III ARCHAEOLOGICAL INVESTIGATION

This section discusses factors influencing the objectives of the research, research methodology, some of the problems encountered in the interpretation of the house pit stratigraphy, and fourthly, the description and contents of each site investigated.

Scope of Investigation

As already mentioned, this was the first scientific archaeological investigation in the Kamloops locality, and its primary objective was the description of local prehistoric culture history. In meeting this objective there were several factors that influenced the investigative procedure, and these are as follows:

(1) the investigation was concerned with the salvage of threatened archaeological sites;
(2) the sites were selected upon a priority system in which the most seriously threatened sites had the highest priority;
(3) non-threatened sites were not investigated;
(4) the investigation was restricted to the location of most of the threatened sites in the locality, that is, the floodplain of the South Thompson River;
(5) nearly all of the threatened sites were winter habitation house pit sites; and
(6) in some instances, length of time for investigation was severely restricted.

Under these conditions, the time spent upon the investigation of each individual site became an important factor, and by adequately testing as many sites as possible, it was hoped to satisfy both the primary objective of the research, and to also complete the goals of the salvage priorities.

In two seasons fieldwork, 1971 and 1973, four house pit village sites, one non-habitation cache pit site, and two burial sites were excavated. All but the burial sites are located on the north shore floodplain of the South Thompson River, with three of the house pit sites being located near the confluence of the North and South Thompson Rivers, directly across the latter from the city of Kamloops. The remaining village site and the cache pit site are approximately 20 km upstream on the South Thompson River. The two single-individual burial sites are located on the north shore of the Thompson River, east of Kamloops (Fig. 5). Research was concentrated on the north shore of the South Thompson River because its relative lack of industrial and urban development to date is being threatened.

Research Methodology

In the selection and excavation of sites, the research methodology was based upon the requirements of salvage archaeology. It was biased towards the collecting of data that would lead to the interpretation of a local prehistoric cultural sequence, through the excavation of threatened archaeological sites. Since previous archaeology in the South Thompson region had been primarily limited to the excavation of burial components, the new investigation was oriented towards the salvage of threatened pit house village sites, in which prehistoric Shuswap settlement and subsistence patterns might be determined. The sites were chosen solely on the basis of salvage priorities.

The excavation of each site attempted to recover the maximum possible range of temporal and spatial cultural data, within the time and financial limitations of the field work. Excavation units were arbitrarily selected initially, in an attempt to test the range of the nature of the surface features in each site, and secondly, to collect the maximum amount of artifactual and architectural data possible. Investigations were thus concentrated within the pit house depressions, as the preliminary testing revealed comparatively little cultural data outside the house pits.

The cultural sequence of the Kamloops locality is divided into two phases and one chronological period, dating from *ca.* 2000–125 B.P. The use of the concept of phase in the archaeology of the Interior Plateau is in much dispute, mainly because of controversy over its definition and meaning. The use of phase is justified, however, when distinct clusterings of components can be identified in both time and space (Willey and Phillips 1958:22). This situation is interpreted for the Kamloops sequence where there are definite distinctions between the several cultural components of the Thompson and Kamloops Phases. The introduction of the Thompson Phase into the Kamloops sequence is based upon the presence of discrete cultural features that

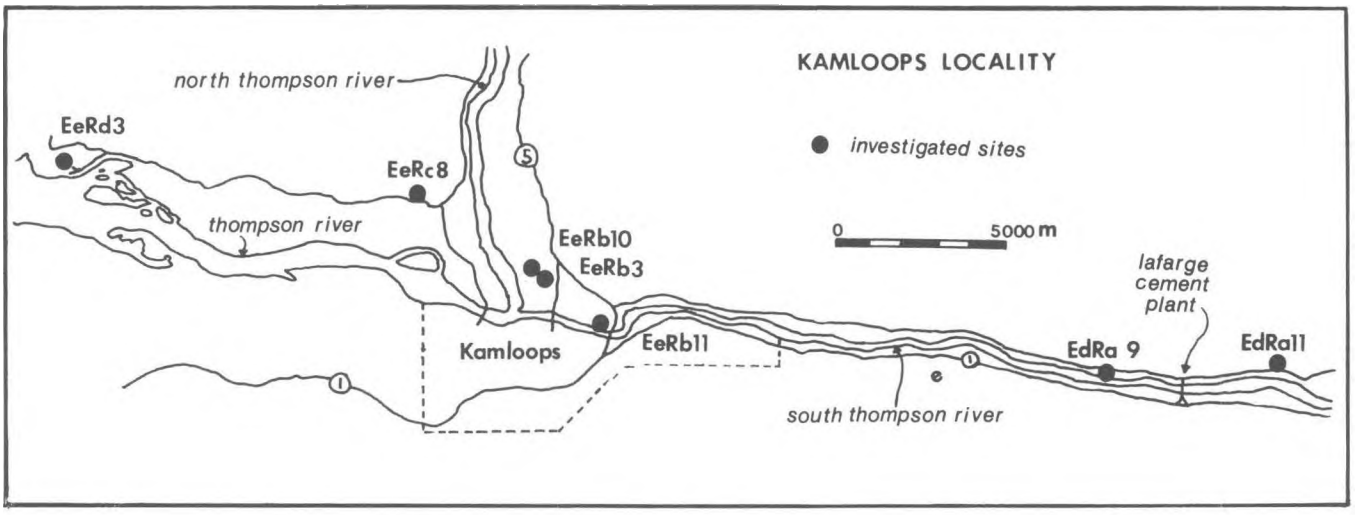

Fig. 5. Kamloops locality showing the investigated sites.

are present to a much lesser degree, or not at all, in the early Late Nesikep Tradition in the Lochnore-Nesikep or Gibbs Creek localities.

The use of phase in chronology formation is an arbitrary method for labelling cultural events, and is based upon the nature of the cultural sequence and the researcher's own attempt to interpret and classify change within the sequence. Stryd states the use of phases:

> . . .permits us to translate the alternations and fluctuations in material culture into an orderly and more manageable sequence of units without necessarily implying drastic changes in the life ways of people responsible for that material culture (Stryd 1975a:22).

In applying the use of phase to Interior Plateau archaeology, Browman and Munsell clearly recognize that even though the pattern of environmental exploitation in the Plateau persisted essentially unchanged from 2000–200 B.P., it is possible to subdivide this time period ". . .into several subphases based on changes in projectile point types and frequencies and such other factors. . ." (Browman and Munsell 1972:547–548). According to Willey and Phillips a subphase is a cultural unit that can only be described in terms of ". . .what went before or came after . . .". In other words, subphases are appropriate labels for cultural units that differ only in the content of a few specific items, or in variations in frequency (Willey and Phillips 1958:24). Investigations to date indicate that the differences in cultural units in the Kamloops locality are of greater magnitude than this, and at present warrant being called phases. This chronology is, of course, subject to change, especially if future archaeology discovers a greater degree of similarity between the phases. Also, in delineating the research area, the boundaries of the Kamloops locality are by no means fixed, as further research may well establish discrepancies in the cultural homogeneity that the locality presently displays.

Interpretation of House Pit Stratigraphy

In the investigation of house pit sites, it is necessary to interpret the relationship between the cultural assemblages and the features of pit house construction. To describe the events that occurred in a house pit site, we must consider four separate, yet related, sets of data: firstly, the procedure and materials involved in the original construction of a pit house; secondly, whether or not the depression was excavated into an existing cultural or non-cultural deposit; thirdly, the daily activities associated with living in a semi-subterranean dwelling; and fourthly, the abandonment of the house, which was followed either by reoccupation of the house pit, or by removal or eventual collapse of the roof structure. Hanson (1973:68–72) and von Krogh (1976:50–54) list aspects of the above processes, which will be summarized here and expanded upon in relation to specific problems encountered in the interpretation of stratigraphy in the Kamloops locality.

One of the major concerns in this analysis of house pit sites is the relationship between the pit house floors and associated cultural assemblages that appear above, beneath, and even some distance away from them. This is to say, how can distinct occupations be isolated within a site, especially when considerable mixing and displacement of deposits occurs when house pits may have been occupied

more than once over a long period of time. The following sequential list of events would have caused mixing and displacement of deposits in a house pit site, and must be recognized in order to interpret the relationships between occupation zones and cultural assemblages:

(1) the original construction of a pit house involves excavating a large circular pit, often with a circumscribing bench; placing support posts in the ground around the pit; lashing a wooden framework to the posts; covering this framework with matting; and finally covering the matting with the excavated fill. The common model for a plateau pit house is described by Teit (1900:192–195), variants of which are described by Ray (1939:132–137). The Teit model is generally well recognized, and further details about it will not be discussed. Concerning house pit size however, Ray (1942:177) records that the ethnographic house pits of the Canyon Shuswap were approximately five feet (1.5 metres) in depth and had a maximum diameter of 26 feet (8.0 metres).

(2) the buildup of the floor, or occupation zone, deposit within the structure was a result of normal daily activities, including food processing and implement manufacture, combined with roof deposit filtering through the roof matting. Most of the activity within a house pit occurred around the perimeter of the floor on or near the bench, where present, and not in the centre, which often contained the hearth area. Sometimes in excavation the floor zone is poorly defined, as in House Pit 3 in the Van Male site, and can only be distinguished by slight changes in soil colour and by increased concentrations of artifacts, chipping debitage and/or faunal remains. Cultural material found beneath floor zones is a consequence of its being constantly trodden on and slowly being pushed further down below the floor. Again in excavation, most of this material is found beneath the perimeter and bench areas of the house pit floors. This is also very well exemplified by House Pit 3 in the Van Male site.

(3) deposits outside pit houses, either on their roofs or between them were a result of normal outdoor activities, and accumulation of debris from the daily cleaning out of the pit houses. Debitage, for example, would be dispersed throughout the roof deposit if implements were manufactured on the roof. Teit (1900:295) mentions that it was women's regular duty to keep the dwellings clean on the inside. Marian Smith's informants from the mid-Fraser "...always stress the careful housekeeping involved in pit house living" (M. Smith 1947:258). Stratigraphy of house pit sites in the Kamloops locality indicates that waste debris might have been dumped rather close to the dwellings. An excellent example of a pit house being abandoned prior to its being cleaned out is House Pit 8 in the Harper Ranch site. Finally, habitation of house pit sites in autumn, before the pit houses were occupied for the winter, would also have contributed to deposition of cultural material in and between the depressions. House pit sites near fishing stations may have been inhabited during the annual Pacific salmon runs. Autumn occupation can be inferred by large quantities of fish vertebrae, indicating processing or consumption of fresh fish, that are found both inside and outside house pit depressions in certain sites, because in winter there was a much higher reliance upon the consumption of dried fish, which would have left few visible traces in the archaeological record assuming the bones were removed before drying. Also, as noted by Ham (1975:219–220), another important autumn activity besides the storing of salmon, roots and berries, would have been the construction or repair of dwellings for the coming winter.

(4) abandonment of a pit house was followed by several events that determine much of house pit stratigraphy. Data from the Kamloops locality indicate these events were, firstly, the slumpage of roof deposit down off the roof, forming a ridge around the depression, which either preceded or followed the rotting of roof matting and falling through of roof deposit onto the floor. These occurrences would lead to a greater buildup of roof deposit on the inside slopes of house pit depressions, around the floor perimeter, rather than in the house pit centre. The second event was the collapse into the depression of the wooden roof framework, if it had not been removed for construction of another dwelling.

(5) problems in stratigraphic interpretation would be compounded if the same depression was occupied more than once over a long period of time, and especially if succeeding occupations altered the original house pit dimensions.

The above discussion has outlined reasons for the mixing and displacement of deposits in a house pit context, indicating how it is oftentimes impossible to relate specific cultural materials to a specific occupation.

Kamloops Reserve Site (EeRb 3)

Located on the Kamloops Indian Reserve, the Kamloops Reserve site was originally one of the largest recorded prehistoric archaeological sites in the south-central interior. Figure 6, reproduced from aerial photographs taken in 1969, shows over 200 depressions bordering the entire bank of what was formerly a huge slough. Photographs on file at the Kamloops City Museum record that this slough was still in existence at the turn of this century. Harlan I. Smith (1900:402) records this large village site, and also a "burial-place", separated by a slough, and that this place "...has for a long time been used by Indians as a camping-ground". Between 1897–1899 he conducted "a series of explorations" concentrating on the burial site and also on graves associated with the Government site and the Government Hill site, which are both several hundred metres to the northeast (Smith 1900:434–437).

The large burial site, or mound, designated as EeRb 4, was approximately four metres high when it was completely levelled for industrial expansion in 1968 (Schurman 1969). Much of what was recovered from this destruction is now on display in several private collections in Kamloops. Much of the artifact description by Smith (1900) concerns implements and items of ornamentation from this site.

By 1968 construction of four industrial facilities and a road north of the former slough had disturbed an indeterminable amount of the Kamloops Reserve site. Since then, and before archaeological investigation occurred, the construction of a racetrack and parking lot destroyed all but the northeast portion of the site, leaving undisturbed only 31 of the more than 200 original depressions. The remaining portion of the site is located directly north of a John Deere warehouse between two other industrial maintenance and storage yards, approximately 1000 metres north of the South Thompson River and 800 metres east of the North Thompson River.

Measuring approximately 85 x 55 metres, it occupies relatively flat terrain and is bounded by another former slough along its northern edge (Fig. 7). Vegetation on the site includes low-lying sage brush and grasses, while the former slough supports stands of poplar and alder. The deposits are composed of stratified loam sediments of varying sand and clay consistencies.

The 31 surface depressions are all rimless and are relatively small and shallow. Average depression diameter is approximately four metres, and all are much less than one metre in depth. Possible contemporaneity of the depressions is suggested by their even spacing without overlapping. The site has been thoroughly surface collected, but untouched by pothunters' shovels; however, four depressions at the east and west margins of the site have been partially disturbed by the construction of fences (Wilson 1972).

Table 2. Artifacts types and percentages from the excavated portion of EeRb 3. N=812.

