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ETHNICITY, CLASS, AND POLITY: THE EMERGENCE OF SOCIAL AND POLITICAL COMPLEXITY IN THE SHASHI-LIMPOPO VALLEY OF SOUTHERN AFRICA, AD 900 TO 1300

John Anthony Calabrese

A thesis submitted to the Faculty of Humanities, University of the Witwatersrand, Johannesburg, in fulfillment of the requirements for the degree of Doctor of Philosophy

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ABSTRACT

The issues surrounding the nature and timing of the relations between users of the Zhizo and Leopard's Kopje ceramic styles in the area of the Shashi-Limpopo confluence from AD 900 to 1300 are addressed. The results of archaeological investigations at five sites in the region are presented, as are the results of a re-analysis of the ceramic and radiocarbon material from the site Schroda. These results demonstrate that Leopard's Kopje, Zhizo and Zhizo-derived ceramics co-occur in the region between around AD 1000 and 1200. These two ceramic styles are proposed to be the ceramic expressions of two separate, interacting, ethnic groups. It is proposed that interaction between these ethnic groups led, in part, to the development of more complex social and political institutions.

The ceramic style called Zhizo is shown to change after around AD 1000 in reaction to this interaction. Zhizo ceramics after AD 1000 represent a new phase and facies of the Nkope Branch of the Urewe Tradition. This ceramic style is named "Leokwe" after the site at which it was identified, Leokwe Hill.

The class-based social system in the area is hypothesised to have been the product of a prestige goods system. This prestige goods system involved the use of aggressive prestation whereby new social, economic, and political dependencies were created outside the traditional exchange system. The prestige goods system penetrated only to the upper tiers of society. Inclusion within this system, and thus within the new elite class, was not limited by ethnicity, and segments of both the Leokwe and Leopard's Kopje ethnic groups participated within it.

This new exchange system is proposed to have undermined the traditional exchange system, thereby encouraging a process of secularisation whereby exotic trade goods may have been seen as wealth items that potentially supplanted other, more traditional, exchange media.

The continuing social and political status of Leokwe peoples after the Leopard's Kopje entry into the region is posited to have been based upon the role of Leokwe ancestors as the owners of the land. The differential intra-site settlement patterns observed within the region, involving the removal of the central cattle byre from key centres, including Leokwe Hill, K2, and Mapungubwe Hill, are proposed to signal a rejection by Leopard's Kopje elites of the traditional exchange system and its social, political, and religious underpinnings. This removal reflected a rejection of Leokwe peoples' source of political standing and ritual authority. This shift is first seen at Leokwe Hill after around the mid-12th century AD. The implementation of the settlement pattern shift is proposed to mark a system of ethnic stratification which subordinated Leokwe peoples to Leopard's Kopje elites; this shift paved the way for the submergence of the Leokwe style and the end of their ethnic identity in the region.

DECLARATION

I declare that this thesis is my own unaided work. It is submitted for the degree of Doctor of Philosophy in the University of the Witwatersrand, Johannesburg. It has not been submitted before for any other degree or examination in any other university.

_____

John Anthony Calabrese

17th DAY OF OCTOBER, 2005

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CHAPTER I
INTRODUCTION

My aim in this thesis is to explain the rise of social and political complexity in the area of the confluence of the Shashi and Limpopo Rivers in southern Africa (Figure 1.1) between around AD 900 and 1300. I will achieve this goal by refining the archaeological sequence of the area, in particular ceramic data, and applying and testing theoretical constructs relating to the relationships between ethnicity, class, social and political complexity and material culture. The theoretical emphasis of this thesis is on modelling ethnicity, class and social and political complexity at a more qualitative scale than previous work in the area, and therefore represents a step forward in southern African archaeology.

One of the major foci of studies into the past 3,000 years in sub-Saharan Africa, referred to as the Iron Age, has been the timing, origins and spread of metallurgy, stock-keeping, and sedentary agriculture into the region. The initial spread of these innovations, on the basis of linguistic and archaeological evidence, emanated from the Niger-Congo region and thence into the rest of sub-Saharan Africa, and is associated with Bantu-speaking populations.

The large scale migrations of people associated with this spread, their interrelatedness, or *in situ* developments have been investigated employing a wide variety of ceramic analyses. These analyses, based upon a normative and intrinsically conservative view of culture, included technique taxonomies (Phillipson 1968b; Maggs 1976), multidimensional lists (Fagan 1967a; Huffman 1978; Robinson 1973; Soper 1971) and multidimensional typologies (Huffman 1979, 1980, 1989; Phillipson 1976; Vogel 1971). According to Huffman (1980:168), one of the major goals of these analyses was to identify stylistic groups, or entities, in the archaeological record:

> ...Iron Age entities are based on ceramics. They are not political, economic or linguistic entities; they are stylistic. Even though the correlation with these other facets of culture may be unknown, ceramic style can be used to determine archaeological identity for the reasons given earlier: style, as a part of culture, is created and learned by groups of people. It is only necessary to demonstrate that the identity of the makers and users is the same before a reliable stylistic analysis establishes affinities.
>
> Basic culture-history sequences do not exist for large parts of Africa. Once established, a sequence provides a framework within which to study processes and events in the past.

