

https://dspace.org/

The iron age prehistory of the Winburg area, Orange Free State

2015-03-05
http://hdl.handle.net/10539/17194

Downloaded from a DSpace repository. https://dspace.org/

THE IRON AGE PREHISTORY OF THE WINBURG AREA, ORANGE FREE STATE

J.J.B. DREYER

A Dissertation Submitted to the Faculty of Arts
University of the Witwatersrand, Johannesburg
for the Degree of Master of Arts

Bloemfontein 1990

CONTENTS

1. Introduction 1

2. Environment 9

3. General features of the site 12

4. Research Design 13

5. Excavations

2826DB 1-9 16
Location and general description
Features
The Finds

2826DB 10 19
Location and general characteristics
Features
The Finds

2826DB 11 27
Location and general characteristics
Features
The Finds

2826DB 12 32

2826DB 13 33
Location and general characteristics
Features
The Finds

2826DB 14 36
Location and general characteristics
Features
The Finds

2826DB 15 41
Location
General characteristics

6. Discussion 42

References 62

ABSTRACT

THE IRON AGE PREHISTORY OF THE WINBURG AREA, ORANGE FREE STATE

The settlement pattern, pottery assemblage and type of hut of a stone-walled site complex are investigated. Finds are described and discussed and calculations of stock numbers made. The site complex is compared with previous archaeological finds of the Late Iron Age of the area and elsewhere, and with the classification by Maggs for the central Highveld.

The Doornpoort settlements comply with the descriptions of the spatial organisation of the Central Cattle Pattern although the site complex did not produce the standardised and repeated arrangement of structures characterised by connecting walls at Type V, outer walls at Type N and bilobial courtyards at Type Z.

The decorated pottery assemblage corresponds in general with those from Caledon Valley, Type V and Type N. Doornpoort pottery shares style classes with these assemblages and could be part of the same tradition. The hut as found at Doornpoort shows affinities with huts at Type V and Type N. The Doornpoort site could be part of the variation within the Caledon Valley cluster, but also shows relation to sites of Nguni origin.

DECLARATION

I declare that this dissertation is my own, unaided work. It is being submitted for the degree of Master of Arts in the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in any other University.

21st day of December 1990.

ACKNOWLEDGEMENTS

During the course of this project I received assistance from a number of people to whom gratitude and acknowledgements are due.

The promoter, Prof T.N. Huffman of the Department of Archaeology, University of the Witwatersrand, literally opened my eyes to Free State settlement patterns. He gave much of his time, advice and guidance throughout the course of the study.

I am indebted to the Theron family for kind permission to excavate on their land, and to George and Mara who tolerated our presence on the farm for almost a year, we owe gratitude for their friendship and hospitality. During the fieldwork, their farm became an unforgettable part of my life and I wish to thank them for sharing it with me.

The project was financed by the National Museum, Bloemfontein, and I would like to thank the Director and Board of Trustees for finance, facilities and patience, which enabled me to complete the work. I am also grateful for the opportunity to submit this manuscript for a Masters Degree while in their employ.

I was fortunate to have the assistance of a number of people in the preparation of this thesis. The illustrations were done by Anita Venter, Karin Coetsee and Riana Joubert and the final finishing of the drawings was handled by Karin Coetsee and Riana Joubert. Thanks are also due to Sandra Bishop for reading the script several times. Therina Koole and Millie Bronkhorst, as well as other members of the library staff at the National Museum, went out of their way to collect literature. I was also assisted by Klaas Mphafi during the reconnaissance of numerous sites in the Orange Free State, and on Doornpoort he was involved from the initial stages of the fieldwork up to the final preparation of the report. Many thanks are due to him for his interest and devotion. Without his keen eye and skilled hand the fieldwork would not have been of the same standard. Other assistants who supplied energy during the course of the project were Albert Hoko, Pitso and Isaac Dipitso and Daniel Mphafi.

Analyses were done by specialists in various fields and I owe thanks to the following persons: Prof N.J. van der Merwe of UCT, Dr J.C. Vogel of NPRL and Dr T.B. Beeton of Iscor. Dr Ina Plug of the Transvaal Museum did the faunal analysis amidst a very full programme. At the UOFS I received assistance from Prof A. Bennie (Department of Pedology), Mr J.C. Loock and Dr W. van der Westhuizen (Department of Geology), Prof H.J.T. Venter (Botany) and Prof E. du Toit (Agriculture), while Dr Louis Scott inspected the samples for pollen. I also wish to thank Ian Oliver and Martin Lumley of the Free State Botanical Gardens for listing the plants at Doornpoort.

Many friends and colleagues have assisted in some or other way over the years and I would like to mention the names of Edwin Hanisch, Helgaard Prinsloo, Jan Aukema and Etienne du Plessis. The pioneer project by Dr Tim Maggs constantly served as a challenge and an inspiration.

Last but not least, my most sincere thanks and appreciation are due to my wife, Renschè, and our children, Jaco, Gerhard and Maretha. Their understanding, moral support and encouragement were indispensable throughout the project. I can only imagine the inconveniences they must have endured during my times of absence from home and I trust that the final product will prove all their sacrifices worthwhile.

IN DEO GLORIA

LIST OF FIGURES

Fig. 1 Locality: Doornpoort 19, Winburg.

Fig. 2 Topography of the farm Doornpoort 19, Winburg.

Fig. 3 Site Plan: Doornpoort 19, Winburg.

Fig. 4 Vegetation Map (After Acocks 1975).

Fig. 5 Low level aerial photography showing circles of vegetation in stone walls at lower and upper living units.

Fig. 6 Locality of excavations at Doornpoort, Winburg.

Fig. 7 Lower grinding stone with single groove.

Fig. 8 2826DB 10: Lower grinding stone in J7c5.

Fig. 9 2826DB 1: Plan of grid and profile.

Fig. 10 2826DB 5: Plan and Profile.

Fig. 11 2826DB 6: Plan and Profile.

Fig. 12 2826DB 1-9: Small finds.

Fig. 13 2826DB 1-9: Pottery.

Fig. 14 2826DB 1-9: Pottery.

Fig. 15 2826DB 10: Site plan showing excavated areas.

Fig. 16 2826DB 10: Excavated squares in West.

Fig. 17 2826DB 10: Hut A6c2.
Plan and profile of squares.

Fig. 18 2826DB 10: Hut A6c2, Plan and profile.

Fig. 19 2826DB 10: Hut A6c2.

Fig. 20 2826DB 10: Fire place, A7a4.

Fig. 21 2826DB 10: Hut A6c5, Plan.

Fig. 22 2826DB 10: Baked clay with reed and grass impressions.

Fig. 23 2826DB 10: Hut A6c5, broken pot B6c1/1

Fig. 24 2826DB 10: Midden 1, Profile.

Fig. 25 2826DB 10: Midden 10, Profile.

Fig. 26 2826DB 10: Hut E4a3, Schematic profile.

Fig. 27 2826DB 10: Stone enclosure B6a4 with smeared daga floor.

Fig. 28 2826DB 10: Stone structure A6b5.

Fig. 29 2826DB 10: Construction of stone-wall in H7a3.

Fig. 30 2826DB 10: Pottery.

Fig. 31 2826DB 10: Pottery.

Fig. 32 2826DB 10: Pottery.

Fig. 33 2826DB 10: Pottery.

Fig. 34 2826DB 10: Pottery.

Fig. 35 2826DB 10: Pottery.
Fig. 36 2826DB 10: Pottery.
Fig. 37 2826DB 10: Pottery.
Fig. 38 2826DB 10: Pottery, Small finds.
Fig. 39 2826DB 10: Pottery, Small finds.
Fig. 40 2826DB 10: Pottery and stone.
Fig. 41 2826DB 10: Iron, bone and shell.
Fig. 42 2826DB 11: Site plan showing excavated areas.
Fig. 43 2826DB 11: Hut E5. Plan and profile.
Fig. 44 2826DB 11: Hut F5, showing dividing wall and moulded clay feature F5/1.
Fig. 45 2826DB 11: Moulded clay feature F5/1.
Fig. 46 2826DB 11: Hut E4, burnt reed in situ.
Fig. 47 2826DB 11: Hut D7, Plan.
Fig. 48 2826DB 11: Hut D7, stone support C7/8.
Fig. 49 2826DB 11: Hut D7, floor edge showing gully along the wall.
Fig. 50 2826DB 11: Hut C15, Plan.
Fig. 51 2826DB 11: Broken lower grinding stone D16/6.
Fig. 52 2826DB 11: Pottery.
Fig. 53 2826DB 11: Pottery.
Fig. 54 2826DB 12: Pottery.
Fig. 55 2826DB 11: Pottery.
Fig. 56 2826DB 11: Pottery.
Fig. 57 2826DB 11: Pottery.
Fig. 58 2826DB 11 Small finds.
Fig. 59 2826DB 11: Slag concentration C7.
Fig. 60 Slag analyses.
Fig. 61 2826DB 12: Pottery.
Fig. 62 2826DB 13: Site plan showing excavated areas.
Fig. 63 2826DB 13: Hut J18, Plan and profile.
Fig. 64 2826DB 13: Hut D6, Plan.
Fig. 65 2826DB 13: Pottery.
Fig. 66 2826DB 13: Pottery.
Fig. 67 2826DB 13: Pottery.
Fig. 68 2826DB 13: Pottery.
Fig. 69 2826DB 13: Stone and iron.
Fig. 70 2826DB 13: Reconstructed lower grinding stone Square J18.

Fig. 71 2826DB 14: Site plan showing excavated areas.

Fig. 72 2826DB 14: Hut G8d1, Plan.

Fig. 73 2826DB 14: Hut G8d1, surface of baked daga.

Fig. 74 2826DB 14: Hut G7e4, Plan and profile.

Fig. 75 2826DB 14: Storage vessel, G7e5/1.

Fig. 76 2826DB 14: Clay feature, G7e5/23.

Fig. 77 2826DB 14: Hut G7e4, showing clay feature G7e5/23 and storage vessels G7e5/1 & 2.

Fig. 78 2826DB 14: Ivory figurine, G7e5/14.
Actual size 30mm

Fig. 79 2826DB 14: Hut L13e3, Plan and profile.

Fig. 80 2826DB 14: Hut L13e3, Stone edge.

Fig. 81 2826DB 14: Pottery.

Fig. 82 2826DB 14: Pottery.

Fig. 83 2826DB 14: Pottery.

Fig. 84 2826DB 14: Pottery.

Fig. 85 2826DB 14: Small finds.

Fig. 86 2826DB 14: Lower grinding stone on top of Pot burial, G7d3/1.

Fig. 87 2826DB 14: Pot burial, G7d3/1, stone lifted.

Fig. 88 2826DB 14: Pot burial, G7d3/1, plan and profile.

Fig. 89 2826DB 14: Pot burial, G7d3/1 (excavated).

Fig. 90 2826DB 14: Pot burial, G7d3/1.

Fig. 91 2826DB 15: Plan.

Fig. 92 Calibrated dates.

Fig. 93 Radio-carbon dates from Doornpoort compared to others from LIA sites.

Fig. 94 Pottery decorations.

Fig. 95 Vessel profile groups.

Fig. 96 Distribution of style classes.

Fig. 97 Decoration modes on vessel profiles.

Fig. 98 Pottery style classes.

Fig. 99 Pottery style classes.

Fig. 100 Pottery style classes.

Fig. 101 Pottery style classes.

Fig. 102 Pottery style classes.

Fig. 103 Pottery style classes.

Fig. 104 Pottery style classes.

Fig. 105 Pottery style classes.

Fig. 106 Similarity index.

Fig. 107 Artists reconstruction of settlement pattern.

Fig. 108 Stock capacity of cattle byres.

Fig. 109 Small stock and cattle capacity of byres.

Fig. 110 Huts of the Basotho of Moshoeshoe.
Journal des Missions Evangeliques, 21-22, 1846.

Fig. 111 Hut of the Basotho.
Casalis 1861:127.

Fig. 112 Huts illustrated in:
Smith 1975:38 & Backhouse 1844:355.

Fig. 113 Attributes of hut remains.

Fig. 114 Measurements through axis of huts.

1. INTRODUCTION

Iron Age archaeology in the Orange Free State is usually associated with corbelled stone huts. These huts generated interest in the local prehistory, but have also been responsible for persistent misconceptions about the people who occupied the settlements. It is, for instance, still widely accepted that all the old kraals were erected by a group of pygmies, called the Leghoya, who were living in these tiny structures (Taylor 1986). This generalisation denies all diversity and implies that the occupants of the highveld were a homogeneous group implementing a uniform settlement pattern.

Archaeological recording in the Orange Free State started during the early 1920's, when attention extended to the Iron Age (Van Riet Lowe 1927, Laidler 1936, Daubenton 1938, Pullen 1942). Since the late 1940's, extensive work was done by Walton (1948,1949,1951,1953,1956,1958). Schofield's (1948) work on Iron Age ceramics became the basic source for pottery classification for several decades. De Jager's (1965) synthesis of pottery and settlement organisation was based on the works of Walton and Schofield, and except for putting on record a number of unknown sites, made no major contribution. White, et.al. (n.d.), excavated and reconstructed part of a corbelled hut settlement in the Willem Pretorius Game Reserve near Ventersburg during the early 1970's. Humphreys (1972) excavated and described the Type R settlements along the Riet River, and in 1973 a survey at the Welbedacht Dam site in the Caledon River Valley, near Wepener, produced three Iron Age sites (Brooker 1980).

The need for archaeological studies on the prehistory of the Orange Free State was pointed out by Wilson (1969:xii). The first major contribution came from Maggs (1976), when he presented an extensive survey of Iron Age sites on the Highveld, which for the first time resulted in an archaeological framework for this region.

Further afield extensive work was done on similar Later Iron Age material in the Transvaal (Hanisch 1979; Taylor 1979a,1979b,1984; Pistorius 1984; Loubser 1985; Mason 1968,1986) and in Natal (Maggs 1982,1988; Maggs et.al. 1986; Hall & Maggs 1979).

Ceramic sequences have been formulated for different regions of southern Africa. What concerns us is the break in ceramic style relating to the origin of the Sotho/Tswana that occurred between 1100 and 1350 AD. Evers (1981:98;1984) uses the name Moloko for this pottery style. Two conflicting hypotheses about the origins of the Sotho/Tswana exist. The first is that the Sotho/Tswana arrived in southern Africa shortly after 1300 AD. The second hypothesis sees the Sotho/Tswana as the direct descendants of the Early Iron Age peoples who settled in the area from around 300 AD. The name Oori is suggested by Mason (1983) for this tradition. The ceramic evidence, however, shows that the differences between the Sotho/Tswana and the preceding phase are too great to be a local development and a migration is therefore necessary to explain the change (Evers 1983:264).

According to radiocarbon dating the occupation of the central Highveld started after 1600 AD. Evers (1981:98) sees this as the second phase of Moloko, marked by an increase in stone-walled settlements on the Highveld. Sites from this phase are known from the Transvaal (Moore 1981; Hall 1985; Taylor 1979) and from the Orange Free State (Maggs 1976) and are accepted as representing Sotho/Tswana peoples (Evers 1984:241-245).

Moloko pottery is characterised by the combination of horizontal lines, triangles and bands of incisions, comb-stamping and appliqué motifs, often with colour burnish (Mason 1986, Maggs 1976, Evers 1981, Taylor 1979a, Loubser 1981,1988, Evers 1981:98,1984:236,1988, Huffman 1986b:287).

Moloko sites are also characterised by a structural model of spatial organisation (Kuper 1980,1982), known as the Central Cattle Pattern. This pattern is characterised by a central cluster of cattle byres containing burials and the men's court, surrounded by a circle of huts. The spatial arrangement is taken even further, affecting the organisation of space inside the huts. A right side for men and a left side for women, a front/back division with dividing walls partitioning off the rear part, and sliding doors at hut entrances are features of Moloko settlements (Huffman 1986a; 1989). All the Later Iron Age stone-ruin sites of the Free State and Transvaal that have been investigated exhibit this pattern (Evers 1981:101).

The present research project in the Free State started with the collection and study of literature on the history of the early inhabitants of the area (Dreyer 1974). At the same time it was decided to compile a comprehensive record of archaeological sites, since such a record did not previously exist at the National Museum, Bloemfontein. A postal survey resulted in the recording of archaeological information on more than one thousand farms. During the ensuing programme of reconnaissance, nearly a hundred Iron Age sites were visited. The complexity and diversity of the different settlement layouts and the wide distribution of sites became apparent. It was also noted that the huts associated with different settlement patterns were built of different materials and in different styles. On several of the stone-walled sites, patches containing pieces of burnt daga with reed and grass impressions were found. The site complex on the farm Doornpoort 19, near Winburg, proved to be ideal for further investigation, as almost all the settlement units had well-defined patches of burnt daga and no obvious remains of corbelled huts.

The site complex was chosen to establish the cultural history sequence for the Later Iron Age in this area and to determine the internal layout of the settlements in a systematic surface investigation. The complex will be examined against the total background of the Later Iron Age as an example in a specific ecological and geographical region.

It is argued that group identity is reflected in ceramic style, settlement layout and hut interior patterns. These aspects can be used to trace, identify and follow large scale Iron Age ethnic units (Huffman 1982:134; 1989:156,159).

This project was undertaken as a contribution towards answering the need for more locally intensive work and site description. Furthermore, it is aimed to survey and reconstruct the settlement pattern and ways of living of the occupants of a stone-walled settlement. It also aims at obtaining a better knowledge of Later Iron Age huts. Since pottery assemblages, as part of the culture of people, are still important in defining archaeological entities, these and other finds will be described and analysed in

detail. The settlement pattern of this specific complex will also be compared with other known settlement patterns associated with stone-walled ruins.

Maggs' previous work concentrated on visible structures while houses of perishable materials were omitted. He also emphasised animals, stock areas and primary and secondary walling. I emphasize settlement pattern, pottery and the kind of hut. Consequently I paid special attention to patches of burnt daga.

The preservation of cultural remains in the Winburg area, in fact in the whole of the Orange Free State, is not good. Stone-robbing is very common, probably as a result of the ease of access to most of the ruins by inquisitive people, and farmers who exploit the walls as a source of stone for dam walls, cattle byres and erosion weirs.

The earliest references about the Sotho, although based on "hearsay", date from the 17th century (Saunders 1966:66). Eye witness accounts exist only from about 1801 (Wilson & Thompson 1969:135). General information on material culture, tradition and history can be extracted from works by Casalis (1861), MacGregor (1905), Freeman (1851) and Backhouse (1844). Basic ethnological information on the Sotho, however, remains scanty. Earlier works are by Stow (1905), Mabille (1905), Lagden (1901,1909), Dutton (1922) and Tylden (1950). Extensive work, which produced useful contributions, was done by Sheddick (1948) and Ashton (1967).

Information on the history of the Sotho is given by Thompson (1975) and Saunders (1975), which in their turn depended heavily on Stow (1905), Ellenberger (1912) and Theal (1883). The works of Stow and Ellenberger have been criticised by Thompson (1969:92) and in general, most of the above-mentioned publications depend more or less on the same basic sources and their originality is therefore limited. Some of the previous works have been reviewed by Lye (1967:109-113) and Maggs (1976:6-10). In general, information on the prehistory and archaeology of the area is limited.

It is generally accepted by historians, as a result of eye witness accounts and oral tradition, that the present area of study was occupied by the ancestors of the present day Sotho (Wilson & Thompson 1969:141; Legassick 1969:30, Maggs 1976:229,302,312,322; 1986:477; Evers 1984:236; Taylor 1984:250). Historical connections also exist between the Sotho/Tswana and certain stone ruin sites (Mason 1962; Wilson 1969; Maggs 1976; Pistorius 1984).

Circumstantial evidence thus leads to the general acceptance of the Sotho/Tswana as the builders of the stone walls in the Orange Free State and adjacent areas in the Transvaal (Maggs 1976:51; 1979:175; Frescura 1981:23; Taylor 1986:176). This idea however, does not seem to be supported by the information given by some of the early travellers. Several references state clearly that stone-built towns were either sometimes only partly occupied or mostly unoccupied and in ruins (Bennie 1956:13; Arbousset & Daumas 1968:128).

The historical records lack decisive proof for any established stone-building tradition in the area, but stone walls clearly dominate the pre-historical scene. It could therefore be concluded that the builders and the residents of the sites may not have been the same people (Frescura 1981:23). It is, for instance, known from Burchell's travels (Mason 1986:820), that the Tlhaping at Dithakong did not build in stone in 1812, although Campbell (1813 I:136) mentions several stone ruin sites nearby. (cf. Breutz 1956:165). It is difficult to explain the lack of a clear historically supported stone-building tradition against the existence of stone walls which seem to have been an integral part of the settlement pattern and life style at sites such as OXF1 (Maggs 1976:237).

Researchers have often considered stone as a substitute for other building materials on the Highveld (Van Riet Lowe 1944:205; Maggs 1976:285,319; Mason 1986:821). There could be certain reservations to this idea, for the choice of settlement location is not determined only by the availability of building materials (Maggs 1972:63, 1976:319; Humphreys 1972:91-94; Trigger 1968:53-). For example, the Ndebele of Mzilikazi, as a small group of people initially, wandered through a number of different

vegetational and climatic regions, and despite the assimilation of a great number of Tswana people, retained their traditional mode of hut type for almost four generations (Frescura 1985:154,258,278).

Stone-building has also been resorted to as protection against predators and enemies in the absence of trees (Bennie 1956:11; Walton 1965:24; Wilson & Thompson 1969:140). The specialised use of stone, as in the corbelled huts, requires specialised knowledge and skill in stone-building (Van Riet Lowe 1944:206) and thus contradicts the idea of a sudden adaptation from one type of material to another by people moving from one type of natural environment into another.

The archaeological scene in the Orange Free State has been dominated by stone-building since the first studies were done. So far, stone-building has seemed to be inseparably connected with Later Iron Age occupation in this region. The survey of archaeological sites conducted by the National Museum, Bloemfontein, produced no Iron Age site without stone-building. It seems likely that stone walls and beehive huts of reeds and grass were contemporaneous in our area. Regarding the Caledon Valley, Maggs (1976:229) is of the opinion that this area might reveal settlements with little or no stone-building. He also admits that Type V (p.28,29,314), Type N (p.315) and Type Z (p.237) sites produced huts of material other than stone.

Due to the clear visibility of stone-walled sites, archaeologists tend to concentrate on stone ruins (Maggs 1976:5; 1984a:359; 1984b:200; Mason 1986:326; Humphreys 1976:55). This is inevitable, but could result in the over-emphasis of certain stone-built structures within the pattern and a total disregard of buildings made of perishable materials, resulting in an incomplete and distorted reconstruction of the settlement pattern (Maggs 1976:5; 1984:359). The immortal belief in the Leghoya and the assumption that the early inhabitants of the Orange Free State lived in stone huts could be a direct result of just this form of "lithocentricity". (For the first use of this term see Maggs 1976:5,9). The study of the settlement pattern should therefore not only concentrate on the stone structures. The remains of buildings of perishable materials are equally important and should be included in the investigation. In Maggs' report the remnants of certain huts were not investigated

(1976:165,177,195,214), and the inferences about hut construction could be somewhat speculative (e.g. p.175). The relationship between stone and perishable materials at Type Z sites shows the importance of a study of the total settlement, including all types of material.

The only written records of the interior are the narratives of missionaries and travellers of the 18th and 19th centuries, who render scanty, but crucial bits of information in the form of published journals and letters. Although no direct mention of the site could be found, it is known that black tribes were living in the vicinity of present day Winburg in pre-Difaqane times. Ellenberger (1912:85) mentions the Kwena of Nkopane and Foleng at Mahasane, some 30 km to the east. He also mentions the Fokeng of Mmanc even further east, at Mokwatleng (p68). To the north the area between the Vals, Sand and Vet Rivers was more densely occupied (Moletsane 1967:27), with mention of the Taung of Khomo and Thulo (Ellenberger 1912:54,56) as well as Moletsane at Maphororong, at a village with up to 400 huts (p62). Other tribes were the Fokeng of Patsa (p69) and the Kubung (p52). The references to people living along the Donkin River (Mason 1986:857; Backhouse 1844:396; Campbell 1822:350) could possibly refer to the Winburg and Vet River area (Maggs 1976:6). The area between the Vet and Sand Rivers was also visited by hunters, traders and stock farmers several years before actual White settlement took place (Ventur 1974).

Winburg and its vicinity played an important role throughout the early history of White settlement. The town originated on the Voortrekker route, where it was a gathering point from 1836, and later developed into the first Voortrekker "dorp" north of the Orange River. A municipality was established in 1842 and it was proclaimed a township in 1843 (Van der Walt 1928) and became the first capital of the Orange Free State (Midgley 1949). During the long and drawn-out border disputes with the Basotho of Moshoeshoe, from about 1848 to 1868, the town of Winburg played a key role as a border stronghold in a sparsely populated country. The town itself was threatened a few times and was attacked by the Basotho in 1866, when livestock were taken from the commonage and the herdsmen murdered (Jacobs 1952.21; Taljaard 1979).

The area along the Vet River is part of the earliest White-occupied land near Winburg. The farm Doornpoort was officially surveyed in 1881, but the first owner of the farm is already mentioned in the Land Records of 1848, followed by the names of successive occupants, until in 1923, when it came into possession of the Theron family, the present owners.

Although vernacular names for towns, mountains, rivers and living sites are still widely known in the Orange Free State (e.g. Webb 1950), no local Sesotho name could be traced for either the farm or the area. A certain degree of confusion exists regarding the Sesotho name for the Vet River. Ellenberger (1912:54,56,169) uses Tikoe (Vet River) and Tikoane (Sand River), whilst Arbousset (1968:329,227) refers to the Sand River as Tikwe and mentions another stream, Tikuane (a branch of the Keicop) which could be the Vet River (Webb 1950:63). This later terminology is perpetuated by Stow (Walton 1965:30,31,35), Moletsane (1967:27), Maggs (1976) and Sanders (1975) and I will follow their usage here.



Fig. 1 Locality: Doornpoort 19, Winburg.

2. ENVIRONMENT

The farm Doornpoort 19 (28°36'S. 26°59'E.) is situated about 10 km south of the town of Winburg (Fig.1) The area lies at an altitude of 1 400m and the highest point on the ridge is given as 1 429m above sea level (2826DB, 1982).

With a few exceptions the whole of the Orange Free State falls geologically within the Karoo Sequence, and the rolling landscape produced by the Beaufort Group is seen clearly here. The area around Winburg is classified as part of the Tarkastad Subgroup (Middle Beaufort), consisting of sandstone and mudstone layers with dolerite intrusions (S.A.C.S. 1980). The dolerite dykes and sills are dissected by numerous joints and weather in blocks of different sizes, providing excellent grindstones and building material.

The topography (Fig.2) of the area is determined by the geology and is dominated by the Klein Vet River which cuts through the farm from east to west. The farm lies about 15km east of the confluence of the Klein and Groot Vet Rivers just above the Erfenis Dam. Due to the underlying geological structure, the natural topography of the area runs in consecutive north-south trending parallel waves of ridges, commencing at the Klein Vet River. The ridge on Doornpoort appears in the form of a cuesta with dolerite sills dipping towards the east. The accompanying pediment to the west lies at a lower level and merges with the bajada consisting of a deep soil deposit (J.C. Loock, Dept. of Geology, U.O.F.S., pers. comm.). Iron Age archaeological sites are located along the ridge, both below the scarp against the west-facing slope, and on top of the scarp a little distance back from the highest point (Fig.3).

The soils of the Winburg area are classified by MacVicar (1973) as black clays, and are primarily characteristic of the Erfenis pedosystem. In the geological composition of mudstone and sandstone with dolerite intrusions, the weathering dolerite tends to be the only source of black clay soils, which have poor drainage, resulting in the stagnation of sub-soil water (Eloff 1984).

Different soil types must have influenced the subsistence of Iron Age peoples. It is, however, rather difficult to draw significant conclusions on the soil potential for the cultivation of crops and the

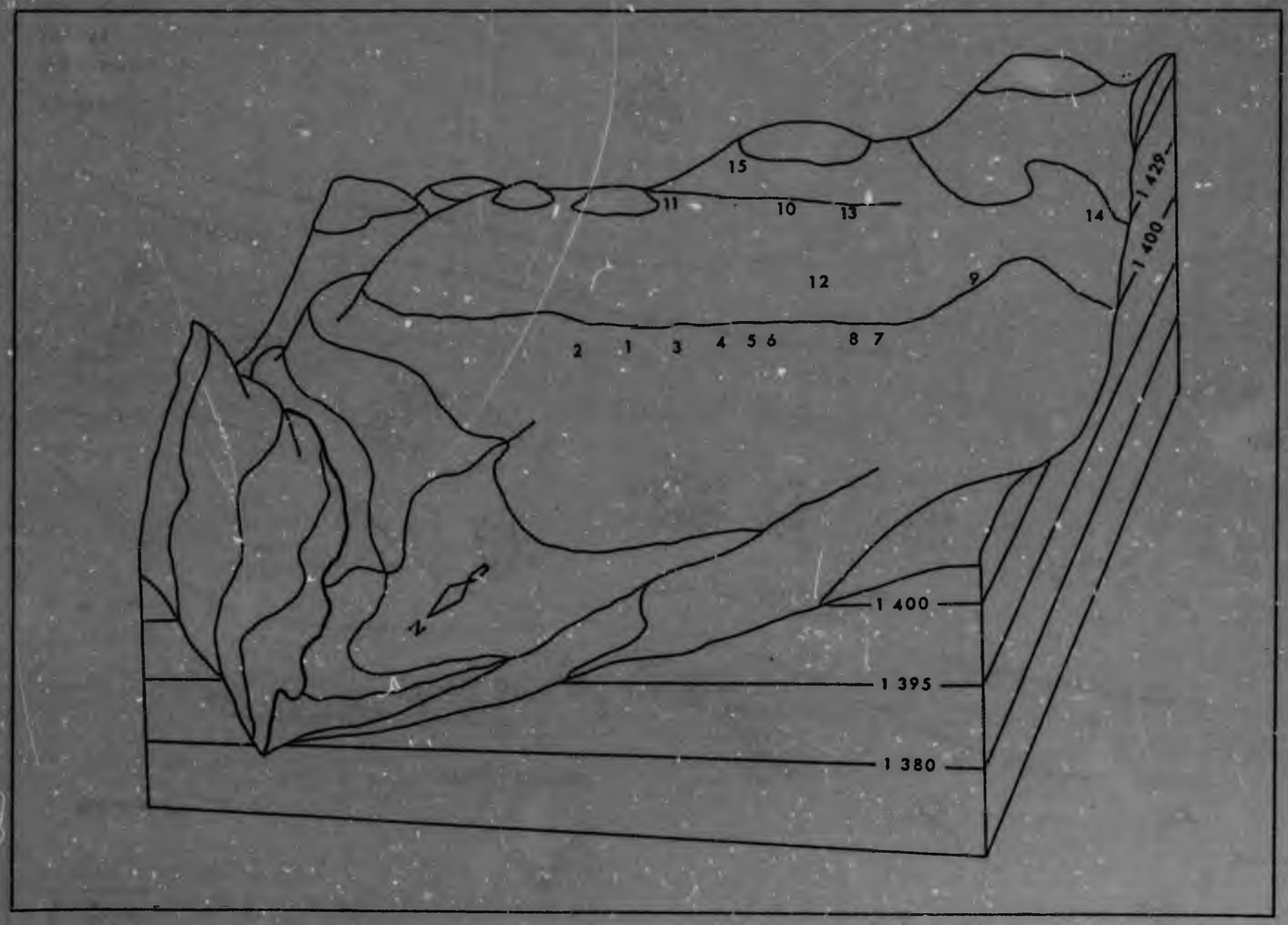


Fig. 2 Topography of the farm Doompoort 19, Winburg.

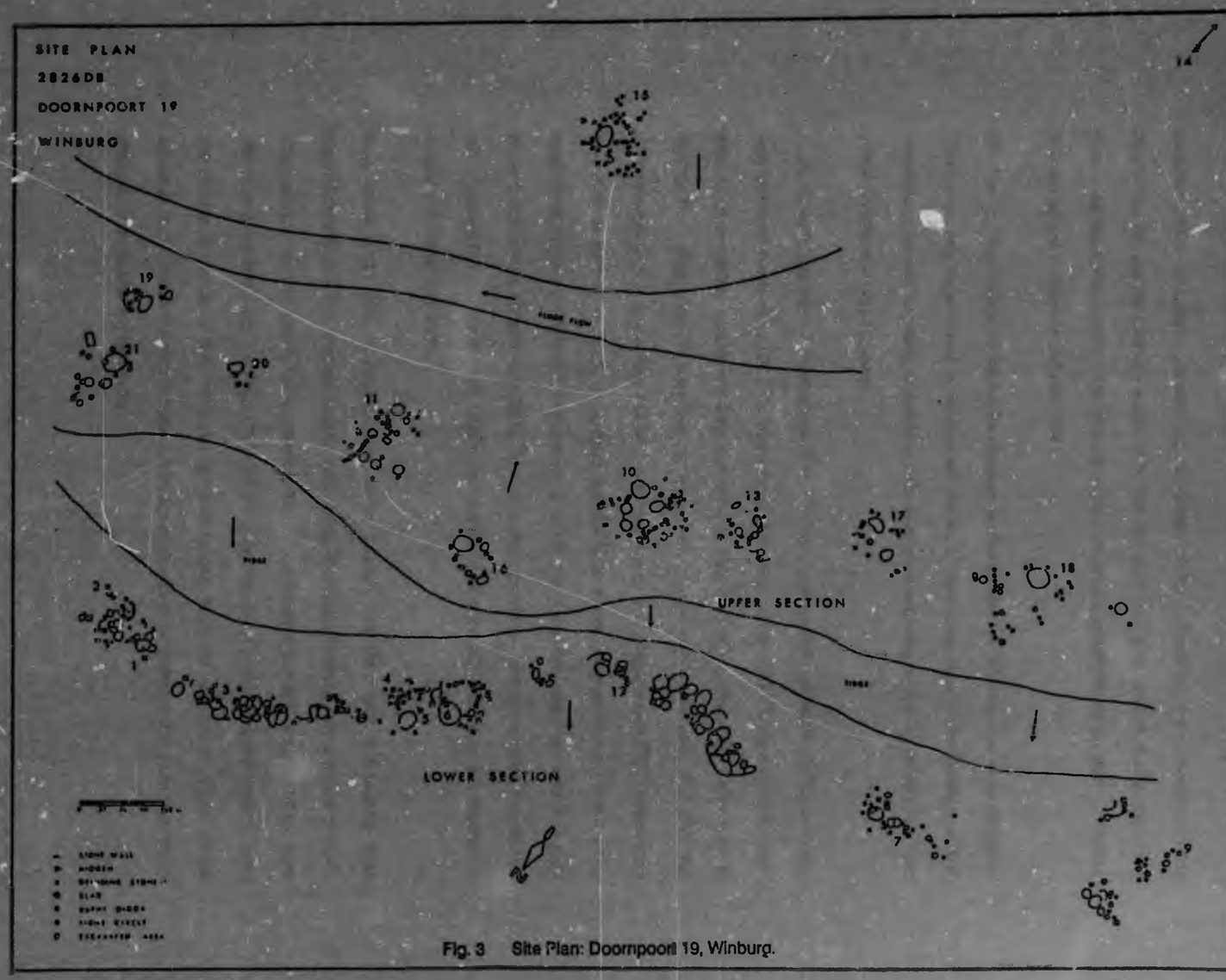


Fig. 3 Site Plan: Doornpoort 19, Winburg.

pasturage of live-stock during prehistoric times (Maggs 1974:14). From my own observations durir excavations, the general tendency seems to be that the grass and crops flourish during good rainy seasons but deteriorate rapidly in the absence of rains and decline completely during spells of drought, with consequent crop failure and stock loss.

The Orange Free State is known for its extremes in climate and the Winburg area is no exception. Climate can only be perceived in the seasonal rhythm of the various weather components, such as temperature, rainfall, humidity, radiation etc. Of these elements, temperature is probably the most crucial for man, animals and plants.

In the Winburg area there is a fluctuation of 14,5°C between mean daily minimum (9,9°C) and mean daily maximum temperature (24,4°C), with a mean daily temperature of 17,1°C throughout the year. The hottest weather is experienced from November to February, with a mean daily temperature of 22,2°C. The coldest period is from May to August with a mean daily temperature of 11,2°C. The winter reaches its peak during June and July, with temperatures averaging around 9,7°C. Temperatures have been as extreme as 38,8°C in summer and -8,9°C in winter (Weather Bureau, WB40 1986). Severe frost occurs from May to September for up to 140 days per annum, with temperatures at night below freezing point (Groenewald 1963). There is a close correlation between effective temperature and topography (Stuckenberg 1969). This is probably also true of rainfall, since there is a decrease in rainfall with a drop in altitude.

Rain occurs in the form of thunderstorms during summer, with the strongest downpours from November to March. The average monthly rainfall was 46,98mm, calculated over a period of nearly sixty years from records kept by the land owners. The biggest source of perennial water is still the Klein Vet River about 2km away. Scheddick (1954:38) states that the Sotho preferred spring water to rivers and streams as sources of drinking water, and local farmers recall the existence of several natural springs in the vicinity of the sites in bygone days. It can, therefore, be accepted that water was readily available during prehistoric occupation.

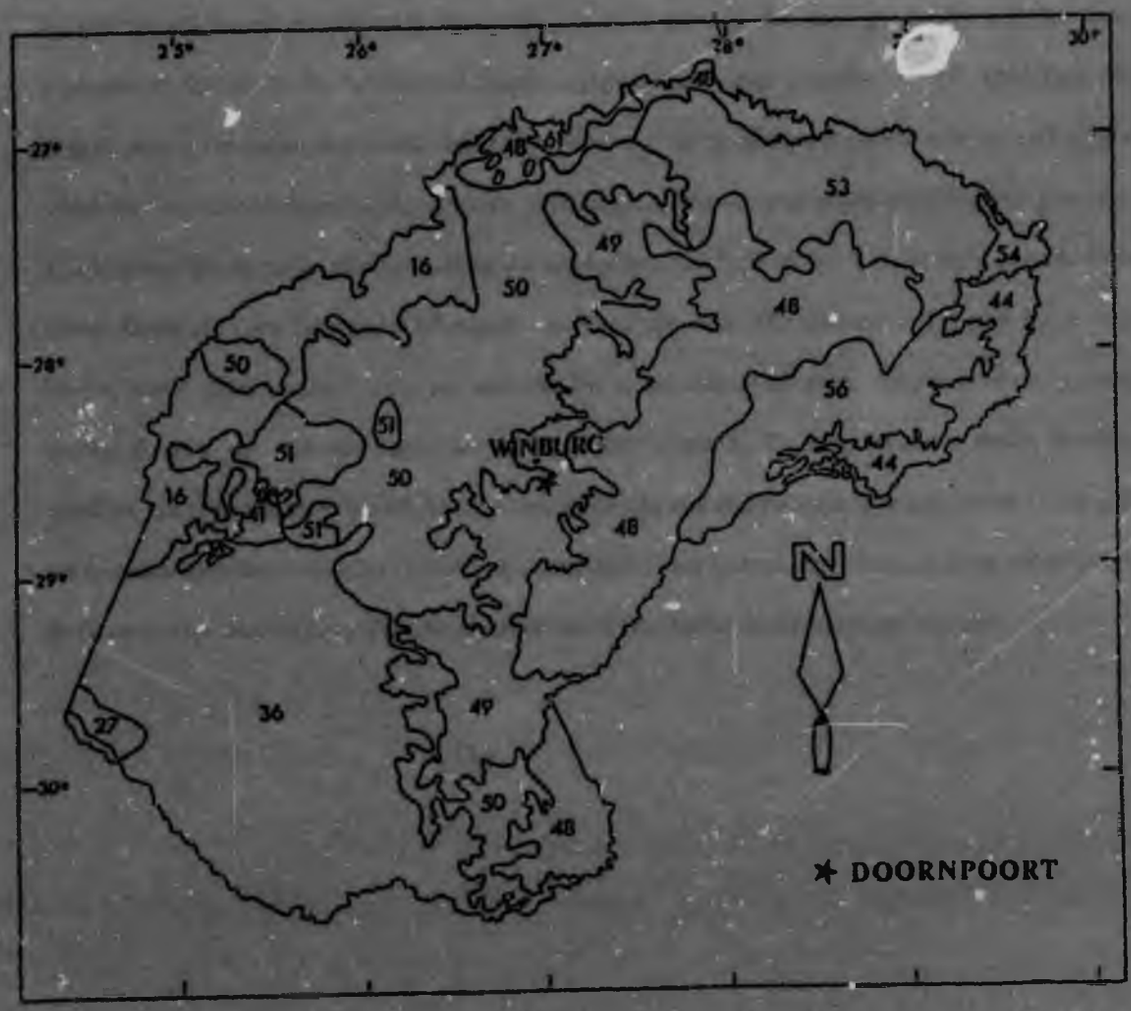


Fig. 4 **Vegetation Map (After Acocks 1975).**

Veld Type 49: (Acocks 1975)
Transitional Cymbopogon-Thicneda veld.

Prevailing winds vary from north-east to north and north-west, with the cold winds blowing from the east and south. Dust storms are common. Wind force fluctuates between day and night and according to the seasons.

A close correlation exists between vegetation and climate (Walter 1963) and this is probably endorsed by the vegetation of the Winburg area. The region is part of the pure grass-veld and the farm Doornpoort lies within the transitional Cymbopogon-Themeda veld (Acocks 1975:39, Veld Type 49) (Fig.4). Along the ridges and on the living sites there is a fairly significant growth of trees and shrubs which includes *Olea africana*, *Celtis africana*, *Rhus lancea*, *Ziziphus mucronata* and *Diospyros lycioides*. It is however questionable whether sufficient wood for hut building and fuel was available in prehistoric times. Along the river beds reeds (*Phragmites australis*) flourish. The thickets of low-growing *Acacia karroo*, found today on low-lying areas near the River, are clearly intrusive, the result of overgrazing several decades ago. On the plains the surface cover is mainly *Themeda triandra*, which provides excellent grazing, while patches of *Cymbopogon plurinodis* and *Hyparrhenia hirta* also occur. Grass and reeds could have been a source of building material for huts in Iron Age times. Among other things these environmental features effect the distribution of the sites in the Doornpoort complex.

3. GENERAL FEATURES OF THE SITE

As a result of topography the site complex falls into two sections, one below the ridge, facing west, and the other on top of the scarp, facing east (Fig.3).

Archaeologically, the complex consists of stone-walled enclosures of varying sizes, ranging from 3-35m diameter. Although a few connecting walls occur at 7826DB [illegible], this is not a characteristic feature of the whole complex. The stone walls were constructed in the usual manner (Fig.29), consisting of two faces of loosely piled stones with a rubble core, tending to taper towards the top (Walton 1958:135; Maggs 1976:51). Due to considerable damage by trees and shrubs, the walls are in varying stages of collapse.

Many parts of the complex were robbed of stone, especially on the lower west-facing part which is easily accessible. In some cases whole structures have been demolished, leaving only a few base stones which form inexplicable semi-circles.

On the surface middens were visible and potsherds were scattered in the vicinity of the living units and middens. All the settlement units contain well-defined patches of burnt daga with reed and grass impressions. The patches of burnt daga were located around the stone structures. Pellets and chunks of slag were found in several places dispersed over the site.

On top of the ridge the individual settlement units are easily distinguishable, spread out at intervals of about 150m following the curve of the ridge. The settlement layout below is much more integrated and therefore complicated, making the settlement units difficult to distinguish (Fig.3).

The settlement pattern is different from Type V and lacks the formal recognisable and repeated arrangement of primary enclosures. The pattern appears to be one of groups of primary enclosures of various sizes, loosely clustered, with no particular arrangement and little or no secondary walling.

4. RESEARCH DESIGN

The archaeological complex is named after the farm Doornpoort 19, Winburg. In the south, the complex is not restricted to this one farm, but continues onto the adjacent farm, Vancouver 1712. Other stone-built ruins also occur on other farms in the neighbourhood. All the ruins on the farm Doornpoort were examined but, to limit the project, not all were mapped.

The excavations were labelled according to the 1:50 000 cadastral map series and numbered in order of excavation. Thus, the site is named 2826DB with the addition of every alternative excavation number (e.g. 2826DB 10). Further numbers were allocated on the plans to distinguish other settlement units which were not excavated (Fig.3). Low level aerial photographs were used as base maps. Indigenous trees and shrubs tend to grow in the moisture retained by the stone-walls and these circles of vegetation showed up clearly on the photographs (Fig.5). Five of the living units, selected for more intensive study, were surveyed and mapped in detail with plane table.

Excavations were either plotted according to a fully laid out grid (2826DB 10 & 14) or, in some cases, according to a single base-line with transverse lines at right angles (2826DB 13). Finds and features were drawn in position by offset tape measurements. Elevations were measured in accordance with a fixed datum point.

The excavations followed standard procedures. Certain areas from each settlement unit were selected for excavation and squares were laid over surface indications of features, such as patches of hut daga, middens, concentrations of potsherds and the insides of stone structures. In several cases squares were also dug in areas with no visible indication of any activity to establish the nature of the contents. The size of individual excavations was standardised to $3m^2$ and then extended or divided as required. Test trenches were adapted as needed. All deposits were excavated down to bedrock, except where features or structures had to be left intact.

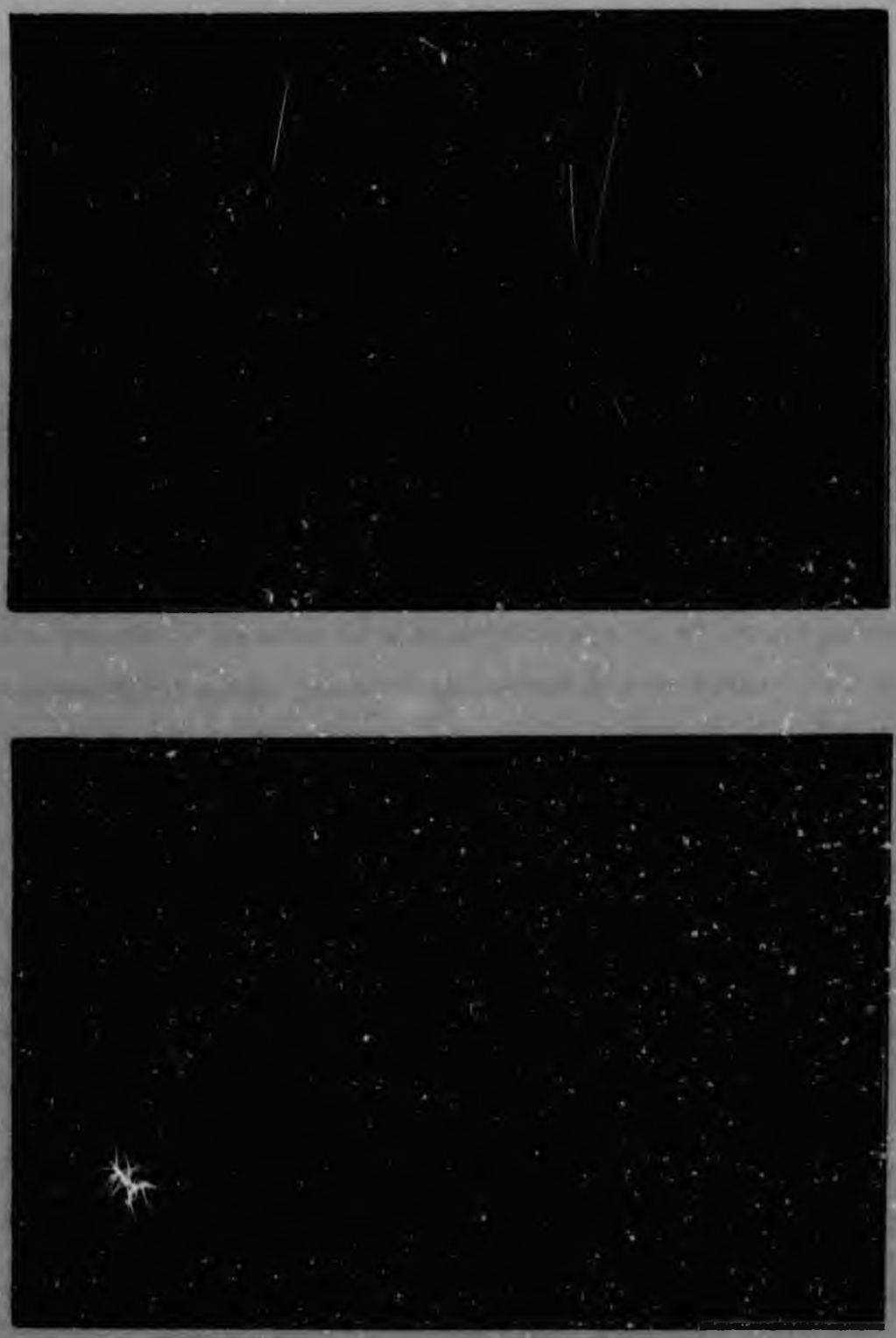


Fig. 5 Low level aerial photography showing circles of vegetation in stone walls at lower and upper living units.

Exposure of the huts was started by cleaning the surface of the patches of burnt daga. An ordinary domestic vacuum cleaner was used and proved to be excellent for the exposure of the rubble (Dreyer 1989b). The total dimensions of the debris were drawn on plan before the removal of the daga.

The material was processed in a hand-operated double sieve with mesh sizes of 2mm and 4mm respectively. This enabled the retrieval of small ostrich eggshell beads and rodent bones and teeth. Samples of ash, hut-daga and different soil types in the deposit were collected.

