CHAPTER 5

METHODOLOGY

1. Literature Study

From the outset it was obvious that little literature was to be found pertaining directly to earlier research on the Zhizo and Leopard's Kopje A cultures in the Limpopo/Shashi valley. It become necessary, therefore, to refer to literary sources outside the research area. Nearly all the sources found are Rhodesian in origin, and relate to work done on surface sites and a few excavations.

It can thus be seen that very little useful information was forthcoming about the cultures in the Limpopo/Shashi Valley as far as a full description of pottery types, economy, settlement patterns and other facets of the cultures, as well as their spread south of the Limpopo River was concerned.

2. Reconnaisance Work

The next obvious step was to start a reconnaisance of sites in the research area. As no complete record of sites in the area existed it was necessary to do a personal survey. Use was made of Trignometrical Survey aerial photographs to ascertain possible sites. All probabilities were then marked on the relevant South Africa 1:50 000 Topo-Cadastral maps. Most of these possible sites were visited.

Reference has been made in Fouche's book Mapungubwe : Ancient Bantu Civilization on the Limpopo to various sites in the vincinty, although frequently no mention is made of the type of pottery found on these sites. Where directions were available, attempts were made to visit the sites, although more often than not, these proved to be inadequate and the site concerned could not be identified.

Information about sites was also acquired from local farmers and their farm-hands, who showed me many sites. Most sites were, however, discovered during the course of walking around in the veld.

In total some 86 sites were discovered and recorded within the confines of the research area. It must be mentioned that the survey was by no means thorough, due to limited time and finance. Many more sites must still remain to be discovered.

Excluding the two sites covered in the text, test excavations were also done at Icon, Commando Kop, Ratho and Pont Drift 1/1.

Most of the 86 sites do not belong to either the Zhizo or the Leopard's Kopje A culturès. In many cases other pottery was found in combination on certain sites, suggesting that these sites were at least double component.

A point that should be mentioned is that several ashy deposits were found,where only body sherds were visible on the surface. No decorated sherds, and only a few rim sherds were picked up. Consequently these sites could not be placed into any catagory. It seems probable that the surface pottery has been collected at some time in the past. It was mentioned by certain elderly farmers that during the excavations at Greefswald between 1933 and 1940, the investigators frequently went looking for sites in the vicinity, and it is possible that they might have removed the pottery from the sites that they visited. Unfortunately no references could be found in this connection.

We do know, however, that excavations were done on a hill-top deposit on the farm Parma by J.F. Schofield during 1934 (Fouché 1937). Other that a short reference to this in Mapungubwe: An Ancient Bantu Civilization on the Limpopo, we have no record of what was actully found, or what has happened to that material. This suggests the same as mentioned above.

3. Methods of Excavation and Documentation

The sites were excavated and recorded according to standard methodology. Base pegs has certain information inscribed in the cement surface. This consisted of the initials N.K.H.M., standing for an Afrikaans abreviation of National Cultural History Museum, the excavation number, as well as the year of excavation. The peg and cement block as well as the adjacent cement block and peg were left in position on completion of the excavation to serve as a guide for future work.

Certain objects, for example, strings of beads found in situ,desintegrating metal objects or skeletons could not always be treated in the standard way. In such cases these were removed in plaster-of-paris casts, and further treatment was done at the Museum.

After on site numbering and registration, the packages were placed in large cardboard boxes, ready for transport to the Museum.

4. Methods of Analysis

The total collection of material removed from the excavations in subject to analysis to a lesser or greater extent. From the outset it must be mentioned that the analytical emphasis falls on the cultural rather than on the environmental aspects of the research work. Less emphasis is therefore being placed on the geomorphology and chemical composition of the sites and other branches of the Natural Sciences which can be used to determine climatic and environmental change. From the outset my approach has been to look at the archaeological remains as the means by which the culture(s) of the people responsible for the accumulation of the deposits can be identified and interpreted, so as to give a picture of their way of life. Any geological, climatological and other environmental information recovered during excavation will be evaluated in this light, to see in what manner it could have influenced the ancient people and how they adapted their lifestyles to changing circumstances providing that any such changes be found during the course of analysis.

Not all of the analytical work has been done by myself. Material requiring specialist analysis has been handed to the specialists concerned, and their reports are either incorporated fully in this report, or have been published elsewhere and summaries are used in the descriptions. All faunal material has been handed to Mrs. E. Voigt and her team of specialists for analysis. The human skeletal material was identified by the University of the Witwatersrand. The Herbarium in Pretoria identified the botanical material, while samples for radiocarbon dating were sent to the C.S.I.R.

5. Final Storage of Material

As far as was practical, most of the cultural material has been treated according to the standards set by museums dedicated to the preservation of their collections.

All material has been properly cleaned and marked with coded abreviations designating the site, excavation number, square, level or feature

concerned. Where necessary friable pottery has been consolidated by means of impregnation with a strengthening solution in a vacuum apparatus. Bone, and in particular the human remains, was also treated in this fashion. Where possible metal objects were cleaned by means of electrolysis, and dipped in the strengthening solution, which, being unable to penetrate, forms a protective shell on the object. The shell limits contact with the metal by humidity in the atmosphere, thereby preventing further corrosion.

All the material excavated in the Transvaal is permanently housed in the Archaeological Department of the National Cultural History and Open-air Museum in Pretoria.

The documentary material, i.e. the field notes, plan and sectional drawings as well as the photographic negatives and colour transparencies, is housed in toto at the National Cultural History Museum, Pretoria. All the results of the detailed analytical work done on the material excavated in the Norhern Transvaal are also housed at the Museum, with except of the details of the faunal analysis which can be found at the Transvaal Museum, Pretoria.

This detailed information is freely available to any interested persons.

PART II

DESCRIPTION OF THE EXCAVATIONS ACCORDING TO SITE

CHAPTER 6

SCHRODA (TSR 1/1)

1) General Characteristics of the site

The farm Schroda M.S. 46 lies approximately 65 km west of Messina on the Limpopo River. The site, with co-ordinates 29°25'45" E and 22°11'0" S, lies on top of a rocky plateau overlooking the Limpopo to the north. To the south, a long sandstone ridge with Trigonometrical Survey Beacon No. 33 at its highest point provides adequate protection from wind and attack.

The eastern and western boundaries are formed by low rocky outcrops. The site is nearly 500 meters long by 300 meters wide and is crossed by the 1800 foot (554 metre) contour line. Running along the length of the site, and approximately parallel to the southern sandstone ridge, are a series of narrow rock outcrops, behind and between which the deposit has filled, giving the impression of a series of natural terraces.

On the plateau to the south of the high ridge, the sandy veld is covered by Mopane interspersed with *Combretum* species. The vegetation on and immediately around the site is completely different. There is no Mopane growth whatsoever. It is quite obvious that the protection provided by the sandstone ridges and outcrops has produced a micro-environment in which a large number of plant species thrive.

Tables 7 and 8 give a list of plant species taken on site and in the surrounding hills and rocky outcrops. They have been identified by the National Herbarium in Pretoria, but are not necessarily fully representative of the vegetation on site, for example grasses have not been included.

It is interesting to note that *Acrotome inflata*, *Acanthospermum hispidum*, *Blepharis diversispina*, and *Abutilon pycnodon* are annuals that can be classed as weeds. In particular the latter covers large parts of the site. A thorn tree species (*Acacia tortilis*) in the form of scrub growth has also taken over large sections. The two species of fruit producing trees found on site are the Baobab (*Adansonia digitata*) and

Plate 1

View across Schroda to the sandstone ridge in the south.

Plate 2

Looking north across Schroda to the Limpopo. Area 5 is shown in the foreground.

TABLE 7

Schroda: Vegetation on site (in alphabetical order)

Abutilon pycnodon Hochr
Acacia galpinii Burtt Davy
Acacia mellifera (Vahl) Benth. subsp. *detinens* (Burch) Brenan
Acacia nigrescens Oliv.
Acacia senegal (L) Willd. var *leiorhachis* Brenan
Acacia tortilis (Forsk) Hayne Subsp. *heteracantha* (Burch)
Acalypha pubiflora Baill
Acanthospermum hispidum DC
Acrotome inflata Benth
Adansonia digitata (L)
Artabotrys brachypetalus Benth
Asparagus nelsii Schinz
Berchemia discolor (Klotzsch) Herzog
Blepharis diversispina (Nees) C.B.Cl.
Boscia cf. *B. foetida* Schinz
Boscia cf. *B. foetida* Schinz subsp. *rehmanniana* (Pestal.)
Catophractes alexandri D.Don
Celosia linearis (Schinz) Schinz
Cleome oxyphylla Burch. var. *robusta* Kers
Clerodendrum suffruticosum Guerke
Combretum apiculatum Sond. subsp. apiculatum
Combretum imberbe Wawra
Commiphora glandulosa Schinz
Commiphora mollis (Oliv.) Engl.
Commiphora pyracanthoides Engl.
Commiphora tenuipetiolata Engl.
Croton gratissimus Burch. var. *subgratissimus* (Prain) Burt Davy
Dichrostachys cinerea (L) Wight & Arn. subsp. *africana* Brenan & Brummit
var. *africana*
Ficus cf. *F. soldanella* Warb
Ficus tettensis Hutch
Grewia bicolor Juss
Grewia flavescens Juss. var. *flavescens*
Grewia tenax (Forsk.) Fiori
Grewia villosa Willd.
Hexalobus monopetalus (A. Rich.) & Diels
Lannea stuhlmannii (Engl.) Engl.
Monechma divaricatum agg. (Nees) C.B.Cl.
Mundulea sericea (Willd) A. Chev.
Phyllanthus cf. *P. reticulatus* Poir.
Sclerocarya caffra Sond
Side dregei Burtt Davy
Solanum kwebense N.E. Br.
Strychnos madagascariensis Poir
Tephrosia rhodesica Bak. f.
Terminalia pruniodes Laws
Tricalysia allenii (Stapf) Brenan var. *australis* (Schweick.) Brenan

TABLE 8

Schroda: Vegetation on the southern hill (in alphabetical order)

Boscia albitrunca (Burch) Gilg & Ben
Brachylaena huillensis O. Hoffm.
Bridelia mollis Hutch
Combretum apiculatum Sond-subsp. *apiculatum*
Commiphora mollis (Oliv.) Engl.
Croton pseudopulchellus Pax
Dichrostachys cinerea (d) Wight & Arn. subsp. *africana* Brenan & Brummitt var. *africana*
Ehretia rigida (Thunb.) Druce
Ficus cf. *F. soldanella* Warb.
Ficus cf. *F. tettensis* Hutch.
Hexalobus cf. *H. monopetalus* (A. Rich) Engl. & Diels
Hexalobus monopetalus (A. Rich.) Engl. & Diels
Lonchocarpus capassa (Klotzsch) Rolfe
Ochna sp.
Pseudolachnostylis maprouneifolia Pax
Sclerocarya caffra Sond.
Sterculia rogersii N.E. Br.
Tricalysia allenii (Stapf) Brenan var. *australis* (Schweick.) Brenan
Vangueria infausta Burch.
cf. *Xylopia odoratissima* Welw. ex Oliv.

the Marula (*Sclerocarya caffra*) while the wild figs (*Ficus soldanella* and *Ficus tettensis*) may have contributed to the diet of the Iron Age inhabitants to a lesser degree.

The site is divided into two parts by a motortrack running across its length. Judging from the surface finds, the southern half appears to be richer in cultural remains, and this is the main reason for the lack of investigation into the northern parts of the site.

The deposit is noticeably ashy, with the south-western section around areas 5 and 6 showing a large surface accumulation of bone. Springhare burrows are numerous throughout the site, resulting in certain parts being rendered useless for excavation. The depth of deposit varies considerably, and the deepest part found was at the beginning of trench 5 in Square B1 where a little over 1,20 metres was recorded. The greater part of the deposit would appear to have a depth of more than 50 cm, although this originally could have been more. Erosion has without doubt washed a large amount of soil away in the north western section. In certain places to the north of areas 2 and 4 it can be seen that there is an accumulation of surface material, particularly pottery, with little or no deposit underneath.

A portion of the site is double component, with the younger component

Plate 3

General view across Schroda looking east. The site is clearly divided into two halves by the motortrack.

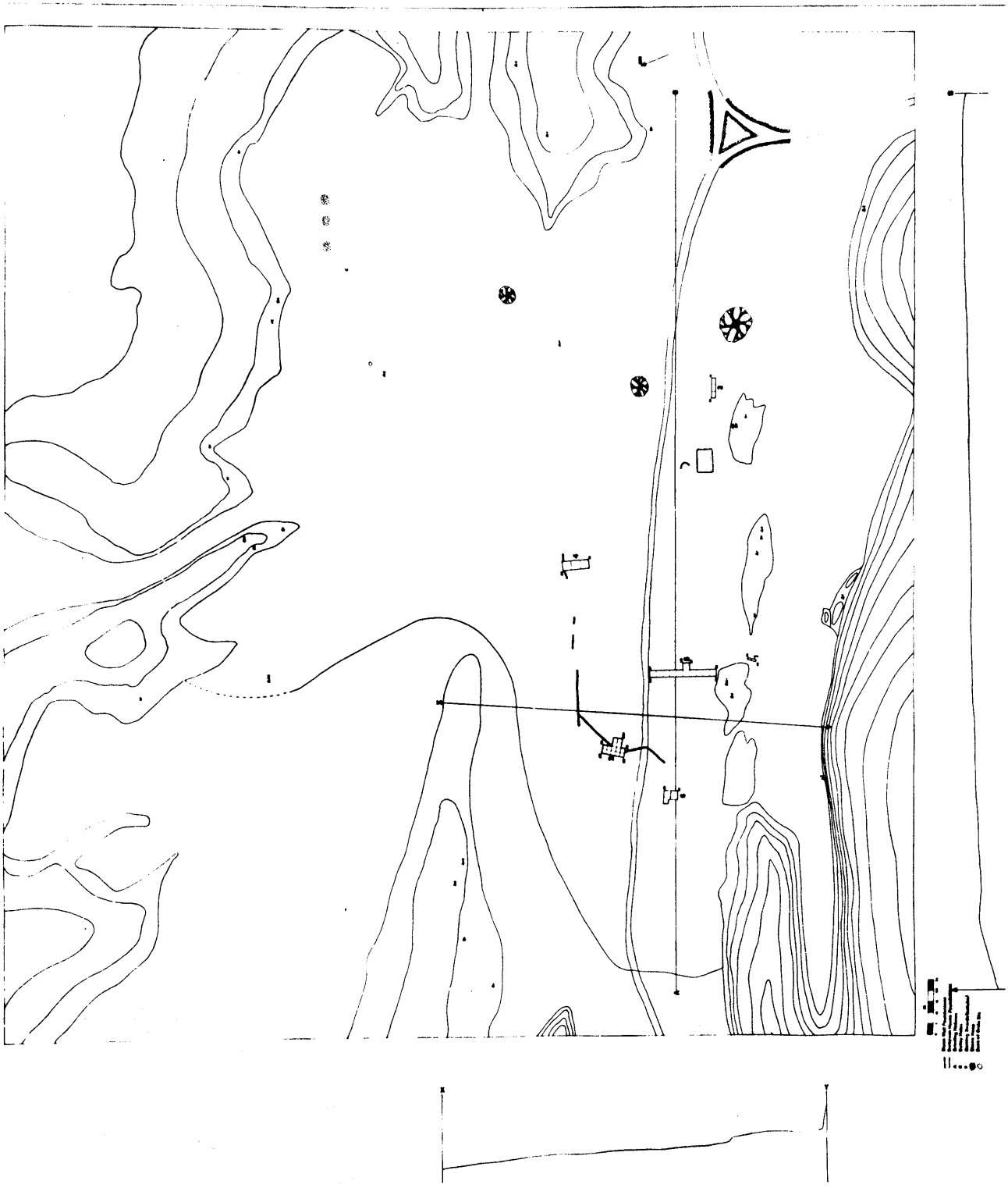


Figure 8

Site map of Schroda showing cross-sections, excavated areas, and surface features.

belonging to European settlers, who built a small two-roomed house with an outside kitchen. The stone foundations of this dwelling form a surface feature, and were identified by the eminent cultural historian, Mrs. K. Roodt-Coetzee, during a visit to the site. No cultural remains were found around this other than the remains of several wooden posts. This suggests a stay of short duration. Intrusion into the deposit is minimal, with recent white ash found in hollows dug into levels 1 and 2 in area 3. Around the nearest Baobab tree, (directly north of area 3) a number of stone rows were found, running in different directions, suggesting an area where children might have played.

In the reddish-brown sandy soil underlying the Iron Age deposit numerous stone tools were found, belonging to the Late Middle Stone Age and Later Stone Age.

A cave shelter on top of the eastern section of the sandstone ridge to the south of the site, contains a series of unusual abstract paintings of non-human or faunal subjects, which are considered by Harald Pager (pers. comm.) to be of Iron Age origin and associated with the site below. An investigation however, showed only a small number of pottery sherds, but a vast amount of stone tools, most of which belong to the Late Stone Age. No paintings have been found in rocky overhangs or small shelters bordering on the site, and it seems therefore unlikely that the paintings can be associated with the Iron Age occupation.

2) The excavations

a) General Description

In total six areas were excavated, varying in size from small trenches to fairly extensive horizontal excavations. The positions of various excavations are haphazard in relation to one another, as the nature of the site with its thick undergrowth and rocky outcrops made it too difficult to survey fully and place a grid across. A site plan without contours was drawn up, and the relevant features and trenches shown (see figure 8).

Originally a series of small test trenches was planned in various parts of the site, to determine the nature of the deposit, before larger excavations were undertaken. This was acceptable in theory

but it proved to be the case in practise that too little information was being recovered for the amount of time spent, bearing in mind that time and money was limited. It was then decided to concentrate on surface features, and larger excavations were done where interesting accumulations were found.

The deposit in each area could not be directly correllated with the others. There were no distinguishing levels, such as burning for example, that could be followed through. However, three main distinctions on the grounds of colour could be made, namely an upper dark (humus) section, a lighter middle section and a reddish brown lower section.

TABLE 9

Schroda: General colour division of levels

Upper	Dark humus, brown to grey-brown in colour
Middle	Light soil, light grey to grey in colour Contains ash, and in certain areas, dung
Lower	Reddish-brown sandy soil mixed with charcoal and cultural material

It is doubtful whether these divisions can be used for comparing individual levels throughout the site, as a similar occurrence was noted at Pont Drift TPD 1/1. In particular it must be remembered that Schroda covers a very large surface area, and that unless a very large population was living on the whole area at the same time, one should not accept the basal level of one area to be necessarily the same age as the basal level in another area. It is quite conceivable that there might have been movement and settling on different parts of the site at different times and therefore to use the colour as basis for correlating levels is very risky.

The texture of the deposit varied from pure ash through to sandy soil, with patches of dung interspersed in various levels. Some levels had little in the way of cultural remains in them, while

others contained heavy concentrations of pottery and faunal material. Particularly areas 4 and 5 were found to yield vast quantities of ceramics and bone. Other cultural remains were few, considering the total amount of soil excavated. These comprised 1 burnt down hut, a gravel floor outside a disintigrated hut (i.e. not burnt), two probable beast burials, four human child skeletons, one human adult skeleton with grave goods, and a cache of very interesting clay figurines, in addition to the normal array of ornaments, beads, tools and weapons.

b) Area 1: Description of levels

Area 1 consists of a test trench of 1 x 4 metres divided into two 1 x 2 metre squares, labled A1 and B1 respectively. Table 10 gives the details of the levels.

TABLE 10

Schroda Area 1: Details of levels

Level	Depth (cm)	Colour and Texture
1	0 - 11	Grey-brown sandy soil
2	11 - 17	Grey ashy soil
3	17 - 25	Grey ashy soil
4i	25 - 27	White ash and charcoal
4ii	27 - 37	Grey-yellow sandy soil with ash
5	37 - 50	Grey sandy soil
Bedrock	50	

Level 1 consisted of a grey-brown sandy soil which was fairly soft. In corner A1, a stone concentration became visible. This was excavated separately, but contained no cultural material. A few fragments of burnt daga were found in B1. Other finds were beads, pottery and bone. Generally speaking, little material was recovered, with A1 having less than B1. Thickness varied between 5 and 10 cm.

Level 2 contained grey ashy soil which was softer than in level 1. Little cultural material was recovered in A1, but B1 yielded more than before. The rim of a large pot (A1.2.3) was noticed in A1, and a 200 mm wide baulk was left for context control purposes. Depth was between 7 and 12 cm.

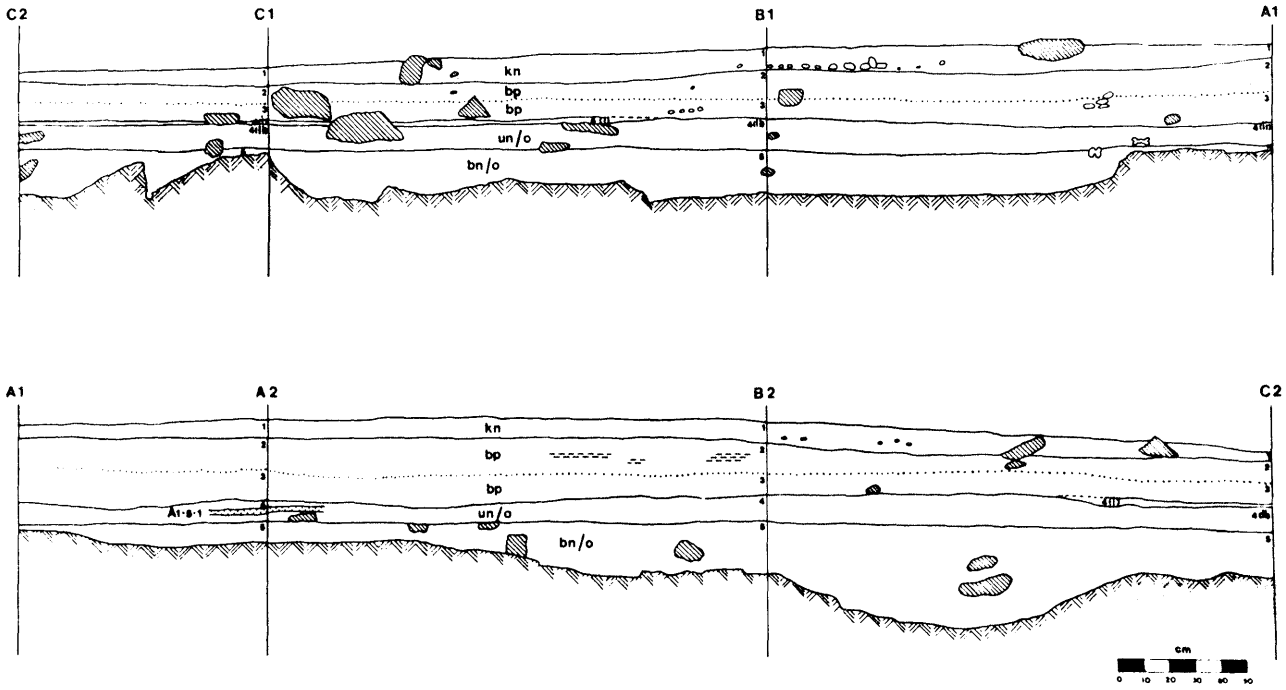


Figure 9

Schroda: Profile of Area 1

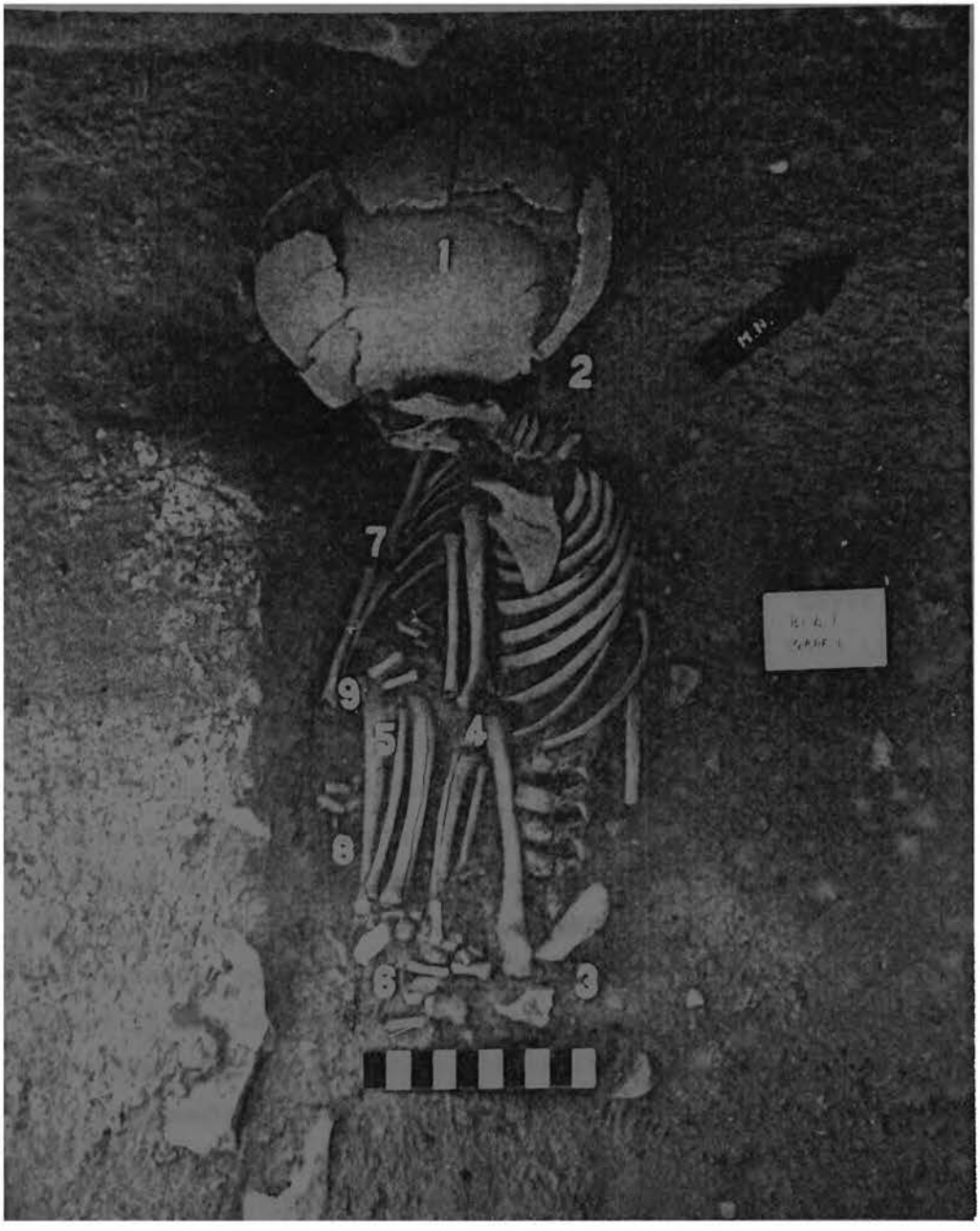


Plate 4

Schroda area 1: Burial B1.4.1 in tightly flexed position. A small rodent burrow at 2 runs underneath the neck, and has removed parts of the right arm.