The large scale of these stylistic entities thus does not correspond to ethnographically or historically documented groups (Ibid). The utility of the identification of such large scale groups, therefore, has been in postulating streams of migration (e.g. Huffman 1989, Phillipson 1977, Soper 1971), separating stylistic entities (e.g. Huffman 1974, 1978, 1982; Evers 1988), and therefore in building gross regional material culture sequences (e.g. Huffman 1974, 1989; Phillipson 1977). The contribution to the discipline made through the application of these

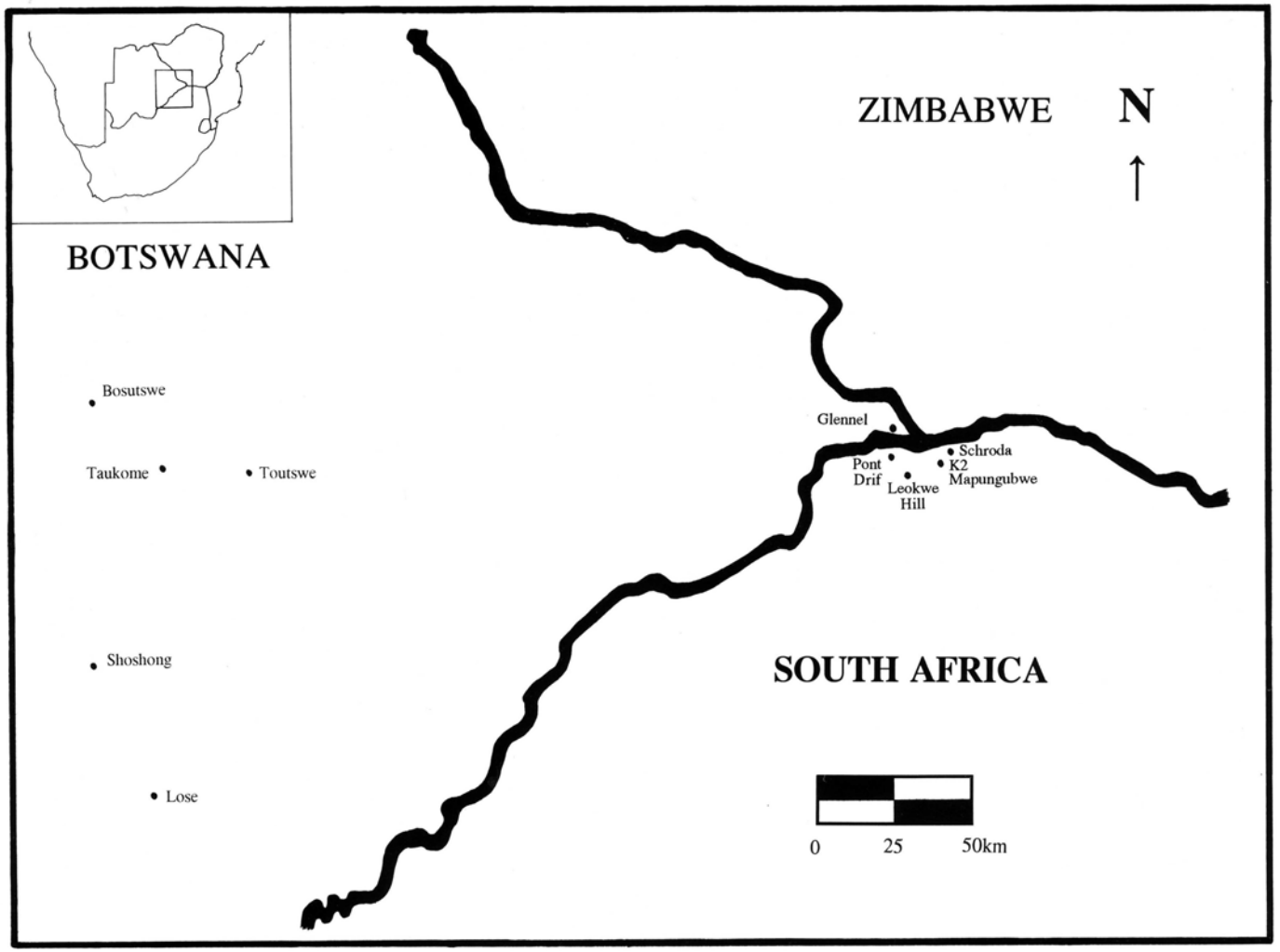


Figure 1.1. Southern Africa, showing sites mentioned in the text.

types of analyses has thus been enormous. Regional sequences, though skeletal in many cases, are now available for further study.