Due to the shallowness of the deposit and absence of visible stratigraphy, vertical control was kept by excavation in arbitrary spits. In the case of middens with deeper deposits, an attempt was made to follow natural stratigraphic levels. As a result of rodent activity this became a very difficult procedure and arbitrary levels were maintained. These refuse dumps were no longer recognisable as heaps but were only visible on the surface due to the discolouration of the soil, scattered potsherds and sometimes different vegetation. Squares were selected towards the centre of middens or in areas which seemed to be relatively undisturbed. In larger middens several squares were excavated to compare the variability of material within the midden.

The excavations on Doornpoort were started below the ridge. A grid of 30m squares was laid over the first part for over 700m. Three meter squares were pegged over features to be investigated and plotted on the base map separately. This practice led to a very complicated numbering system for squares within the total grid and was discarded in due course, retaining the numbers for the alternating excavations.

Patches of burnt daga were approached with particular interest as it was anticipated that they could indicate a previously unknown feature in the Late Iron Age archaeology of the Orange Free State.

The fieldwork on Doornpoort was done over a period ranging from February 1983 to December 1984. During this time a severe drought was experienced, which resulted in the rapid deterioration of the

grass cover. This state favoured the project, allowing features to become visible which otherwise would have remained unnoticed.

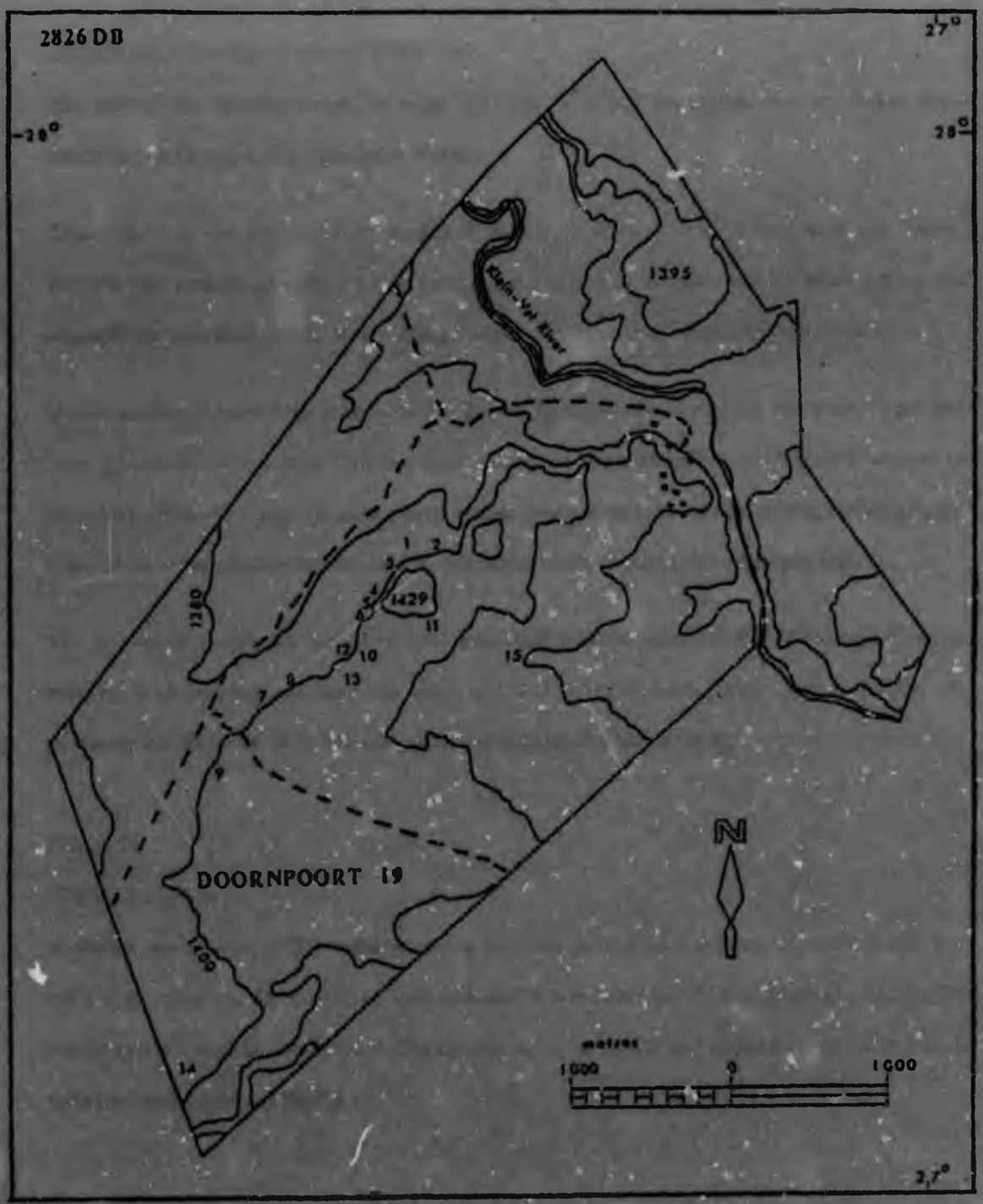


Fig. 6 Locality of excavations at Doornpoort, Winburg.

5. EXCAVATIONS

2826DB 1 - 9

LOCATION AND GENERAL DESCRIPTION

The part of the complex below the ridge (28°36'S. 26°57'E.) lies against the west-facing slope stretching out for more than a kilometer (Fig.6).

This settlement area consists of an integrated pattern of stone walls of various sizes and shapes. Towards the northern part the settlement pattern is much more complex and individual settlements cannot be distinguished (Fig.3). Wall-robbing complicated the settlement pattern even more.

Several patches of burnt daga were located and more became visible during the fieldwork. Upper and lower grindstones were present. Only one lower grindstone had a narrow groove (Fig.7), in contrast to the others which were large flat stones each with an oval hollow in the main grinding surface (Fig.8). Many of the lower grindstones were broken and others had been used to pave the dam wall.

The remains of rectangular structures with associated middens occur on the northern part of the complex, demonstrating that there was also a later (c.1900) occupation (Dreyer 1989a). Excavations producing material from the c.1900 occupation are not included in this report.

FEATURES

STONE-PAVING

A circular stone-paving (TB1) visible on the surface was cleared for inspection. No context with any other structure or associated material could be found. It may have been the foundation of a hut, but the interpretation cannot be confirmed. A clay figurine, a few potsherds and a tapered piece of iron were recovered on the surface (Fig.12).



Fig. 7 Lower grinding stone with single groove.



Fig. 8 28626DB 10: Lower grinding stone in J7c5.

BURNT DAGA

Three patches of burnt daga were excavated, but no floors could be found and the size and shape of the huts are unknown. The daga concentration of excavation 7 looked very promising but again neither the floor nor the entrance was found. The final attempt to expose a hut on this part of the site was at excavation 9A. This hut and midden (9B) were associated with slag on a dolerite outcrop nearby. No floor could be found and the hut produced only 18 undecorated potsherds.

MIDDENS

Midden 1 was excavated to investigate a concentration of crude potsherds observed on the surface. The midden itself was fairly large and four 3m squares (D6,D1(j),g,h) were dug (Fig.9). A total of 865 potsherds were recovered of which eighty-two were decorated or rim pieces. Freshwater mussel and ostrich eggshell were found as well as nine ostrich eggshell beads (5-7mm diameter). One upper grindstone of 65mm was noted.

Midden 4 (Excavation 5) was dug as a 3m square (Fig.10). The deposit was rich in cultural and faunal material. Fourteen decorated sherds and 60 undecorated rim pieces were found. Over 200 pieces of mussel shell and nearly a 100 pieces of ostrich eggshell were retrieved, as well as six ostrich eggshell beads (6-12mm). Ochre fragments and bone tools were recovered. There were six bone points as well as scrapers (Fig.12). Several chunks of hut daga were found in the deposit but no associated hut could be located.

The deposit ended on a solid surface. This feature was investigated by digging 1m trenches in four different directions (Fig.10), but its origin or purpose of the floor could not be explained. The same surface appeared to extend into the adjacent cattle byre. Excavation 6 was done to verify this. The hard surface extended underneath the stone wall and its limits corresponded with the outer perimeter of the wall (Fig.11). As shown in the profile along line y-z, a layer of about 15cm of sterile sand separated the wall from the surface, indicating that there was no obvious connection between the two features. I

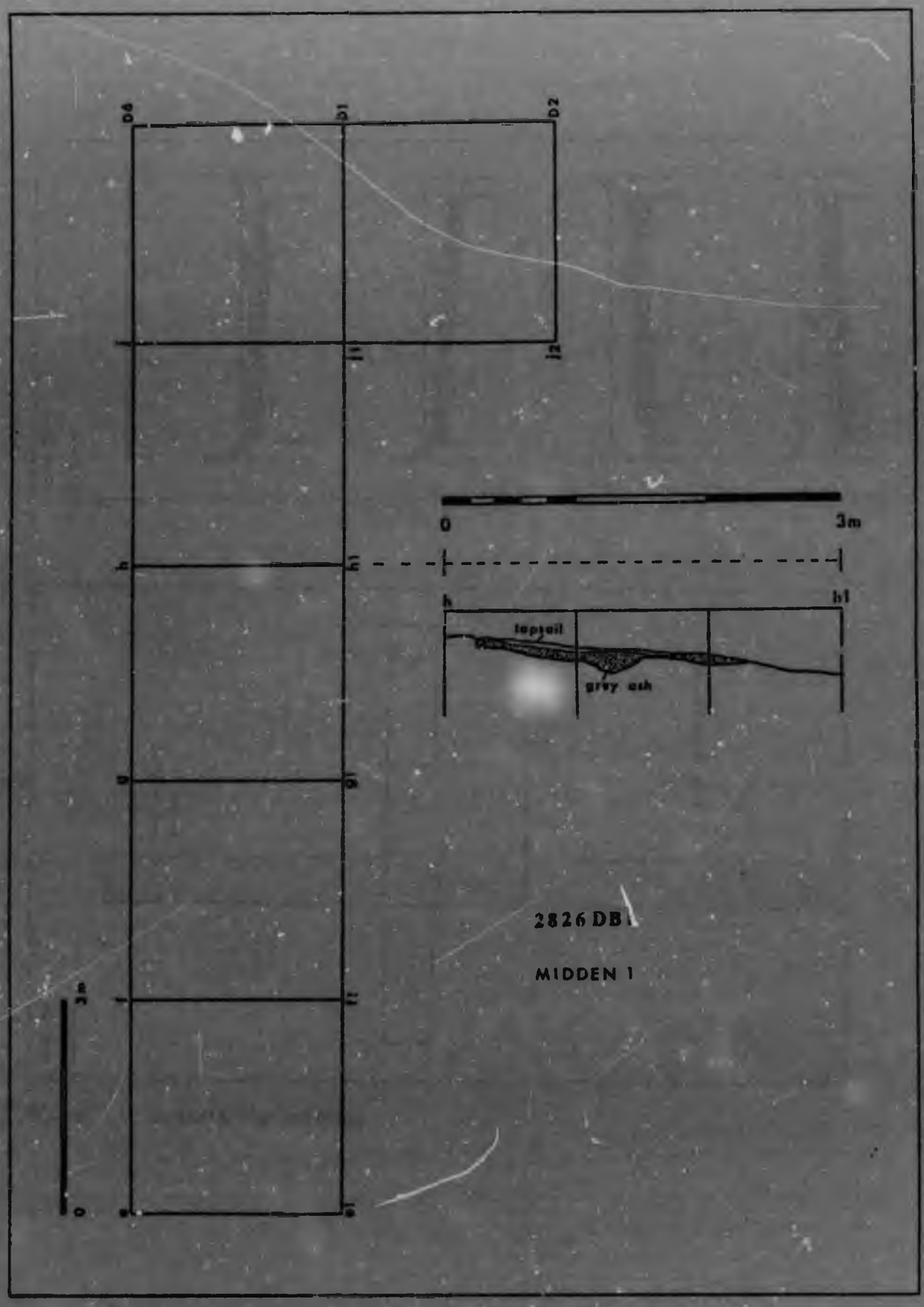
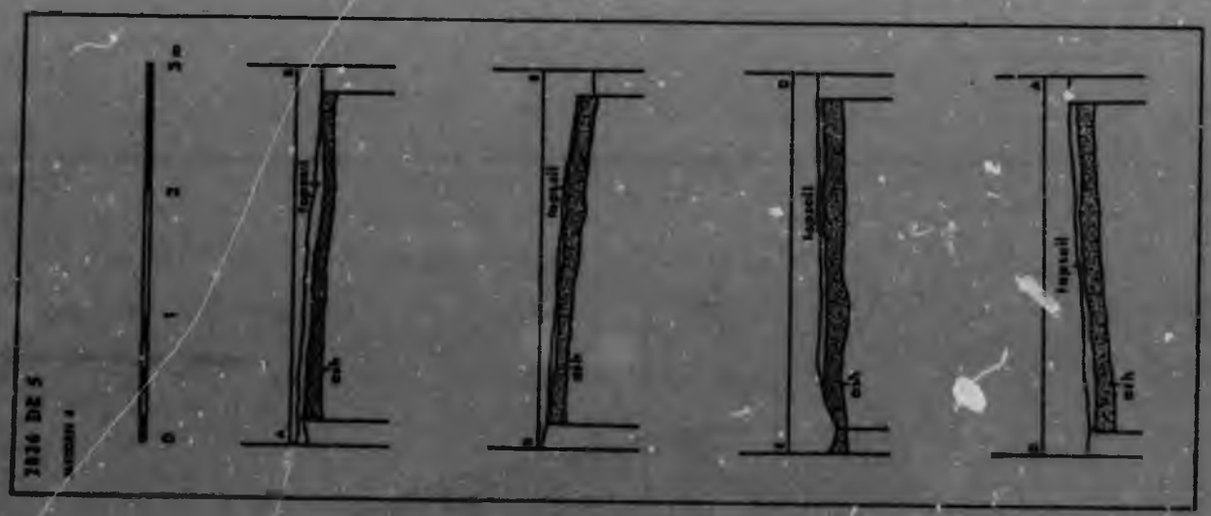


Fig. 9 2826DB 1: Plan of grid and profile.



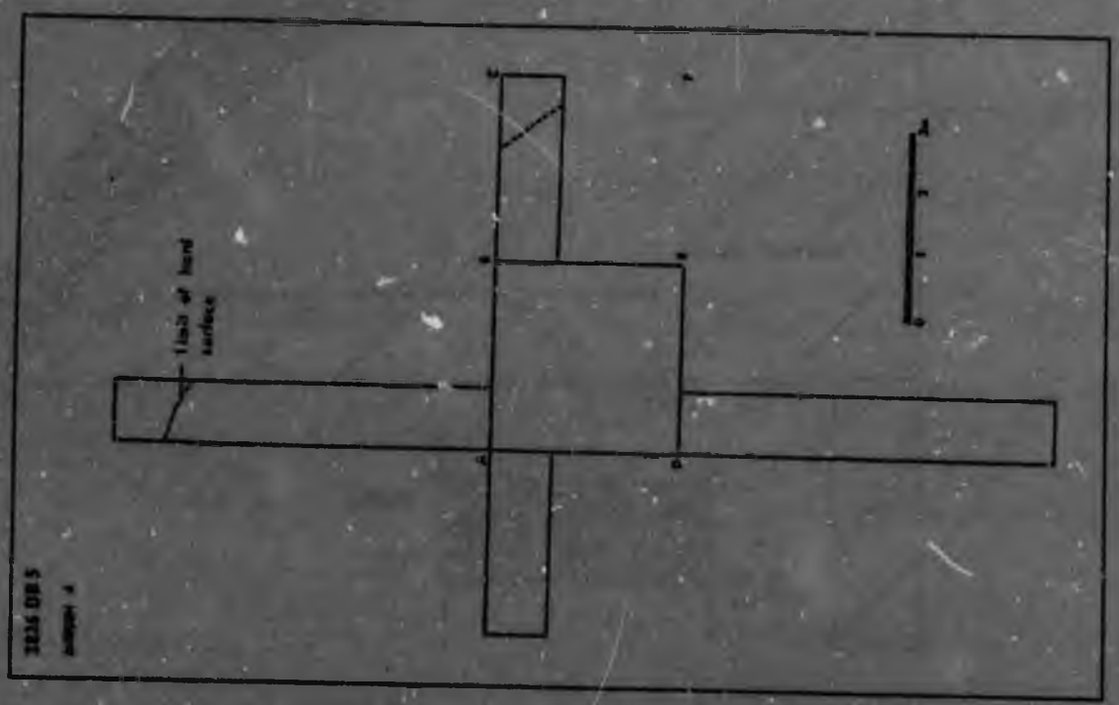


Fig. 10 2826C-8 5: Plan and Profile.

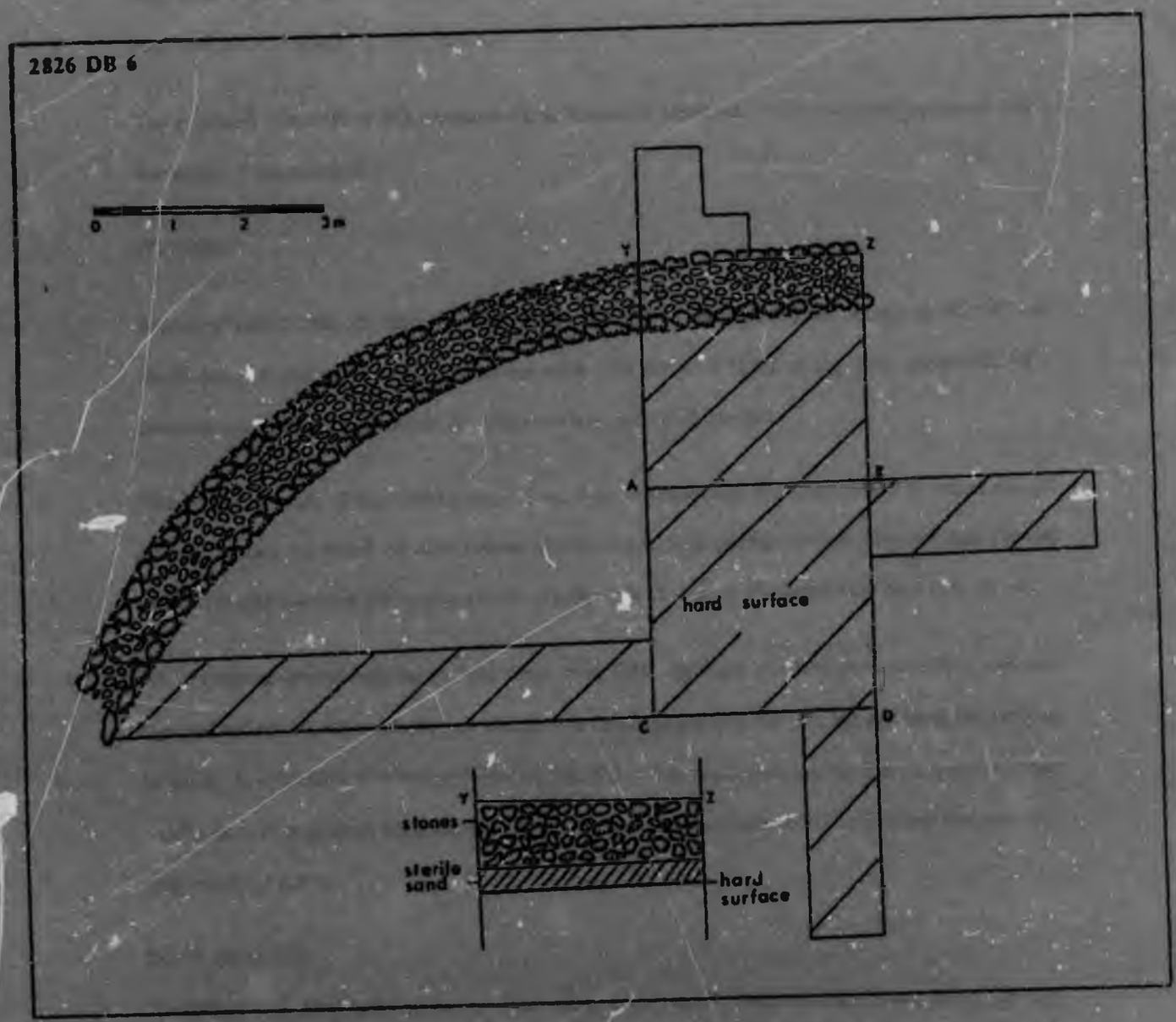


Fig. 11 2826DB 6: Plan and Profile.

presume this hard surface was a natural phenomenon. The finds from this excavation were restricted to nineteen pieces of undecorated pottery and fifty-three bone fragments.

Excavation 8 (Midden 5) was done inside a large stone enclosure to investigate the occurrence of an ashy deposit on the surface. A red smeared floor, with no apparent association, was uncovered. Only nine undecorated potsherds were found.

The midden 7 (Excavation 9B) produced 123 undecorated potsherds, eight decorated potsherds and a few pieces of mussel shell.

POTTERY

A total of 1646 potsherds were retrieved. Finger decorations were found on 190 pieces (45,6%) and comb-stamped and stylus decorated pieces were 33,3 per cent (139) of the total decorated. Of a hundred and fifteen rim pieces, 88 (21,1%) contained red ochre burnish.

The biggest number of decorated pottery came from Excavation 5. No vessel could be reconstructed and deductions are based on observations of the sherds. Rim profiles indicate [illegible] and everted necks with one specimen with a sharp point of inflection. One sherd displayed a [illegible] (Fig. 13-14).

An incomplete animal figurine (3,5cm) came from TB1. The hind quarters were modelled with two legs and a short tail but the front part was flattened and flanged as if the forelegs and head were still to be made. In excavation 5, a tapered point of baked clay was found, presumably from a ladle [illegible] handle and two fragments resembling the horns of cattle figurines were found in TB1 and Excavation 5, respectively (Fig.12).

BONE OBJECTS

Excavation 1 (j) produced two pieces of serrated bone (Fig.12). Their purpose is not clear, but they may have been used to produce the comb-stamping.

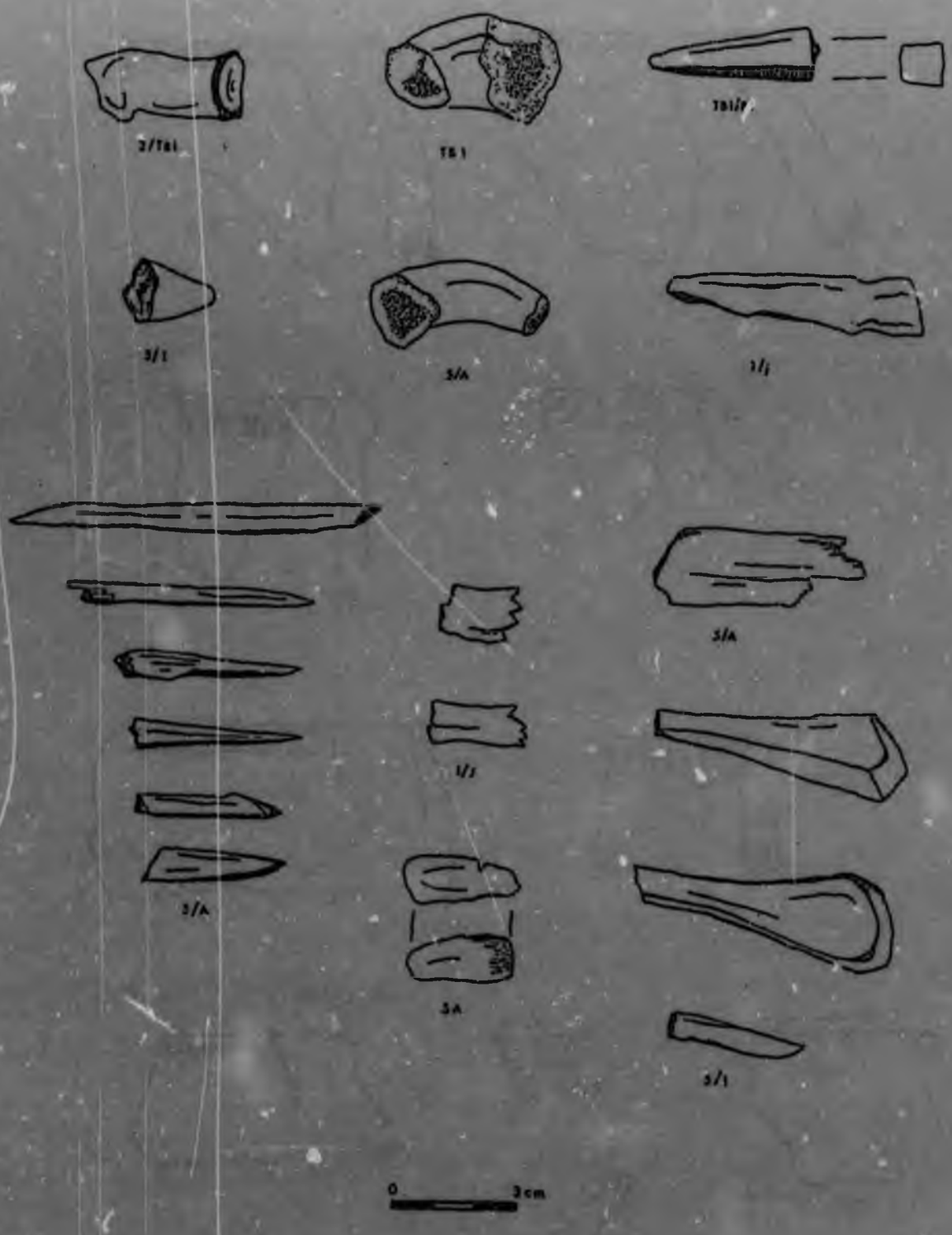


Fig. 12. 2826DB 1-9: Small finds.

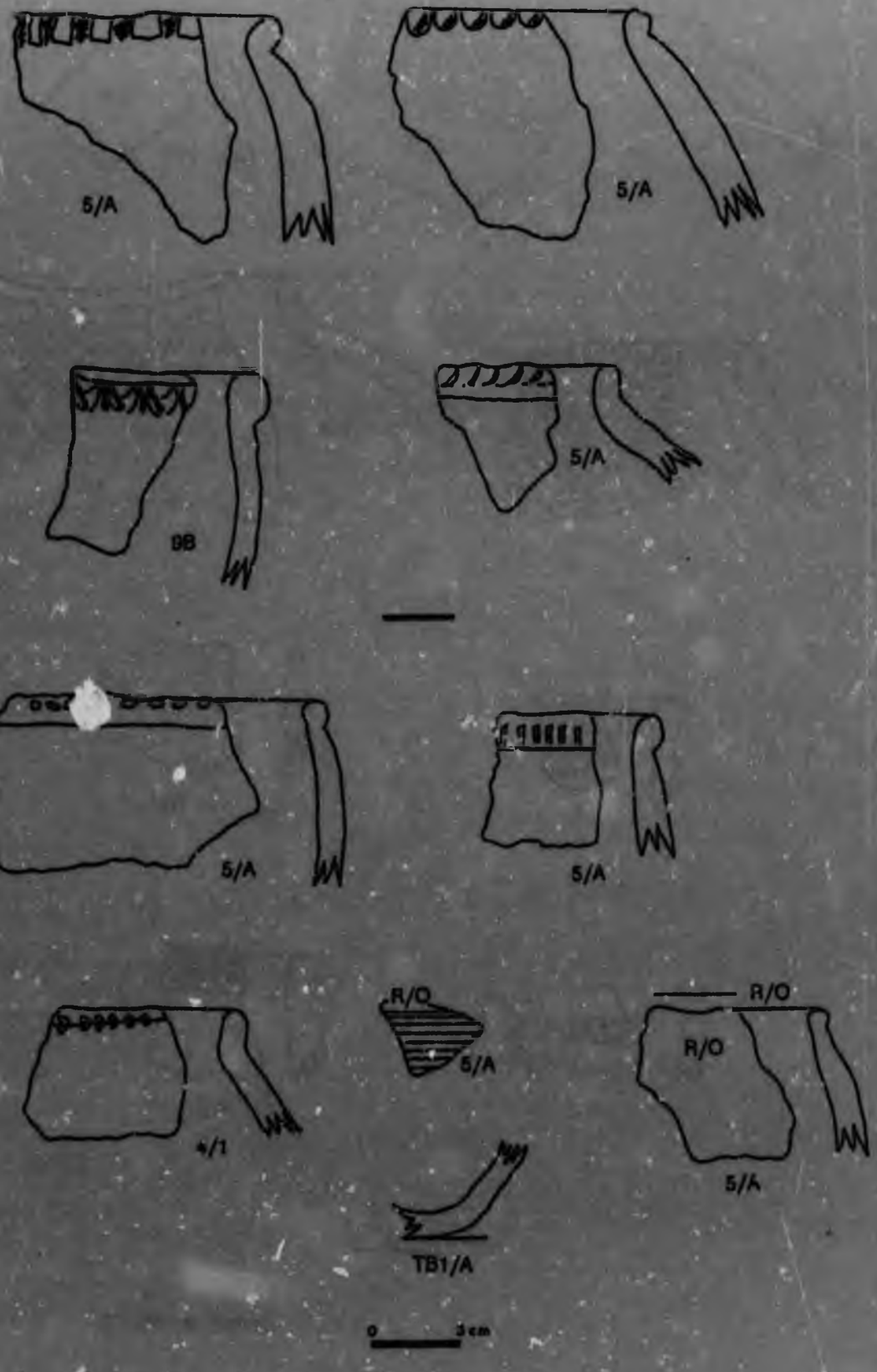


Fig. 13 2826DB 1-9: Pottary.

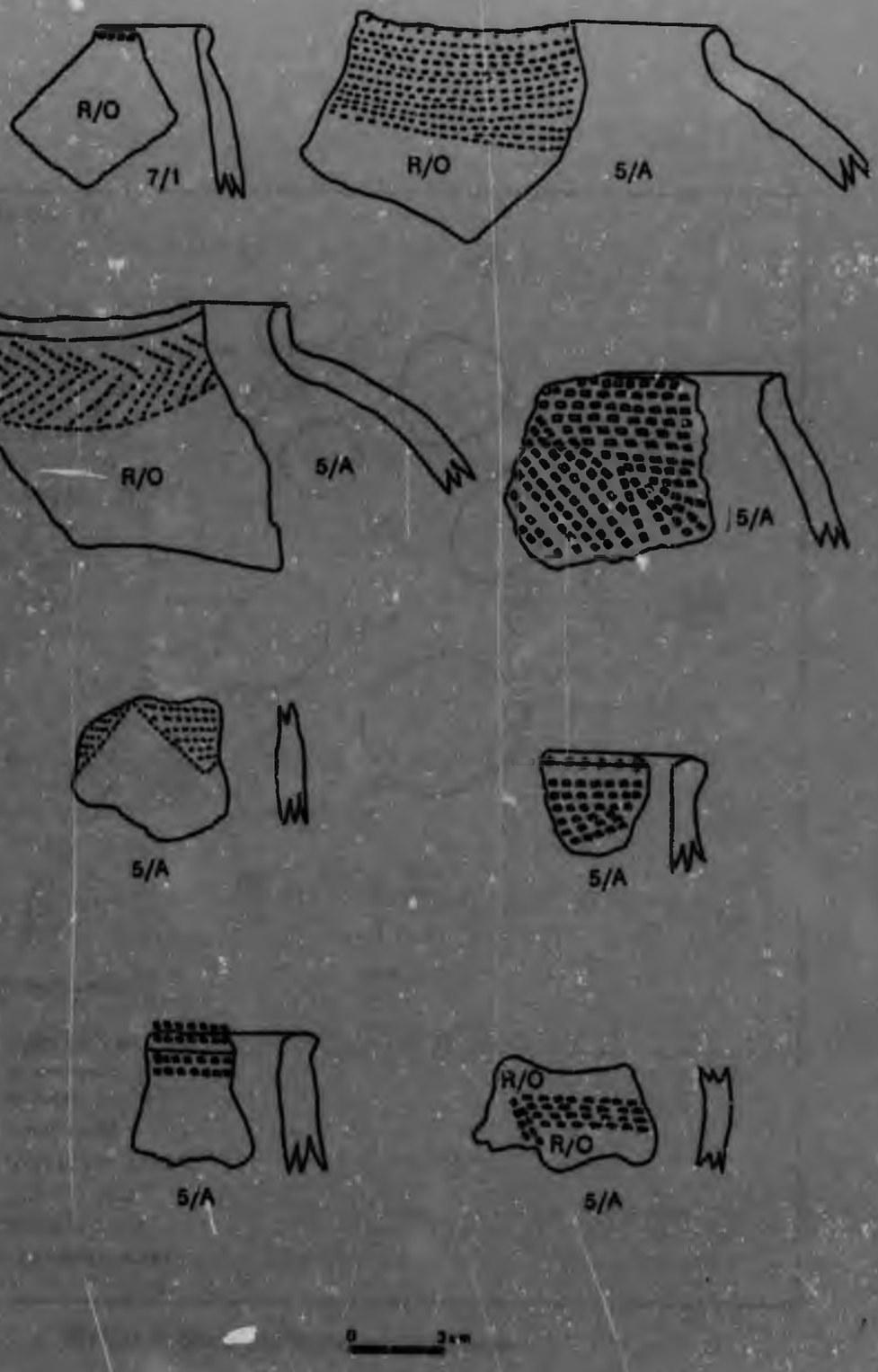


Fig. 14 2828DB 1-9: Pottery.

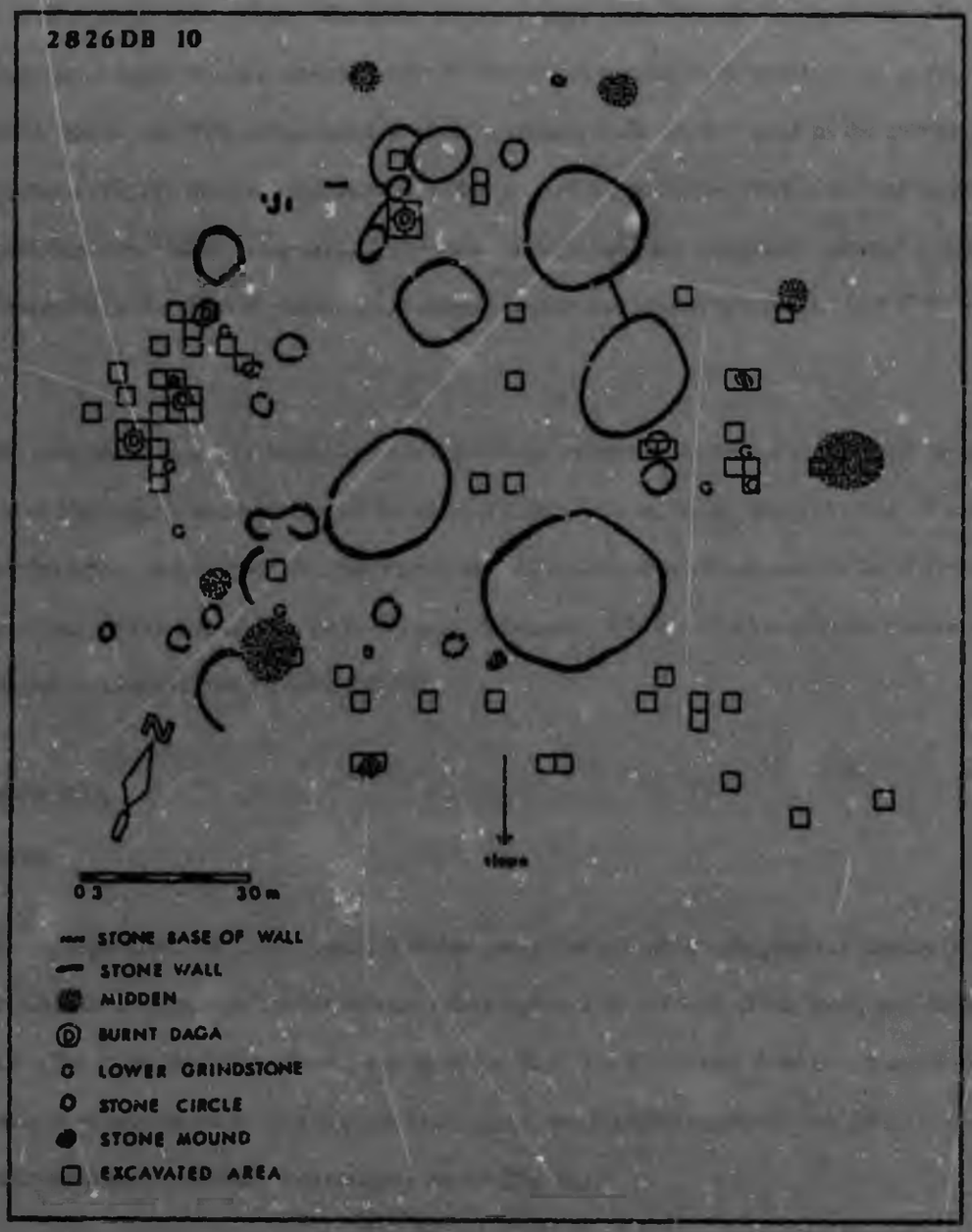


Fig. 15 2826DB 10: Site plan showing excavated areas.

2826DB 10

LOCATION AND GENERAL CHARACTERISTICS

This settlement unit is situated on top of the scarp (28°36'43"S. 26°57'54"E.) and forms part of a series of similar single units (Fig.3). The ruins lie on a slight slope, towards the south-east. The unit comprises 5 larger primary enclosures and at least fifteen smaller stone structures of varying sizes loosely spread out. This is the only unit where secondary walls connect some of the smaller stone structures (Fig.15). Several middens were visible around the periphery. Here and there patches of burnt daga were visible on the surface where the top layer had been completely removed or partially disturbed by soil erosion. A concentration of these patches was located towards the west of the stone-walls.

This particular unit was excavated in some detail in an attempt to establish the settlement layout. A grid of 15m squares extended beyond the limits of visible features. Within this grid a total of seventy-four 3m squares were excavated to investigate middens, patches of burnt daga and the interior of stone structures. As the surface finds gave only vague indications of huts and other features, squares were selected on a chequerboard pattern (Fig.16).

FEATURES

HUTS

The top layer of the hut debris consisted of fine red-brown soil mixed with pieces of pottery (Fig.23) and nodules of baked clay. Underneath the rubble a prominent red layer of fine sandy soil was found with a fine sooty black layer directly on top of the floor. The floors were hard baked and varied in colour from grey-brown to brick-red and black. Just above the floor potsherds were found in clusters which could be reconstructed into complete vessels (Fig. 21,23).

A low daga wall partitioned off the rear part of the hut (Fig.17,18). When excavated, these interior walls clearly extended inwards towards the centre and then curved backwards leaving a gap of about



Fig. 16 2826DB 10: Excavated squares in West.

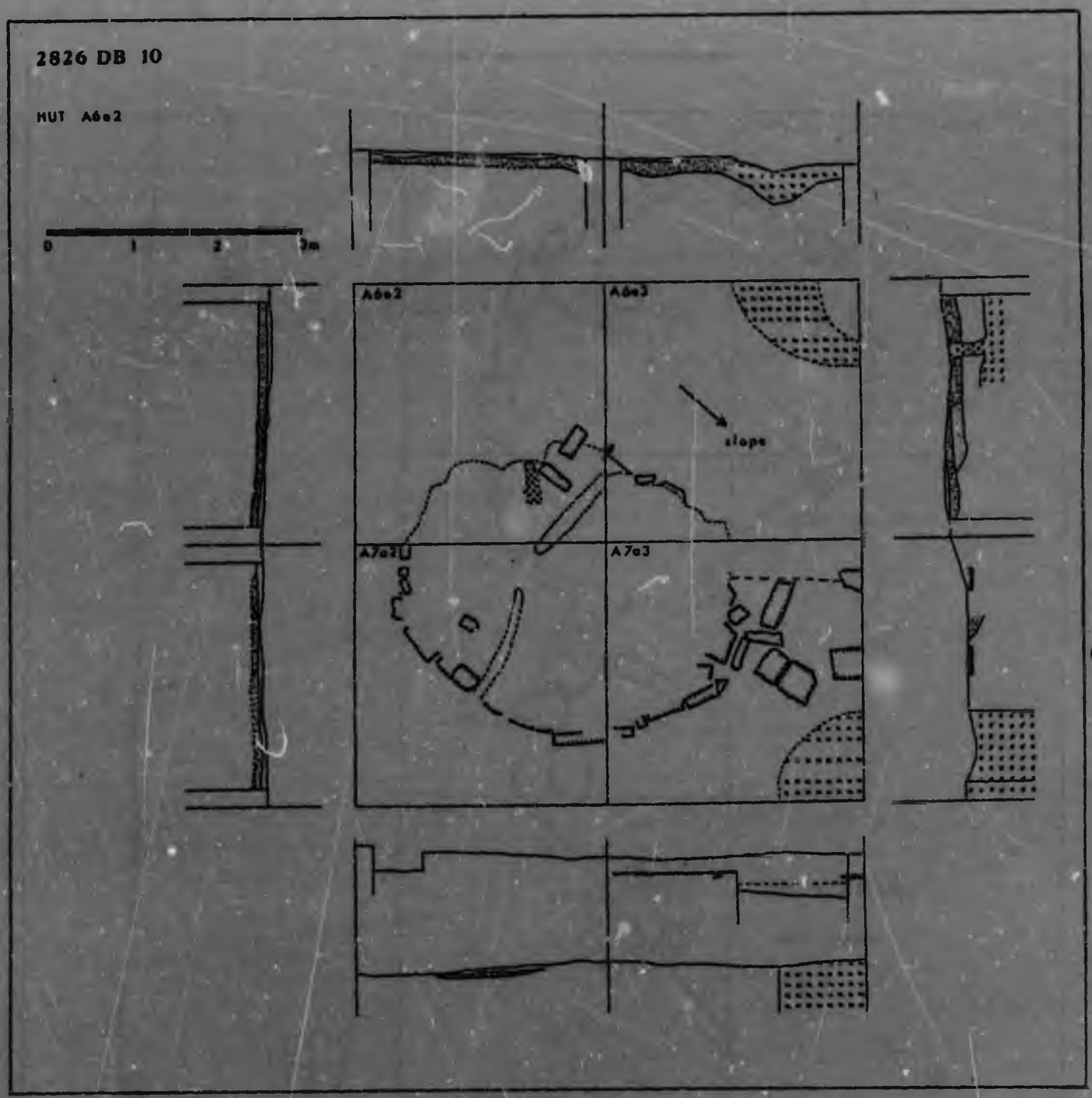


Fig. 17 2826DB 10: Hut A6e2.
Plan and profile of squares.

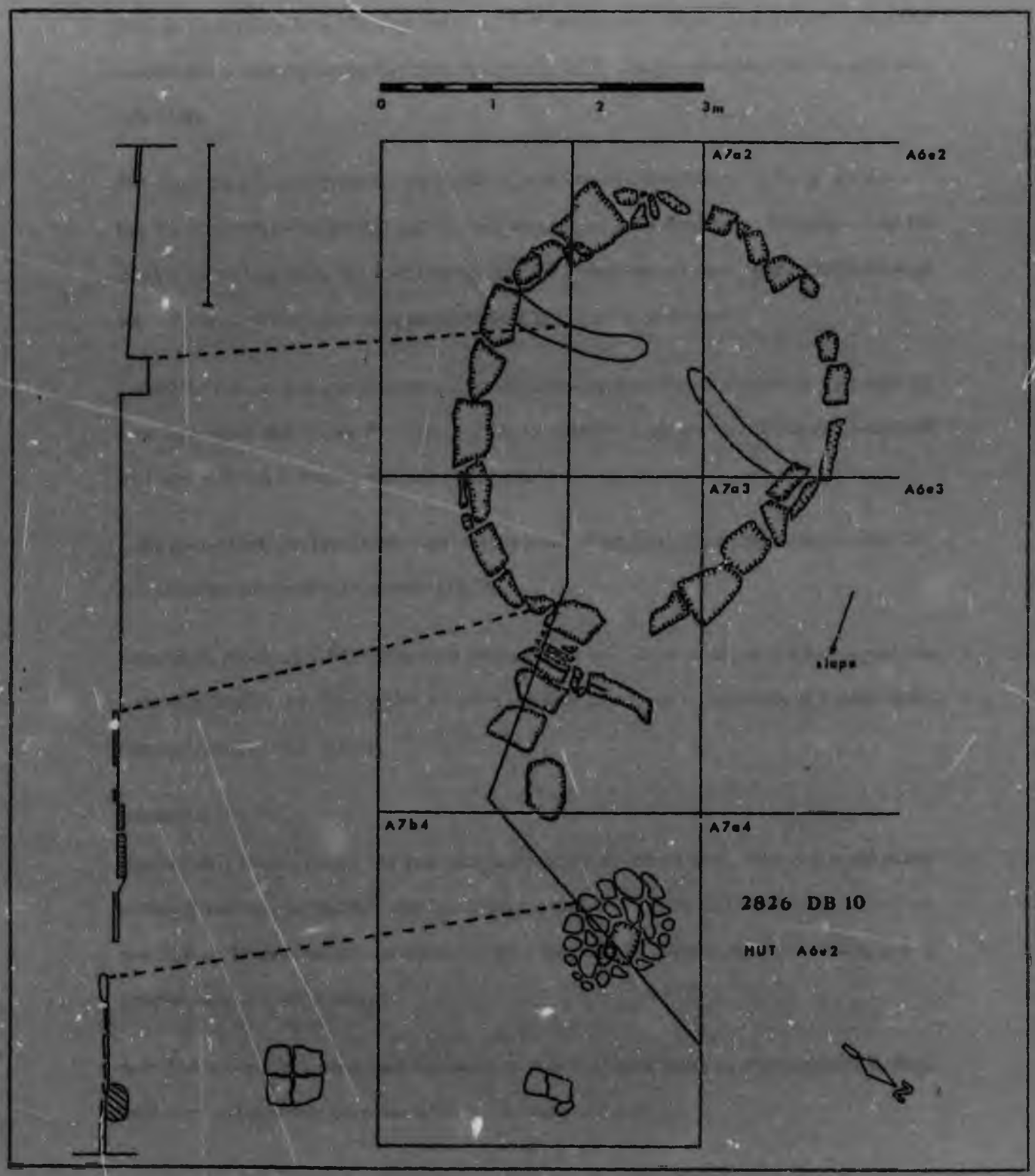


Fig. 18 2826DB 10: Hut A6a2, Plan and profile.

45cm between the two ends. The original height of the partition is unknown but it still measured up to 18cm above the floor level. The daga walls were built in layers and the ends were neatly rounded. A considerable temperature must have been reached during the fire, for even these dividing walls were baked hard.

Flat stones were located all around the periphery, as if forming a foundation (Fig.18). It was expected that the contact between the wall and the floor would form a rim demarcating the limits of the hut interior, but nothing except the stone ring was found. It is therefore not clear whether the stones were inside the hut circle but, considering the total extent, this seems to be the case.

Several flat slabs of stone, set into the surface and extending away from the stones on the periphery, form a threshold and indicate the entrance to the hut (Fig.19). A groove for a sliding door continued over several stones, at a right angle, bisecting the entrance.

A fire place (A7a4) was found to the right of the entrance of hut A6c2. Flat stones formed the base and one round fire stone was [illegible] (Fig.20).

Some of the structures [illegible] could not be deciphered. They were clearly made from reed and grass with daga plaster (Fig. 22) but no floors could be found, nor an indication of a stone circle, entrance paving or other remains.

MIDDENS

Middens were located outside the immediate limits of the stone-built area. According to the visible pattern it was expected that huts would be found in association with the middens on the northern and eastern sides. Despite extensive excavations in the vicinity of these middens and lower grinding stones, however, no huts could be located.

A total of twenty-four squares were dug into at least eight separate middens. Deposits varied in depth from a few centimeters to more than 0,50m in one example (Fig.24,25).



Fig. 19 2826DB 10: Hut A6e2.



Fig. 20 2826DB 10: Fire place, A7a4.

