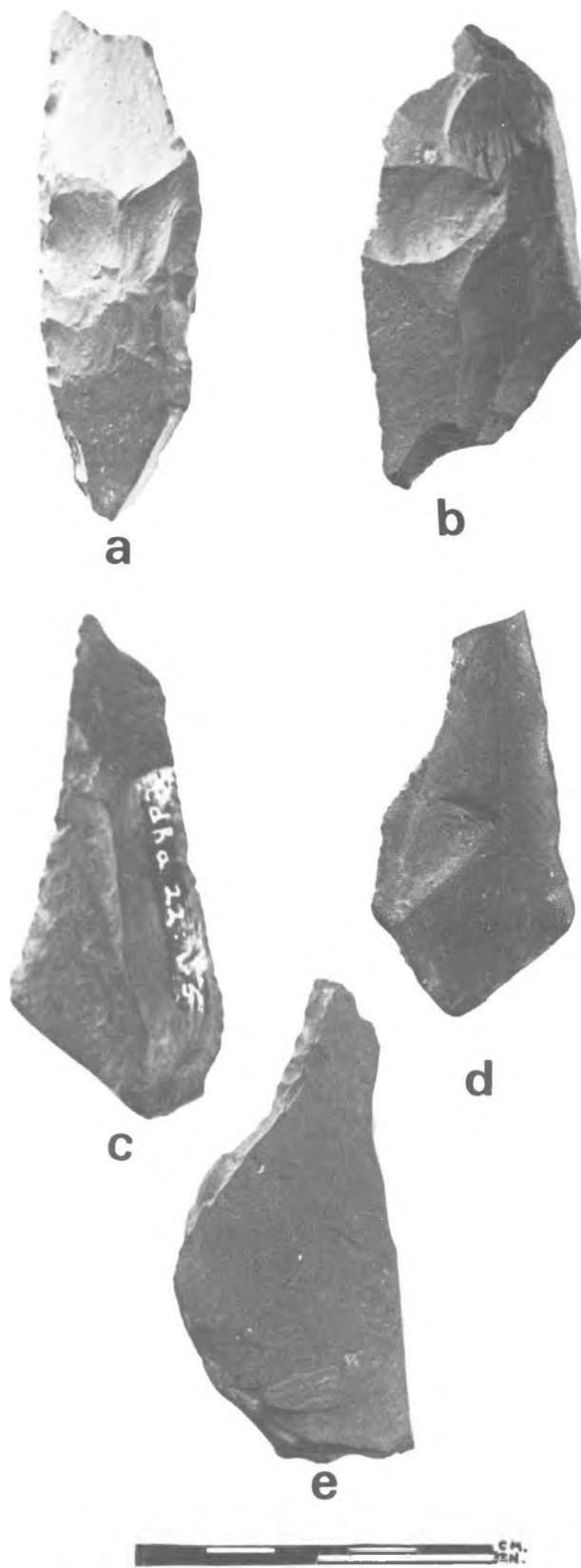


Fig. 18. Backed Knives. (EdRa 22).

B. Unformed Bifaces N = 76

These artifacts have amorphous unpatterned shapes which do not appear to have any deliberate form. They have been divided into two sub-groups: (1) bifacially retouched flakes, and (2) bifacial preforms. The bifacially retouched flakes may have bifacial edge retouch, or alternate retouch on the same or different edge (Wilson 1976:132). Preforms can be described as amorphous chunks of raw material that have some initial bifacial flaking, but which are still in a rough and undeterminable form (Crabtree 1972:85).

1. Bifacially Retouched Flakes N = 60

Material: vitreous basalt (47) non-vitreous basalt (10)
chrysocolla (1) welded volcanic tuff (1) quartz (1)

2. Preforms N = 16

Material: vitreous basalt (13) quartz (3)

II. Unifacially Flaked Artifacts N = 427

Unifaces exhibit unifacial retouch on 1 or more edges of an original flake. They form the majority of the chipped stone artifacts from this site (75.40%). They are divided into two main sub-types: (1) formed, and (2) non-formed.

A. Formed Unifaces N = 63

These artifacts exhibit unifacial retouch along one or more edges, and have an intentionally designed form. The formed unifaces are divided into two further sub-types based on their presumed function: (1) scrapers, and (2) graters.

1. Scrapers N = 48

Scrapers are defined as flake tools with steep unifacial retouch along at least one edge, referred to as the primary working edge. Scrapers are divided into four sub-types based on the location of their primary working edge(s): (1) endscrapers; (2) sidescrapers; (3) end and side scrapers; and (4) continuous scrapers (Wilson, this volume).

a. Endscrapers N = 30 Fig. 19: a-r; Fig. 20: a-f

These scrapers have steep retouch along the distal end of a flake, forming a convex primary working edge. Retouch occurs along the lateral edges as well, but is not steep in angle. Wilson suggests that this lateral retouch is probably used to flatten the implement to facilitate gripping or hafting, or may also have served as a cutting edge. Wear-polish is visible on 12 specimens on their primary working edges.

Material: vitreous basalt (19) non-vitreous basalt (3)
chalcedony (4) quartz (3) chert (1)

Attribute	N	Range	Mean (cm)	S.D. (cm)
length	27	2.25–5.30	3.54	0.78
width	24	1.70–4.05	2.72	0.61
thickness	30	0.30–1.35	0.82	0.30
weight (g)	23	1.60–22.00	8.90	5.17

b. Sidescrapers N = 4

Fig. 20: h-k

These have a primary working edge along one or both lateral margins. Edges are either straight or slightly convex. Three of the scrapers have one primary working edge, while one has two edges. All have additional retouch on secondary distal and lateral working edges.

Material: vitreous basalt (4)

Attribute	N	Range (cm)	Mean (cm)	S.D. (cm)
length	4	2.95–4.65	4.10	0.78
width	4	2.30–3.50	2.93	0.51
thickness	4	0.58–0.75	0.66	0.08
weight (g)	4	6.90–11.60	8.70	2.04

c. End and Side Scrapers N = 1

Fig. 20: g

This scraper exhibits uninterrupted steep retouch along the distal and a single lateral margin. The distal edge is convex, and the lateral edge is straight.