The theoretical assumptions underlying these analyses, which were rarely explicitly stated, were rooted primarily in the view of style as a passive reflection of group identity. These groups were seen as isolated, autonomous units having little or no contact with other groups. Gradual stylistic change within these groups was ascribed to a sort of "drift" (Huffman 1980:172), akin to the evolutionary concept of allopatric speciation, while apparently rapid stylistic changes or innovations were viewed as the product of migrations and invasions. This view of culture and the nature of cultural change was, until the late 1960s to the early 1970s, a dominant model in anthropological discourse (e.g. Evans-Pritchard 1940; Leach 1954; Narroll 1964) and well-suited to modelling large-scale archaeological research questions in areas where the basic chronological sequence was unknown.

Dropped down to a more refined scale of analysis the underlying framework implicit in the identification of ceramic entities does not explicitly model or problematise ethnicity or other social identities (Schoeman 1996; cf. Jones 1997), such as class. While ceramic entity identifications can be used to examine events or processes in the past on a broad scale they cannot adequately account for the great variability in human relations attested to in the ethnographic and historical records. Thus as the archaeological sequences of various regions become better known, and more chronological and spatial control over the data is achieved, it then becomes important to move beyond the recognition of stylistic entities and attempt to identify more discrete social identity groups, variously based on age, gender, ethnicity or status. Owing to recent archaeological research, the region of the Shashi-Limpopo confluence between around AD 900 and 1300 is a venue in which it has become necessary to ask more detailed questions about the identities of the actors involved in its historical development.

The Problem: the Relationship between the Zhizo and Leopard's Kopje Styles

The rise of the first complex social and political systems in southern Africa occurred between the 10th and 13th centuries AD in the area of the Shashi-Limpopo confluence in South Africa and in the Central District of eastern Botswana. In South Africa, the first complex system is best known from the sites K2 and Mapungubwe (Fouché 1937; Gardner 1963; Garlake 1973; Eloff and Meyer 1981; Huffman 1982, 1984, 1986a, b, 1996; Meyer 1980, 1997, 1999). The first complex systems in Botswana are best known from the sites Toutswe, Bosutswe and Shoshong (Denbow 1982, 1983, 1986, 1990, 1999). These two societies have been distinguished from each other primarily on the basis of their divergent ceramic styles; the sites in South Africa are characterised by their use of Leopard's Kopje ceramics and those in Botswana by their use of Toutswe ceramics. The rise and decline of both of these systems, however, was roughly contemporaneous, and both societies were

geographically contiguous (see Fig. 1.1).

The growth of complexity at K2, and later at Mapungubwe, has been linked to control over wealth generated from participation in the Indian Ocean trade network (Garlake 1973; Huffman 1982, 1984, 1986a, b, 1996; Hall 1987), while the rise of complexity at Toutswe and related sites has been attributed to their control over increased wealth in cattle, and the need to defend it from their Leopard's Kopje neighbours in the Shashi-Limpopo confluence (Denbow 1986; Huffman 1986a, 1996).

Relations between these groups during this period have been viewed as essentially hostile (Huffman 1978, 1986a, 1996), with Leopard's Kopje-users driving Zhizo-users out of the Shashi-Limpopo area and into eastern Botswana around AD 1000, or limited to the exchange of wives (Denbow 1982), or a mixture of the two (Denbow 1983, 1986). More recently, Denbow and Wilmsen (Denbow 1990, 1999; Denbow and Wilmsen 1986; Wilmsen 1989) have posited a two-way system of exchange between both groups, but do not explicitly model the nature of and motivations for this exchange.

Based on the previous research outlined above, it is clear that some form of interaction, hostile or otherwise, occurred between Zhizo- and Leopard's Kopje-using groups. Their geographical contiguity and the relative timing of each society's rise and decline seem to indicate as much. However, it is unclear to what extent Zhizo- and Leopard's Kopje-using groups, and sub-groups thereof, can be considered to have comprised ethnic or class-based groups, and how relations between these groups affected, or were affected by, the development of social and political complexity.

As is detailed in the following chapters, these issues can be investigated by employing a variety of theoretical concepts from the human sciences which directly address issues of ethnicity, class and the development of complex social and political systems.