An arbitary division was made between levels 2 and 3, and level 3 continued to have the same colouring and texture as level 2. A slight exception was noticed in B1, where the texture in places became slightly more gravelly. There was little cultural material, with B1 still containing more than A1. Thickness of this level was also between 7 and 12 cm.

Level 4 was sub-divided in square B1. The upper layer 4(i) occurred in the third of the square closest to C1 - C2, and contained white ash with charcoal fragments for a depth of 2 - 3 cm at the edges but with a definite bulge of some 6 cm towards its centre.

This gave the impression of the ash having been thrown away in a heap and gradually spreading out in a lens-shape. Layer 4(ii) contained a grey-yellow sandy soil with ash mixed into it. Little cultural material was found, but in B1 the skeleton of a child (B1.4.1) came to light. It had been buried in the flexed position, lying on its right side close to corner B2, with the head pointing to line B2 - C2 and facing south. The skeleton had been slightly disturbed in that part of the right hand was missing. This was due to a rodent tunnel. The grave had been dug from higher up in the sequence, but no indication of a grave shaft could be found, either in the form of colour, texture or soil hardness changes when digging, or as a definite break in the profile along B2 - C2. No grave goods were found. The skeleton was lifted in a plaster cast for transport to the Museum, where it was later removed for identification. The thickness of this level varied between 8 and 13 cm.

Level 5 continued down to bedrock, which was very undulating, resulting in a thickness variation of between 2 and 40 cm with the greater part of the level averaging out at approximately 12 cm. Grey sandy soil mixed in places with ash formed this basal level. A yellowish-brown unconsolidated gravel floor A1.5.1 with a fragmented potsherd on top of it was recorded in corner A2. This unconsolidated floor was 30 mm thick and extended some 30 to 40 cm into the trench. A single hammerstone B1.5.1 was found in square B1.

On examination of the baulk that had been left in A1 when the pot rim appeared, it was noticed that there was a slight colour change

immediately around the vessel, indicating that it had been deliberately buried. On removal it was found that the pot had no base. No sherds were found to fit.

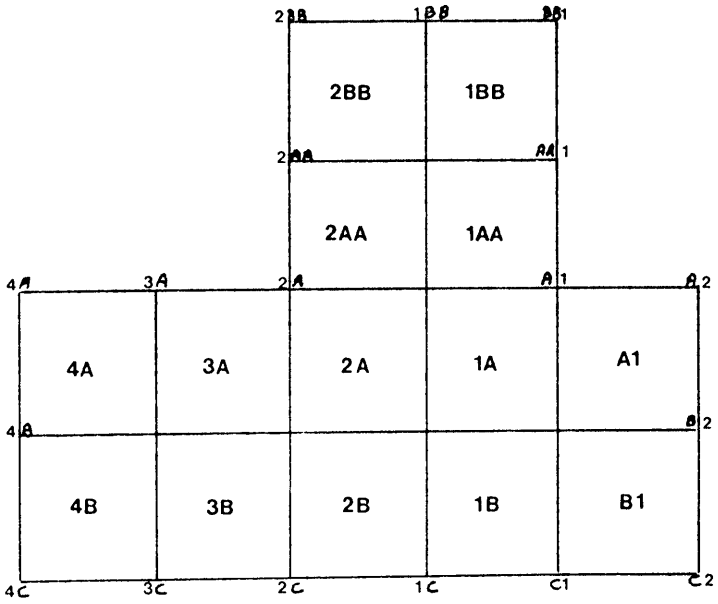
c) Area 2: Description of levels

Originally a trench consisting of two squares, each 1½ by 2 metres, was dug. It was decided to extend the excavation when a consolidated red gravel floor was uncovered in level 4. Similar floors had been found frequently at K2, but at Schroda this was an unrecorded feature. The rectangles used in the trench were enlarged to form proper two by two metre squares and a larger horizontal area was opened up.

Figure10 shows the area with the peg numbers in the corners and the square numbers inside, while table II gives a resumé of the depths, colour and texture of the levels.

Figure 10

Schroda Area 2: Plan of excavation showing square and peg numbers



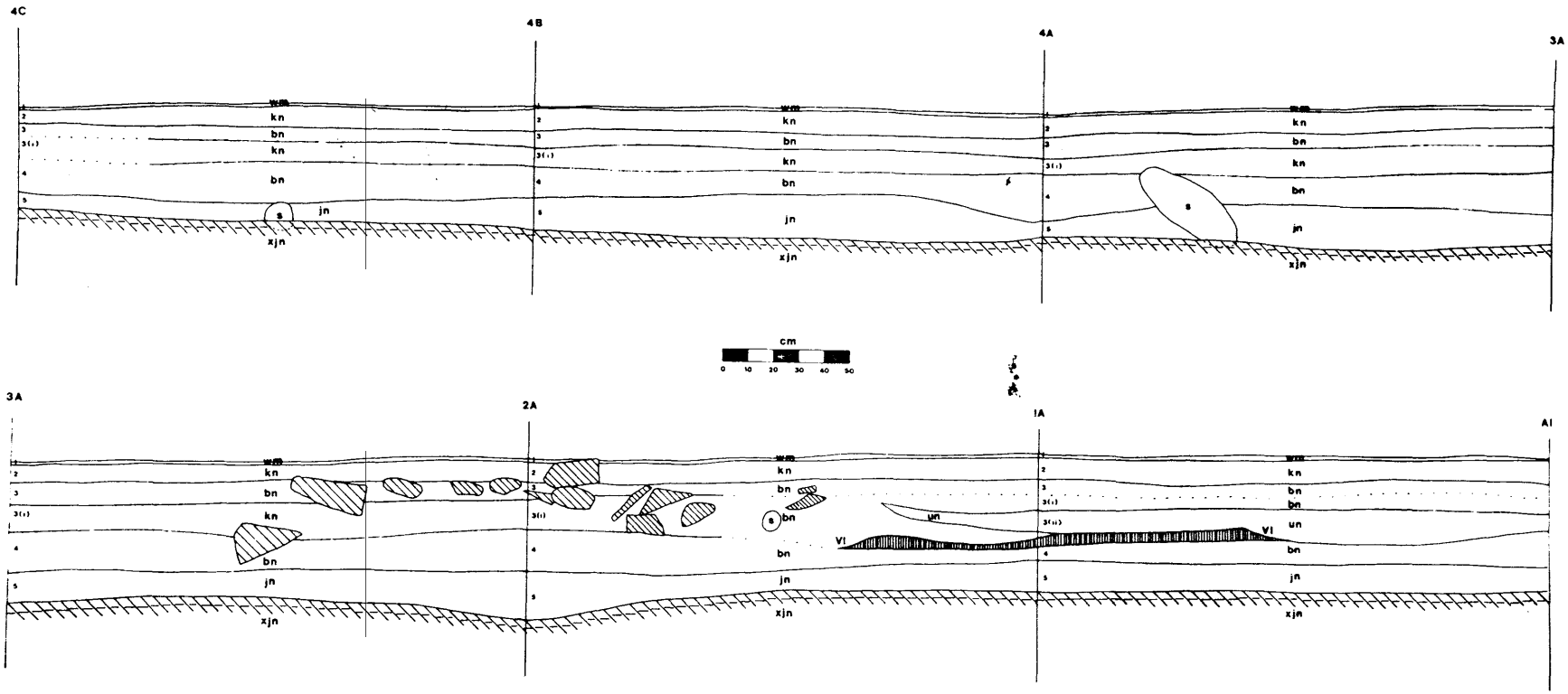


Figure 11

Schroda Area 2: Profile of line 4C - A1

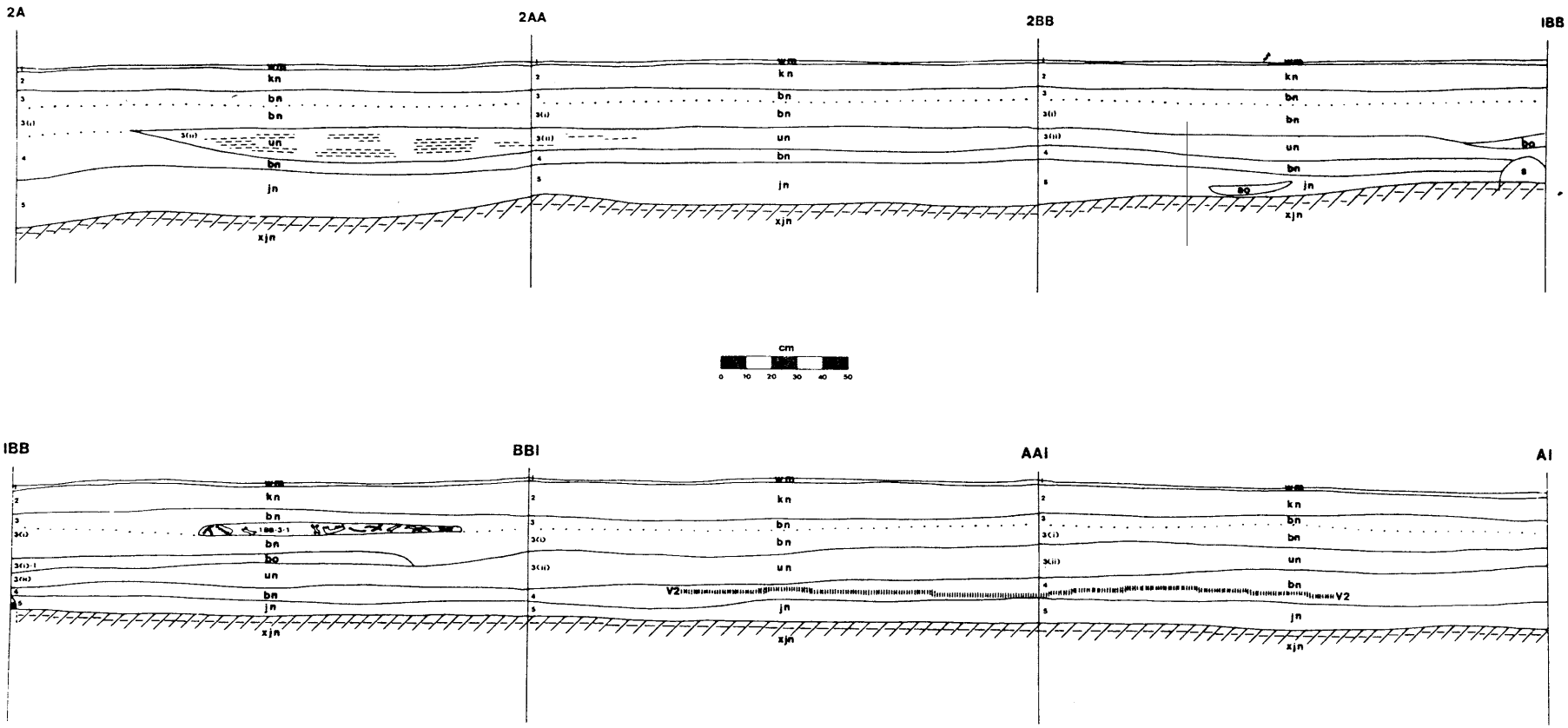


Figure 12

Schroda Area 2: Profile of line 2A - A1

TABLE 11

Schroda Area 2: Details of levels

Level	Depth (cm)	Colour and Texture
1	0 - 2	Pink-brown sand
2	2 - 10	Grey-brown sandy soil
3	10 - 15	Grey sandy soil
3i	15 - 25	Grey to greybrown sandy soil
3ii	25 - 33	Greyish yellow sandy soil
4	33 - 38	Gravel floor with grey sandy soil
5	38 - 54	Reddish-brown sandy soil
Sterile Soil	54	

Level 1 was a thin pink-brown sandy level, presumably of aeolian origin. Thickness varied between ½ and 1 cm. A line of stones (A1.1.1), in places up to 50 cm wide was visible on the surface. This seemed to form part of a low wall. In the excavation these stones began along line A2 - B2, approximately 50 cm from Peg B2, continued in a straight line to peg B1 and curved gradually around in the direction of 2A.

The base of this line of stones was found in level 2, terminating on the division with level 3. The sandy soil was grey-brown in colour and well consolidated. Thickness throughout the excavated area was consistent, varying between 4 and 8 cm.

Part of a stone circle, consisting mainly of a single line of stones (B1.1.1) was excavated, stretching in an arc from peg B2 through to 60 cm from C1 along line C1 - C2. Inside this, a stone concentration (B1.2.1) was found slightly below the level of the stone circle. A few potsherds and bones were removed from this concentration. There does not appear to be any relationship between these two features. Very little cultural material was found in level 2, the pottery and faunal remains being well fragmented.

Level 3 was distict from 3(i) in certain squares, but had to be arbitarily divided in others. Grey sandy soil was in evidence throughout the layer, being much softer than in 2. The area around lines 2, 3, and 4 contained numerous small pebbles. Cultural material was more common and less fragmented. A large concen-

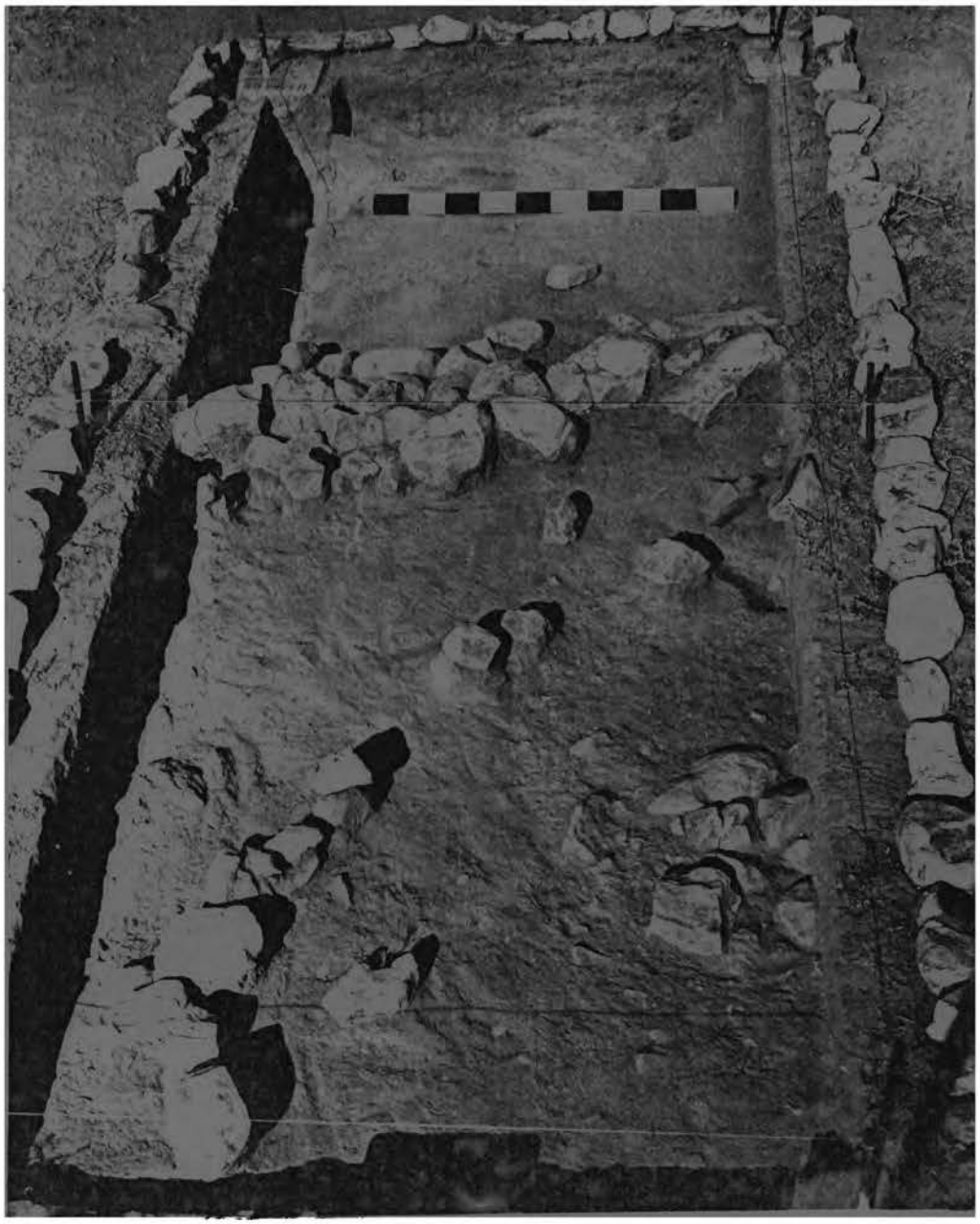


Plate 5

Schroda Area 2. General view of original excavation showing stone semi-circle B1.1.1 with the stone wall A1.1,1 in the middle

Plate 6

Schroda Area 2: Aerial view of the wall A1.1.1 extending across the excavation.

Table 24

Schroda area 3: Percentages of stamped and incised decoration.

Level	Stamped	%	Incised	%
1	10	90,9	1	9,1
2	11	78,6	3	21,4
3	17	73,9	6	26,1
4	33	75,0	11	25,0
5	26	68,4	12	31,6
6	19	90,5	2	9,5

Percentages are expressed as part of the total of each individual level.

Figure 28

Schroda area 3: Results of table 24 expressed in graphic form.

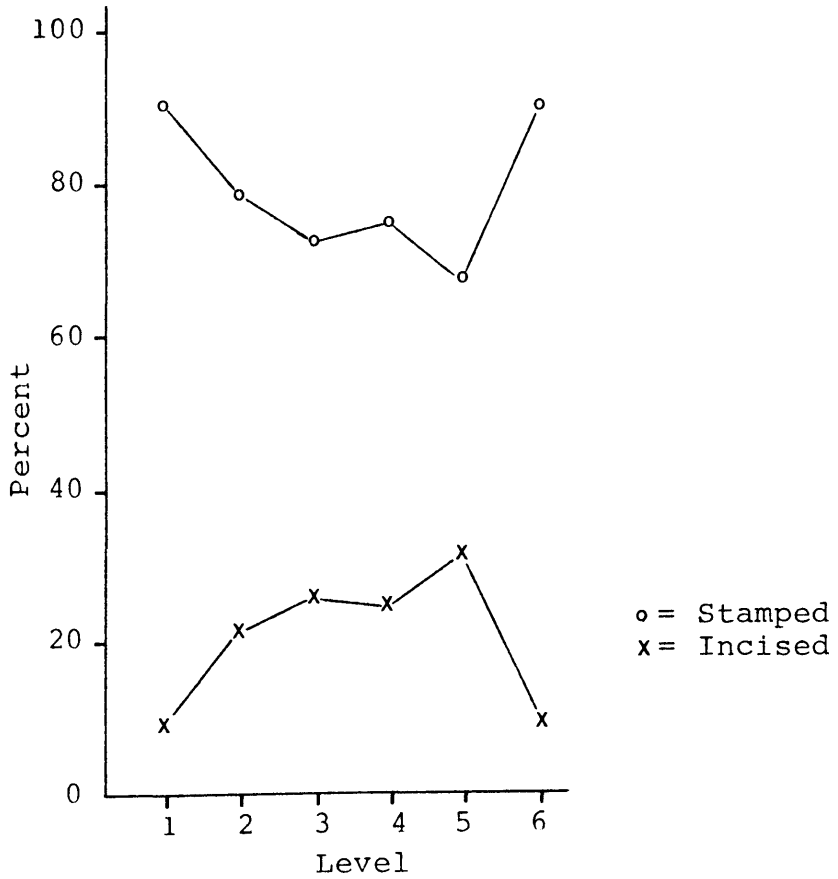


Table 25

Schroda area 4: Percentages of stamped and incised decoration.

Level	Stamped	%	Incised	%
1	203	69,3	90	30,7
2	230	77,2	68	22,8
3	44	80,0	11	20,0

Percentages are expressed as part of the total of each individual level.

Figure 29

Schroda area 4: Results of table 25 expressed in graphic form.

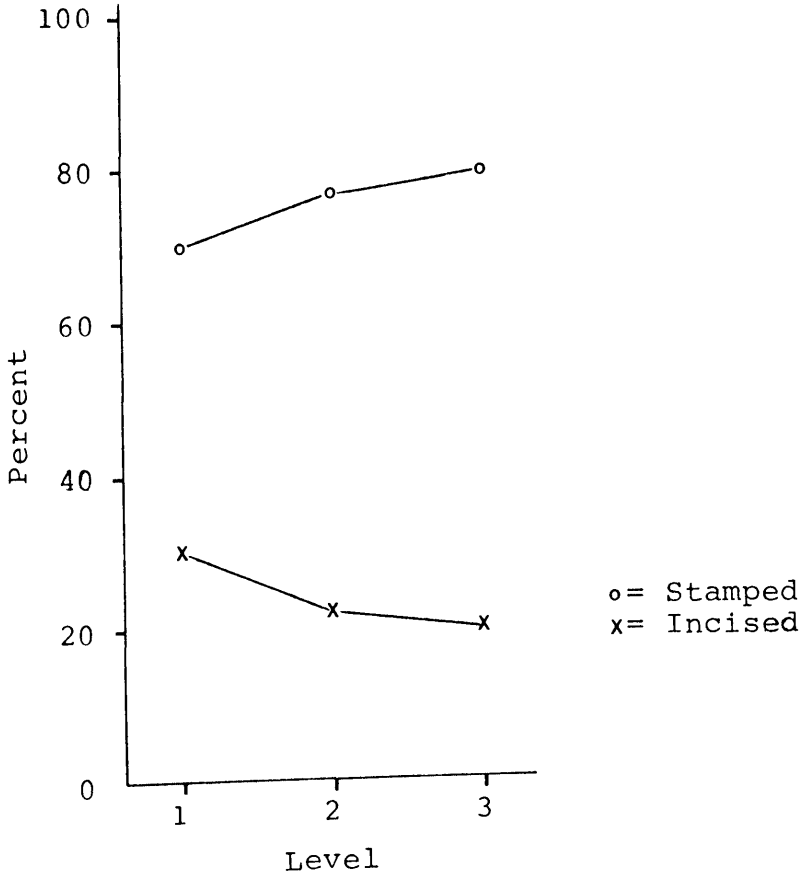


Table 26

Schroda area 5: Percentages of stamped and incised decoration.

Level	Stamped	%	Incised	%
1	19	61,3	12	38,7
2	28	80,0	7	20,0
3	151	54,1	128	45,9
4	194	61,4	122	38,6
5	245	69,0	110	31,0
6	127	77,4	37	22,6
6i	31	81,6	7	18,4
6ii	21	84,0	4	16,0
6iii	51	68,9	23	31,1
7	137	74,5	47	25,5
7i	5	100	0	0
7ii	2	50,0	2	50,0
8	124	79,0	33	21,0
9	97	78,2	27	21,8
10	48	81,4	11	18,6
10i	12	75,0	4	25,0
11	25	86,2	4	13,8
12	26	92,8	2	7,2

Percentages are expressed as part of the total of each individual level.

Figure 30

Schroda area 5: Results of table 26 expressed in graphic form.