Material: vitreous basalt

Attribute	Measurement
length	4.00 cm
width	2.40 cm
thickness	0.70 cm
weight	7.30 g

d. Continuous Scrapers N = 13

Fig. 21: a-m

These scrapers exhibit continuous primary retouch along at least three margins. The fourth margin is either fragmented or carries the striking platform of the original flake. These scrapers are smaller than the other types and are sometimes referred to as "thumbnail" scrapers. Two of the specimens are made on extremely thin oval flakes and exhibit only fine unifacial retouch along the distal and lateral margins. One of these exhibits a stem on its proximal margin, and the other may have been stemmed, which has since been broken off (see Fig. 21: l-m). No other examples of these two tools could be found in the existing literature.

Material: vitreous basalt (8) non-vitreous basalt (2) grey chert (2) welded volcanic tuff (1)

Attribute	N	Range (cm)	Mean (cm)	S.D. (cm)
length	9	1.92–4.75	3.07	0.90
width	9	1.70–3.90	2.44	0.60
thickness	13	0.25–1.20	0.51	0.25
weight (g)	6	2.20–9.70	4.38	2.73

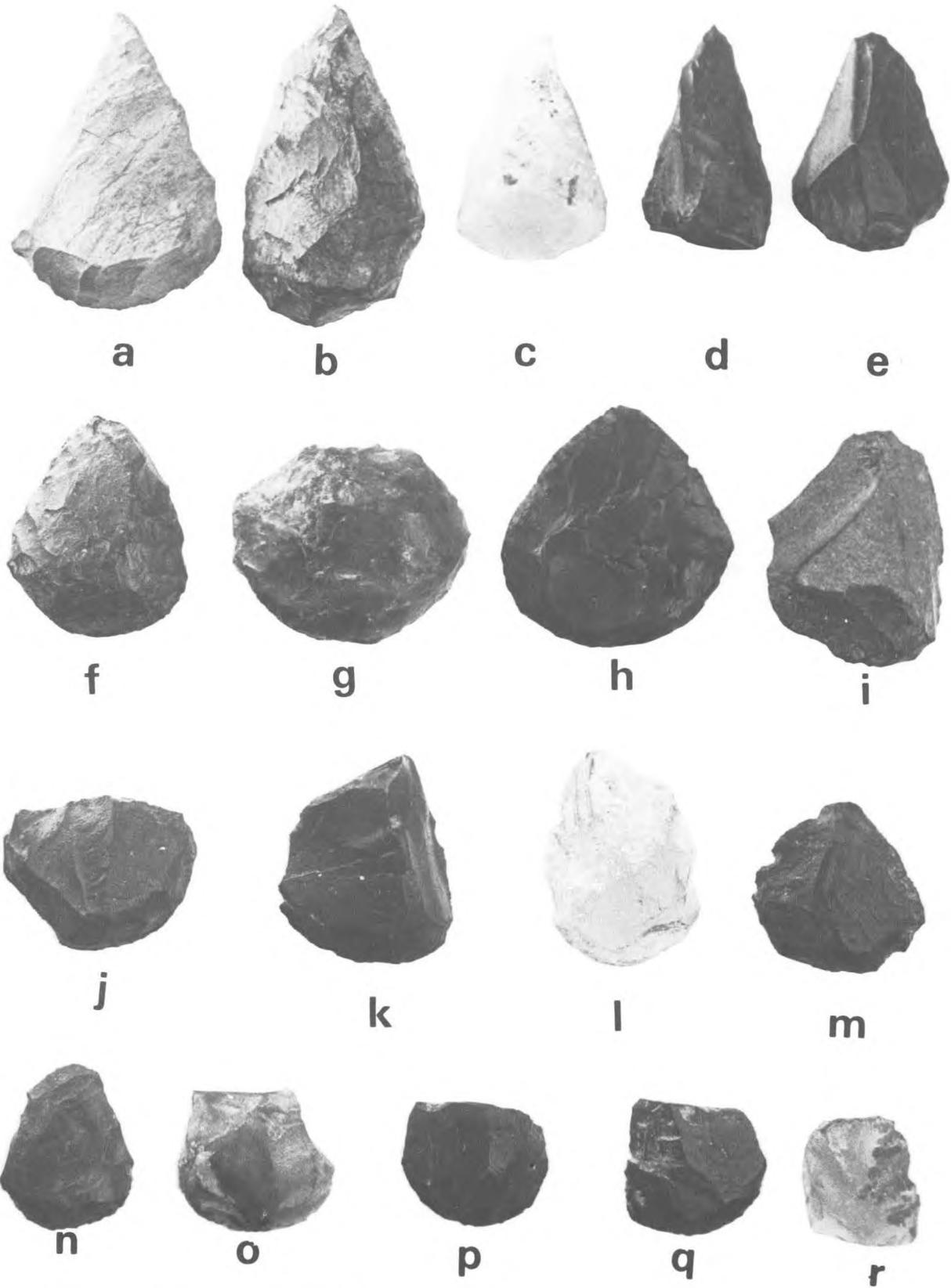


Fig. 19. Endscrapers. (Ed Ra 22).