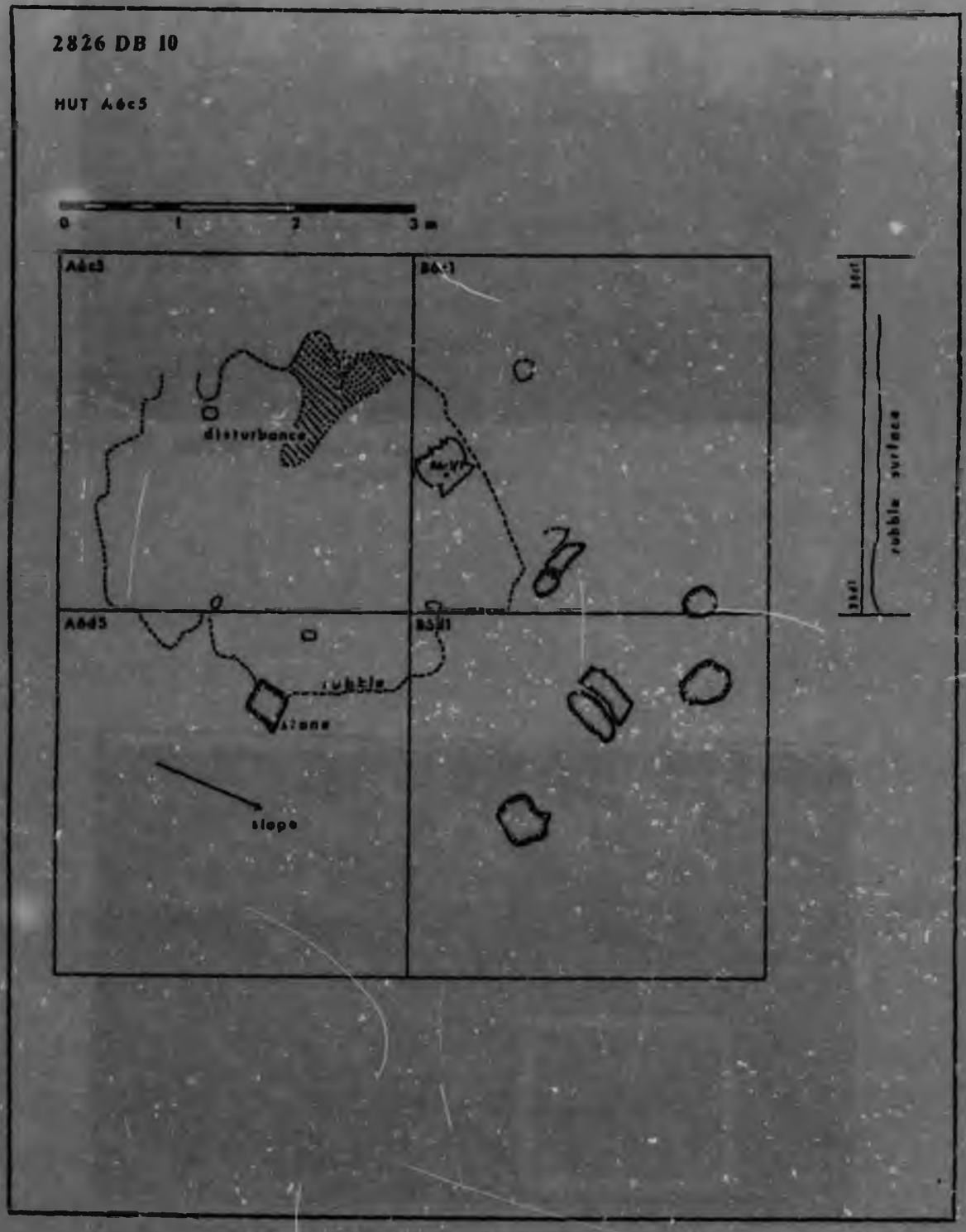


Fig. 21 2826DB 10: Hut A6c5, Plan.

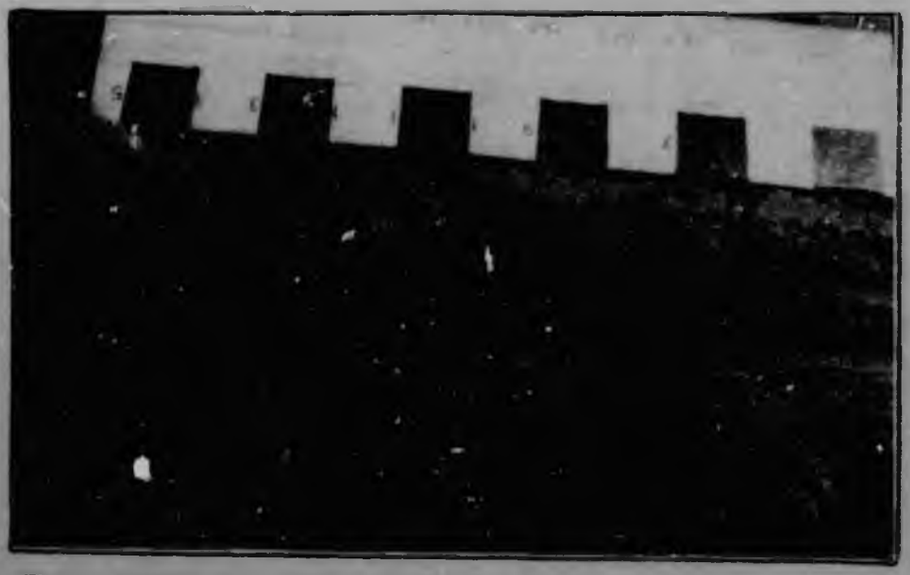


Fig. 22 2826DB 10: Baked clay with reed and grass impressions.



Fig. 23 2826DB 10: Hut A6c5, broken pot B6c1/1

Fig. 24 2826DB 10: Midden 1, Profile.

STONE ENCLOSURES

Seven smaller stone enclosures measured between 2,4m and 3,2m diameter. Three of these produced remnants of smeared daga floors. Structure E4a3 had an oval plan. The wall, with an average height of 1,24m, slanted inwards (Fig.26). The interior was filled with a thick layer (49cm) of stones and soil. Although a considerable amount of loose stones were found on the inside, the building cannot be accepted as a corbelled hut, as it was clear that the stones came from the top of the wall and the number appears insufficient to roof the entire enclosure. The smeared daga floor abutted against the wall. This structure did not produce much cultural material.

Stone enclosure B6a4 had a 2,4m diameter with walls up to 50cm high. The floor was very neat and hard (Fig.27). Inside the structure an ashy layer of about 20cm was removed from the floor, producing over 1 500 potsherds. This structure was probably used as a dumping place.

A stone heap J6e3, with measurements of 2,60m x 1,50m, produced two potsherds and nine pieces of bone.

STONE STRUCTURES

A stone structure A6b5, (Fig.28), was found behind hut A6a2 and was probably in association. The structure consisted of upright stones about 10-15cm above the soil surface, forming an oval plan of about 1,6 x 1,3m. One third of the deposit was excavated. No material was visible on the surface but 74 pieces of pottery (two were decorated), bone, shell and ochre were recovered. No paving was found on the inside and I believe therefore, that it could not have been a stand for either a grain basket (sesiu) or clay grain bin (sefala), as described by Maggs (1976:134) and Ashton (1967:160). The function remains unknown.

CATTLE BYRES

Test pits were dug against the walls (Fig.29) of the larger stone enclosures to verify their contents. Soil analyses done by the Department of Pedology, U.O.F.S., compared soil samples from inside and

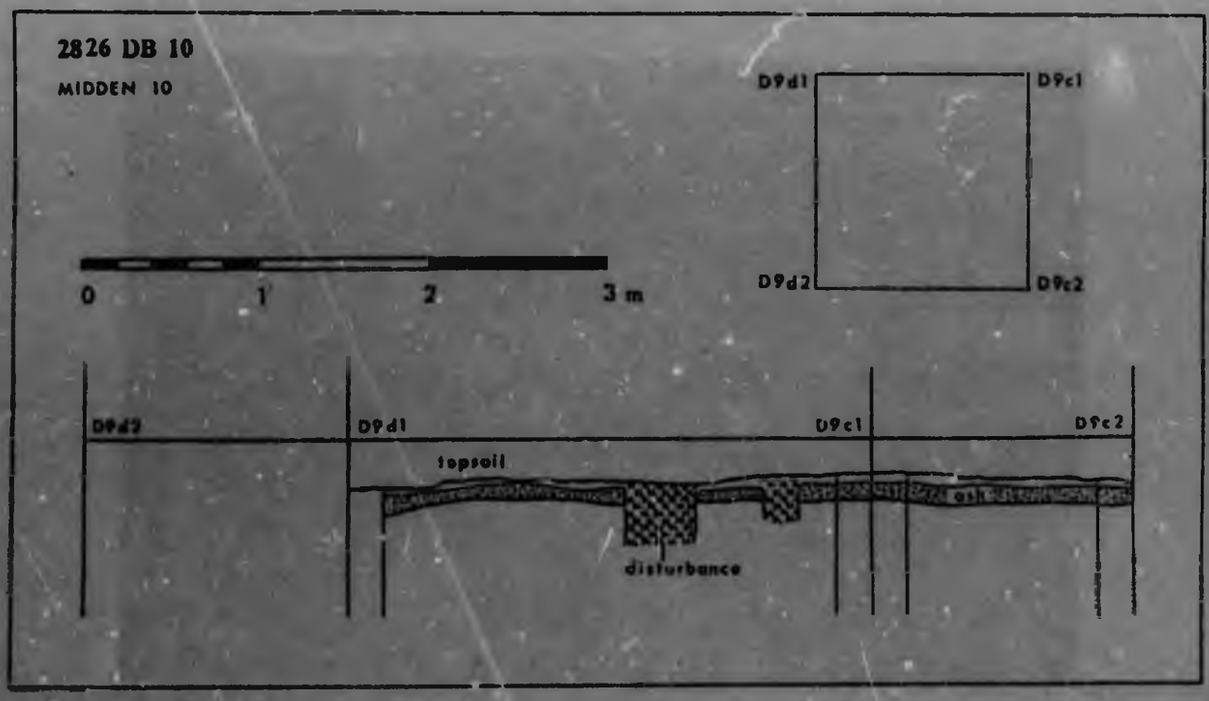


Fig. 25 2826DB 10: Midden 10, Profile.

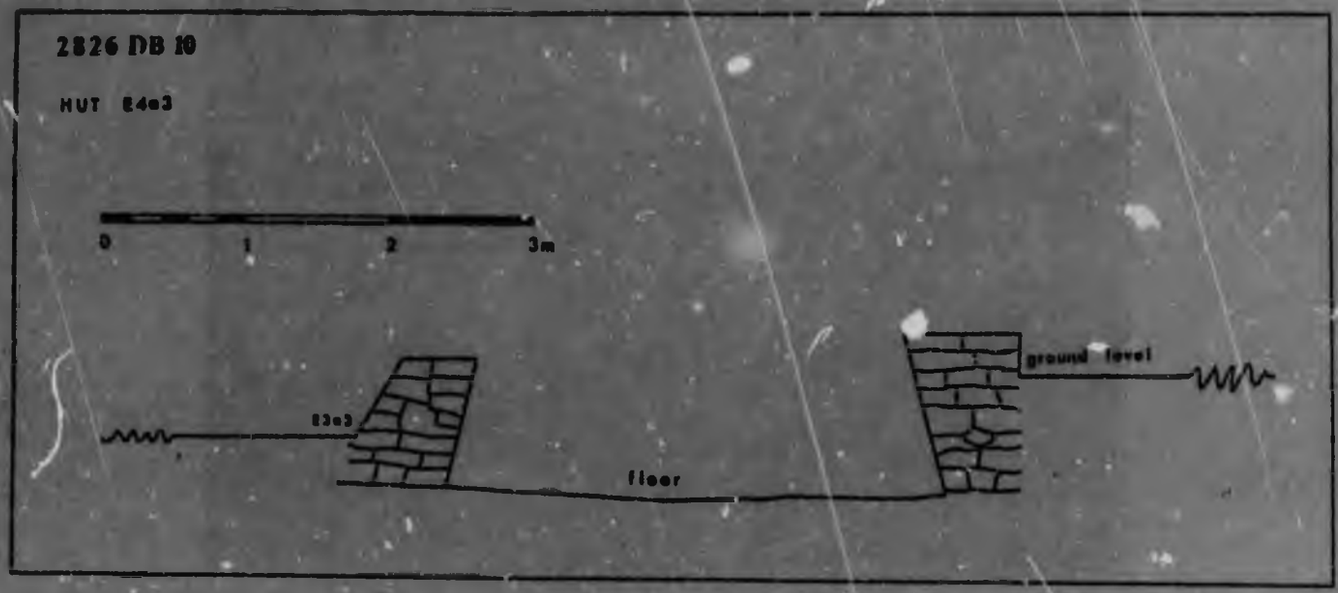


Fig. 26 2826DB 10: Hut E4a3, Schematic profile.

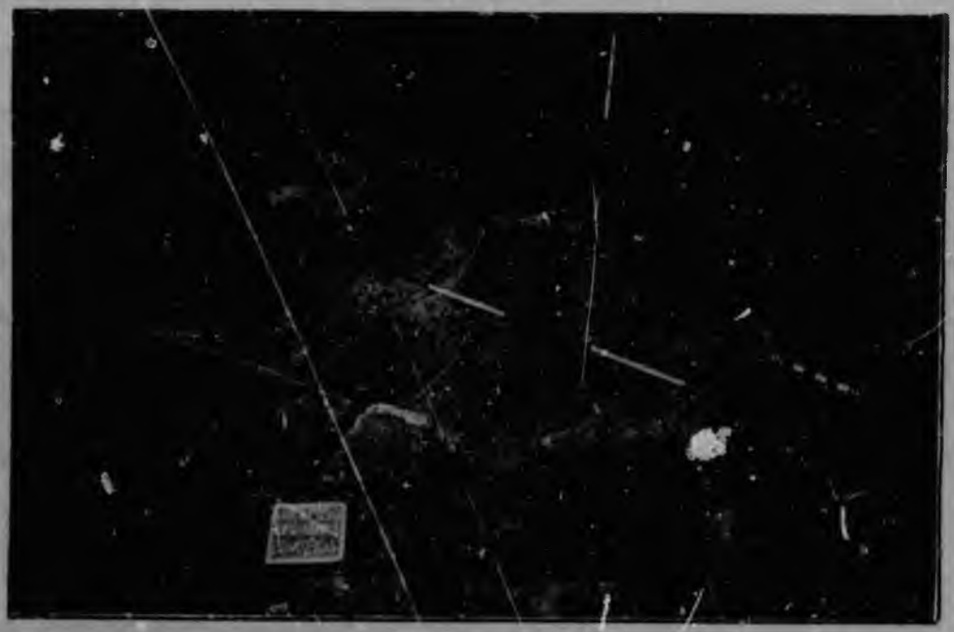


Fig. 27 2826DB 10: Stone enclosure B6a4 with smeared daga floor.



Fig. 28 2826DB 10: Stone structure A6b5.

outside the supposed cattle byres at 2826DB 10. From these results, which revealed a comparatively high content of phosphorus, calcium, magnesium and other minerals and very low electrical resistance in the sample from inside the enclosure, the larger stone-walled enclosures were cattle byres (Prof A. Bennie, report on file). A high phosphate content in soil is also ascribed by Maggs (1971:61) and Humphreys (1972:100) to the penning of stock in the area.

Soil samples were submitted for pollen analysis but nothing exceptional was found. The pollen concentration in the soil samples was low, and the sediment type and local conditions are not suitable for pollen preservation making any inferences speculative (Dr Louis Scott, pers. comm.).

Cattle byres with floor levels below the surrounding surface, the result of the constant removal of dung for fuel over a period of time, appear to be quite a common characteristic of Later Iron Age sites (Maggs 1976,1982; Loubser 1981:160, Pistorius 1984:177). At Doornpoort only a single occurrence was found at 2826DB 10. The primary enclosure, D5e2, is about 4m in diameter and has a floor level visibly below the surface outside. This feature was also observed at two sites near Heilbron, on the farm Palmietspruit 144 (Maggs 1976:35) near the Renoster River and, although not mentioned by Van Riet Lowe (1927), at Vechtkop, near Heilbron.

The central open area between the cattle kraals at 2826DB 10 revealed no visible indication of any activity (cf. Pistorius 1984:88). Four 1m squares were dug at intervals to investigate the area. The surface cover consisted of grass and individual loose stones. The deposit was removed in 5cm arbitrary spits. After the usual top soil, the second layer produced hard granular black clay nodules. The squares (F5c3,F6b5,F7c3,F7c5) yielded 24 pieces of pottery, three bone fragments, one freshwater mussel shell and one round lead ball.

THE FINDS

POTTERY

A total of 28 441 potsherds were recovered of which 1 858 (6,5%) were decorated. Of all the decorated sherds 927 (49,9%) were finger decorated and 589 (31,7%) were done with either an instrument or



Fig. 29 2826DB 10: Construction of stone-wall in H7a3.

stylus. Of these, 342 (18,4%) sherds showed ochre burnish. Undecorated rimsherds amounted to 319. Ten per cent of all decorated sherds displayed comb-stamped decoration, mostly combined with ochre burnish. A number of vessels could be restored. All the different types and modes of decoration are represented at Excavation 10 (Fig.30-37). Vessel shapes include the whole spectrum and sherds representing flat and round bases were found (Fig.35). Lugs, bosses and knobs are shown in figure 38.

Two fragments of bowl-like vessels, 6-8cm diameter were recovered (J10b1,A6b4). They were coarsely made and fired. The purpose of these vessels is unknown but could be the same as other complete cup-like vessels recovered from the interior of hut A6c2 (Fig.35), or could represent model pots as described by Maggs (1976:106). Fragments of at least five objects in this category were found. Three pointed clay objects (Fig.39) ranging in length from 3-5cm are accepted as ladle or spoon handles. One was collected on the surface by a visitor and the others were retrieved from hut A6c5 and midden L7b3. Fragments of two ladle bowls were recovered from middens A6b4 (Fig.39) and E10a5 and a third large one (A7a2/14) was from a hut (Fig.40).

Two pieces of the horns of cattle figurines (Fig.39) were found in midden E2d1. The pieces were less than 2cm long and were clearly from different figurines. Nothing concerning the size and characteristics of the figurines could be derived from the remnants.

STONE OBJECTS

Lower grindstones were relatively flat with a slight oval hollow along the long axis of the stone (Fig.8). Small pit marks occurred in some cases while others were fairly smooth. Six lower grindstones were found on the surface, of which one came from near the midden in D9c1. Three grindstones were found in the eastern area between the stone walls and midden L7a4, and two broken ones were in situ near the outside fireplace of hut A6a2 (Fig.18).

Six upper grindstones were recovered, with an average weight of 0,65kg. Three were multi-faceted of which only one was ochre stained. All were round and two had a relatively flat grinding surface. The

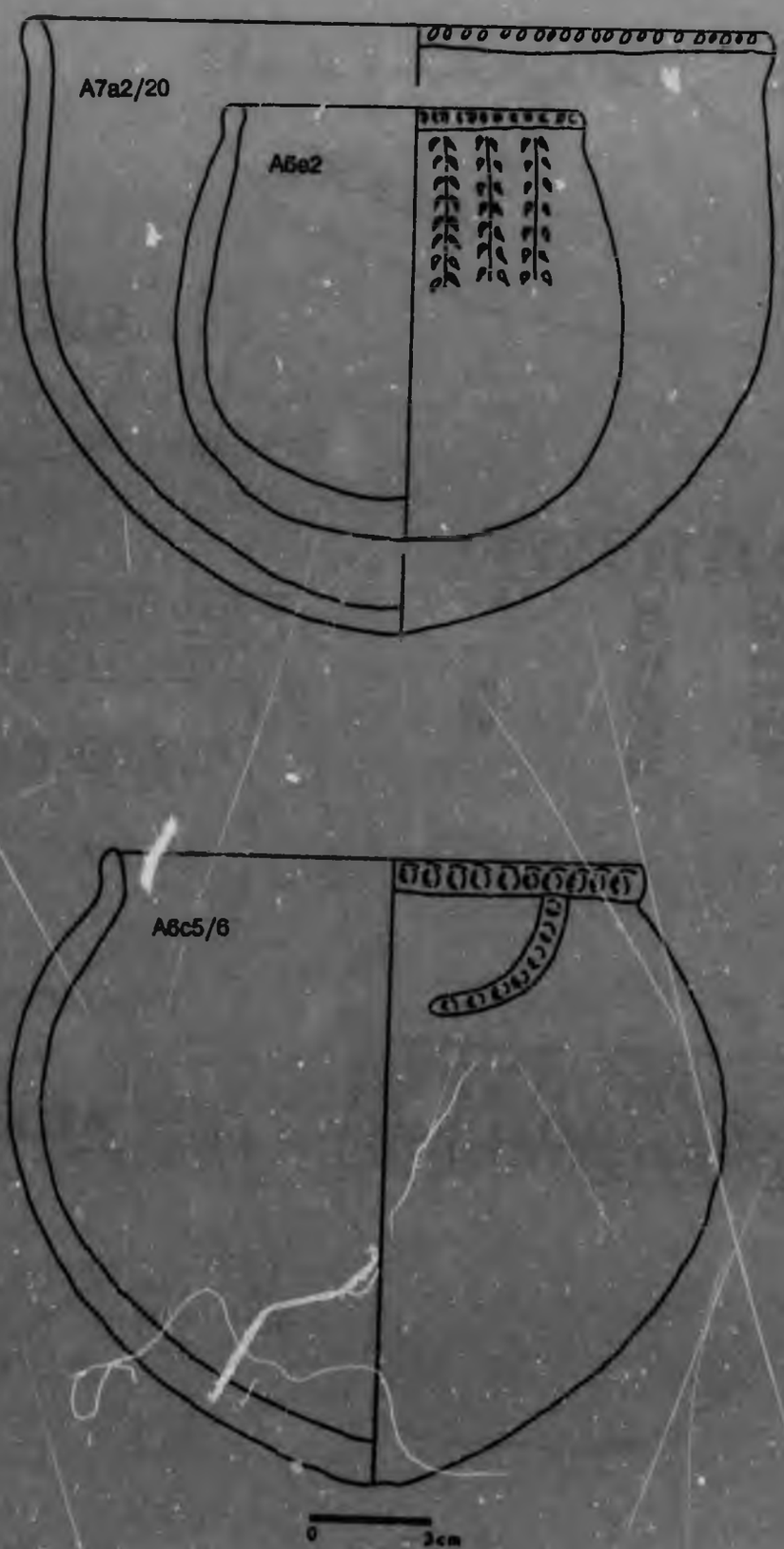


Fig. 30 2826DB 10: Pottery.

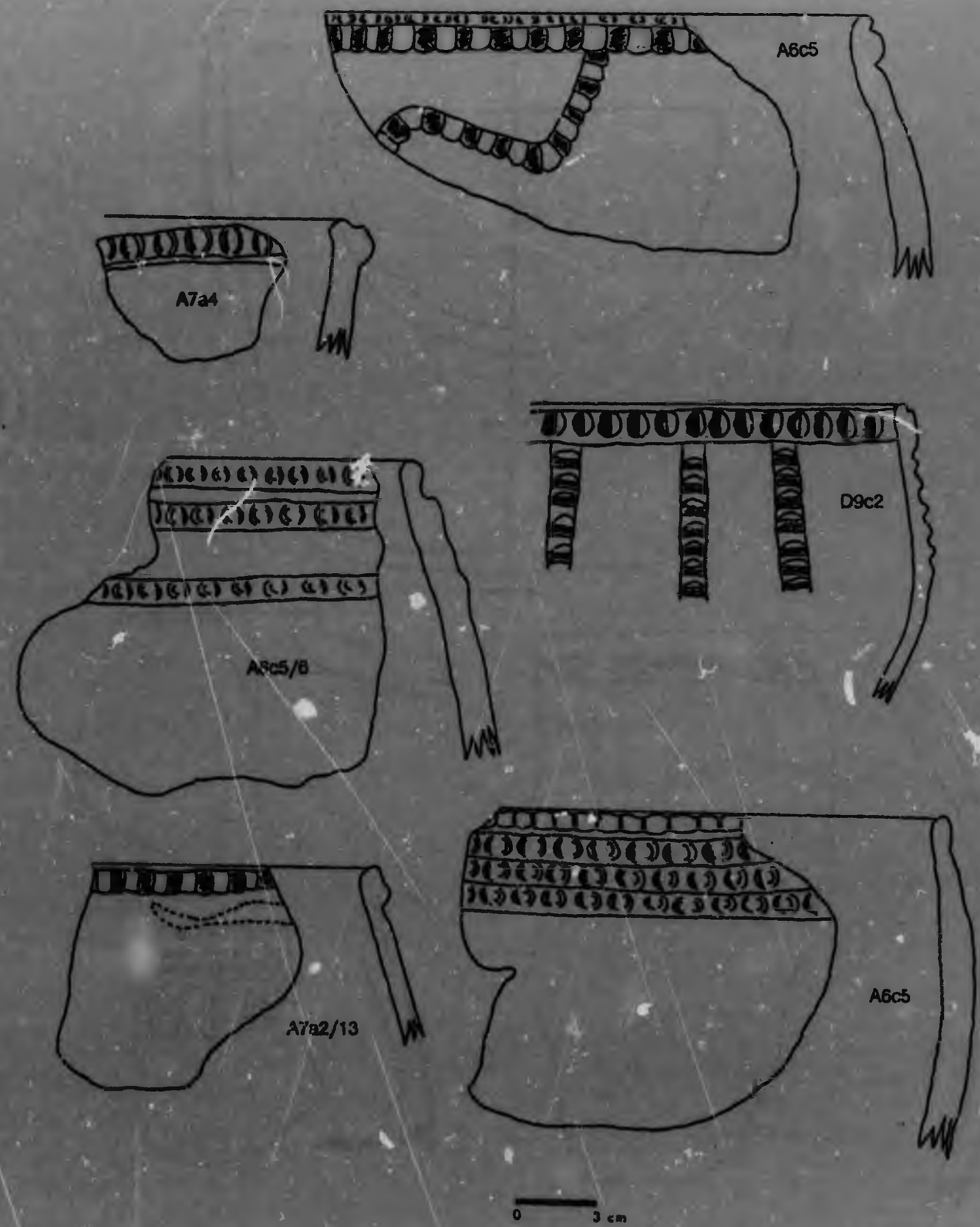


Fig 31 2826DB 10: Pottery.

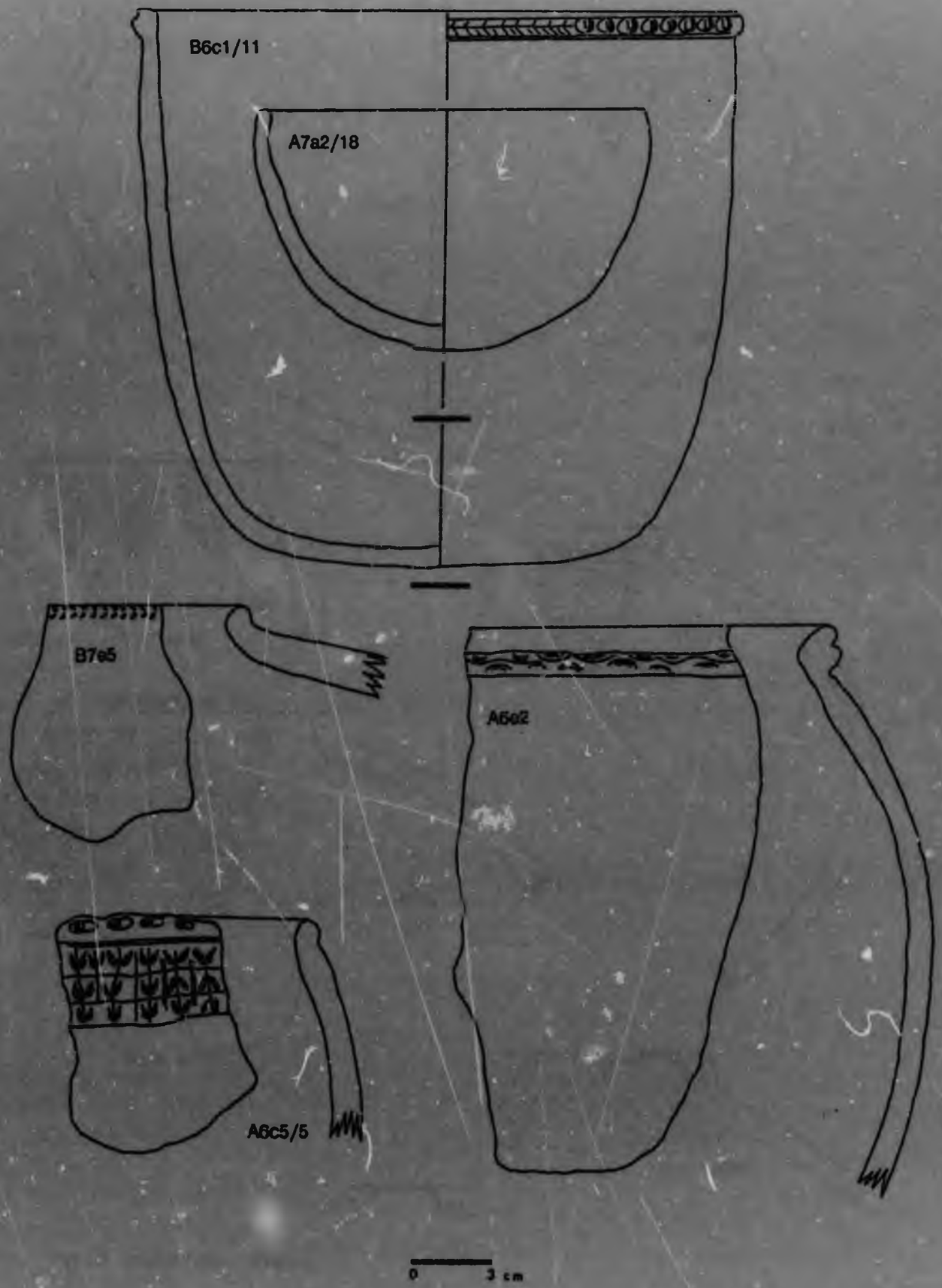


Fig. 32 2826DB 10: Pottery.

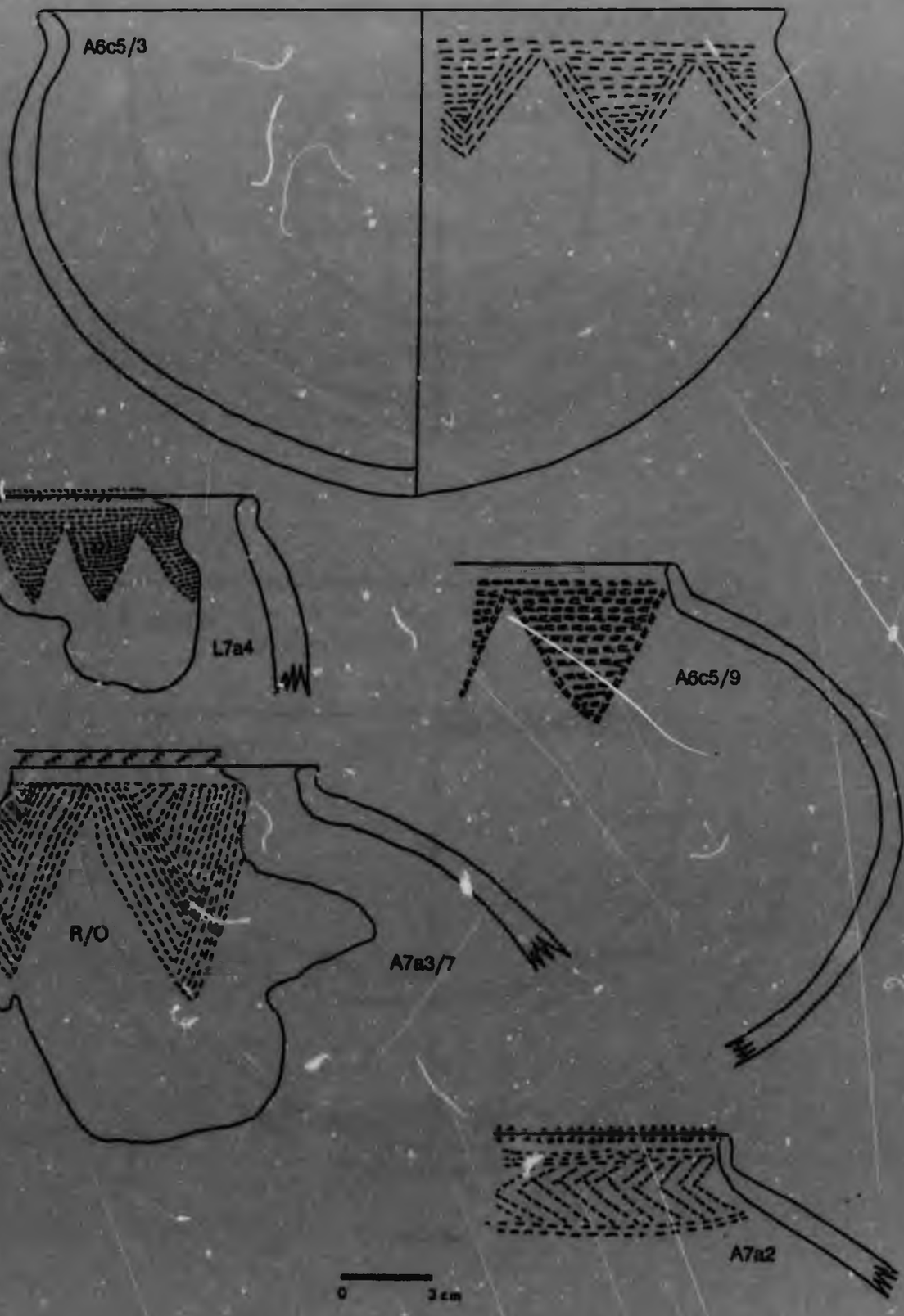
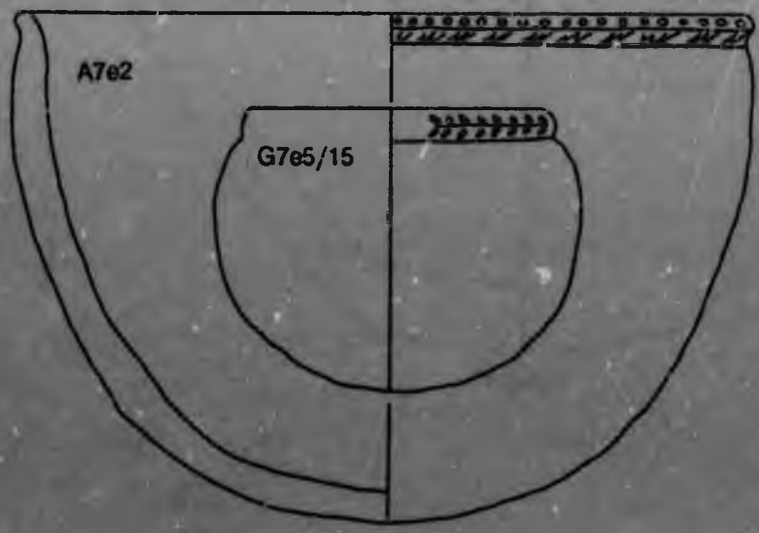


Fig. 33 2826DB 10: Pottery.



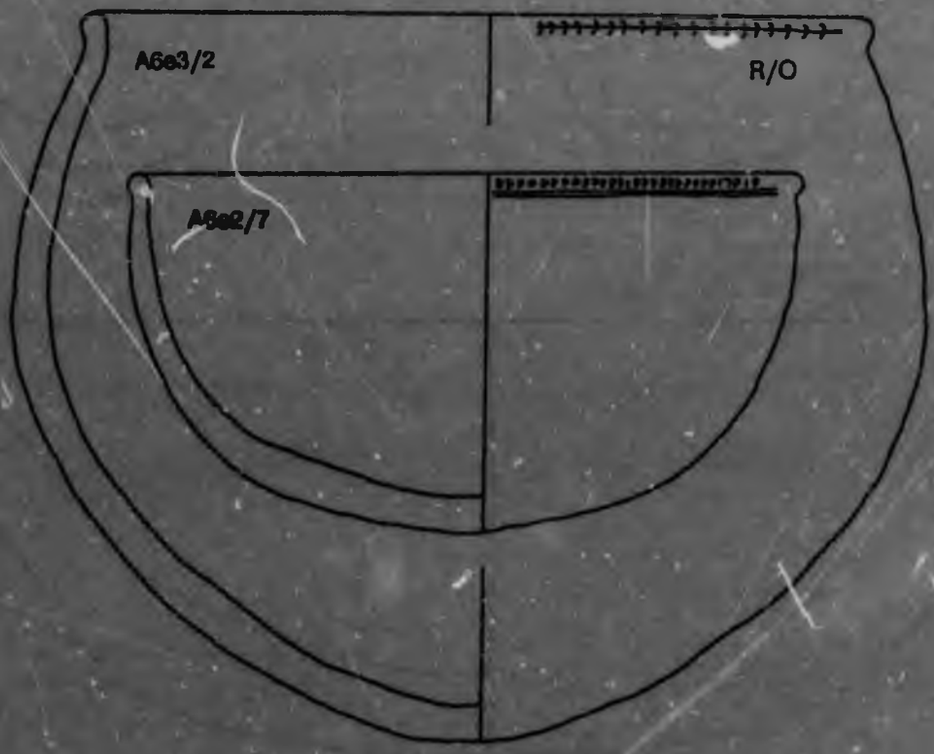




Fig. 34 2826DB 10: Pottery.

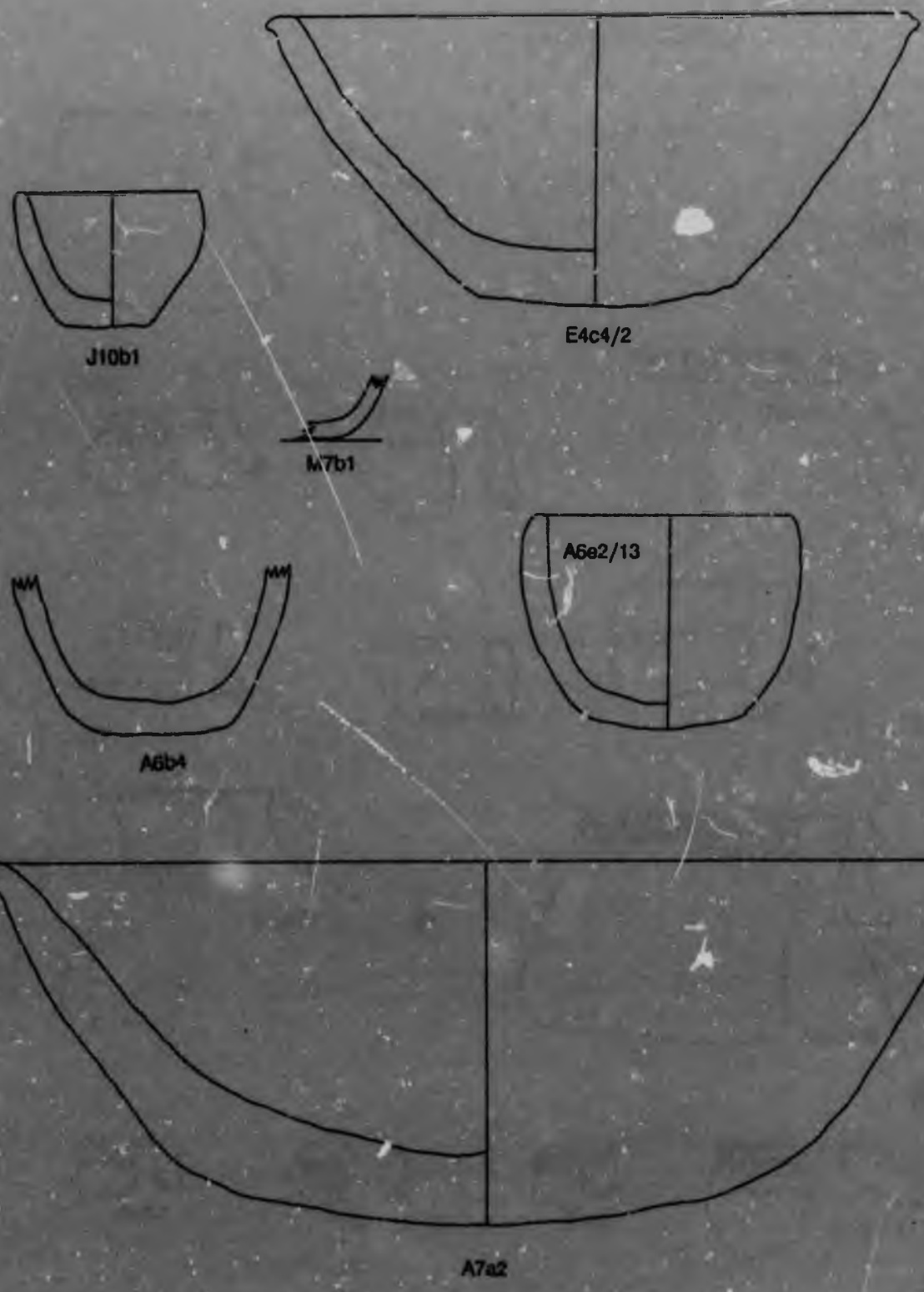


Fig. 35 2826DB 10: Pottery.

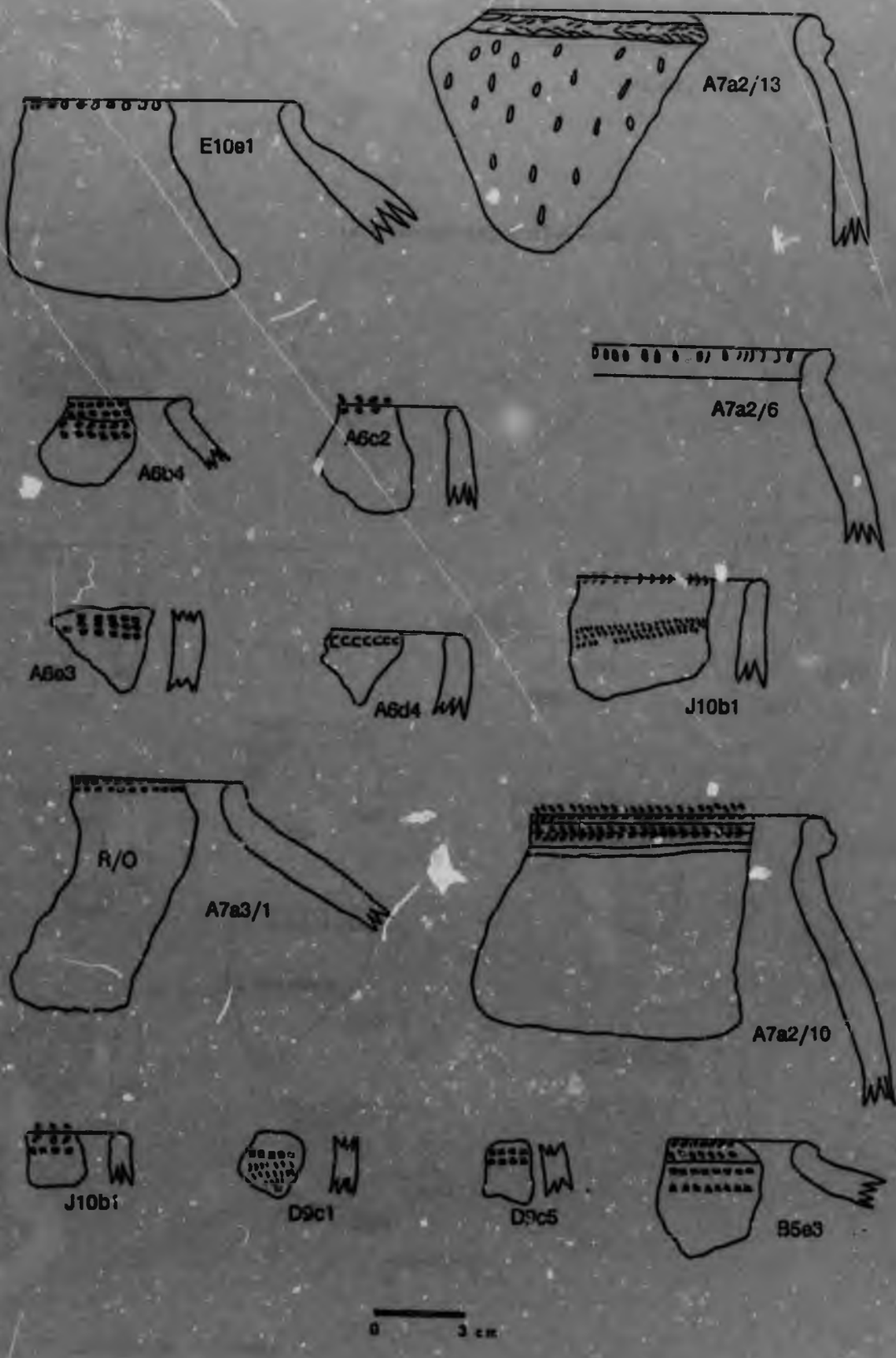


Fig. 36 2626DB 10: Pottery.



Fig. 37 2626DB 10: Pottery.



Fig. 38 2826DB 10: Pottery, Small finds.

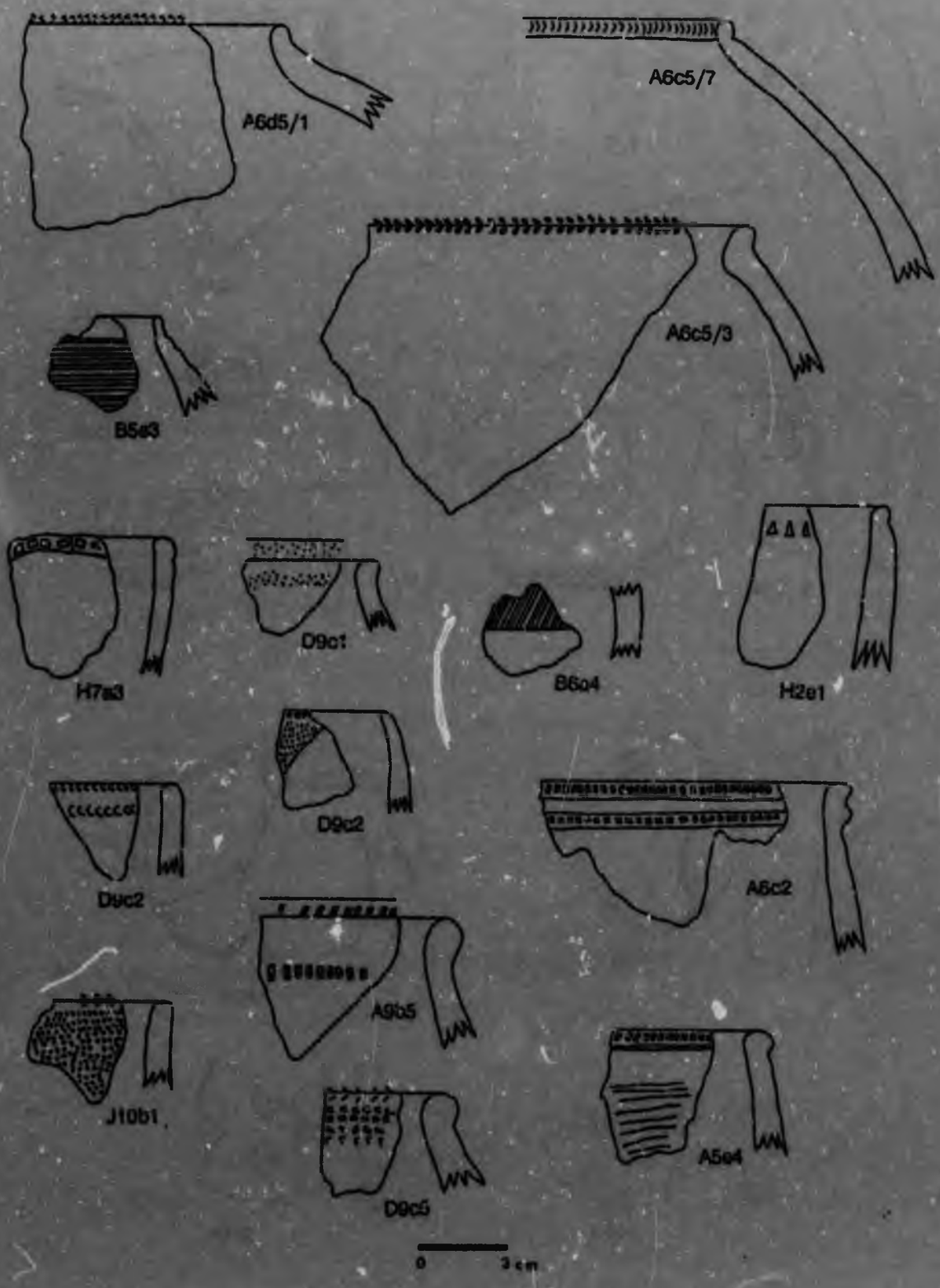


Fig. 37 2826DB 10: Pottery.

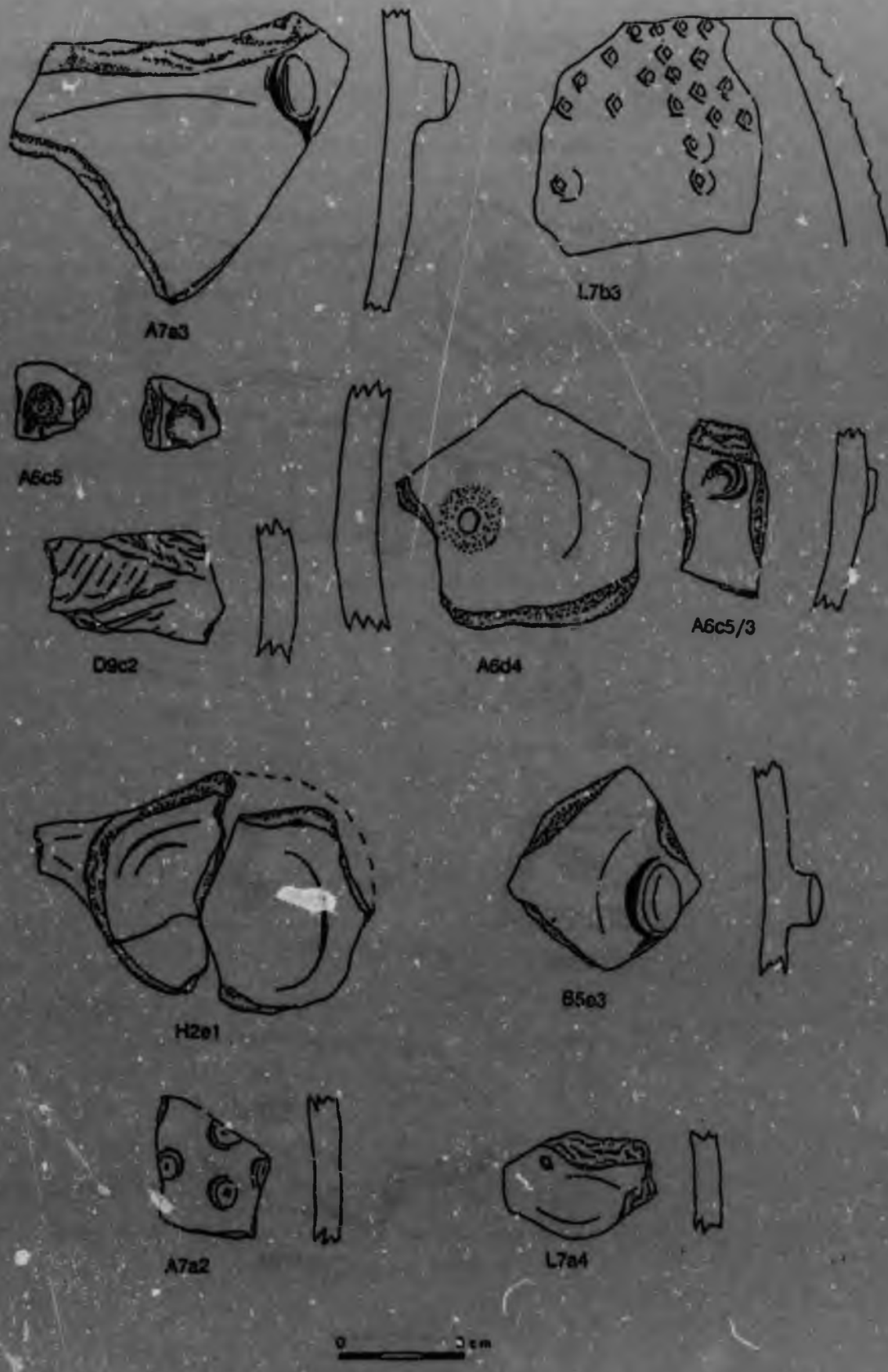


Fig. 38 2828DB 10: Pottery, Small finds.