Artifact Type	Number	Percentage of EeRb 3's assemblage	Percentage of total sample N=1951
Chipped stone	804	99.0	41.2
Projectile points	25	3.1	1.3
Leaf-shaped	2	0.2	
Corner-notched, straight-stem	7	0.9	
Corner-notched, expanding-stem	14	1.7	
Stemmed	2	0.2	
Bifaces	274	33.7	14.0
Formed	75	9.2	3.8
Ovate	1	0.1	
Quadrilateral	1	0.1	
Triangular	12	1.5	
Backed knives	4	0.5	
Biface ends	31	3.8	
Medial Sections	5	0.6	
Miscellaneous	21	2.5	
Non-formed	199	24.5	10.2
Unifaces	478	58.8	24.5
Formed	3	0.4	0.15
Non-formed	475	58.4	24.3
Retouched	351	43.2	
Utilized	124	15.2	
Scrapers	9	1.1	0.5
End	5	0.6	
Side	1	0.1	
Continuous	1	0.1	
End and side	1	0.1	
Miscellaneous	1	0.1	
Drills	5	0.6	0.25
Expanding base	1	0.1	
Notched	4	0.5	
Gravers	6	0.7	0.3
Wide spur	2	0.2	
Point	4	0.5	
Microblades	3	0.4	0.15
Spall tool	1	0.1	0.05
Miscellaneous chipped stone	3	0.4	0.15
Ground and pecked stone	3	0.4	0.15
Abrader	1	0.1	
Shaft smoother	1	0.1	
Hammerstone	1	0.1	
Bone	3	0.4	0.15
Points	2	0.2	
Miscellaneous	1	0.1	
Antler	2	0.2	0.1
Wedge	1	0.1	
Miscellaneous	1	0.1	

Excavation

In investigating the Kamloops Reserve site, selected areas from both inside and outside four arbitrarily-chosen depressions were tested. Twenty-four 1 x 2 metre squares

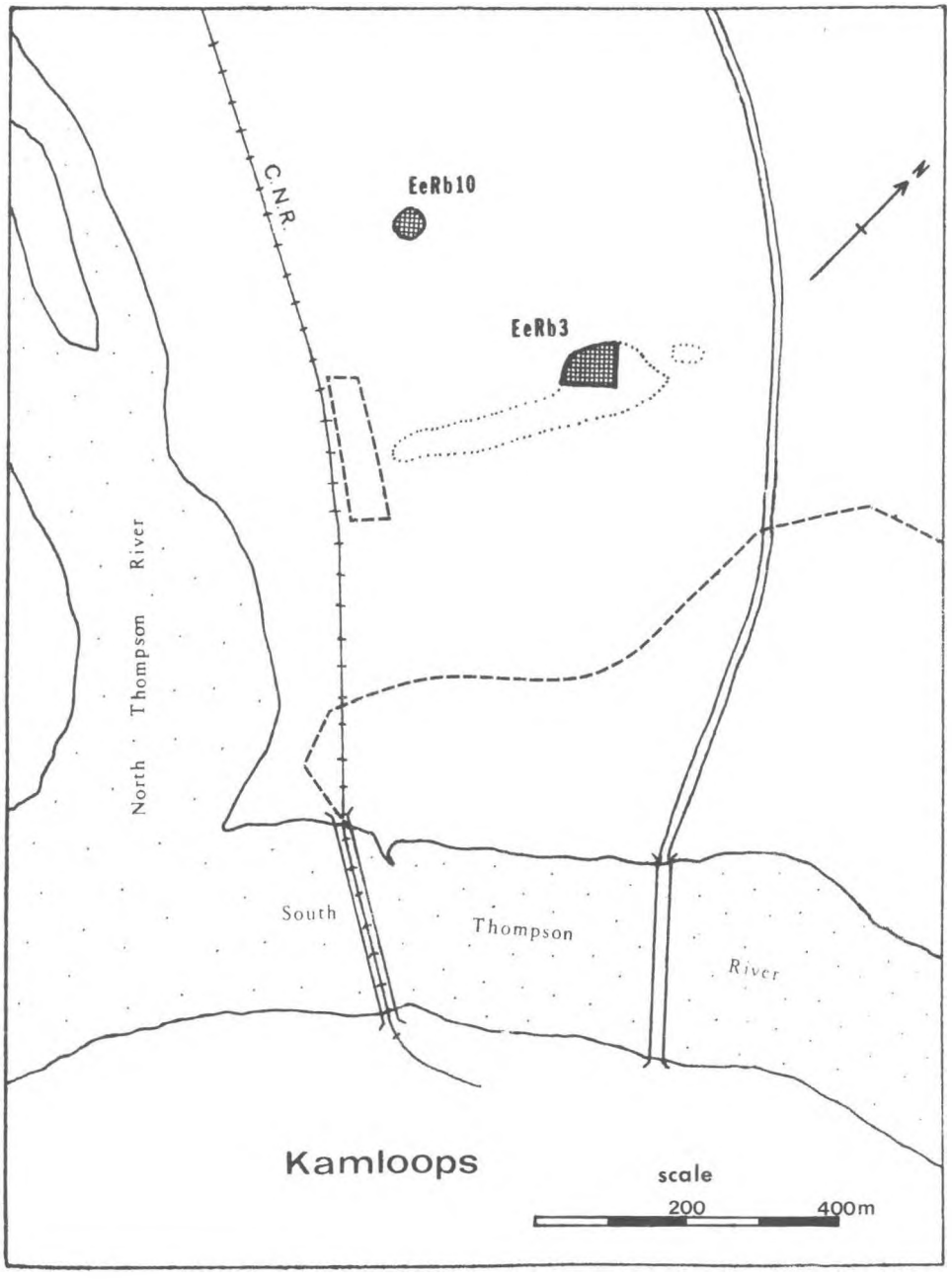

Fig. 6. Kamloops Indian Reserve showing extent of the Kamloops Reserve site as of 1968.

Extent of investigated archaeological sites as of 1971

Extent of Kamloops Reserve site, EeRb 3 as of 1968

Industrialized areas as of 1968

were dug in 10 cm arbitrary levels to sterile deposits, which averaged 110 cm below surface. Trenching and alternate-square excavation methods were employed in three of the depressions to produce information on natural and cultural stratigraphy, including pit house floor profiles, and to also obtain a cross-section or representative sample of cultural materials. Throughout some of the excavation a lack of distinct stratification in the loam deposits, including pit house floor compactness and colouration, made it difficult to expose entire floor surfaces, and to thus extract information concerning individual pit house activity areas.

A collection of artifacts from the surface of the disturbed portion of the site was also made in order to increase the size of the artifact sample.

Sample

A total of 812 artifacts and 6,284 pieces of debitage was excavated and 344 artifacts and 258 pieces of debitage were collected from the surface of the Kamloops Reserve site.Table 2 lists the excavated artifact types and their

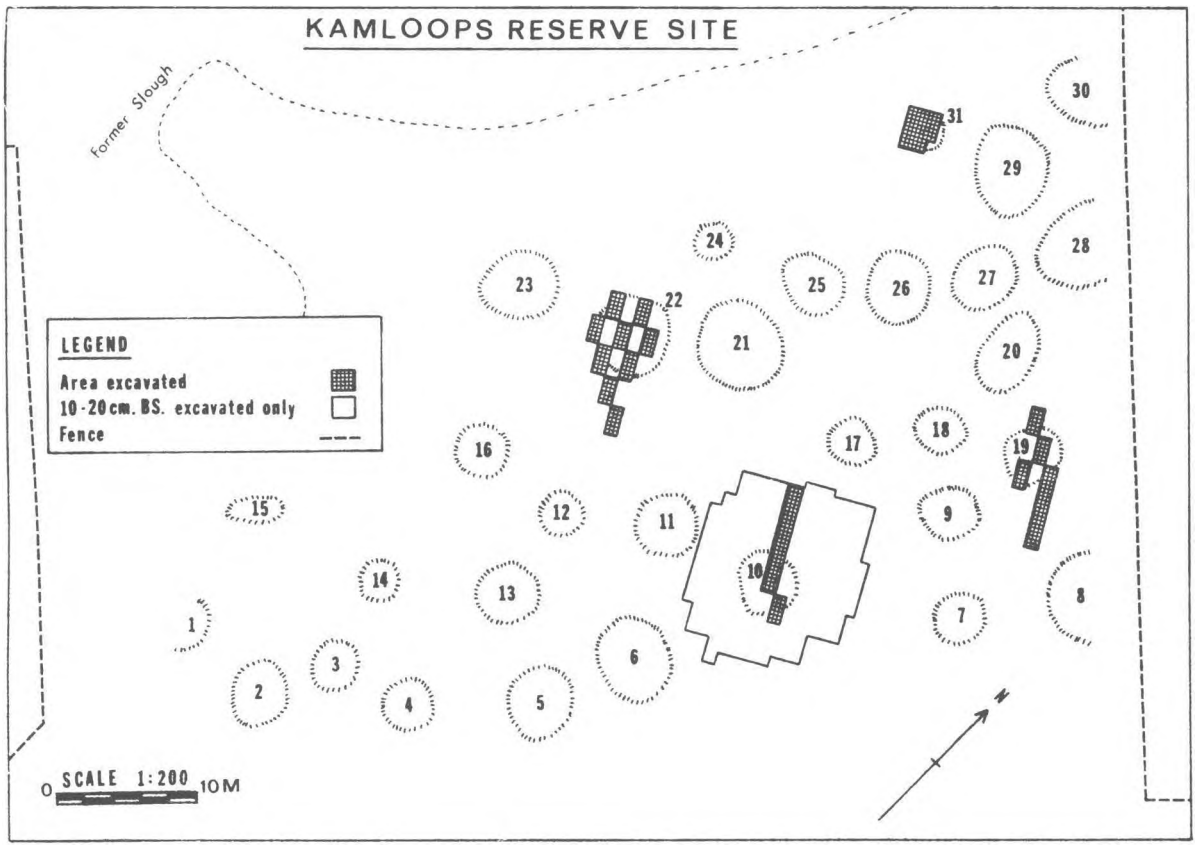

Fig. 7. The Kamloops Reserve site, EeRb 3.

percentages, both of this site's assemblage and of the total artifact sample from the four pit house village sites described in this study. Table 3 shows the distribution of artifact classes per excavated depression. Table 4 lists the artifact types from the surface collection. Large quantities of land mammal bone were excavated in comparison to the relatively small amounts of fish bone and shell.

Chronology

Excavation of the Kamloops Reserve site revealed four distinct living floors, in three of the four excavated depressions, and all four floors belong to the Thompson Phase.

The following is a detailed discussion of the excavation and contents of the four areas of excavation in the site. The descriptions of the excavation of inter-house pit areas (Fig. 7) are included with those of the nearest house pit, but it is not assumed that all the cultural materials found in the former are associated with the occupation of the latter.

House Pit 10

This is a shallow circular depression measuring five metres in diameter and 30–40 cm in depth.

Excavation

An 8 x 1 metre trench and a 2 x 1 metre square were excavated to an average depth of 130 cm below surface through the centre and outside of the depression. The surface sod was also scraped away from 68 2 x 1 metre squares in and surrounding the depression.

Stratigraphy and features

Excavation revealed the presence of one occupation floor associated with a small raised bench. It lies approximately 90 cm below surface and is composed of black loam. A second dark loam stratum with small bits of charcoal is discontinuous and lies about 20 cm above the floor and the bench. It represents the collapsed wooden roof structure of the pit house, as opposed to a second, later floor. The

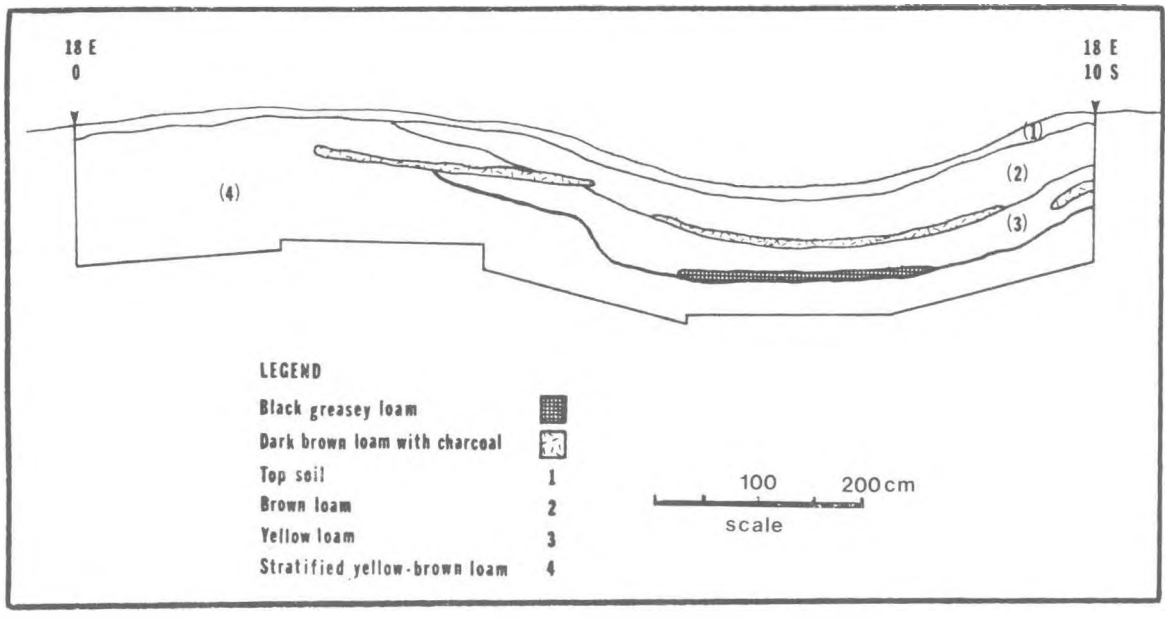

Fig. 8. Stratigraphic profile of House Pit 10, EeRb 3.

Table 3. Distribution of artifact classes from the excavated portion of EeRb 3 by depression. N=812.

Artifact Class	Depression			
	10	19	22	31
Projectile points	8	9	8	
Formed bifaces	23	27	25	
Non-formed bifaces	64	88	47	
Formed unifaces		2	1	
Non-formed unifaces	198	184	92	3
Scrapers	2	6	1	
Drills	1	1	3	
Gravers	4	1	1	
Microblades	3			
Spall tool		1		
Miscellaneous chipped stone	1			
Abrader	1			
Shaft smoother		1		
Hammerstone		1		
Bone points			2	
Miscellaneous bone			1	
Antler wedge		1		
Miscellaneous antler	1			
TOTALS	306	322	181	3

deposit between these two strata is roof material that has seeped through onto the floor before the wooden framework collapsed (Fig. 8). Far greater amounts of fire-cracked rock were found outside the depression, and this probably indicates the continual cleaning out of the pit house during its occupation.

The scraping off of the surface mat surrounding the depression revealed a pattern of 81 postmolds, 58 of which are aligned across the southeast margin of the depression (Fig. 9). This pattern does not conform to the descriptions of traditional pit house construction on the plateau by Teit (1900: 192–195) and others. Instead, the postmolds most likely represent one or more structures, such as a drying rack, which utilized the house pit depression after the pit house had collapsed. There is the assumption of course that the postmolds are not all associated with this particular depression.

Sample

Artifacts, debitage, and land mammal bone were distributed from 10–110 cm below surface throughout the excavation, but are concentrated beneath the inside slopes of the depression. Manufacturing and food processing activities within the pit house are indicated by high concentrations of debitage and land mammal bone in direct association with the floor lens and the two areas of the floor between the lens and both raised benches. Smaller concentrations of debitage and land mammal bone appear above the fallen roof layer, and are probably associated with the secondary use of the depression with the post mold pattern. This later structure(s) might have covered the entire depression, supported by a circumscribing wooden framework. Of the 306 artifacts and 3,306 pieces of debitage from inside and around House Pit 10, 32 and 344 respectively came from the scraped-off surface sod.

House Pit 19

This extremely shallow circular depression varies between 10–20 cm in depth, and averages five metres in

diameter.

Excavation

Investigation of this depression included a 6 x 1 metre trench outside the depression and three alternating 2 x 1 metre squares inside the depression, excavated to an average depth of 150 cm below surface.

Stratigraphy

The east-west stratigraphic profile through most of the depression indicates a single occupation zone, or floor. Above this zone is a dark loam lens representing the decayed fallen roof structure, and below it is a short black lens, too small to represent a floor, and which may indicate a non-habitational function of the depression, such as a cooking pit, before it was expanded and used as a house pit. The size of the original digging of the depression is delineated by the line between the natural stratified sand deposits and the disturbed sandy matrix. As in House Pit 10, the yellow stratum lying on top of the floor is roof material that has seeped through the wooden roof framework before its collapse (Fig. 10).

Table 4. Artifact types and percentages from the surface collected portion of EeRb 3. N=344.

Artifact Type	Number	Percentage of EeRb 3's assemblage	Percentage of total sample N=1951
Chipped stone	344	100.0	17.6
Projectile points	8	2.3	0.4
Corner-notched, straight-stem	1	0.3	
Corner-notched, expanding-stem	6	1.7	
Stemmed	1	0.3	
Bifaces	162	47.1	8.3
Formed	25	7.3	1.3
Triangular	3	0.9	
Backed knives	7	2.0	
Biface ends	6	1.7	
Medial sections	2	0.6	
Miscellaneous	7	2.0	
Non-formed	137	39.8	7.0
Unifaces	155	45.0	7.9
Non-formed	155	45.0	7.9
Retouched	101	29.3	
Utilized	54	15.7	
Scrapers	13	3.8	0.7
End	11	3.2	
Continuous	1	0.3	
Enc and side	1	0.3	
Drills	2	0.6	0.1
Expanding base	2	0.6	
Graver	1	0.3	0.05
Wide spur	1	0.3	
Spall tools	2	0.6	0.1
Miscellaneous chipped stone	1	0.3	0.05

Sample

Most of the 322 artifacts and 1,641 pieces of debitage from this house pit were found distributed throughout the vertical depth of the excavation outside the depression, and not beneath its inside slopes. Within the house pit the majority of the sample was directly associated with the living floor and the roof material beneath the collapsed roof framework.

House Pit 22

This circular depression measures approximately 70 cm deep and six metres in diameter.

Excavation

An alternating grid pattern of nine 2 x 1 metre squares was excavated inside and outside the depression.