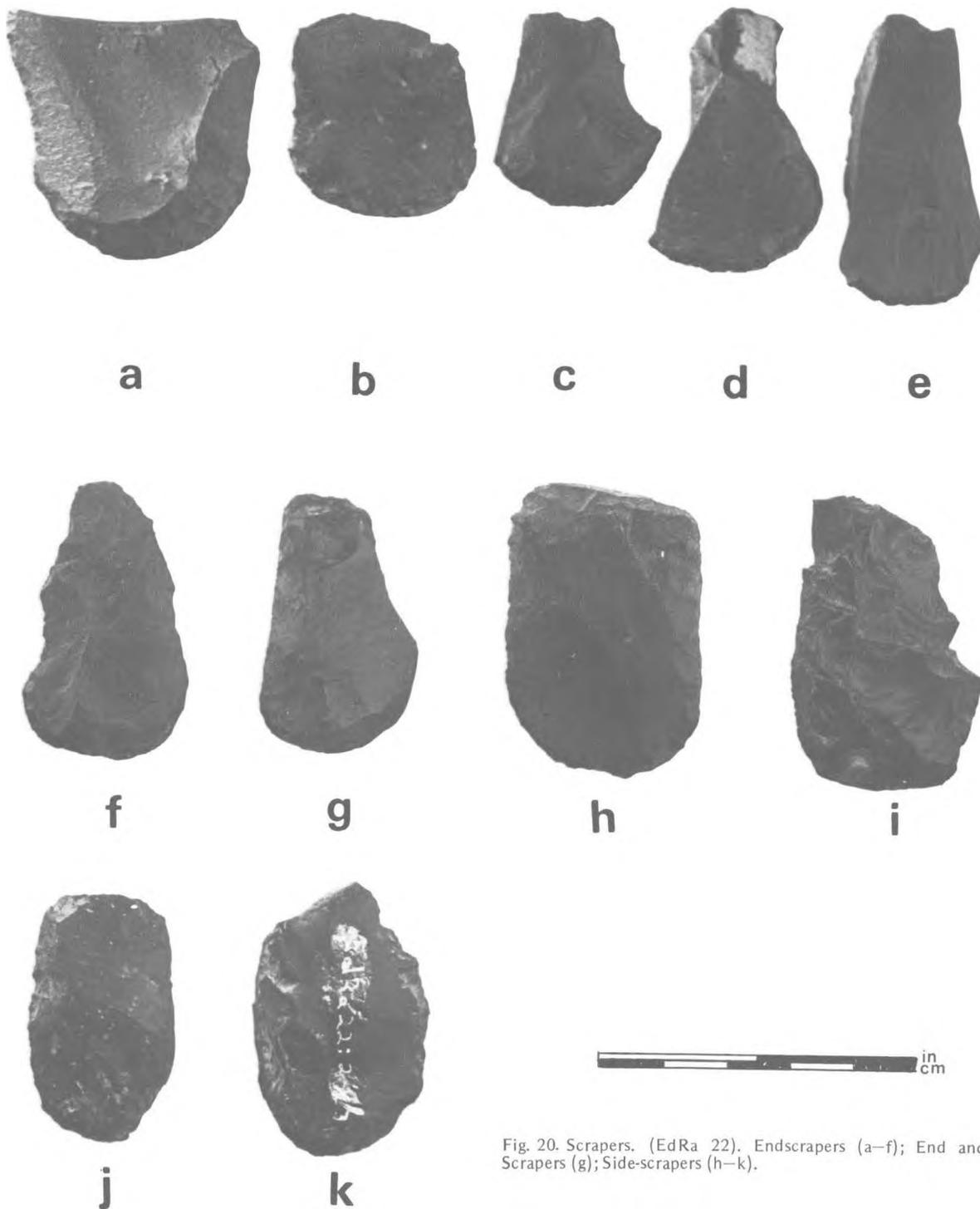


Fig. 20. Scrapers. (EdRa 22). Endscrapers (a-f); End and Side Scrapers (g); Side-scrapers (h-k).

2. Gravers N = 15

After Sanger (1970:83), gravers are defined as artifacts exhibiting a pronounced projection(s) in the form of a

point or spur. The graver spur is always formed by unifacial retouch. Their function was probably for cutting, incising, or perforating, bone, antler, or wood. The gravers have been divided into two sub-types based on the sharpness of the