Plan of Presentation

Chapter II consists of a critical review of the archaeological background to the broad research issues outlined above. The work of previous researchers into the relationship between the Zhizo and Leopard's Kopje styles in the context of increasing sociopolitical complexity in southwestern Zimbabwe, eastern Botswana and northern South Africa are summarised and critiqued. The main purposes of this Chapter are to determine what can be stated accurately about these relationships based on existing data and to pose new questions concerning the relationship between the Zhizo and Leopard's styles, and the rise of social and political complexity in the larger region. The types of data and theoretical background necessary to answer these questions are ascertained.

Chapter III consists of a presentation of the relevant theoretical literature from sociology, anthropology and archaeology which addresses the nature of ethnicity and class,

and their relationship to stylistic differences in material culture. The salient theoretical literature on the causes of social and political complexity will be reviewed and critiqued. A tentative model of the rise of social and political complexity in a southern African context is proposed.

Chapter IV comprises a specific statement of the methods by which the research questions, as defined and elucidated upon in previous chapters, are answered. Information will be given on field procedures and materials analysis. The definitions used and methods employed in material cultural analysis will be presented in detail.

Chapters V to X consist of reports of each site I investigated in the course of fieldwork or, in one case, a report on material excavated by E. Hanisch at the Zhizo site Schroda, but which I re-analysed. These reports include information on the stratigraphy, material culture and chronology of each site investigated (Baobab, Castle Rock, Leokwe Hill [Areas A and B], Edmondsburg and Mapungubwe Hill); these chapters are ordered chronologically, starting with Schroda and ending with Edmondsburg. Presentations of the material culture, particularly ceramics, recovered at each site are made. Preliminary interpretations of the relative status of each site and its place in the regional chronology are made. The location of each of these sites is shown in Figure 1.2

Chapter XI provides a hypothetical chronological reconstruction of ceramic stylistic development in the region of the Shashi-Limpopo confluence between around AD 900 and 1300. The diachronic patterning of the Zhizo, Leopard's Kopje and related ceramic styles in the region are presented and conclusions about the relationships between the users of these styles are drawn.

Following the presentation in Chapter XI, Chapter XII focuses on the correlation between ceramic style and other aspects of material culture in an attempt to determine more accurately the nature of, and relationships between, the social identities of the users of the various ceramic styles in the region. This chapter concludes with a tentative reconstruction of the overall development of ethnic and class-based groups in the area of the Shashi-Limpopo confluence between ca. AD 900 and 1300.

Chapter XIII provides a summary of the results of this thesis. In particular, the extent to which I answered the research questions posed in Chapter II is addressed. The significance of this work to the study of southern African archaeology and history is commented upon and directions for future research are identified.