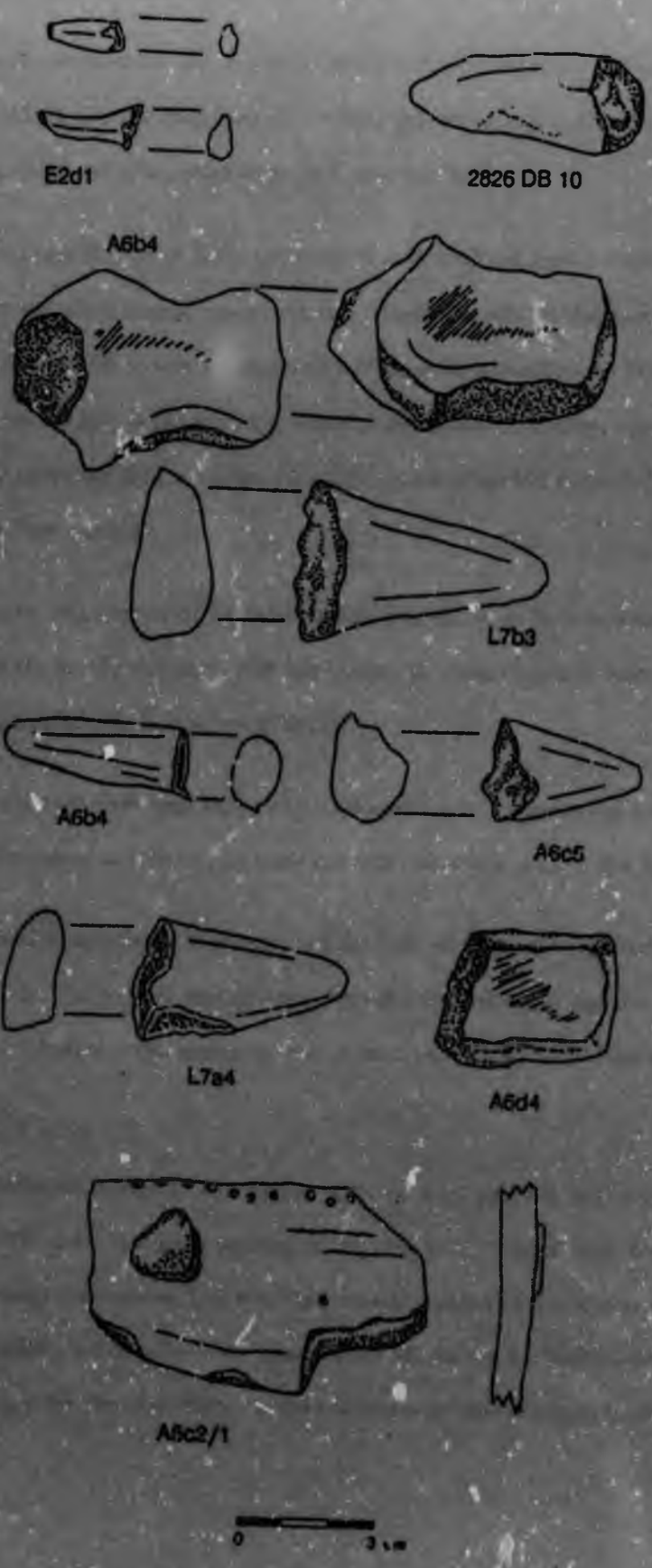


Fig. 39 2826DB 10: Pottery. Small finds.

size of all the specimens indicated that they were used in a single-hand action. Of the total, one came from a midden (M7b1), one was associated with a lower grindstone (J7c4), two came from hut A6c5 and one each from A6c2 and A7a2, which were the remnants of huts.

A total of forty one Late Stone Age flakes and scrapers were retrieved from the settlement. Of these, eight end-scrapers and one side-scraper had secondary retouch (Fig.40). The largest number (15) came from trenches H10a3 and J10a1, near a concentration of burnt daga. Another ten flakes were found in the big midden near the huts in the west. The material was mainly chalcedony, agate, chert and vein quartz from the Drakensberg basalts, collected from the gravels of the Vet River (J.C. Loock, Dept. of Geology, U.O.F.S. Pers. comm.).

A piece of sandstone with grooves on opposite surfaces was recovered from midden M7b1 (Fig.40). Objects like these are usually associated with bone points or ostrich eggshell beads (Evers 1982:27; Stow 1905:66; Maggs 1980a:134; Humphreys 1972:120).

A cluster of quartz crystals (3cm long, 10,5g) with a hexagonal hole was recovered from square A6d4. The hole is probably natural and the crystals could have been worn as a pendant (Fig.40).

Red ochre was found in abundance. It usually took the form of flakes of weathered shale with high contents of ferric iron. The greatest amount came from the middens but it was also recovered from every other excavated feature in the settlement unit. A small piece (2,5g) of ilmenite was found in hut A6c2.

Small pieces of sandstone retrieved from square H9d4 (a daga patch in N-E corner) resembled crucibles (Fig.40). The outer and inner surfaces of the rims were vitrified. Several fragments were analysed by the Geology Department, U.O.F.S. The chemical analyses produced a copper content at a ratio of 161 parts/million and 61 p/m for two samples (Dr W. van der Westhuizen, Dept. of Geology, U.O.F.S. pers. comm.). It is therefore likely that the crucibles were used in copper smelting.

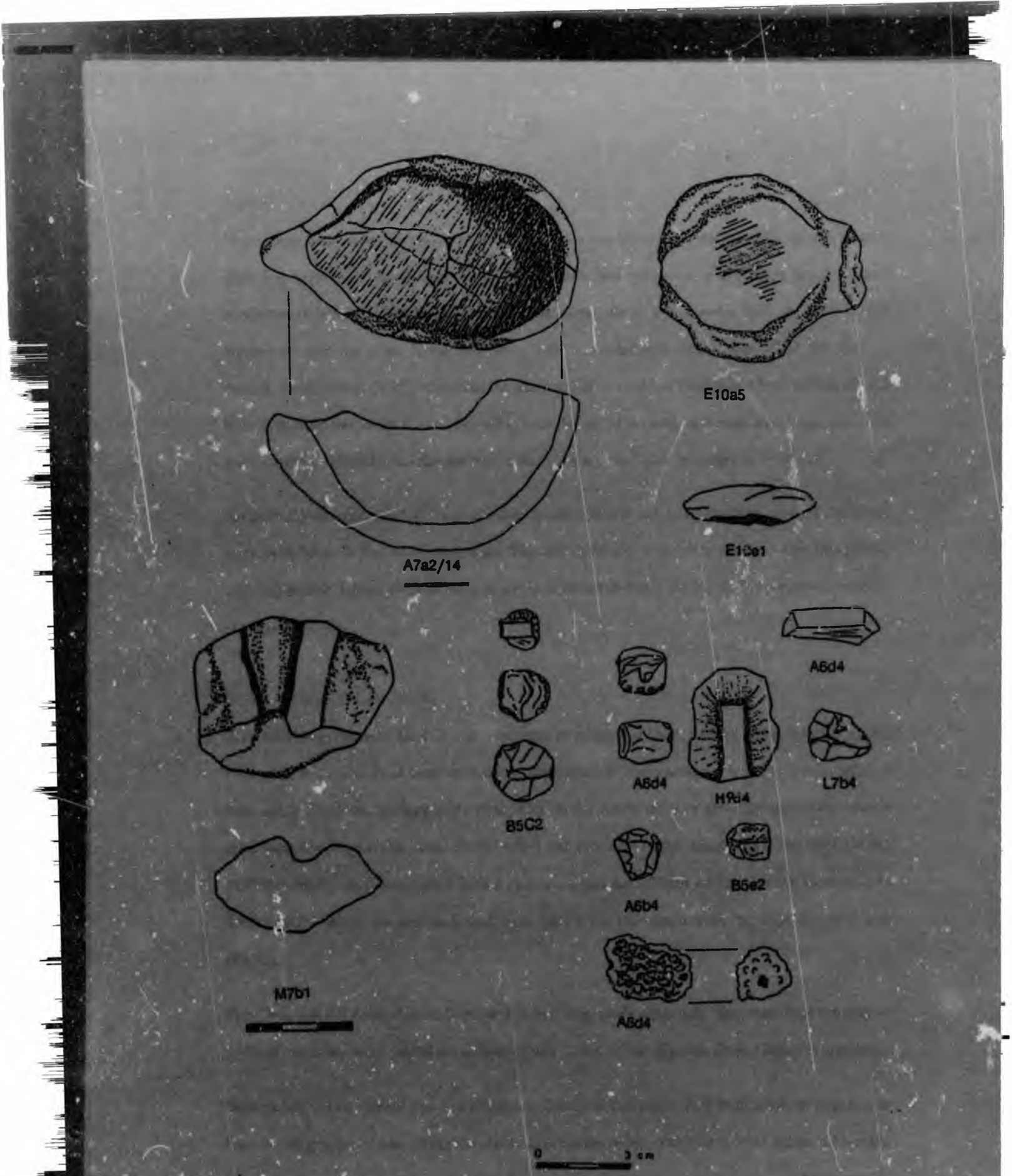


Fig. 40 2826DB 10: Pottery and stone.

METAL

Metal items were relatively rare. A total of seven pieces was recovered from the whole settlement unit. Two fragments from A7a2 were semi-circular bands and resembled pieces of a bangle. Three specimens (G10c3, A7a2/20, A6c2) were awl-like items, two of which had a knob on one end and tapered towards the other. These awls were highly corroded and flakes came off at the slightest contact. Another item (B5c2) resembled the sharp end of a metal point which had been broken off. An item from A6d5 has an eye formed by curling back the end of the tang, and could have been worn on a cord. An object which looked like the broken shaft of a hoe was found in square A6b4 (Fig.41).

An unfired lead musket ball of 19mm diameter (about 13 bore) was recovered from square F6b5 in the open area between the cattle enclosures. This item probably post-dates the Iron Age occupation, although muzzle loader muskets were in use in southern Africa since the early seventeenth century (Lategan 1982:75).

BONE AND SHELL OBJECTS

Bone tools were relatively plentiful and were made of splinters of bone, some of which show the porous bone core. Several kinds of bone tools can be distinguished. Three scrapers were made from splits of bone nearly 7cm long. Working edges were either on the narrow point or along the sides. One scraper came from the big midden in the south (A6d4) and two were found outside stone hut B9b1. In hut A6e3 two objects were found which have a spatulate appearance. These are rather short (between 2,5-3,5cm) with a broad flat end sharpened from both sides. One has a sharp point at the other end (Fig.41).

Five blunt-pointed bone objects, between 4-5,5cm long, made from split ribs, were found mostly in middens on the northern side of the settlement unit (L7b4, M7b1) (Fig.41). Their purpose is unknown.

Bone points can be divided into two categories. Double-ended points vary from 5-7cm in length. The bone is finely polished and the objects resemble projectile points. Two points were retrieved from hut

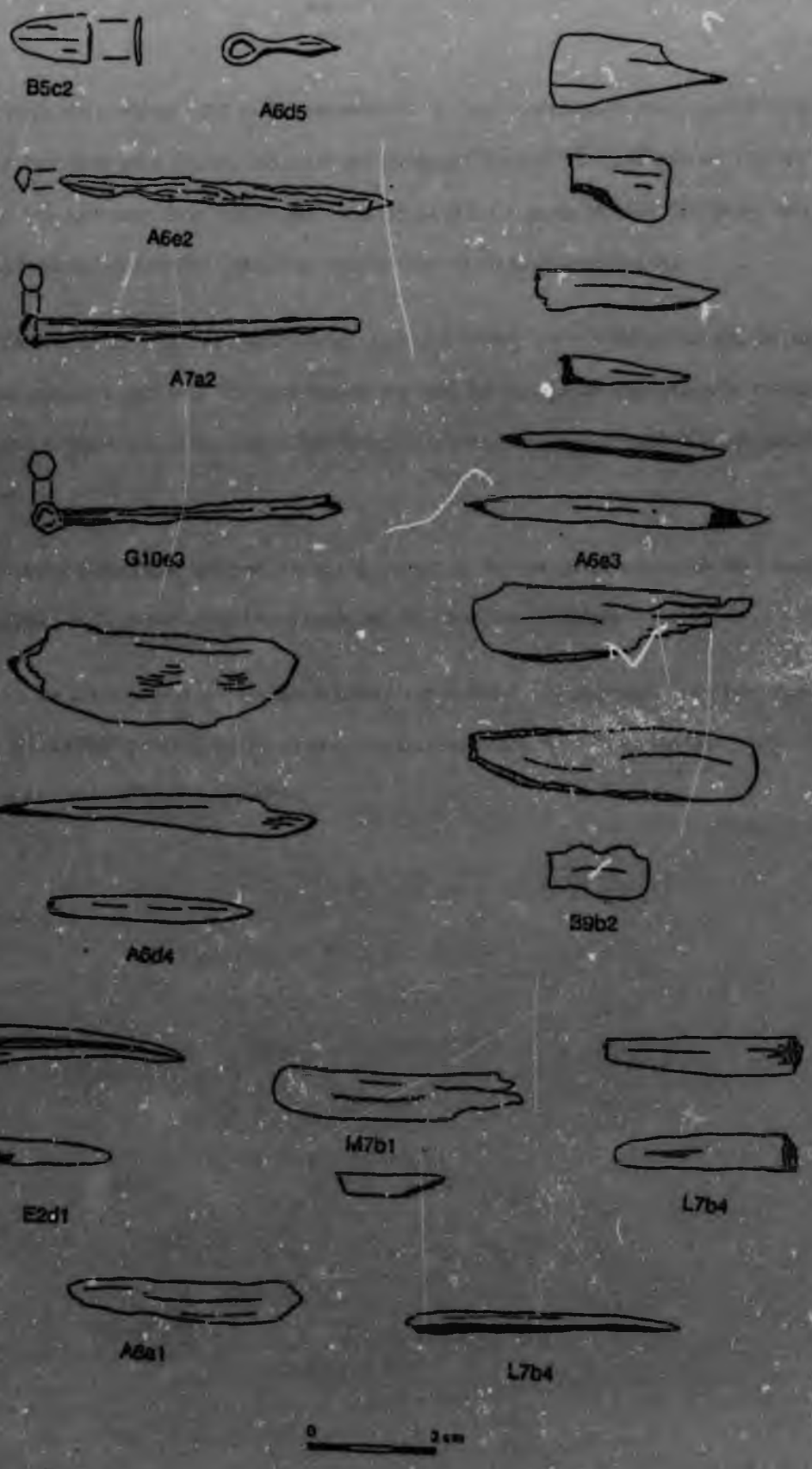


Fig. 41 2826DB 10: Iron, bone and shell.

A6e3 in the south and a midden H2e1 to the east, respectively. Single-ended points vary from 2,5-7,5cm in length but some have been broken. The points are sharpened into a slender polished end. Out of a total of eight, two each came from midden A6d4 and hut A5e3 in the south. Midden E2d1 in the west also produced two and so did M7b1 and L7b4, a midden north of the settlement (Fig.41).

A total of 276 fragments of ostrich eggshell were recovered, mainly in the middens but also in the smaller stone structures and huts. The shell was clearly used for the manufacture of beads; several rounded pieces lacked a hole in the centre. The diameters of twenty-five ostrich eggshell beads varied from 5-14mm.

Freshwater mussel shells, *Unio caffer*, were found in abundance. Broken pieces were retrieved mainly from the middens, and a complete bowl from inside hut A6e2 was filled with them.

Most shells on the site were broken into small flake-like fragments but others appear to have been used as scrapers. Not a single specimen was found with a perforation or any other indication that they were used in the manufacture of beads or pendants.

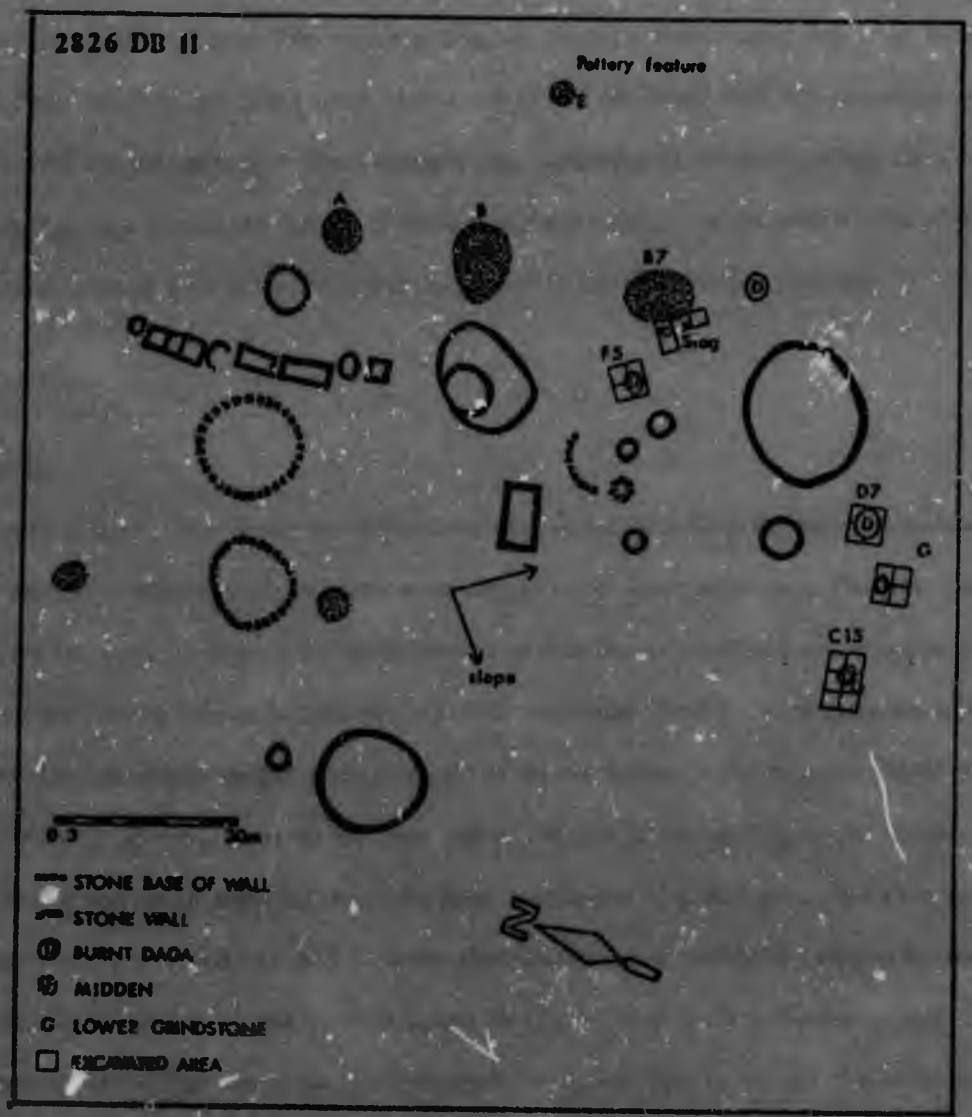


Fig. 42 2826DB 11: Site plan showing excavated areas.

2826DB 11

LOCATION AND GENERAL CHARACTERISTICS

This settlement unit (28°36'37"S. 26°58'1"E.) is situated 300m due east of 2826DB 10 at the same altitude, also facing east (Fig.3). It consists of five large cattle byres and seven small stone structures covering an area of about 100m diameter (Fig.42). Three patches of burnt daga were located on the southern outskirts and one towards the centre of the settlement unit. No secondary walling was observed but wall robbing occurred during a later occupation of the site (c. 1900), when rectangular buildings were erected. An outcrop of vitrified slag was noticed near the central patch of burnt daga. Several middens appeared on the surface and one (B7) partially overlapped the slag.

FEATURES

HUTS

Hut F5 (Fig.43), situated near the slag concentration and midden B7 in the centre of the complex, was marked by a rubble area about 3,8x4m containing two large lower grindstones. The precise dimensions of the hut could, however, not be ascertained as no clear border could be found in square G5. A solid floor and dividing walls as described for hut A6e2 were found (Fig.44). The entrance was indicated by a row of stones planted upright on the perimeter of the hut. A circular clay structure (F5/1), about 36cm in diameter (Fig.45), stood on the floor just to the side of the opening in the dividing wall. The structure was clearly modelled out of the floor. Impressions of plaited grass rope were visible in the hard baked clay. It was too small for a fire place and so it may have been a support for some sort of vessel. Burnt reed was found in situ in square E4 (Fig.46), with the floor butting up against the reeds from the inside. This shows that the framework was formed by a single row of reeds supporting the thatch.

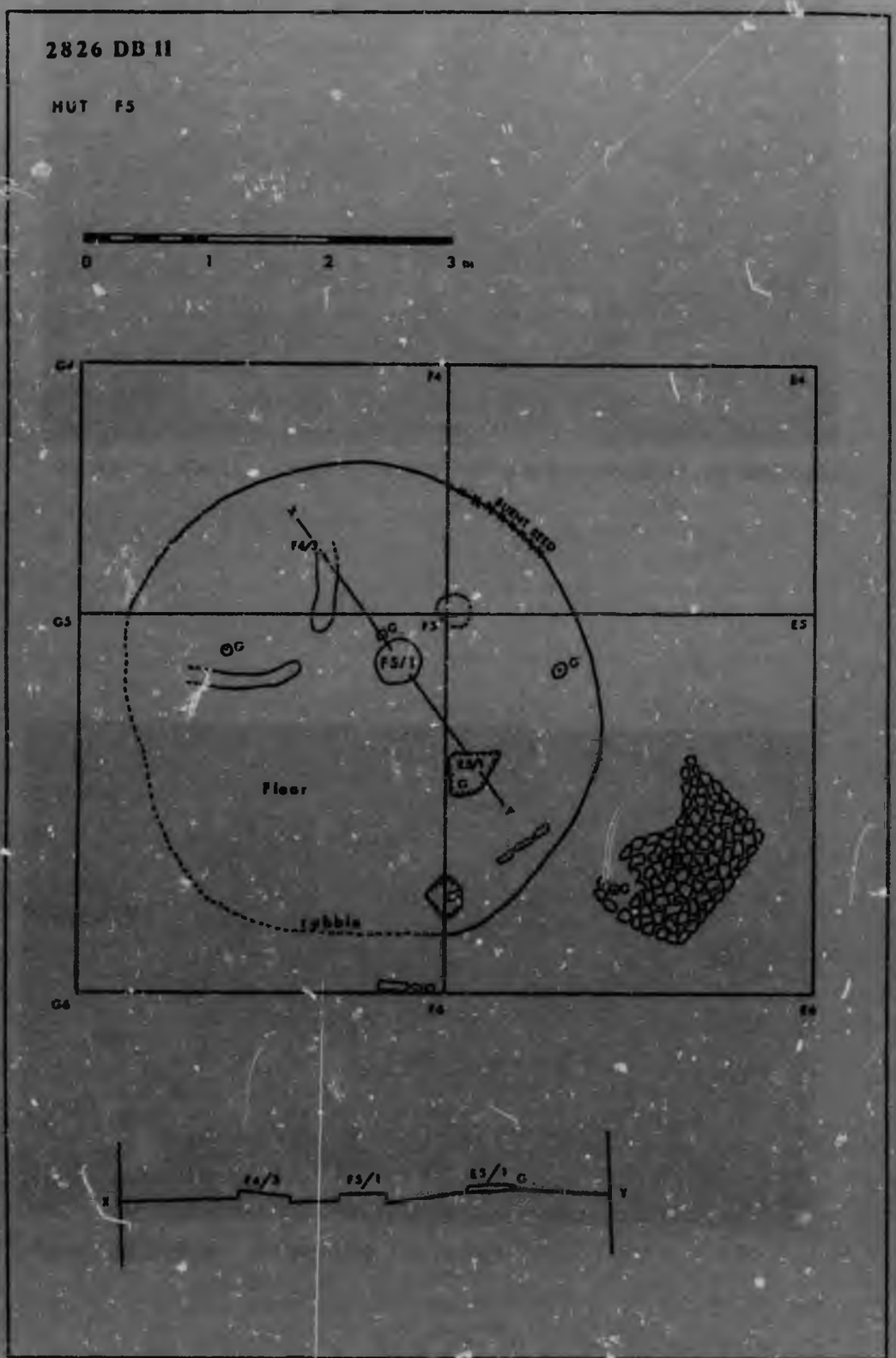


Fig. 43 2826DB 11: Hut F5, Plan and profile.



Fig. 44 2826DB 11: Hut F5, showing dividing wall and moulded clay feature F5/1.

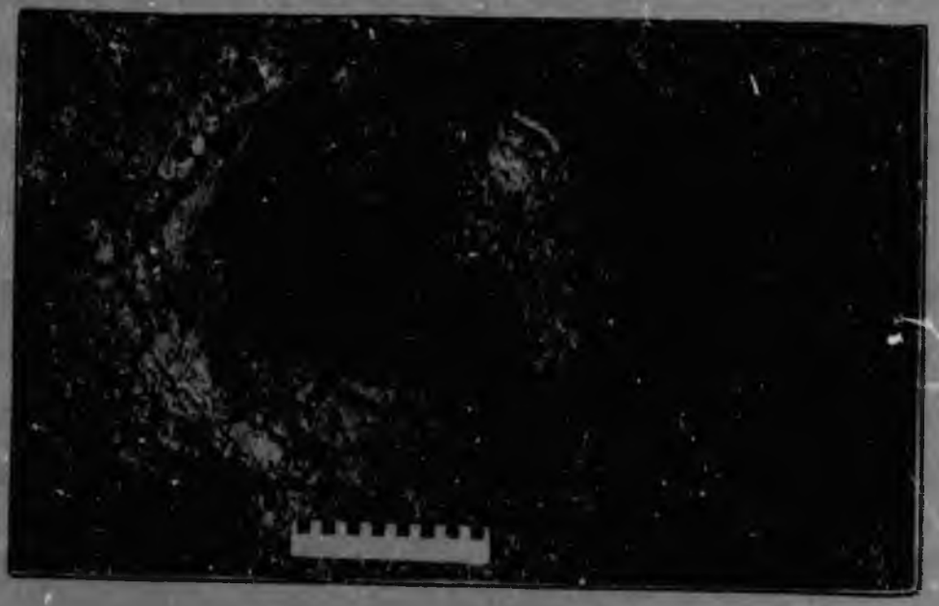


Fig. 45 2826DB 11: Moulded clay feature F5/1.

Because there were two separate rows of entrance stones and a clay rim well inside the outer perimeter of the clay concentration, the huts appear to have been built on approximately the same location as a previous hut or rebuilt with minor shifts (Fig.43).

Stone paving occurs just outside the rim of the hut floor and to the right of the entrance stones. Potsherds were found scattered over these stones. Several broken vessels lay outside the perimeter of the hut in square E4.

Hut D7 was the biggest of the three rubble patches and was located to the south of the unit and nearest to the stone structures (Fig.47). This hut had a prominent outer margin which could be followed for almost the entire circumference. One part of the dividing wall was still intact and a slight discolouration on the floor indicated the position of the other. In approximately the same location as the clay feature (F5/1) in the preceding hut, four stones were found planted into the floor, forming a rectangle (C7/8) about 30cm in diameter. This may have been the support for some container as in hut F5 (Fig.48).

A low ridge of clay was found on the floor in square D7, from which the floor level sloped downwards towards the wall and the entrance, forming a gully along the wall (Fig.49). Burnt pieces of reed were found in situ in the wall in square C8.

The entrance of the hut was also indicated by upright stones on the periphery. Flat stones were set into [illegible] face, a little distance away, opposite the opening in the dividing wall (Fig.47).

The hut produced a number of pottery concentrations, as if vessels were broken on the floor. A concentration of potsherds was also found outside the hut to the left of the entrance, where the remnants of several storage jars (D7/4, D7/5, D7/6) were uncovered at a lower level, almost as if they had been sunk into the surface for stability.

The remaining huts E10 and C15 were not of the same dimensions and structure as the previous ones. In E10 the vague remnants of a floor were noticed in the centre but the exact measurements of the hut could not be determined. About 70 potsherds were retrieved from the hut rubble. At hut C15 (Fig.50),

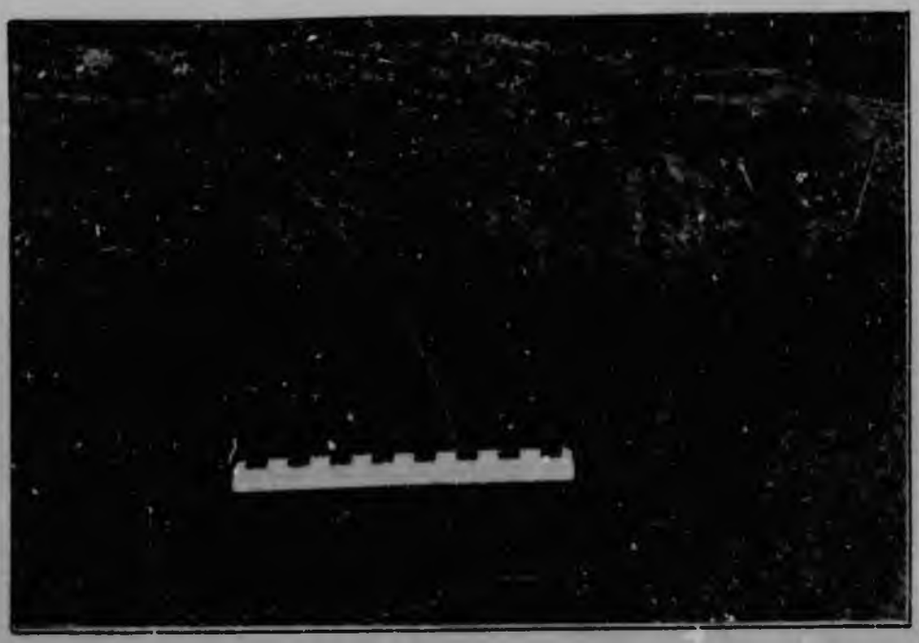


Fig. 46 2826DB 11: Hut E4, burnt reed in situ.

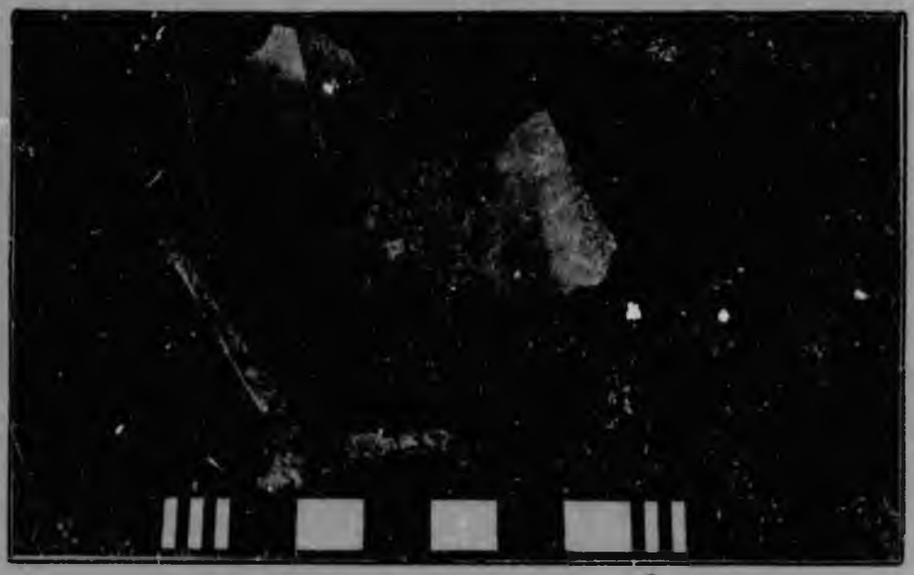


Fig. 48 2826DB 11: Hut D7, stone support C7/8.

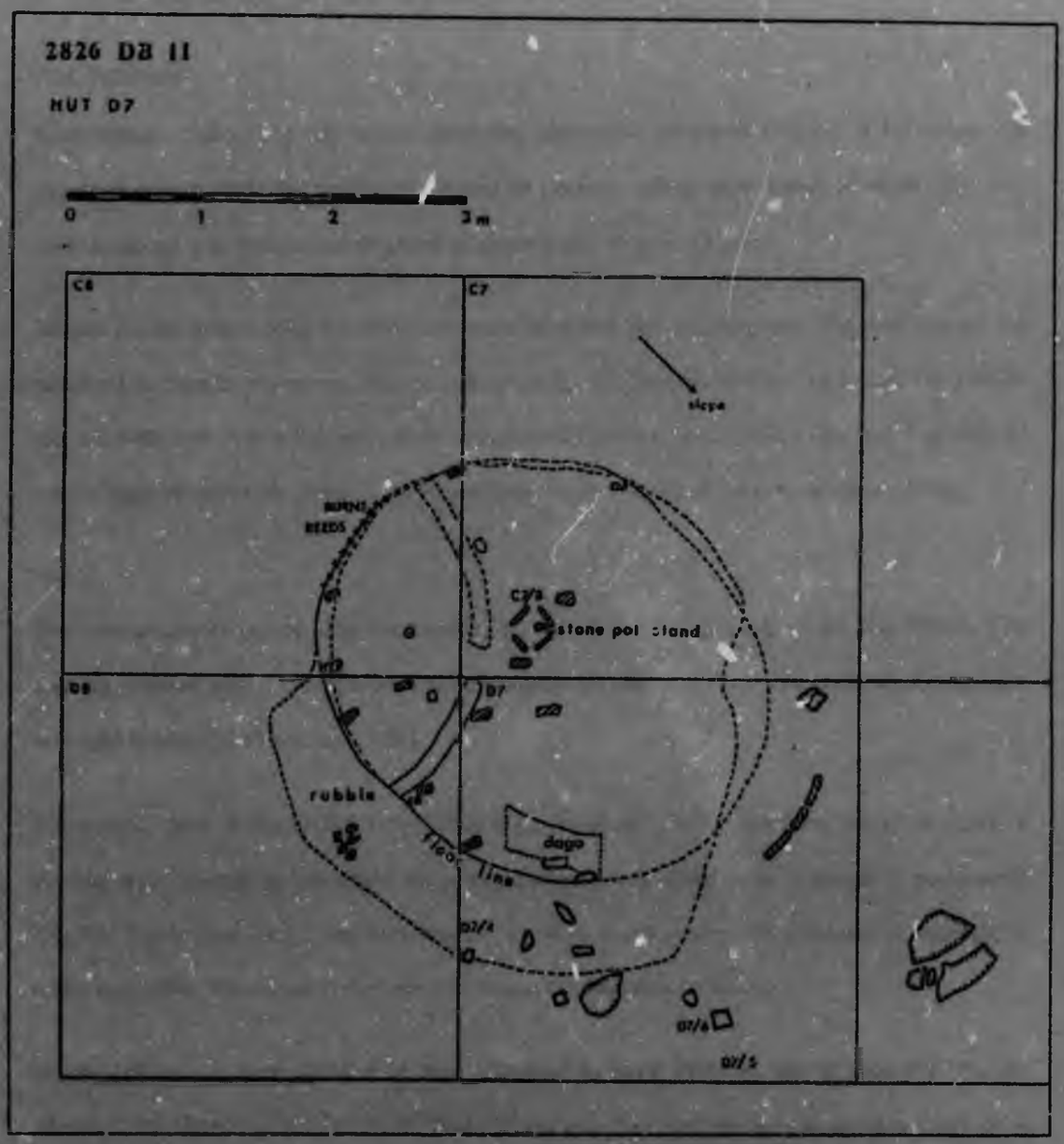


Fig. 47 2826DB 11: Hut D7, Plan.

a thick layer of debris was separated from a concentration of potsherds on the outside. Inside a fragmentary daga floor indicated the hut had a diameter of about 2,70m. Nodules of molten wall clay on the floor suggest that very high temperatures were reached when the hut burnt down. A broken lower grindstone (D16/6) was located just outside the hut (Fig.51).

THE MIDDEN

A concentration of pottery was located about 40m east of the settlement (Fig.42). A 1m square was excavated to investigate this feature (E). About 69 pieces of pottery were found, of which only three were decorated. One exceptional fragment displayed a narrow spout (Fig.58).

Midden B7 was investigated to ascertain its association with the adjoining slag. The total deposit was excavated as a single component since no indication of a stratigraphic division was found. The midden was relatively rich in material and produced samples of pottery, bone, shell, ochre and fragments of ostrich eggshell and beads. Some of this material had eroded on top of the concentration of slag.

SLAG

The vacuum cleaner proved ideal for removing all the top soil and cleaning up the slag deposit. This slag was vitrified, with a spongy texture and blue-green glazing. The chunks resemble cinders and are very light in mass (cf. Friede et.al. 1981).

The concentration of slag spilled over a circle of stones about 1,30m in diameter. About one third of the slag was removed to investigate the stone feature. It was found to be a complete paved circle (Fig.59). Three other circles, two with slag on top, were found nearby. Their diameters were 0,96m, 0,85m and 1,40m. No ore associated with smelting or forging could be found.

Samples of the slag from 2826DB 11 were submitted to Iscor, Pretoria, and to Prof. N.J. van der Merwe at the University of Cape Town. These results and other analyses are compared in figure 60. A distinctive feature of the Doornpoort slag is the high content of silicon (SiO_2) and low iron (FeO) which seem to refute metal-working (Fig.60). The results given by Butterworth (1979) for ashed kraal



Fig. 49 2826DB 11: Hut D7, floor edge showing gully along the wall.



Fig. 51 2826DB 11: Broken lower grinding stone D16/6.

dung suggests that organic material was the source of the slag at Doornpoort (cf. Friede et.al. 1981:39). If this is true, a stack of dung could have burnt down.

STONE ENCLOSURES

Five 1m test squares were dug inside the largest (20m) stone structure. The squares were chosen at four opposite localities next to the wall and one towards the centre. The deposit varied from 12-45cm in depth depending on the slope of the surface. The deposit consisted of humus clay and lacked cultural or other material. The larger enclosures were clearly built as cattle byres and the dung had probably been removed for fuel.

THE FINDS

POTTERY

Out of a total of 17 141 retrieved potsherds, 925 (5,4%) were decorated. Of these 509 pieces (55%) were finger decorated as opposed to 380 (41,8%) comb-stamped and stylus decorated. A hundred and two undecorated rim pieces were found and 36 pieces (3,9%) were ochre burnished. The pottery assemblage includes comb-stamped/ochre burnished vessels with small openings and upright necks, large jars with finger pinched decoration, open bowls and small cups (Figs.52-57).

A clay figurine, D16/10, which measured 20 x 15mm in length and height respectively, was found in hut C15. The figurine resembles the generally known domestic type of cattle and displays four legs, a short tail and a neck, but the head is missing. The hut also produced a ladle/spoon handle 3cm long, decorated with stylus incisions. A broken figurine was found in midden B7 but could not be identified. Two lugs came from Squares F5 and D7 (Fig.58).

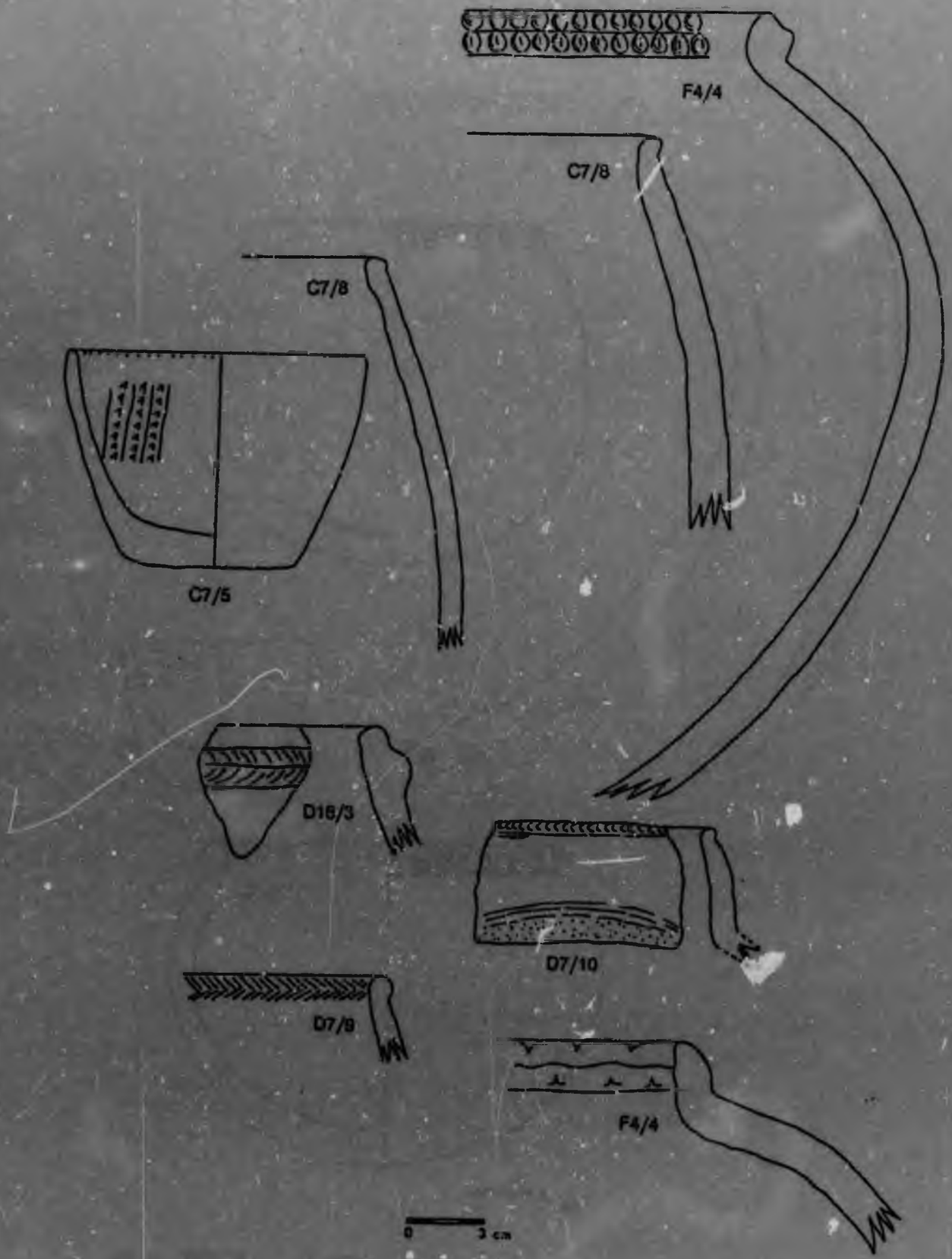


Fig. 82 2826DB 11: Pottery.

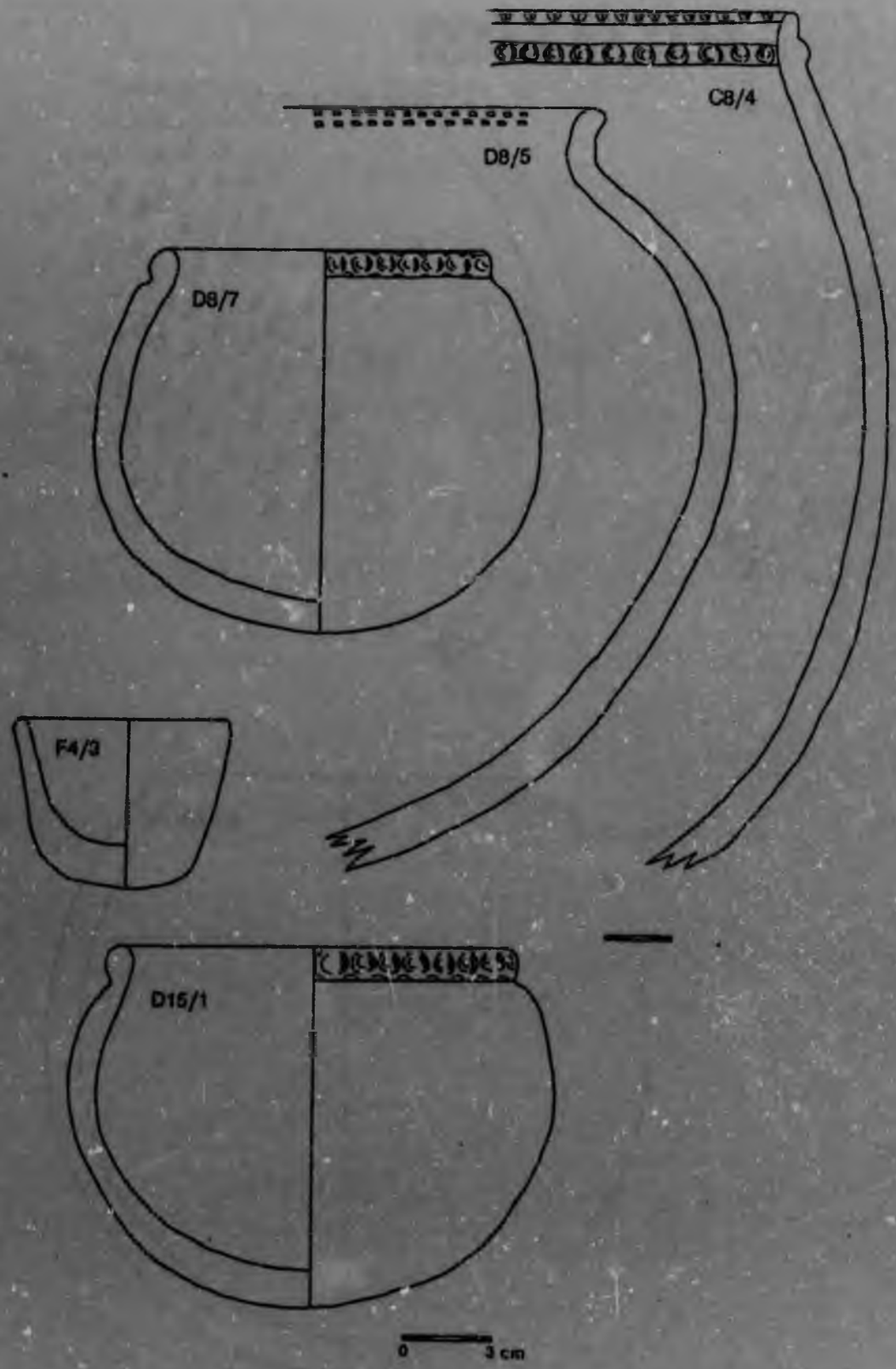


Fig. 53 2926DB 11: Pottery.