Stratigraphy

This is the only excavated multi-occupational house pit in the site. Two relatively thin dark strata, which have very little charcoal, are present in the north end of the depression and merge in the south end, to represent at least two separate occupations. House pit benches are poorly defined for both occupations. A thin grey loam layer representing the collapsed roof framework lies above the floors (Fig. 11).

Sample

The majority of the 181 artifacts and 1,314 pieces of debitage in the sample came from beneath the north and east portions of the depression's inside slope, directly associated with the floors and the roof material immediately above them. In contrast to the two previous excavated house pits, relatively small amounts of the sample came from outside the depression.

Locus 1

Locus 1 contains the non-house pit circular depression, number 31, which measures three metres in diameter and 60 cm in depth. Its features and extremely small archaeological sample, and its location beside the former slough to the north of the site, indicates that it was used for a sweat lodge structure.

Excavation

Seven square metres of deposit were excavated to an average depth of 50 cm below surface, encompassing almost the entire depression.

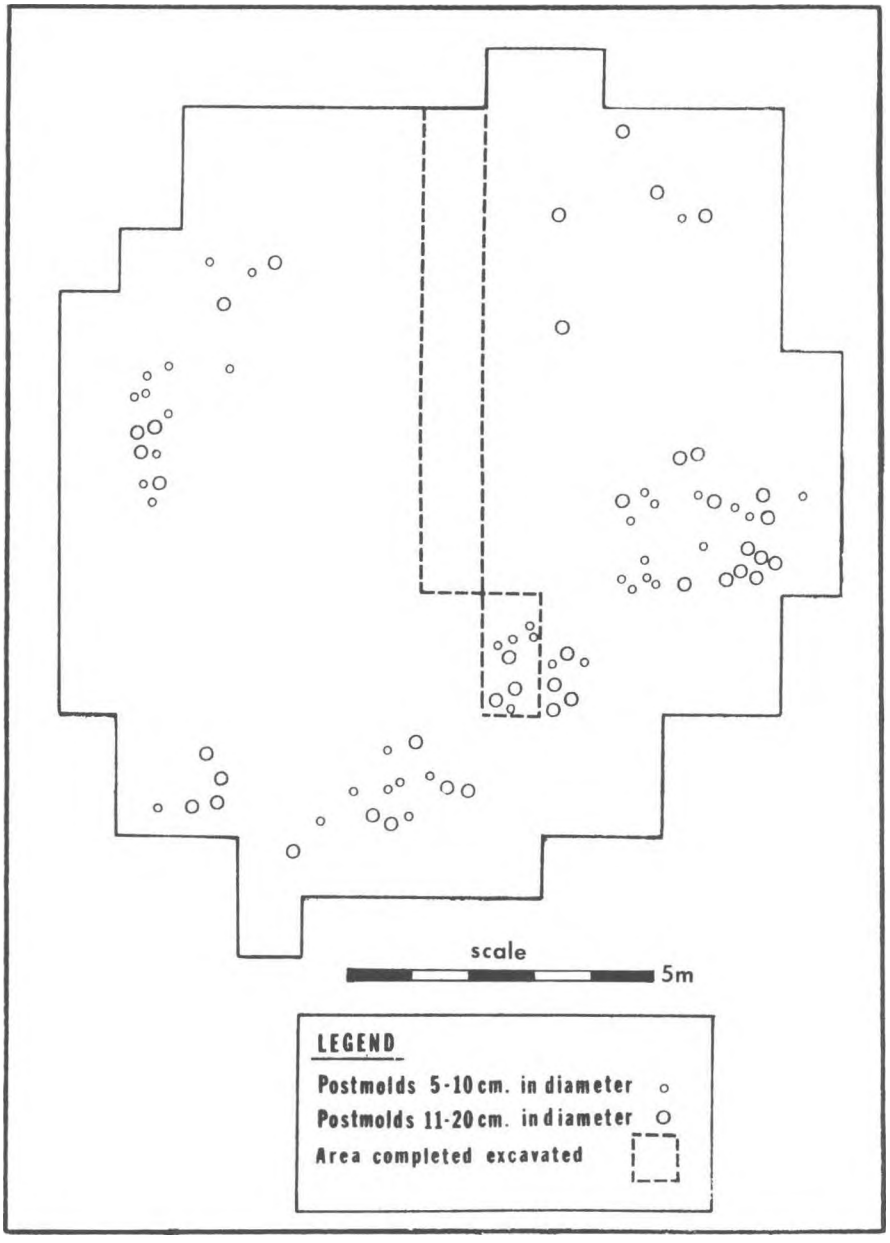

Fig. 9. Postmold pattern associated with House Pit 10, EeRb 3. For location see Figure 7.

Stratigraphy and features

In the centre of the depression, between 25–40 cm below surface, is a large concentration of small- to medium-sized rocks, many of which are fire-cracked. Beneath this concentration, from 45–60 cm below surface, is a thick black lens of charcoal-filled loam (Fig. 12). These features represent a large central hearth which was used to heat the rocks, upon which water would be poured to create steam.

Sample

Only three artifacts, 21 pieces of debitage and 12 small fragments of land mammal bone were found from both inside and outside the depression, indicating that it was not used for habitation.

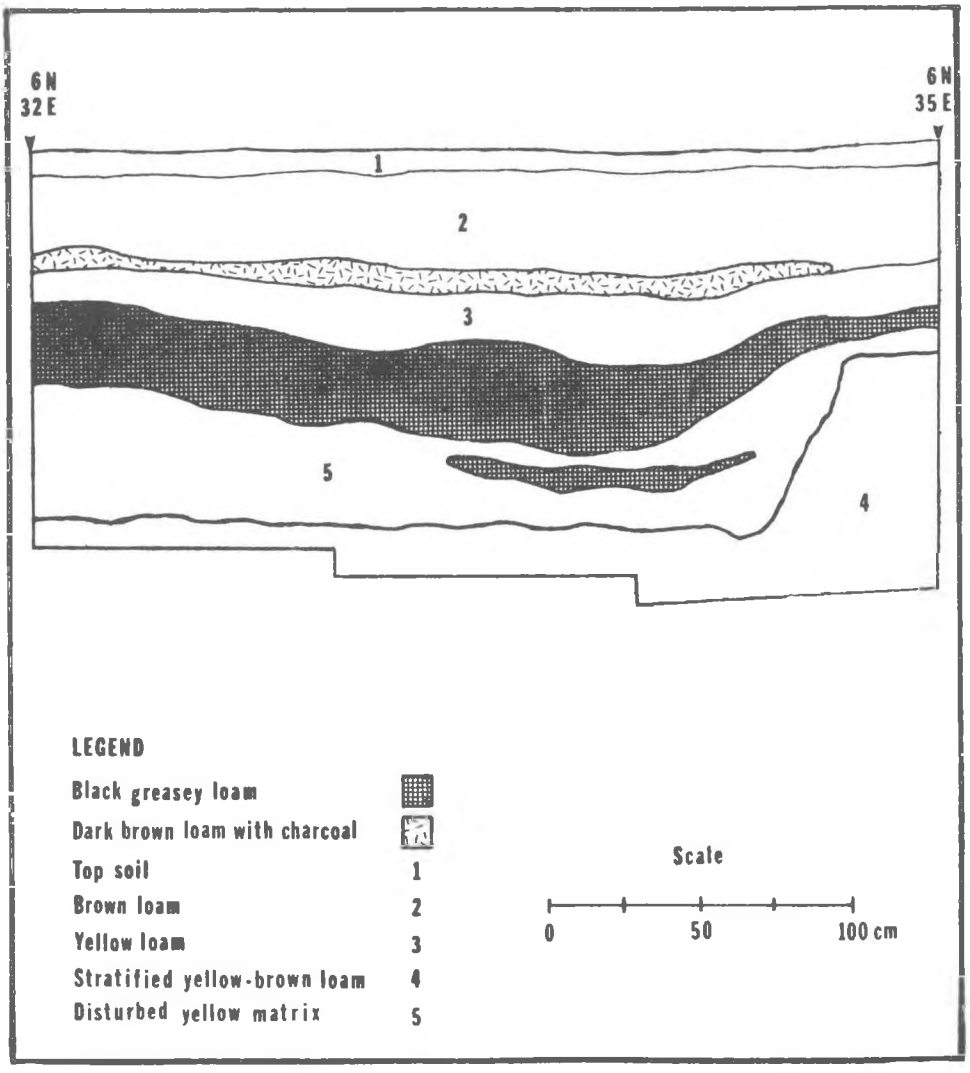

Fig. 10. Stratigraphic profile of House Pit 19, EeRb 3.

Surface Collection

Artifacts and debitage were collected from the surface of the disturbed portion of the Kamloops Reserve site to increase the sample size for the site. Systematic sampling was not attempted, because this portion was so badly disturbed and because it had already been scoured by pot-hunters. Only lithics were found in this collection.

Van Male Site (EeRb 10)

Located approximately 450 metres northwest of the Kamloops Reserve site, the Van Male site contains eight rimless house pit depressions and measures 65 x 55 metres (Fig. 13). Like the former site, its aeolian soil of sand and clay loams supports low-lying sage brush and grasses, typical of the entire area, with similar groves of poplar and alder in the former sloughs adjacent to the north and south margins of the site. There is no evidence of disturbance beyond a small dirt track cutting superficially through the northeast corner of the site. Most of the site is relatively level, except for a gentle slope, containing House Pits 1 and 2, leading down to the southern slough.

Excavation

Arbitrarily-selected test pits in House Pits 8, 1, and 3

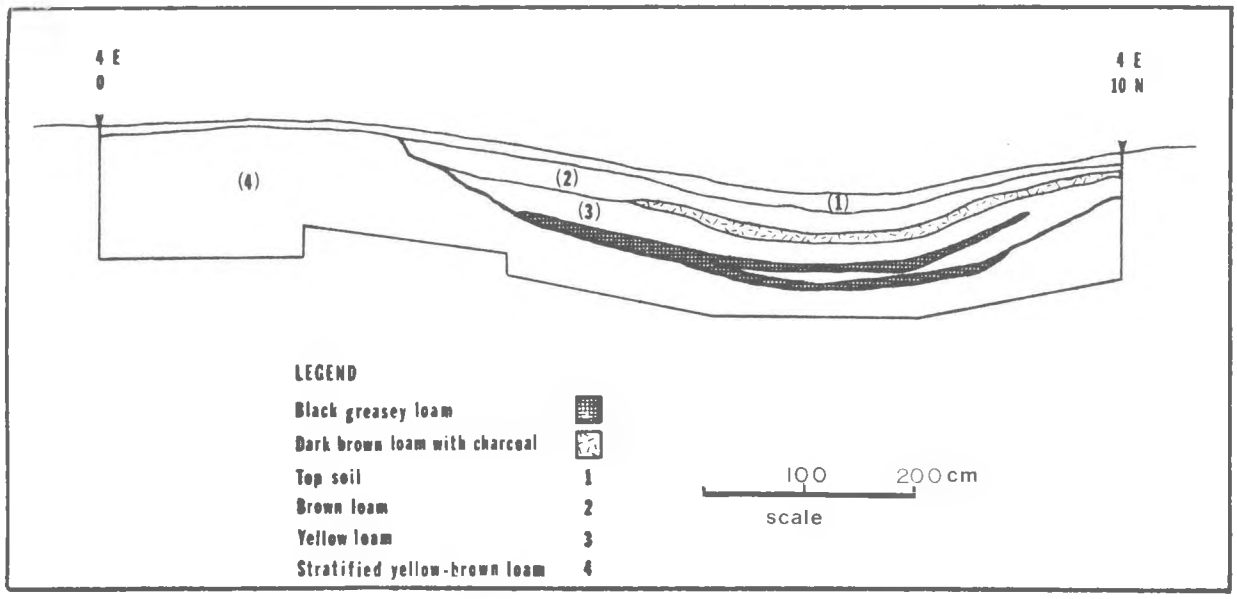

Fig. 11. Stratigraphic profile of House Pit 22, EeRb 3.

revealed that the latter would yield the most cultural data, and the investigation of this house pit attempted to delimit its cultural zone. Two test pits, referred to as Locus 1 and 2, were also excavated outside the house pits. A total of 75 cubic metres of deposit was excavated in 10 cm arbitrary levels from 22 1x2 metre units.

Stratigraphy

The excavation of House Pit 3 yielded both a north-south and an east-west stratigraphic profile through the entire depression (Fig. 14). One cultural and three natural loam deposits were identified. Throughout the deposits variation in soil colour was minimal, and since a hard-packed, well-trodden floor surface was also absent, the occupation zone in House Pit 3 was defined by slight differences in soil texture and by the distribution of cultural and associated material. A pit house bench appeared only in the north and west excavation units of this house pit. The occupation floor of House Pit 4 was well defined however by the presence of a 10–20 cm thick charcoal lens, associated with fire-cracked rock, basalt flakes, and fragments of land mammal bone.

Sample

A total of 267 artifacts and 1,027 pieces of debitage were uncovered. The artifact types are listed in Table 5. Fifty-eight percent of the artifacts and 68% of the debitage

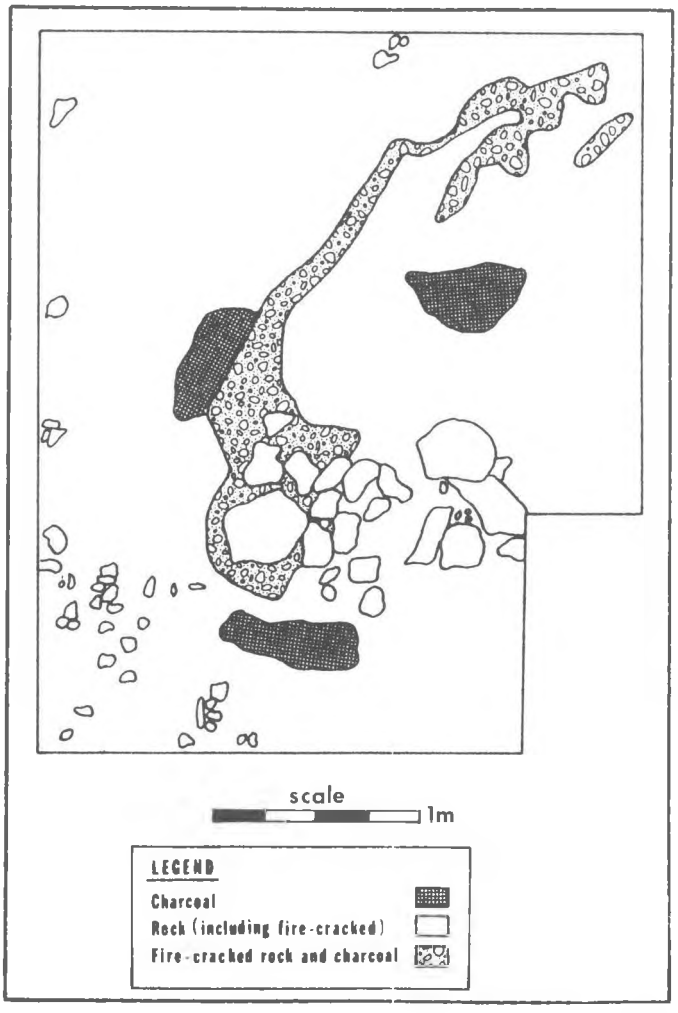

Fig. 12. Plan of depression 31, EeRb 3. For location see Figure 7.

Table 5. Artifact types and percentages from EeRb 10. N=267.