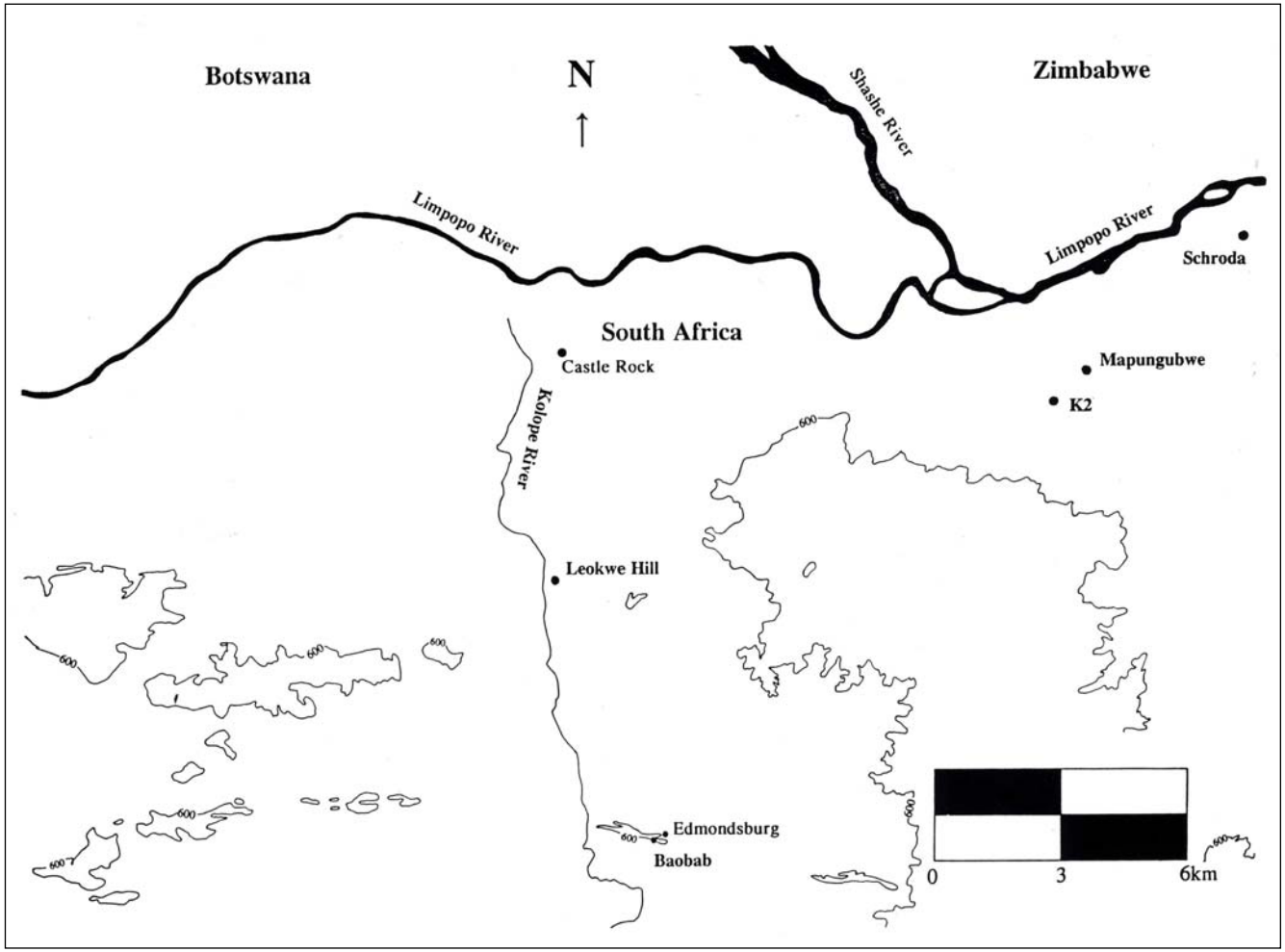


Figure 1.2. Map of Study Area, showing the locations of sites investigated.

CHAPTER II
ARCHAEOLOGICAL BACKGROUND

In order to place the goals of this thesis into proper disciplinary perspective, a critical review of the work of previous researchers studying the Zhizo and Leopard's Kopje 'cultures' in the area encompassing southwestern Zimbabwe, eastern Botswana, and the area of the Shashi-Limpopo confluence in northern South Africa, between ca. AD 700 and 1400 is presented below. This review ends by summarizing the problems in the current state of Zhizo and Leopard's Kopje research in these areas, with a specific focus on issues of ethnicity, class, and the rise of sociopolitical complexity. This Chapter ends with a statement of research questions, both substantive and theoretical, that need to be answered in order to solve these problems.

Review of Previous Research

Southwestern Zimbabwe

Leopard's Kopje material culture was first identified and named by Robinson (1959; cf. Schofield 1948; Summers 1957) outside of Bulawayo at the site Khami and at a series of five smaller adjacent sites investigated between 1947 and 1957 (Ibid: Fig. 2). These smaller sites include Site XII (Leopard's Kopje main enclosure), Site XIII (Store Kopje), Site XIV (an isolated grave in a rock cleft), Site XVI (a small homestead approximately one kilometre north of Site XII), and Site XVII (another small homestead south of the Passage Ruins overlooking the Khami Dam). At Khami, Leopard's Kopje pottery was found stratigraphically under Khami wares in excavations east of the Cross Ruin (Ibid:25-27), and on the Hill Ruin beneath the basal terrace wall of platform CC (Ibid:29). Leopard's Kopje, as it was defined at that time, consisted of a mixture of incised and comb-stamped wares. Robinson (Ibid:31) did not describe the pottery in any detail, but noted:

> In the earlier culture at Khami (Leopard's Kopje) we find a type of pottery with mixed traits. It closely resembles the Hillside material described by Schofield (1950), which has affinities with both Class M_1 and M_2 at Mapungubwe and Bambandyanalo in the Limpopo Valley. On the other hand some of the material recalls pottery from Gokomere and Zimbabwe, classified by Schofield as R_1 (Schofield, 1948, pp. 87 and 90). Unfortunately, the Class R_1 ware (Caton-Thompson's Class A) is very poorly represented in our collections, and it is impossible to get a clear picture of it...Schofield placed the Leopard's Kopje pottery into his Class R_1G, and considers that it may be related to 'another pottery tradition derived from Class R_2, but from the scanty materials available it is impossible to define its position more exactly' (Schofield, 1948, p. 96)...The relationship with Class R_2 (M_1 at Mapungubwe) may have been the direct result of contact between early farming communities, who favoured the stamped form of decoration, and the people responsible for the later form of decoration.