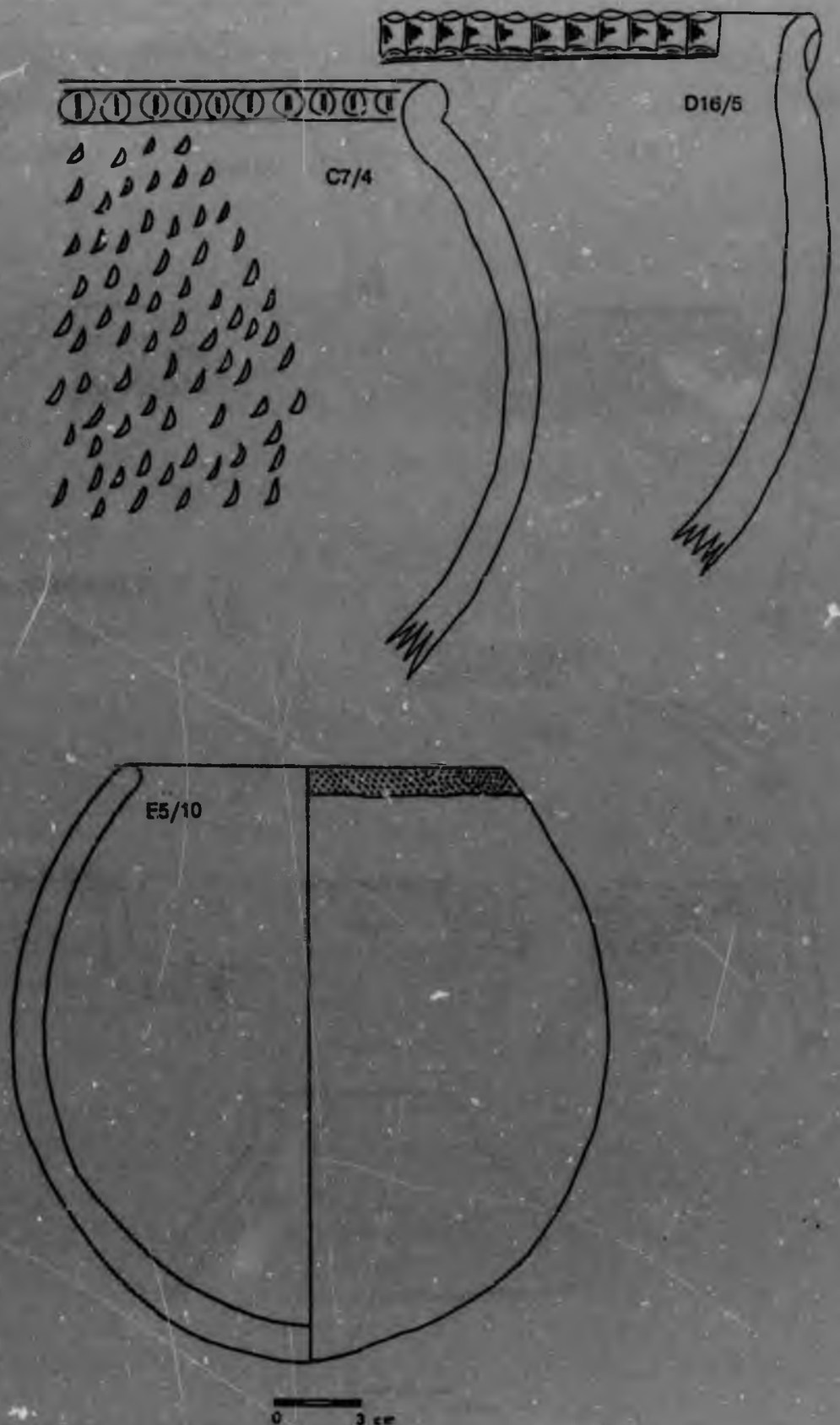


Fig. 54 2826DB 11: Pottery.

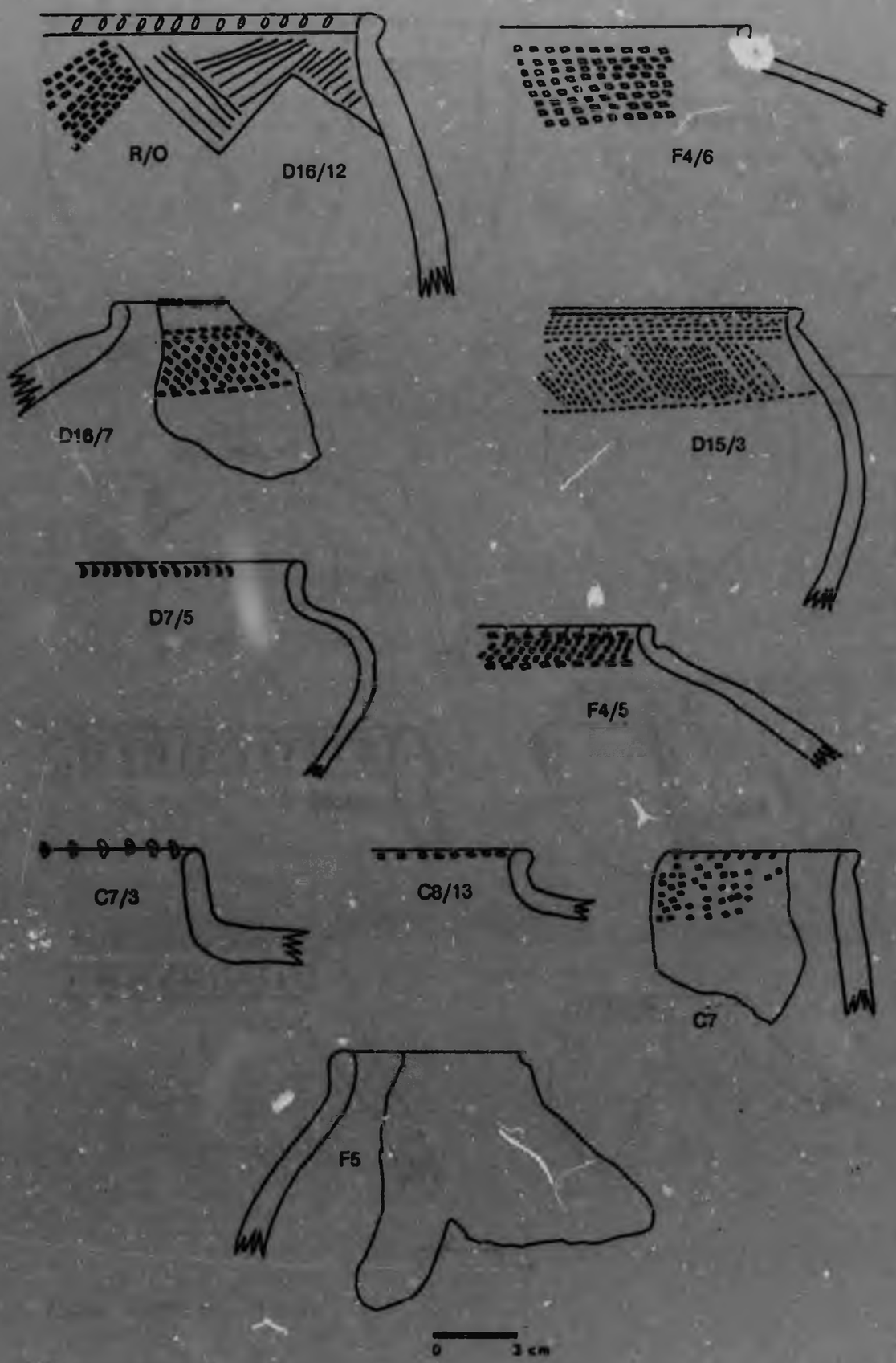


Fig. 55 2826DB 11: Pottery.

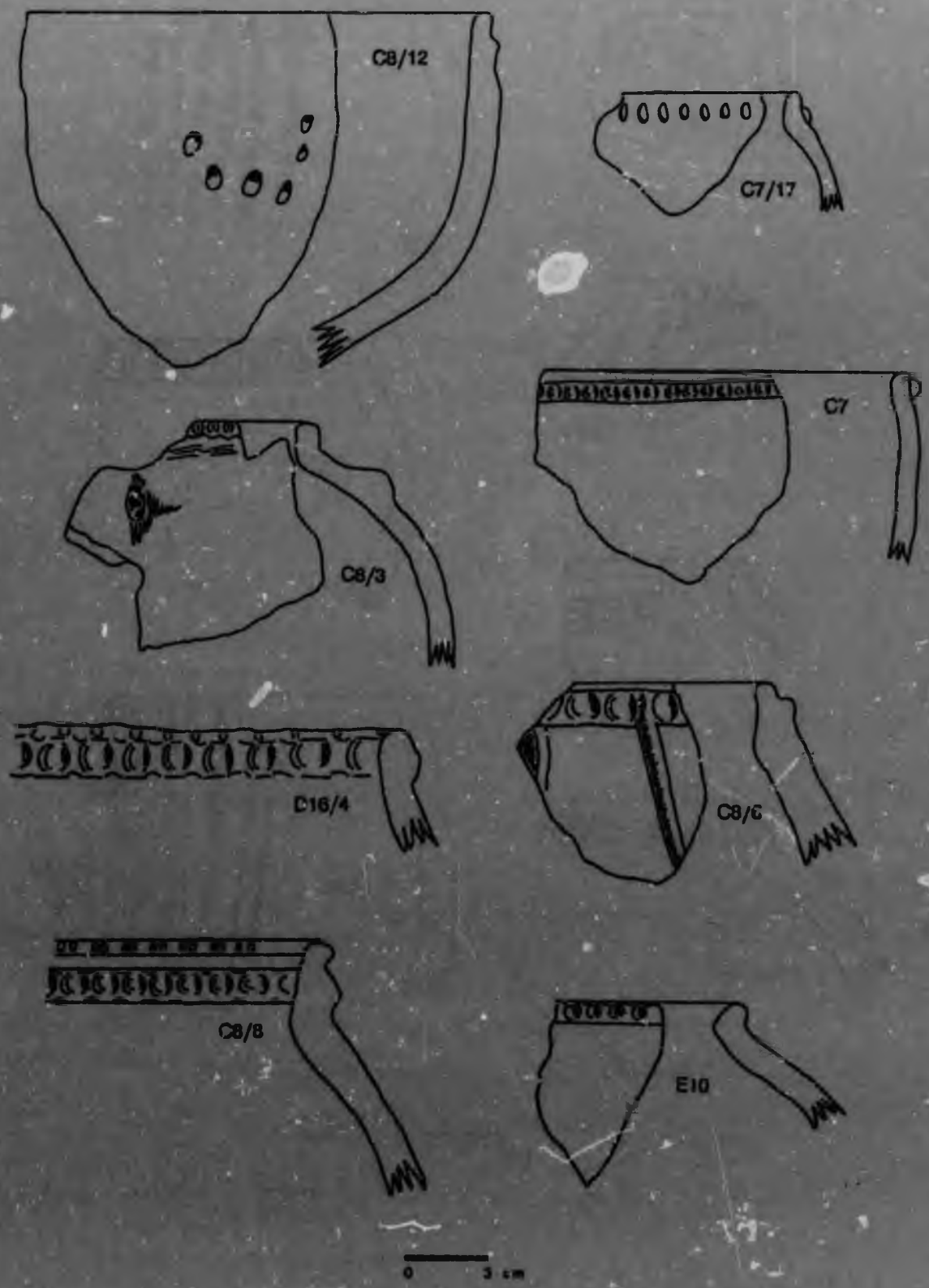


Fig. 56 2826DB 11: Pottery.

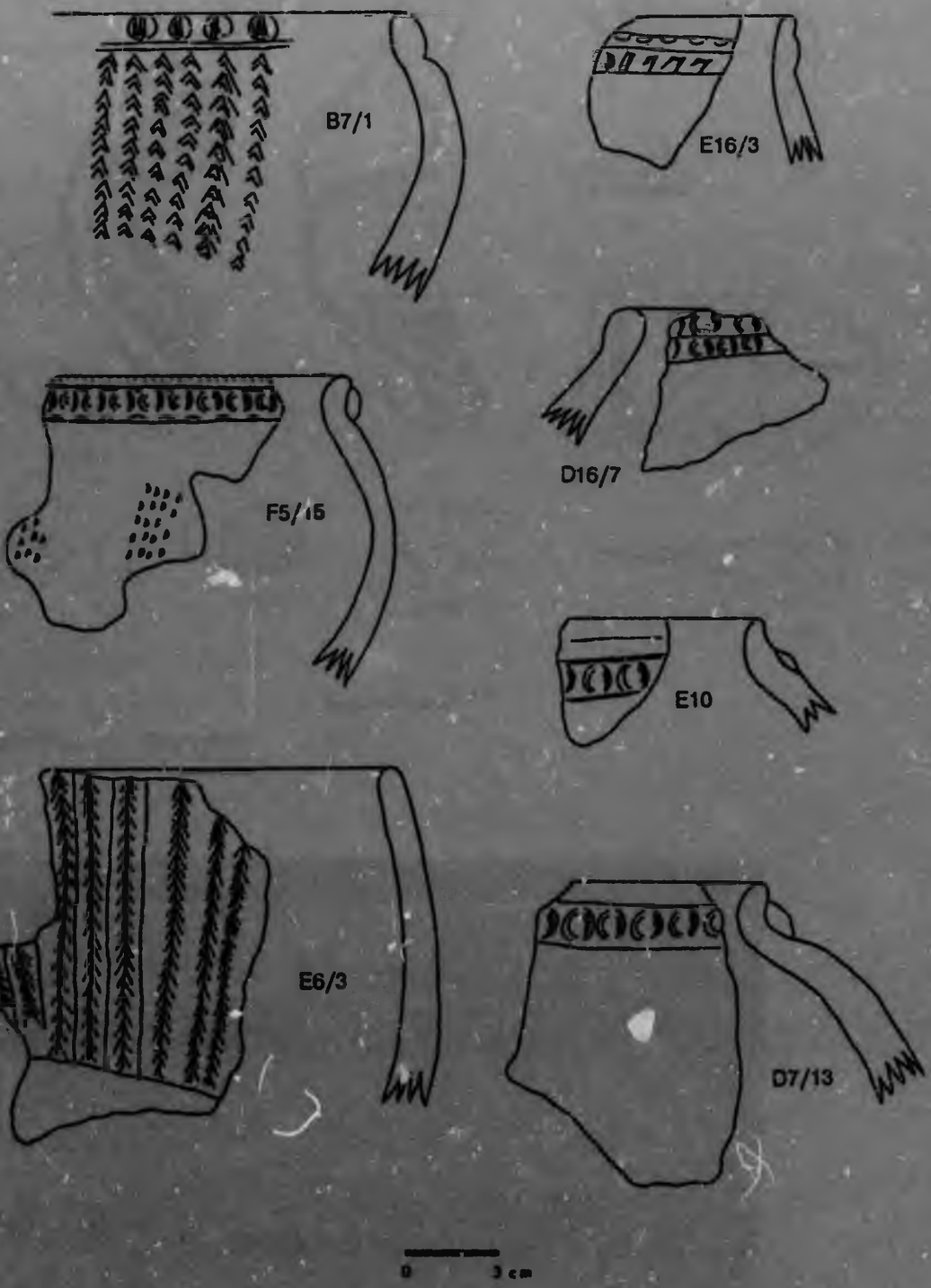


Fig. 57 2826DB 11: Pottery.

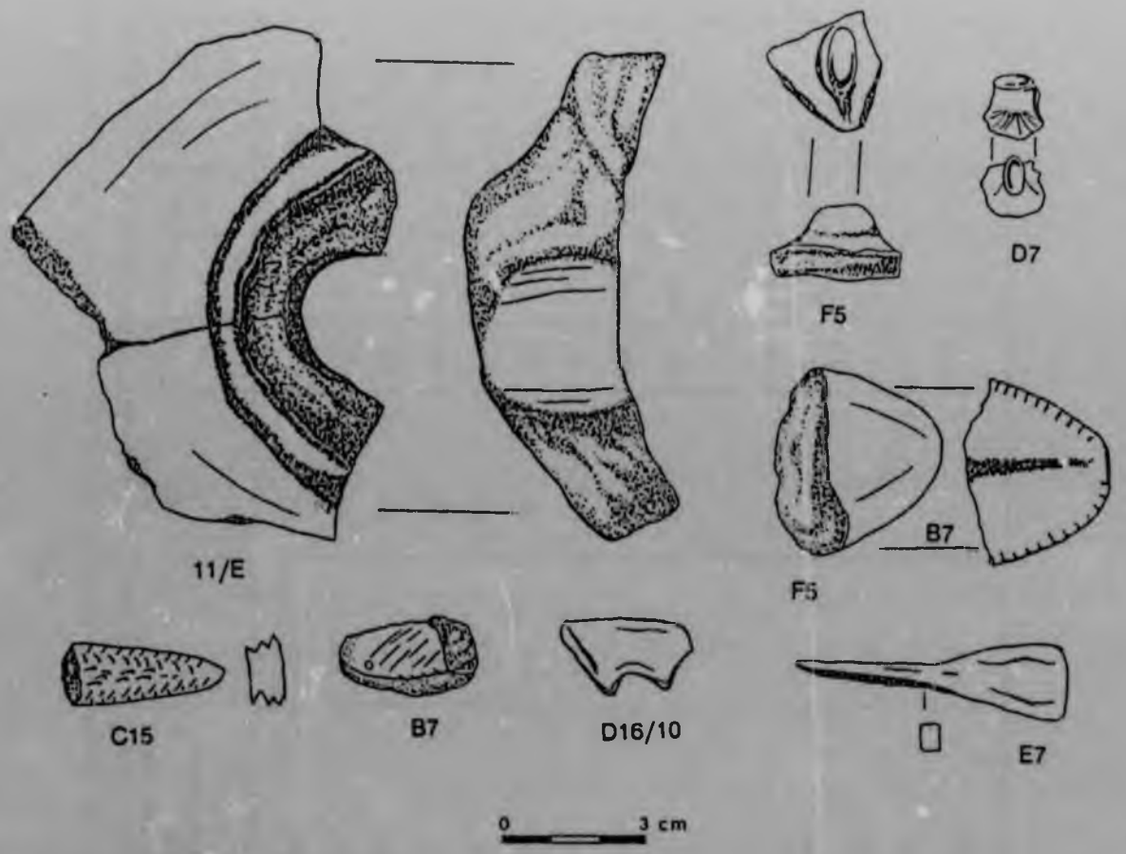


Fig. 58 2826DB 11: Small finds.



Fig. 59 2826DB 11: Slag concentration C7.

CHEMICAL COMPONENT	DOORNPOORT WENDUNG		BROEDERSTROOM MASON (1952) DAVIES FRIEDE (1977)	OLIFANTSPOORT FURNACE A DAVIES FRIEDE (1977)	OLIFANTSPOORT COPPER SIDE DAVIES FRIEDE (1977)	UITKOMST	KELONSKRAAL PISTORIUS (1981)	THATSWANE HILLS BUTTERWORTH (1979)				
								SITE 1			SITE 2	
	U.C.T.	ISCOR						Lower slag	Viscous layer	Upper slag	Slag	Ashed basal-dung
SiO_2	65,0	67,2	35,49	64,19	63,57	70,95	64,8	45,0	45,8	64,7	65,2	72,5
Al_2O_3	5,83	7,66	3,23	14,78	11,16	0,69	5,90	2,6	2,4	2,5	5,0	5,9
CaO	5,25	5,65	3,49	3,78	0,09	0,10	4,30	7,9	7,1	8,1	6,1	6,0
MgO	7,35	5,65	3,29	4,08	5,97	0,15	6,60	2,6	3,8	4,7	3,7	1,6
Fe_2O_3	6,93	4,71	3,06	3,80	4,53	10,57	3,80	0,90	1,3	1,0	1,5	1,3
Na_2O		0,53	0,47	0,74	0,01	0,01	0,25	0,69	0,71	0,60	0,61	4,0
K_2O	3,67	2,59	0,59	2,56	0,78	0,05	14,40	9,4	14,3	6,9	10,7	3,4
MnO		0,32					0,13	0,13	0,12	0,13	0,13	
P	0,67	0,73					0,49	3,3	2,3	3,2	2,9	3,2
S	0,056	0,025										
TiO_2	1,06	0,79	0,48				0,63	0,25	0,15	0,25	0,24	
Co(g/ml)		0,003	0,009	<0,01	0,02	0,74		22	15	49	23	
FeO					4,33	1,71						
K_2O					0,78	0,06						
P_2O_5					0,31	0,12						

Fig. 60 Slag analyses

Fig. 60 Slag analyses.

CHEMICAL COMPONENT	DOORNPOORT WINBURG U.C.T. ISCOR		BROEDERSTROOM MASON (1986) 24/73G FRIEDE (1977)	OLIFANTSPOORT FURNACE A 20/73 FRIEDE (1977)	OLIFANTSPOORT COPPER MINE 47/73 FRIEDE (1977)	UITKOMST	SELONSKRAAL PISTORIUS (1954)	THATSWANE HILLS BUTTERWORTH (1977)				
								SITE 1			SITE 2	
								Lower slag	Viterous layer	Upper slag	Slag	Ashed kraal-dung
%SiO_2	65,0	67,9	72,68	64,93	53,37	79,95	64,3	65,0	65,9	64,7	65,2	72,3
%Al_2O_3	8,82	7,65	5,33	14,72	13,15	0,69	5,92	2,6	3,4	2,5	5,0	5,9
%CaO	8,25	5,45	3,49	1,78	0,09	0,10	4,50	7,8	7,1	8,1	6,1	6,0
%MgO	7,35	3,68	2,19	4,08	5,57	0,35	6,60	3,6	3,8	4,7	3,7	1,6
%Fe_2O_3	6,55	4,71	3,66	3,60	4,83	10,67	2,80	0,93	1,5	1,0	1,5	1,3
%Na_2O		0,53	0,47	0,24	0,01	0,01	0,26	0,69	0,71	0,50	0,61	4,0
%K_2O	5,07	7,53	0,69	2,58	0,78	0,06	14,49	9,4	14,3	6,9	10,7	3,4
%MnO		0,12					0,12	0,13	0,12	0,12	0,13	
%F	0,67	0,78					0,49	3,3	2,3	3,2	2,9	3,3
%S	0,096	0,025										
%TiO_2	1,06	0,78	0,68				0,61	0,25	0,18	0,25	0,23	
Cu(g/ml)		0,001	0,009	<0,01	2,00	3,74		22	15	49	23	
FeO					4,32	1,71						
K_2O					0,28	0,06						
P_2O_5					0,11	0,12						

STONES

Only seventeen fragments of red ochre were retrieved from hut D7 and from the midden B7.

Lower grindstones were found in association with huts F5 (E5/1, E5/2) and D7 (C8/7) behind the dividing wall, and in front of hut C15 (C15/1, C15/2). Upper grindstones were found in context with the huts. These specimens were plotted on the plan drawings.

BONE AND SHELL

Artefacts of bone were totally absent from this settlement unit. Freshwater mussel shell, however, occurred in midden B7, hut C7 and to a lesser extent in hut E10. Two fragments of ostrich eggshell were recovered from the midden, and about forty pieces (C8/12) were found at the back of hut D7, blackened by fire. Only two ostrich eggshell beads were retrieved from the midden.

2826DB 12

Another midden was situated 150m north of 2826DB 10, about half-way down the ridge on the west facing slope (Fig.3). On the surface the deposit seemed to be very rich and relatively undisturbed. A single 3m square was excavated in 10cm spits to establish the nature of the contents since it appeared to be the best representation of the cluster at the foot of the scarp. The deposit was only about 30cm deep.

Of a total of 326 potsherds, 38 (11,7%) were decorated. Of these 52,6 per cent were finger decorated as opposed to 42,1 per cent decorated either by comb or stylus. Only four undecorated rims were recovered (Fig.61). No pottery with ochre burnish was found. The midden also produced 106 pieces of freshwater mussel shell, three fragments of ostrich eggshell and four beads. Other than three splinters of worked bone (Fig.60), bone tools were totally absent. One whetting stone (13x8cm) with grinding marks on both sides and a single vitrified nodule were the final objects in the midden.

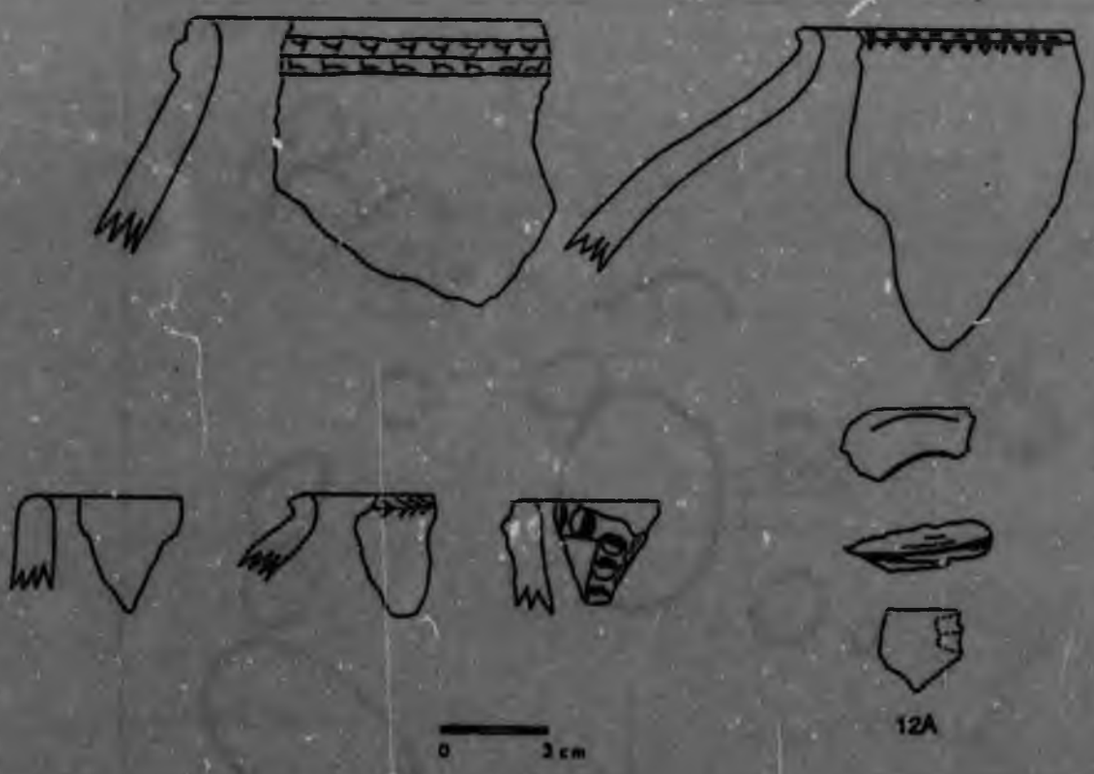


Fig. 61 2826DB 12: Pottery.

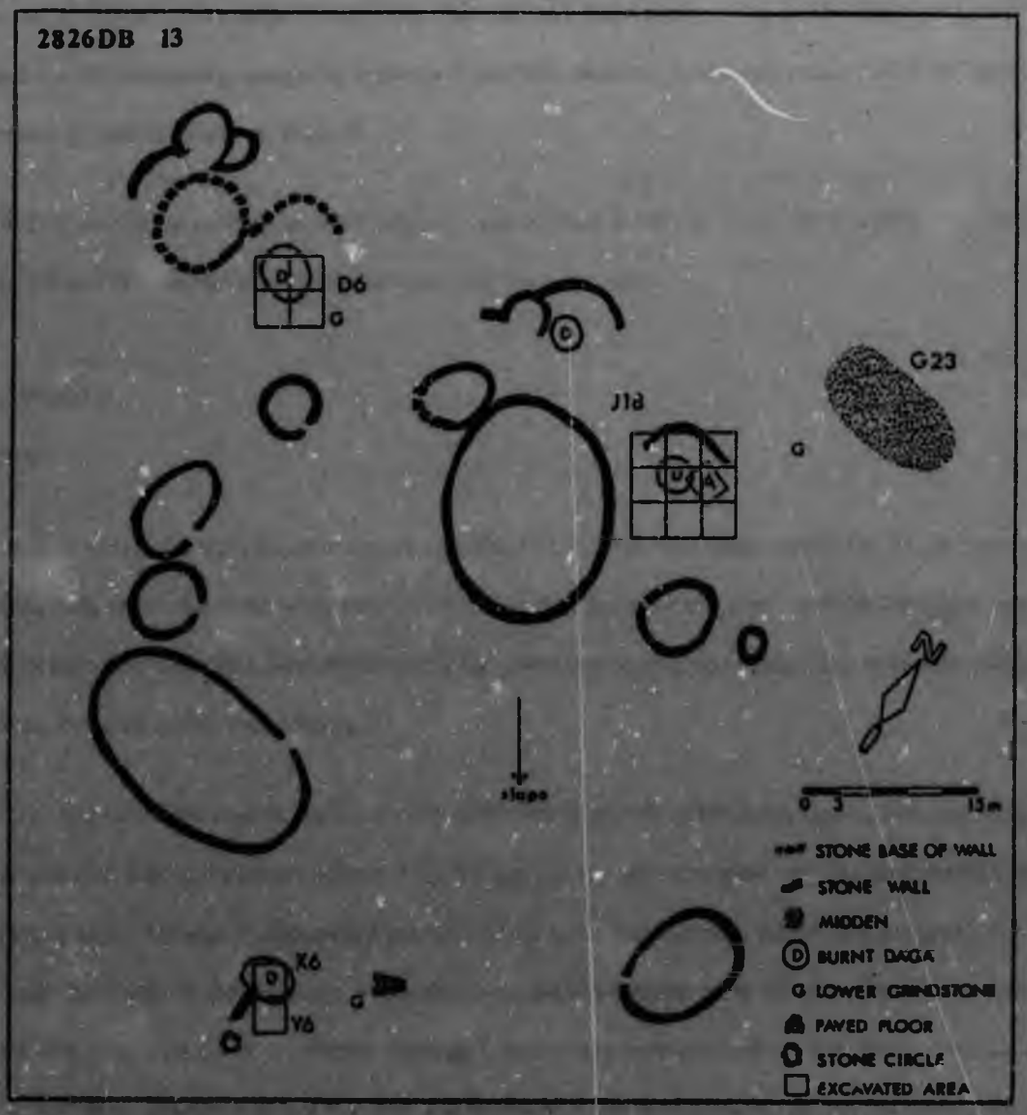


Fig. 62 2826DB 13: Site plan showing excavated areas.

2826DB 13

LOCATION AND GENERAL CHARACTERISTICS

The settlement unit 2826DB 13 (28° 36'48" S. 26° 57'43" E.) lies about 50m west of 2826DB 10 and somewhat higher up the slope (Fig.3). It consists of two large cattle byres (>15m diameter), seven small stock enclosures, measuring between 5 and 10m diameter, and small stone-walled enclosures between 1,5 and 4m diameter (Fig.62).

Initially a very dense concentration of potsherds was noticed at the site. These were collected and two huts, D6 and J18, and the only visible midden, G23, were excavated.

FEATURES

HUTS

Patches of baked clay were found in squares X6, D6, F15 and J18. The whole settlement lies on a slope and the huts above the stone walls were all embraced by a semi-circular stone wall on the upper side. This feature was probably a local development for protection against flood water and mountain rubble flushing downhill during thunderstorms.

Hut J18 was excavated adjacent to the surface collection of pottery in block A (Fig.63). The rim of the floor could be followed through squares J18, I18 and I17 and corresponded with the area covered by the burnt daga. The pottery collected from the surface came from an area outside the hut and just to the right hand side of the entrance. Stones showing a polished groove were found in line with the rest of the hut. A broken lower grindstone overlapped part of the entrance and another lower grindstone lay to the right. The floor of this hut lacked a hard-baked smeared surface and was recognized by a level with potsherds and other objects. A clay vessel (J18/33) has been sunk into the floor about 35cm from the wall rim. A charcoal concentration was found in square J18, near the entrance of the hut. It proved to be only 18mm deep and may have been part of the door.

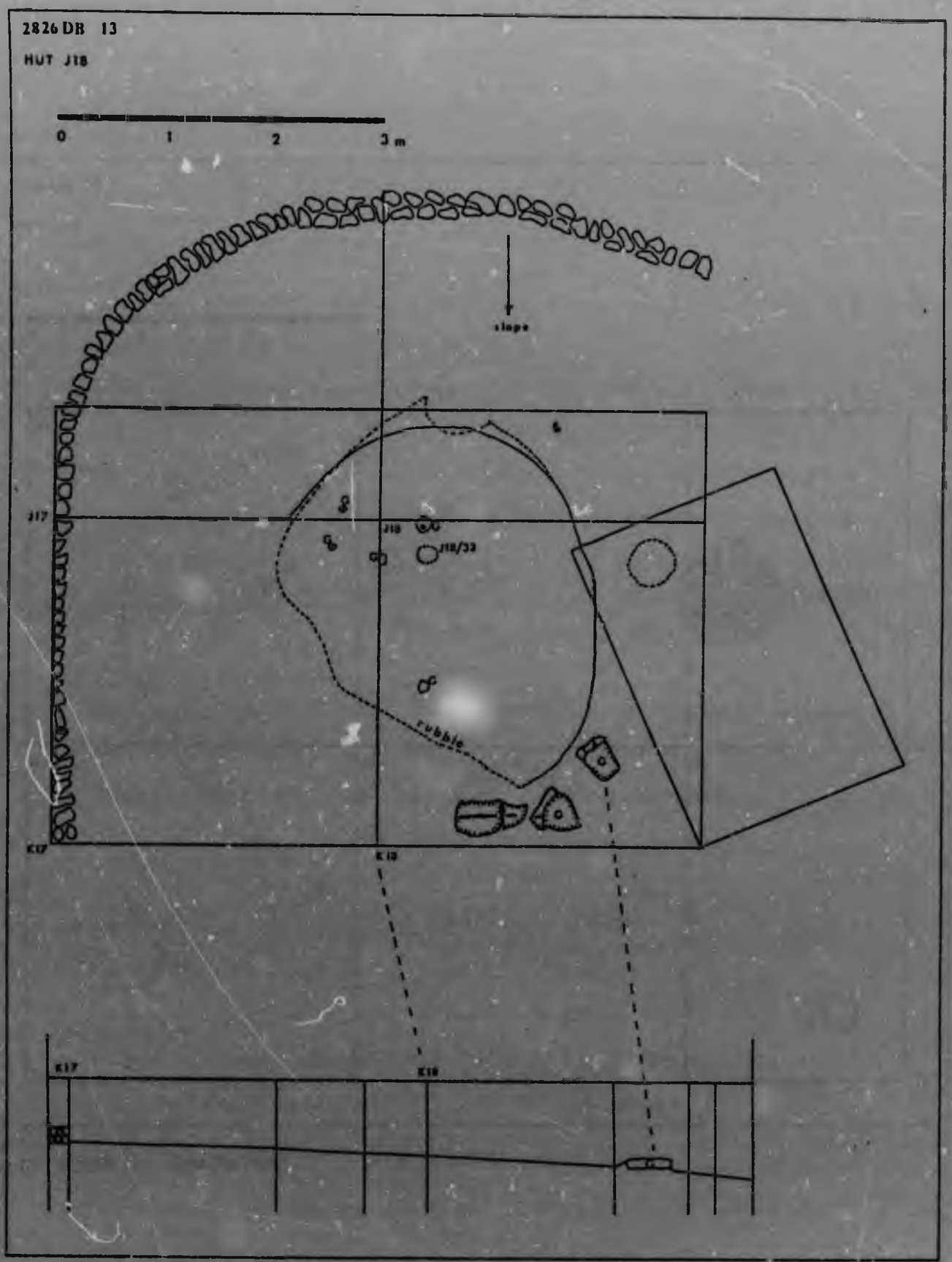


Fig. 63 2826DB 13: Hut J18, Plan and profile.

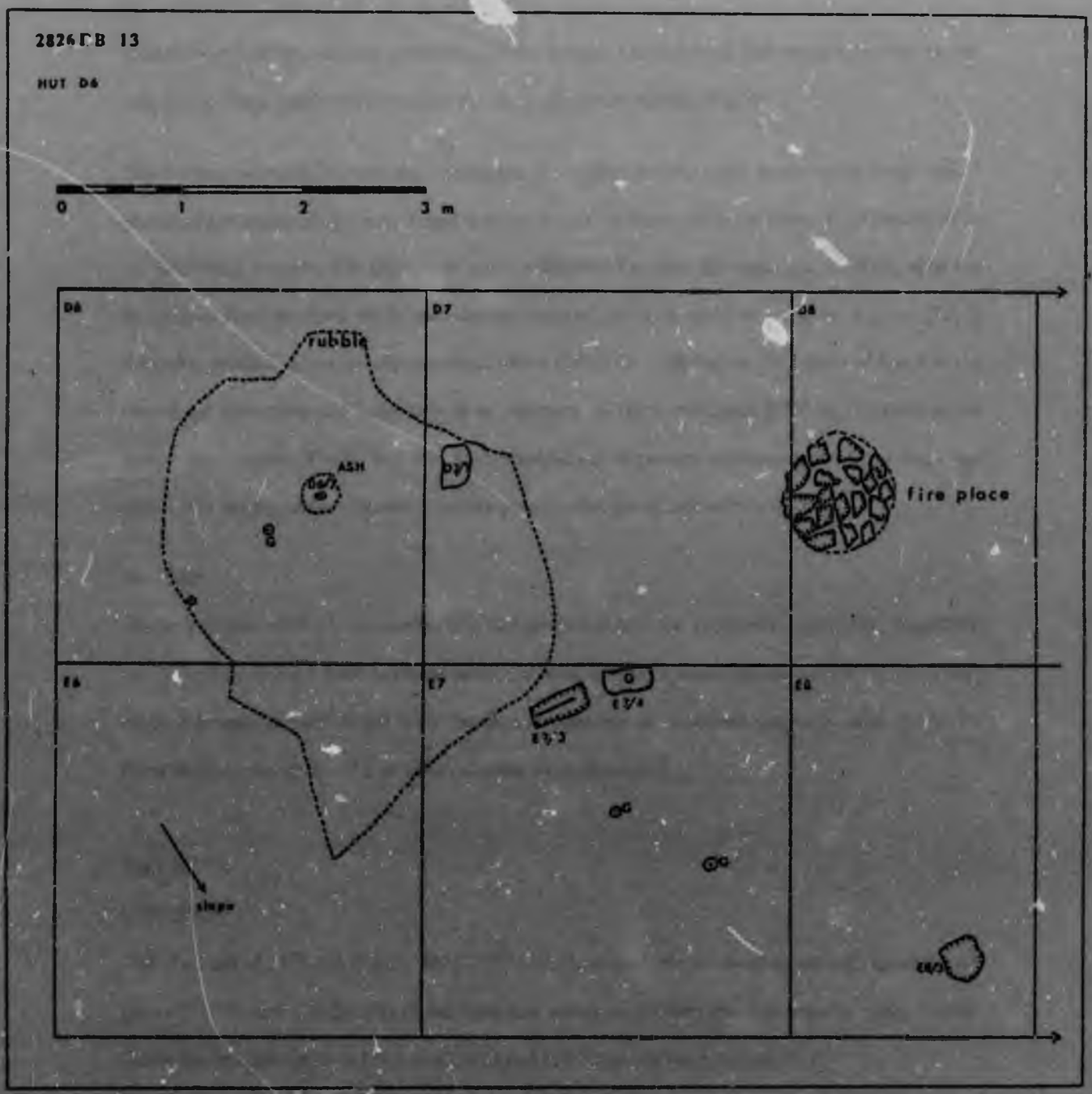


Fig. 64 2826DB 13: Hut D6, Plan.

Four nodules of slag were retrieved from near the centre of hut J18. The origin of this slag is unknown, but it may be derived from burnt thatch.

Test block A yielded over 4000 potsherds (219 rim and decorated pieces). One vessel was sunk into the soil, and so it was decided to investigate the whole area more closely. (Fig.62).

Hut D6 was excavated to learn more about the huts within the protective semi-circular stone wall. A pocket of ash and potsherds were found in the centre of the floor, and a flat stone (D7/1) occurred on the floor edge (Fig.64). The floor could only be followed for short distances, and the living area was determined from the level which had concentrations of potsherds and stone objects. A stone (E7/3) showed a polished groove usually associated with a sliding door. This stone looked out of line with the rest of the hut rubble and could have been disturbed. A lower grindstone E7/4 was found near the sliding door groove. There were several concentrations of pottery underneath the burnt daga and mixed with the hut rubble. Patches of broken pottery were also found outside the hut.

MIDDEN

The only visible midden in association with this settlement unit was sampled in square G23 (Fig.62). It was located up slope, behind the stone walls and huts, and was spread out and compacted into a very shallow deposit. A total of 185 body sherds and eight rim or decorated potsherds were recovered. Freshwater mussel shell and nine pieces of ochre were also found.

THE FINDS

POTTERY

Out of a total of 12 512 potsherds, 909 (7,3%) were decorated. Finger decorations were found on 490 pieces (53,9%) and 310 (34,1%) of the decorated sherds were either comb-stamped or stylus incised. Ochre burnish amounted to 109 pieces (12%) and 132 rim pieces were undecorated.

Many of the potsherds, collected as separate features, could be reconstructed into nearly complete vessels. The pottery assemblage contains a wide variety of comb-stamped and stylus incised decorations

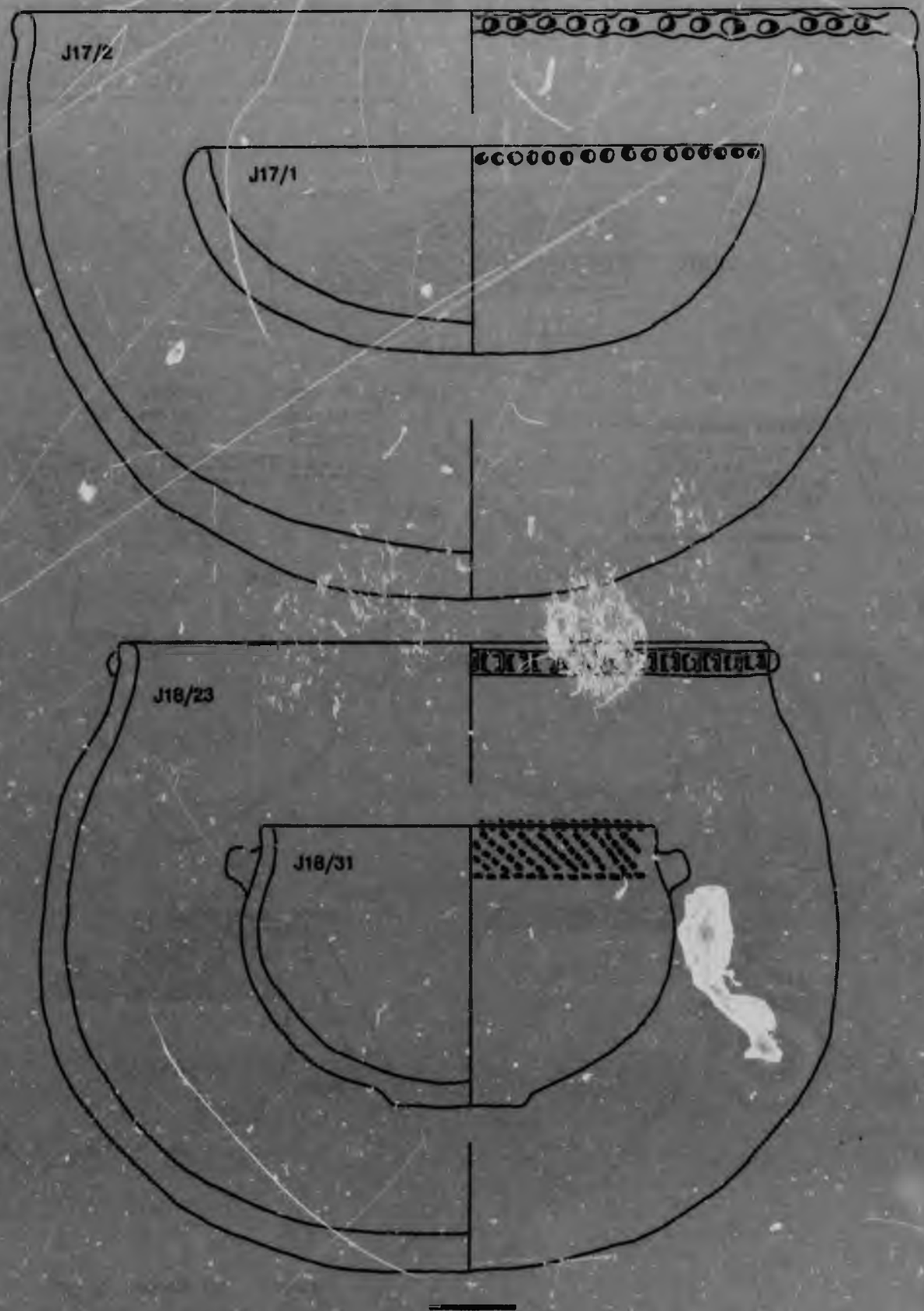


Fig. 65 282CDB 13: Pottery.

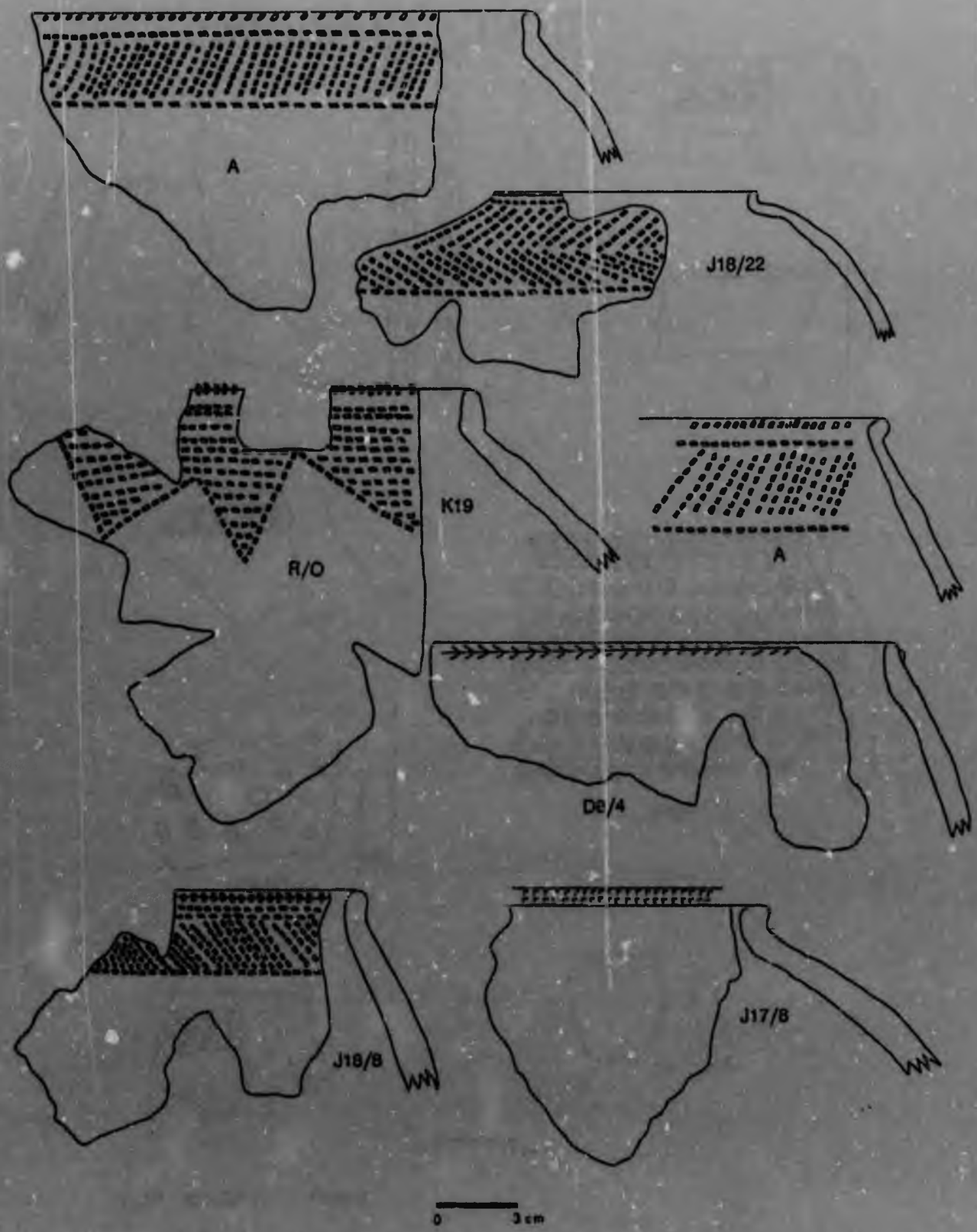


Fig. 66 2826DB 13: Pottery.

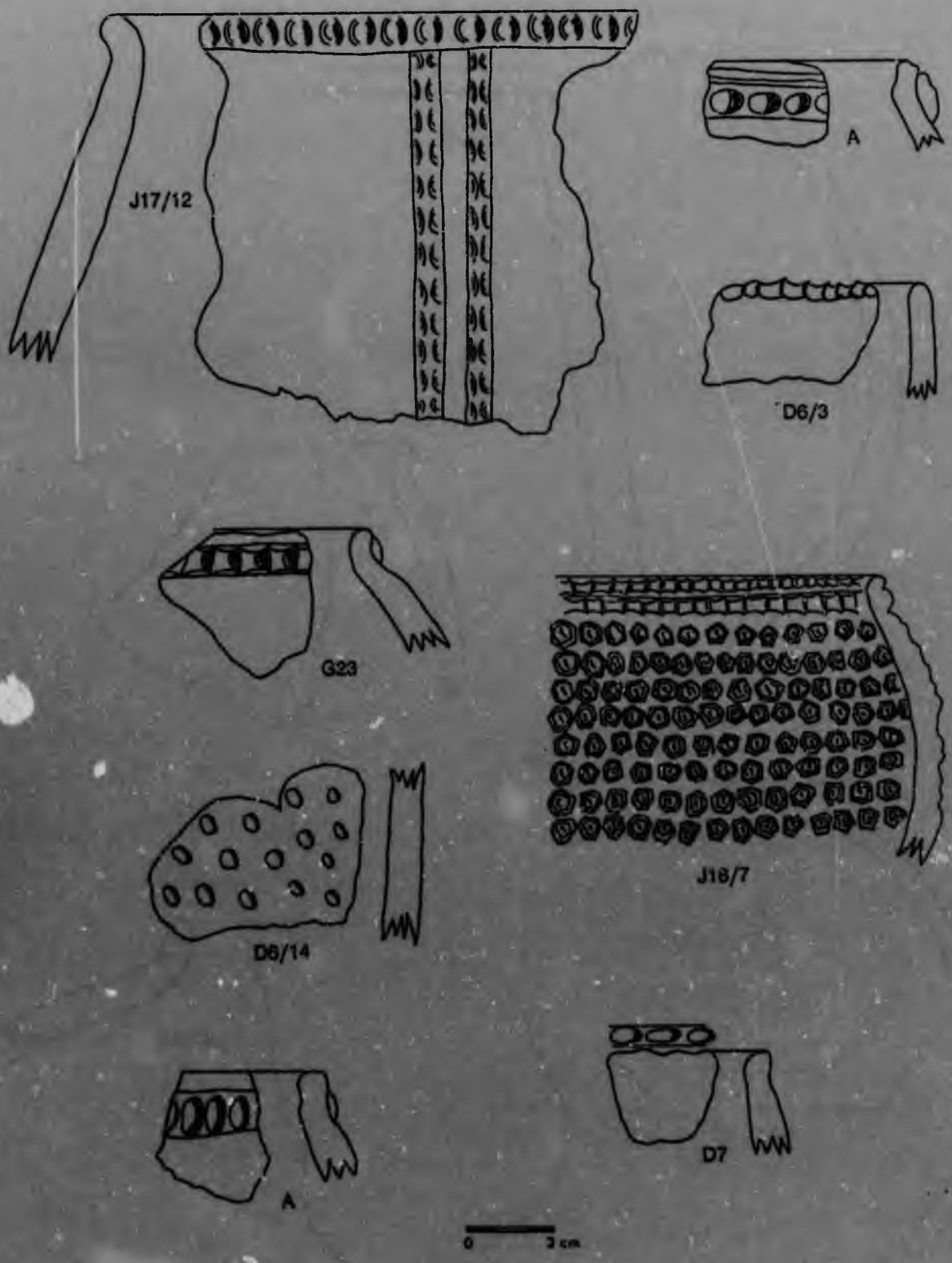


Fig. 67 2626DB 13: Pottery.