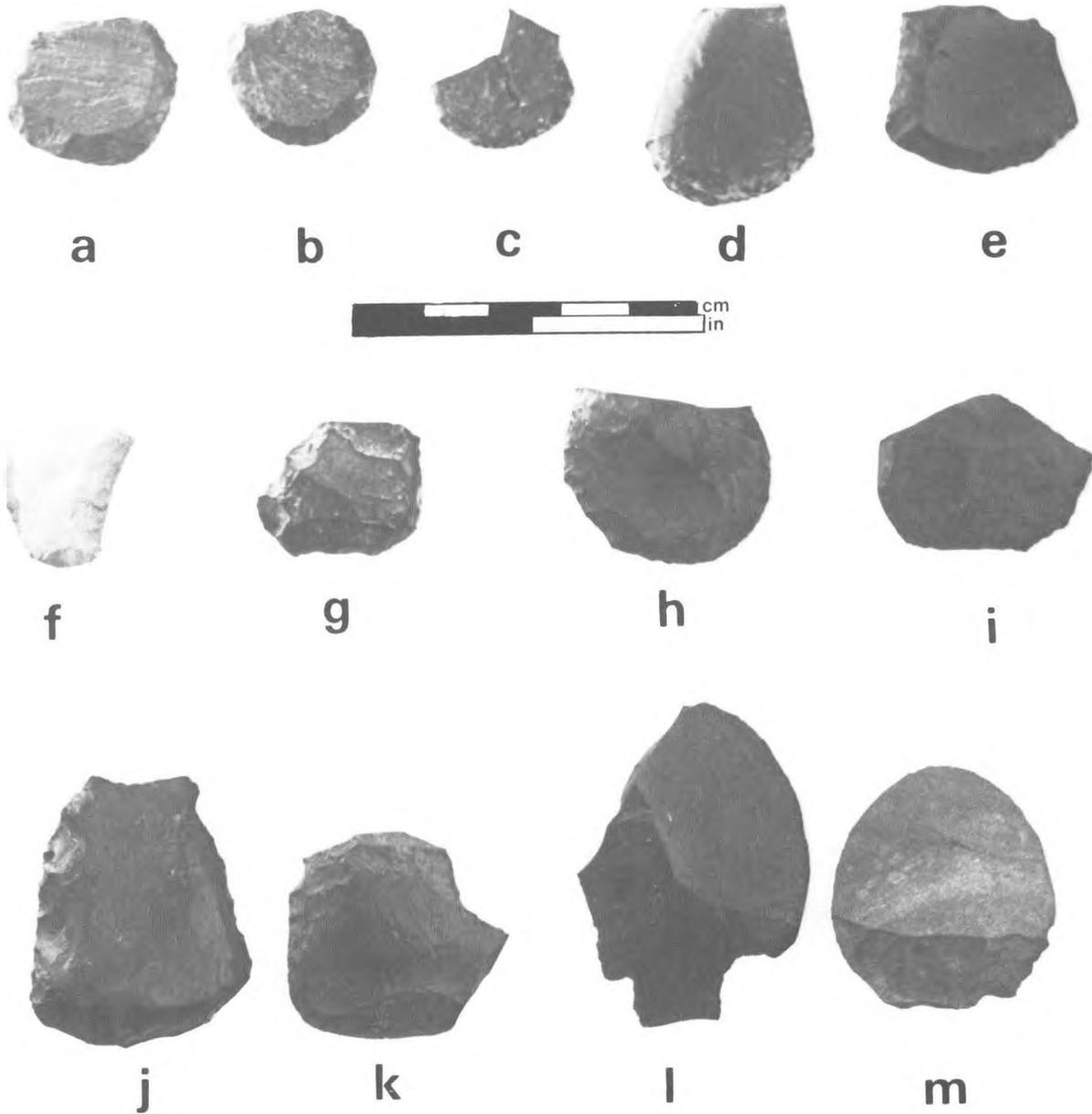


Fig. 21. Continuous Scrapers. (Ed Ra 22).

graver spur.

a. Sharply Pointed Graving Spur N = 10 Fig. 22: a-i

The specimens in this group have a small sharp pointed spur or spurs, and are thin in cross-section.

Material: vitreous basalt (5) quartz (3) chert (1) chalcedony (1)

Attribute	N	Range (cm)	Mean (cm)	S.D. (cm)
length	8	2.30-4.10	3.02	0.59
width	10	1.35-2.75	1.88	0.43
thickness	10	0.30-0.80	0.58	0.18
weight (g)	8	1.50-5.00	3.06	1.29

b. Rounded Graving Spurs N = 5

Fig. 22: j-n

These gravers have a single thick spur, rounded at the point. Sanger (1970:84) suggests that these gravers may have been used for heavier bone and wood cutting tasks, rather than for delicate finishing work.

Material: vitreous basalt (3) grey chert (1) chalcedony (1)

Attribute	N	Range (cm)	Mean (cm)	S.D. (cm)
length	4	2.31-7.90	5.07	2.28
width	4	1.10-2.55	1.83	0.59
thickness	4	0.60-1.05	0.85	0.21
weight (g)	4	1.20-13.50	8.33	5.81

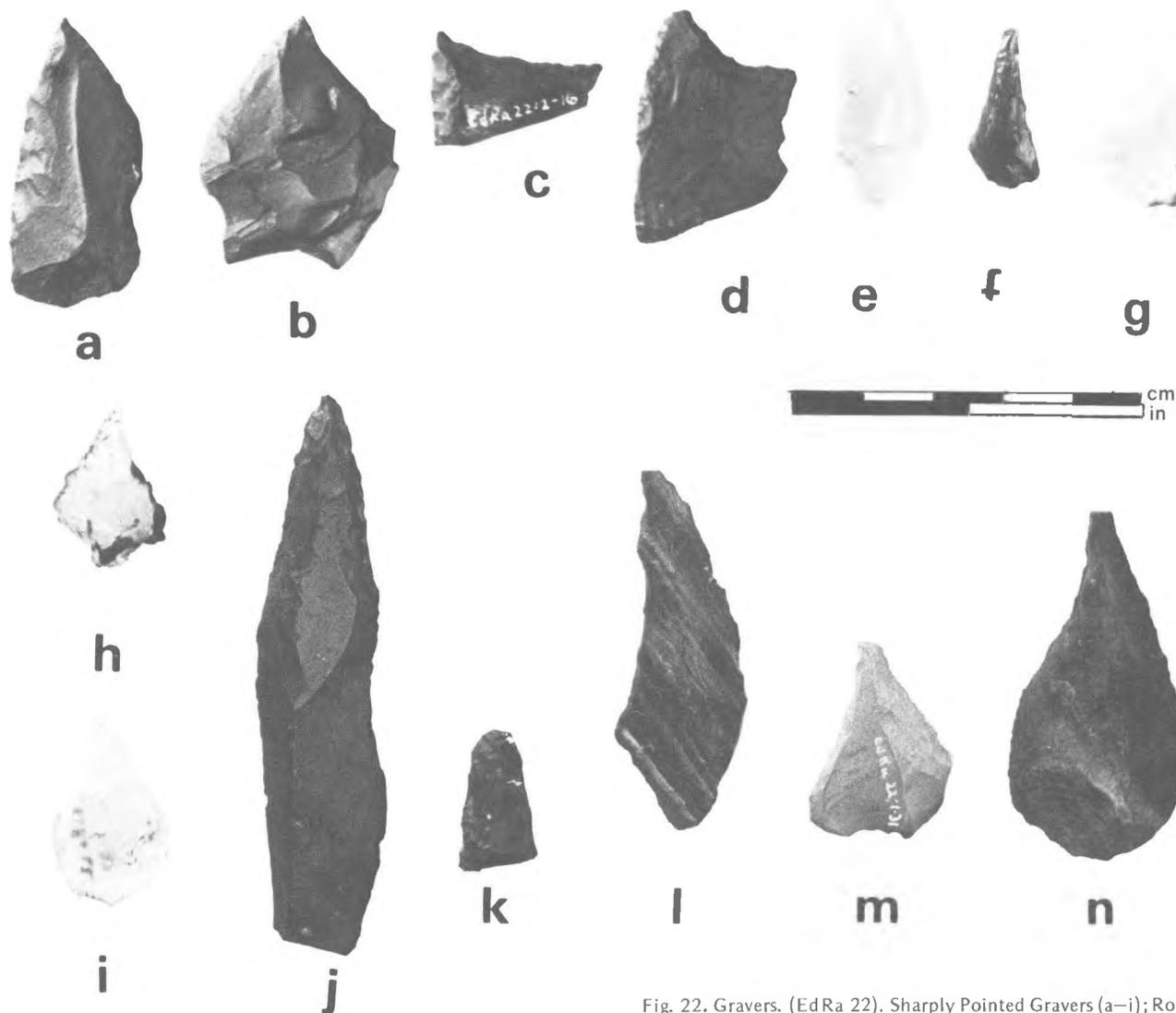


Fig. 22. Gravels. (Ed Ra 22). Sharply Pointed Gravels (a-i); Rounded Gravels (i-n).