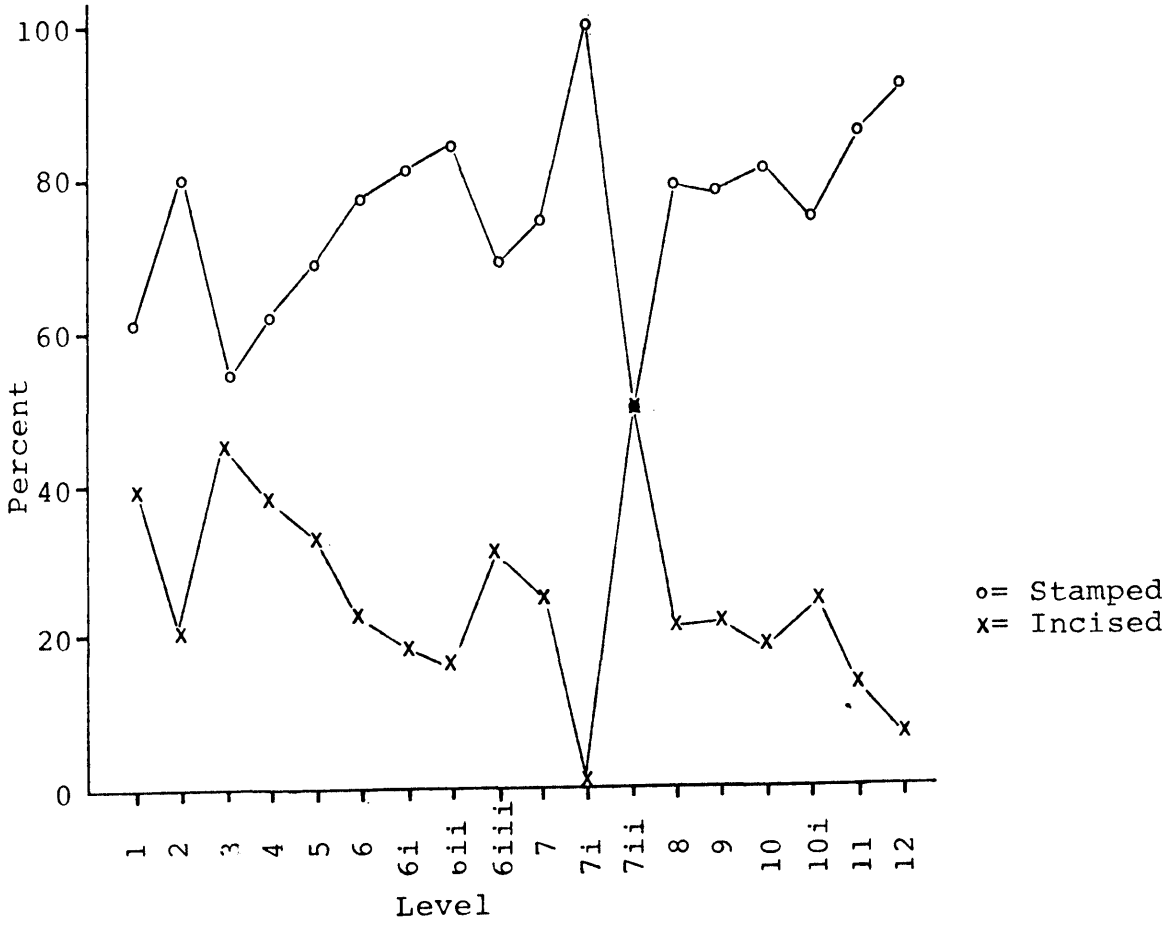


Table 27

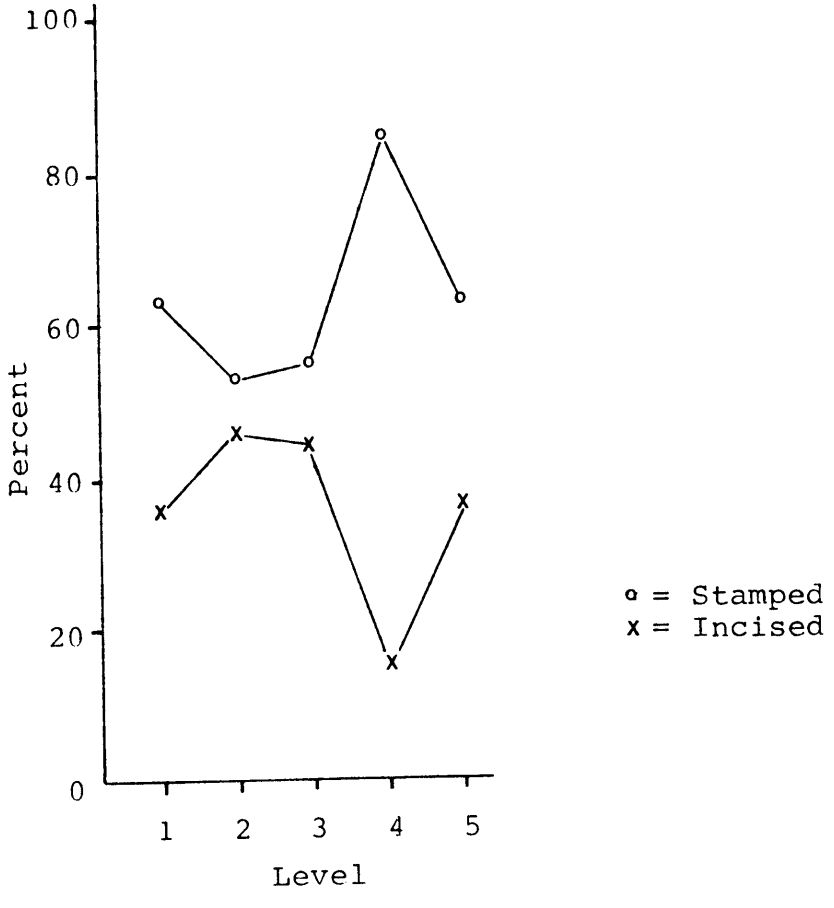
Schroda area 6: Percentages of stamped and incised decoration.

Level	Stamped	%	Incised	%
1	7	63,6	4	36,4
2	51	53,1	45	46,9
3	27	55,1	22	44,9
4	17	85,0	3	15,0
5	10	62,5	6	37,5

Percentages are expressed as part of the total of each individual level.

Figure 31

Schroda area 6: Results of table 27 expressed in graphic form.



Dentate stamping	A	31
Bangle stamping	B	9
Dentate stamping and incision	C	17
Bangle stamping and incision	D	4
Incision	E	66

Just under half (48%) of the motifs were stamp decorated. The totals of each individual type of motif have been tabulated, but the tables have not been included, as little information is forthcoming. The greater majority of the motifs were identified from single examples.

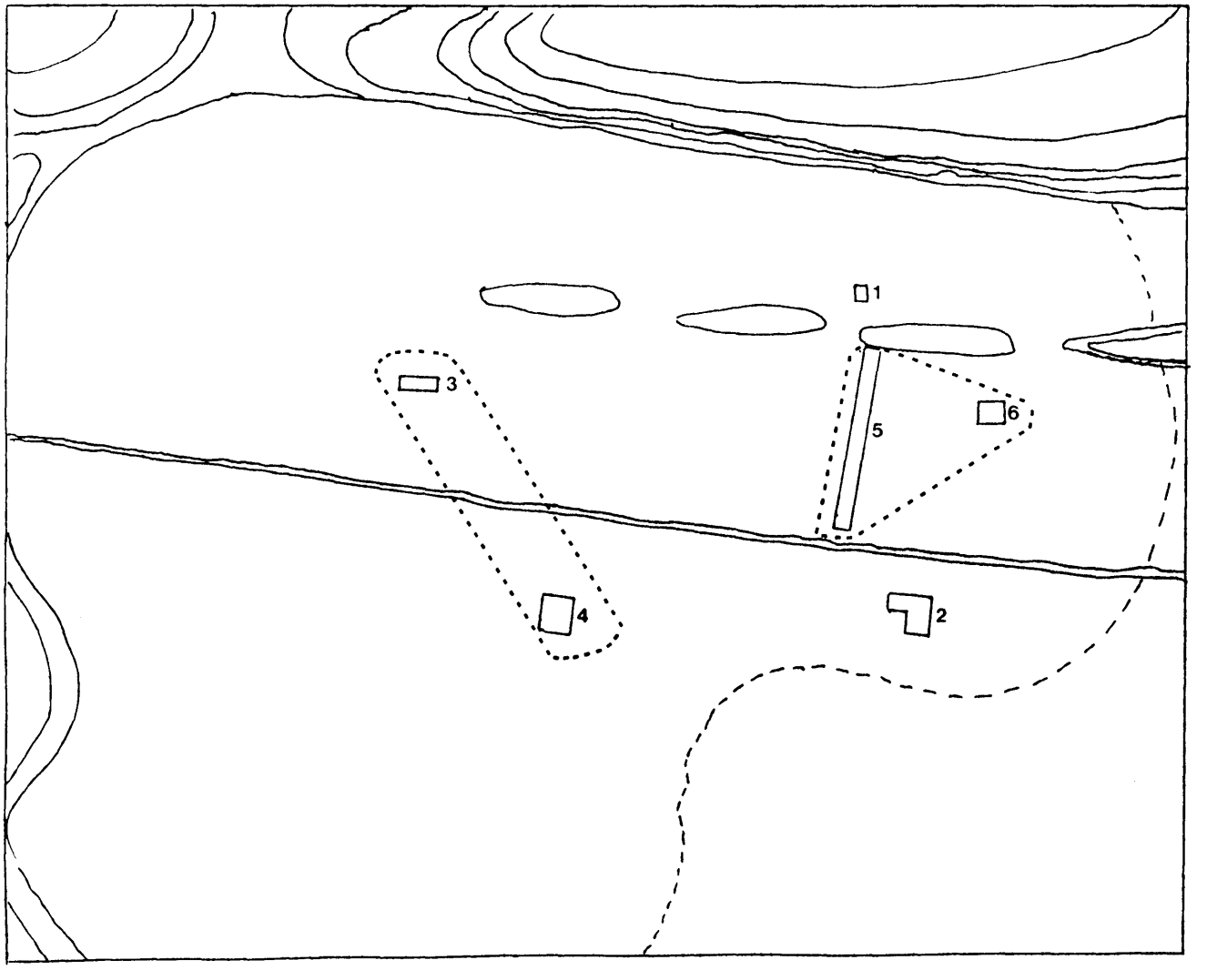
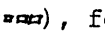


Figure 32

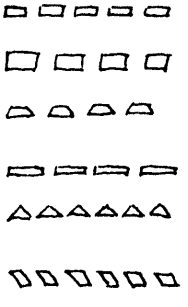
Map of Schroda showing clusters indicating possible activity areas

The most common motif at Schroda is the single stamped line A1.1 (), followed by A5.1 (), A4.1 (), E1.1 (———), B1.1 (), E4.11 () and A6.1 () in that order. Complete tables giving the total numbers of each type of decoration are available, but have not been included.

Six different types of stamp were distinguished, and varied from rectangles to trapeziums and triangles (See figure 33). This suggests that the instrument used in the making of the decoration was a piece of calabash or similar material into which teeth of any shape and size could be cut. No clay stamps of the type found in Rhodesia were excavated. A single sherd with a combination of different stamp shapes was found.

Figure 33

Schroda: Different types of stamp pattern (left) and combination of two types (right)

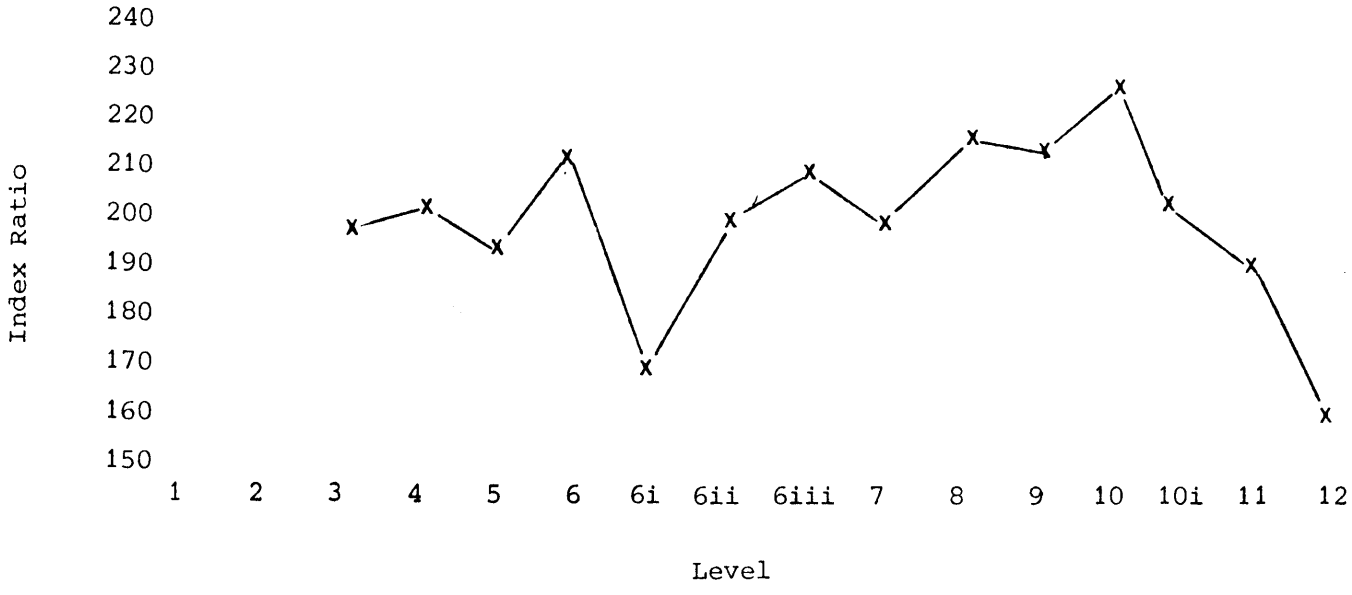


The variation of neatness, size and depth of individual stamp impressions was investigated, with a view to determine whether changes took place within the site. To do this, the width, length and depth measurements of 5 individual impressions were taken, and were respectively added up and averaged. In per sherd addition the number of impressions over a distance of 2 centimetres for two seperate rows was counted and averaged. This was intended to give a coarseness ratio.

A length/width index figure was worked out $(\frac{\text{length}}{\text{width}} \times \frac{100}{1})$ and plotted for area 5. A clear trend did occur, as can be seen in figure 34 .

Figure 34

Schroda Area 5: Length/width index for stamp impressions



A high index reading indicates long narrow stamp impressions, while a low figure shows an almost square shape. From levels 12 to 10 there is a sharp increase in the index figure, showing a change from nearly square impressions to elongated ones. From levels 10 to 6(i) there is a more gradual decrease back to the nearly square shape. From 6(i) to 3 the index ratio increased again. Three periods of change are indicated. It is conceivable that these indicate the presence of different potters on site over a period of time, or population movements, i.e. new inhabitants of the same stock living in the village.

Incision is present in all levels, and little change in quality was observed. It varied in depth and width. Much of what was found, could be classified as broad line incision, but for the purposes of analysis, no distinction was made.

Layout

Seven catagories for the combination and position of decoration were distinguished in the Schroda sample, namely on rim, under rim, neck, neck/shoulder, rim/shoulder, rim/neck/shoulder, and shoulder. No vessels were decorated along the base.

The layout positions were combined with vessel shape and decoration

as is necessary to form classes. As individual decorative motifs were too few per vessel shape to be meaningful, the motifs were grouped according to basic technique, namely stamping and incision. Tables 28 to 33 give the vessel shape, decoration and layout combinations for each level in all areas.

Table 28

Schroda Area 1: Vessel shape and decoration combined with layout position

Position	Shoulder	Under Rim			Neck	
	Vessel Shape	Vessel Shape			Vessel Shape	
Level	S Indt Pot	S 1	I 3	Indt Pot	S Indt Pott	I Indt Pot
1						
2	2	1	1			
3	1					1
4					1	
4i				1		
4ii	2			1		
5						

S = Stamped
I = Incised

It is clear that there is no clustering taking place at all in any area, and therefore all areas must be combined. This is not easy, as one cannot expect two excavations some 300 metres form one another to be similar (Areas 3 and 6). Two approaches were used to try to overcome this problem.

Firstly an attempt was made using the stratigraphy to combine areas. This was only partly successful, as only areas 3, 5 and 6 could be combined on the basis of an ill-defined dung level occurring close to the bottom of each area. Dung was present in areas 1 and 2 but in different relative positions, which excluded them from being included in the combination.

Table 29

Schroda Area 2 : Vessel shape and decoration combined with layout position

Position	Shoulder				Under Rim					Neck				Neck/Shoulder		Rim/Neck/Shoulder	
	Vessel Shape				Vessel Shape					Vessel Shape				Vessel Shape		Vessel Shape	
	S		I		S		I			S		I		S	I	S	I
Level	Indt Pot	10	Indt Pot	Indt Bowl	1	16	Indt Pot	13	Indt Pot	1	Indt Pot	1	Indt Pot	5	Indt Pot	Indt Pot	5
1																	
2	3						2		4		1		1				
3	1		1						2		3		6				
3i	11			1			3		2	1	6		5	1	1		
3ii								1					1				
4	6		2			1	1		1		4	1	2				
5	4	1			1		2				1		1			1	1

S = Stamped
I = Incised

Table 30

Schroda Area 3: Vessel shape and decoration combined with layout position

Position	Shoulder	Under Rim		Neck				Neck/Shoulder		Rim/Neck/Shoulder
	Vessel Shape	Vessel Shape		Vessel Shape				Vessel Shape		Vessel Shape
	S	S	I	S		I		S		S
Level	Indt Pot	Indt Pot	Indt Pot	4	Indt Pot	6	Indt Pot	7	Indt Pot	1
1										
2		1					1			
3					2		2			
4	5		1		2	1			1	
5					1		2	1	1	
6		1	1	1	1					1

Table 31

Schroda Area 4 : Vessel shape and decoration combined with layout position

Position	Shoulder			Under Rim						Neck				Neck/Shoulder		Rim/Neck/Shoulder
	Vessel Shape			Vessel Shape						Vessel Shape				Vessel Shape		Vessel Shape
	S		I	S			I			S			I	S		S
Level	Indt Pot	Indt Bowl	Indt Pot	24	Indt Pot	Indt Bowl	1	6	16 Indt Pot	1	3	Indt Pot	1	13	Indt Pot	1	1
1	11	1	4		5	1		1	1 3	4	1	12			1		
2	20		6		7		1		2			18		1	7	3	
3	3	1		1	2								1				1

S = Stamped
I = Incised

Table 32

Schroda Area 5: Vessel shape and decoration combined with layout position

Position	Shoulder						Under Rim									Neck									Neck/ Shoulder			Rim/ Shoulder			On Rim
	Vessel Shape						Vessel Shape									Vessel Shape									Vessel Shape			Vessel Shape			Vessel Shape
	S				I		S						I			S						I			S		I	S		I	I
Level	16	28	Indet Pot	Indet Bowl	1	Indet Pot	Indet Bowl	1	3	5	11	21	Indet Pot	3	38	Indet Pot	1	2	3	5	37	Indet Pot	1	5	Indet Pot	2	3	Indet Pot	2	1	3	7	Indet Pot	1	7	Indet Pot
1																																			
2			2			1							2																						
3			12		1	4		1					4			6					1	7		1	8			1						1	
4			13			4							5			4						3			8										1
5			19			6			1				5			5	1		2			12			5			1					1		1
6			11			4				1	1		7			1		1				12	1		3			1		2					
6i			4			1																3			1			1							
6ii			2							1						1												1	1						
6iii			5			2						1	2			2						5			3	1									
7		1	13	1									5			3						20			3	1	1	1		1		1			
7i																				1		1													
7ii							1																												
8	1		6			1							5	1	1	6						14	1	1	3			1		1					
9			10			2							4			2						13			3			1			1				
10			7					1					3			2						6			3										
10i						2										1						2						1							
11			5										1																						
12			1										1									2													

Table 33

Schroda Area 6 : Vessel shape and decoration combined with layout position

Position	Shoulder				Under Rim		Neck						Neck/Shoulder	Rim/Neck/Shoulder
	Vessel Shape				Vessel Shape		Vessel Shape						Vessel Shape	Vessel Shape
	S			I	S	I	S					I	S	S
Level	Indet	Pot		Indet	Pot	Indet	Pot	1	2	5	Indet	Pot	4	Indet	Pot	11	1
1				1								1					
2	4	1		2	1	1				3	1	4	1	1			
3	4			2	4	1			1								
4	5							1		1	1						
5	3				1												

S = Stamped
I = Incised

Area 4 contained no dung. The results of this excercise are shown in tables 34 to 37.

No conclusions could be reached, mainly because the sample remained to small.

The second approach was to divide all excavations arbitrarily into equal groupings of levels. This was based on area 4, which had the lowest number of levels, namely 3. This division was based on the assumption that rates of deposition throughout the site were the same, irrespective to the final depth of deposit.

Tables 38 to 42 give the details.

Several facts came to light with this grouping. The most common position for stamped decoration is on the shoulder, followed closely by decoration in the neck. The 'under rim' position is also frequent.

Incision on the other hand is most frequently found in the neck of a vessel, then under the rim and thirdly on the shoulder.

Combining vessel shape and decoration, a clear trend emerges, in that shape 1 is common to most layouts, the apparent exception being layout position 'shoulder'. The other vessel shapes are limited to a few examples of each.

Rims

A classification list for rims was started, but on analysis of the rim shapes it became clear that a very large percentage of the rims rest on two types, i.e. one with a round profile, and another with a flattened profile. The study was stopped when it was noticed that these two shapes occurred frequently on the same vessel. It is obvious that a variety of clearly different rims does exist, but in view of the variability within a single vessel it seems doubtful whether any meaningful results will be found at Schroda.

The classification lists as well as the tables have therefore not

Table 34

Schroda: Distribution of attributes combined with layout position 'under rim'

LEVEL	Area 3	Area 5	Area 6	Stamped 1	2	3	4	5	7	11	16	21	24	28	37	Indt Pot	Incised 1	2	3	4	5	6	7	10	13	16	38	Indt Pot
	1	1														2												
		2														4												
	2	3	1	1												5												7
		4																										4
		5				1										5												5
		6						1		1						7												1
	3	6i	2													2						1						2
		6ii																										1
		6iii														2												2
		7														5												3
	4	7i	3													4												2
		7ii																										
		8														5												
	5	9	4													4		1									1	6
		10														3												3
																												2
		10i																										1
	6	11	5													2												1
		12														1												

Table 35

Schroda: Distribution of attributes combined with layout position 'neck'

LEVEL	Area 3	Area 5	Area 6	Stamped 1	2	3	4	5	7	11	16	21	24	28	31	Indt	Pot	Incised 1	2	3	4	5	6	7	11	13	16	38	Indt	Pot
	1	1																												
		2																												
	2	3	1												1	7						1							10	
		4														3													8	
		5		1		2										12													5	
		6			1											12		1											3	
	3	6i	2													8					1								7	
		6ii																												
		6iii														5													3	
		7														20													3	
	4	7i	3		1			1								4						1								
		7ii																												
		8														14		1				1							3	
	5	9	4	1			1									13													5	
		10														6													3	
		10i														2														
	6	11	5				1									1														
		12														2														

Table 36

Schroda: Distribution of attributes combined with layout position 'neck/shoulder'

LEVEL	Area 3	Area 5	Area 6	Stamped 1	2	3	4	5	7	11	16	21	24	28	37	Indt Pot	In cised 1	2	3	4	5	6	7	11	13	16	38	Indt Pot
	1	1																										
		2																										
2		3	1													1												
		4																										
		5														1												
		6														1												
3		6i	2							1						1												
		6ii														1		1										
		6iii		1												1												
		7		1		1										2												
4		7i	3																									
		7ii																										
		8														1												
5		9	4						1							1												
		10																										
		10i														1												
6		11	5																									
		12																										

Table 37

Schroda: Distribution of attributes combined with layout position 'rim/neck/shoulder'

LEVEL	Area 3	Area 5	Area 6	Stamped 1 2 3 4 5 7 11 16 21 24 28 37 Indt Pot	Incised 1 2 3 4 5 6 7 11 13 16 38 Indt Pot
1	1	1			
2		2 3 4	1		
3		5 6 6i 6ii 6iii	2	1	
4		7 7i 7ii	3		
5		8 9 10	4		
6		10i 11 12	5	1	

Table 38

Schroda All areas: Distribution of attributes combined with layout position 'shoulder'

LEVEL	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Stamped 1	2	3	4	5	7	11	16	21	24	28	Indt Pot	Indt Bowl	Incised 1	2	3	4	5	6	7	10	13	16	38	Indt Pot	Indt Bowl
					1																											
	1	1	1		2													2													1	
				1	3	1												23	1	1											8	
					4													13													4	
	2	2	2		5													24													6	
					6													11													4	
					6i													4													1	
	3	3	3		6ii	2												8													2	
				2	6iii													25													2	
	4	3i			7												1	24	1											6	1
			4		7i	3												9													1	
	4i	3ii			7ii																											
					8									1				6													1	
	4ii	4	5		9	4												23													4	
				3	10													7														1
					10i													3	1												2	
	5	5	6		11	5												8									1					
					12													1														

Table 39

Schroda All areas: distribution of attributes combined with layout position 'under rim'

	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Stamped 1	2	3	4	5	7	11	16	21	24	28	Indet pat	Incised 1	2	3	4	5	6	7	10	13	16	38	Indet pat
LEVEL					1																									
	1	1	1		2													2												
				1	3	1	1											9						1				1		9
					4													5												4
	2	2	2		5		1		1									8												9
					6						1		1					7												1
					6i																									
	3	3	3		6ii	2					1							1												4
					6iii									1				2												2
	4	3i		2	7													15	1											7
			4		7i	3												4												1
	4i	3ii			7ii		1																				1			2
					8													5		1								1		6
	4ii	4	5		9	4								1				5												4
					10													3												2
				3	10i											1		2												1
	5	5	6		11	5	1											5												1
					12													1												

Table 40

Schroda all areas: Distribution of attributes combined with layout position 'neck'

	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Stamped 1	2	3	4	5	7	11	16	21	24	28	37	Indt	Pot	Incised 1	2	3	4	5	6	7	10	13	16	38	Indt	Pot
LEVEL					1																												
	1	1	1		2																												
				1	3	1	4		1									1	19	8												
					4														3	4												
	2	2	2		5		1		2										13	7												
					6			1											12	1												
					6i														3													
	3	3	3		6ii	2													8	14			1								
					6iii														5	2												
	4	3i		2	7		1												47	15									1			
			4		7i	3		1			1								1						1							
	4i	3ii			7ii															1												
					8														14			1									1	6
	4ii	4	5		9	4	1				1								19	4	1											
					10														6	2												
				3	10i														2	1	1											
	5	5	6		11	5				1									2	1												
					12														2													

Table 41

Schroda All areas: Distribution of attributes combined with layout position 'neck/shoulder

LEVEL	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Stamped 1	2	3	4	5	7	11	16	21	24	28	Indt Pot	Incised 1	2	3	4	5	6	7	10	13	16	38	Indt Pot
	1	1	1		1																									
					2																									
				1	3	1												1												
					4																									
	2	2	2		5													1												
					6													1												
					6i													1												
	3	3	3		6ii	2							1					1		1										
					6iii		1																							
	4	3i		2	7		4		1		1							1												1
			4		7i	3												1												
	4i	3ii			7ii																									
					8													1												
	4ii	4	5		9	4						1						2												
					10																									
				3	10i													1												
	5	5	6		11	5																								
					12																									

Table 42

Schroda All areas: Distribution of attributes combined with layout position 'rim/neck/shoulder'

LEVEL	Area 1	Area 2	Area 3	Area 4	Area 5	Area 6	Stamped 1	2	3	4	5	7	11	16	21	24	28	Indt Pot	Incised 1	2	3	4	5	6	7	10	13	16	38	Indt Pot
	1	1	1		1																									
				1	2	1																								
					3																									
					4																									
	2	2	2		5																									
					6																									
					6i																									
	3	3	3		6ii	2	1																							
					6iii																									
	4	3i		2	7																									
			4		7i	3																								
	4i	3ii			7ii																									
					8																									
	4ii	4	5		9	4																								
					10																									
				3	10i		1																							
	5	5	6		11	5	1											1			1									
					12																									

been included in this study but are available to any interested persons.