This somewhat confusing relationship between these pottery classes proposed by both Robinson and Schofield can be clarified by noting that Schofield's R_1 ware was dominated by

comb-stamped decoration, while material referred to as M_1 and M_2 (i.e., R_2)(cf. Huffman 1974:5-8; Schofield 1937, 1948, 1950) was dominated by broad- and fine-lined incision with some comb-stamping. Hence Robinson speculated that the combination of stamping and incision in the ceramic assemblages he excavated may have been the result of contact between different groups. It should be added that at this time no radiocarbon dates had been generated. Thus all that could be securely stated about the dating of Leopard's Kopje was that it pre-dated the ruins at Khami, and appeared "to have affinities with Mapungubwe and Bambandyanalo on the Limpopo" (Robinson 1959:104).

Following the initial identification of Leopard's Kopje ceramics, Robinson (1965, 1966, 1967, 1968) set out to define the characteristics and chronology of Leopard's Kopje material culture in more detail. Based on data from surface collections and reconnaissance at 47 sites, four of which were at least partially excavated, Robinson (1965, 1966) combined attributes of pottery, beads, settlement location, hut construction and stone walling to arrive at a three phase sequence for what he called the Leopard's Kopje culture.

Robinson concluded that Leopard's Kopje bridged the gap between the early Iron Age Gokomere culture of southwestern Zimbabwe and the Khami Ruins culture. Robinson saw a direct continuity between his mainly stamp-decorated phase I ceramics and pottery from the sites Mabveni, Malapati, Gokomere, the lowest levels at Great Zimbabwe and what has been termed Ziwa ware from the site Inyanga.

The change from phase I to phase II was for Robinson the result of foreign influences coming into Rhodesia from some unknown point. These newcomers were thought to have introduced stock, and brought with them flimsier hut construction, beakers, beaker bowls and thin black burnished pottery with well executed incised decoration.

Due to the affinity between Leopard's Kopje phase III, Class III wares at Zimbabwe and Class M_1 at Mapungubwe (both which were at the time of Robinson's writing thought to be contemporaneous [see Huffman and Vogel 1991; cf. Garlake 1968]), Robinson speculated that phase III may have been the pottery of elite groups sent out by Zimbabwe's rulers to look over their interests and rule over subject peoples. Robinson (Ibid:28) further hypothesised that:

> ...Such groups would undoubtedly make use of the earlier inhabitants. It is possible that the men were employed in stone building, while the women would be useful potters. In this manner the pottery tradition of the ruling people would become known and copied and eventually the new ideas became incorporated into the earlier traditions. It may be something of this kind that accounts for the variable typological balance which is a feature of Leopard's Kopje II...
>
> In Leopard's Kopje Phase III the pottery has become almost standardised, and little trace of the earlier pottery tradition remains. In speaking of earlier and later pottery, it goes without saying that overlapping must have occurred, and in some places the old ways may have continued alongside the new.

From the above it is clear that Robinson saw both ethnicity and class as factors which acted to

shape Leopard's Kopje material culture. Combinations of internal and external forces acted upon the material culture, thereby making coexisting 'phases' within Leopard's Kopje not only conceivable but likely.

This position was supported for Robinson by the radiocarbon dates from the three 'phases' which he (Ibid:51) placed in an addendum, and a single later published date (SR-134, Robinson 1968:21) (see Table 2.1). These dates confirmed the relationship between phases II and III, but placed the date for phase I somewhere between them.

Table 2.1 Early Radiocarbon dates for Leopard's Kopje, Phases I to III.

Sample Designation	Site	Phase	Age (bp)	Age Error	Calibrated Age (AD)	1-Sigma Range (AD)*
SR-44†	Woolandale Mounds	III	640	±90	1320 or 1325 or 1395	1290-1420
SR-134	Mawala Hill	II	860	±95	1255	1060-1080 or 1155-1280
TX-228	Zhizo Hill	I	910	±130	1185	1020-1280
SR-68	Tabazikamambo	II	1080	±100	1000	895-1040
SR-55	Leopard's Kopje (Khami Site XII)	II	1250	±110	795	680-970

*all calibrated radiocarbon dates and sigma-ranges shown here and throughout this thesis follow the calibration curve established by Stuiver and Pearson (1986, 1993) and as emended by Talma and Vogel (1993), Vogel et al (1993) and as by new tree ring data in INTCAL98 (Stuiver et al 1998); calculations were made using the calibration programme CAL4C (QUADRU 2001), corrected for the Southern Hemisphere. †Age error of ±90 reported by Robinson (1965, 1968, 1985), but as ±60 by Huffman (1974:97).

Robinson (1967:9) explains this younger date for phase I by stating that these "may prove to have been more or less contemporary with the phase II sites, the difference being cultural rather than chronological."