B. Unformed Unifaces $N = 367$

This group comprises all unifactually retouched and utilized flakes within the assemblage. They are of various amorphous shapes with no intentional or deliberate shaping. Functionally, they have been described as "flake scrapers" (Sanger 1970:80).

Material: vitreous basalt (328) non-vitreous basalt (26)
chert (6) quartz (4) chalcedony (3)

PECKED AND GROUND STONE INDUSTRY

Pecked and ground stone artifacts are very rare in this assemblage, as in other assemblages from the Kamloops locality. All pecked and ground stone artifacts found at EdRa 22 comprise only 1.38% of the total prehistoric

assemblage. These 17 artifacts are divided into two types: (1) hammerstones; and (2) abraders.

I. Hammerstones $N = 6$

Fig. 23: a-c

All the hammerstones are made on cobbles and show battering on their butt ends. Three of the specimens are made on oval cobbles, and a fourth is a fragment of a probably oval cobble. One of the other two hammerstones is made from a larger round cobble, and the other is a flat "disk" shaped cobble battered around all edges.

Material: granite (6)

Attribute	N	Range (cm)	Mean (cm)	S.D. (cm)
length	5	8.50-16.50	12.80	3.43
width	5	4.70-16.00	9.54	5.07
thickness	5	3.10- 9.50	4.78	2.70

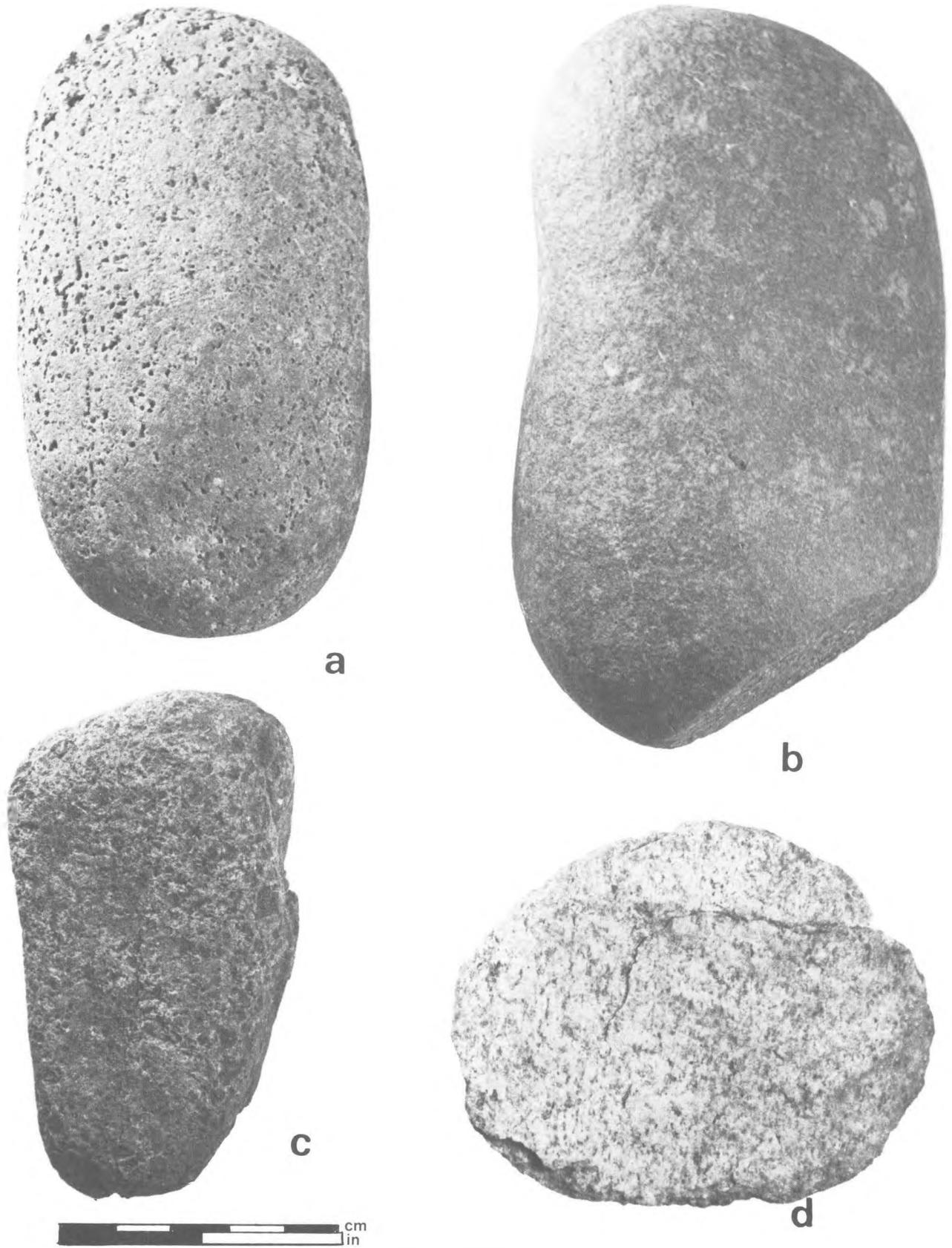


Fig. 23. Hammerstones and Spall Tool. (EdRa 22). Hammerstones (a-c); Spall Tool (d).