Artifact Type	Number	Percentage of EeRb 10's assemblage	Percentage ot total ample N=1951
Chipped stone	250	93.6	12.8
Projectile points	18	6.7	0.9
Leaf-shaped	3	1.1	
Corner-notched, straight-stem	2	0.7	
Corner-notched expanding-stem	5	1.9	
Stemmed	8	3.0	
Bifaces	90	33.7	4.6
Formed	24	9.0	1.2
Ovate	3	1.1	
Backed knives	1	0.4	
Biface ends	14	5.2	
Medial sections	4	1.5	
Miscellaneous	2	0.7	
Non-formed	66	24.7	3.4
Unifaces	139	52.0	7.1
Formed	1	0.4	0.05
Non-formed	138	51.7	7.1
Retouched	82	30.7	
Utilized	56	21.0	
Graver	1	0.4	0.05
Point	1	0.4	
Macroblade	1	0.4	0.05
Pièce esquillées	1	0.4	0.05
Ground and pecked stone	6	2.2	0.3
Abrader	1	0.4	
Hammerstones	2	0.7	
Miscellaneous	3	1.1	
Bone	5	1.9	0.25
Points	2	0.7	
Miscellaneous	3	1.1	
Antler	5	1.9	0.25
Wedge	1	0.4	
Projectile	1	0.4	
Miscellaneous	3	1.1	
Shell	1	0.4	0.05

came from within House Pit 3. This material was concentrated on the top and in the upper stratigraphic levels of the inside slope, associated with the pit house bench, and it decreased in frequency towards the centre of the depression. Figure 15 shows the horizontal distribution of artifacts and debitage in House Pit 3. Only fish bones were concentrated near the house pit centre. A list of identified land mammal species recovered during excavation is enclosed in Appendix D. The south end of the excavation in House Pit 3 represents activity outside the house pit, and may be partially composed of material slumping off the south-facing roof, before the decay or removal of the wooden posts and beams. Locus 2 contained much more cultural material than Locus 1, and may represent an orientation of activity towards the southern edge of the site beside the slough.

Chronology

As represented by the contents of House Pit 3, the Van Male site is a single component site, belonging to the Thompson Phase.

Table 6. Artifact types and percentages from EeRb 11. N=86.

Artifact Type	Number	Percentage of EeRb 11's Assemblage	Percentage of total sample N=1951
Chipped stone	79	91.8	4.0
Projectile points	8	9.3	0.4
Corner-notched, expanding-stem	5	5.8	
Side-notched	3	3.5	
Bifaces	25	29.0	1.3
Formed	12	13.9	0.6
Ovate	2	2.3	
Biface ends	4	4.6	
Medial sections	1	1.2	
Miscellaneous	5	5.8	
Non-formed	13	15.1	0.7
Unifaces	40	46.5	2.0
Non-formed	40	46.5	2.0
Retouched	38	44.2	
Utilized	2	2.3	
Scrapers	2	2.3	0.1
End	1	1.2	
Continuous	1	1.2	
Gravers	2	2.3	0.1
Miscellaneous	2	2.3	
Microblade	1	1.2	0.05
Macroblade	1	1.2	0.05
Ground and pecked stone	1	1.2	0.05
Abrader	1	1.2	
Bone	6	7.2	0.3
Tube	1	1.2	
Awl	1	1.2	
Point	1	1.2	
Miscellaneous	3	3.5	

Leonard Site (EeRb 11)

Also located on the Kamloops Indian Reserve, the Leonard site borders the South Thompson River and is situated approximately 3000 metres east of the confluence of the North and South Thompson Rivers and 600 metres west of the Yellowhead Highway bridge. An indeterminable amount of the site has been eroded away by the annual

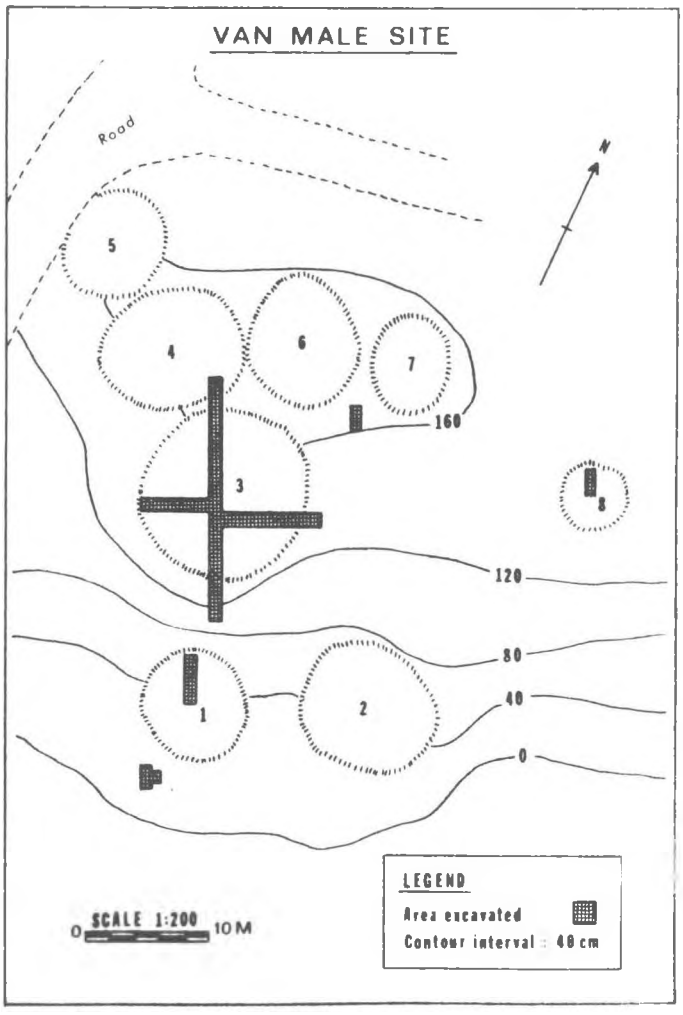

Fig. 13. The Van Male site, EeRb 10.

flooding of the South Thompson River, and six house pit depressions remained, adjacent to the shoreline, at the time of investigation. Since then, the entire site has been obliterated by earth-moving equipment, and rendered useless to further study or preservation. The investigation was restricted to what was supposedly the only threatened portion of the site, containing only the easternmost depression, which was already partially disturbed.

Excavation and stratigraphy

Excavation consisted of seven 1 x 1 metre squares, four within the depression, House Pit 1, and three in Locus 1, 40 metres to the west along the east rim of a much larger depression, House Pit 2 (Fig. 16). Depth of excavation averaged 130 cm below surface through sand and clay silts. The single feature uncovered was a small hearth composed of ash and fire-cracked rock, 90 cm below surface in Locus 1.

Sample and chronology

The Leonard site contains two occupation components, the earlier one belonging to the Thompson Phase and the later one to the Kamloops Phase. The earlier occupation, Component 1, contains all the excavated corner-notched dart points, and is found in House Pit 1 and in the lower levels of Locus 1. The later occupation, Component 2, contains all the arrow points and an incised bead fragment, and is concentrated in the upper levels of Locus 1. The 82 excavated and four "surface" artifacts, from the eroding bank, are listed in Table 6.

Even though a small amount of material from Component 2 was found in the very upper levels of House Pit 1, habitation of the house pit occurred only during the Thompson Phase. Possible related cultural activity outside the house pit at this time is indicated by the hearth feature in the early levels of Locus 1, which gives no indication of belonging to either a habitation feature or a storage pit. Distributions of debitage, which numbers 1,222 pieces, and of associated faunal material also support the presence of two periods of occupation in the Leonard site, and are shown in Figure 17.

Identifiable land mammal bone is mostly mule deer *(Odocoileus hemionus hemionus),* and snowshoe hare *(Lepus americanus pallidus),* with wolverine *(Gulo luscus luscus)* and beaver *(Castor canadensis sagittatus)* also present, but in much smaller quantities.

Harper Ranch Site (EdRa 9)

Located on the Harper Ranch, on the north shore floodplain of the South Thompson River, the site is approximately 20 km east of Kamloops and 2000 metres west of the Canada Lafarge cement plant. Bordering the river, the site measures 700 x 40 metres, and contains 15 house pits and 156 cache pits (Fig. 18). Distance from the mean water level mark varies from 10 to 25 metres along the entire length of the site. Severe flooding of the river often occurs however, as in 1972 when the entire site was inundated with flood water. Fortunately the gradual slope of the embankment leading into the water and its relatively dense vegetation of poplar, alder, cottonwoods, scrubs and bushes, prevent erosion of the site into the river.

The topography of the site is relatively flat, except for the slightly raised mound, bordering the shoreline, that contains the house pits and cache pits. Most of the site is covered with grasses, and it is sometimes used as pasture for cattle. The owners however have plans to plow and irrigate

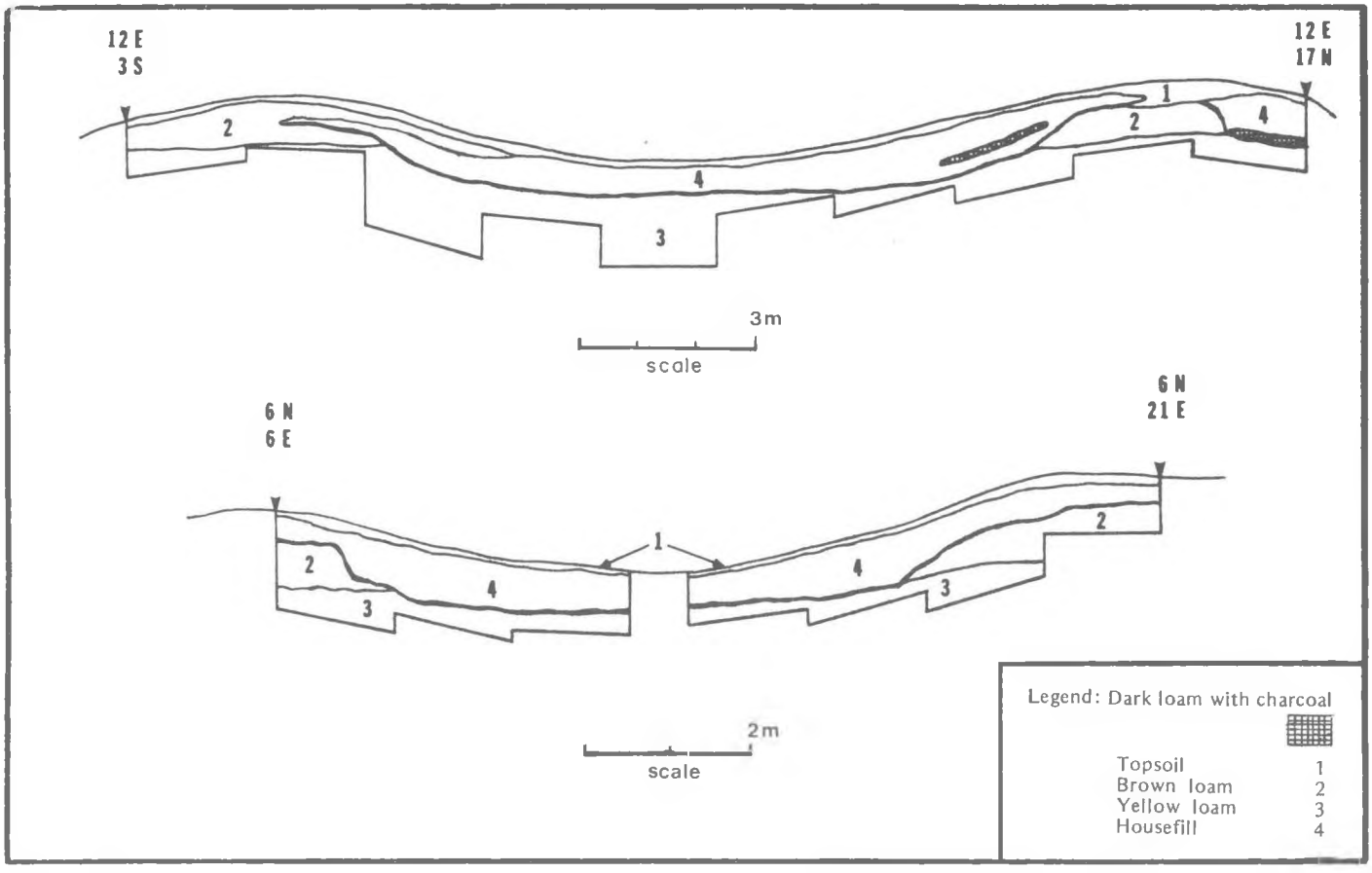

Fig. 14. Stratigraphic profiles of House Pit 3, EeRb 10.

most the site for alfalfa cultivation. The soil deposit is composed of clay and sand loams with a very high alkaline content.

All the house pits have circumscribing ridges, and all are round- to oval-shaped depressions, varying from 4–10 metres in diameter, with an average diameter of six metres, and an average depth of less than one metre. The shape of House Pit 10 is rectangular, and it indicates the presence of a pit house side entrance, facing the river. Side entrances are exceedingly rare in Plateau pit house construction, but their use has been verified by a native informant from Chase, who claims to have spent the first twenty years of her life, near the end of the last century, living in a pit house that possessed a side entrance. The cache pits are fairly evenly distributed throughout the site, except for two areas of concentration, in the vicinity of House Pit 6 and between House Pits 9 and 10.

Disturbance of the site has been minor. Plowing of fields just to the north of House Pits 1 and 2 may have destroyed some of this portion of the site, and a shallow dirt track, bisecting the site lengthways, probably has disturbed the site to a minimal degree. There is evidence of the pothunters' shovel only in House Pit 6.

Excavation

Investigation was concentrated in areas that, through testing, yielded the most archaeological information. A total of 115 1 x 1 metre squares were excavated in arbitrary 10 cm levels, except in House Pit 7, in which the burnt fallen roof structure of the pit house was uncovered by excavating the shallow deposit above it as a single natural level. Ten of the 15 house pits were excavated, along with four cache pits, one in Locus 1, between House Pits 4 and 5, and three in Locus 2, between House Pits 5 and 6. The maximum depth of excavation was 230 cm below surface, with an average depth per square of 90 to 100 cm. A total of 104 cubic metres of deposit was excavated. Investigations in the house pits were concentrated on top of house pit ridges and on their inside slopes, in an attempt to obtain a suitably large artifactual sample and data on house pit cultural deposits. Figures 19 through 21 show the excavation units in the east, central and west segments of the site respectively.

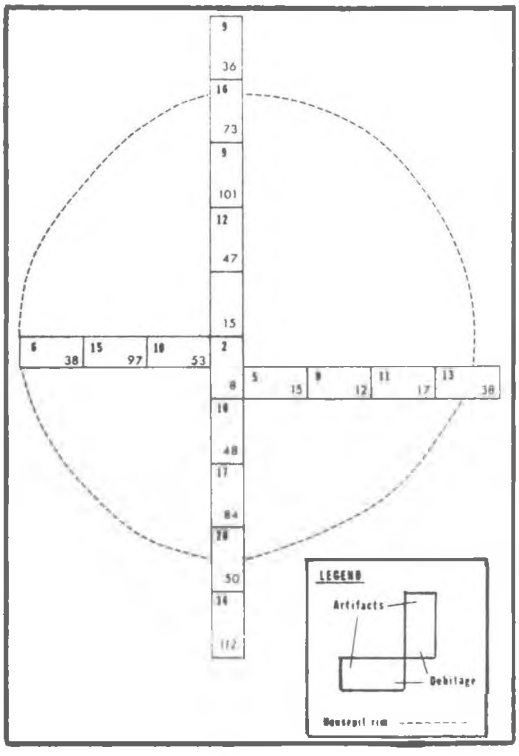

Fig. 15. Horizontal distribution of artifacts and debitage in House Pit 3, EeRb 10.

Sample

Excavations at the Harper Ranch site yielded 442 artifacts and 6446 pieces of debitage. Table 7 lists the artifact types, and Table 8 shows their distribution by house pit and locus.

Chronology

All three cultural phases in the Kamloops locality sequence, the Thompson, Kamloops, and Proto-historic, are present in one or more of the 13 separate occupation zones in this site.

The following is a detailed discussion of the excavation and contents of the ten investigated house pits and the two loci.

House Pit 1

This is the easternmost depression in the site, and is oval-shaped, with a small ridge, measuring 5 x 7 metres in diameter and 50 cm in depth.

Excavation

Five 1 x 1 metre squares were excavated on the north and west portion of the house pit ridge, one on the east inside slope, and one between House Pits 1 and 2.