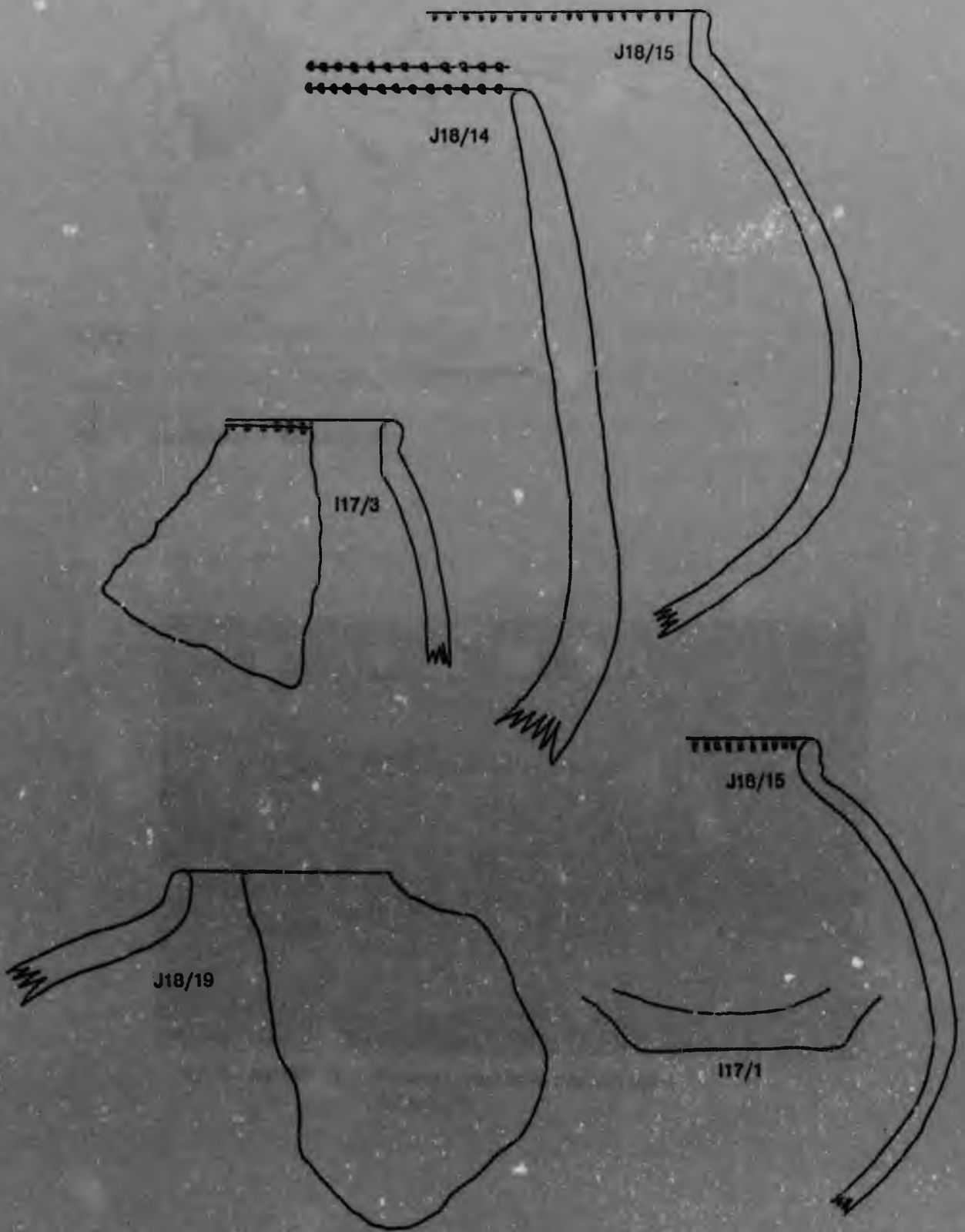


Fig. 68 2826DB 13: Pottery.

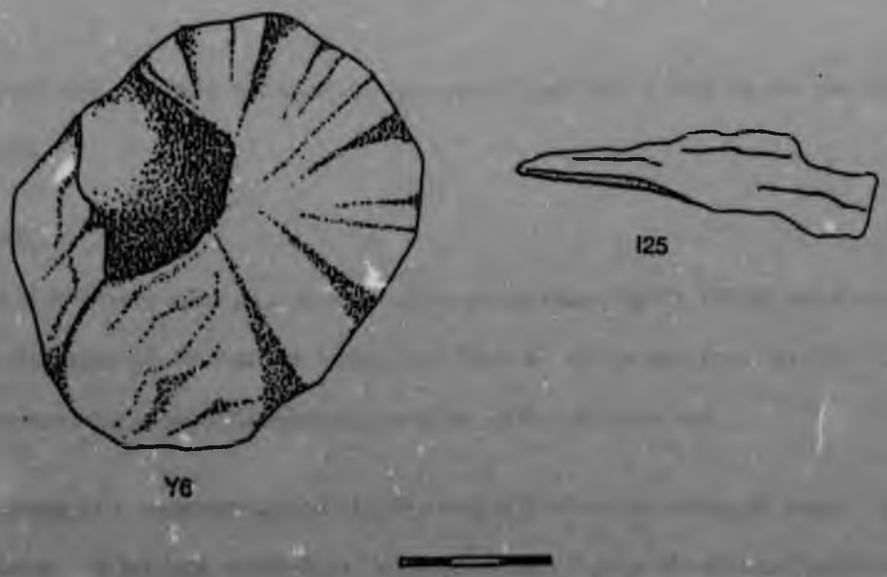


Fig. 69 2826DB 13: Stone and iron.



Fig. 70 2826DB 13: Reconstructed lower grinding stone Square J18.

on open bowls, and large and small ceramic vessels (Fig.65-68). Several smaller pots displayed lugs (Figs.65).

STONE

Some of the broken lower grind stones could be put together (Fig.70). The excavated areas produced only two upper grindstones. One came from block A and another from hut E6 (E6/3). Upper grindstones were scattered elsewhere on the surface of the settlement unit.

Two pieces of a sandstone crucible (Fig.69) were noticed on the surface in square Y6 (Fig.62) in association with hut daga, potsherds and upper grindstones. A piece of a different sandstone vessel was recovered from square E6 in hut D6. The rims were covered with a vitrified layer of unknown origin.

METAL

Only two pieces of iron were found during the investigation of this settlement unit. One came from square E7 which is part of hut D6. It is 5,7cm long, incomplete, with a round tapering tang and a thin blade. The other, also broken, is 7,3cm long, with a thick, round, tapering tang and a thin blade, and was collected from the surface of the midden in square I25 (Fig.69).

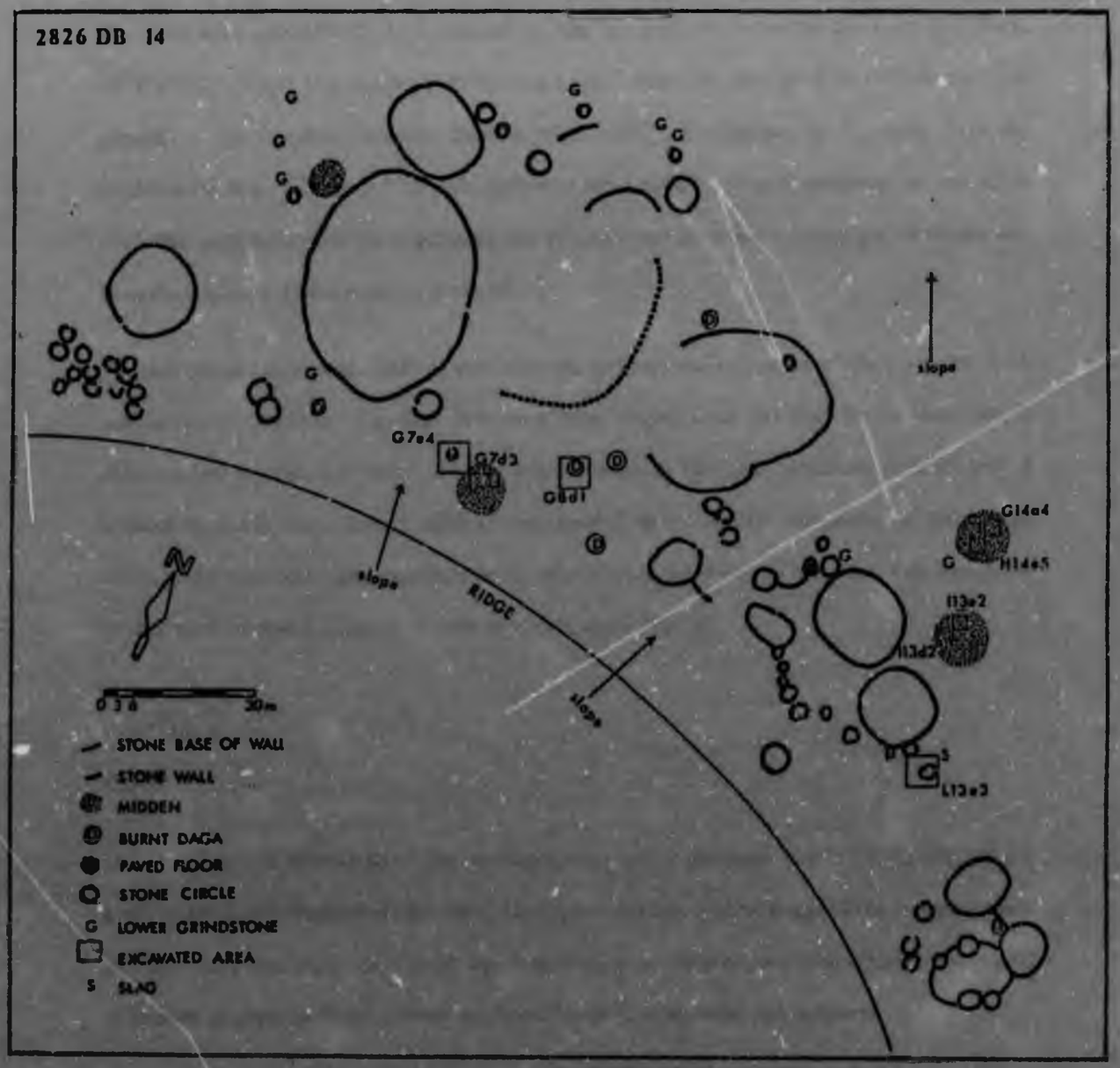


Fig. 71 2826DB 14: Site plan showing excavated areas.

2826DB 14

LOCATION AND GENERAL CHARACTERISTICS

The settlement unit 2826DB 14 is situated on the far southern corner of the farm (28°38'4"S. 26°57'3"E.). It is part of a complex of living units located along the ridge about 4km to the south and parallel to the complex containing 2826DB 10-13. The ruins continue to the south onto the neighbouring farm Vancouver 1712. This settlement unit (2826DB 14) on Doornpoort lies just below the 1 400m contour, against the slope facing west (Fig.3). It was clear that the lower part of the site had been demolished to pave the nearby dam wall.

The unit consists of a series of large cattle byres (up to 40m diameter), some of which seemed to be incomplete. A multitude of smaller stone structures, ranging from less than 2m to about 4m in diameter, are in close association with the larger structures. The total settlement stretches over a distance of nearly 250m. Several middens were spotted on the surface and patches of burnt daga indicated the position of huts, especially in the area between the walls and the ridge. Two huts and a midden were excavated along with a circle of upright stones (Fig.71).

FEATURES

HUTS

Huts 1 and 2 were situated above the stone structures against the slope. Hut 1 (G8d1) (Fig.72) was partly covered by soil-wash from the slope. The top soil was removed by means of the vacuum cleaner and hut plaster was uncovered (Fig.73). Impressions of reeds and grass were clearly visible interrupted at intervals of about 35-40cm by transverse lines of reeds forming horizontal supports.

In squares G8c1 and G8d2 the vertical rim of the hut was outlined by blue-green weathered shale which had been washed down from the hill. The shale did not lay directly against the daga rim, being separated by about 6cm of organic material.

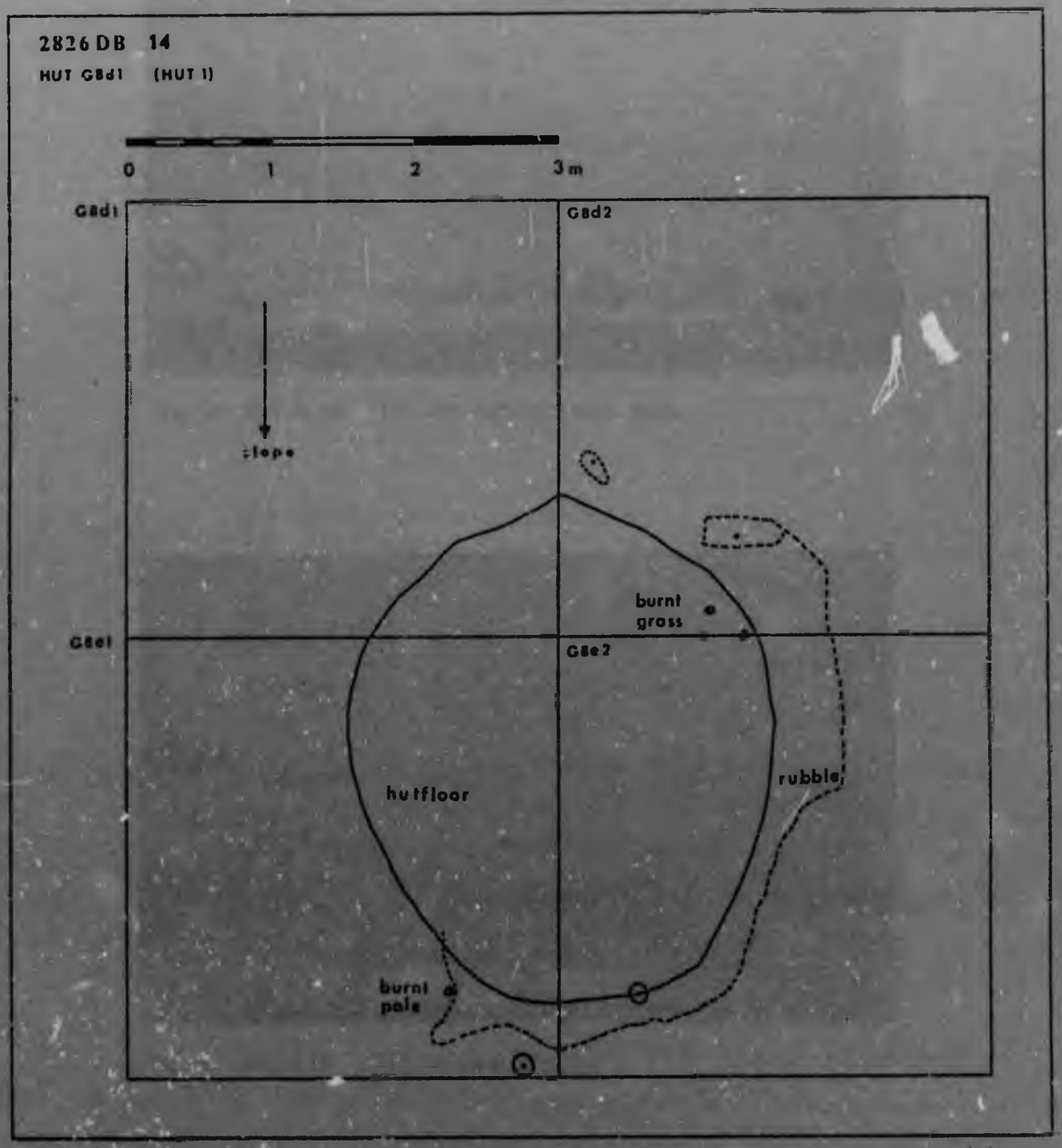


Fig. 72 2826DB 14: Hut G8d1, Plan.



Fig. 73 2826DB 14: Hut G8d1, surface of baked daga.



Fig. 75 2826DB 14: Storage vessel, G7e5/1.

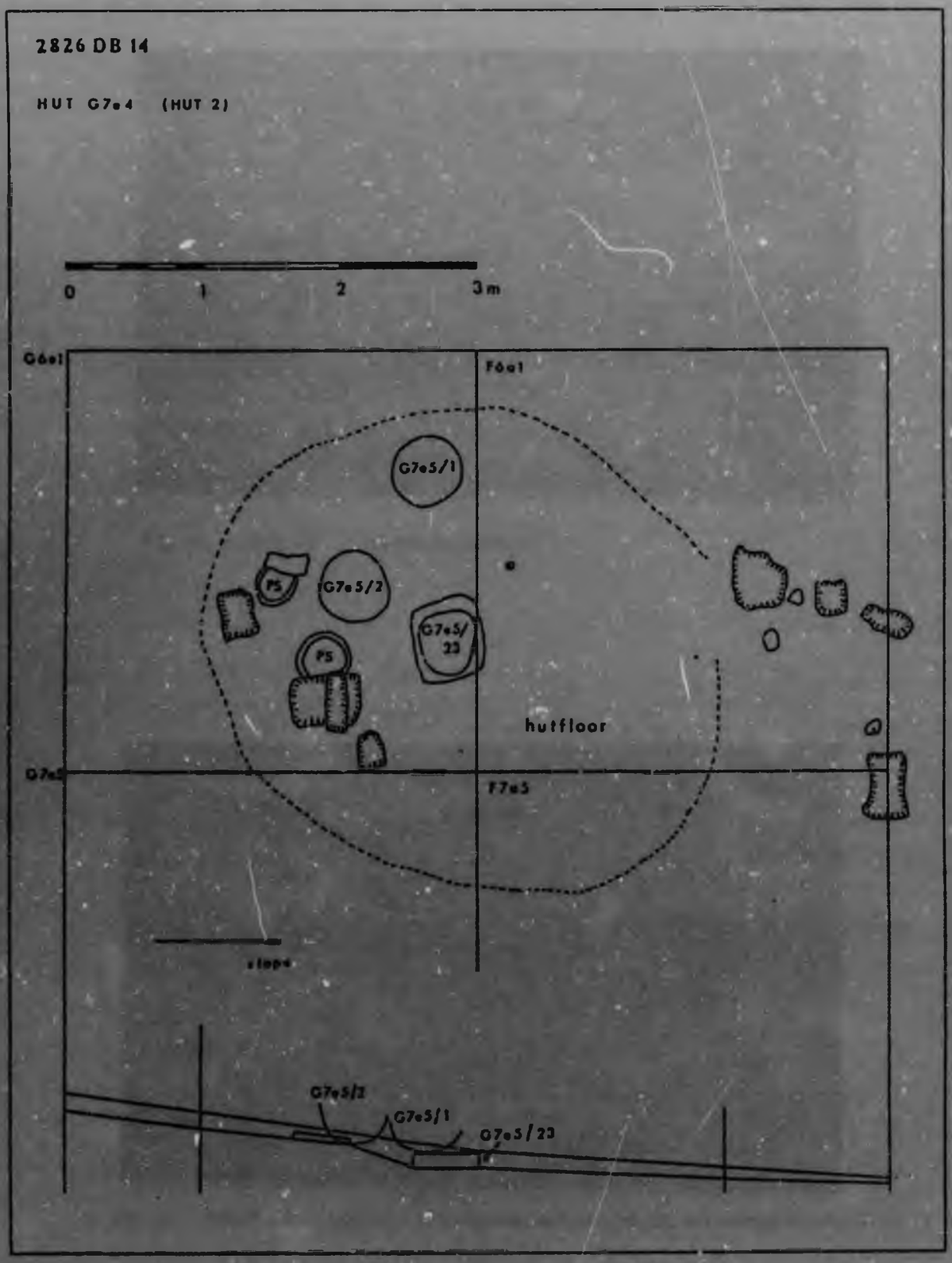


Fig. 74 2826DB 14: Hut G7e4, Plan and profile.



Fig. 76 2826DB 14: Clay feature, G7e5/23.



Fig. 77 2826DB 14: Hut G7e4, showing clay feature G7e5/23 and storage vessels G7e5/1 & 2.



Fig. 78 2826DB 14: Ivory figurine, G7e5/14.
Actual size 30mm



Fig. 80 2826DB 14: Hut L13e3, Stone edge.

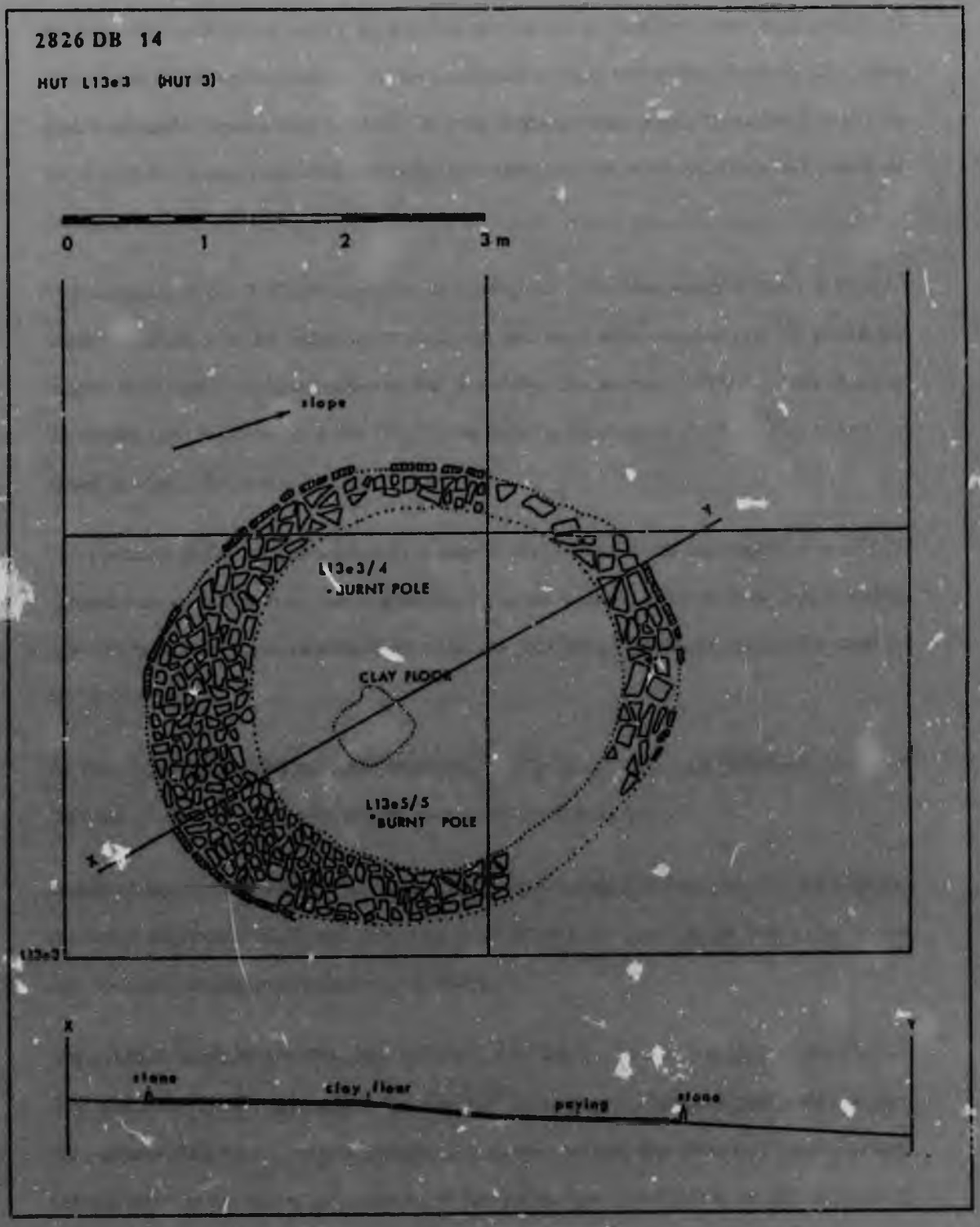


Fig. 79 2826DB 14: Hut L13e3, Plan and profile.

With the removal of the hut rubble a solid smeared and baked floor was uncovered about 4cm below the level of the soil surface outside the hut. The hut was facing down-slope with flat stones on the western side indicating the entrance. The hut measured 3,4m from back to front by about 3,1m. Burnt grass was found in squares G8d2 and G8c2. A chunk of charred wood (G8c1/1) was found outside the hut, near the entrance. There were only scattered potsherds on top of the hut debris and outside the hut area.

The excavation of Hut 2 (Fig.74) started as an investigation of two clay vessels (G7e5/1 & G7e5/2) which turned out to be the bottom parts of storage jars, about 48cm diameter (Fig.75), placed into hollows in the floor towards the back of the hut. A modelled clay structure (G7e5/23) nearly square on the outside and circular on the inside (Fig.76) was found in the centre of the floor. This feature was almost certainly a fire bowl.

The perimeter of the hut was marked by a ridge of clay formed by the hard-baked floor (Fig.77) outlined once again by a down-wash of green shale. The hut measures about 4m from front to back by 3,3m and faces down slope in a westerly direction, with the entrance indicated by flat slabs of stone set into the surface.

An ivory figurine (G7e5/14) was found inside the hut (Fig.78). A complete clay pot (G7e5/15) and a flat bowl (G7e5/16) could be reconstructed from sherds found in the hut.

Chunks of charred wood (G7e5/19 & F7a5/11) inside the hut could have been parts of stays to support the roof as described by Backhouse (1844:368). The walls of the hut were smoothed off on the outside with the impressions of reeds and grass on the inside.

Hut 3 (L13c3) measured 3,9m from front to back by 3,3m (Fig.79). This hut consisted of a stone-paved floor which was clearly bordered by a ring of upright stones (Fig.80). The stone paving did not cover the total area of the floor but was restricted to an area along the wall. Part of the hard-baked clay floor was still intact in the centre, and remnants of burnt poles were also found in the hut (L13c3/4 &

L13e3/5). Baked clay with reed and grass impressions was totally absent. Potsherds were found in clusters on the floor and scattered nodules of slag were found on the surface outside in square J13a2, probably originating from burnt thatch.

MIDDENS

Midden 1 was located at the foot of the slope on the northern perimeter of the settlement, away from the stone-walls and hut remains (Fig.71). The outer limit of the midden was not clear on the surface, and so two squares, G14a4 and H14e5, were excavated towards the centre. The deposit was removed in two 5cm arbitrary spits and proved to be very rich in finds. Pottery, bone, ostrich eggshell beads and mussel shell were recovered and two ladle/spoon handles were also found. In the second layer finds decreased towards the lower part.

Midden 2 was tested in squares I13e1 and I13d2 somewhat higher up the slope, still on the northern border of the site but nearer to stone-walled enclosures (Fig.71). The midden contained ostrich eggshell beads, ochre, mussel shell, bone, pottery and one copper earring (Fig.85).

Midden 3 contained a pot-burial in square G7d3. A large lower grindstone (Fig.86) covered the rim and neck of the vessel (G7d3/1) (Fig.87). The vessel had been placed in a hole in the midden filled with weathered shale (Fig.88-89). A large sherd (G7d3/2) had been placed on top of the burial pot. The pot contained a human infant skeleton (Fig.90). Pot burials are known to have been part of the customs of the Sotho peoples occupying the central highveld (Ashton 1967:104; Maggs 1976:136; Hoernlé 1930:42; Laidler 1936).

These middens did not produce bone points nor glass beads.

THE FINDS

POTTERY

The vessels were finely made and the decorated specimens testified care and skill. A total of 9 066 potsherds were recovered. Of these 710 (7,8%) were decorated, with 329 (46,3%) finger decorations, 129 (18,2%) comb-stamped and stylus decorated. Ochre burnish amounted to 252 pieces (35,5%) and 120 undecorated rim sherds. Only six of these vessels could be reconstructed to ascertain their complete shapes and sizes (Figs.81-84).

Two tapering clay ladle or spoon handles (3 & 5cm in length) were found in squares G14a4 and H14e5 (Midden 1). A third (4,5cm long) was found in Hut 2 in square F7a4. Another spoon-like object came from Midden 2 (I13e1).

A piece of clay cattle horn was excavated in square G14a4. Three pieces of a single object, with red colouring and finger-pinched decoration, came from the three different middens (G7d2,H14e5,I13e1). Two of the pieces fit together (Fig.85).

From midden 3 (G7d2) came a fragment resembling the hump of a cattle figurine. Another fragment, displaying a humped curve and a little knob, was found in Hut 2 (F7a5). It has two very prominent holes below the hump (Fig.85).

Fragments of freshwater mussel shell were retrieved from all the middens and a relatively large number were found at the back of Hut 2 in square G7e5.

Bone fragments with polished edges from scraping were found in Middens 1 (H14e5), 2 (I13e1) and 3 (G7d2). No bone points were found but a sharpened splinter came from Midden 3. Two long (8cm) spatulate bone objects were excavated in Midden 2 (I13e1).

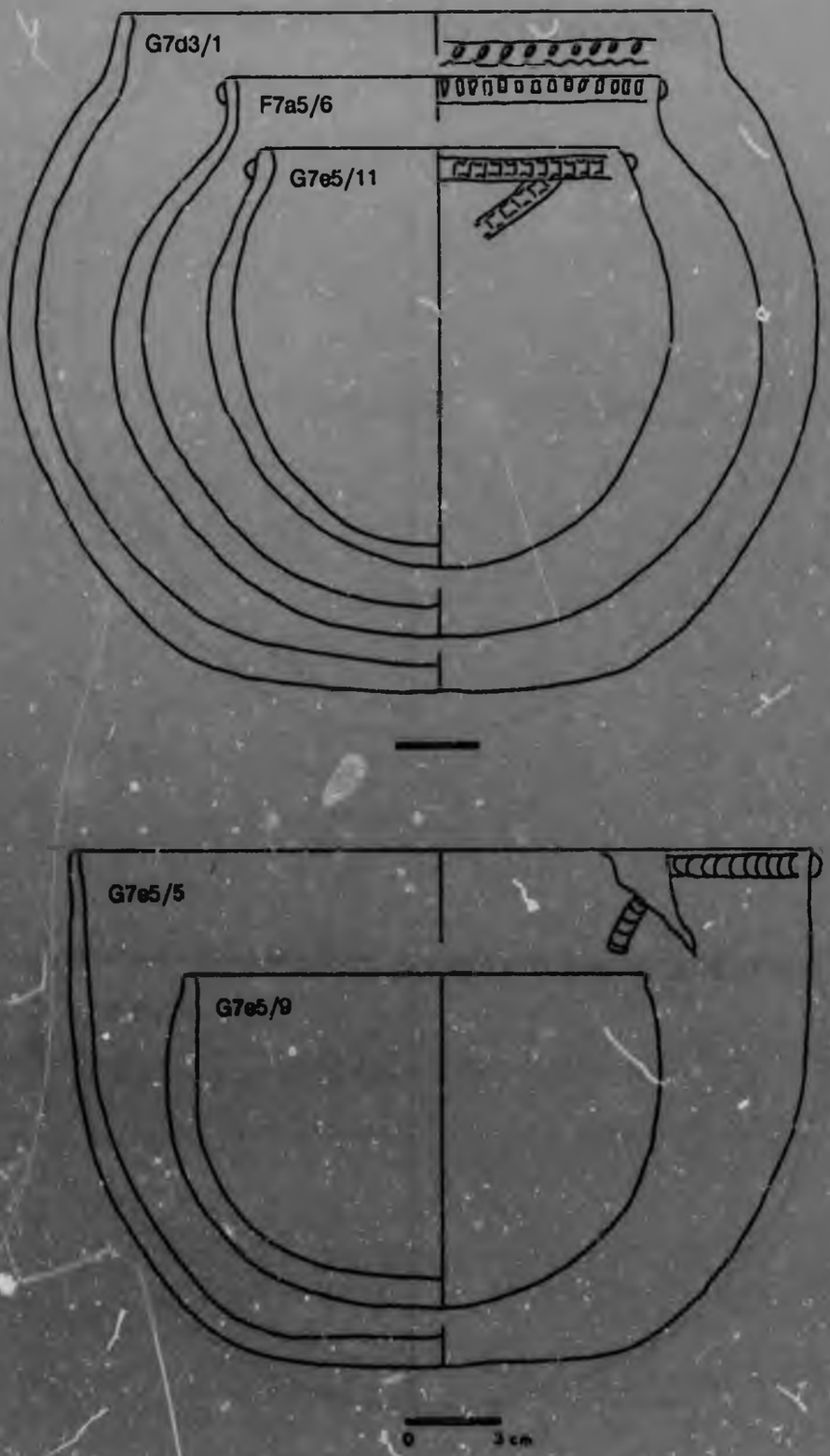


Fig. 81 2826DB 14: Pottery.

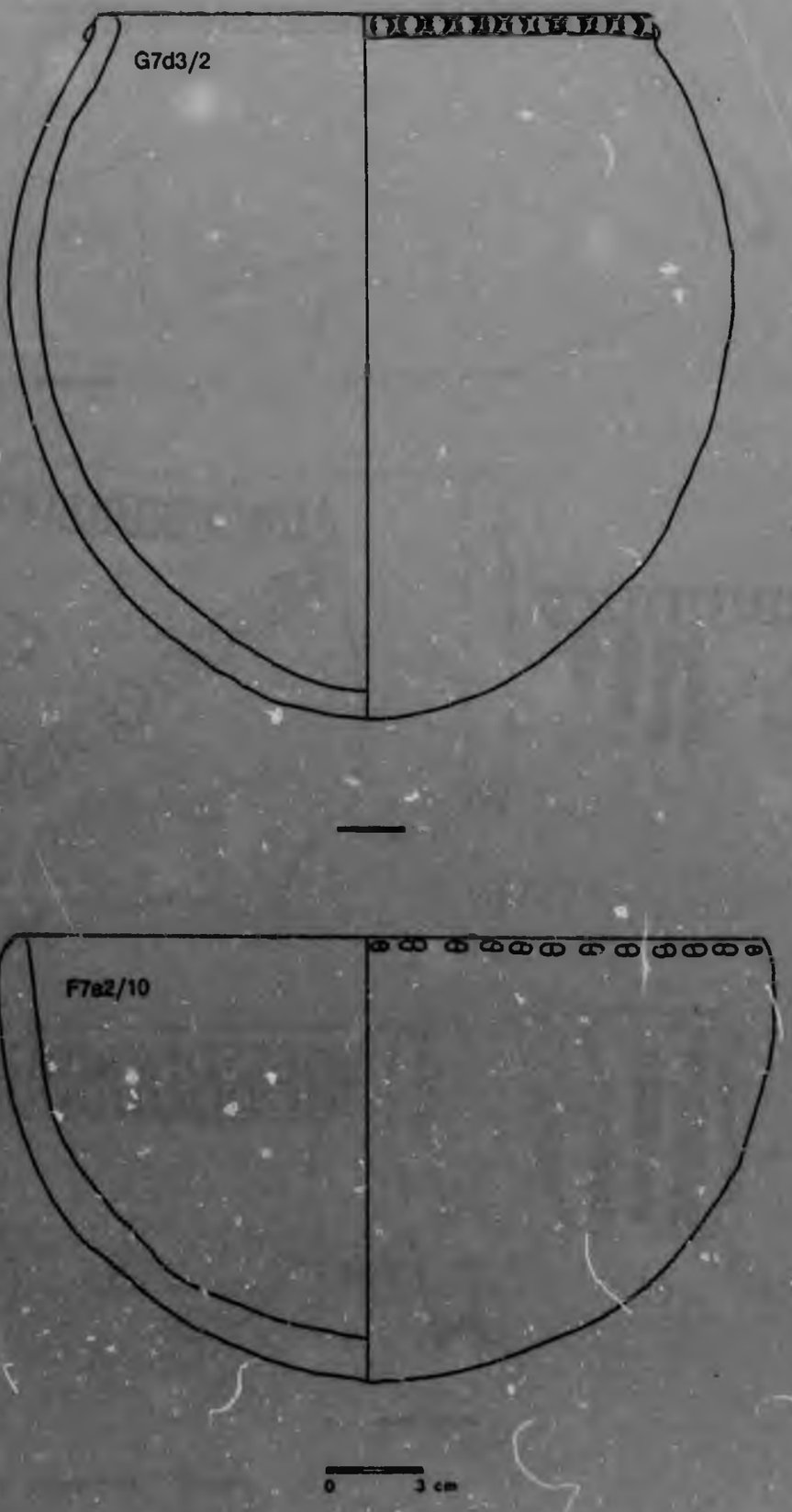


Fig. 32 2826DB 14: Pottery.

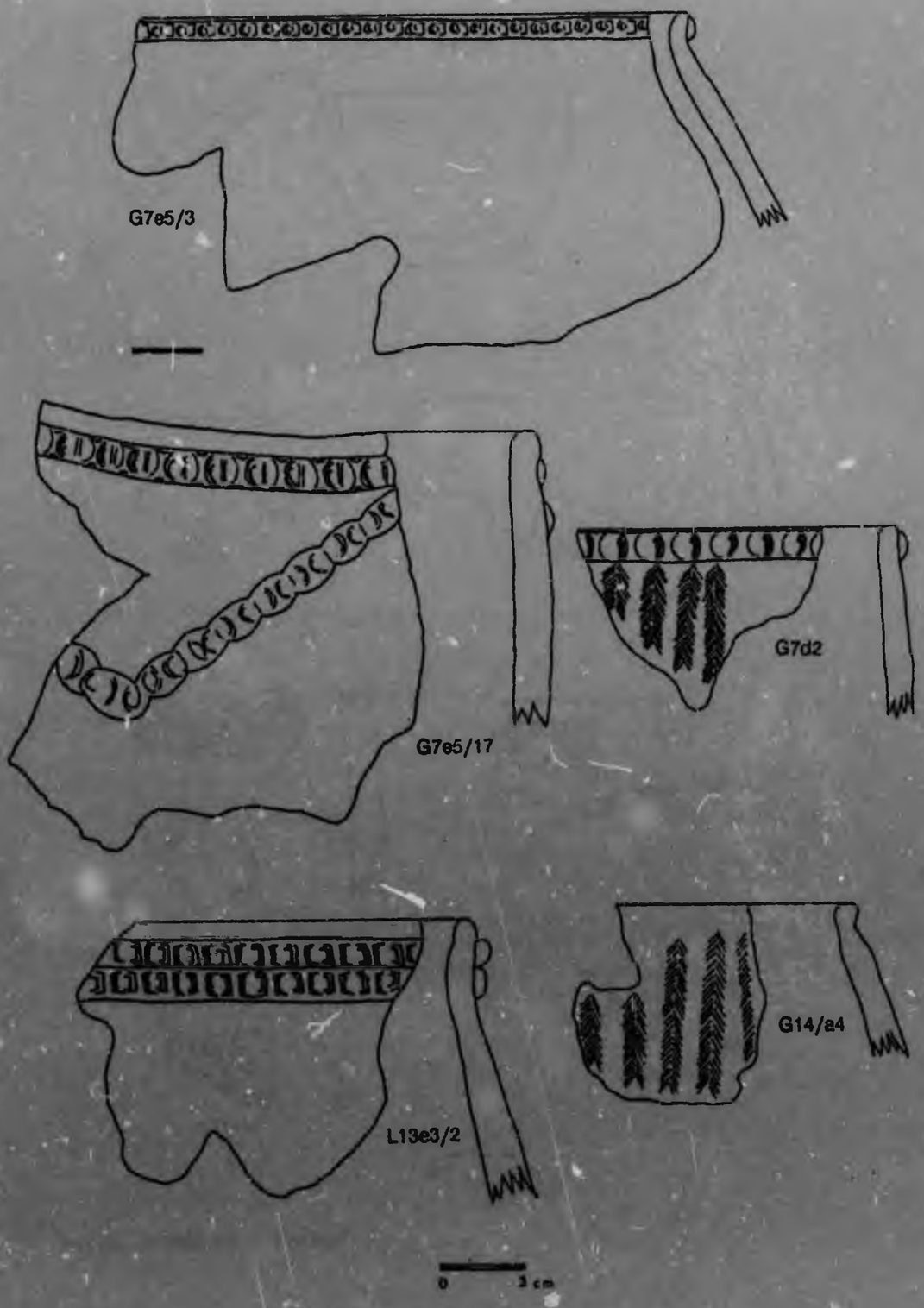


Fig. 83 2826DB 14: Pottery.

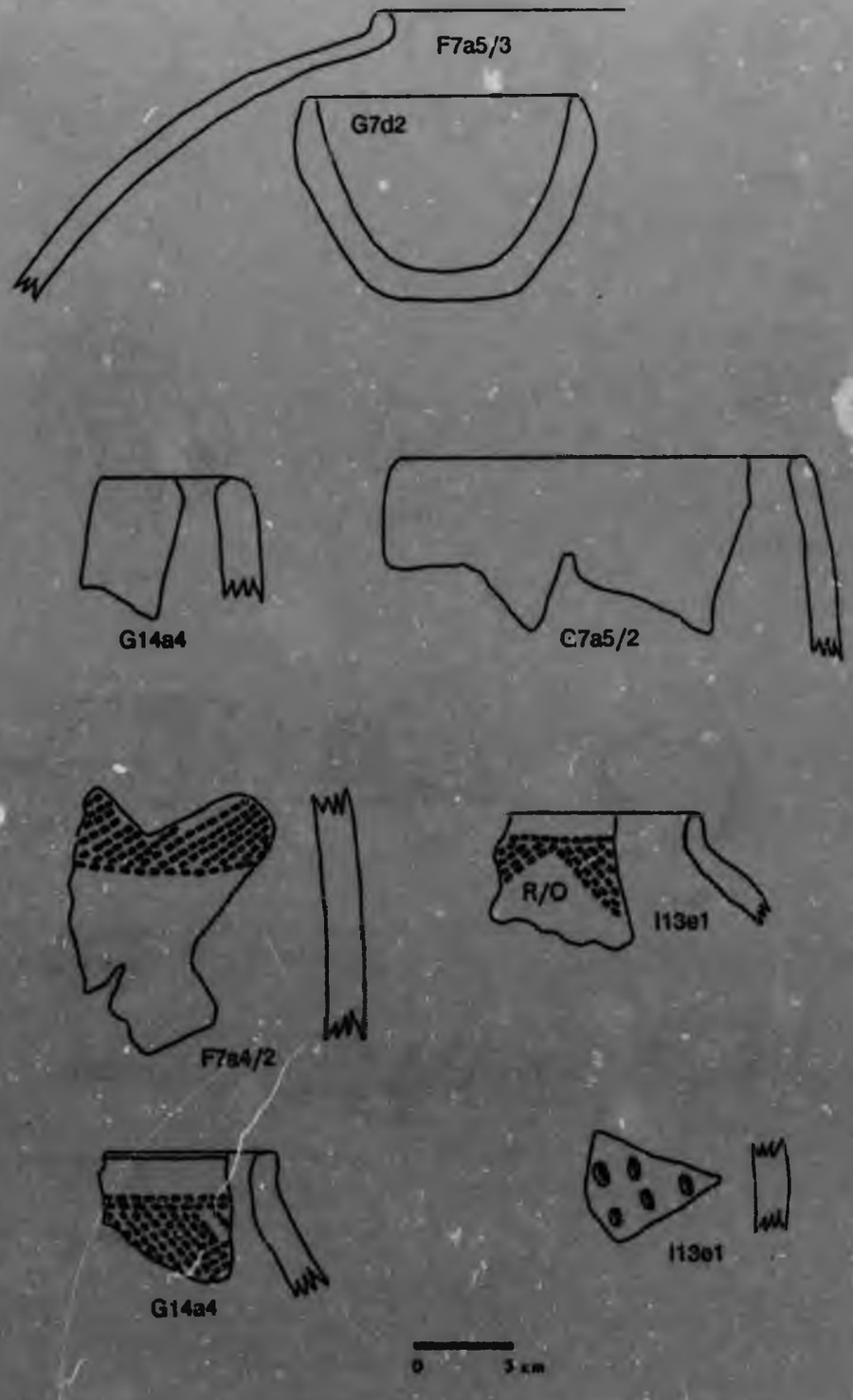


Fig. 84 2826DB 14: Pottery.

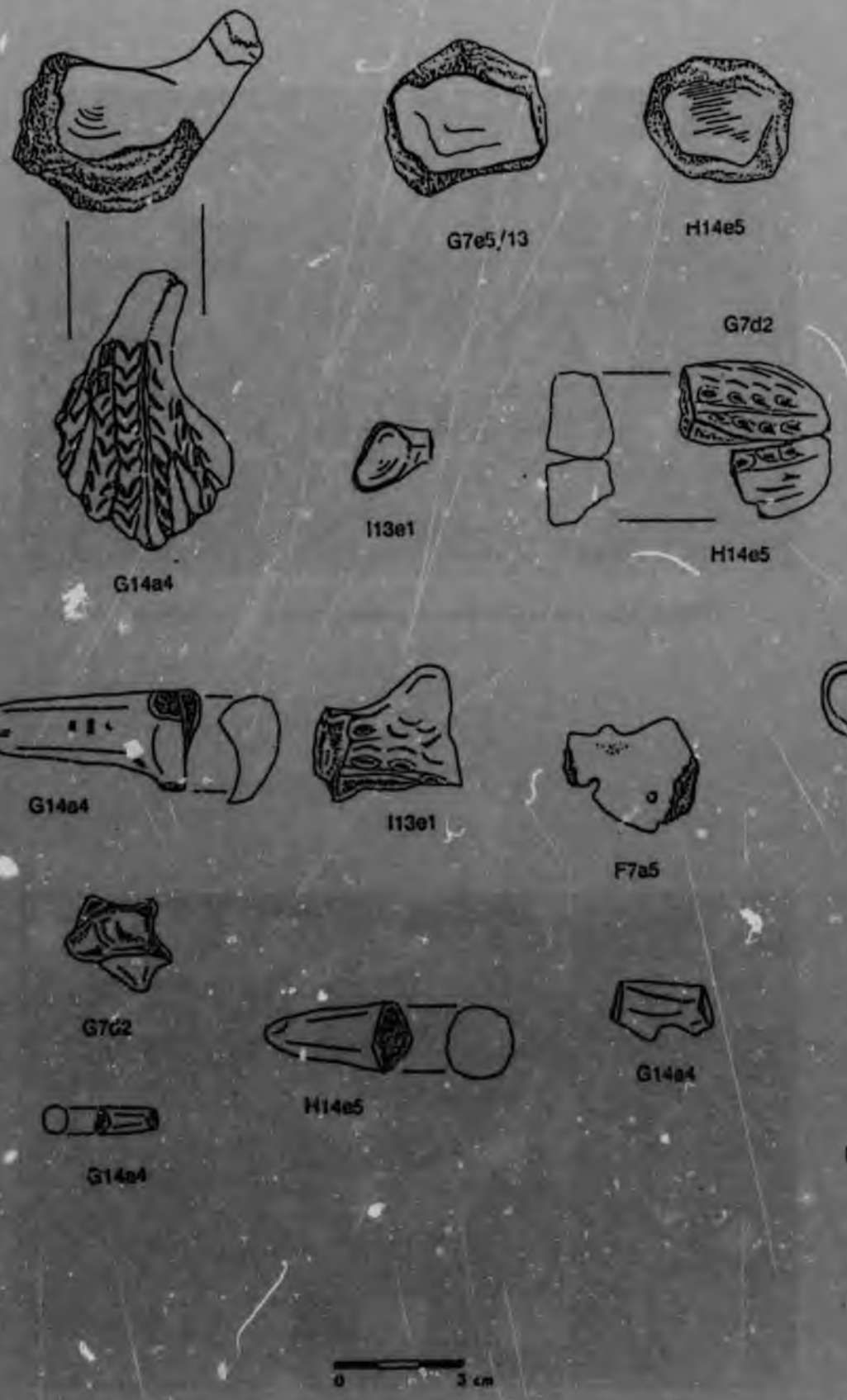


Fig. 85 2826DB 14: Small finds.



Fig. 86 2826DB 14: Lower grinding stone on top of Pot burial, G7d3/1.



Fig. 87 2826DB 14: Pot burial, G7d3/1, stone lifted.