Table 11. Frequency of Artifacts recovered from each Excavation Area at EdRa 22

Artifact	H.P.1	Area 2	Area 4	Area 6	Area 14	Area 15	Area 16
corner notched points	3	6	1	1	-	-	-
basal notched points	-	1	-	1	-	1	-
side notched points	-	-	1	-	-	-	-
ovate bifaces	-	1	-	2	-	-	-
triangular bifaces	-	1	1	-	-	-	-
pentagonal bifaces	1	-	-	-	-	-	-
concave-sided bifaces	-	1	-	-	-	-	-
backed knives	2	3	-	-	-	-	-
spall tools	1	-	-	-	-	-	-
biface tips	4	4	5	2	-	1	-
biface bases	3	3	1	1	-	-	-
biface mid-sections	1	4	-	-	-	-	-
indeterminate biface fragments	6	3	-	1	-	1	-
bifacially retouched flakes	13	28	6	5	-	8	-
bifacial preforms	5	5	-	1	-	5	-
endscrapers	16	10	-	2	-	2	-
sidescrapers	1	2	1	-	-	-	-
end and side scrapers	1	-	-	-	-	-	-
continuous scrapers	6	4	1	1	-	1	-
sharp graters	5	2	-	2	-	1	-
rounded graters	2	3	-	-	-	-	-
utilized & unifacially retouched flakes	131	153	30	9	1	40	3
hammerstones	1	3	2	-	-	-	-
abraders	-	-	2	-	-	-	-
bone beads	1	3	-	-	-	-	-
bone awls	-	-	1	-	-	-	-
bone tubes	1	1	1	-	-	-	-
miscellaneous worked bone	1	-	-	-	-	-	-
TOTAL	205	241	53	28	1	60	3

II. Abraders N = 2

Both abraders are made of a granular sedimentary rock, and exhibit no patterned outline. Both are approximately of the same size and thin in cross-section, with a single abraded surface.

Material: sandstone (2)

Attribute	N	Range (cm)	Mean (cm)	S.D. (cm)
length	2	8.65-11.20	9.93	1.80
width	2	5.60- 6.70	6.15	0.78
thickness	2	0.90- 1.70	1.30	0.57

BONE INDUSTRY

Bone implements represent only 1.56% of the total prehistoric assemblage. They are divided into four classes, of which two are functional, one is descriptive, and one is miscellaneous. These are: (1) bone beads; (2) bone awls; (3) bone tubes; and (4) miscellaneous worked bone.

I. Bone Beads N = 4

Fig. 24: a-d

All four bone beads are rectangular in shape with

rounded corners, and a round or oval hole in the centre. They are made from slightly convex sections of bone shaft. Two of the beads were found together and fit one on top of another, possibly forming a composite bead.

Attribute	N	Range (cm)	Mean (cm)	S.D.(cm)
length	4	1.45-1.70	1.58	0.14
width	3	1.07-1.20	1.14	0.07
thickness	4	0.12-0.25	0.21	0.06

II. Bone Awl N = 1

Fig. 24: e

One fragmented bone awl was made from a mammal long bone. The tip is finely ground to a sharp point. The base has been broken off and lateral edges have been ground.

III. Bone Tubes N = 3

Three worked and polished fragments of tubular bone were recovered. Function is unknown although they may be fragments of cylindrical beads. Mean diameter of the two measurable specimens is 0.75 cm.

IV. Miscellaneous Worked Bone N = 1

One small fragment of polished bone measuring 1.95 x

0.70 cm was recovered. It has been finely ground to a polish on both sides, but is too fragmentary for further identification.

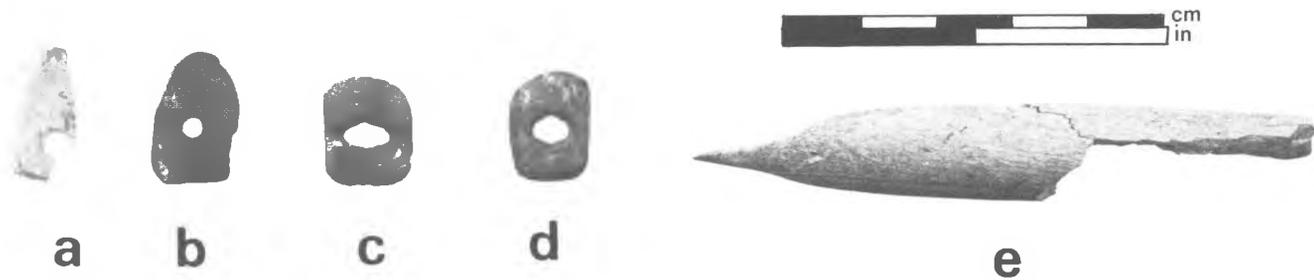


Fig. 24. Bone Artifacts. (EdRa 22). Bone Beads (a-d); Bone Awl (e).

ARTIFACT DESCRIPTION AND TYPOLOGY

EeRa 4

A brief description of the artifacts recovered from test excavations at EeRa 4 will be presented here. The typology used is the same as that for EdRa 22.

CHIPPED STONE INDUSTRY

I. Bifacially Flaked Artifacts N = 11

A. Formed Bifaces N = 6

1. Points N = 2 Fig. 27: a-b

Two corner notched projectile points made of vitreous basalt were recovered.

Attribute	N	Range (cm)	Mean (cm)	S.D. (cm)
length	2	3.85-4.85	4.35	0.71
width	2	2.20-2.40	2.30	0.14
thickness	2	0.50-0.70	0.60	0.14
neck width	2	1.11-1.60	1.36	0.35

2. Formed Biface Fragments N = 4

This group consists of one point mid-section, one point base, and two biface fragments of indeterminate form.

B. Unformed Bifaces N = 5

This group includes four bifacially retouched flakes of

various shapes, and one bifacial preform. One flake is of welded volcanic tuff, the others are vitreous basalt.

II. Unifacially Flaked Artifacts N = 42

A. Formed Unifaces N = 2 Fig. 27: e-f

This category includes a side-scraper of vitreous basalt, and a concave-sided chert implement with a convex base and pointed distal end, retouched along all of its edges.

B. Unformed Unifaces N = 40

This class is comprised of unifacially retouched and utilized flakes.

Material: vitreous basalt (24) non-vitreous basalt (14) chalcedony (1) chert (1)

BONE AND ANTLER INDUSTRY

One antler wedge with a ground wedge-shaped tip, and one piece of incised bone with a ground proximal end were recovered.