Quality

The quality of finish and of decoration was also examined on individual sherds. The spatial spread of the excavated areas makes combination of levels difficult. For this reason, emphasis will be placed on the results of Area 5, which appears to be representative of what has occurred on site in the past.

Table 43 gives the details on quality from Area 5.

TABLE 43

Schroda Area 5: Table showing clustering of attributes used to determine quality of finish and quality of decoration

LEVEL	Quality of Decoration Degree				Quality of finish Degree			
	1	2	3	4	1	2	3	4
1								
2		1	2	2		1	4	
3		1	28	18			41	6
4		1	27	10		1	30	7
5		5	43	11		3	55	1
6		4	29	12		3	40	2
6(i)		1	8	1		1	9	
6(ii)			1	5		1	4	1
6(iii)		2	14	5		1	18	2
7		4	35	11		4	39	7
7(i)			1	1			2	
7(ii)			1				1	
8		3	25	15		1	40	2
9		1	22	13		3	31	2
10		1	14	7			22	
10(i)		1	2	3			4	2
11		1	5				6	
12			3	1			4	
TOTAL		26	260	115		19	350	32

From Table 43 several points come to light. The majority of vessels are finished to degree 3. From level 9 on, there was slight improvement in the quality of finish.

At the same time, looking at the quality of decoration, again

one finds that the majority of decorations falls into degree 3. Looking at degree four, it can be seen that there is an increase towards the upper levels.

When viewed together, these facts suggest that with the increase in incised decoration, the quality of the decoration of the total assemblage decreased slightly. The finish, however, appears to improve slightly. By implication this would mean that the entrance of people bringing incised ware (L.K.A?) caused a slight decline in the decoration quality. It would appear, in fact, that the incised decorations were of a poorer standard, while the Zhizo remained constant.

Classes

The decoration sample would appear to be to small to seriate into classes according to vessel shape, layout and motif. Fragmentation of the pottery appears to be the reason for this. A further problem is that in many cases only a single example of a motif was recorded against a particular vessel shape. To overcome this problem, the motifs were divided into basic techniques namely stamping and incision. These catagories were compared to vessel shape and layout position. Referring back to tables 38 - 42, certain trends are clear. Vessel shape 1 combined with stamp decoration under the rim apparently occurs throughout. Vessel shape 1 combined this time with stamp decoration in the neck also occurs throughout. The third trend is that vessel shape 1 combined with stamp decoration on the rim, neck and shoulder tends to occur in the middle and lower levels. These are summarized in table 44.

TABLE 44

Schroda: Decorated Class Trends

	Vessel shape	Decoration	Layout
Trend 1	1	Stamp	Under Rim
Trend 2	1	Stamp	Neck
Trend 3	1	Stamp	Rim/Neck/ Shoulder

Type series

No clear type series can be proposed for the Zhizo site at Schroda. Stamp decoration is predominant over incision. The major decorated vessel shape is 1, but other pots, bowls, beakers and beaker bowls are to be found.

The typical Zhizo vessel from Schroda is a globular pot with everted rim with stamped decoration under the rim or in the neck. Single bands on the shoulder of vessels are common, but the typical rim/shoulder or neck/shoulder layout is rare. In addition there are numerous plain bowls and several plain pots.

Red and black ware is present at Schroda, but in a very small proportion. It is definitely less common than in Rhodesia.

ii) Clay figurines

Fragments of clay figurines were by no means scarce at Schroda. Each area excavated presented several fragments. With the exception of area 6, the larger the area dug, the more fragments were found. Area 6 represents a special feature, and should be discussed by itself.

Excluding area 6 then, a total of 31 figurine fragments were found. Tables 45 - 49 show the spread of the fragments through the various levels of each area.

Table 45

Scroda Area 1: Clay Figurines

Level	SQUARE A1	B1
1	x	
2		x
3		
4 (i)		
4 (ii)		
5		

Table 46

Scroda Area 2: Clay Figurines

Level	SQUARE													
	A1	B1	1B	1A	1AA	1BB	2BB	2AA	2A	2B	3B	3A	4A	4B
1														
2														
3									x					
3 (i)				x				x						x
3(ii)														
4								x					x	
5														xx

Table 47

Schroda Area 3: Clay Figurines

Level	SQUARE		
	A1	B1	C1
1			
2			
3			
4			
5	x		
6			

Table 48

Schroda Area 4: Clay Figures

Level	A1	B1	C1
1			xx
2		xxx	
3			

TABLE 49

SCHRODA AREA 5 : CLAY FIGURINES

Level	SQUARE										
	B1	C1	D1	E1	F1	2F	G1	H1	I1	J1	K1
1											
2											
3										X	
4	X	XX	X			X					
5				X							
6	X							X			
6(i)					X						
6(ii)											
6(iii)				XX	X						
7		X									
7(i)											
8											
9		X									
10											
10(i)											
11											
12											

It can be seen from the above tables that figurines were found in virtually every level, and that the spread was fairly even. There was no tendency to cluster in any particular level. It can therefore be assumed that the manufacture of clay figurines remained constant throughout the time span that the site was occupied.

Some of the pieces could be identified, and table 50 shows the

various catagories as well as the numbers of each.

TABLE 50

SCHRODA : CLAY FIGURINE IDENTIFICATION

CATAGORY	NUMBER	%
Animal	1	3.2
Human	7	22.6
Possible Phallic Objects	3	9.7
Unidentifiable (complete	4	12.9
Fragmentary	16	51.6
Total	31	100%

The single animal figurine could be identified as a clay ox. The human figurines were not all complete, and were identified by body pieces with breasts or buttocks or a navel.

The possible phallic objects were three conical objects, one of which had a line of holes pricked into it. The unidentifiable catagory was used for objects that were virtually complete in form but could not be satisfactorily placed in any of the other catagories.

The fragmentary peices were those which were too small to be of use. The human figurines appear to have a slight emphasis placed on their manufacture. In all cases, these appear to be stylized, such as the nearly complete one recovered from area 4 (C1.1.2).

One can assume that most if not all of these stylized humans were female. Arms were rudimentary bulges, while the faces usually had a few lines for features. The buttocks were steatopygic, and a prominent navel is found. Some pieces have scarification marks, and in one case, from area 5, square C1 layer 7, a groove in the back indicating the spinal column was coloured with red ochre.

The cache of figurines found in area 6 has been described elsewhere. (Hanisch, in press). The basic facts are the following:

Over 400 fragments of figurine were recovered from a depth of between 40 and 50 cm below the surface. They had been broken prior to burial, and three clusters could be seen. One cluster (A1.2.1.4) was in the form of a small pit dug into the soil in which fragments of several figurines were crammed. The broken half of a pot covered this feature.

Table 51 gives the different types of figurine as well as the totals. From this table it can be seen that the emphasis lies heavily on the stylized birds, semi-human shapes being the next most popular catagory.

When the collection of figurines from area 6 is compared to that from the rest of the site a distinct difference emerges. The elongated human figurines do not occur in the cache, nor do the stylized birds, which are so common in area 6, occur elsewhere on site. This suggests in turn that the two groups may have had different uses and associations. At present there is too little information about the context of the figurines from Area 6. In particular one would like to know if there are any other features such as huts, with which they can be identified, before a theory is propounded.

The elongated human figurines have always been considered typical of Leopard's Kopje A, but at Schroda they form part and parcel of the site occuring as they do through out the deposit (i.e. level 4 in Area 2; level 1 in Area 4; and levels 5, 6, 6(i) and 7 in Area 5). In all cases they can be associated with Zhizo pottery, and therefore are part of the Zhizo tradition. This then was taken over by the

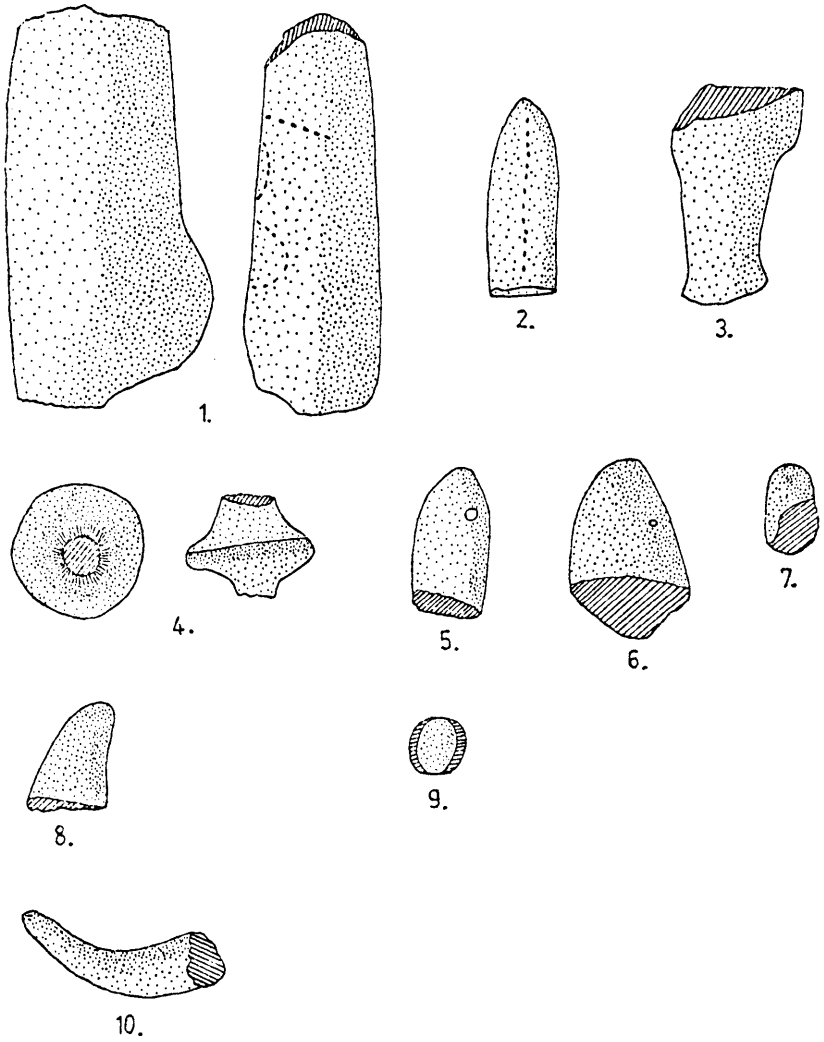


Figure 34a

Clay objects from Schroda (Areas 2 and 3)

1. Fragment of human body from area 2, square 1A, 1A.3(i) .4
2. Unidentified fragment from area 2, square 2A, level 4
3. Section of a leg from area 2, square 2A, level 3
4. Unusual knob from area 2, square 2AA, level 3(i)
5. Unidentified fragment from area 2, square 4B, level 3(i)
6. Unidentified fragment from area 2, square 4B, level 5
7. Unidentified fragment from area 2, square 4B, level 5
8. Unidentified fragment from area 2, square 4A, level 4
9. Garden roller bead mould from area 2, square A1, level 1
10. Probable horn from area 3, square A1, level 5

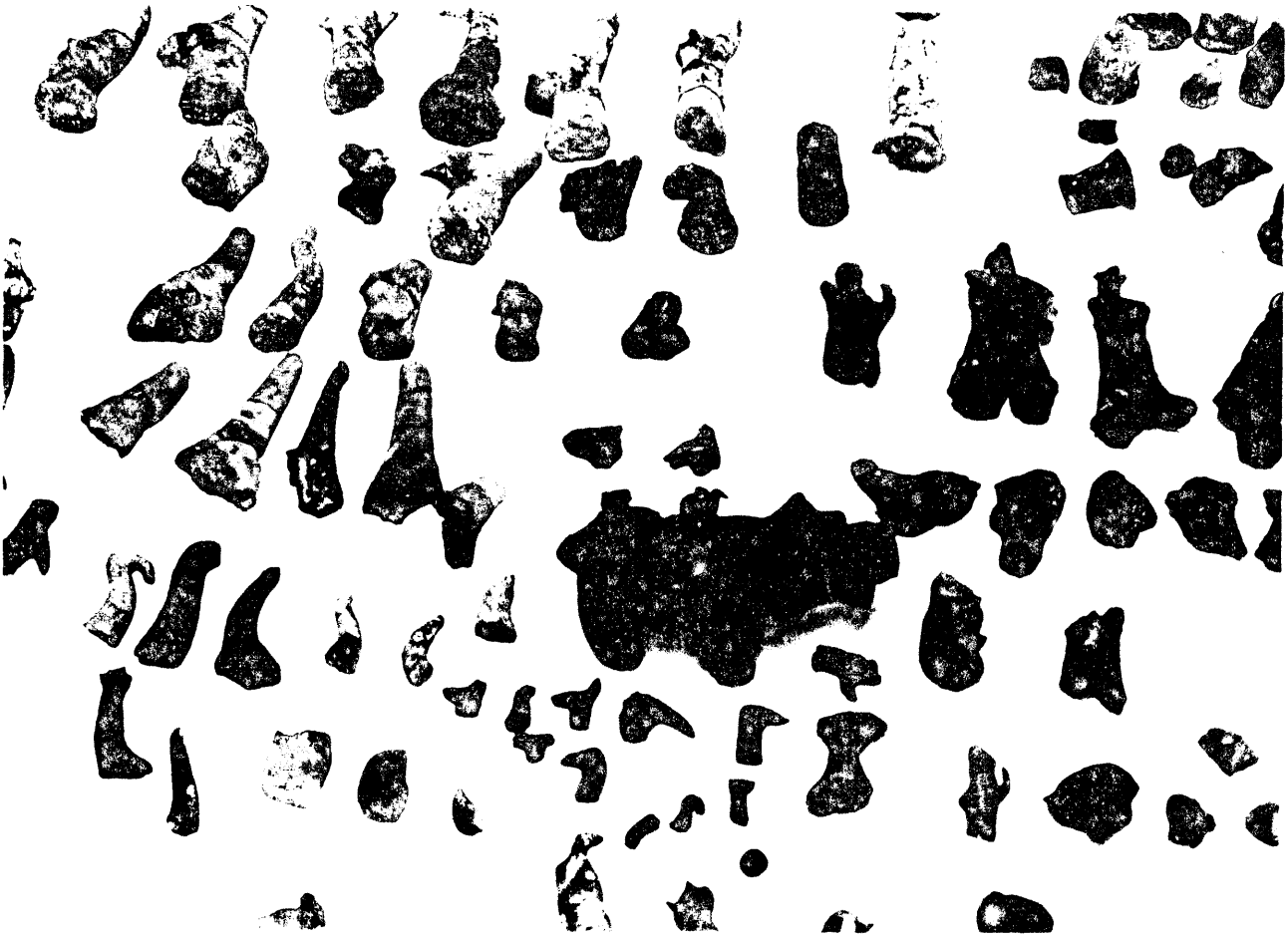


Plate 27

Some of the reconstructed clay figurines from Schroda.

Plate 28

Schroda : Examples of clay figurines
1) Hump-backed ox from area 6.
2) Young ox from area 6.
3) The largest and smallest bird figurines from area 6.
4) A bird figurine with its head turned back.From area 6.
5) A stylized human figurine from area 4. Note the similarity to K2 figurines
6) An unusual eight-legged double-headed creature from area 6.

TABLE 51

SCHRODA AREA 6 : CLAY FIGURINES

SHAPE	NUMBER	%
Stylized Birds	34	11,8
Human	1	0,3
Semi-Human	10	3,5
Baboon	4	1,4
Cattle	4	1,4
Sheep	5	1,7
Elephant	2	0,7
Frog	1	0,3
Hippopotamus	1	0,3
Rhinocerus	2	0,7
Warthog	1	0,3
Double-headed eight-legged creature	2	0,7
Phallic objects	5	1,7
Cat-like creature	1	0,3
Bear-like creature	4	1,4
Giraffe	1	0,3
Hyena-like creature	1	0,3
Unidentifiable buck	1	0,3
Unidentifiable bodies	9	3,2
Fragmentary	201	69,4
	290	100,0%

later Leopard's Kopje A people.

iii) Other

Garden Roller Bead Moulds

Two halves of very neat garden roller bead moulds were recovered, namely from Area 2, square A1, level 2 and from Area 4, square B1 level 1.

Such bead moulds have also been considered to be characteristic of Leopard's Kopje A settlements. At K2 in particular, large numbers of these moulds have been recovered. Admittedly the moulds have been found in the upper levels of Schroda, but the associated pottery remains predominantly Zhizo. Once more this is a feature that appears to have originated earlier than has hither to been assumed.

Abraded Potsherds

Numerous abraded potsherds were found, and could be divided into two basic catagories. The first catagory is potsherds that have been abraded round to form discs, similar to those used by present day Africans for plugging holes in pots during the manufacture of thick milk.

The second type is of indeterminate shape, with one or two sides abraded. They might have been used for the working of skins.

b) Metal Working

No direct evidence of copper or iron smelting was found. There was no abundance of ore, nor signs of slag heaps or remains of furnaces, but fragments of tuyére and pieces of slag were picked up on the surface of the site and were also excavated. Neither was very common, and the type and size of the remains is more suggestive of the reworking of metals such as is done by a smith.

The slag remains were not analysed but probably are from copper and iron working, as both metals were found on site in various forms. Several pieces of slag showed the typical green discolouration of copper, and several potsherds were recovered showing vitrification with adhering copper nodules. Stayt (1968 pp. 64 - 65) refers to copper smelting and resmelting amongst the Lemba and Venda, "The copper was left to cool and then hammered into small cobbles and resmelted in a potsherd about 7 inches in diameter, which was put over the impression in the ground, so that the molten copper could be manipulated easily and poured out into the moulds prepared for it."

Seven tuyére fragments were recovered from areas 4, 5, and 6.

The single fragment from area 4 was the upper or 'funnel' end of the pipe, while the others were the lower ends which had been exposed to the heat of a furnace or forge. Küsel (pers. comm.) suggests that this predominance of end pieces shows that most tuyéres were not fired but only sundried. The sections that were exposed to heat were baked solid while the funnel, which did not receive much heat, disintigrated in the ground after having been discarded.

In total 405 pieces of metal were recovered, which can be divided into weapons, tools, ornaments and unidentified pieces. Table 52 shows the spread of metalwork throughout the excavated areas. Metal beads although included in the above total have been left out of this table and will be discussed in a following section.

From table 52 it can be seen that with exception of the copper ferrule, all tools and weapons are made of iron while copper was reserved for ornaments. Thirty-one pieces of iron were unidentifiable because they were either too fragmentary or were too rust coated. A single fragment of iron from Area 5 level 4 had indications that it had been coated or covered with copper. At Pont Drift TPD 1/2 the excavation produced an iron bangle covered with green oxide, while an iron bangle covered with copper spiral was found on the surface of Parma Hill. This is in the collection of the National Cultural History Museum.

i) Weapons

Only three objects could be identified as weapons. A well preserved spearhead was found in Area 4 level 1, while two rusted arrowheads were recovered from Area 5 in levels 5 and 6(iii).

ii) Tools

More tools could be identified than weapons. Area 4 level 1 contained 2 iron sweat scrapers, 1 iron adze and 2 iron awls. In Area 5 an iron hoe was recovered from level 5, while an adze appeared in level 10. An unusual object from level 4 in Area 5 was a copper ferrule such as would have been used for securing an arrowhead into a wooden shaft. The ferrule showed definite flattening through hammering. Two awls were found in levels 1 and 4

TABLE 52
SCHRODA: DISTRIBUTION OF METALWORK

LEVEL	WEAPONS		TOOLS				ORANAMENTS			UNIDENTIFIABLE	
	Spearhead	Arrowhead	Hoe	Scraper	Adze	Awl	Copper	Bangle	Copper Spiral	Copper covered iron	Iron
Surface of site											1
Area 1: 1											
2											
3											
4i											
4ii											
5											
Area 2: 1											
2											
3									1		
3i								1	3		
3ii											1
4									1		1
5									2		
Area 3: 1											
2									3		
3											
4									1		
5											
6											1
Area 4: 1	1			2	1	2			5		
2									1		
3									1		
Area 5: 1											
2									3		
3									17		4
4							1		21	1	3
5		1	1						16		5
6									5		
6i									1		
6ii											
6iii		1							3		2
7								1	6		2
8									1		3
9									1		5
10						1		1			
11											
12											
Area 6: 1						1					
2											
3									1		1
4						1			1		
5											1

of Area 6.

Some idea of the activities on site can be gathered from the above information, albeit little.

The hoe suggests agricultural activity, which is borne out by the appearence of fragments of charred domesticated grain from certain areas. The adzes indicate wood working while the awls might have been used for leather work.

iii) Ornaments

Numerous pieces of copper spiral were found in all areas except Area 1. These were manufactured from thin copper strips which had been wound around a fibre core. This core had normally disintigrated. In most levels only small fragments were found, but Area 4 level 1 returned an unusually long piece of spiral 74 cm in length. On removal from the ground it broke into numerous pieces. The thickness of the strips varied between 0,35 and 0,84 mm., the width between 1,5 and 2,5 mm and the diameter of the spiral between 3,7 and 5 mm.

Three other ornaments in the form of iron bangles were excavated from Area 2 level 3(i) and Area 5 levels 7 and 10. All bangles were made from solid iron bars which had been bent into a circular shape. All were fragmented, but the bangle from Area 2 could be completely reconstructed, and had an inside diameter of 6 cm. The bangles were all of a relatively small size, such as would be worn around the wrist. The decorative function of the spirals is more difficult to assess, as a result of their fragmented nature. It is conceivable that some might have been used as bangles, but the length of the piece C1.1.5 from level 1 of Area 4 shows other uses like a necklace, or a decoration around the waist.

No indications were found of the methods used for manufacturing copper sheets and cutting these into strips for use in the making of the spirals. It is also likely that the copper stained iron fragment was covered in spiral rather than coating introduced by copper plating methods. Under normal circumstances, copper remains better preserved than iron in an archaeological site, and it is

interesting to note that in this case, as well as at Pont Drift, it is the copper that has disappeared leaving behind the iron core. It is conceivable that the action between metals under suitable moist circumstances could lead to the electrolytic oxidation of the copper, but this hypothesis neads further looking into.

c) Beads

A bead analysis form was compiled and used throughout. Information pertaining to type of bead, colour, condition, shape, diameter, thickness and size of perforation was recorded for each individual bead. From this information summaries were compiled.

i) Glass

In total 667 glass beads were recovered from the site. More than three-quarters of these (76,9%) were so heavily patinated that the original colour could not be determined. In beads that had been damaged during retrieval, it was noticed that the colour deterioration extended throughout the whole bead, and was not just limited to the surface. The beads usually had a dark blue-black surface colour becoming white inside. They were normally fairly brittle, with a clear crystalline structure when freshly broken surfaces were examined. This structure was very clear under a low magnification (hand lens). Eight different colours could be determined, with turquoise being the most common, as can be seen from Table 53.

The diameter of the beads varied from 1 to 12 mm with the greater majority (79,48%) falling between 3 and 5 mm. The thickness of the glass beads varied from less than 1 mm to between 8 and 12 mm. with the majority between 2 and 3 mm in size. Tables 54 and 55 give the details. Area 6 has not been included. From the tables it is noticeable that the beads tend to be small and that there is not a great variety of colour.