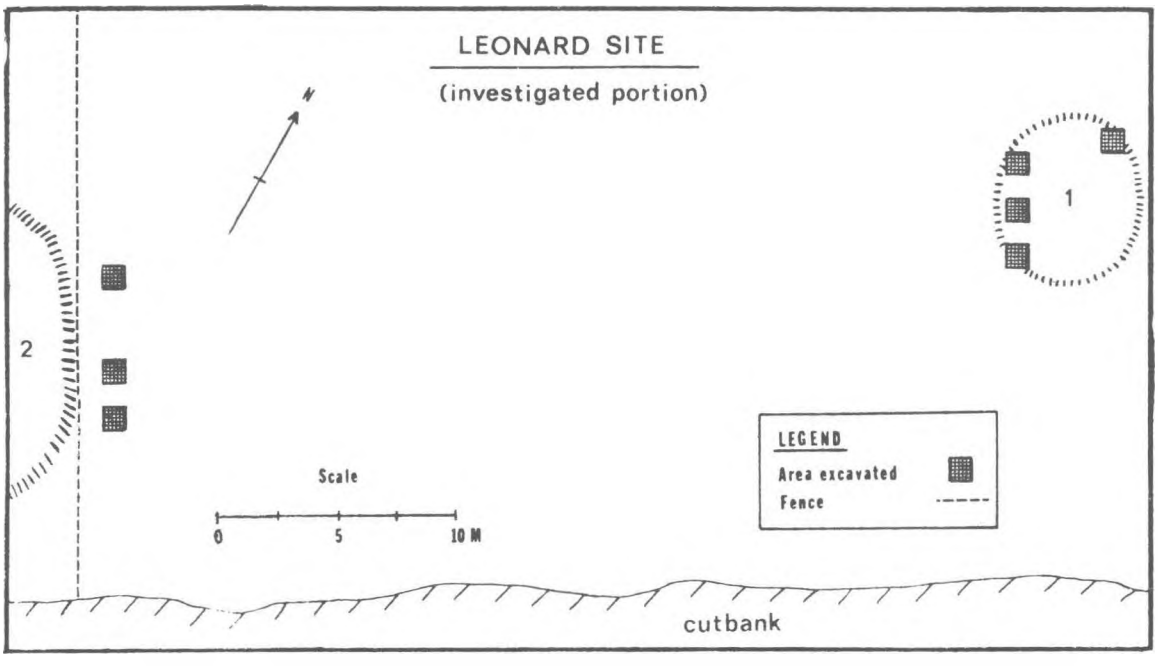

Fig. 16. Investigated portion of the Leonard site (EeRb 11).

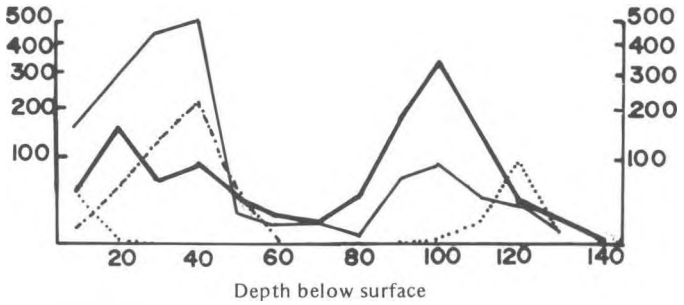

Fig. 17. Temporal distribution of debitage and associated fauna in EeRb 11, computed on a 3 cycle semi-log graph. Symbols are:

Stratigraphy

Two stratigraphic zones are present with this depression. The cultural deposit of brown loam extends from the surface to 40 cm below surface, and lies above a yellow-brown sandy deposit.

Sample

The cultural deposit represents habitation of the depression, and contains all of the land mammal bone, fish and shell remains from this sample. However, 13 of the 19 chipped stone artifacts, and most of the debitage and fire-cracked rock were found in the deposit beneath this cultural stratum, and may represent an earlier utilization of this location before the depression was dug.

Chronology

Lack of diagnostic material hinders the placing of this sample into a specific temporal unit. But because of the shape of the depression and the shallowness of the cultural deposit, the house pit occupation is probably a Kamloops Phase one, and the earlier material, again because of its stratigraphic depth, may be Thompson Phase, but this is not definite.

House Pit 3

Located beside the largest house pit in the site, this small circular depression averages four metres in diameter and 70 cm in depth.

Excavation

Two 1 x 1 metre squares were excavated on the west inside slope.

Stratigraphy

The dark brown cultural deposit extends down to approximately 30 cm below surface, lying above a yellow-grey sterile natural deposit.

Sample

The one artifact, a chipped stone biface, and all of the 15 pieces of debitage, land mammal bone and fish remains are from the dark cultural deposit, representing a single occupation, and were concentrated on the upper part of the inside slope.

Chronology

From this limited sample, phase affiliation is difficult to determine, but it is probably a Kamloops Phase occupation, because of the shallowness of the cultural deposit and the lack of any historic items.

House Pit 4

This is the largest circular house pit in the site, measuring

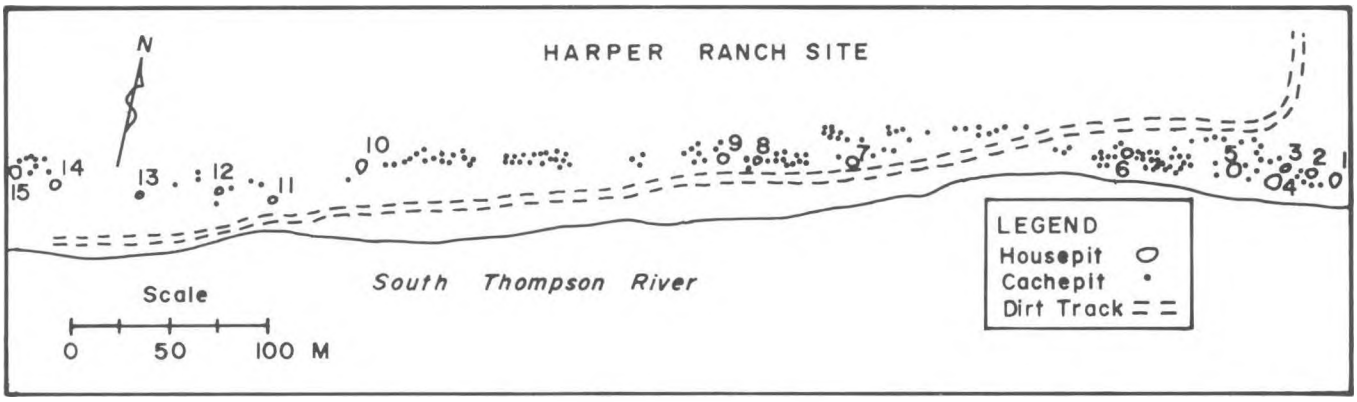

Fig. 18. Harper Ranch site (EdRa 9).

Table 7. Artifact types and percentages from EdRa 9. N=442.

Artifact Type	Number	Percentage of EdRa 9's assemblage	Percentage of total sample N=1951
Chipped stone	375	84.8	19.2
Projectile points	44	9.9	2.2
Leaf-shaped	1	0.2	
Corner-notched, straight-stem	9	2.0	
Corner-notched, expanding-stem	13	2.9	
Side-notched	18	4.1	
Stemmed	3	0.7	
Bifaces	192	43.4	9.8
Formed	88	19.9	4.5
Ovate	5	1.1	
Pentagonal	4	0.9	
Quadrilateral	1	0.2	
Rectanguloid	1	0.2	
Rhomboidal	2	0.4	
Triangular	5	1.1	
Hafted	1	0.2	
Backed knives	3	0.7	
Biface ends	35	7.9	
Medial Sections	6	1.4	
Miscellaneous	25	5.7	
Non-formed	104	23.5	5.3
Unifaces	103	23.3	5.3
Non-formed	103	23.3	5.3
Retouched	92	20.8	
Utilized	11	2.5	
Scrapers	25	5.7	1.3
End	10	2.3	
Side	4	0.9	
Continuous	5	1.1	
End and side	2	0.4	
Miscellaneous	4	0.9	
Drills	3	0.7	0.15
Expanding base	2	0.4	
Notched	1	0.2	
Graver	1	0.2	0.05
Narrow spur	1	0.2	
Microblade	1	0.2	0.05
Pendant	1	0.2	0.05
Miscellaneous chipped stone	5	1.1	0.3
Ground and pecked stone	3	0.7	0.15
Abrader	1	0.2	
Ground point	1	0.2	
Hand maul	1	0.2	
Bone	45	10.2	2.3
Beads	9	2.0	
Tubes	14	3.2	
Awls	4	0.9	
Points	3	0.7	
Composite toggling harpoon valve	1	0.2	
Miscellaneous	14	3.2	
Antler	3	0.7	0.15
Wedges	2	0.4	
Miscellaneous	1	0.2	
Tooth	1	0.2	0.05
Copper	4	0.9	0.2
Beads	3	0.7	
Tubing	1	0.2	
Historic	11	2.5	0.6

nine metres in diameter and 120 cm in depth. Its inside slopes are relatively steep.

Excavation

Thirty-three 1 x 1 metre squares were excavated circumscribing the top and the outside slopes of the house pit ridge, to an average depth of 110 cm below surface.

Stratigraphy and features

Several charcoal lenses are present in and beneath the ridge in all but the southern segment of the house pit's outside slope. Figure 22 shows the surface profile of the depression and a portion of the excavation. These lenses represent the ground surface during various periods of the house pit's occupation (Fig. 23). Their absence on the south-facing outside slope is probably because this slope is closest to the river and is subjected to annual flooding. In the late spring of 1973, for example, the high water mark was within one vertical metre of the top of this southern ridge. The only major feature uncovered in the excavation of House Pit 4 was a cache area, which may have been used as a cooking pit, just to the northwest of the depression (Fig. 24).

Sample

The sample from House Pit 4 is comprised of 237 artifacts, of which 210 are chipped stone, and 2840 pieces of debitage. There are two components present; the later one is associated with the house pit depression, its ridges and their charcoal lenses, the cache area, and most of the land mammal bone, and all of the shell and fish remains. The earlier component contains just over half of the chipping debitage, and approximately 25% of the artifacts, all being chipped stone. It was found from approximately 70–230 cm below surface beneath the south, east, and northwest segments of the house pit ridge, and it was not associated with any living floors.

Chronology

The artifacts and two radiocarbon dates place this multi-

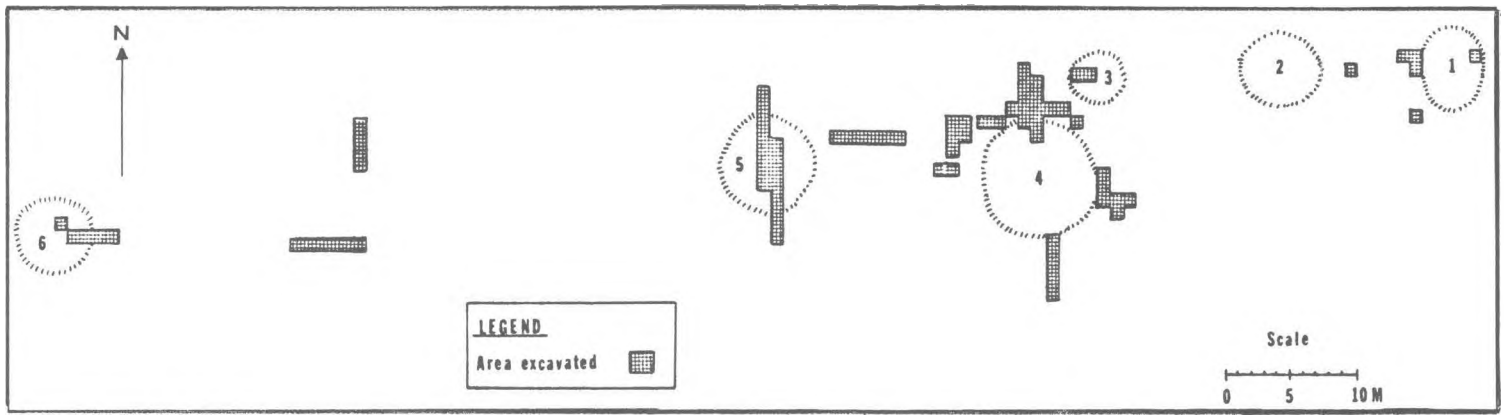

Fig. 19. Excavation units in the east portion of EdRa 9.

component sample into the Thompson and Kamloops Phases. The former is represented by large corner-notched projectile points, while all the bone artifacts and side-notched projectile points belong to the later Kamloops Phase.

House Pit 5

This circular depression is eight metres in diameter and 90–100 cm in depth, and it has an extremely steep inside slope on its south and east sides (Fig. 25).

Excavation

Two 4 x 1 metre parallel trenches were excavated through the north–south axis of the depression. Maximum depth of excavation reached 160 cm below surface.

Stratigraphy and features

Two zones of occupation are present in this depression (Fig. 26). The earlier one is a poorly defined floor, 40–45 cm below surface in the centre of the depression. It is represented by a dark brown lens, approximately 220 cm in length, with an ash hearth lying directly above it. The later occupation includes a much wider cultural zone just beneath the surface, and includes the house pit ridges, and the thin charcoal lens beneath the ridge that represents the ground surface at the top of this second occupation. The black lens with charcoal on top of this occupation is the burnt fallen roof structure of the pithouse.

Sample

Of the 89 artifacts in this sample, 77 are chipped stone, six bone, one antler, one tooth, one native copper, and

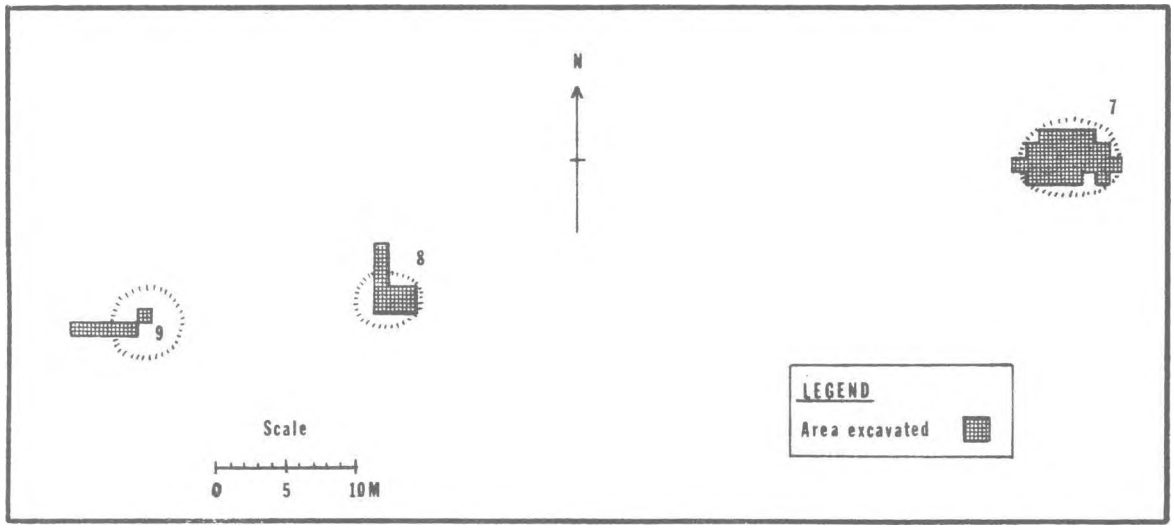

Fig. 20. Excavation units in the central portion of EdRa 9.

three are historic. Debitage totalled 2557 pieces. Of the ten projectile points, nine are corner-notched and are associated with the earlier occupation, while all the bone, antler, tooth, copper and historic artifacts are associated with the later occupation. Fish remains and fresh-water mussel shell are found only in the ridge and in both cultural floor deposits, while land mammal bone, and debitage are found throughout the excavated deposits.

Chronology

There is material from at least two cultural phases in this sample. The earlier occupation is a Thompson Phase component, and the second occupation, which saw the enlarging of the original depression, is definitely dated to the Proto-historic Phase; it may however have originated in earlier Kamloops Phase times.

House Pit 6

This circular depression averages six metres in diameter and 70 cm in depth, and is located in the midst of a concentration of cache pits.

Excavation

Five 1 x 1 metre squares were excavated through the centre, inside slope and ridge of the depression, and into the northwest corner of an adjacent cache pit.

Stratigraphy and features

In this depression a thin dark lens with charcoal indicates the pit house floor, and lies between 5–20 cm below surface. Beneath it, dug into the yellow-grey natural deposits, is a cache area, approximately 120 cm wide and 70 cm deep. It had been used, and then abandoned and had filled in before the house pit was dug (Fig. 27). The cache pit outside the depression is approximately 80 cm deep.