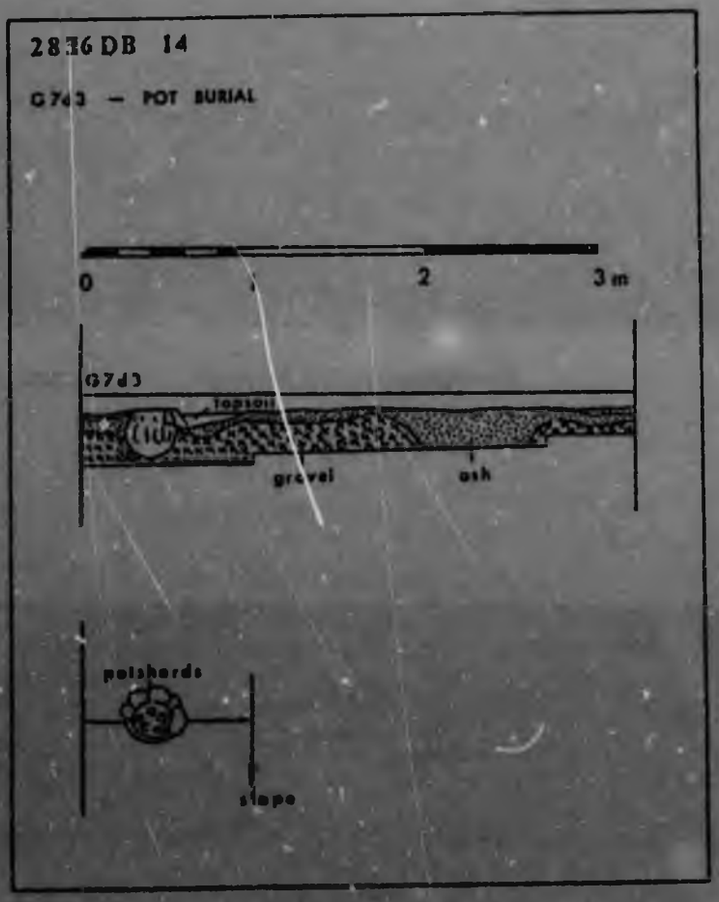


Fig. 88 2826DB 14: Pot burial, G7d3/1, plan and profile.

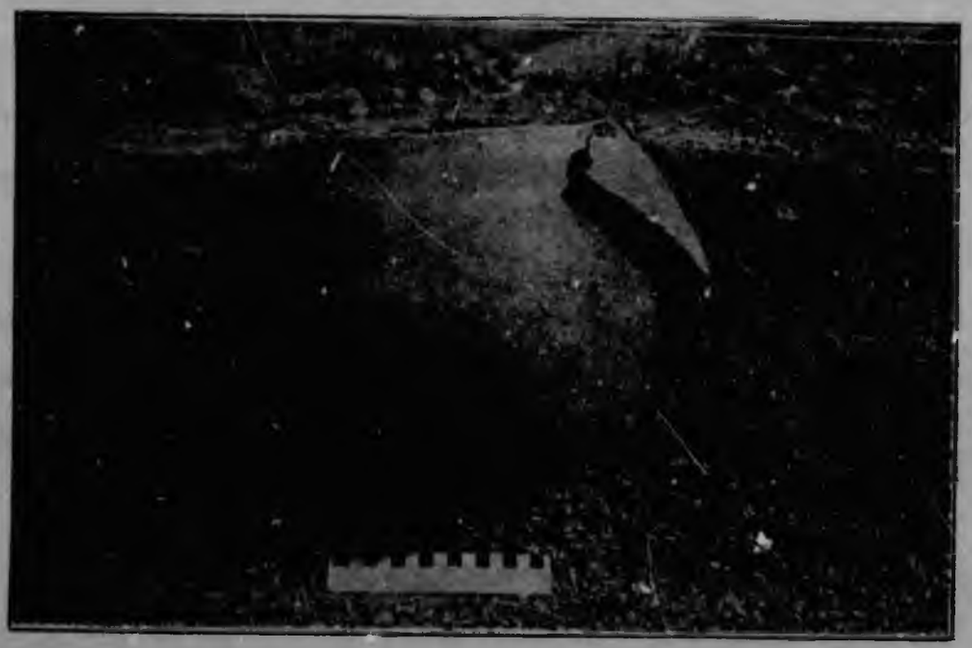


Fig. 89 2826DB 14: Pot burial, G7d3/1 (excavated).



Fig. 90 2826DB 14: Pot burial, G7d3/1.

The ivory animal figurine from Hut 2 had broken in half where a vertical hole was drilled through the rump. The figurine is 30mm long and about 11mm high with four legs and a short tail. It is decorated along the sides and on the back with little engraved circles. The decoration is indistinct on one side, suggesting that the figurine was worn as a pendant (Fig.78).

METAL ITEMS

An object made of copper wire, 10,5cm long, was found in Midden 2 (I13d2). The wire has a knob at one end and a curled hook at the other (Fig.85). It could have been a copper earring. No iron objects were retrieved from this part of the site.

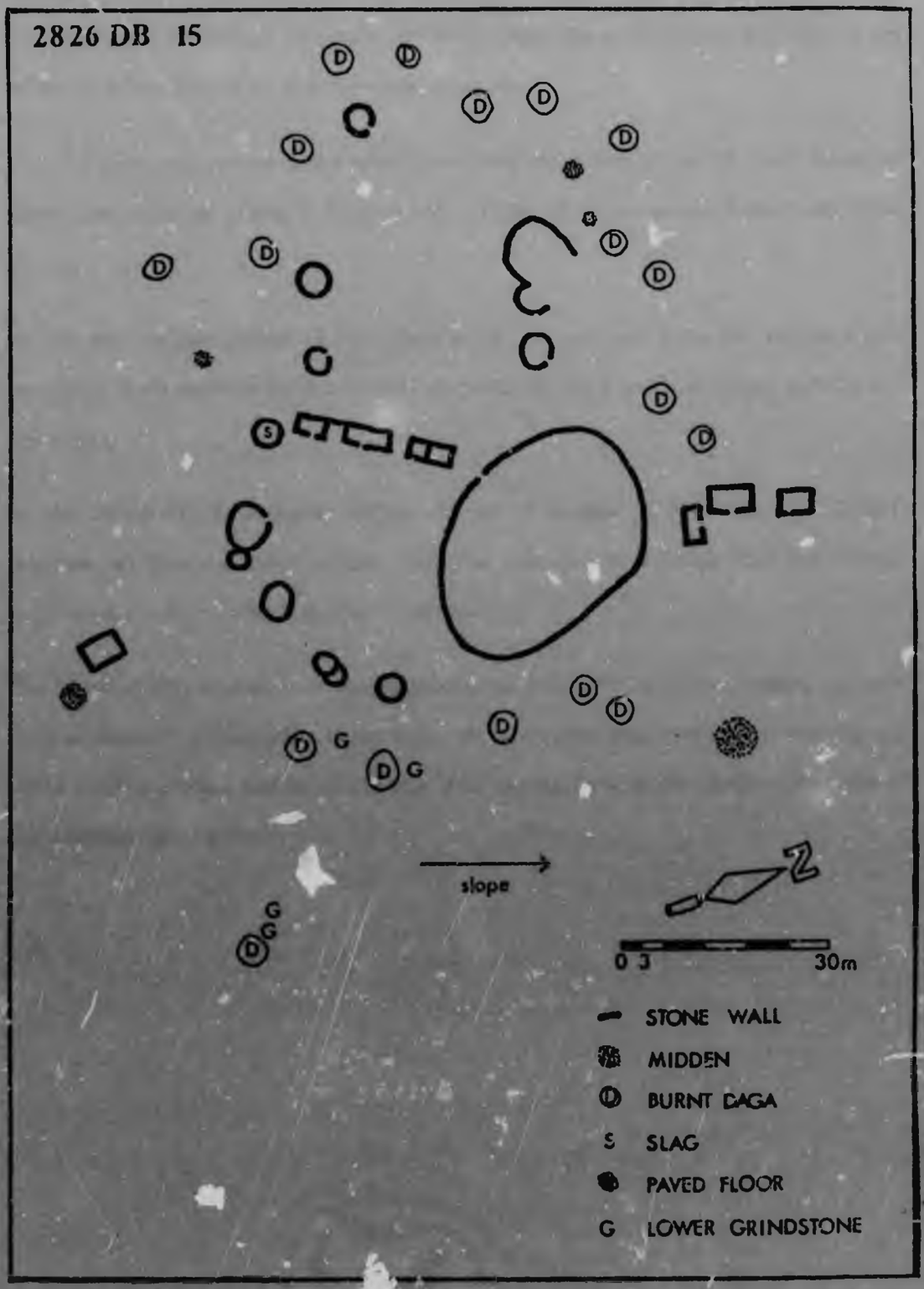


Fig. 91 2826DB 15: Plan.

2826DB 15

This settlement unit is situated (28°36'43"S. 26°58'9"E.) about 500m south of 2826DB 11 (Fig.3) It lies 20-30m lower than 2826DB 11, on a slight slope, facing west.

This settlement comprised one central cattle byre of about 28,4m diameter with 10 smaller associated stone-walled structures, ranging in diameter from 2,5-5,5m, all within an area of about 50m radius (Fig.91).

No less than eighteen patches of burnt daga around the periphery made this settlement unit exceptional. It was therefore decided to survey the whole unit, but it could not be excavated due to a lack of time.

As with 2826DB 11, this settlement unit was also part of the later (c. 1900) occupation. Circular structures had been demolished to build rectangular single-roomed dwellings. One large midden contained wire, nails and other objects on the surface.

Paved floors of 2-3m diameter were found adjacent to hut rubble. Two middens, producing potsherds and bone fragments on the surface, clearly date to the earlier occupation. One occurrence of slag and several lower grindstones were found. The plan of this unit was used for the artist's reconstruction of this settlement type (Fig.109).

6. DISCUSSION

Three charcoal samples from Doornpoort were radiocarbon dated by Dr J.C. Vogel of the C.S.I.R.

Pta - 4166	2826DB 10 Midden L7b4	90 ± 45
Pta - 4161	2826DB 14 Burnt pole in hut G7c5	160 ± 45
Pta - 4138	2826DB 11 Carbonized reeds in hut F5	240 ± 45

These results were calibrated according to the Stuiver and Pearson (1986, Pearson 1987) time scale. The calibrated dates range between 1660-1820 A.D. (Fig.92). A pre-Difaqane date for the site could, therefore, be possible. No imported goods, including glass beads, were found to support the chronology. Dates are from the upper units only and there are no age criteria for comparing the settlements below the scarp with those on top. The lower part was either contemporary or earlier than the settlements on top.

Considering the dates obtained by Maggs (1976), Doornpoort seems well within the range of similar settlements, such as Caledon Valley (OND2, c.1650), Type V (OO1, Zone D, 17th century) and Type 2 (OXF1, 17-18th century). From further afield Doornpoort fits in favourably with Sclonskraal (17-18th century) and Buffelshoek (17-18th century) (Fig.93).

Although no seeds or other evidence of cultivated crops were found on the site, the presence of large oval lower grinding stones (*maloala*), indicate grain cultivation as a means of economic support. These grindstones are like those used to grind maize (Wahon 1953b:37; Maggs 1982:112), but no evidence to support this could be found in the pollen (Dr Louis Scott pers. comm.). It is not clear if we are dealing with an occupation within the maize period or not.



Fig. 92 Calibrated dates.

Fig. 83 Radio-carbon dates from Doompoort compared to others from LIA sites.

The general impression of the Doornpoort site remains one of violence and destruction. The huts have been destroyed, while pottery and other utensils were left in position and lower grinding stones were broken *in situ*, (cf. Humphreys 1972:120). It is not clear if this destruction was part of a large movement of unrest and devastation, or just part of "quite normal inter-Sotho conflicts" (Cobbing 1984:10) as reported by Lye (1969:44-45). Seen as a whole, the indications of devastation appear to point to a larger scale of unrest.

Compared with the sites investigated by Humphreys (1972) and Maggs (1976), there is a marked lack of metal objects from Doornpoort. Only a few pieces of iron and some copper earrings were recovered (cf. White et.al. n.d.). No trace of iron smelting has so far been found in the Free State (Maggs 1976:315). Ornaments, hoes and weapons must have been obtained by trade (Casalis 1861:169). Not much is known about trade routes in the Orange Free State, but paths existed between Sotho and Zulu country (Wilson & Thompson 1969:152). If the sandstone crucibles were used for remelting copper, it seems likely that the earrings were produced locally (Maggs 1976:110,321).

POTTERY

Pottery was found in aburdance on the site, concentrated in association with huts, both inside and outside, and in middens. From the sherds we were able to reconstruct vessels, of which some are almost complete. The majority of sherds are undecorated and likewise a large number of the vessels.

The decorated pottery falls into two distinct categories. The first can be described as finger-decorated, and includes a variety of features created by finger-pinching and finger-nail and finger-tip impressions. Several examples occur where the entire surface of the vessel is covered by impressions. Another prominent feature is the application of finger-pinching on the rim, or just below, often on applied bands. Finger-pinching also occurs in vertical, parallel rows "forming corrugations", covering the body of the vessel almost down to the base (cf. Maggs 1976:100,188). The second category encompasses decoration applied with a tool and includes comb-stamping, rim notching, and stylus impressions. At Doornpoort, ochre burnish is never combined with finger decoration, as found by Maggs (1976:222) at

OND2, but usually occurs in combination with comb-stamping and incisions. The walls of vessels with a combination of comb-stamping and ochre-burnish tend to be thinner and more finely made. Ochre is applied on the outside of vessels and sometimes on the inside as far as the first finger-joint can reach below the rim.

A wide range of miscellaneous rim and body impressions are present. Protrusions in the form of cusps, lugs and bosses are found. The information on the shape of the vessels is not conclusive due to the fragmentary state of the pottery, but wares occur in a wide range of sizes and shapes ranging from spherical and sub-spherical pots, to barrel-shapes and open bowls. There was, however, a tendency to combine certain shapes with specific other attributes, especially the type of decoration. Comb-stamping, for instance, is limited to a restricted range of vessel shapes which includes large spherical pots and smaller bowls. The spherical pots have small openings with upright necks.

The spectrum of bases includes round, flat and foot rings. Rim profiles are simple and can be considered to be undiagnostic. Profiles include rounded, flattened and pointed rims. For comparison with Maggs (1976) it is necessary to refer to the incidence of finger, comb-stamped and stylus decorated pottery (Fig. 94).

Fig.94

EX.	TOTAL	DEC.	FINGER	COMB/ STYLUS	OCHRE	RIM UNDEC
1-9	6260	417 (6,7%)	190 (45,6%)	139 (33,3%)	88 (21,1%)	115
10	28441	1858 (6,5%)	927 (49,9%)	589 (31,7%)	342 (18,4%)	319
11	17141	925 (5,4%)	509 (55,02%)	380 (41,08%)	36 (3,9%)	102
12	326	38 (11,7%)	20 (52,6%)	16 (42,1%)	2 (5,3%)	4
13	12512	909 (7,3%)	490 (53,9%)	310 (34,1%)	109 (12,0%)	132
14	9066	710 (7,8%)	329 (46,3%)	129 (18,2%)	252 (35,5%)	120
TOT.	73746	4857 (6,6%)	2465 (50,8%)	1563 (32,2%)	829 (17,7%)	792

Out of a total of 73 746 potsherds, 4857 (6,6%) were decorated. Of these 2465 (50,8%) were finger decorated and 1563 (32,2%) showed comb-stamping and stylus incisions. Red ochre burnish was found on 829 (17,7%) sherds. A total of 792 rim pieces were undecorated. On average 8,7 per cent of the sherds were decorated, of which 59 per cent were finger decorated, 38,8 per cent comb-stamped and stylus incised, and 18,9 per cent ochre burnished.

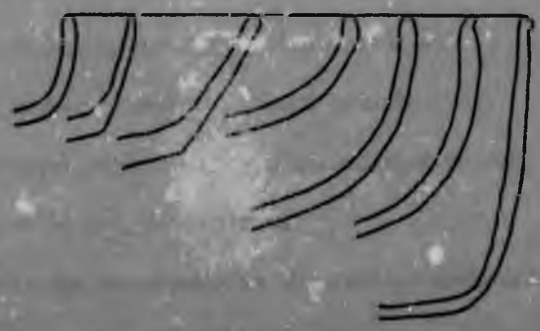
The decoration modes of the different settlement units on the site were similar (Fig.94). Excavations 11, 13 and 14 have finger-decorations of over 50 per cent, with Excavation 10 at 49 per cent. On the other hand Excavations 11 and 12 have over 40 per cent of comb-stamping/stylus decorations, while at Excavation 14, 35 per cent of the fragments were ochre burnished. Undecorated rims amounted to 319 at Excavation 10.

Pottery decoration is an important characteristic of the culture history sequence of our area. Maggs' division of Later Iron Age settlement patterns is correlated with pottery assemblages (1976:290) . Caledon Valley (OND2) produced only finger-decoration. This type of decoration is also prominent at Type V, and to a lesser extent at Type N, but is absent at Type Z sites. Comb-stamped decoration is prominent at Type N, but is absent at Type Z and Caledon Valley. Stylus decoration and ochre burnish is prominent at Type Z, but forms a very small part at Type V and even less at Type N (Maggs 1976:291).

Following the classification by Huffman (1980), types within the style system were defined on the basis of variations in three dimensions viz.: vessel profile, decoration mode and position of decorated area. The types represent different combinations of the same basic attributes. For simplification vessel profiles were clustered into three groups (Fig.95). Group I contains open bowls, cups and pots; in Group II spherical and barrel-shaped vessels are represented and Group III represents spherical and sub-spherical pots with upright sides or rims, rolled over into everted necks, sometimes with a sharp or well-defined point of inflection.

VESSEL PROFILE GROUPS

GROUP I



GROUP II



GROUP III



Fig. 82 Vessel profile groups.

The following style classes were selected:

1. Group I vessels with decoration in a single horizontal band on rim.
2. Group I vessels with decoration in vertical parallel rows on body below rim.
3. Group I vessels with decoration on rim edge and short vertical bands below.
4. Group I vessels with decoration on rim edge and vertical bands on body.
5. Group I vessels with decoration on rim, horizontal bands below and bands on body.
6. Group I vessels with decoration on rim and red ochre below.
7. Group I vessels with decorations on rim, horizontal bands below and red ochre on body.
8. Group II vessels with decoration in a single horizontal band on rim.
9. Group II vessels with decoration in irregular rows on body below rim.
10. Group II vessels with decoration on rim and short pendant bands below.
11. Group II vessels with decoration on rim and vertical parallel bands on body.
12. Group II vessels with decoration on rim and horizontal bands on body.
13. Group II vessels with decoration on rim and rows forming a horizontal band below.
14. Group II vessels with decoration on rim and red ochre on body.
15. Group II vessels with decoration on rim, horizontal bands below and red ochre on body.
16. Group II vessels with horizontal decoration below rim and red ochre on body.
17. Group III vessels with decoration on rim in single horizontal band.
18. Group III vessels with decoration in vertical parallel rows on body below rim.
19. Group III vessels with decoration in horizontal band on body below rim.
20. Group III vessels with decoration on rim edge and short vertical bands below.
21. Group III vessels with decoration on rim edge and vertical bands on body.
22. Group III vessels with decoration on rim, horizontal bands below and bands on body.
23. Group III vessels with decoration on rim and horizontal band below.
24. Group III vessels with red ochre burnish on vessel.
25. Group III vessels with decoration on rim and red ochre below.

26. Group III vessels with decoration on rim, horizontal bands below and red ochre on body.

27. Group III vessels with horizontal decoration below rim and red ochre on body.

The distribution of pottery style classes is shown below:

Fig.96

STYLE CLASS	EXCAVATION 1-9	10	11	12	13	14	MAGGS (1976)
1	x	x	x	x	x	x	x
2		x	x				x
3		x	x			x	
4							
5		x			x		x
6	x	x	x				x
7		x					x
8	x	x	x	x	x	x	x
9	x						x
10	x	x				x	x
11	x	x	x				x
12		x			x		x
13		x					
14						x	x
15						x	x
16		x					x
17	x	x	x	x	x	x	x
18						x	x
19	x	x	x		x		x
20	x	x	x	x	x	x	x
21		x					x
22	x	x	x	x	x		
23			x				x
24	x					x	
25	x	x	x			x	x
26	x	x	x				x
27	x	x	x			x	x
TOTAL	14	20	14	5	8	12	22

Decoration modes on different profiles are shown in figure 97. The different pottery style classes from the separate excavations are illustrated in figures 98-105. Of the 27 pottery style classes found at Doornpoort, Excavation 10 shows the largest variety, with 20 classes present, 14 at Excavations 1-9 and 11, 12 at Excavation 14, 8 at Excavation 13 and 5 classes at Excavation 12. Certain general classes (1, 8, 17) are, however, present at all the different settlement units.

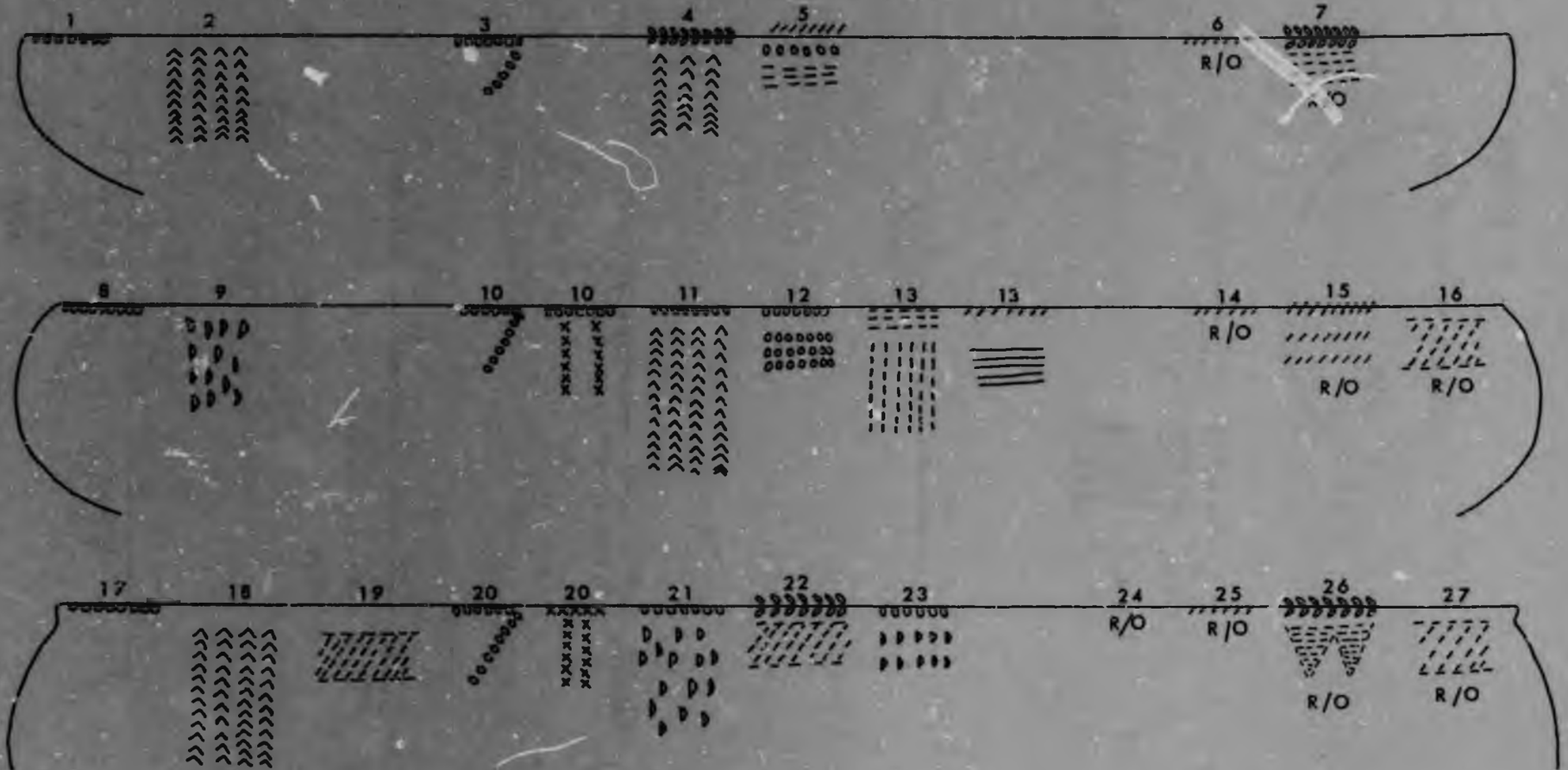


Fig. 97 Decoration modes on vessel profiles.

2826 DB 1-9

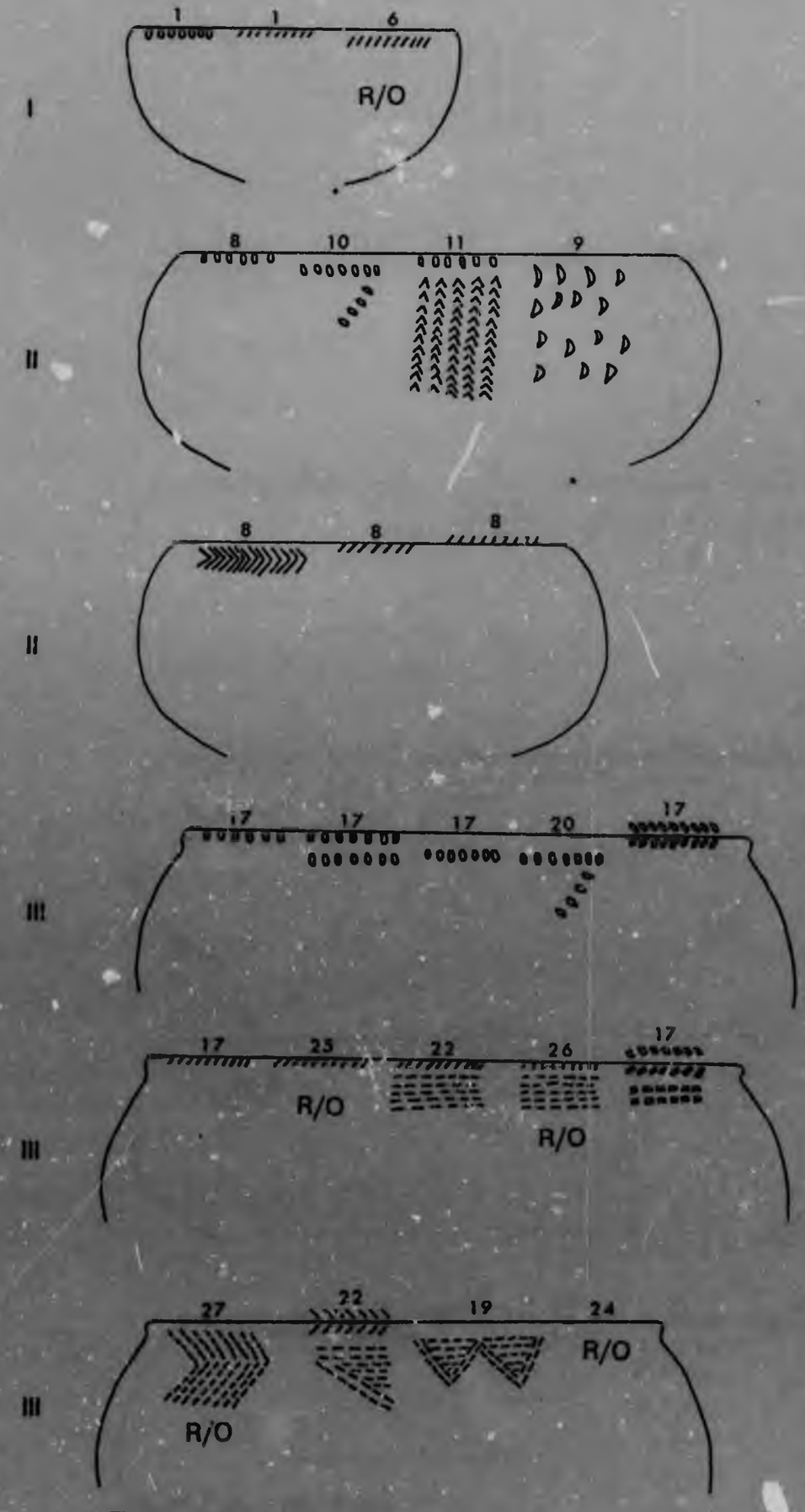


Fig. 98 Pottery style classes.

2826 DB 10

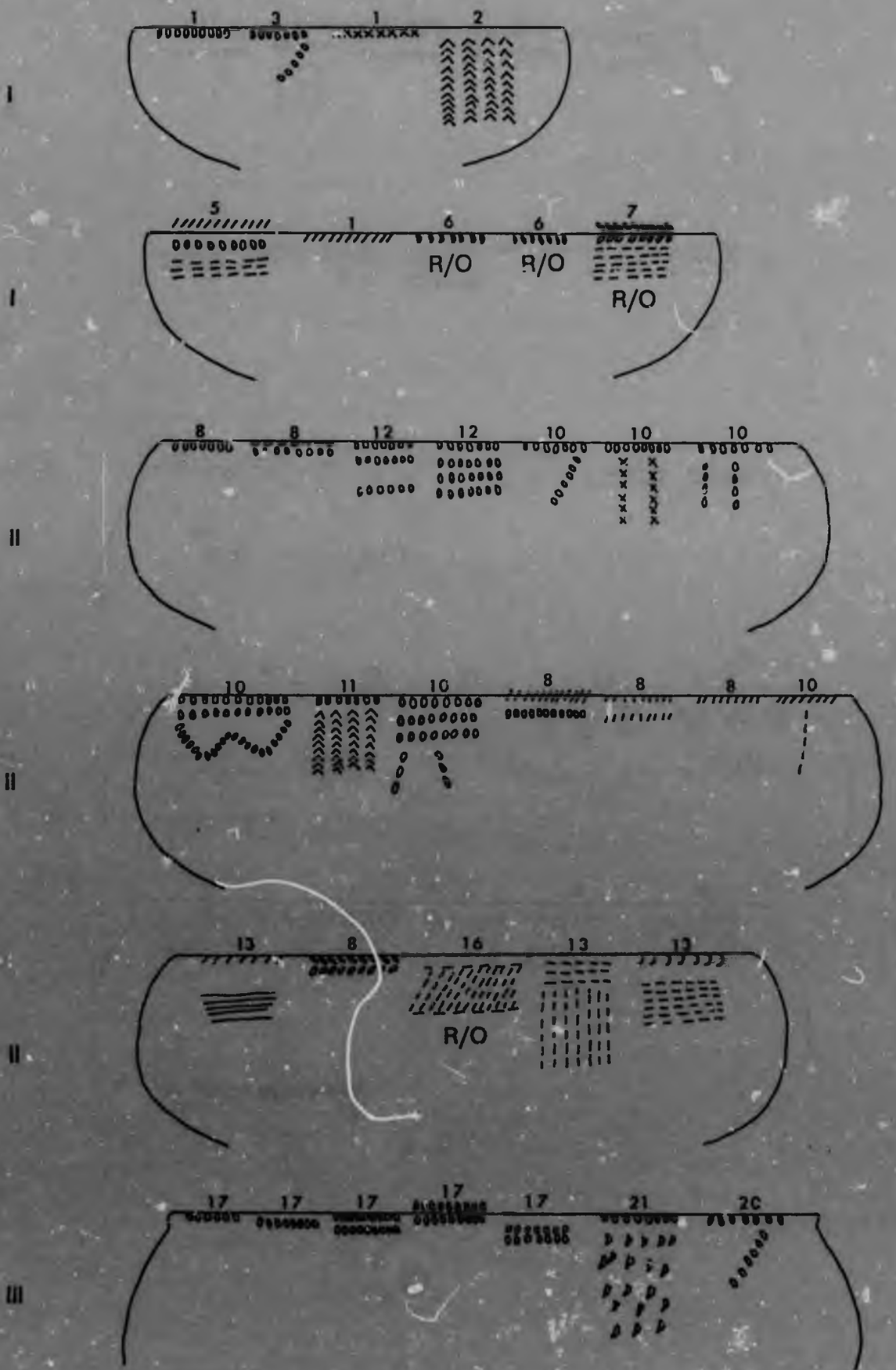


Fig. 99 Pottery style classes.

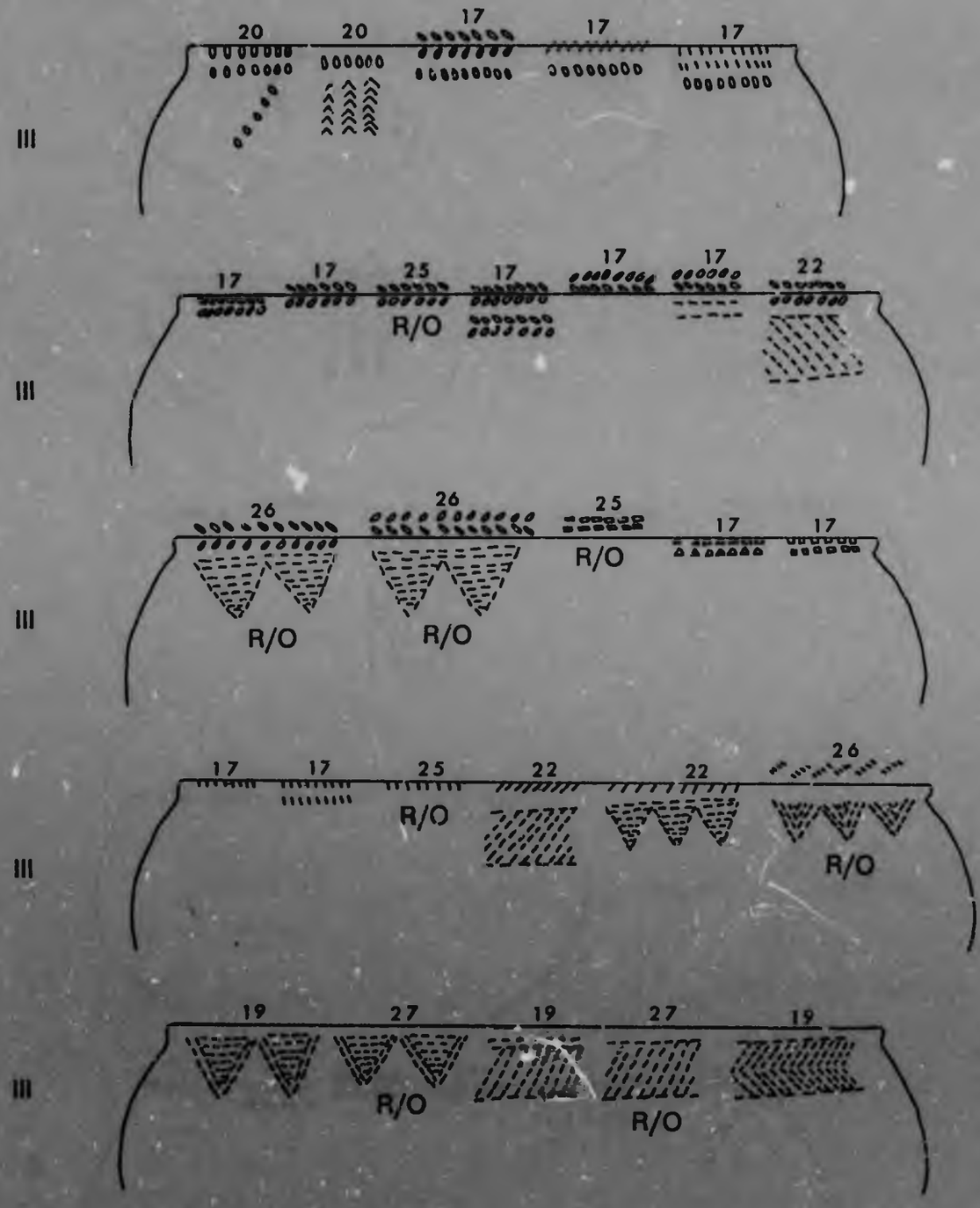


Fig. 100 Pottery style classes.

2826 DB 11

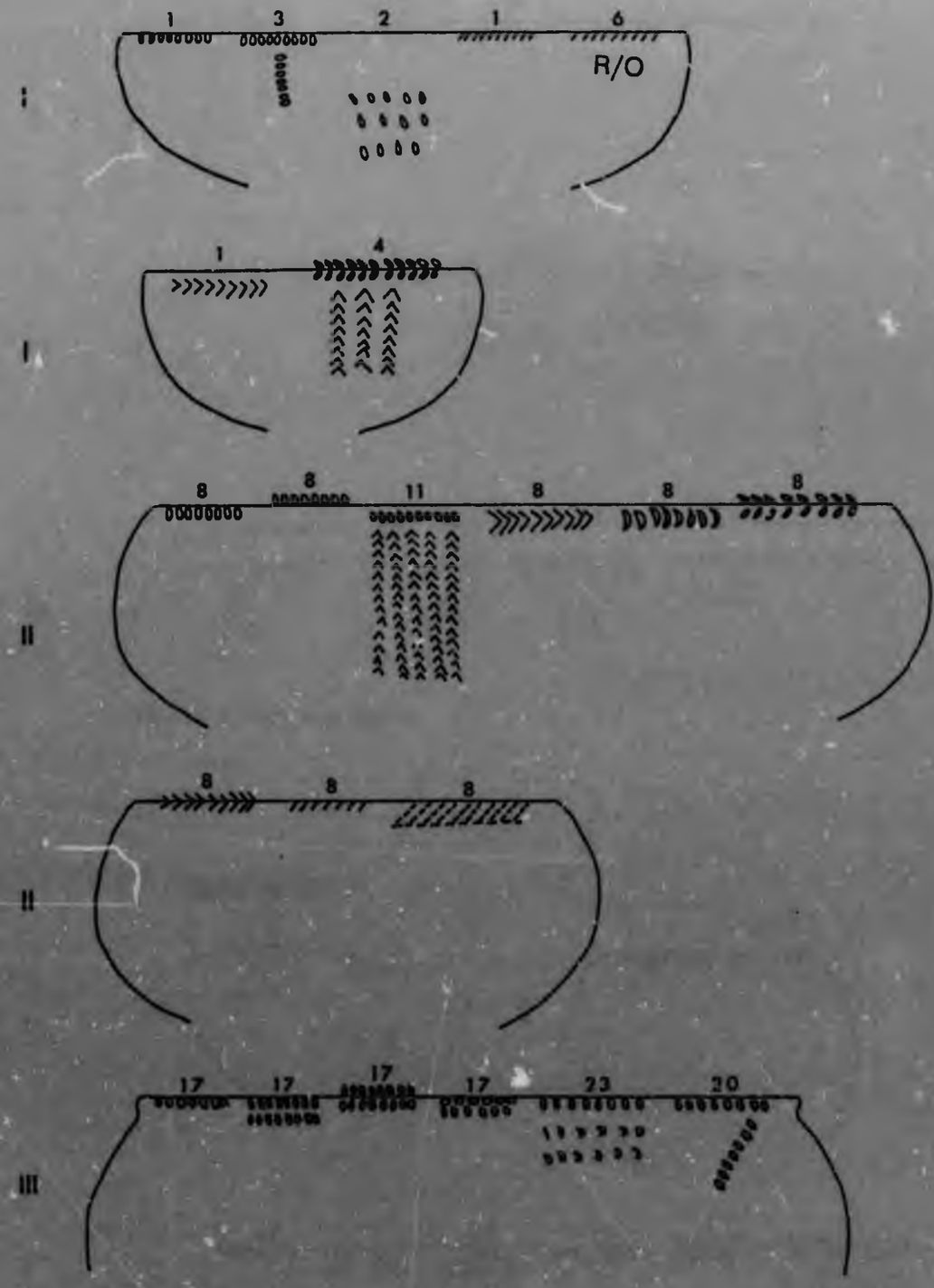


Fig. 101 Pottery style classes.

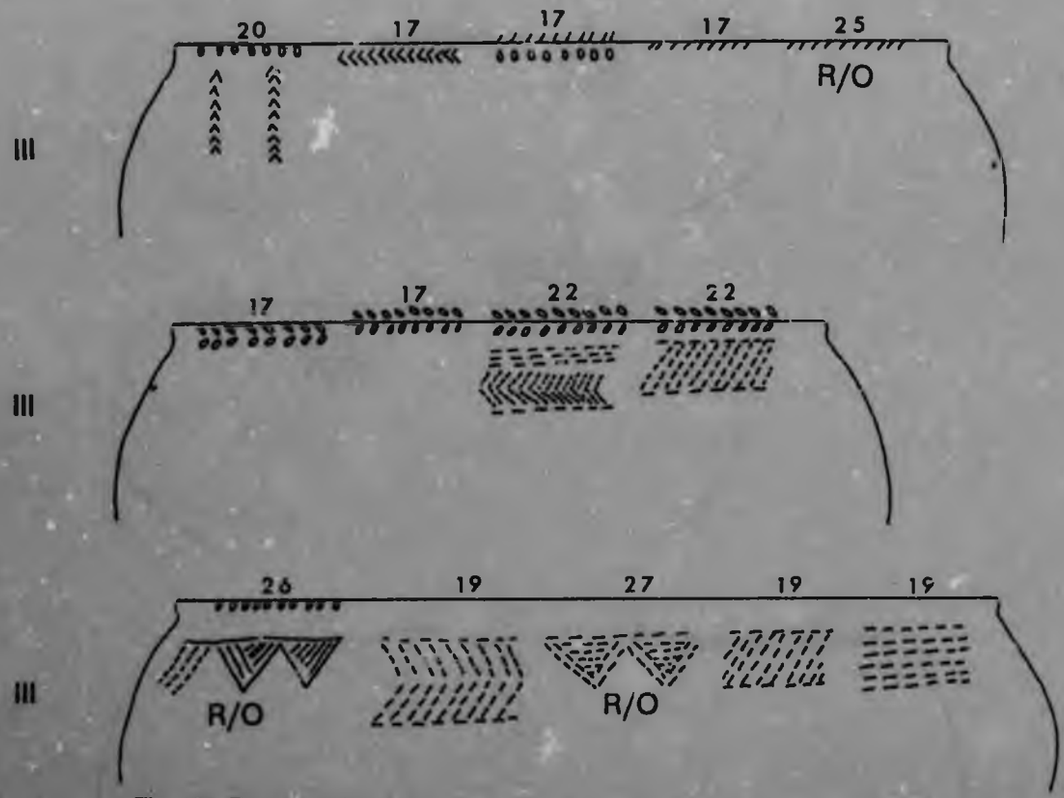


Fig. 102 Pottery style classes.

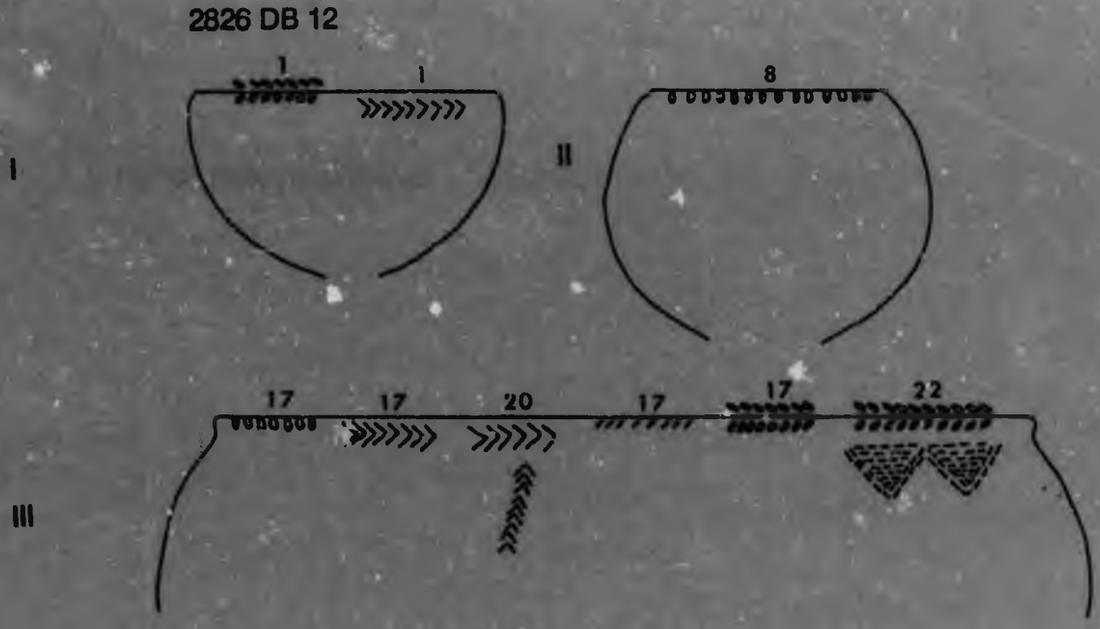


Fig. 103 Pottery style classes.

2826 DB 13

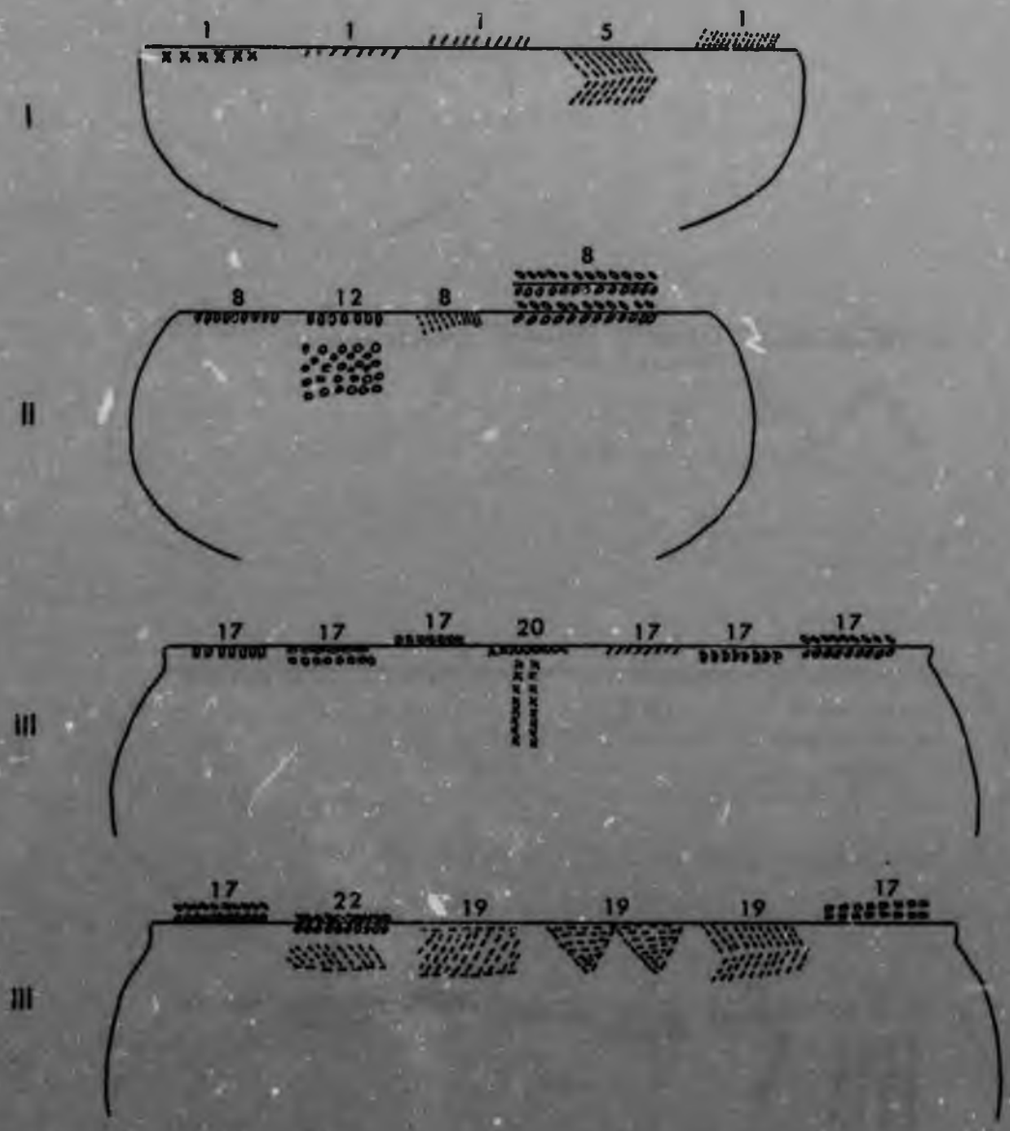


Fig. 104 Pottery style classes.