Huffman (1968, cited in Huffman 1974), based on a seriation of published ceramic drawings and an examination of museum collections, questioned the three phase sequence for Leopard's Kopje as originally proposed by Robinson and as later employed by Summers (1967) and Phillipson (1968a). Huffman argued that Robinson's use of multiple criteria for establishing the Leopard's Kopje sequence was misplaced. According to Huffman (1974:3), ceramic divisions should be used as the main criteria for phasing,

> ...(b)ecause ceramics have the most variability, ceramics form the major subdivision of the Iron Age sequence, and in consequence Iron Age terminology is largely concerned with ceramic typology. In Southern Africa different types of stone walling provide another important feature, but these types almost always coincide with ceramic boundaries, and ceramics are still the essential criteria for defining Iron Age cultures...
>
> Pottery types are functional categories in African societies, and in Rhodesia they are determined by a special combination of shape, size and decoration: shape separates all vessels into gross divisions; size subdivides them into finer categories; and the presence or absence of decoration determines the final type (Huffman 1972c). These functional categories provide a framework for a less formally conceptualized decoration theme--the consistent placement of

> certain motifs on certain shapes. Today, specific decoration themes are associated with specific ethnographic entities (Schofield, 1948; Lawton, 1967, Huffman 1972c) and are largely responsible for the cultural identification of a ceramic assemblage.

Huffman (Ibid:8-9) argued that there was a discrepancy in the sequence due to what he considered the young date for phase I from Zhizo Hill. Huffman set out to resolve this discrepancy through a qualitative ceramic seriation of material he recovered from excavations at the sites of Leopard's Kopje Main Enclosure and Blue Jay/Bunting Close.

Huffman's seriation, in combination with stratigraphic data and a series of radiocarbon dates, redefined the Leopard's Kopje culture. He divided the earlier mainly comb-stamped assemblages from the later predominantly incised wares. The earlier wares, known as Zhizo, were placed into the final phase of the Gokomere Tradition. The later predominantly incised assemblages, still called Leopard's Kopje, were (Huffman 1978) placed into the Kutama ceramic group, part of the larger Western Stream Kalundu Tradition. Both Zhizo and Leopard's Kopje were seen as geographical facies of phases within two larger, separate, traditions. Zhizo was thought to represent the final phase of the Gokomere Tradition in Matabeleland and Southern Mashonaland, while its counterpart, Coronation, represented the penultimate phase of Gokomere (i.e., Ziwa) in Northern Mashonaland. Similarly, Leopard's Kopje A and B (formerly phases II and III), although restricted to Southern and Central Matabeleland, were represented by two distinct diachronic facies. In Southern Matabeland (i.e., the Northern Transvaal), Phases A and B were called K2 and Mapungubwe, while in Central Matabeleland (i.e., southwestern Zimbabwe) they were termed Mambo and Woolandale.

Huffman described Zhizo ceramics as consisting of recurved jars with stamped or incised decoration on the rim and shoulder (Figure 2.1). Decoration usually consisted of "single or multiple bordered bands on the lower rim, simple triangles in the neck and a line on the shoulder (Ibid:100)." Mambo and Woolandale jars, on the other hand, were decorated primarily with incised motifs in the neck (Figures 2.2 and 2.3). Other distinguishing elements included the presence of polychrome colouring on Zhizo bowls, and its absence in Mambo and Woolandale, and high burnishing on Mambo and Woolandale jars and its absence on Zhizo wares. The major decoration difference between the two ceramic assemblages was the predominance of comb-stamping in Zhizo and its virtual absence in Leopard's Kopje (see Huffman 1974, Tables 25-27).

Huffman produced a series of seven radiocarbon dates for the occupations at Leopard's Kopje main kraal (Ibid:98). He also reclassified two of Robinson's L.K. II dates (SR-55 and SR-68) from Leopard's Kopje and Tabazikamambo, respectively, as Zhizo dates, and reinterpreted the late L.K. I date from Zhizo Hill (TX-228) as anomalous. Robinson's Mawala Hill date (SR-134) was regarded as acceptable. Since Leopard's Kopje main kraal