Sample

Most of the sample of 20 artifacts and 191 pieces of debitage was found on the inside and outside slopes of the house pit ridge, while most of the land mammal bone, fish remains and all of the birch bark was associated with the two caches.

Chronology

The presence of a small Kamloops side-notched projectile point, associated with the extremely shallow living floor, and a lack of any historic items, probably dates this house pit occupation towards the end of the Kamloops Phase. The cache area inside the depression is earlier than the occupation and not associated with it, but it is not assigned any specific date, beyond the possibility that it is probably contemporary with the surrounding cache pits.

Table 8. Distribution of artifact types from EdRa 9 by house pit and locus. N=442.

Artifact Type	House Pit										Locus	
	1	3	4	5	6	7	8	9	10	12	1	2
Projectile points												
Leaf-shaped			1									
Corner-notched, straight-stem			6	2		1						
Corner-notched, expanding-stem			6	7				1				
Side-notched			13		1	3						
Stemmed			2	1								
Formed bifaces												
Ovate	1		3	1								
Pentagonal			3									1
Quadrilateral			1									
Rectanguloid			1									
Rhomboidal			1	1								
Triangular			2	2		1						
Hafted				1								
Backed knives			2			1						
Biface ends	2		18	5		6		3			1	
Medial sections			5	1								
Miscellaneous	1	1	14	5	2	1				1		
Non-formed bifaces	2		54	23	8	9	1	3		1	3	
Non-formed unifaces												
Retouched	10		53	16	6	3				1	2	1
Utilized	1		7	2	1							
Scrapers												
End			4	3	1	1				1		
Side			4									
Continuous			3	1		1						
End and side			1	1								
Miscellaneous			2	1		1						
Drills												
Expanding base	1			1								
Notched			1									
Graver												
Narrow spur	1											
Microblade												1
Pendant			1									
Miscellaneous chipped stone			2	3								
Ground and pecked stone												
Abrader											1	
Ground point			1									
Hand maul						1						
Bone												
Beads			8								1	
Tubes			6	4		1		3				
Awls			2					1				1
Points				1	1	1						
Composite toggling harpoon valve			1									
Miscellaneous			7	1		3		2				1
Antler												
Wedges				1					1			
Miscellaneous			1									
Tooth				1								
Copper				1		1			1	1		
Historic			1	3		1			6			
TOTALS	19	1	237	89	20	36	1	13	8	5	8	5

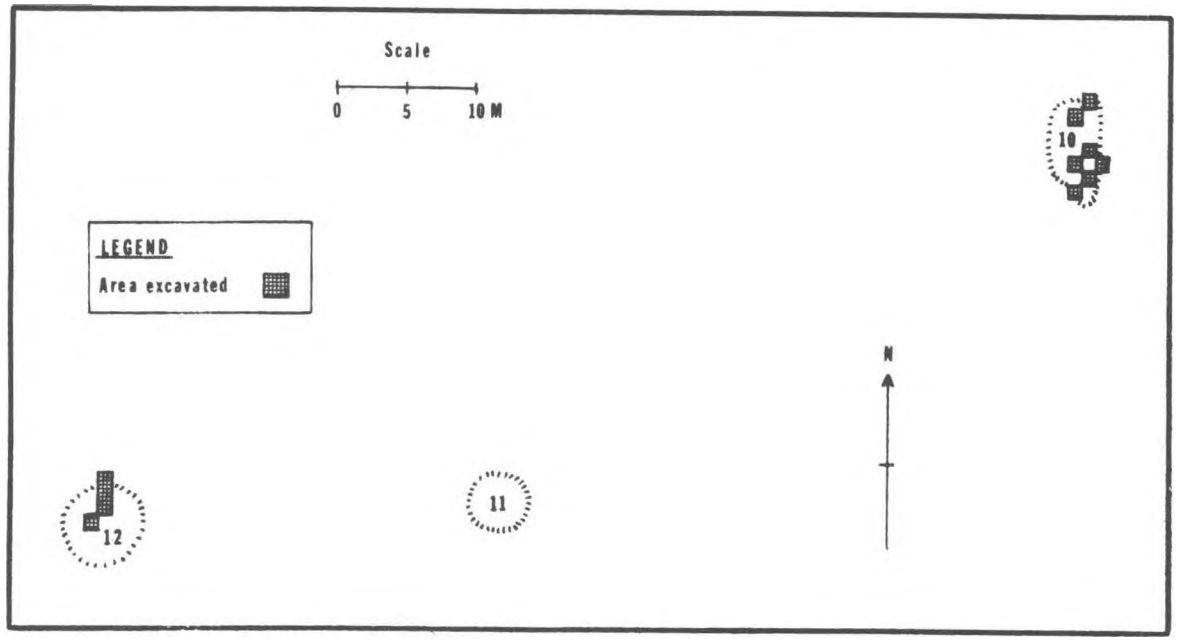

Fig. 21. Excavation units in the west portion of EdRa 9.

House Pit 7

This is an oval-shaped depression that ranges from five to seven metres in diameter and whose maximum depth is 85 cm. It is centrally located in the site.

Excavation

Almost the entire depression was excavated by 23 1 x 1 metre squares, to an average depth per square of 30 cm below surface.

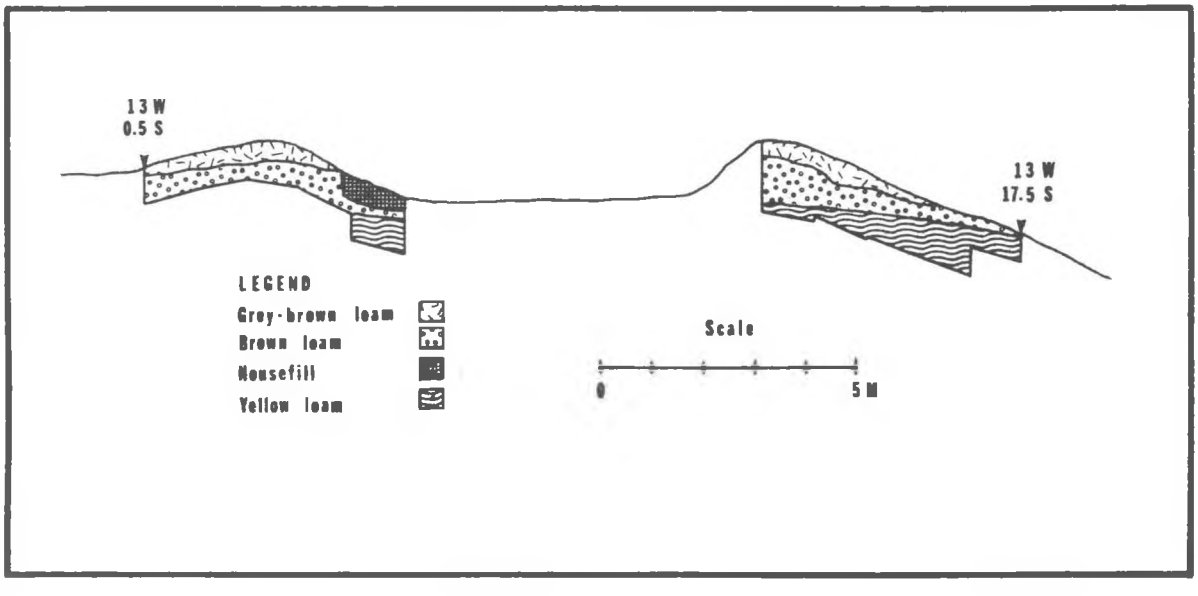

Fig. 22. Surface and stratigraphic profile of House Pit 4, EdRa 9.

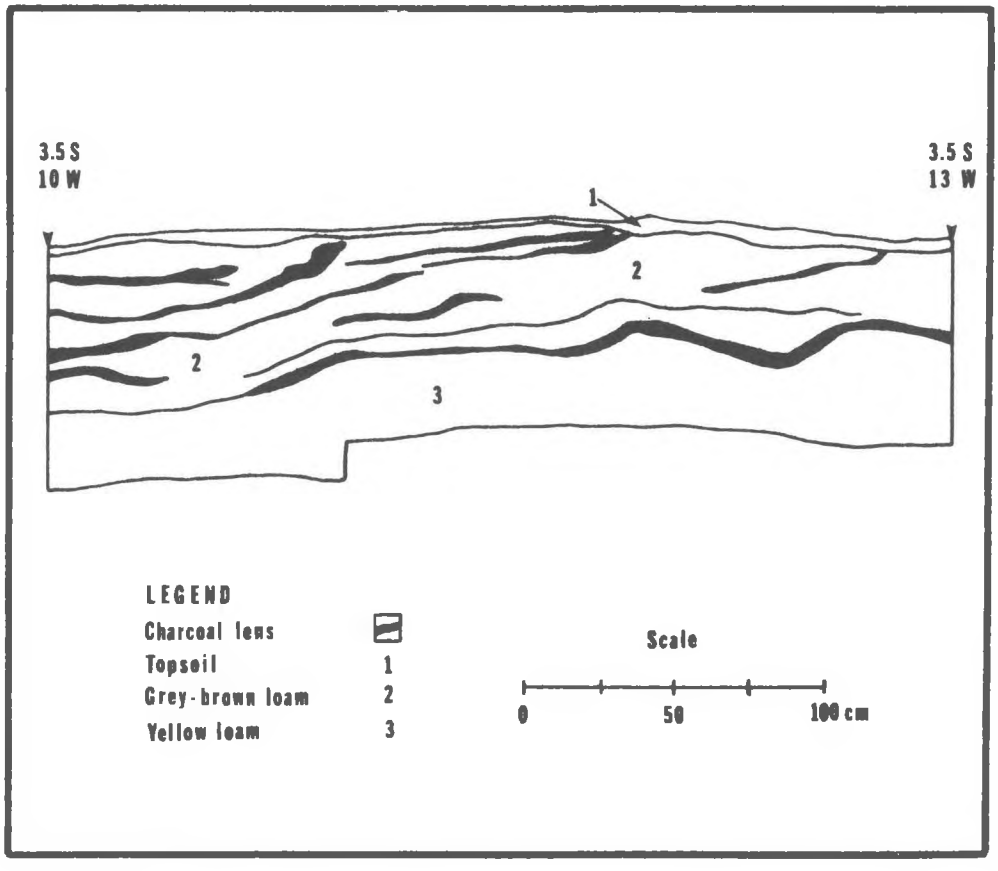

Fig. 23. Stratigraphic profile of south portion of ridge of House Pit 4, EdRa 9.

Stratigraphy and features

The relatively shallow cultural deposit is 10–20 cm thick in the house pit centre and 35–50 cm thick beneath the inside slopes (Fig. 28). Features include three distinct ash hearths, one in the centre of the house floor, and two just west of centre. A fourth feature is comprised of burnt pieces of wood from the roof structure that had collapsed onto the pit house floor. They are, however, too poorly preserved and fragmented to allow inference as to the original shape and construction of the roof.

Sample

Most of the 36 artifacts, 195 pieces of debitage, land mammal bone, and fish remains are directly associated with the living floor. Diagnostic artifacts include three Kamloops Side-notched projectile points, a bone tube, a bone point, a small hand maul, and an iron rifle pellet.

Chronology

Both the artifact sample and a radiocarbon date of 400 ± 80 B.P. (Gak-4914), from a charcoal lens on the floor, place the occupation of this house pit in the Kamloops Phase, and it may possibly extend into the later Protohistoric Phase.

House Pit 8

This circular depression is just under eight metres in diameter and is 40 cm deep.

Excavation

Nine 1 x 1 metre squares were excavated to an average depth of 40 cm below surface through the north ridge and most of the inside of the depression.

Stratigraphy

The House pit floor is approximately 30 cm below surface, and is scattered with most of the skeletal remains, except for the skulls, of at least seven deer *(Odocoileus hemionus hemionus)* (Fig. 29). The total weight of these remains is 8.5 kg. Many of the bones have been split open for extraction of their marrow.

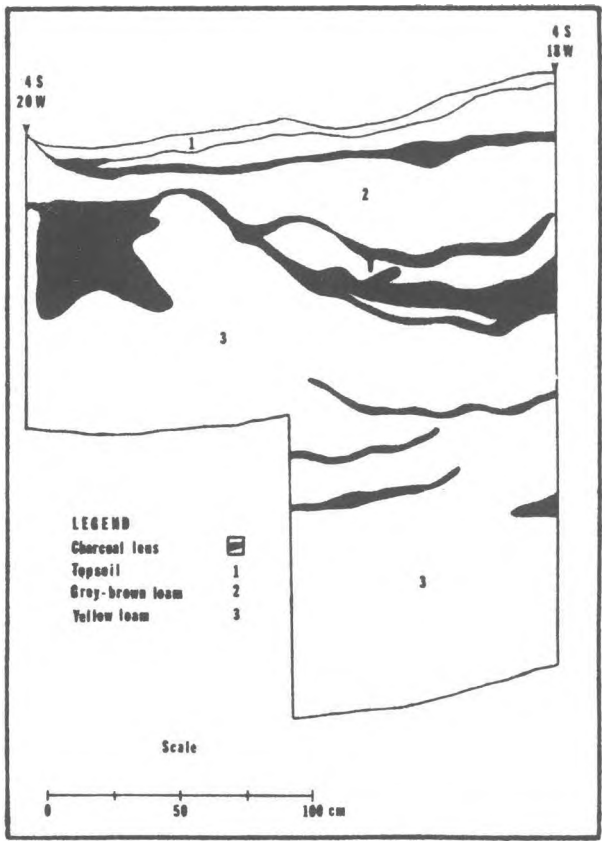

Fig. 24. Stratigraphic profile of cache area associated with House Pit 4, EdRa 9.

Sample

The sample includes only a few basalt bifaces and 37 pieces of debitage, all of which were found in direct association with the skeletal remains.

Chronology

The occupation of this house pit was a relatively short one, and appears to have terminated rather suddenly, soon after the butchering of the deer. Even though diagnostic data are absent, the occupation probably has a Kamloops Phase date.

House Pit 9

This circular depression has a very predominant ridge, and is seven metres in diameter and one metre in depth. It is also centrally located in the site.

Excavation

Six 1 x 1 metre squares were excavated through the western portion of the house pit ridge.

Fig. 25. House Pit 5, EdRa 9.

Stratigraphy

The occupation deposit extends from the pit house up onto the bench, where it is overlain by deposits that have sluffed off from the roof structure forming the house pit ridge (Fig. 30).

Sample

This is the only depression in which a high concentration of shell (*Margaritifera sp.*) has been preserved. Only 13 artifacts and 27 pieces of debitage were uncovered. The former was concentrated on the house pit's inside slope, while the latter was evenly distributed throughout the excavation. Six of the artifacts are bone implements.

Chronology

Based upon the high percentage of bone artifacts, and the high degree of shell preservation, this house pit represents a Kamloops Phase occupation.

House Pit 10

Located just west of a large concentration of cache pits, this almost rectangularly-shaped depression is the only house pit in the site which has evidence of a side entrance. Including the entranceway, it measures eight metres in length and five metres in width, and is approximately 60 cm deep.

Excavation

Seven 1 x 1 metre squares were excavated to an average depth of 50 cm below surface in the east half of the depression, including the entranceway.

Stratigraphy

The pit house floor varies between 30–40 cm below surface and is associated with quantities of charcoal, from the collapsed roof, fire-cracked rock, and land mammal bone. The very loose matrix of the soil hindered the delineation of any features of pit house and entranceway construction.

Sample

A piece of native copper tubing, an antler wedge, and six historic artifacts, including a button, a square nail, two chips of white porcelain, and two pieces of badly corroded iron, comprise this small sample. Neither chipped stone artifacts nor debitage were recovered.

Chronology

Both this sample and the supposedly "late" feature of a side entrance place this occupation into the Proto-historic Phase.

House Pit 12

This circular depression has a small ridge, with a diameter of five metres, and a depth of approximately 55 cm.

Excavation

Four 1 x 1 metre squares were excavated through the centre and south portion of the house pit.

Stratigraphy

The occupation deposit contains much charcoal, ash, and fire-cracked rock, and extends down from beneath the surface mat to 30 cm below surface.