Four basic shapes were distinguished adn the beads divided into these catagories, namely cylindrical (diameter less than thickness), flattened (diameter greater than thickness), disc (similar to shell beads) and garden rollers (home-made barrel beads like those found at K2). Out of the 585 glass beads used, 351 (60%) were cylindrical, 232 (39,7%) were flattened, while 1 disc and 1 garden

TABLE 53

SCHRODA : BEAD NUMBERS

Colour	Number	Percentage
White	48	7.20
Turquoise	52	7.80
Light Blue	6	0.90
Dark Blue	10	1.50
Light Green	15	2.29
Dark Green	2	0.30
Black	2	0.30
Yellow	19	2.85
Uncertain	513	76.91
Total	667	100.00%

roller were excavated. The garden roller which came from Area 5 square C1 level3, is of interest, particularly when combined with the bead moulds which have been described under ceramics.

This single bead was very weathered with a deep patination and was in worse state of preservation than those recovered from Pont Drift and K2, in turn suggestive of greater antiquity than those recovered elsewhere.

ii) Ostrich Eggshell

Disc beads are usually referred to as ostrich eggshell beads, but out of the total number of beads recovered from the site, only 810 or less than 13% were made from ostrich eggshell. Most of these beads showed little or no weathering, with only 25 showing

TABLE 54

SCHRODA : GLASS BEAD DIAMETER

Diameter (mm)	Number	Percentage
0-1	0	0
1-2	2	0.34
2-3	100	17.09
3-4	281	48.03
4-5	184	31.45
5-8	13	2.22
8-12	4	0.68
12	1	0.17
Total	585	100.00

heavy weathering, and a further 59 that had signs of burning. The thickness of the beads was generally between 1 and 2 mm. Diameter of the beads varied between 2 and 12 mm, with the emphasis on the larger sizes. More than 90% were between 4 and 12 mm in size, as can be seen from table 56.

The diameter of the perforation was also measured, something that could not easily be done with the glass beads. No obvious pattern was observed with the drilling of the perforation, i.e. there was no preferential side from which the hole was drilled and in many cases, the drilling had been done from both sides. The size of the holes varied between less than 1 mm and 4mm, with the majority

TABLE 55

SCHRODA : GLASS BEAD THICKNESS

Thickness (mm)	Number	Percentage
0-1	5	0.85
1-2	185	31.62
2-3	279	47.69
3-5	109	18.63
5-8	5	0.85
8-12	2	0.34
12	0	0
Total	585	100.00

falling between 1 and 2 mm. Three beads were unpierced. The details are contained in table 57 .

iii) Achatina

The remainder of the disc numbered some 4733 specimens or 74% of the total. These were made from the shell of the large land snail (Achatina spp.).

These land snail shell beads tend to be more durable than the ostrich eggshell beads. In the sample only 1,4 % showed signs of heavy weathering compared to the 3% of the ostrich eggshell beads, while 11% of the Achatina showed light weathering compared to 37% of

TABLE 56

SCHRODA : DIAMETER OF OSTRICH EGGSHELL BEADS

Diameter (mm)	Number	Percentage
0-1	0	0
1-2	0	0
2-3	2	0.25
3-4	40	4.94
4-5	300	37.04
5-8	265	32.71
8-12	203	25.06
12	0	0
Total	810	100.00

TABLE 57

SCHRODA : OSTRICH EGGSHELL BEAD PERFORATION SIZE

Diameter (mm)	Number	Percentage
0-1	35	4.32
1-2	672	82.96
2-3	99	12.22
3-4	1	0.13
4	0	0
Undrilled	3	0.37
Total	810	100.00

the ostrich eggshell beads.

The diameter of the disc varied normally between 2 and 12 mm, with a single bead of less than 2 mm in diameter and 4 beads greater than 12 mm.

The size of the achatina shell perforation is very similar to that of the ostrich eggshell beads, with over 87 % of the discs having perforation of between 1 and 2 mm. Again there was no preference to which side had been perforated first, and many had been done from both sides. Table 59 gives the details .

Minimal numbers of other types of beads were found, all of them coming from Area 5.

TABLE 58

SCHRODA : ACHATINA BEAD DIAMETER

Diameter (mm)	Number	Percentage
0-1	0	0
1-2	1	0.02
2-3	228	4.82
3-4	603	12.74
4-5	1355	28.68
5-8	2032	42.92
8-12	510	10.75
12	4	0.07
Total	4733	100.00

Table 59

Schroda : Achatina bead perforation diameter.

Diameter (mm)	Number	Percentage
0-1	272	5.74
1-2	4154	87.77
2-3	280	5.92
3-4	0	0
4	0	0
Unperforated	27	0.57
Total	4733	100.00

iv) Metal

Two metals were used in bead manufacture at Schroda namely copper and iron. In turn two types were distinguished namely disc and cylindrical beads. The former type contained two shapes in both metals - firstly a round ring, and secondly a nearly square ring with a circular hole.

The round rings were in the minority, and since most of them were badly rust coated, it was difficult to measure the size with any accuracy. The five copper rings had outside diameters of about 12 mm and inside diameters of 8,5 mm.

The 'square' rings were copper and well preserved although a large number of them had very thin sides. The size showed very little variation. The diameter across the shortest axis (i.e. the two parallel sides) was between 10 and 11,5 mm, while across the longest axis the diameter was between 13 and 14 mm. The inside diameter lay between 8,5 and 9 mm.

Twelve cylindrical beads were recovered, of which four were iron.

Areas 3 and 5 contained two fragments of strings of iron beads, which had rusted together and the individual beads could not be seperated nor counted with accuracy.

Table 60 gives the details of the metal beads as found on the surface and in each area according to the level excavated. From the table it can be seen that the metal beads occur in all levels of the site, and are therefore not a later introduction. It would seem that there is an increase in the numbers of beads found towards the upper levels. Individual high counts should, however, not be taken into consideration as the tallies depend on the thickness of the level and whether they spread through all squares that were excavated. No significant difference in shape or size was noted throughout the levels. The method of manufacture of the 'square' beads is not easily determined. Many were found to have a sand coating adhering firmly to them as would be expected had they been cast in sand. The fact that they are so similar in size and shape seems to preclude this possibility. It

	Disc		Cylindrical			
	Copper	Iron	Copper	Iron	Rusted iron Bead string	
Surface of Site	2	2				
Area 1: 1	1		1			
2			1			
3						
4i						
4ii						
5						
Area 2: 1			1			
2	1		1			
3	1					
3i	1					
3ii			1			
4						
5	1					
Area 3: 1		1				
2						
3						
4	1					
5						
6					1	
Area 4: 1	4	3				
2	4	3				
3		3				
Area 5: 1	1					
2	1					
3	14	5	2			
4	12	7				
5	24	10	1	3		
6	8	2				
6i	18	1				
6ii	2					
6iii	8					
7	81	26			1	
8	6	1				
9	1					
10						
10i						
11	1					
12	2					
Area 6: 1						
2						
3		1		1		
4						
5						

seems more probable that a bar or ingot was cast, and worked or hammered into the required shape. Segments or 'slices' could then be cut off to form the individual beads, which then could be threaded onto a fibre core and worn as bracelets. In view of the comparative rarity of these beads, it is also possible that they were worn on the same strings as other beads, such as the shell disc beads, to add variety to the necklace or bangle.

Minimal numbers of other types of beads were found, all of them coming from Area 5.

v) Bone

Two incomplete bone beads were found, both with signs of burning. One was cylindrical in shape, the other a disc. Diameter in both cases was between 5 and 8 mm. The thickness of the cylindrical bead was between 8 and 12 mm with that of the disc between 2 and 3 mm.

vi) Ceramic

Two cylindrical ceramic beads were recovered, with diameters of 3 - 4 mm and 8 - 12 mm, and widths of 3 - 5 and 8 - as mm respectively.

vii) Soapstone

Three interesting soapstone beads were excavated from different levels, two of which were cylindrical in shape, while the third was flattened. Diameter varied between 4 - 5 mm and 5 - 8 mm, while thickness varied between 3 - 5 mm and 8 - 12 mm.

viii) Tooth

Two complete beads made from teeth were found to be identical in shape, diameter and thickness (i.e. cylindrical) 3 - 4 mm and 2 - 3 mm respectively.

Tables 127 - 133 contain the results of the Schroda bead analysis according to Area and level. The metal beads have already been discussed in detail and are therefore not included. Area six has not been included in detail because of incomplete data.

Looking through the individual levels in each area, it can be seen that glass, ostrich eggshell and achatina beads have a

fairly even spread throughout the deposit, nor do any significant change in size or preference take place. Viewed in this perspective then, it would appear that the site forms a single component.

The information contained in the above tables can be summarized in table 61. In total 6398 beads were recovered from the excavations. When converted into percentages the following picture emerges:

TABLE 61

Schroda all areas: Total numbers and percentages of beads

TYPE	NUMBER	%
Glass	667	10,43
Ostrich Eggshell	810	12,67
Achatina	4733	73,97
Metal	179	2,79
Bone	2	0,03
Ceramic	2	0,03
Soapstone	3	0,05
Tooth	2	0,03

Achatina beads are the most profuse, forming nearly three quarters of all the beads found on site.

Assuming that an average of 15 beads with an average diameter of 6 mm could be made from a single shell, bearing in mind that some shells are considerably smaller than others and that not all of the shell is suitable for bead manufacture, then 316 land snails could possibly have been utilized.

Three catagories of beads, namely glass, metal and soapstone are not indigenous to the site or its surroundings and consequently must have been traded in.

Only one type of glass bead, namely the garden roller was manufactured on site, as can be seen from the bead moulds. The garden roller bead that was found in site was too heavily patinated for identification of the colour, but it seems likely on the grounds of the colour

of other known garden rollers that the turquoise beads were resmelted, and cast into moulds. It is interesting to note that the garden roller from Area 5 came from the level with the highest number of turquoise beads.

d) Stone Artefacts

A notable feature in the site was the very large number of pebbles that was collected from each level . Size was generally small, averaging about 3 cm in diameter. Pebbles were not kept from all the areas, and only in Area 5 was a record kept, showing 785 pebbles. The nearest source of supply was, of course, the Limpopo River. The use of the pebbles is uncertain, but could possibly have been the pieces used for games such as isifuba.

The major type of stone artifact was a combination hammerstone/ rubbing-stone, of which 20 were excavated in Area 1, 2 and 5. Areas 3,4,and 6 did not produced any. Several of these combination tools had dimples on one or both sides. Similar stones have been described from the North-western Transvaal as having been used for the cracking open of marula nuts as well as for the sharpening of lower grindstones (Boshier 1965).

Eight hammerstones were found, six of which came from Area 2 and the remainder from Area 5. These did not have dimples nor did they have any indication of having been used for grinding.

A single rubbing stone came from level 9 in Area 5. This is similar to stones in the ethnology collection of the National Cultural History Museum, and which were used by present day Africans for smearing and smoothing of clay hut floors.

From Areas 2, 4, 6 in levels 3, 2 and 2 respectively, came three large stones which had pock marks on both sides, the number of pock holes varying from stone to stone. All stones were very similar in size averaging out at 23.3 cm in length, 18,5 cm in width and 10,8 cm in thickness. It is probable that these stones were used as anvils for the breaking open of nuts such as marulas, the holes serving to prevent the nut from springing away when struck with the hammer.

Grindstones were few, and no grindstone of the type commonly used by the traditional black peoples today could be identified. Three fragments of grindstones with sections of small hollows were recovered, one from the surface, one from level 1 in Area 2 and the other from Area 6. Two complete stones with elongated grinding hollows approximately 20 cm long, 6 cm wide and 3 cm deep were found. The first came from feature 1BB.3(ii).1 in Area 2 and had two parallel grinding hollows on its upper surface. Forming part of the same feature was a large broken stone with a small circular hollow that had been broken right through. These formed part of a hut floor complex and will be discussed in detail later on.

The second complete grindstone had a single elongated grinding hollow and came from feature A1.2.1.7 in Area 6. The length for the hollow was 20 cm, width 10 cm and depth 3 cm.

None of these grindstone fragments was associated with any discernable activity, and only the one from feature 1BB.3(ii).1 in area 2 was associated with the hut reamins.

Two sharpening stones, presumably used for the sharpening or shaping of iron tools and weapons were found, one from Area 2 feature 2AA.3(i).2 and the other in square C1 level 2 in Area 4. This latter stone fragment had shallow but clear V-shaped grooves on both sides, which were 2,5 cm wide and 0,2 cm deep on one side, and 1,5 cm wide and o,4 cm deep on the other. No other stones that might have been used in iron working were found.

e) Structures

i) Clay and Gravel

Only two structures in the form of hut remains and adjacent floors were excavated. Many levels contained pieces of burnt hut rubble, but the remains of these structures were not unearthed, nor were any daga walls or curbs.

In Area 2 a large section of level 4 was sealed off from 3(i) by a red gravel floor which extended in an area from Squares A1 and B1 through to 1BB. This floor was designated V1 and varied in thickness from about 1 cm to a maximum of 5 cm. In many sections it was

friable and had eroded away so that the true form and spread could not be established. The surface was undulating, and was in sections clearly smoothened.

Joining up to this gravel floor was a second smaller floor (V2) which formed a semi-circle along line A1 - BB1 (See figure 35). The floor was thin and friable, being made of a coarse brown sand. Maximum thickness was 2 cm. At the point where floor V2 met floor V1, a concentration of stones existed, consisting of two large flat stones and several smaller ones (feature 1BB.3(ii).1). Both these stones have been described under stone artefacts. The stone with the grinding hollows had been placed upside down, while the adjacent stone had the hole facing the interior of floor V2. The red gravel had been plastered up against these stones, i.e. the stones were not lying on top of the gravel floor. Floor V2 also appeared to be against the stones, but because of the poor preservation this cannot be said with any amount of certainty. However, the soil under the stones was not of the same colour and texture as that of the sandy floor (V2). The two large flat stones were very neatly placed on the perimeter of the circle formed by V2. The width of that part of the circle along A1 - BB1 was 2,52 metres. Extrapolation of the circle gives an approximate diameter of 2,80 metres.

From the plan drawing it is obvious that these are the remains of a hut with an outside or lapa floor. There was no indication of charred posts, nor that either one of the floors had been exposed to heat. No trace of post holes or a trench in which posts had been planted was found.

The flat stones and associated smaller stones (1BB.3(ii).1) are somewhat enigmatic, but their position suggests that they have been placed at the entrance to the hut. Inspite of both stones showing signs of use, it is certain that their period of use was prior to their installation as part of the hut, otherwise the gravel floor would not have been moulded up against the stones. The stone with the broken hole may have had a function in that it may have formed part of the lower mounting of a solid wood door on a raised hinge, similar to the types found in use amonst the Venda (Stayt 1968) and the Thonga (Reynolds 1968), although these were

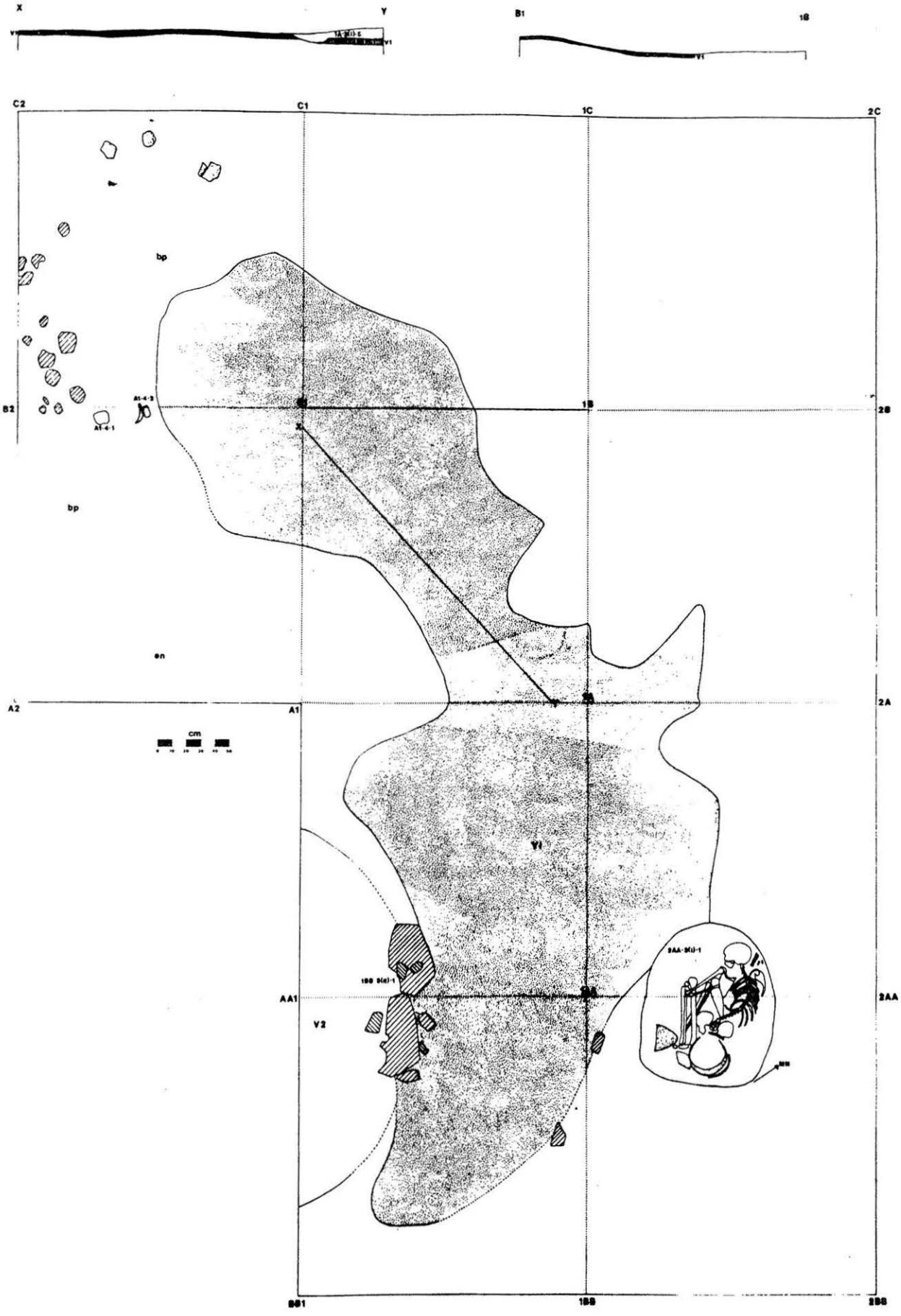


Figure 35

Schroda Area 2 level 3(ii): Plan and Profiles of gravel floor V1 and plan of sand floor V2

usually mounted in wood. No associated cultural remains were found on either of the floors. The skeleton 2AA.3(i).1 comes from an upper horizon.

The picture one gathers from the information, is one of a hut with a surrounding gravel floor extending only around the front half of the hut. At some stage the hut was voluntarily deserted, and all utensils removed. The reason for leaving cannot, of course, be satisfactorily determined, but it seems probable that the hut might have fallen into such decay that repairs no longer sufficed. Had the hut been left as a result of the death of its occupant, then one would expect a few tangible objects in the form of ceramics or metals to have remained behind, assuming of course that not all the utensils and tools were buried with the deceased. This latter postulation seems rather unlikely because the graves that were excavated at Schroda and elsewhere did not contain the variety of grave goods that would have been found in the possession of the deceased. The hut is assumed to be a residence and not a kitchen or storage hut because of its size.

The type of red gravel used in the making of floor V1, is not found on site, nor in the hills immediately surrounding the site, although can be gathered nearby. The mudstone underlying the sandstone that forms the hills in this part of the Limpopo/Shashi Valley is of the same colour and texture as floor V1, and is almost certainly the source for this and similar floors.

It must be mentioned that this was the only lapa floor to be identified. In areas 1, 3, 5 and 6, fragments of floors were found, but all were small and not of the same material and quality. These fragments have been mentioned in the level descriptions and having no other associations or information will not be discussed in this section.

Area 5 At the base of squares F1 and 2 F a large mound of burnt hut rubble was uncovered, some 15 cm deep in the centre and tapering off to the sides (See profile H1 - F1). Underneath this, the well preserved remains of a hut floor and accompanying charred posts were found.

The wall of the hut was very clearly marked by a series of well preserved charred posts, many of which were remarkable for their size. The posts had been planted in a definite manner, with the spaces between the larger posts being filled by a series of smaller ones. Distances between the larger posts varied, and consequently the number of smaller posts required for filling also varied. The majority of the larger posts were between 10 and 12 cm in diameter, with the largest size being 15 cm. The smaller posts varied between 2 and 5 cm. From the charred remains, it was clear that many of the larger posts had been partially shaped, and it could be seen that one particular post had been 'quartered', i.e. that parts of the sides had been chopped away until only a quarter of the original shape was left. Several of the smaller posts were removed as radiocarbon samples, while the larger posts were treated with a consolidant and removed for identification. Unfortunately the National Herbarium considered the task of cutting thin slides from the fragile charcoal samples for microscopic identification to be very difficult and was not willing to undertake this work, resulting therein that the samples have not been identified.

The hut was slightly oval in shape, its length being 2,50 metres against 2,10 metres at its widest point. The entrance was facing magnetic north, where several flat medium-sized stones had been placed. On looking into the hut, on the right-hand side almost directly adjacent to the entrance was a moulded fireplace, which was raised slightly above the floor level. The raised area was in the shape of a semi-circle running up against the wall of the hut. Its approximate diameter was 85 cm. Slightly off-centre in this raised area was a circular depression, 20 cm in diameter and 3 cm deep which formed the actual fireplace, and was covered with a layer of white ash, which was not found elsewhere.

A daga curb had been moulded against the posts in the interior of the hut, but it was noticeable that several of the larger posts stuck out beyond the moulding. The floor was made of sand, the surface of which had been burnt black. A single springhare tunnel went through the floor. A cross-section of the floor taken along line G1 - F1, showed the floor to be composed of five different layers, the basal layer resting directly on sterile soil. All five layers

were sand, and due to the heat from the burning hut had changed colour. The total thickness of the floor was 18 cm.

Outside the entrance was small section of sandy floor, the section of which closest to the hut had been burnt black. Care was taken with the excavation of this floor section, as it was thinner and more friable than the main floor in the hut, but there was no indication of it extending much further than the width of the door.

Little in the line of cultural material was recovered from the hut. A single large bone was found on the outside floor close to the entrance, while a heap of potsherds belonging to the same vessel lay between the entrance and the fireplace. Towards the back of the hut, also against the wall was a hammer/grinding stone.

This hut was one of the earliest to be built at Schroda, and appears to have been a sturdy structure that remained in use for many years, during which period the original floor was resurfaced at least four times. The small size, combined with the fireplace suggests that this may have been a cooking hut, although it is not inconceivable that a person could sleep in it, while lying curled up.

ii) Stone

Features containing stones were common, nearly every level having at least one. A great many of these consisted of a number of small to medium sized stones that had been placed together in small heaps with no associated material, nor did they seem to form part of any structure. As these heaps consisted of only a few, stones, and cannot truly be called structures, they will be left out of the discussion.

Many of the structures were only partially excavated, and although attempts will be made to interpret their meaning and context, one must remember that only a small part of a very large complex is being dealt with, and only through horizontal excavation can the context be fully interpreted.

Surface

Surface structures were not easily discernable due to the many thickets of *Acacia tortillis* and *Abutilon pyncrodon* that covered the site, as well as a result of several seasons of good rains that ensured a good grass and weed covering. Refer to the site plan for details and position of the various surface structures.

The most obvious stone structure is that of the foundation of the European-built house which lies to the south of the farm track and about half-way along the length of the site. Medium sized flat stones were used with a grey clay as mortar. The house measured approximately 7 x 9 metres and was divided equally into two rooms across its width. Some 4 metres to the north were the remains of a semi-circular cooking shelter with a diameter of 3½ metres. These remains were in the form of a semi-circle of fairly large roundish stones, which presumeably served as the base for a wooden structure. The open side was to the west, out of the direction of the prevailing wind. Radiating out in different directions from the house several paths, consisting of parallel lines of stones It is not clear to what these paths may heve been leading. Around the Baobab tree to the north of area 3, are several crude paths, also consisting of paralled lined of stones. In places these were interspersed by stone squares with crosses in them. These latter paths appear to be of the same age as the house remains, and give the impression of having been made by children during play.

At several points in the track, sections of packed stone have been exposed by passing traffic, suggestive of walls. Only one of these could be identified without doubt and followed for nearly 130 metres, beginning near Area 6 and passing through the excavated section of Area 2 in a north easterly direction for some 25 metres, after which it turned eastwards for 80 metres, passing through Area 4, before becoming indiscernable in stony ground. The wall consisted mainly of a double row of large stones imbedded in the ground, giving the impression of being intermittently spaced. Several stones particularly in the section running east, had been placed on edge.

During a subsequent visit to the site, several other possible walls

were noticed in the same general area but time and funds did not permit the necessary clearing of brush to determine their extent.

It is obvious that these walls were low, and that they were not built to serve any defence needs. It is possible that the stones served as a foundation for a wooden stockade, but where sections of wall were excavated in Areas 2 and 4, no indication of any post holes was found. A more likely explanation, is that they served as 'terrace' walling. The general direction of water run-off on the site is towards the north-west, that is, in the direction in which these walls are located. The deposit has eroded away in many parts, and bedrock is very close to the surface.

Where the wall crossed Area 4, it was found that the soil above the wall contained more cultural material than directly below, most of it being small and of the size that one woult expect to be washed along by water. Elsewhere on site, where the deposit is thicker, no retaining walls heve been found.