Fig. 27: g-h

Artifact	Length	Width	Thickness
antler wedge	8.90 cm	4.30 cm	1.05 cm
incised bone	7.40 cm	0.85 cm	0.85 cm

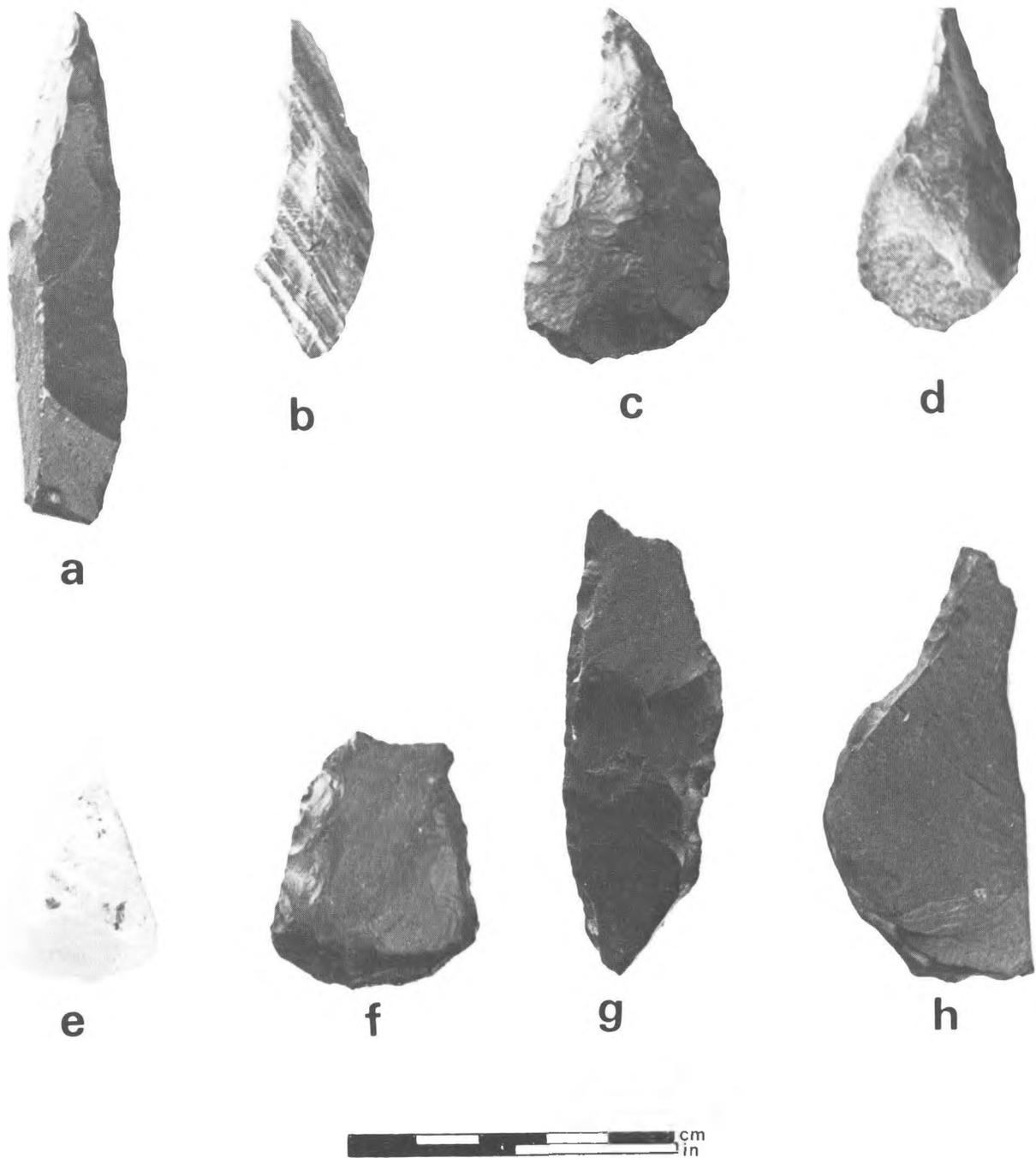


Fig. 25. Formed Artifacts Found within Cache Feature 2-18. (EdRa 22). Rounded Gravers (a,b,d); Concave-sided Biface (c); Endscraper (e); Continuous Scraper (f); Backed Knives (g-h).