Sample

Only four chipped stone artifacts, one copper bead, and three pieces of debitage comprise the sample.

Chronology

The shadow cultural deposit and the one copper bead probably place this short occupation towards the end of the Kamloops Phase.

Locus 1

Locus 1 includes 10 cache pits and is situated on flat terrain between and to the north of House Pits 4 and 5.

Excavation

A 6 x 1 metre trench was excavated to an average depth of 90 cm below surface, cutting through the south half of one cache pit.

Stratigraphy

The cache pit depression is one metre in diameter and 30 cm deep, while the cache deposit itself extends down to about 70 cm below surface. The cache contains neither artifacts nor debitage, but does have much higher quantities of land mammal bone, shell and fish remains than the immediately surrounding deposits.

Sample

Eight artifacts, including one bone bead and a small abrader, and 35 pieces of debitage comprise the sample. Outside the cache area there are two vertical concentrations of cultural material, separated by sterile deposits; one between the surface and 40 cm below surface, and the other from 60–90 cm below surface.

Chronology

The upper deposit, including the cache pit, dates to the Kamloops Phase, while the earlier cultural material belongs to the Thompson Phase.

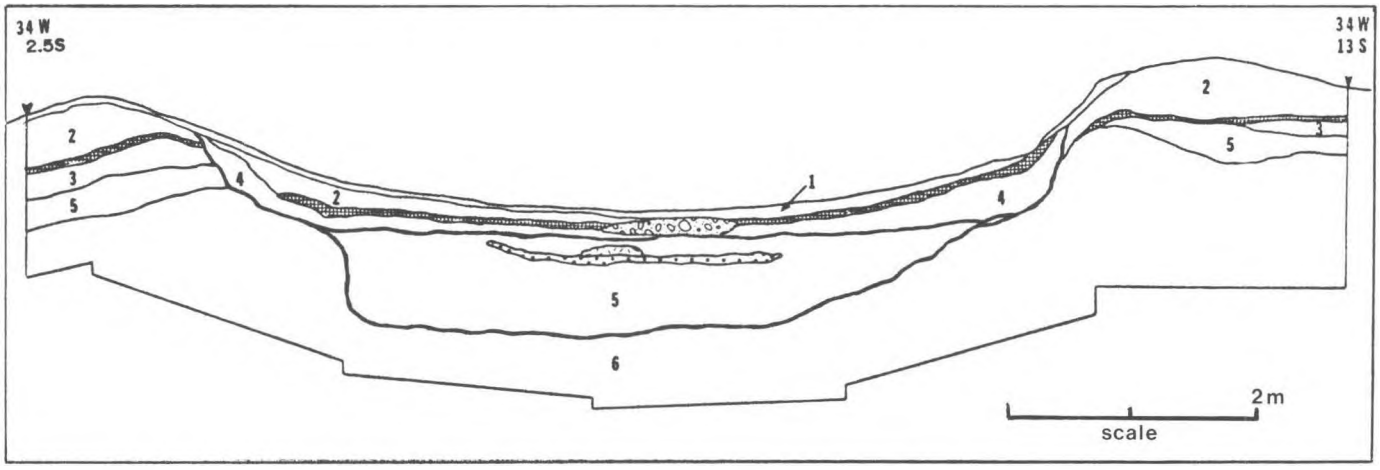

Fig. 26. Stratigraphic profile of House Pit 5, EdRa 9.

Legend

Dark Loam with charcoal

Hearth with fire-cracked rock

Ash hearth

Dark Brown loam (1st occupation)

Top soil	1
Grey-brown loam	2
Brown loam	3
Housefill (2nd occupation)	4
Yellow-grey loam	5
Yellow loam	6

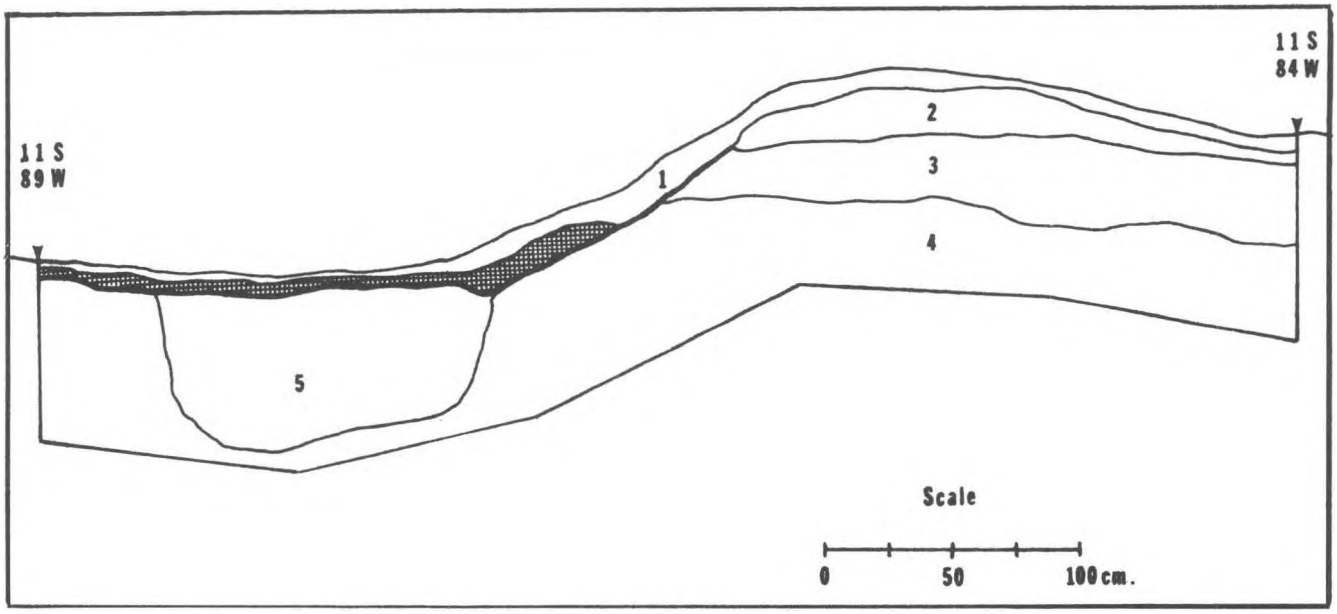

Fig. 27. Stratigraphic profile of House Pit 6, EdRa 9.

Legend

Dark loam with charcoal

Top soil 1

Grey-brown loam	2
Brown loam	3
Yellow loam	4
Cache area	5

Locus 2

Locus 2 is comprised of the 28 cache pits between House Pits 5 and 6.

Excavation

A 6 x 1 metre trench bisected two cache pits, and a 4 x 1 metre trench bisected another. Average depth of excavation was 90 cm below surface.

Stratigraphy

The cache pit deposits ranged from 140–160 cm in diameter, and from 50–70 cm in depth (Fig. 31). They are associated with quantities of fire-cracked rock and charcoal, but relatively small amounts of land mammal bone and fish remains, and they might possibly have functioned as cooking pits instead. Several pieces of birch bark were found in association with the cache pit margins.

Sample

Most of the sample of five artifacts and 138 pieces of debitage was found either beneath or beside the cache deposits.

Chronology

Even though diagnostic data are lacking, these cache depressions probably belong to a Kamloops Phase occupation of the site because of the relative shallowness of the associated cultural materials.

Lafarge Site (EdRa 11)

The Lafarge site is a non-habitation site that once contained a total of 45 cache pits. It is located on the north shore floodplain of the South Thompson River, 24 km east of Kamloops, and 2.5 km east of the Canada Lafarge cement plant. Just after investigation 25 of the 45 cache pits were destroyed by construction of a house.

Even though house pit depressions are scattered throughout the surrounding area, none are closer than 300 metres to the site. Dawson (1892:9) records that:

> "...caches often occur about the sites of winter villages, but are also frequently found at a distance from these, and grouped around the actual fishing places."

This site may be associated with several alignments of rocks and wooden stakes, indicating the presence of fish weirs, which can be discerned extending across the river bottom, perpendicular to the shoreline, about a kilometre west of the site, at extremely low water levels. These alignments have yet to be accurately recorded.

Situated less than 100 metres from the shoreline, the cache pits are located on a small ridge, 50–100 cm high, formed during their original construction. The vegetation is typical of the area with sage brush, most of it over a metre high, and short grasses. The deposit is composed of aeolian loams.

Excavation

A property line divides the site, and the investigation was restricted to the threatened portion, containing the 25 cache pits. Four of them were tested by excavating eight 1 x 1 metre squares to an average depth of 70 cm below surface.

Stratigraphy

The depressions average less than one metre in diameter and about 50 cm in depth. The cache areas themselves are clearly outlined by dark-coloured loam, and do not extend more than 80 cm below surface.

Sample and chronology

The excavated sample includes two chipped stone bifaces, two retouched flakes and 11 pieces of debitage, along with relatively small amounts of land mammal and fish bone, and pieces of tightly rolled birch bark, all of which are directly associated with the cache areas. Surface collected around the site were 55 flakes of debitage, a few basalt nodules, 10 retouched flakes, and one large, fragmented corner-notched projectile point. This sample is not included in the artifact description. Lack of diagnostic data hinders chronological interpretation of this site, but it is probably later in the cultural sequence, and if it is contemporary with the cache pits in the Harper Ranch site, then it most likely belongs to the Kamloops Phase.

Brocklehurst Burial Site (EeRc 8)

Emergency salvage archaeology was performed on this burial site, which is located in the gravel pit operated by Studer Brothers Construction in Brocklehurst, North Kamloops. The single burial was exposed approximately 3.5 metres below surface in the wall of the gravel pit, and had been sliced practically in half by a power shovel. According to Studer Brothers, the burial must have originally been closer to five metres below surface, as they had already

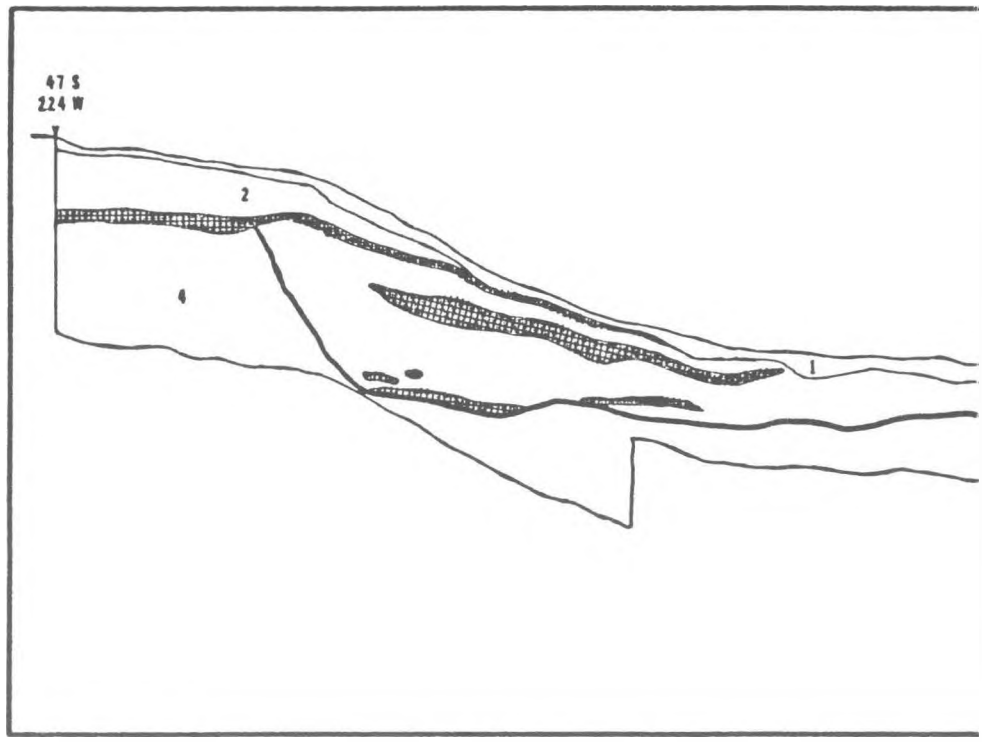

Fig. 28. Stratigraphic profile of House Pit 7, EdRa 9.

Legend

Dark loam with charcoal

Ash and burnt soil

Top soil	1
Grey-brown loam	2
Housefill	3
Brown loam	4

removed about 1.5 metres of deposit off the surface.

The skeleton is that of an adult male, approximately 30 years of age, who was buried on his left side in a flexed position, facing south. Most of the disturbed skeletal material was recovered by extensive screening of the gravel debris.

Excavation

Because of the difficult location of the burial, in a wall of loose gravel 3.5 metres below surface, and another 3.5 metres up from the gravel pit floor, controlled excavation down from the surface would have been time consuming and dangerous. Instead, the burial was extracted from the side of the wall.

Stratigraphy

The deposit is composed of stratified alluvial gravels and aeolian loams. The burial was located at the bottom and to one side of what appears to be a shallow depression, that is outlined by a thin, fragmented lens of darker gravel that possibly represents a pit house floor. The depression measures 4.5 metres across in section and is approximately 1.5 metres deep (Fig. 32).

Sample

Most of the 121 artifacts in this sample came from the debris beneath the burial. The burial was likely that of a fisherman, as the artifacts included fish net weights, a toggling harpoon valve, a unilaterally-barbed bone fragment, and one of the most distinctive artifacts in the entire assemblage, a leister point with 19 unilateral barbs (Fig. 33). Most of the rest of the sample is comprised of 92 shell beads and 12 bear tooth pendants. Table 9 lists the artifact types in the sample. They are not included in the artifact description and analysis that follows.

Chronology

Site dimensions and other features were impossible to determine because of the gravel pit operations. The strata above the burial appear to be naturally deposited, indicating

Table 9. Artifact types from the Brocklehurst Burial Site. N=121.

Artifact Type	Number
Stone fish net weights	5
Bone leister point	1
Composite toggling harpoon valve	1
Barbed bone fragment	1
Bear tooth pendants	12
Shell beads	92
Retouched flakes	5
Worked bone	3
Orange ochre	1

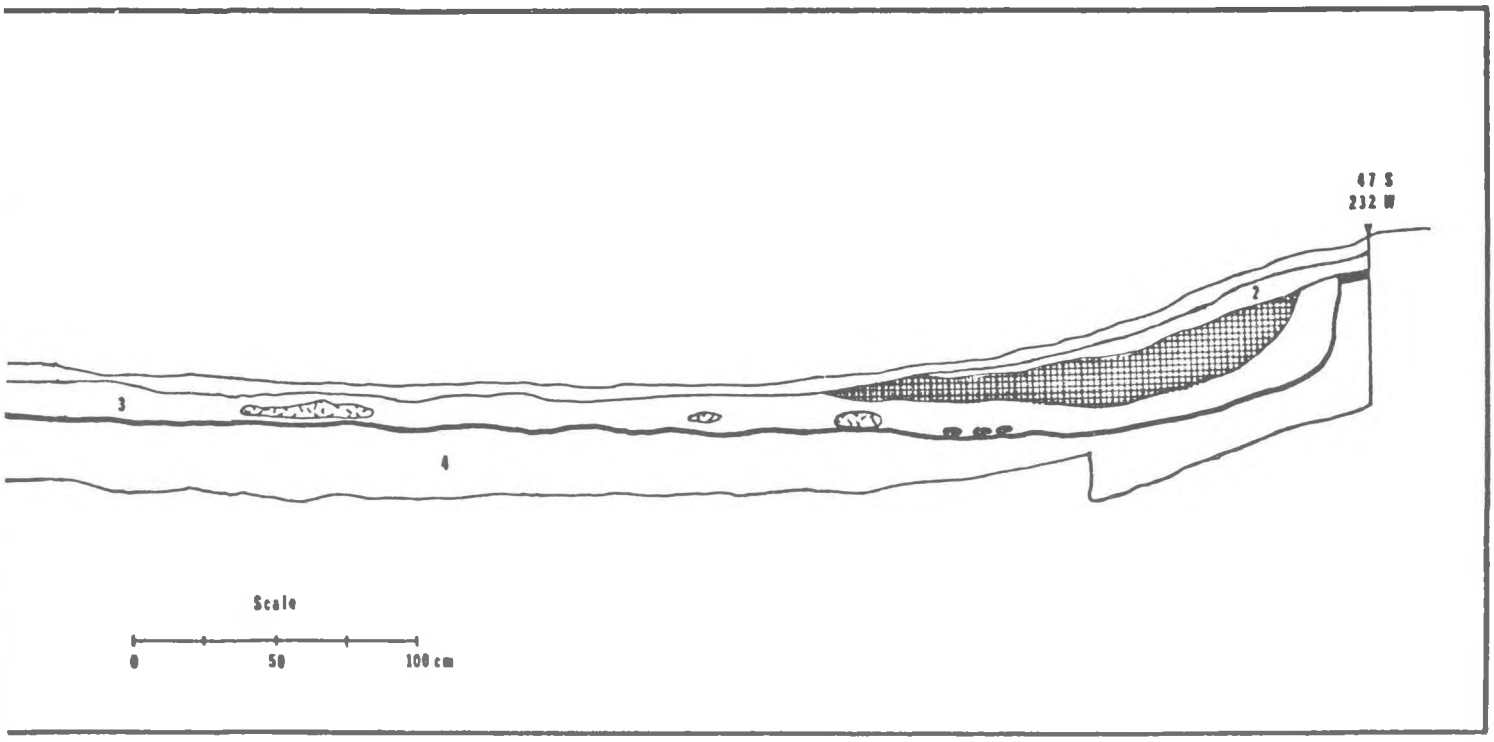

Fig. 29. Floor of House Pit 8, EdRa 9.