In the north-eastern corner of the site, three low mound of small to medium sized stones can be seen in s straight line running east west. The diameter of each of these heaps is between 3 and 4 metres, with about 5 metres seperating them. The shape and shallow depth of the mounds suggest a series of collapsed low cairns.

Slightly to the west are two stone circles, which are similar in size to the bases of present-day grain bins. The first of these consists of a circle of stones about 1½ metres in diameter. The circle is filled with stones, all standing on edge. The second circle is just over a meter in diameter, and contains only one medium sized flat stone, in addition to the circle of stones standing on edge (See plate 29).

It is conceivable that these latter structures represent the last phase of habitation of the site. In view of the lack of pottery other than Zhizo it seems safe to assume that these then belong to the final phase of the Zhizo settlement.

Area 1

Plate 29

Schroda: A surface feature in the northern parts the site. The circle of stones is probably the base of a grain bin. Scale in decimetres.

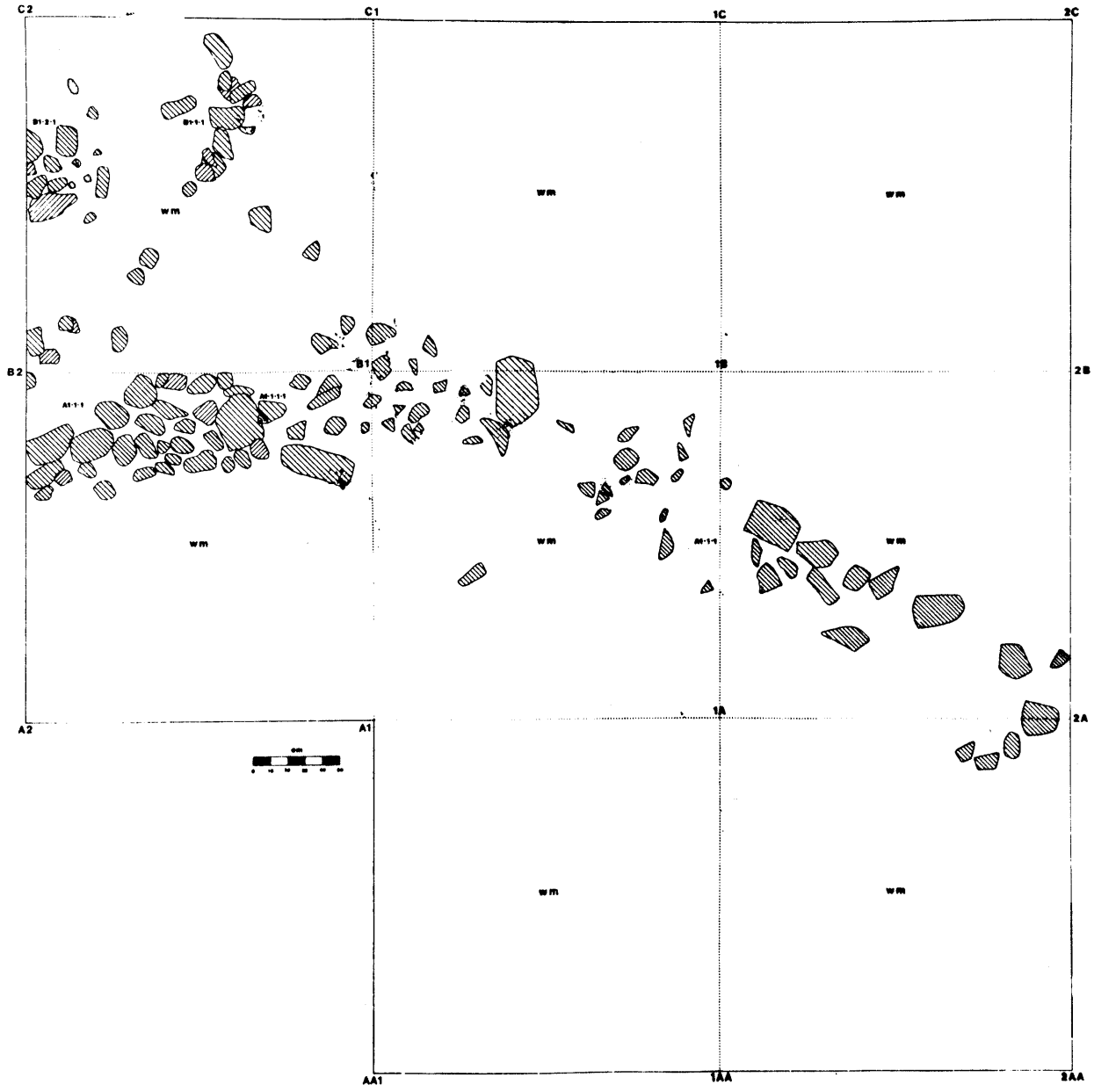


Figure 36

Schroda Area 2 level 1: Plan of stonewall A1.1.1

Only a single concentration of stones was found that can be described as a simple structure. Found in square A1 level 1 and numbered A1.1.1, this feature consisted of nine medium-sized to large stones, placed together in a 2 meter wide row with a slight curve to it. It lay close to corner A1, and the line of stones disappeared into the wall of the trench about midway between A1 and B1. There were no associated finds, and no explanation can be given for the nature of this structure.

Area 2

It has already been mentioned that part of a stone wall passed through Area 2. The section that was opened up was numbered A1.1.1 (not to be confused with A1.1.1 in Area 1). The line of stones varied between 40 and 50 cm in width, beginning close to B2 along line A2 - B2, going towards peg B1, then swinging away towards peg 2A where the wall left the excavated area (See figure 36). Numerous stones were visible on the surface, but many more were uncovered during excavation, to a maximum depth of 2o cm under the surface, although the base of most of the wall appeared to be about 10 cm deep. In square A1 smaller stones had been more proliferously used in the building of the wall.

Adjacent to the wall, a semi-circle of stones B1.1.1 was excavated beginning 1½ metres from peg C1 along C1 - C2 and curving towards peg B2. Apart of this circle consisted of a single row of stones. On the inside of the circle, a cluster of stones was found (B1.2.1) with a few odd potsherds inbetween the stones. The cluster extended into wall B2 - C2, and appeared to be lower than the circle by some 8 cm, suggesting thereby that the two structures might not be directly associated. No indication of the use was found, but it must be mentioned that the stone circle was a light structure in places.

Area 3

No stone structures were found in this area.

Area 4

From the map of the site, it can be seen that the stone wall that was discussed in Area 2 extends into Area 4, where it was excavated

in square C1. Here the wall was more densely packed, with numerous medium-sized stones amongst a few large ones. Width of the wall was between 50 and 70 cm, with a maximum depth of 25 cm. Several of the large stones were visible on the surface.

This wall has undoubtedly collapsed and the stones spread over a wider area than was observed form the surface. Again no indications were found of secondary building with wood. Once more the impression was gained of a terrace or retaining wall.

Also in square C1 the remains of another wall running parallel to the first were found 10 cm under the surface, and continued down to bedrock. The stones used in this wall were all medium-sized. The width was about 60 cm.

It would appear that the wall described first was built after the above, as it was some 7 cm above bedrock. However, there is no doubt that it must have been erected shortly afterwards, and that a passage of some 50 cm must have existed between the walls. No other associated structures were found, and the amount of cultural material suggested a midden that developed against the wall or had been washed up against it.

Area 5

Other than several loose scatters of stone, no evidence for the use of stone for the building of structures was found.

Area 6

Five stone structures were excavated in different levels. Three of these structures were similar in shape.

In square B1 level 2, a cluster of stones (B1.2.1) was found, partially heaped on one another. B1.2.1.1 was a large flat stone, pitted with little holes and could possibly have been used for cracking open marula nuts. No cultural material could be directly associated with the cluster, which appeared at about 22 cm under the surface and ended at 41 cm below p.s.1.

Square B2 level 2 yielded a vast concentration of stones of various

sizes, piled on top of one another. The stones appeared at about 12 cm under the surface and continued to a depth of 30 cm. Two clay figurine fragments were found amongst the stones, and as no signs of disturbance were noted, are probably of the same period. The perimeter contained more small stones (about 10 cm in size) than did the inside of the concentration, while many pieces of burnt hut rubble could also be found. No explanation can be given for this feature, but there seems little doubt that it forms part of the clay figurine complex.

The three similar structures can best be described as stone lined pits and were all discovered in B1 level 3 within 1½ metres from each other. Individual numbers were B1.3.1, B1.3.2 and B1.3.3. In essence these pits consisted of a hole some 30 cm in diameter with a large flat circular stone placed at the bottom of the hole, the depth of which was difficult to measure owing to the collapsed nature of the pits. The deepest pit (B1.3.2) measured 26 cnm but can be deeper as is shown by a similar structure from Pont Drift TPD 1/2 which will be discussed later on.

f) Fauna

i) Animal Remains

On the surface, the greatest number of bones were found around area 5, many of them having been exposed by springhare activity. The area 5 trench when analysed produced proportionally the largest number of faunal remains.

The total excavated sample has not yet been completely analysed. Preliminary reports exist on areas 1, 2, 4 and part of 5. Voigt (pers. comm.) considers the sample thus far analysed to be adequate, and representative of what is found at Schroda to within one to two species.

Each area will be discussed separately, with Table 62 showing the total list of species identified at Schroda with minimum individual numbers.

Area 1

2433 Pieces of bone came from this excavation. Of this 14,1 % were identifiable. Bone flakes formed 23,3 % of the assemblage, while other skeletal parts formed 62,6 %.

The remains of a minimum of 60 individuals were found, of which 36 were non-domesticated. The 24 domesticates represented cattle (7), sheep (2) and sheep/goats (15).

It is of interest to note that more than 20% of the sample from all levels except 4 shows signs of burning. Level 1 has the highest percentage with 40,6%. Voigt (unpublished preliminary report) suggests that this is indicative of the assemblage having come from a midden area, where burnt debris and hot ash were dumped.

Area 2

A complete analysis of all the faunal material has not yet been done, with only a list of the identifiable remains available. 122 Individuals were identified, of which 56 were domesticated. This included 18 cattle, 2 sheep, 2 goats and 34 sheep goat. The presence of a single porcupine was recorded, while fish and land snail (achatina sp) are well represented.

Area 3

No analysis has been made of the fauna from area 3 with exception of a beast burial B1.6.1, which was described earlier on. The remains of three individuals were buried with the two pots. One specimen was the nearly complete skeletal remains of a juvenile Ovis/Capra. The other remains were scapula and metapodeal fragment of an older ANT II animal, and the ribs of an ANT III animal. The sheep/goat remains fit into the 4 - 9 month age group. However, comparison with juvenile specimens produces a very close match with a specimen of 5½ months of age. This is therefore likely to be the approximate age of the specimen.

On the basis of a photograph clearly showing the position of the bones as excavated, Voigt was able to make several statements on the deposition of the bones (Voigt 1976 unpublished report).

1. The vertabrae in vessel no. 1 (small pot) were articulated when placed in the pot.
2. The thoracic vertabrae lying against vessel no. 2 (large pot) were articulated when placed in the soil.
3. Three ribs lying alongside the juvenile skull were probably articulated when placed in the soil.
4. The remains of the juvenile Ovis/Capra were found to be so scattered as to suggest complete dismemberment.

It is without doubt that the remains were deliberately buried with the pots. There was no indication why the animals or pots there of had been buried, apparently still with the flesh adhering. Beuster describes a similar ceremony amongst the Venda, in which if the body of a deceased person cannot be found, then the bones and head of a sheep replace the bones of the deceased during burial. "Bei Todesfällen werden die seelen der Verstorbenen durch Zauberwürfel Über die von ihnen gewünschte Art der Bestattung befragt. Da aber in vielen Fällen ein Nachsuchen nach den Gebeinen des Verstorbenen vergeblich sein würde, so vertreten Schafknochen dan die menschlichen Gebeinen und der Kopf des Thieres muss den menschlichen Schädel ersetzen" (Beuster 1879 p. 238).

Area 4

Again only identifiable remains have been analysed. A limited range of species was identified, with 89 individuals. Of these 56 (62,9%) were domesticated, comprising 36 cattle and 20 sheep/goat. One of the cattle was identified as an Africander breed. Looking at the proportion of cattle to sheep/goat, it can be seen that the number of cattle is nearly double that of sheep/goat, which is very unusual.

Area 5

Area 5 was examined in detail, although at the time of writing the analysis of all the levels had not yet been completed. The six upper levels have been classified in detail, while in the lower levels 7 - 12 only the teeth and remains identifiable to genetic levels have been included.

These lower levels yielded about 2000 identifiable remains, while

levels 1 - 6(iii) produced a massive sample of 83 839 pieces. Of these, 7064 (8,4%) were identifiable.

Carnivore damage was more common than rodent damage to the bones, but together with human damage, were in fact not at all common, averaging out as well under 1% of the sample. The degree of burning present is similar to that of other samples analysed from elsewhere, and considerably less than in area 1. Between 6,6 and 7,6% of the sample was burnt from most levels with exception of level 4 (17,8%) and level 6(ii) (10,2%) but this may be attributed to small samples. In feature B1.3.1 46, 4% of the sample was burnt, although this was not the reason why this feature was defined. It is of interest to note that square B1 is the closest to area 1 where average burning was more than 20%.

A large variety of species is present, including some unusual individuals.

A large number of carnivores (41) including 5 domestic dogs is present in the assemblage. Bat-eared fox, Cape wild cat and leopard are some of the others, and Voigt (1979 unpublished report) suggests that the wild carnivores were hunted for skins. Remains of five hippo were found, implying that these were hunted and not scavanged. The same applies to the three crocodile found.

Smaller prey in the form of hares, dassies, springhares, tortoise, veranus and snake, are well represented.

40,2% Of the identi fiable species were cattle, sheep or goats. Humped cattle were present, as is indicated by the thickened dorsal spines of thoracic vertabrae. Six well-preserved skulls (TSR 5/3865, 3866, 4031, 4032, 4033, and 4402) showed the slightly undulating frontal profile characteristic of Sanga breeds. The presence of the Africander cattle breed is shown by several thin-walled, dense structured horn cores with characteristic morphology and curvature .

Sheep and goats were identified on the basis of horn cores, with the emphasis falling on goats (14:1).

TABLE 62

Schroda: Complete species list excluding area 3 and 6

SPECIES	Area 1	2	4	5	Total
Domesticated					
Canis familiaris (domestic dog)				5	5
Bos taurus (domestic cattle	7	18	35	124	184
var Sanga				6	6
var Africander			1	4	5
Ovis aries (sheep)	2	2		1	5
Capra hircus (goat)		2		14	16
Ovis/capra	15	34	20	175	244
Non Domesticated					
Papio ursinus (baboon)				1	1
Otocyin megalatis (bateared fox)				3	3
Ichneumia albicauda (white tailed mongoose)				1	1
Mungos mungo (banded mongoose)				1	1
Felis lybica (Cape wild cat)				1	1
Panthera pardus (leopard)				1	1
Large felid (?lion)				1	1
Canid		1			1
Hunting dog - sized canid			1		1
Small canid		1			
Indeterminate carnivores			1	28	29
Medium sized carnivore		1			1
Small carnivore		2		1	3
Loxodonta africana (elephant)	*			*	*
Procavia capensis (rock lyrax)	1	1	1	8	11
Heterohyrax brucei (yellow spotted dassie)				2	2
Indeterminate dassie				2	2
Equus burchelli (Burchell's zebra)	1	3	5	11	20
Phaeochoerus aethiopicus (warthog)			1		1
Potamochoerus porcus (bush pig)				1	1
Hippopotamus amphibius (hippo)				5	5
Giraffa camelopardus (giraffe)			1		1
Sylvicapra grimmia (grey duiker)		2		6	8
Raphiceros campestris (Steenbok)				1	1
Oreotragus oreotragus (klipspringer)				4	4
Aepycerus melampus (impala)				2	2
Syncerus caffer (buffalo)				2	2
Bov I	4	1		16	21
Bov II				7	7
Bov II not Ovis/Capra				3	3
Bov II b				7	7
Impala-sized bovid				2	2
Bov III	3			5	8
Bov III not Bos taurus				2	2
Bov IV				1	1

Continued

* Present

TABLE 62 (Continued)

SPECIES	AREA				
	1	2	4	5	Total
Large artiodactyl (?giraffe)				2	2
Lepus species (hare species)	4	5		25	34
Pedetes capensis (springhare)	2	1		14	17
Thyronomis swinderianus	1	1			2
Hystrix africae-australis (porcupine)		1			1
Indeterminate shrew		1			1
Indeterminate rodent	3	3		16	22
Indeterminate small mammal				4	4
Struthio camelus (ostrich)	1	2	3	8	14
Guineafowl-sized bird	1	1	1	9	12
Indeterminate bird		2		8	10
Geochelona partalis (leopard tortoise)				2	2
Tortoise	4	4	4	23	35
Veranus sp		2	3	13	18
Lizard				3	3
Indeterminate snake	1			10	11
Crocodilus niloticus (crocodile)				3	3
Frog/toad		2		3	5
Claras sp	1	1		28	30
Synodontis sp		4	1	23	28
Indeterminate fish	1	1	1		3
Achatina immaculata (large landsnail)		20	8	129	158
Small land snail				25	25
Achatina sp	6				6
Cypraea sp				3	3
Unis/Aspatheria sp (river mussel)		1		13	14
Carbicula africana				2	2
Large freshwater bivalve	2	1	2		5
Freshwater bivalve		1			1
Total min. Individuals	60	122	89	821	1092

Table62 shows the complete list of species at Schroda as analysed, but excludes area 3 and 6. In total 1092 individuals were found . Of these 465 (46,6%) were domesticated species.

It is interesting to note that the total number of cattle is 195 individuals of which six are Sanga and five Africander. The sheep/goat class contains 265 specimens of which only 5 sheep and 16 goats could be positively identified. The ratio of cattle to sheep/goat is rather high, 5:7, bearing in mind that the more usual ration is 1:2.

Several other more unusual species were found with such frequency to suggest that they were part of the diet; 37 tortoises, 18 veranus, 11 snakes, 61 fish and 189 landsnails. The fish were present in nearly all levels, and when combined with the 22 river mussels and freshwater bivalves, shows that the Limpopo was being well utilized.

The large number of achatina were a source of raw material for bead manufacture, but it is likely that the snails formed part of the diet.

Elephant are represented only by their ivory in raw as well as worked form. There is no indication at present that these animals were deliberately hunted, and it is conceivable that the ivory was either scavanged or traded.

ii) Bone and shell implements

Bone tools were basically divided into formal and informal bone tools. Seven categories of formal tools could be identified, although the sample tended to be rather small. The greater majority of these formalized tools came from area 5.

Only one catagory of informal bone tools was recognized, again with the majority coming from area 5. These infomal tools consist of irregular bone flakes, usually small in size, with small abraded or polished sections to which no specific function could be attached.

Area 1

No formal tools were recovered, only two informal bone tools were found. Table63 shows the levels and squares form which they were recovered.

TABLE 63

SCHRODA AREA 1 : INFORMAL TOOLS

LEVEL	A1	B1
1		
2	X	
3		
4i	X	
4ii		
5		

Area 2

Two types of formal tool came from here, namely one awl and one needle. The awl is made from a piece of bone with one end sharpened to a point. Table 64 shows the level and square from which it was recovered.

The needle is made from a piece of flat bone (rib?). It has a single eye. The point is missing. Table 64 shows the level and square from which it came.

Four informal bonetools were recovered. The positions in which they were found are shown in table 65 . It can be seen from the tables that no bone tools were recovered from levels 1 and 2. This does not seem to be significant as the upper levels of area 5 did contain tools.

Area 3

No bone tools were found

TABLE 64

SCHRODA AREA 2: FORMAL BONE TOOLS

LEVEL	SQUARE													
	A1	B1	1B	1A	1AA	1BB	2BB	2AA	2A	2B	3B	3A	4A	4B
1														
2														
3		o												
3i														
3ii														
4												X		
5														

X awl
O needle

TABLE 65

SCHRODA AREA 2: INFORMAL BONE TOOLS

Level	SQUARE													
	A1	B1	1B	1A	1AA	1BB	2BB	2AA	2A	2B	3B	3A	4A	4B
1														
2														
3														
3i				X					XX					
3ii														
4														
5									X					

Area 4

No bone tools were found.

Area 5

62 formal and 41 informal tools were excavated here. The formal tools have been divided into seven catagories.

Awls These are splinters or flakes usually of long bone, where one end has been sharpened to a crude point, presumably for piercing Twelve awls were found, and their relative positions int the excavation are shown in table 66 .

TABLE 66

SCHRODA AREA 5: DISTRIBUTION OF AWLS

LEVEL	SQUARE									
	B1	C1	D1	E1	F1	2F	G1	H1	I1	J1
1										
2										
3	1									
4			1							
5			2	1						
6		1						1		
6i						1				
6ii										
6iii										
7										
8		1	1							
9										
10				2						
10i										
11										
12										

"Spatulas"

Bone splinters of medium length in which one end has been abraded and polished to form a blunt or spatulate end. The use of such tools is uncertain. Table 67 shows the levels and squares in which these tools were excavated.

TABLE 67

SCHRODA AREA 5 : DISTRIBUTION OF "SPATULAS"

LEVEL	SQUARE									
	B1	C1	D1	E1	F1	2F	G1	H1	I1	J1
1										
2										
3										
4										
5										
6	1	1			1					
6i										
6ii										
6iii										
7			1		1					
8										
9										
10										
10i										
11										
12										

Abraded Astralagi

These are astralagi of different sizes with one or both flat sides abraded and polished. Seven of these unusual items were recovered, some of them bearing longitudinal striations. Their use is unknown, and have not been recovered from any other site.

Table 68 gives the positions of discovery in the excavation.

Needles

A pointed fragment of bone, usually polished, and pierced with one or two holes at the end opposite to the point. A single needle was

TABLE 68

SCHRODA AREA 5 : Abraded astralagi

LEVEL	SQUARE B1	C1	D1	E1	F1	2F	G1	H1	I1	J1
1										
2										
3										
4										
5							1			
6	1									
6i										
6ii										
6iii					1	1				
7										
8				1						
9		1								
10			1							
10i										
11										
12										

was found in area 5. See table 69 .

The following catagories are more formal than the aforementioned, in that they are completely worked or polished, and that the original type of bone cannot be identified.

These implements are all parts of composite arrows, being either fore-shafts or arrowheads. A third catagory was distinguished namely that of broken foreshafts/arrowheads, i.e. where the section resembles part of an arrow, but cannot be identified in detail.

TABLE 69

SCHRODA AREA 5 : Needles

LEVEL	SQUARE									
	B1	C1	D1	E1	F1	2F	G1	H1	I1	J1
1										
2										
3										
4	x									
5										
6										
6i										
6ii										
6iii										
7										
8										
9										
10										
10i										
11										
12										

Arrow-heads

Six arrow-heads were identified. These were worked to an even sharp point, while the other end remained blunt. Length varied between 5 and 13½ cm.

Table 70 shows the square and level from which they were recovered.

TABLE 70

SCHRODA AREA 5 : Bone arrowheads

LEVEL	SQUARE									
	B1	C1	D1	E1	F1	2F	G1	H1	I1	J1
1										
2										
3										
4										
5										
6										
6i										
6ii										
6iii				1	1		1			
7							1			
8							1			
9										
10			1							
10i										
11										
12										

Foreshafts

The second or middle bone point in a composite arrow is known as the foreshaft. They are generally shorter, thicker and blunter than the arrow-heads. Ten such foreshafts could be identified from Schroda and their position in the excavation is shown in Table 71 .

Foreshafts/arrowheads

This catagory includes all damaged bone points that are clearly parts of composite arrows, but cannot be individually identified. 21 such sections were found throughout area 5. Their distribution is seen in Table 72 .

TABLE 71

SCHRODA AREA 5 : Bone foreshafts

LEVEL	SQUARE B1	C1	D1	E1	F1	2F	G1	H1	I1	J1
1										
2										
3										
4						1				
5							1			
6		1								
6i										
6ii										
6iii						1				
7		1				1				
8							3	1		
9										
10										
10i										
11										
12										

The foreshafts and arrowheads are of particular interest. They have not been found elsewhere in conjunction with Zhizo sites, and are usually considered to be part of the Mapungubwe complex of sites. In particular foreshafts are found at K2, the Southern Terrace, and Mapungubwe Hill (Voigt 1978 p.288. Voigt incorrectly refers to the foreshafts as a linkshaft). Arrowheads of different types are found at each site. In other words until now arrowheads and foreshafts have been solely associated with Leopard's Kopje A and B cultures south of the Limpopo. There is no doubt of their association with Zhizo pottery at Schroda, as it it shown in tables 71 and 72 that their distribution lies through out each level in area 5

TABLE 72

SCHRODA AREA 5 : Foreshafts/Arrowheads

LEVEL	SQUARE									
	B1	C1	D1	E1	F1	2F	G1	H1	I1	J1
1										
2	1									
3								1		
4					1					
5				1				1		
6		2								
6i		1								
6ii										
6iii					2	1				
7		1					2			
8	1						1			
9										
10			1	3						
10i										
11				1						
12										

Informal bone tools

Informal bone tools as a single catagory were more numerous than other catagories, with 41 being recovered. The greater majority of these were small bone flakes with abraded ends or polished surfaces. No definite function could be ascertained. Table 73 indicates the spread throughout the excavation. No informal tools were recovered in the lower levels 10 - 12. There is a peak reached in levels 5 and 6, but this is not reflected amongst the formal bone tools.