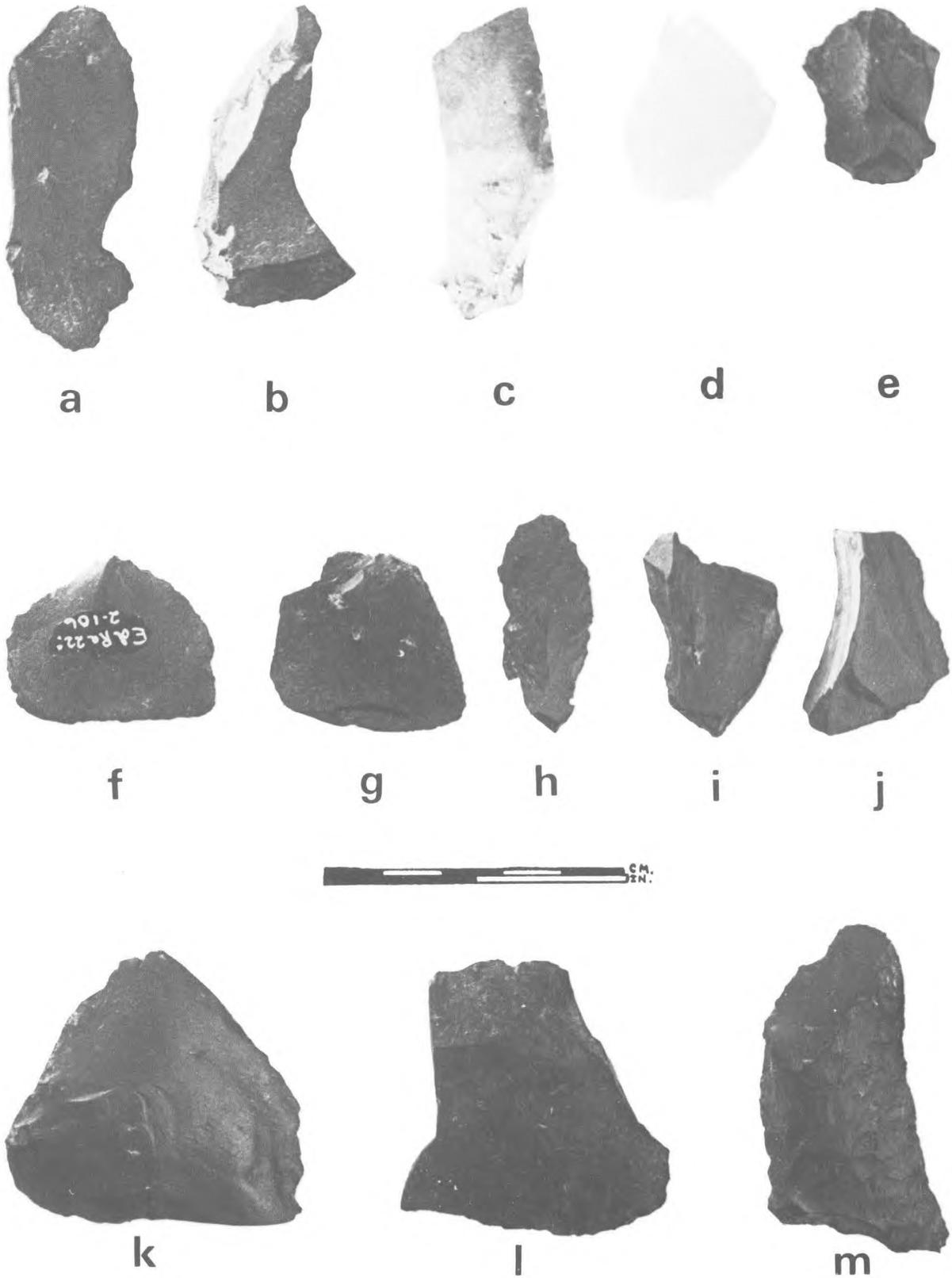


Fig. 26. Unformed Artifacts Found within Cache Feature 2-18. (EdRa 22). Bifacially retouched (a-d, f-g, k-m); Unifacially retouched (e, h-j).

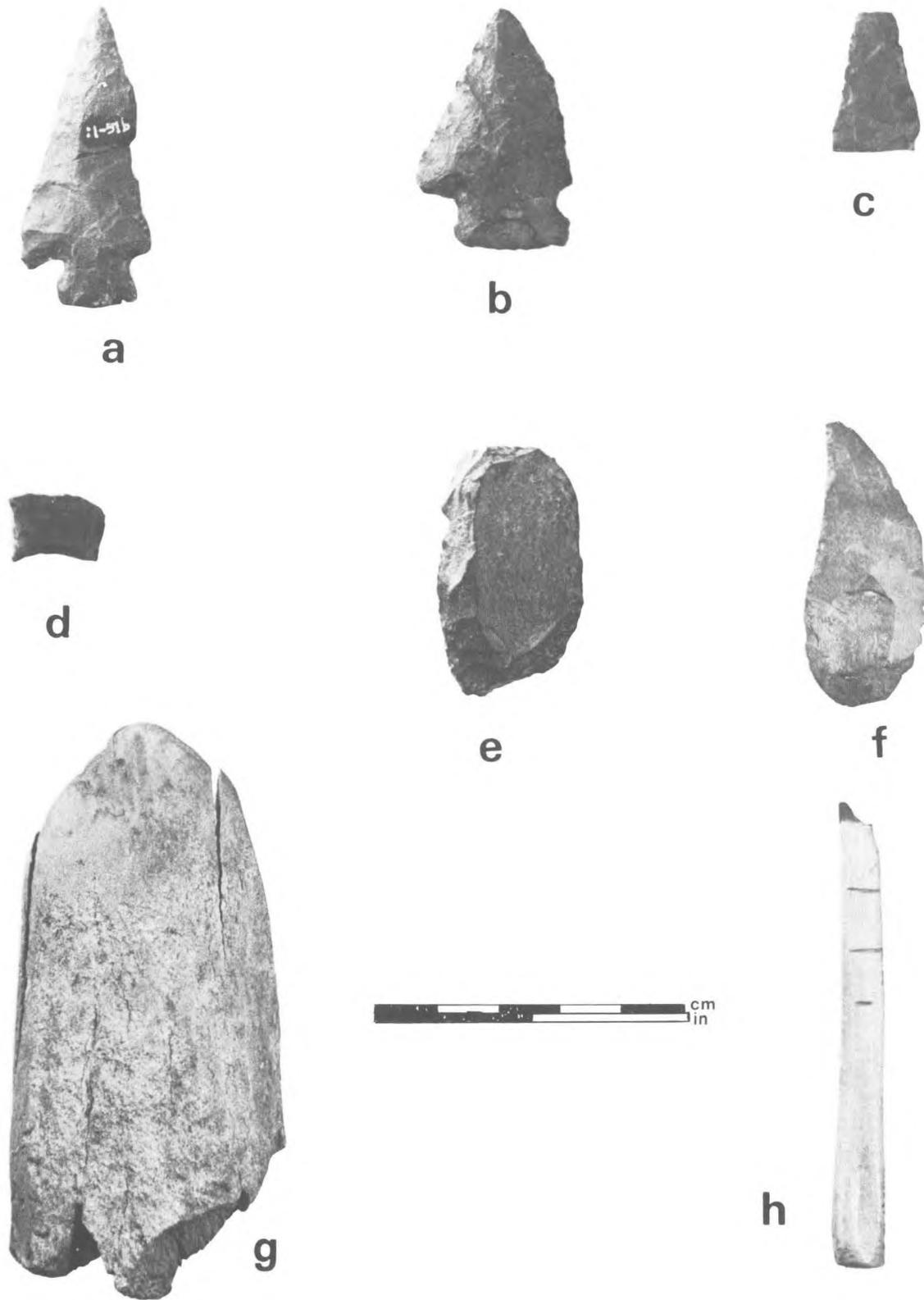


Fig. 27. Formed Artifacts from EeRa 4. Corner-notched Points (a–b); Point mid-section (c); Point Base (d); Side-scraper (e); Concave-sided Uniface (f); Antler Wedge (g); Incised Bone (h).