2826 DB 14

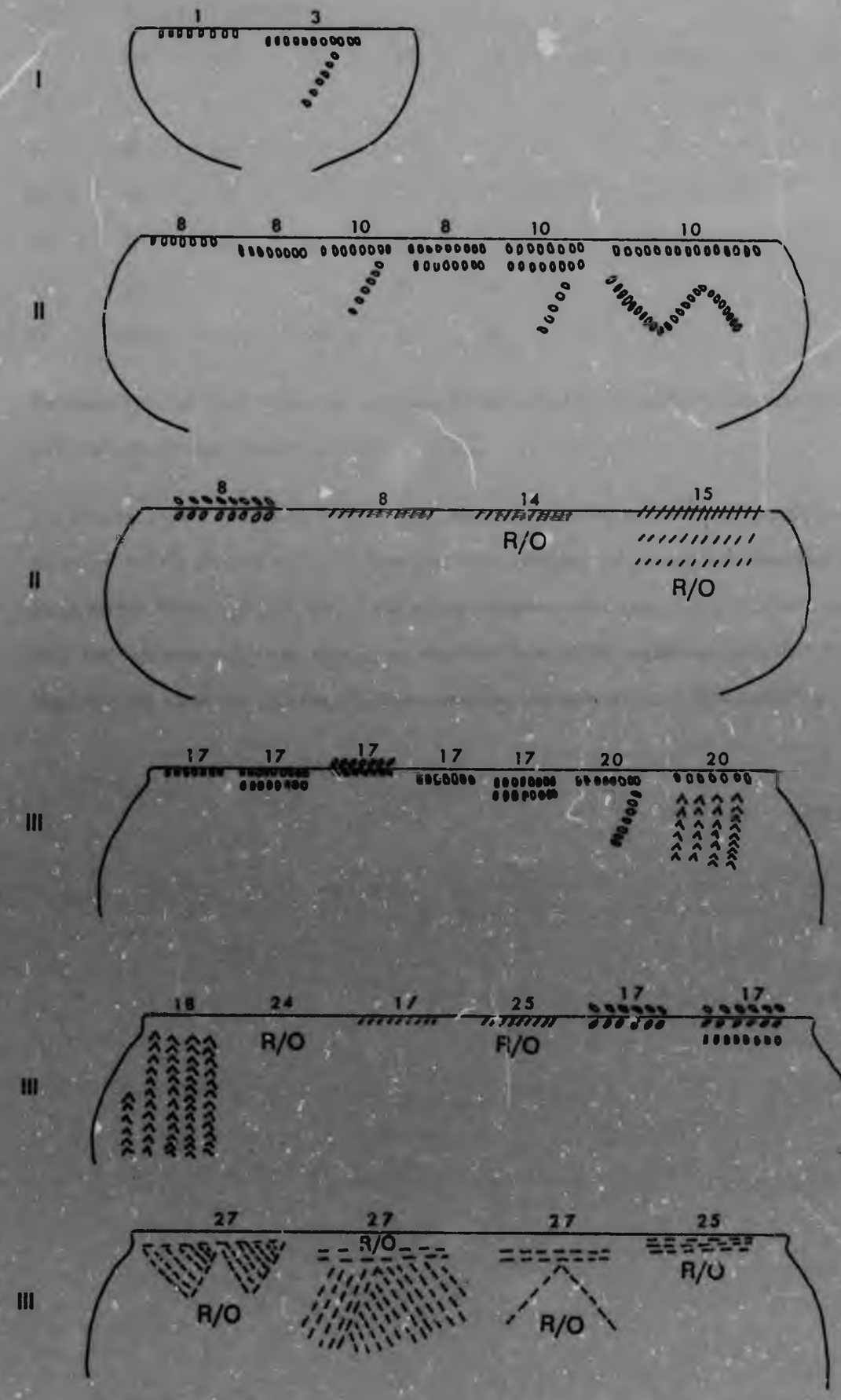


Fig. 105 Pottery style classes.

Fig.106 SIMILARITY INDEX

	1-9	10	11	12	13	14
1-9	x					
10	71	x				
11	79	76	x			
12	53	40	53	x		
13	52	50	55	77	x	
14	62	50	54	47	40	x

The similarity index, based on presence or absence is shown (Fig.106). No reflection of sample size is given. The core types are found to be 1,8,17,19,20,22,25,27.

The different pottery style classes as defined for Doornpoort, relating to vessel profile, position of decoration and the different modes of decoration, were applied to the pottery finds illustrated by Maggs (1976). Twenty two style classes, with certain variations, also occurred at OO1, OND2 and OU2. The core types, except style class 22, are also found in the pottery assemblages as described by Maggs (Fig.96). These core types show that these assemblages belong to the same pottery tradition.

SETTLEMENT PATTERN

Settlement pattern is a cultural characteristic of the builders. Frescura (1985:258) sees settlement pattern as a reflection of the entire cosmology, a manifestation of group identity including economy, social structure and religion. According to Maggs (1972:63; 1976:285,313), settlements are "elaborate artifacts" that "reflect the personality of their makers more sensitively than any other category of artifact".

The settlement pattern at Doornpoort is still part of the Central Cattle Pattern (Fig.107), although it did not produce the standardised and repeated arrangement of structures characterised by the connecting walls at Type V, outer walls at Type N and bilobial courtyards at Type Z (Maggs 1976). The Doornpoort settlements consist of one or more central cattle-byres with several smaller associated stone structures clustered nearby. Some of these were clearly used as pens for small stock and others had smeared daga floors and with the addition of some form of roofing could have been used as dwellings. Domed huts of perishable materials were arranged more or less in a circle around the stone structures.

The central area of a Sotho/Tswana settlement was occupied by the cattle byres and men's public meeting place or *kgotla* (Sheddick 1953:27; 1954:56). The lack of material and the absence of any other sign of activity in the area between the cattle byres confirms that this space formed part of the larger area where the stock was handled (cf. Huffman 1986:296-297). The central area is the place where the cows are milked and is known as *lepatlelo* (Schapera 1934:563; Walton 1948:145; Duncan 1960:84; Ashton 1967:141).

The social, economic, religious and even political systems surrounding cattle husbandry seem to be complex. Cattle are deemed as valuable, presenting access to wives, wealth, power and status (Mönnig 1978:167). Due to this value the Sotho were always reluctant to dispose of their livestock and preferred to keep stock as a store of wealth. Quantity counted more than quality (Ashton 1967:139). In bygone days cattle were rarely slaughtered for domestic consumption, but were saved for ceremonial occasions



Fig. 107 Artists reconstruction of settlement pattern.

(Mönnig 1978:167; Sheddick 1954:102). Cattle were also, for several reasons, not all kept at home (Sheddick 1954:99), but were distributed either among cattle posts or loaned to friends or relatives as *mafise* (Sheddick 1954:109; Ashton 1967:181,213).

In an attempt to calculate the numbers of livestock kept by the occupants, Maggs (1976:319,320) measured the extent of space in the livestock pens available for each hut, based on the assumption that there is a relationship between the size of the stock pens and the number of animals kept. The total area of stock pens was found to be 1711m^2 for OO1 and 3027m^2 for OXF1. With 147 huts at OO1 and 29 at OXF1, 11,6m^2 stock pen space per hut would have been available at OO1 and 104m^2 at OXF1. These figures led Maggs (1976:266,293,320) to assume that there was a greater emphasis on herding at OXF1 than at OO1. However, the Minimum Number of Individuals (MNI) of domestic stock identified from the above sites gives a total of 68 head of cattle and 17 ovicaprines from OO1 and 13 head of cattle and 12 ovicaprines at OXF1. When this is compared to the area of stock pen space available, the greatest MNI is found at the site with less space.

The comparison as used by Maggs does not explain much about the ratio of cattle to huts, especially since it is almost impossible to recover all the huts that were present at a site. It is furthermore clear from the ethnographic record that the number of cattle present does not necessarily have any direct relation to the number of huts (Sheddick 1954:98-100), although cattle could be part of the "house property" of each hut (Sansom 1974:160). From a discussion with a neighbouring cattle farmer at Wimburg, it was learnt that each head of stock needs a certain amount of territory inside any enclosure. To prevent losses through trampling the herder will know not to over-crowd the byre (Mr Hannes de Klerk, Tafelkop, Wimburg pers. comm.). This was verified at the Department of Agriculture, U.O.F.S. A ratio of up to 10m^2 per cattle unit and between 1,5-2m^2 for each sheep or goat appears to be the acceptable standard for kraaled animals now (Prof E. du Toit, pers. comm.). I have used these ratios to calculate the stock capacity of the enclosures at Doornpoort.

Fig.108

DIAMETER	AREA m^2	CATTLE	SMALL STOCK
3,1m	7,55		3
4,1	13,2	1	6
5	19,64	1-2	9
6,1	29,22	3	15
7	38,48	3-4	19
8	50,27	5	25
9	63,62	6	31
10,2	81,71	8	40
11	95,03	9	45
12	113,1	10	56
13	132,73	13	66
14	153,94	15	75
15,2	181,46	18	90
16,7	219,04	20-1	110
17	226,98	22	113
18	254,47	25	127
19,5	298,65	29-30	149
20,7	336,54	33	168
22,1	383,6	38	191
25,7	518,75	50	259
26	530,93	53	265
26,9	568,32	56	284
28,4	633,47	63	316
28,8	651,44	65	325
29,1	665,08	66	332
30	706,8	70	353
31	754,77	75	377
33	855,3	85	427
35,4	984,23	98	492

From the above it is clear that certain primary enclosures were too small for cattle and even for sheep or goats. These smaller structures were either huts or shelters for young animals. In view of the fact that the greatest number of byres were 5-7m diameter and considering their holding capacity, it seems most unlikely that they were cattle enclosures. Consequently I have drawn a distinction between cattle and sheep/goat kraals at 9-10 metres, and then calculated the number of animals for each settlement unit according to the ratios of 1,5-2m^2 per sheep/goat and 10m^2 per cattle unit (Fig.109). The grouping of stone enclosures into settlement units is in some cases my own arbitrary division based on plan layout.

Fig.109

UNIT	<10m	SMALL STOCK	>10m	CATTLE
10	54,0m^2	27-36	1832,9m^2	183
11	67,1	34-45	893,1	89
13	118,6	59-79	211,0	21
14	445,4	223-297	2976,8	298
15	128,3	64-86	633,5	63
16	60,3	30-40	921,4	92
17	101,3	51-68	799,4	80
18	42,7	21-28	1147,9	115
19	17,9	9-12	2106,4	211
20			280,6	28
21	111,5	56-74	381,6	38
TOTAL	1147,1m^2	574-765	11904m^2	1218

From the above it is clear that a total of between five hundred to over seven hundred head of small stock and up to twelve hundred head of cattle could be kraaled in the site complex. This gives a ratio of 1:10 square meter byre space available for sheep/goat to cattle and a 1:2 sheep/goat to cattle ratio for stock on the hoof. The faunal analysis gave totals of 25 head of sheep/goat and 66 head of cattle (Plug report on file), an MNI ratio of about 1:3. (Young animals were not considered in the calculations.) Although rudimentary, this calculation based on byre space will probably give a more true picture than bone counts because of different cultural patterns of discard and selective excavations.

The determining factor for the validity of these stock numbers, however, would still depend on the carrying capacity of the grazing in the immediate environment. Any environment obviously has a limit to the number of animals it can support. The carrying capacity of the environment also imposes a limitation on the distance at which it is viable to exploit resources away from the settlement. This distance is placed at 1km by Humphreys (1972:86,159), but in the case of Doornpoort could probably be extended to four kilometers, the distance to water.

According to Plug's analysis, domestic herds contributed 87 per cent of the meat in the diet. Cattle supplied 98 per cent of this protein as compared to ovicaprines. Wild species, such as springbok, bleabok and hartebeest, were also utilized (I. Plug unpub. report). Warthog as found in Excavations 6 & 10, although unknown today, is mentioned from earlier periods from sites to the south (Klein 1979).

The diet was supplemented by other domestic animals such as pigs and fowls. Domestic pig remains were identified in two sites, but the find seems to be anomalous and has to be confirmed. At the most these animals were probably not kept on a regular basis.

This identification of pigs complement the evidence from grindstones. The majority of grindstones from Doornpoort look like those associated with maize (Walton 1953b:37, Maggs 1982:112), but the radiocarbon date from 2826DB 11 seems to be too early. Both the grindstone and pig evidence, then, is ambiguous.

At Doornpoort the activity areas seem to centre around the huts and the cattle pens (Fig.107). Concentrations of pottery were found either inside huts or on the outside near the entrance. Lower grindstones were likewise located in this position. A fireplace was found in front of a hut, at 2826DB 10, near the entrance. This tends to indicate that the normal daily activities of the women, concerning the storing of grain and preparation of food, took place in and around the houses. From the ethnographic records it is known that the men were usually occupied with tasks near the cattle byres or kgotla in the central area (Maggs 1976:281). No evidence for smelting or smithing or any other male activities could, however, be found (cf. Pistorius 1984:203).

Metal slag appears to be absent from all the sites examined by Maggs in the Orange Free State (1976:260,321). Laidler (1936:27) mentions slag from Krugerskraal, near Heilbron, together with "vitrified stones and lumps of clay" which he interpreted as furnace remains. Maggs (1976:321), however, doubts this claim. It could also have been burnt dung as found at Doornpoort.

It is known that the people were highly skilled in several general crafts, viz. wood, bone and ivory carving, basketry, and skinwork (Wilson 1969:147, Hammond-Tooke 1974:117-). The iron awls and bone scrapers which were found at 2826DB 10 suggest skinworking (Backhouse 1844:459, Maggs 1976:62,113,173,262).

The smaller stone-walled structures near the cattle byres had smeared daga floors (Fig.27). This suggests that these buildings could have been used as dwellings with thatched roofs. Similar huts are mentioned by Bennie (1956:11) near the Sand River. Walton (1958:140) found evidence in Lesotho of stone-walled thatched huts used by herdboys. Although no trace of a roof could be found during the excavations at Doornpoort, it is unlikely that an open structure would have had a smeared floor.

To understand what the houses were like, information has to be extrapolated from the sometimes cursory remarks in early records. It should be borne in mind that these descriptions are given by foreign observers about unfamiliar features encountered during often brief visits. The descriptions are also generalized and, in most cases, only the outstanding characteristics are mentioned (Frescura 1981:190).

Casalis (1861:127) states that the huts of the Basotho "...are in the form of a large oval oven, and are entered by creeping along a very narrow passage, which serves to prevent the wind from reaching the interior. The walls are perfectly well plastered, and often decorated..." (Fig.110-111). Backhouse (1844) states that the "...huts, which were formed like sections of sparrow-pots, and were built of sticks and reeds, and plastered with mud. They opened into remarkably neat, circular courts, of tall reeds, neatly bound together with plaited grass...(p.390). These huts were "...hemispherical, with a protruding neck..." and elsewhere Backhouse describes a conical hut which was similarly plastered over with clay (p.355). Andrew Smith (quoted in Sheddick 1954:69) stated that: "The house is somewhat in the shape of a beehive with a sort of narrow elongation or tube on one side for an entrance. The framework is formed of cane, the extremities of which are fixed in the ground. The height of the house is about five to six feet." The similar illustrations of Basotho huts in Backhouse (1844:355) and Smith (1975:38) (Fig.112) probably originated from Charles Bell, a participant in Smith's expedition (Frescura 1985:152).

The tunnelled beehive or *mohlongoa fatse* were still fairly common amongst the Basotho in the late 1940s (Walton 1948,1953,1956). The basic structure, with certain modifications, was also used by other ethnic groups, such as a branch of the Fokeng, living among the Xhosa in the Transkei (Walton



Fig. 110 Huts of the Basotho of Moshoeshoe.
Journal des Missions Evangeliques, 21-22, 1846.



Fig. 111 Hut of the Basutho.
Casells 1861:127.



Native huts: 1, Beralong. 2, Basuto.
3, Hottentot.[9]

Fig. 112 Huts illustrated in:
Smith 1975:38 & Backhouse 1844:355.

1949:70). Backhouse (1844) reports huts of this type in the hills around Bethulie (p.355) and at Thaba Bosio (p.368). He (p.390-1) also mentions the village of Moletsane, about eighteen miles from the mission station at Mequatleng (c.f. Freeman 1851:337). The description by Arbousset & Daumas (1968:207,211) of huts of people of Makwana near Ntikhuoa (Blomspruit), north of Maphororong, broadens this distribution.

During the excavations, I concentrated on the hut remains. I believe that a domed structure would collapse within its own perimeter, while the remains of the cylindrical hut would cover a larger area. It was therefore important to ascertain the limits of the debris in relation to the hut. An even layer of debris was found in most cases at Doornpoort (e.g. Hut G7c4 at 2826DB 14), conforming to the expectations of a domed, or beehive, hut. In the ten excavations, the Doornpoort huts usually consisted of a framework of reeds, sometimes a single row, supporting a grass thatch.

Dividing walls were located on the floors at the back of some of the huts. Similar partitions are described by Mason (1986:279) at the Middle Iron Age site at Bultfontein and by Taylor (1979:31) in the Group II settlements at Buffelshoek. These settlements are ascribed to the Tswana (Taylor 1979:105,107).

The early narratives (Casalis 1861:127) and the ethnographic records (Walton 1948:142, 1949:73, 1953:6) on the Basotho, mention a raised platform (*mohaoloana*) as a storage place for pottery and household utensils on the floor opposite the door. A feature in this same position, known as *umsamo*, is also in use in Natal (Krige 1965:46). In all cases these features serve to separate the hut into front public and back private areas (cf. Kuper 1982).

Other attributes of the different huts are listed below.

Fig.113 ATTRIBUTES OF HUT REMAINS

EXCAVATION	2826DB 10		2826DB 11			2826DB 13		2826DB 14		
HUT	A6e2	A6c5	F5	D7	C15	D6	J18	G8d1	G7e4	L13c3
Div. wall	x	?	x	x						
Door slide	x					x	x			
Ent.paving	x	x		?					x	
Fire bowl									x	
Pot stand			x	x					x	
Burnt pole								x		x
Baked daga	x	x	x	x	x	x	x	x	x	
Paved floor										x
Stone found.	x									
Fire place (outside)	x		x			x				

A single entrance was indicated by one or more flat slabs of stone beyond the base for a sliding door. Hut A6e2 at 2826DB 10 and D6, E7 and J18 at 2826DB 13 revealed this feature clearly. The remains of sliding doors were totally absent from the other settlement units, 2826DB 11 and 14. Similar features are also mentioned for OXF1 (Maggs 1976:239), Selonskraal (Pistorius 1984:98,176,205), Olifantspoort (Mason 1986:383) and Group II sites at Buffelshoek (Taylor 1979a:31). Door slides seem to have been used by several of the groups, although this is not mentioned by early writers.

These doorways make it possible to compare hut orientations.

To determine orientation, compass readings were taken through the axis of huts at 2826DB 10, 11, 13 and 14 with zero on magnetic north (Fig.114).

Fig.114 MEASUREMENTS THROUGH AXIS OF HUTS

2826DB 10	Hut	A6c5	109°
	Hut	A6e2	98°
	Stone-hut	B6a4	122°
	Stone-hut	D5c1	131°
	Stone-hut	A9a1	170°
	Stone-hut	A9b5	83°
	Stone-hut	E4a3	120°
2826DB 11	Hut	C15	220°
	Hut	D7	120°
	Hut	F5	147°
	Hut	E10	155°
2826DB 13	Hut	J18	115°
	Hut	D6	110°
2826DB 14	Hut	L13e3	310°
	Hut	G7c4	305°
	Hut	G8d1	335°

The plotted readings show that the huts on 2826DB 10, 11 and 13 faced in directions ranging between east and south, with C15 a notable exception, facing almost directly south-west. At 2826DB 14 huts faced north-west. These orientations seem to have been determined by surface slope rather than cardinal directions, for even hut C15 faced downslope. Widdicombe (1891:54) and Ashton (1967:23) report an eastern preference for hut orientation in Lesotho. Maggs et.al. (1986:463), however, found a strong correlation between hut orientation and surface slope at sites in the upper Thukela Valley. Both these findings contrast with the layout at the OXF1 site (Maggs 1972:56) and Selonskraal (Pistorius 1984:99,200a), where all the huts and lobes faced inwards towards the cattle byres.

According to Casalis (1861:127) and Backhouse (1844:355,390), Later Iron Age huts in the general area were plastered with mud. These descriptions do not clarify whether the plaster was applied on the outside, inside or both. The use of the term "plastered over" seems to imply the outside, but Campbell (Mason 1986:838) observed at Kaditshwene that huts were sometimes plastered on the inside right up to the apex. At Doornpoort huts G6 at 2826DB 13 and G8d1 at 2826DB 14 appear to be examples of this type. In the case of G8d1 the roof was probably a conical rather than a domed structure as described by Backhouse (1844:355). At 2826DB 11, huts D7 and F5, the ridge on the edge of the floor

indicates that these huts were plastered on the inside. Hut G7e4 (2826DB 14), on the other hand, was plastered on the outside.

To avoid damage to hut decoration and equipment by smoke and soot, people are reluctant to light fires inside their living huts. They have a smaller hut (*mokoro*) to use for this purpose during bad weather and at night. This hut is also used as a storeroom and a sleeping place for herd boys (Ashton 1967:23-24). Hut G7e5 at 2826DB 14 fits this description. The modelled clay feature (G7e5/23) from 2826DB 14 resembled the fire bowl used inside huts in Natal (Krige 1965:46; Parkington 1979:137-; Maggs et.al.1986:457-8). The low circular clay structure (F5/1) in hut F5 at 2826DB 11 (Fig.45) consisted of a clay rim of about 6cm and was clearly modelled out of the floor. The distinctive circular impressions, which seemed to have been made by a plaited grass basket, suggest that this feature could have been the base for a grass basket. No reference to such a stand could be found in the literature. The rectangular feature (C7/8) of upright planted stones (Fig.48) approximately in the same position as F5/1 in hut F5 could also have been a support for a storage container.

Casalis (1861:129-130) and Ashton (1967:24) state that the people in our area lived mainly outdoors during the day. In fine weather the cooking was done in the *lapa* in front of the hut. This area was clearly marked off by a screen of rushes (*seotloana*). The fire was usually made here between stones to support the pots. Distinctive fireplaces were exposed in front of Hut A6e2 at 2826DB 10 (Fig.20), F5 at 2826DB 11 and D6 at 2826DB 13, where several flat stones formed a base on which the fire was made. One round fire stone was still in position at A6e2.

Domed structures of reed and daga were reported by Walton (1953) at Metlaceng. Although Maggs (1976) did not excavate the remnants of huts on all his sites, he argues that domed huts were in use at Type V sites at OO1, Zone D (p.66,130) and OU2(2) (p.172), and also Type N at OU1 (Ntsuanatsatsi) (p.315) and OU2(1) (p.165). Beehive huts have also been reported by Maggs from the Tugela basin (1980) and the Mgoduyamuka site (1982) in Natal. From the Transvaal they were noted at Olifantspoort (Mason 1981;1986:482), and at Middle Iron Age Pietersburg sites (Loubser 1981). The clear proof of

reed and grass huts, in the Free State and elsewhere, therefore, supports the hypothesis of "...the existence of an indigenous beehive building tradition, on the highveld...as part of a wider architectural tradition..." (Frescura 1985:129).

Patches of burnt dung were found widely dispersed over the site in association with individual living units, and every unit on top of the ridge has at least one patch nearby. Middens were associated and seem to mark the outer boundary of the living unit.

The dominant impression of the Doornpoort settlement pattern is that the primary stone-walled enclosures form groups, while the huts were placed along the outskirts. The clusters may represent relatively small kinship groups, separated from one another but forming part of a bigger homogeneous settlement (cf. De Jager 1964:24-25).

WIDER CONNECTIONS

The relation of the Doornpoort finds to other Later Iron Age archaeological sites is based on settlement layout, pottery assemblages and hut construction. From this it could be ascertained that the sites between the confluence of the two Vet Rivers, classified by Maggs as Type V (1976:38), have wider connections.

Type Z settlements are well defined on architectural features with bilobial dwellings as the main attribute. The Type Z settlement pattern is connected to Tswana origins from the west (p.276,293), and the associated pottery assemblage is clearly described (p.246,270).

This clarity of definition is not applicable to Type V. The stone-wall layout at the excavated site Makgwareng seems to be much more complex than the type site of Vegkop near Heilbron. The daga and reed huts in Zone D at OO1 suggest that this type of perishable hut was probably common in Type V settlements. The obvious location to test this point is Vegkop. The OND3 site also raises doubt as to its inclusion as part of Type V. Its actual locality is outside the distribution of the rest of Type V (Maggs 1976:304), and although it is described as "localized developments within the Type V tradition",

the associated pottery assemblage displays different characteristics in vessel profile and mode of decoration from the rest (p.200). Furthermore, at OO1 corbelled structures and stockpens form part of the central ring. At Tihela (OND3), corbelled huts are totally absent (p.195), while the huts of perishable materials resemble a cone-on-cylinder shape (p.199) and are spread around the central structures.

At Type N, settlement layout depends on the surrounding wall as the "definitive characteristic" (Maggs 1976:144) and corbelled huts are not present (p.315). Maggs (1976:159,192) argues that during a period from the sixteenth to early seventeenth century at OU2(1), and about eighteenth or early nineteenth century at OU1, the surrounding walls were altered when corbelled huts were erected to form a Type V settlement pattern. These structures, however, are not convincing as corbelled huts, for they resemble the low stone walled structures with smeared daga floors at Doornpoort. This transition from Type N to Type V is also not supported by the evidence at nearby Peme where corbelled huts are totally absent (Maggs 1976:144). Against the background of the enormous diversity of settlement patterns and different methods of hut building, the confusion surrounding the corbelled huts seems to be irrelevant, since their presence or absence is insignificant as a characteristic feature of any settlement pattern. It is only the entire settlement pattern that is of importance (Maggs 1976:314;1976b:327).

In general the organisation at Doornpoort is similar to the Caledon Valley settlement pattern (Maggs 1976:225) and resembles Metlaeeng in Lesotho (Walton 1953,1956). The main difference between Doornpoort and the Caledon Valley sites is the domed hut at Doornpoort. Caledon Valley superficially resembles Type V, but it is actually the reverse in terms of primary and secondary enclosures (Maggs 1976:213,225).

Doornpoort settlement pattern corresponds best with the description of OND2, a Caledon Valley example (Maggs 1976:211,213,225). The pottery assemblage corresponds in general with those from Caledon Valley and Type V, excluding OND3. Several other characteristics, such as settlement layout,

fire bowls and hut orientation, show a relationship between Doornpoort and sites of Nguni origin (cf. Maggs 1982,1988; Maggs et.al. 1986). Mgoduyanuka in Natal, for example, is characterized by beehive huts and rare finger-nail impressed pottery (Maggs 1982:110-111).

The variation within the Caledon Valley cluster (Maggs 1976:225,229) forced Maggs (1976:225,229) to admit that it was not yet possible to describe a definite settlement pattern, and he concluded that OND2 can be seen "only as a general expression of the Iron Age in the middle Caledon Valley". He linked the Caledon Valley sites to the Ramokhele Taung near Mequatling (1976:226,227,316). He also mentions the Tsueneng near modern day Marquard (p.226) and records references to the Maphuting (p.226) and Hlakoana in the area (p.228,229). The Fokeng were also inhabitants of the area (Maggs 1976:142,226,314,316. Walton (1953,1956) and Bryant (1965:308,356) believes they had an Nguni origin. According to Ellenberger (1912:21) and Bryant (1965:356), the first people from the east to move over the Drakensberg were the Phetla, Polane and Phuti, offshoots of the Zizi clans.

In the past the people in the Orange Free State lived in independent tribes, or *dichaba* (Ashton 1938:291), and the ruling line of each had its own totem, or *seboko* (p.293). When their history is traced, an enormous amount of confusion surrounds the application of these two terms to different groups (cf. Wilson 1971:72). As Maggs (1976:303,306) notes: "The oral history, especially of the earlier centuries, is concerned mainly with lineage or *seboko*, and tells us little about the history of the *sechaba* or nation as such".

In archaeological studies the identification and classification of these defined units are also of less importance. If we search for lineages and tribes we entangle ourselves in an impossible task. We should aim for the identification of different cultures rather than specific groups. At this level of analysis the Later Iron Age settlements at Doornpoort probably represent a merger of Sotho/Tswana and Nguni cultures.

REFERENCES

ACOCKS, J.P.H. 1975. Veld types of South Africa Mem. Bot.Surv. No. 40 Dept. of Agric. Tech. Services, Pretoria.

ARBOUSSET, T. & DAUMAS, F. 1968. Narrative of an Exploratory Tour C. Struik, Cape Town.

ASHTON, E.H. 1938. Political Organization of the Southern Sotho Bantu Studies 12(4):287-320.

ASHTON, E.H. 1939. A Sociological Sketch of Sotho Diet Trans. Roy. Soc. of S.A. 27(2):147-214.

ASHTON, E.H. 1946. The Social Structure of the Southern Sotho Ward Comm. from the School of African Studies University of Cape Town.

ASHTON, E.H. 1947. Democracy and Indirect Rule Africa xvii(4):235-251.

ASHTON, H. 1967. The Basuto Oxford University Press, London.

BACKHOUSE, J. 1844. A Narrative of a visit to the Mauritius and South Africa Hamilton Adams & Co. London.

BEAUMONT, P.B. 1973. The Ancient Pigment Mines of Southern Africa S.A.Journ. of Science 69(5):140-146.

BENNIE, J. 1956. An Account of a Journey into Transorangia and the Potchefstroom-Winburg Trekker Republic in 1843 Balkema, Cape Town.

BREUTZ, P.L. 1956. Stone Kraal Settlements in South Africa African Studies 15(4):157-175.

BROOKER, M. 1980. Rescue Excavations at the Welbedacht Dam Site. Humanitas, R.S.A. 6(1):35-42.

BRYANT, A.T. 1965. Olden Times in Zululand and Natal C. Struik, Cape Town.

BUTTERWORTH, J.S. 1979. Chemical Analysis of Archaeological Deposits from Thatswane Hills, Botswana S.A. Journ. of Science 75 :405-409.

CAMPBELL, J. 1822. Travels in South Africa London Missionary Society, London.

CASALIS, E. 1861. The Basutos James Nisbet & Co. London.

CASALIS, E. 1971. My Life in Basutoland C. Struik, Cape Town.

COBBING, J. 1984. The Case Against the Mfecane African Studies Institute Uu. Witwatersrand, Johannesburg.

COBBING, J. 1988. The Mfecane as Alibi: Thoughts on Dithakong and Mbolompo Journ. of African History 29 :487-519.

DAUBENTON, F. 1938. A Preliminary Report on Stone Structures near Steynsrust, Orange Free State S.A. Journal of Science 35 :364-370.

DE JAGER, E.J. 1964. Settlement Types of the Nguni and Sotho Tribes Fort Hare Papers 3(1).19-30.

DE JAGER, E J. 1965. Die Vrystaatse Kliphut- en Kraal-ruines: 'n Opname en Voorlopige Ontleding D.Phil. University of Potchefstroom.

DE JAGER, E.J. 1966. Die Materiële Kultuur in Assosiasie met die Vrystaatse Kliphut- en -kraal ruines: Beskrywing van 'n voorlopige opname en ontleding. Fort Hare Papers 3(5):25-45.

DE WAAL, S.W.P. 1978. The Squamata (Reptilia) of the Orange Free State, South Africa Memoir No. 11, National Museum, Bloemfontein.

DREYER, J. 1974. Die Voorgeskiedenis van die Oranje-Vrystaat met besondere verwysing na die Steentydperk B.A.Hons. Project, National Museum, Bloemfontein.

DREYER, J. 1986. "Spreeupotte" en die Sotho-hut National Museum News 31:20-21.

DREYER, J. 1989a. Patroondoppies en Datums - Gebruiksartikels as dateringsmiddel National Museum News 36:26-28.

DREYER, J. 1989b. An Extraordinary Tool for Archaeological Excavation The Digging Stick 6(3):4-5.

DUNCAN, P. 1960. Sesotho Laws and Customs Oxford University Press.

DUTTON, E.A.T. 1922. The Basuto of Basutoland Jonathan Cape, London.

EARLÉ, R. & GROBLER, N. 1987. First Atlas of Bird Distribution in the Orange Free State National Museum, Bloemfontein.

ELLENBERGER, D.F. 1912. History of the Basotho Caxton Publ. Co. London.

ELOFF, J.F. 1984. Die groadhulpbronne van die Vrystaatstreek D.Phil. University of Stellenbosch.

EVERS, T.M. 1981. The Iron Age in the Eastern Transvaal, South Africa *in* Voigt, E.A. (ed.) p.65-109 Guide to Archaeological Sites in the Eastern Transvaal Prepared for the SA3 Excursion, 6-11 June

EVERS, T.M. 1982. Excavations at the Lydenburg heads site, eastern Transvaal, South Africa. S.A. Arch. Bull.37(135):16-30.

EVERS, T.M. 1983. Reply to Mason S.A. Journ. of Science 79:261-264.

EVERS, T.M. 1984. Sotho-Tswana and Moloko settlement patterns and Nguni cattle pattern *in* Hall, M. et.al. (Eds.) :236-247 Frontiers: Southern African Archaeology today B A R International Series 119, Cambridge.

EVERS, T.M. 1988. The recognition of groups in the Iron Age of Southern Africa Ph.D. University of Witwatersrand Johannesburg.

FREEMAN, J.J. 1851. A Tour in South Africa John Snow, London.

FRIEDE, H.M. 1977. Iron Age Metal Working in the Magaliesberg area J.S.Afr.Inst. Min. Metall. 77:224-234.

FRIEDE, H.M. & HEJJA, A.A. (et.al.). 1981. Archaeo-Metallurgical Studies of Iron Smelting Slags from Prehistoric Sites in Southern Africa J.S.Afr.Inst. Min. Metall. 82:38-49.

FRESCURA, F. 1981. Rural Shelter in Southern Africa Ravan Press, Johannesburg.

FRESCURA, F. 1985. Major Developments in the Rural Architecture of Southern Africa of the Post-Difaqane Period Ph.D. University of Witwatersrand Johannesburg.

GROENEWALD, P.G. 1963. 'n Geografiese Studie van die Sentrale Opvanggebied van die Vetrivier M.Sc. U.O.F.S. Bloemfontein.

GUILLARMOD, A. JACOT 1971. Flora of Lesotho J. Cramer, Lehre.

HALL, M. 1976. Dendroclimatology, rainfall and human adaptation in the later Iron Age of Natal and Zululand Ann. Natal Mus. 22(3):693-703.

HALL, M. & MAGGS, T.M. 1979. Nqabeni, a Later Iron Age Site in Zululand S.Afr.Arc. Soc. Goodwin Series No.3:159-176.

HALL, M. 1981. Settlement Patterns in the Iron Age of Zululand B A R International Series 119. Cambridge.

HALL, S.L. 1985. Excavations at Rooikrans and Renosterkloof, Late Iron Age sites in the Rooiberg area of the Transvaal Ann. Cape Prov. Museums 1:131-210.

HANISCH, E.O.M. 1979. Excavations at Icon, northern Transvaal van der Merwe N.J. & Huffman T.N. (eds.) Goodwin Series No. 3: 72-79, S.A. Archaeological Society

HUFFMAN, T.N. 1980. Ceramics, Classification and Iron Age Entities African Studies 39(2):123-174.

HUFFMAN, T.N. 1982. Archaeology and Ethnohistory of the African Iron Age Ann. Rev. Anthropol. 11:133-150.

HUFFMAN, T.N. 1986a. Iron Age Settlement Patterns and the Origins of Class Distinction in Southern Africa Advances in World Archaeology 5 :291-338. Academic Press, New York.

HUFFMAN, T.N. 1986b. Archaeological Evidence and the Conventional Explanations of Southern Bantu Settlement Patterns Africa 56(3):280-298.

HUFFMAN, T.N. 1989. Ceramics, Settlements and Late Iron Age Migrations The African Archaeological Review 7:155-182.

HUMPHREYS, A.J.B. 1972. The Type R Settlements in the Context of the Later Prehistory and Early History of the Riet River Valley M.A. U.C.T. Cape Town.

HUMPHREYS, A.J.B. 1976. Note on the Southern Limits of Iron Age Settlement in the Northern Cape S.A. Arch. Bull. 31 (121+122):54-57.

JACOBS, J.F. 1952. Oranje, Blanje, Blou Die Romantiek van die Vrystaatse Dorpe Afrikaanse Pers, Johannesburg.

KLEIN, R.G. 1979. Paleoenvironment and cultural implications of late Holocene archaeological faunas from the Orange Free State and north-central Cape Province, South Africa. S.A. Arch. Bull.34 (129):34-.

KRIGE, E.J. 1965. The Social System of the Zulu Shuter & Shooter, Pietermaritzburg.

KUPER, A. 1980. Symbolic Dimensions of the southern Bantu Homestead Africa 50:8-23.

KUPER, A. 1982. Wives for Cattle: Bridewealth and Marriage in southern Africa Routledge and Kegan Paul, London.

KUSEL, U.S. 1979. 'n Argeologiese Studie van Vroeë Ystersmelting in Transvaal M.A. University of Pretoria.

LAGDEN, G. 1901. Basotuland and the Basutos Scottish Geogr. Mag. 17:348-362.

LAGDEN, G. 1909. The Basuto Hutchinson, London.

LAIDLER, P.W. 1936. The Archaeology of certain Prehistoric Settlements in the Heilbron Area Trans.Roy.Soc. of S.A. 23(1):23-70.

LATEGAN, F. (& POTGIETER, L.). 1982 Die Boer se Roer tot Vandag. Tafelberg, Kaapstad.

LAWTON, A.C. 1967. Bantu Pottery of Southern Africa Ann. of the S.A. Museum 49(1). Cape Town.

LEGASSICK, M. 1969. The Griqua, the Sotho-Tswana and the Missionaries,1780-1840: the Politics of a Frontier Zone Ph D. U.C.L.A.

LEGASSICK, M. 1972. The Sotho-Tswana Peoples before 1800 *in* Thompson, L. (Ed.) African Societies in southern Africa Heineman, London.

LOUBSER, J.H.N. 1985. Buffelshoek: An Ethnoarchaeological consideration of a Late Iron Age settlement in the Southern Transvaal S.A. Arch. Bull. 40(142):81-87.

LOUBSER, J.H.N. 1988. Archaeological Contributions to Venda Ethnohistory Ph.D. University of Witwatersrand Johannesburg.

LYE, W.F. 1967. The Difaqane: The Mfecane in the Southern Sotho Area 1822-24 Journ. of African History 8(1):107-131.

LYE, W.F. 1969. The Sotho Wars in the Interior of South Africa, 1822-1837 Ph.D. U.C.L.A.

LYE, W.F. & MURRAY, C. 1980 Transformations on the Highveld: The Tswana and Southern Sotho David Philip, Cape Town.

LYNCH, C.D. 1983. The Mammals of the Orange Free State Memoir no.18, National Museum, Bloemfontein.

MABILLE, H.E. 1905. The Basutos of Basutoland Addresses and Papers of the British and S.A. Association for the Advancement of Science Vol. 3 :158-194.

MACGREGOR, J.C. 1905. Basuto Traditions Leribe.

MACVICAR, C.N. (Ed.) 1973. Soil map. Republic of South Africa: an interim compilation. Soil and Irrigation Research Institute Dept. of Agricultural Technical Services Pretoria.

MAGGS, T.M. 1971. Pastoral Settlements on the Riet River S.A. Arch. Bull. 26(101-102):37-63.

MAGGS, T.M. 1972. Bilobial Dwellings: A Persistent Feature of Southern Tswana Settlements S.A.Arch. Soc. Goodwin Series no.1 :54-65

MAGGS, T.M. 1974. Early Farming Communities on the Southern Highveld: A Survey of Iron Age Settlement Ph.D. U.C.T. Cape Town.

MAGGS, T.M. 1975. Faunal Remains and Hunting Patterns from the Iron Age of the Southern Highveld Ann. Natal Mus. 22(2):449-454.

MAGGS, T.M. 1976. Iron Age Communities of the Southern Highveld Natal Museum, Pietermaritzburg.

MAGGS, T.M. 1976b. Iron Age Patterns and Sotho History on the southern Highveld: South Africa World Archaeology 7(3):318-332.

MAGGS, T. 1980a. Msuluzi Confluence: A seventh century Early Iron Age site on the Tugela River Ann. Natal Mus. 24(1):111-145.

MAGGS, T. 1980b. The Iron Age Sequence South of the Vaal and Pongola Rivers: Some Historical Implications Journ. of African History 21(1):1-15.

MAGGS, T. 1982. Mgoduyanuka: terminal Iron Age settlement in the Natal grasslands Ann. Natal Mus. 25(1):83-113.

MAGGS, T.M. 1984a. The Iron Age South of the Zambezi *in* Klein, R.G. (ed.) :329-395 Southern African Prehistory and Palaeoenvironments Balkema, Rotterdam.

MAGGS, T.M. 1984b. Iron Age Settlement and Subsistence Patterns in the Tugela River Basin, Natal *in* Hall, M. et.al. (Eds.) :194-206 Frontiers: Southern African Archaeology Today B A R International Series 207, Cambridge.

MAGGS, T., OSWALD, D., HALL, M. & RüTHER, H. 1986 Spatial parameters of Late Iron Age Settlements in the upper Thukela Valley Ann. Natal Mus. 27(2):455-479.

MAGGS, T. 1988. Patterns and perceptions of stone-built Settlements from the Thukela Valley Late Iron Age Ann. Natal Mus. 29(2):417-432.

MARTIN, M. 1903. Basutoland: Its Legends and Customs Nicholson & Co. London.

MASON, R.J. 1962. The Prehistory of the Transvaal Witwatersrand University Press Johannesburg.

MASON, R.J. 1968. Transvaal and Natal Iron Age settlement as revealed by aerial photography and excavation Afr. Stud. 27:1-14.

MASON, R.J. 1981. Early Iron Age Settlement at Broederstroom 24/73, Transvaal, South Africa S.A. Journ.Science 77:401-416.

MASON, R.J. 1983. 'Oori' or 'Moloko'? The Origins of the Sotho-Tswana on the Evidence of the Iron Age of the Transvaal S.A. Journ. Science 79:261-264.

MASON, R.J. 1986. Origins of the Black People of Johannesburg and the southern western Transvaal AD350-1880 Occ. Papers of the Arc. Research Unit University of Witwatersrand Johannesburg.

MIDGLEY, J.F. 1949. The Orange River Sovereignty (1848-1854) Arc. Year Book for S.A. History Vol II Govt. Printer, Pretoria.

MOLETSANE, A.A. 1967 An Account of the Autobiographical Memoir Paarl.

MÖNNIG, H.O. 1978. The Pedi Van Schaik, Pretoria.

MOORE, M.P.J. 1981. The Iron Age of the Makapan Valley area, central Transvaal M.A. University of Witwatersrand Johannesburg.

OMER-COOPER, J.D. 1969. The Zulu Aftermath Ibadan History Series Longmans, Green & Co. London.

OMER-COOPER, J. 1972. Aspects of political change in the nineteenth-century Mfecane *in* Thompson, L. African Societies in southern Africa Heineman, London.

PARKINGTON, J. & Cronin, M. 1979. The size and layout of Mgungundlovu S.A.Arch.Soc. Goodwin Series No.3:133.

PEARSON, G.W. 1987. How to cope with calibration Antiquity 61 :98-103.

PISTORIUS, J.C.C. 1984. 'n Etno-Argeologiese Interpretasie van 'n Sotho-Tswana vestigingseenheid op Selonskraal M.A. University of Pretoria.

POYNTON, R.J. (n.d.). Kenmerke en gebruike van bome en struike Bosboudepartement Bull. 39 Govt. Printer, Pretoria.

PULLEN, R.A. 1942. Remains from Stone-Hut Settlements in the Frankfort District, O.F.S. S.A. Journal of Science 38:334-344.

S.A.C.S. 1980 South African Committee for Stratigraphy Stratigraphy of South Africa, pt.1 (Compiled by L.E. Kent) Lithostratigraphy of the Republic of South Africa, South West Africa/Namibia, and the Republics of Botswana, Transkei and Venda Handbook Geol. Surv. S.Afr. 8.

SANDERS, P. 1975. Moshoeshoe - Chief of the Sotho David Philip, Cape Town.

SANSOM, B. 1974. Traditional Economic Systems *in* Hammond-Tooke, W.D. (Ed) :135-175 The Bantu-Speaking Peoples of Southern Africa Routledge & Kegan Paul, London.

SAUNDERS, C.C. 1966. Early knowledge of the Sotho: Seventeenth and Eighteenth Century Accounts of the Tswana Quart. Bull. of the S.A. Library 20(3):60-70.

SCHOFIELD, J.F. 1948. Primitive Pottery S.A. Arch. Society, Handbook Series No. 3 Cape Town.

SHEDDICK, V.G.J. 1948. The Morphology of residential associations as found among the Khwakhwa of Basutoland Comm. from the School of African Studies U.C.T. Cape Town.

SHEDDICK, V.G.J. 1953. The Southern Sotho International African Institute, London.

SHEDDICK, V. 1954. Land Tenure in Basutoland Her Majesty's Stationery Office, London.

SMITH, A. 1975. Andrew Smith's Journal of his expedition into the interior of South Africa 1834-36 Balkema, Cape Town.

STOW, G.W. 1905. The Native Races of South Africa Swan Sonnenschein, London.

STUCKENBERG, B.R. 1969. Effective temperature as an ecological factor in Southern Africa Zool. Afr. 4(2):145-197.

STUIVER, M. & Pearson G.W. 1986 High-precision calibration of the radio carbon time scale, AD 1950-500 BC *in* Stuiver M. & Kra, R.S. (Ed.) **Radiocarbon** 28(2B) 1986.

TALJAARD, P.C. 1979. How Winburg got its Name The Friend, May 14, Bloemfontein.

TAU, M.N. 1970-71. Some Medical, Magical and Edible Plants of Lesotho Lesotho Notes and Records 9 :13-19.

TAYLOR, M.O.V. 1979a. Late Iron Age settlements on the Northern Edge of the Vredefort Dome M.A. University of Witwatersrand Johannesburg.

TAYLOR, M.O.V. 1979b. Wildebeestfontein: A Late Iron Age site in the Southeast Transvaal S.A. Arch. Soc. Goodwin Series No.3:120-129.

TAYLOR, M.O.V. 1984. Southern Transvaal Stone Walled Sites - A Spatial Consideration *in* Hall, M. et.al. (Eds.) :248-251 Frontiers: Southern African Archaeology today B A R International Series 207, Cambridge.

TAYLOR, M. 1986. Corbelled Stone Huts S. A. Journ. of Science 82:176.

THEAL G.M. 1964. Basutoland Records C. Struik, Cape Town.

THOMPSON, L. 1975. Survival in two Worlds Moshoeshoe of Lesotho 1786-1870 Clarendon Press, Oxford.

TRIGGER, B.C. 1968. The determinants of Settlement Patterns *in* Chang, K.C. Settlement Archaeology National Press Books, Palo Alto :53-78.

TYLDEN, G. 1950. The Rise of the Basuto Juta & Co, Cape Town.

URQUHART, A.W. 1963. Patterns of Settlement and Subsistence in Southwestern Angola Office of Naval Research, Report No. 18 National Academy of Sciences.

VAN DER MERWE, N.J. 1978. Field Methodology and Iron Age Metallurgy at Buhwa, Rhodesia Occ. Pap. Nat. Mus & Mon. of Rhod. Vol. 4(3):101-105.

VAN RIET LOWE, C. 1927. A Preliminary Report on the Stone Huts of Vechtkop Journ.Roy.Anthr.Inst. 57 :217-233.

VAN RIET LOWE, C. 1944. Pre-European Stone Structures in South Africa The S.A. Architectural Record :195-207.

VAN WARMELO, N.J. 1935. A Preliminary Survey of the Bantu Tribes of South Africa Ethnological Pubs. Vol. 5 Dept. of Native Affairs, Pretoria.

VENTER, W.H. 1974. Die Geskiedenis van Winburg tot 1902 M.A. U.O.F.S. Bloemfontein.

WALTER, H. 1963 Climatic Diagrams as a means to comprehend the various climatic types for ecological and agricultural purposes *in* RUTTER, A.J. & Whitehead, F.H. The Water relations of plants - A Symposium of the British Ecological Society, London, 5-8 April 1961. Blackwell Scientific Publications.

WALTON, J. 1948. South African Peasant Architecture Southern Sotho Folk Building African Studies 7(4):139-145.

WALTON, J. 1949. South African Peasant Architecture Nguni Folk Building African Studies 8 :70-79.

WALTON, J. 1951. Early Bafokeng Rockshelter Dwellings at Ntlo-Kholo African Studies 10 :83-86.

WALTON, J. 1953a. An Early Fokeng-Hlakoana Settlement at Metlaeeng, Basutoland S.A. Arch. Bull. 8(29):3-11.

WALTON, J. 1953b. Pestles, Mullers and Querns from the Orange Free State and Basutoland S.A. Arch. Bull. 8(30):32-39.

WALTON, J. 1956. Early Bafokeng Settlement in South Africa African Studies 15(1):37-43.

WALTON, J. 1958. Sotho Cattle-kraals S.A. Arch. Bull. 13(52):133-143.

WALTON, J. 1965. Early Ghoya Settlements in the Orange Free State Memoir No. 2, National Museum, Bloemfontein.

WEATHER BUREAU 1986. Climate of South Africa Climate Statistics up to 1984 W B 40, Govt. Printer, Pretoria.

WEBB, R.S. 1950. Gazetteer for Basutoland Paarl.

WHITE, D.A., WHITE, M. & BOURQUIN, O. (n.d.) The Restoration of an Ancient Bantu Settlement at Bekkersberg, Orange Free State Miscell. Pub. Nr. 5, Dept. Nature Cons. O.F.S. Prov. Admin., Bloemfontein.

WIDDICOMBE, J. 1891. Fourteen years in Basutoland Church Printing Co. London.

WILSON, M. & THOMPSON, L.. 1969 The Oxford History of South Africa Clarendon Press, Oxford.

WILSON, M. 1971. Problems for Research in Tswana History Botswana Notes and Records Vol. 3 :70-73





Author Dreyer J J B
Name of thesis The iron age prehistory of the Winburg area, Orange Free State 1990

PUBLISHER:
University of the Witwatersrand, Johannesburg
©2013

LEGAL NOTICES:

Copyright Notice: All materials on the University of the Witwatersrand, Johannesburg Library website are protected by South African copyright law and may not be distributed, transmitted, displayed, or otherwise published in any format, without the prior written permission of the copyright owner.

Disclaimer and Terms of Use: Provided that you maintain all copyright and other notices contained therein, you may download material (one machine readable copy and one print copy per page) for your personal and/or educational non-commercial use only.

The University of the Witwatersrand, Johannesburg, is not responsible for any errors or omissions and excludes any and all liability for any errors in or omissions from the information on the Library website.