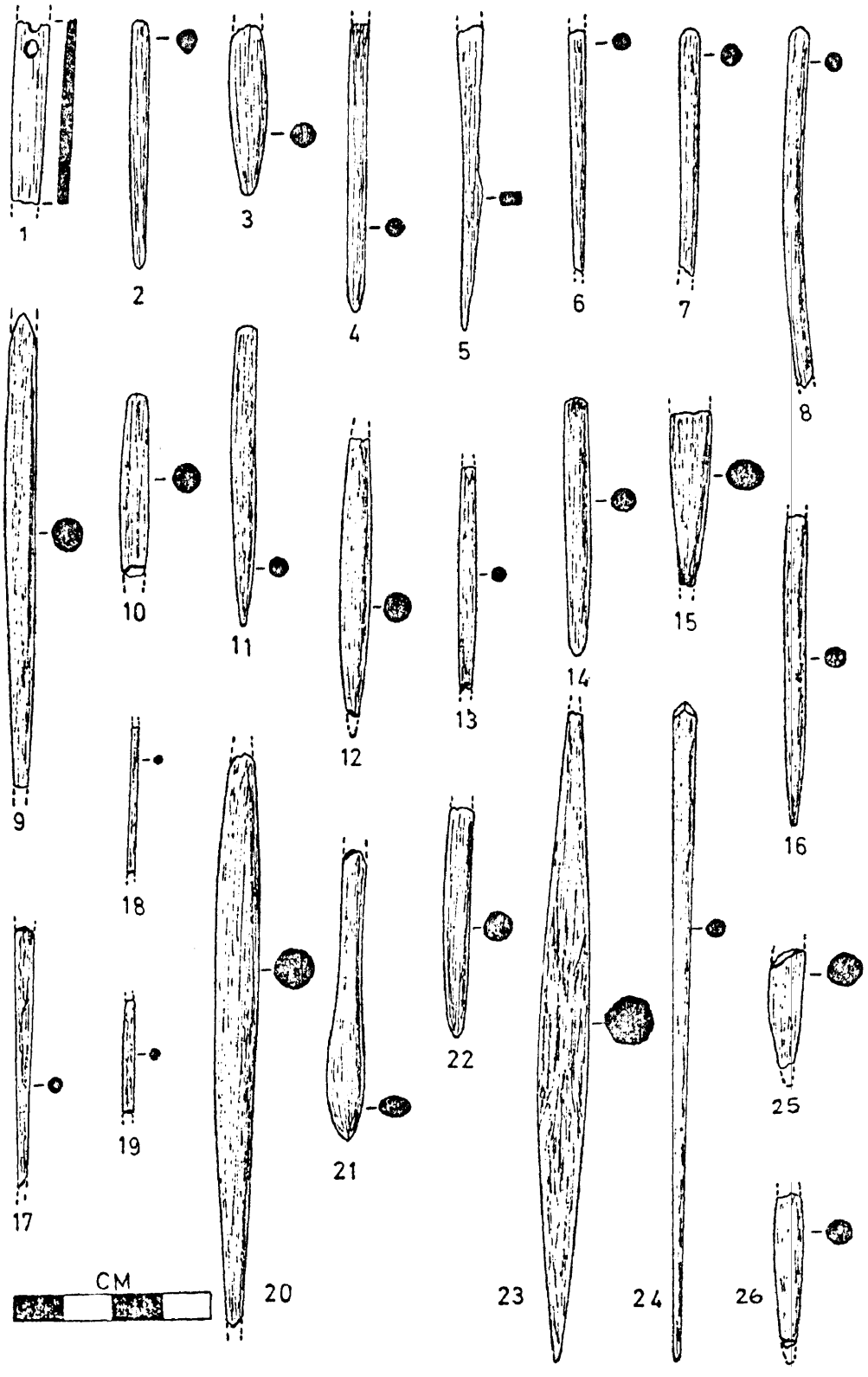


Figure 37

Bone arrowheads and foreshafts from Schroda

See page 203 for details where found

Schroda Area 5: List of bone foreshafts and arrowheads

	Square	Level
1	B1	4
2	C1	6
3	C1	C1.6.2
4	C1	7
5	D1	5
6	D1	10
7	E1	10
8	E1	10
9	F1	6(iii)
10	F1	6(iii)
11	2F	4
12	2F	6(iii)
13	2F	6(iii)
14	2F	7
15	G1	5
16	G1	6(iii)
17	G1	7
18	G1	7
19	G1	7
20	G1	8
21	G1	8
22	G1	8
23	G1	G1.8.1
24	G1	G1.8.1
25	H1	5
26	H1	8

TABLE 73

SCHRODA AREA 5 : Informal bone tools

LEVEL	SQUARE									
	B1	C1	D1	E1	F1	2F	G1	H1	I1	J1
1										
2										
3	1					1				
4			1							
5	1	1	6		1		1			
6	4	4	1	4			4			
6i										
6ii					1					
6iii					4					
7		1			1					
8	2									
9		1		1						
10										
10i										
11										
12										

Both formal and informal tools have been recorded from many sites. The very formalized tools do tend to vary from site to site, although certain resemblances are noticeable between Mapungubwe K2 and Schroda. The less formalized bone tools appear to have less variation, and therefore the few that have been recovered from Schroda can be more easily compared to those from other sites.

iii) Ornaments

Bone and shell ornaments other than shell beads are rare at Schroda. Ivory was worked and several fragments of ornaments in the making were recovered.

Bone

A bone bead, 2,5 cm long and 1,3 cm wide was found in area 2 square

1BB level 3(ii).

Two fragments of bone rings were recovered from square 2F level 9 and square C1 level 10(i) in Area 5. These finds had no direct association.

Ivory

Ivory was used as a raw material for the manufacture of bangles and other smaller ornaments. There is no indication in the faunal remains that parts of elephant other than the tusks were brought to the site. One cannot say whether elephant meat was eaten or whether the tusks were the only source of attraction.

Most of the ivory recovered came from area 5, and all pieces showed signs of working. Table 74 shows the distribution in the excavation.

TABLE 74

SCHRODA AREA 5 : Ivory

LEVEL	SQUARE									
	B1	C1	D1	E1	F1	2F	G1	H1	I1	J2
1										
2										
3										
4										
5		x	x					x		
6		x				x				
6i										
6ii										
6iii				x						
7				x			x	x		
8	x							x		
9			x				x			
10		x								
10i										
11			x							
12										

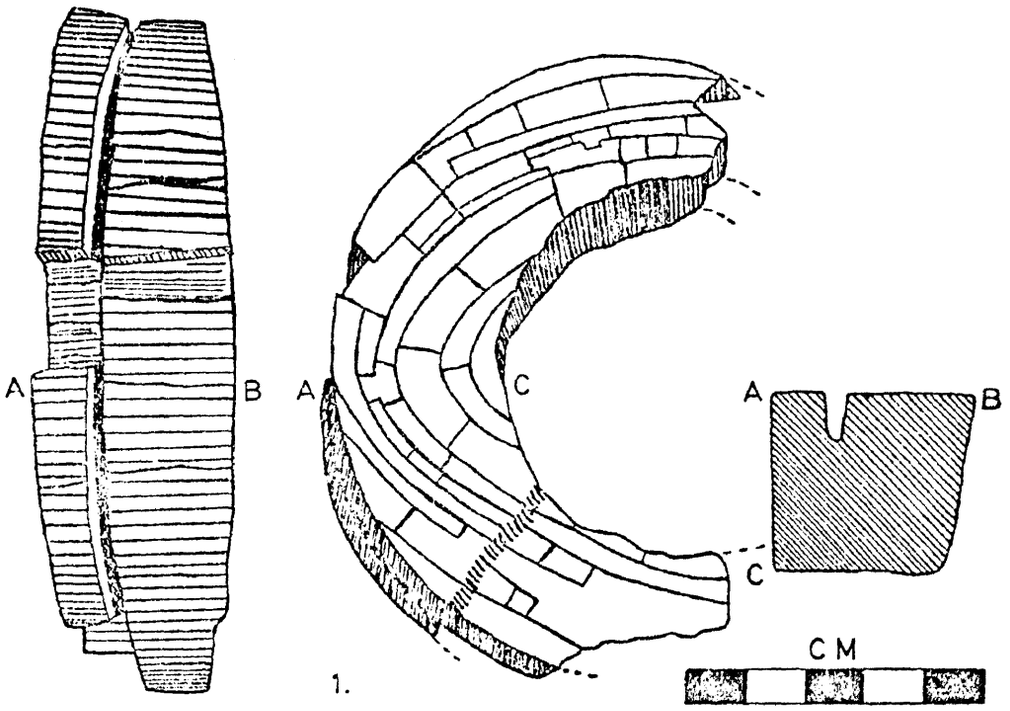
All pieces except two were fragments of bangles. Level 7 in square E1 produced a piece of ivory 22 cm long and 5,2 cm wide. One end had been neatly cut at nearly right angles to the length of the tusk, while the other end had been shaped to a rough point. One side showed clear cut marks, while the other was broken. It would appear that the piece had broken while being shaped and was consequently discarded.

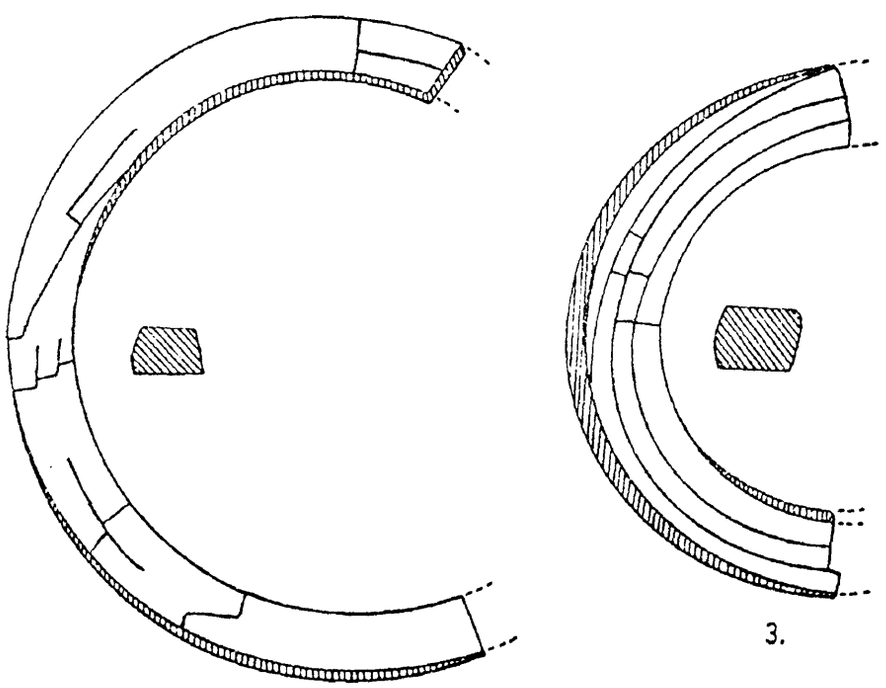
An interesting piece was recovered from D1 level 9. This was half of a cross-section of a tusk, with both sides evenly cut. A groove had been cut into this piece along the length of its circumference, indicating the manufacture of a bangle. The groove was V-shaped and cut to a depth of about 8 mm. (See figure 38). A series of striations running at different angles to one another are visible both in the groove and on the outside of the section. The shape and direction are strongly indicative of a sawing action, and not a "hacking" action as one would expect had an ordinary knife been used.

Ivory is a hard material to cut, and even a sharp knife will not make much of an impression on it. I suggest, therefore, that a saw-like instrument must have been used, i.e. an instrument with a serrated edge, other wise ivory working would not have been as profitable as it was at Schroda.The remaining pieces of ivory were all sections of bangles, most of them too small to give accurate dimensions. Two pieces are worthy of mention, however. The first was recovered from E1 level 6 (iii) and consisted of two thirds of a neatly made bangle 11 cm in diameter. In cross-section, the thickness was 8 mm and the width 12 mm.

The second bangle came from G1 level 9. This was broken in half smaller in size and not as neatly made. Diameter was 9 cm, with a cross-section thickness and width of 12 and 1- mm respectively. Both these bangles were probably worn on the arms, judged by their size.

Two other bracelet fragments were recovered, one from Area 4 square B1 level 1 and from Area 6 square A1 level 2. These were rather small and fragmented.





2.

Figure 38

Worked Ivory from Schroda

1. Area 5 D1 level 9
2. Bangle from Area 5 E1.6(iii)
3. Bangle from Area 5 G1.9

Ivory working on a large scale is known from K2. Voigt (1980). has suggested that the ivory working at Schroda was a precursor to the ivory working at K2.

g) Plant remains

Very little was found in the way of plant remains, but this may be due to the method of retrieval. Domesticated grain as well as wild seeds were found, all of them charred. The material was sent to the Department of Botany, University of Pretoria for identification, but unfortunately some of the samples were mislaid.

Domesticated grain

Area 5

H1 level 7 fragments of charred grain. Sorghum?

Area 6

B1 level 4 charred grain. Sorghum?

Wild Seeds

Area 5

C1 level 5 charred seed of *Sclerocarya caffra* (Marula)
C1 level 6 charred seed of *Sclerocarya caffra* (Marula)
E1 level 6(iii) charred seed of *Xanthocercis zambesiaca* (Nyala berry)
C1 level 10(i) numerous charred seeds of *Xanthocercis zambesiaca* and *Sclerocarya caffra*

Table 75 shows the spread of the charred remains throughout Area 5.

The charred grain shows that some agricultural activity must have taken place, however the extent of this cannot be determined. The wild seeds are only of two types, the Marula and Nyala berry, both of which grow in the vicinity today.

The marula is a well known edible fruit, which is also used for making beer. The nyala berry tree is common in wooded flats and deep sandy soil along rivers. The fruit is a plum-shaped, about 2,5 cm long, 1,3 cm broad with a smooth brown skin enclosing a thin fleshy pulp around a single black seed. The fruit is generally a great favourite with birds, monkeys, baboons, elephant and buck.

TABLE 75

SCHRODA AREA 5 : Charred plant remains

LEVEL	SQUARE B1	C1	D1	E1	F1	2F	G1	H1	I1	J1
1										
2										
3										
4										
5		o								
6		o								
6i										
6ii										
6iii				Δ						
7								x		
8										
9										
10										
10i		Δo								
11										
12										

x = Domesticated grain

Δ = Nyala berry

o = Marula

In some areas, the pulp is eaten by Africans in time of famine. (Palmer and Pitman 1973 p. 951). The fruit, while edible, is not as pleasant to eat as is the marula, and it is unlikely that it would have been used to make beer.

A tree with edible fruits that is plentiful in the area is the Baobab, but no seeds were found. This does not necessarily mean that its fruit was not eaten.

h) Human remains

Five burials were unearthed at Schroda. These were submitted to

Prof. H. de Villiers, University of the Witwatersrand for identification.

The following is a summary of Prof. de Villiers' report. The complete report is attached in Appendix A.

The burials have been previously described.

Area 1

1.B1.4.1 is the remains of an infant aged between 1½ to 2½ months. The size of the greater sciatic notch suggests that it might have been a female. The metrical and non-metrical features of the mandible and apparent features of the cranial vault and orbit are suggestive of a Negroid infant.

Area 2

The remains of three burials were recovered here.

2.2AA.3(i).1 is a virtually complete skeleton of an adult Negro male aged between 25 and 35 years. The skeleton is that of a fairly robust individual with a living stature of 169,7 cm.

Several unusual features were noted, namely indications of osteo-arthritis and undernutrition. The right femur is badly swollen - a sign of chronic osteomyelitis.

The fact that the skeleton was buried under a total of 90 stones suggested at the time that an unusual person had been buried, as it is not the normal practice to place so many stones with the body. On the grounds of the pronounced osteomyelitis, it seems likely that the person showed some physical deformity such as a permanently swollen leg which might have been taken as a sign of bewitching by his fellow men. The very large number of stones covering the burial does suggest that the body (and spirit) was not intended to rise again.

2.2AA.3(i).3 The remains are those of a very young infant, who died at birth or was still born. A large number of the bones have disintegrated.

2.2B.5.2 are the remains of a child of approximately five years of age. The remains of the individual are very fragmentary, and consequently the sex could not be assessed nor the population group identified with certainty, although certain characteristics are suggestive rather of Negro than Khoisan.

Area 6

6.A2.2.1 is the remains of a fairly complete infant skeleton aged between 6 and 9 months. The width of the greater sciatic notch together with certain mandibular features suggest a female negroid infant.

Table 76 gives a summary of the burials and their main characteristics.

TABLE 76

Summary of burials from Schroda

Burial	Age	Sex	Population Group
1.B1.4.1	1½ - 2½ months	? Female	? Negro
2.2AA.3(i).1	25 - 35 years	Male	Negro
2.2AA.3(i).3	Stillborn	?	?
6.2B.5.2	5 years	?	? Negro
6.A2.2.1	6 - 9 months	? Female	? Negro

Not much can be said about the population of Schroda. The people were, as was expected, Negroid. Infant mortality was high.

i) Other important features

On site

A series of games, grinding hollows and dolley holes was found in the rocky outcrops on and around the site. See the site map

for full details.

Games

9 Gaming boards consisting normally of four parallel rows of 8 or more holes each were found at various points around the site. Some of these were extensively weathered, and hardly recognizable. None of these gaming boards were in position where look-outs would be stationed, i.e. they were in low lying areas (See plates 30 and 31).

Dolley Holes

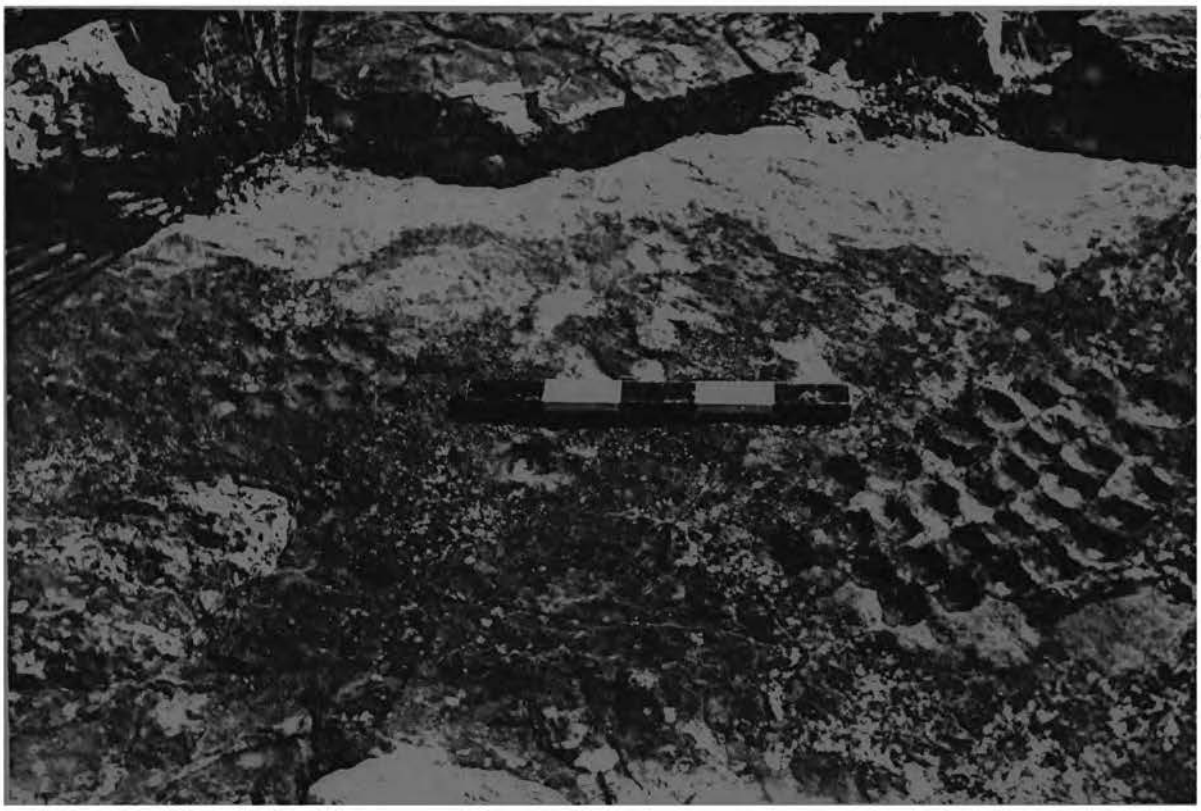
These holes are usually between 10 and 15 cm at their widest point, tapering rapidly as the hole becomes deeper. The depth varies between 2 or 3 cm to about 20 cm. Many of the deepest are distinctly funnel shaped. It would appear that these hollows were used as mortars, presumeably for pounding grain. No indication of crushed ore was found in or immediately adjacent to the hollows. (See Plate 32). In total 28 dolley holes were found.

Grinding Hollows

These are numerous elongated grooves in the rock, usually about 6 cm wide and between 20 and 30 cm long. The centre is worn deeper than the ends. Fine parallel longitudinal striations can be seen in many of the hollows. 101 of these hollows were found in groups of various sizes, but now and again single ones can be seen in the rocks. (See plates 33, 34 and 35).

The hollows are enigmatic, and have not been found on any other site. It seems logical that they were used for grinding grain, as the type of hollow formed would not be caused by sharpening metal, bone or wood. However, the position and close proximity to one another would preclude more than two or three woman from using a group at any one time.

There is no doubt that the hollows are associated with the Zhizo occupation of the site, as they have been found in situ in the excavation. (Area 2, 1BB.3(ii).1).



Plates 30 and 31

Game boards at Schroda.

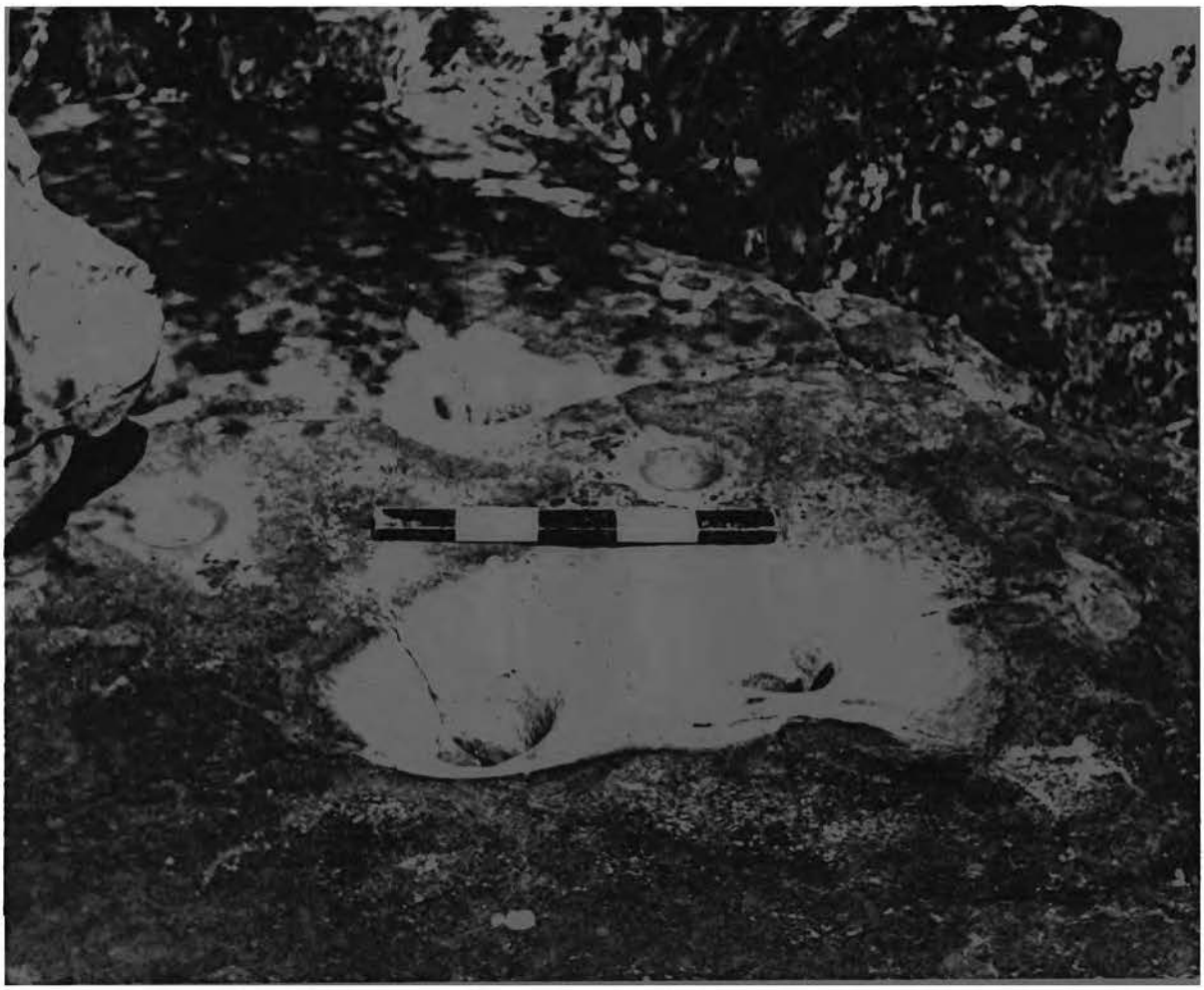


Plate 32

Schroda: Dolley holes in the rocky outcrop near the foundations of the European house. The depth of the holes varies from about 20 cm to less than 5 cm.

Plate 33

Schroda: A large stone with two grinding hollows. From the northern part of the site, close to the grain bin base. Scale in centimetres.