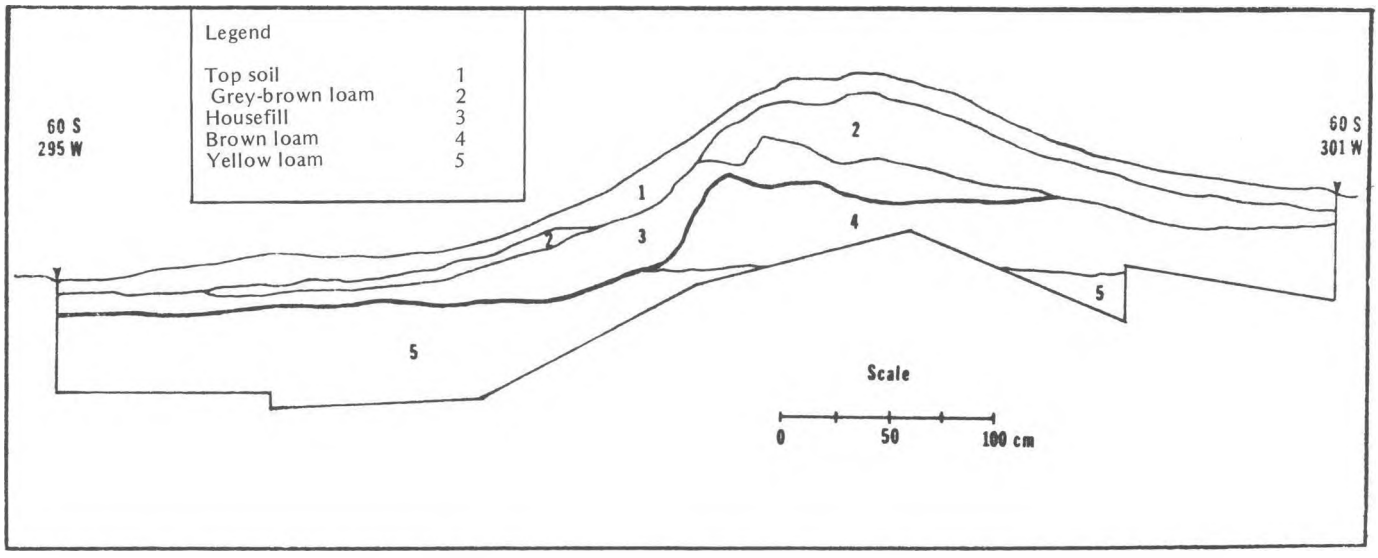

Fig. 30. Stratigraphic profile of House Pit 9, EdRa 9.

that this may possibly be the oldest recorded site in the locality, because of its extreme depth of up to five metres below surface. It is however the only recorded depression associated with alluvial gravels in the locality, and this may be related to its stratigraphic depth. The artifact sample includes a high percentage of preserved shell and bone implements, indicating either a relative later date in the sequence, differential preservation, or the unique nature of the burial context. Until more comparative data are available, a date and possible phase affiliation for this site are in question.

Tranquille School Site (EeRd 3)

This single burial site is located on the grounds of the Tranquille School, on the northeast shore of Lake Kamloops. It was discovered during the digging of a sewage ditch by a backhoe, which sliced through the upper part of the skeleton, removing the skull, mandible, distal ends of both ulnas and radii, and the hands. Except for the facial portion of the skull, most of this material was recovered from the backdirt.

The remainder of the skeleton was well articulated, and is that of an adult female, approximately 25 years of age. She was lying on her left side in a fully-flexed position, facing east. The skeleton displays evidence of child-bearing and culturally-induced deformation of the posterior region of the skull.

Excavation

Again, emergency salvage archaeology was necessary, but in this instance, there was some time for controlled excavation to occur. A 2 x 1 metre unit was dug down in arbitrary levels from the surface to beneath the burial.

Stratigraphy

The burial lay 1.5 metres below present ground surface, in a mixed deposit of alluvial silts and medium gravels, which overlay a bed of coarse gravels.

Sample

No artifacts, but some faunal remains were found directly associated with the burial. They include two elk antler beams, one antler tine, two ungulate scapula fragments, two ungulate long bone fragments, a bird bone, and several fresh water mussel shell *(Margaritifera sp.)*.

Chronology

Lack of diagnostic data and of exact provenience, because of construction disturbance, make it difficult to estimate the age and extent of the site at this time.

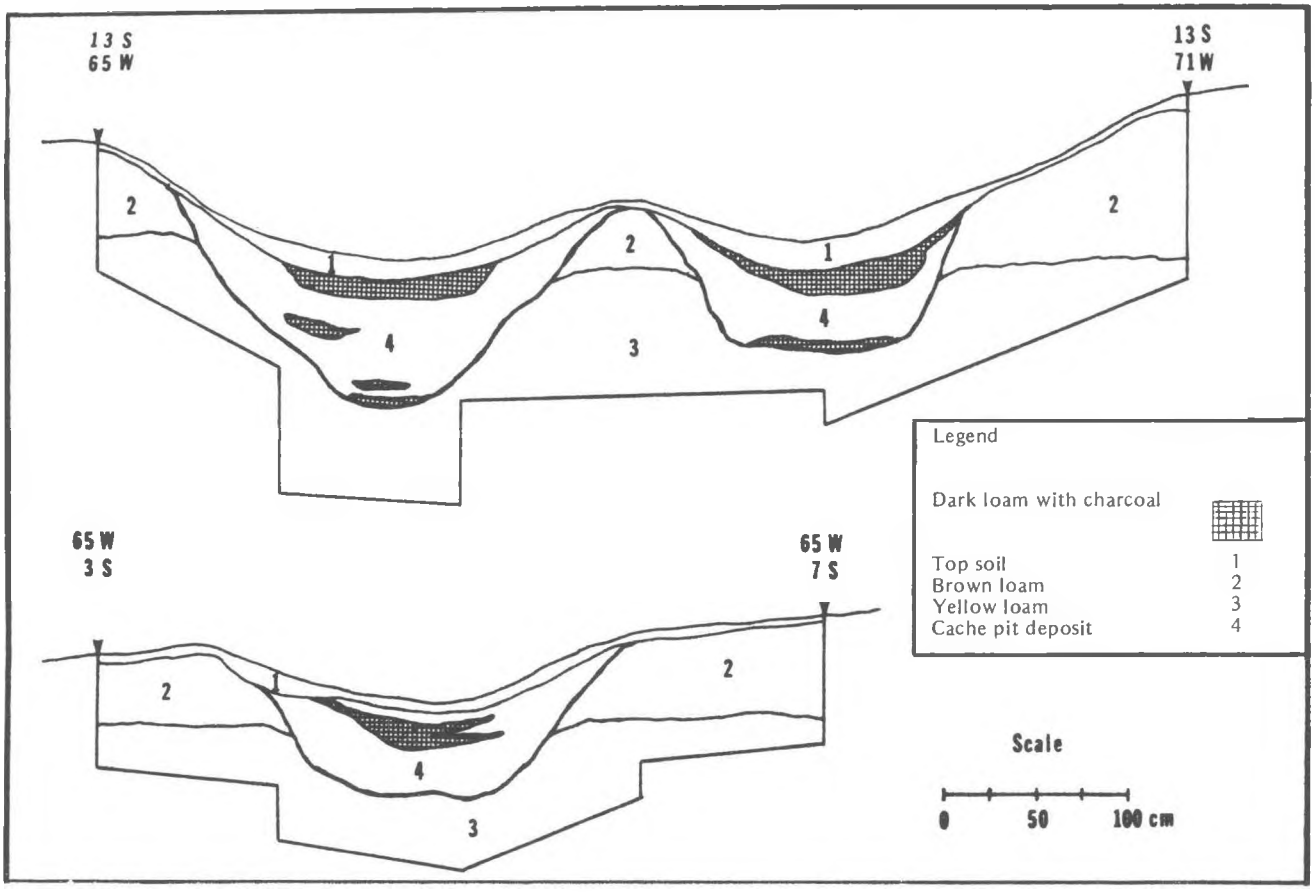

Fig. 31. Stratigraphic profile of Locus 2 cache pits, EdRa 9.

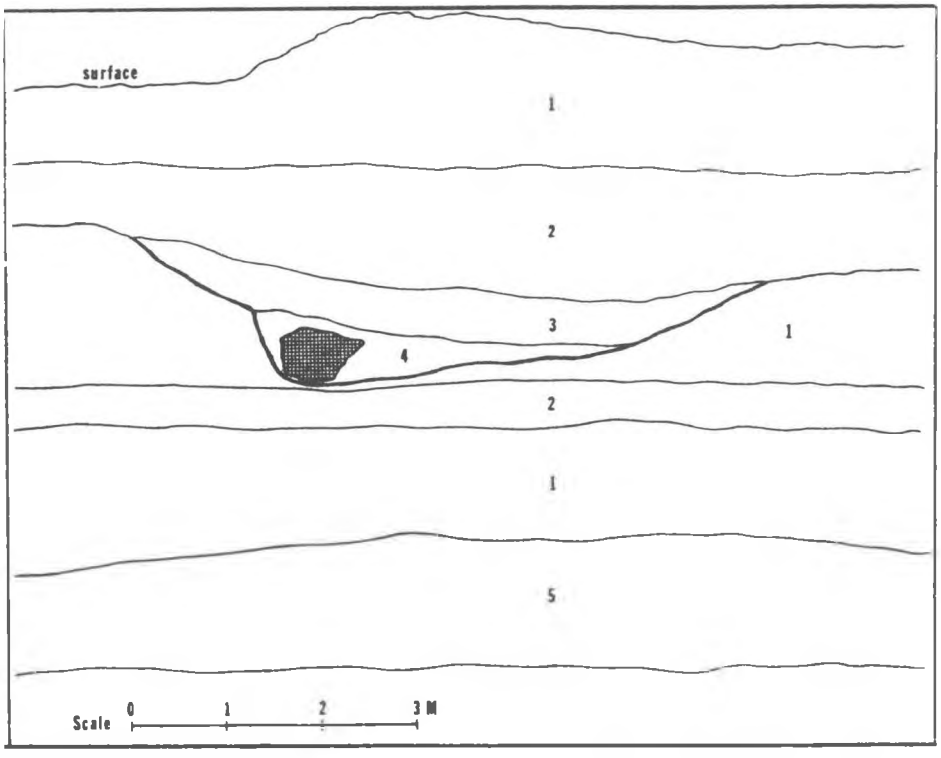

Fig. 32. Stratigraphic profile of the Brocklehurst Burial site, EeRc 8.

Legend

Fine gravels with charcoal (location of burial)

Coarse gravels 1
Loam 2
Medium gravels 3
Fine gravels 4
Gravel debris on floor of gravel pit 5

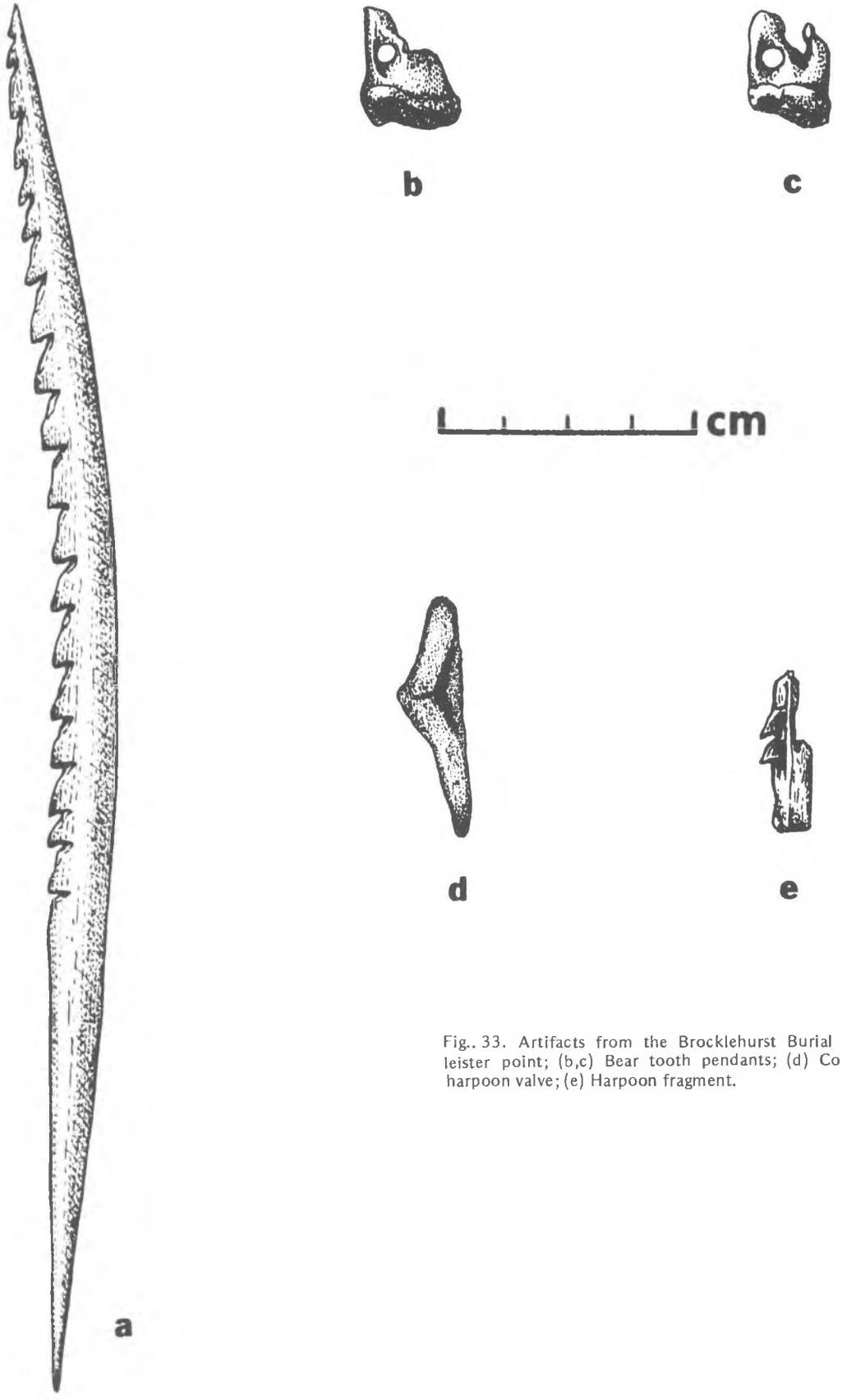

Fig. 33. Artifacts from the Brocklehurst Burial site: (a) Barbed leister point; (b,c) Bear tooth pendants; (d) Composite toggling harpoon valve; (e) Harpoon fragment.