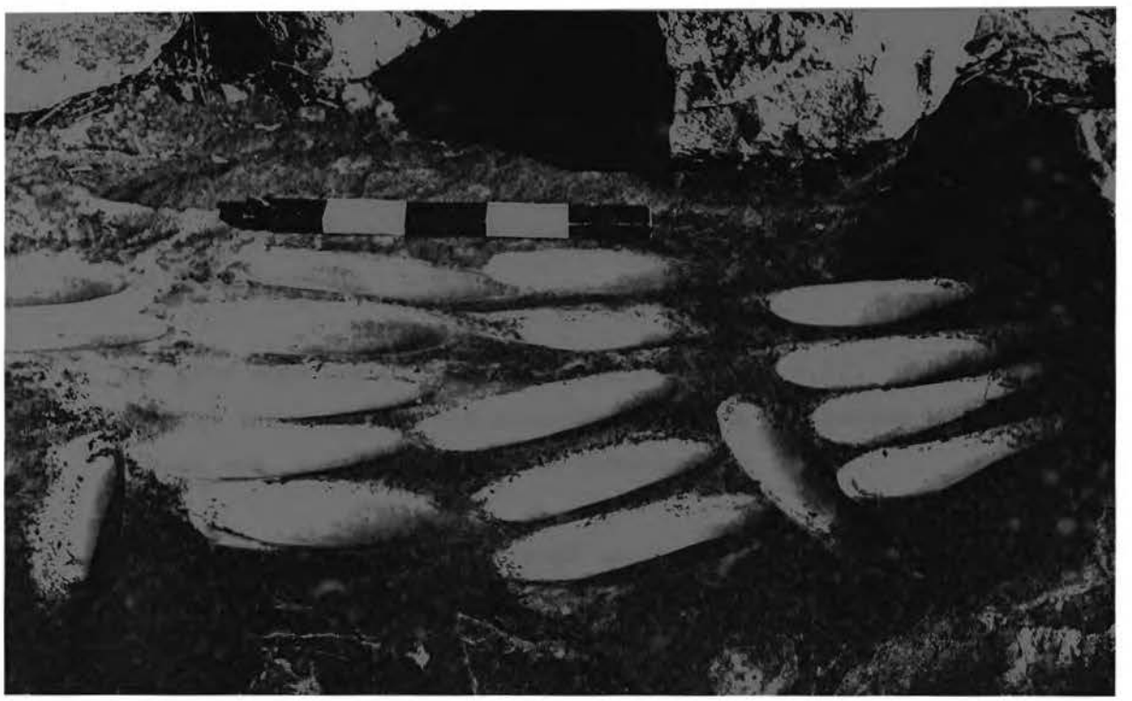


Plate 34
Examples of grinding hollows found at Schroda.

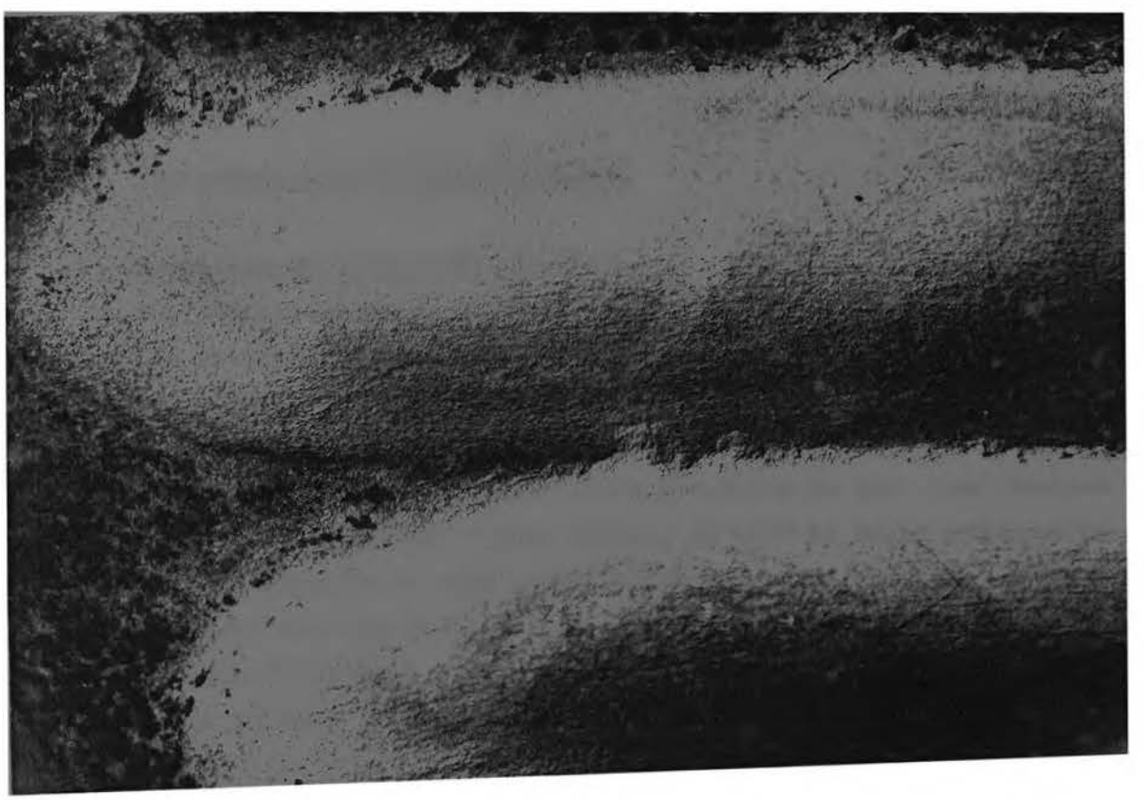


Plate. 35
Enlargement of grinding hollow showing striations.

In the excavation

Pits

These constitute a feature that has been broadly described but not fully discussed.

Two pits were found in area 2 (2B.5.1 and A1.5.1). Both contained several large stones and a single pot with the bottom neatly broken out, in addition to the normal ashy soil.

The purpose of these pits could not be determined. However, similar pits have been found at both Pont Drift sites, as well as having been recorded from numerous Early Iron Age sites. In certain cases such pits have been found to contain refuse, but two found at Schroda did not contain any. The fact that both pits, although not similar in size or depth, contained a single vessel and several large stones, suggests that they may have been used for similar purposes.

4) Summary

a) The composition of the settlement

i) Formation of occupation levels

The plateau on which the Schroda site is found, affords a very suitable situation in which people can live. It is quite well protected from attack, particularly as the high sandstone ridge on the southern boundary forms a good vantage point from which the surrounding country can be watched. Its close proximity to the river ensured a virtually permanent water supply, as well as being a supply of food in the form of game coming to drink, and fish in the water. The fact that the general area on and around the site was used by Stone Age people, the Zhizo peoples as well as later Europeans lends emphasis to the site's suitability.

To make sense out of the settlement at Schroda, two assumptions that have been made first must be clarified. These are:-

1) That most of the site was simultaneously used and occupied; and
2) That the rate of deposit build up at one point of the site is proportional to the build up on other parts (this is for comparing levels).

It is difficult to make comparisons between excavations, because of the large distance involved. Consequently living floors cannot be combined with any amount of certainty. The basic colour differences in the deposit, although spread throughout the site, cannot be relied on for our purposes. The only feature which connects some of the excavated areas is a dung level, although not consistent, which is found at approximately the same depth in areas 3, 5 and 6. In area 2 a small concentration of dung was found, which may be of the same age as the above, although it would seem to be slightly younger.

It would seem that at least eight occupation levels can be identified. Although these are spread over several excavations, it is possible to determine positions relative to one another, thereby building up a living floor sequence. Several different features have been used for this, all of them being indicative of a period when people were living on site. These features are hut floors, gravel floors, hut rubble, the clay figurines and the dung levels.

The latter two are the results of activities associated with people at any given time, Hut rubble, i.e. the remains of a hut razed to the ground, is not always found where the event took place, but the fact that the rubble was thrown away, indicates that there were people living on site, and that in all probability, a new hut was in the process of being built.

The occupation level sequence has some breaks in it, particularly between occupations 1 and 2 as well as 5 and 6. The fact that the archaeological deposit continued to grow is evidence that the site was occupied at these times. No clear evidence exists for a break in the deposit formation. The faunal analysis, although not complete for all areas, has not shown a change between levels. The pottery analysis has only indicated that stylistically, a gradual change was taking place in that the percentage of incised ware was increasing. The measurement of the length, width and

TABLE 77

Sequence of occupation levels at Schroda

Occupation Level	AREA 1	2	3	4	5	6	Feature
1							Dung
2							Hut Rubble
3							Clay Figurines
4							Dung
5						B2·4·1	Floor
6	A1·5·1	V1 + V2					Floor
7							Floor
8					F1·8·2		Floor
Sterile Soil							

depth of the stamp impressions indicated two periods of change, but it is uncertain whether this can be combined with any temporary abandonment of the site.

It has been mentioned in the level description of area 5 that micro-layers were found in square B1 layer 7ii. This should not be interpreted as being an indication that the site was abandoned for any length of time, as square B1 is up against a rocky outcrop, and it is very likely that the micro-levels were formed by a heavy shower of rain running off the rocks. Had the site been abandoned at this stage, it seems likely that other indications thereof would have been found elsewhere in the same level.

An interesting fact is that the only preserved floors found were in the lower levels, while dung occurred in the middle and upper levels. The hut rubble that indicated occupation level 2, is proof that huts did exist in the upper levels.

ii) Hut Types

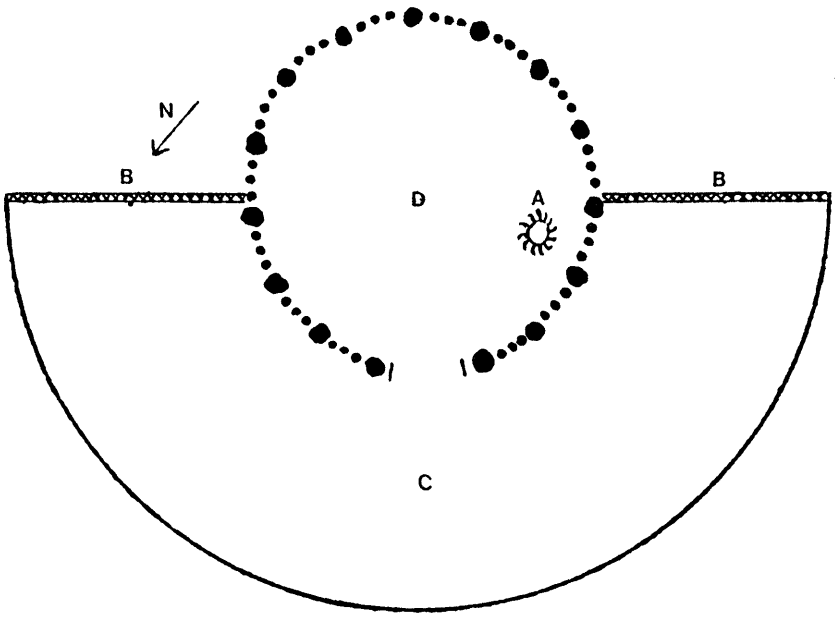
From the remains found, it is clear that the basic hut was a cone-on-cylinder structure, built of a framework of poles which were covered with clay plaster. The poles were planted in the ground in a specific order, namely one thick pole, several thin poles and followed by a thick pole again until the circle was complete. There were no outside poles, and therefore the roof rested on the walls.

The hut diameter varied from 1,20 metres to over 2,60 metres. Fire places were built into the floors of huts, and offset to one side. Entrances faced between the direction of north to west. Gravel lapa floors exist at the front of the huts, extending in a semi-circle around the sides. No indications were found of yard walls, but these probably did exist, even if only as a line of packed branches.

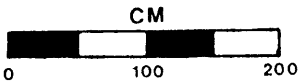
Figure 39 shows a suggested reconstruction of what some of the living huts looked like at Schroda. Obviously this may not be the only type, the remains of others not having been excavated. No

Figure 39

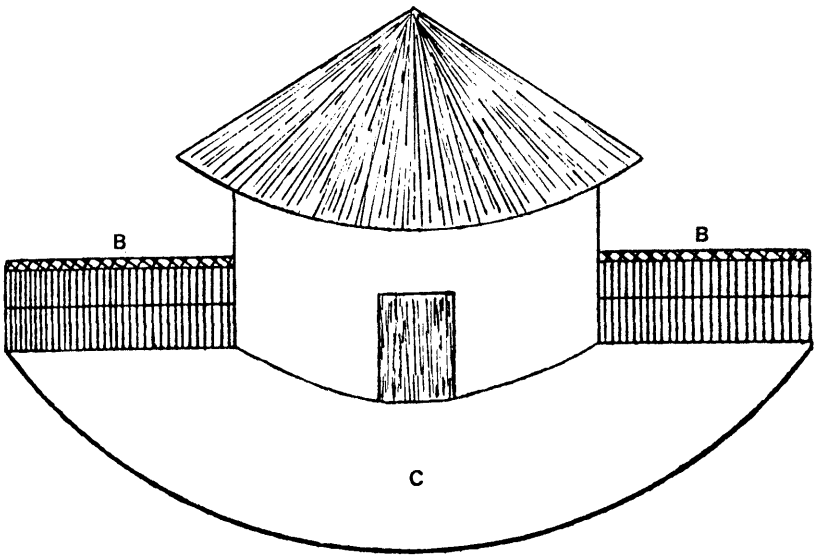
Suggested reconstruction of hut type at Schroda



PLAN



A FIREPLACE
B FENCE MADE OF BRANCHES
C CONSOLIDATED GRAVEL LAPA FLOOR
D CONSOLIDATED SAND FLOOR IN HUT INTERIOR



FRONT VIEW

storage huts were found; the only type of storage container apparently being large grain bins placed on stones. The existance of these was indicated by surface features.

iii) Settlement pattern

The settlement pattern at Schroda is not easy to ascertain, as so few huts were uncovered. It seems likely that two patterns can be described, i.e. from the lower levels of the site, and from a combination of the upper levels and the surface.

The lower levels show a spread of hut floors over a large part of the middle and southern sections of the site. There is no indication where the livestock was kept, although from the faunal analysis we do know that large herds must have existed. In all probability, only the middle and southern sections of the site were inhabited (See figure 40).

A series of huts was spread across the site. There was no central livestock area, and either they were kept in small kraals in between the huts or in an area that has not been investigated. The beginning of a central midden is clear, although individual households had smaller refuse dumps as well.

The second phase is clear. The original settlement expanded to form a second village in the northern parts of the site. Rocky outcrops seperate the two villages, although it is possible that only one chief reigned over the whole area.

The first village contains a much larger central rubbish dump than earlier. There is a definite tendency to a central livestock area, although smaller kraals are to be found amongst huts. There was no single large kraal, but rather a series of smaller ones in the central area. It is probable that these would from time to time be moved to a place immediately adjacent to the original kraal when the latter had filled with too much dung.

Huts were erected around this central area, thereby protecting the livestock to a large extent from theft.

The second village shows to a large extent the same tendencies, in

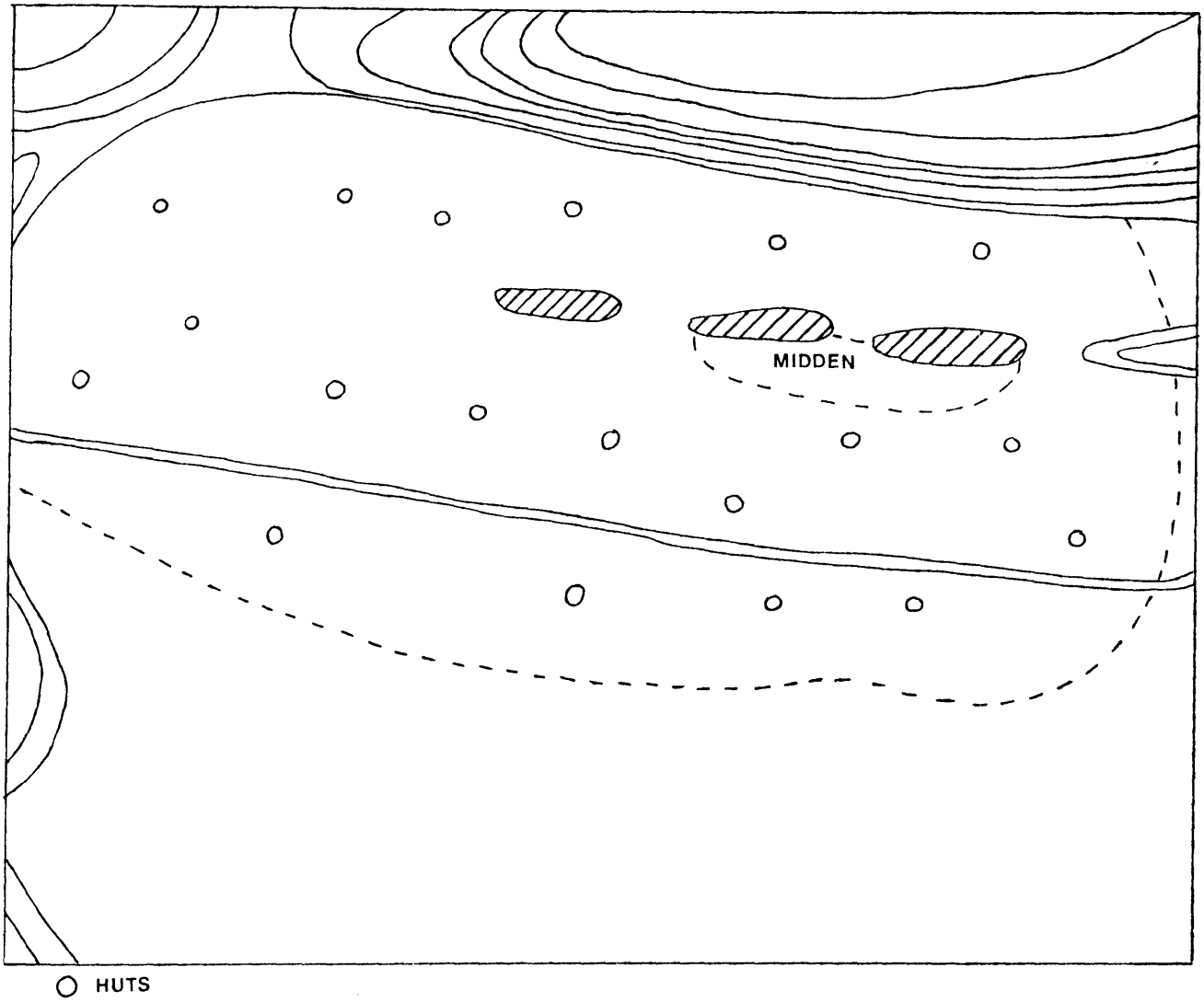


Figure 40

Map of Schroda showing suggested earliest inhabitation of the site. The northern section has not yet been occupied. A central midden is starting

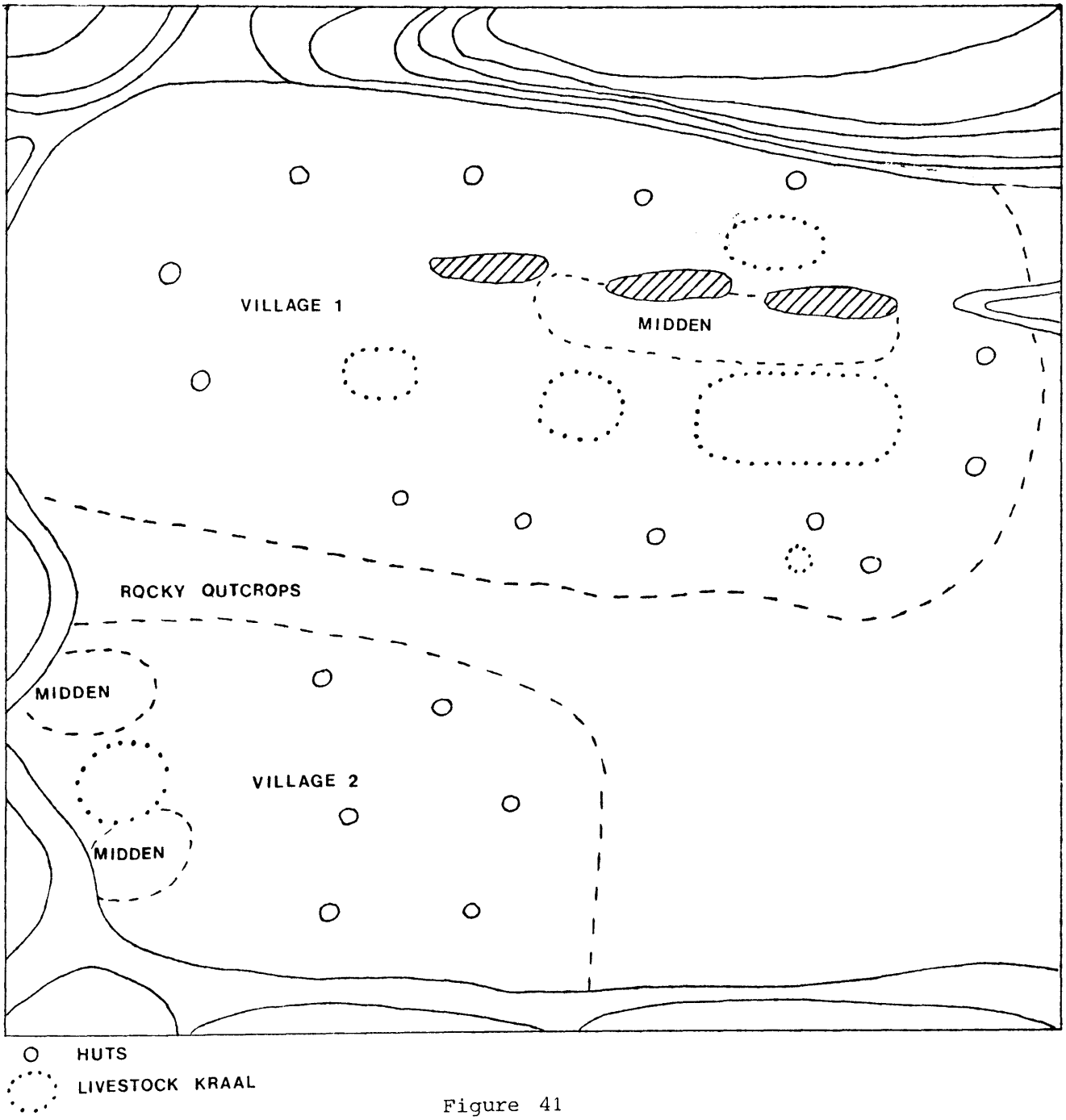


Figure 41

Schroda phase 2, showing extension of living area and clear settlement pattern

that there was a central livestock area, as well as a centralized area for refuse. It differs slightly from the first village in that huts do not totally surround the kraal and midden, but this is because the midden and kraal were placed up against the rock outcrops forming the eastern boundary of the site (See figure 41).

Little land was left for cultivation. While it is possible that small gardens were kept on site, it is likely that any large fields were elsewhere. The closest, most suitable ground is to be found directly to the north in a dead-end valley at the foot of the plateau, less than ten minutes' walk away from the perimeter of the site.

b) Dating

Four samples for radiocarbon dating were submitted to the C.S.I.R. namely charcoal from Area 2, ribs from the beast burial in Area 3 and a charred post and charcoal from Area 5. Only the latter two samples were processed.

The charred post from the burnt hut (F1.8.2) gave a date of A.D. 840 $\pm$ 50 (Pta 1819) while the sample taken from level 10(i) was dated to A.D. 790 $\pm$ 50 (Pta 1967). Both come from close to sterile soil and although they were found in sealed levels, it is safer to link them. This gives a date of A.D. 815 $\pm$ 50 for the lower levels of the site.

The upper levels of the deposit have not been dated, therefore the period of abandonment is difficult to assess. The pottery indicated that changes were taking place gradually and that the incised Leopard's Kopje A ware had not yet become a full Tradition. This places the abandonment prior to A.D. 970, which is given as the approximate beginning of K2 (Meyer 1980 p.296).

Taking the nature of the stratigraphy and deposit at Schroda into account, it seems reasonable to assume that the site was abandoned at the latest at around A.D. 900.

c) Economy

The primary source of food was cattle, sheep and goats. Hunting, snaring and gathering made up a small part of the dietary supply.

One does not know to what extent veld foods were gathered, but it is clear that at least the fruits of certain wild trees were utilized.

Agriculture was obviously a supplementary source of food, and sorghum was grown. It would appear that this was not on a very large scale, as not much was recovered from the excavations. At Greefswald, Meyer (pers. comm) found preportionally more charred grain than was found at Schroda.

Trade was carried on with the coast, as is shown by the presence of trade beads on site, as well as cowrie shells. Other items that were traded in include copper and iron, not necessarily in the form of finished products, but at least in metal form, which could be heated and forged on site.

Most of the trade has been onto the site, with little indication of what these items have been exchanged for. Voigt (1979) has said that the volume of ivory that must have been worked on site according to the remains found, far exceeds the number of worked pieces recovered.

It is her opinion that ivory items were being manufactured for trading purposes. Thirty-six wild carnivores were identified, and as it seems unlikely that they were killed for their meat, Voigt (1979) has suggested that they may have been hunted for their skins. It is probable that a large percentage of these were intended for trade.

In summary trade appears to have been on a local scale, as well as with the east coast. No direct evidence was found that Arab traders were present on the site, and it is possible that trade items passed from village to village during the course of trading.