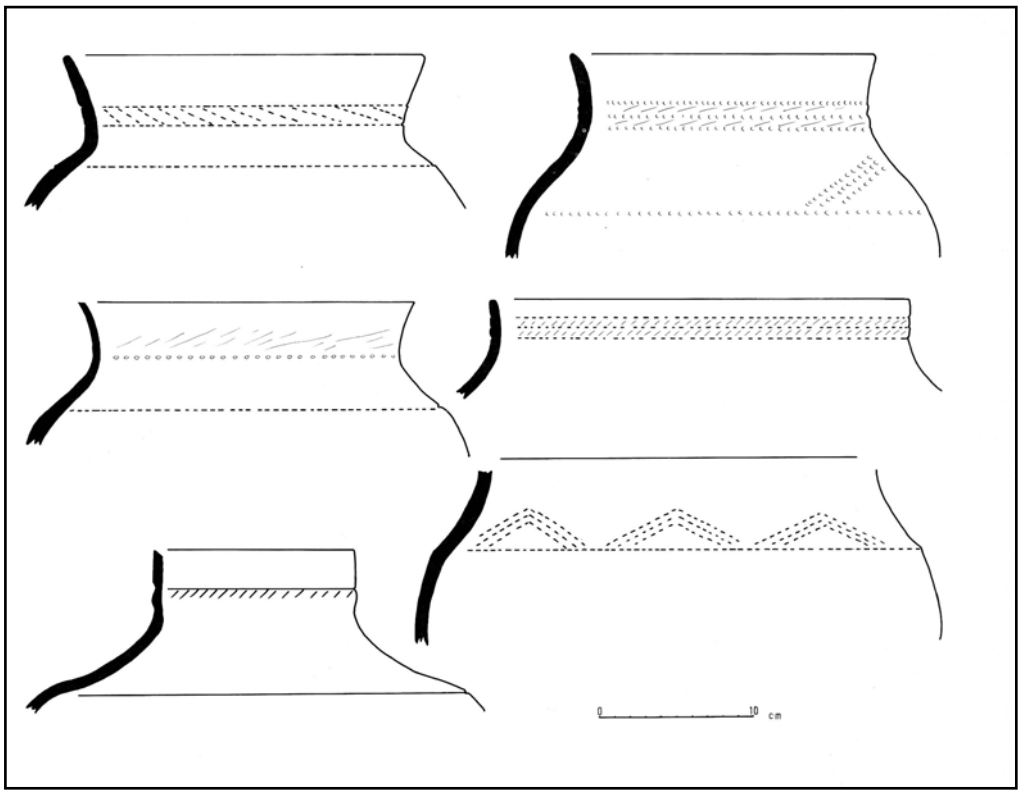


Figure 2.1. Typical Zhizo ceramics from southwestern Zimbabwe (adapted from Huffman 1974:51).

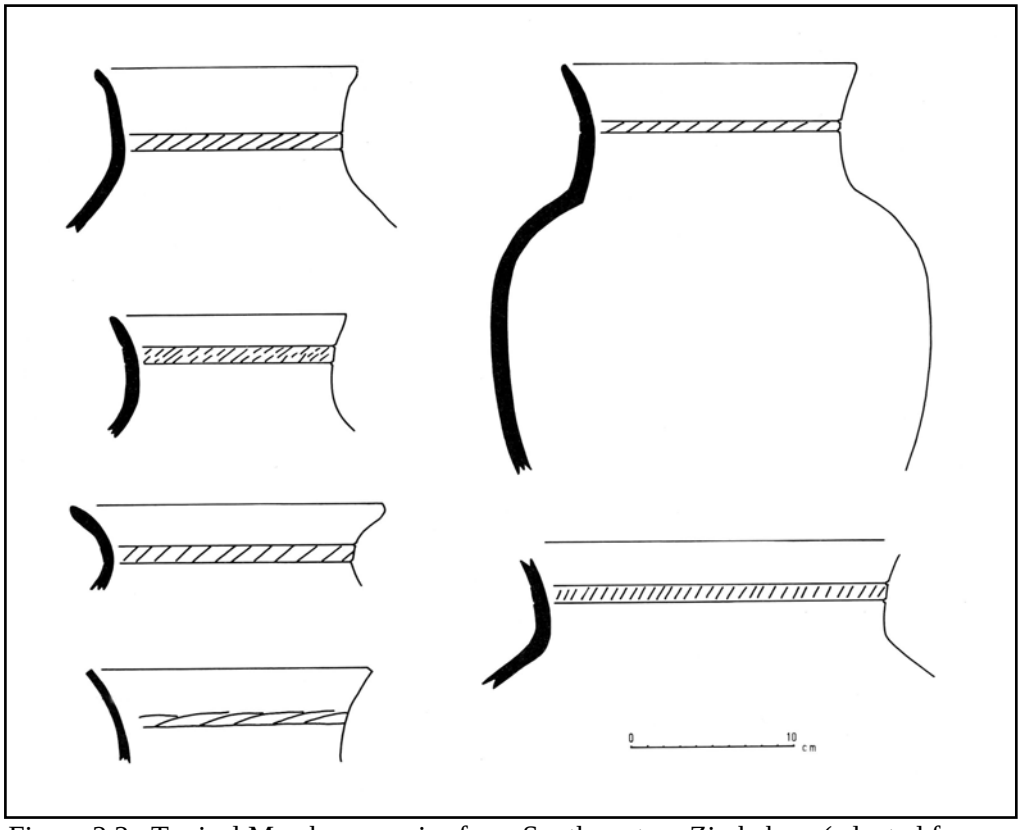


Figure 2.2. Typical Mambo ceramics from Southwestern Zimbabwe (adapted from Huffman 1974:56).

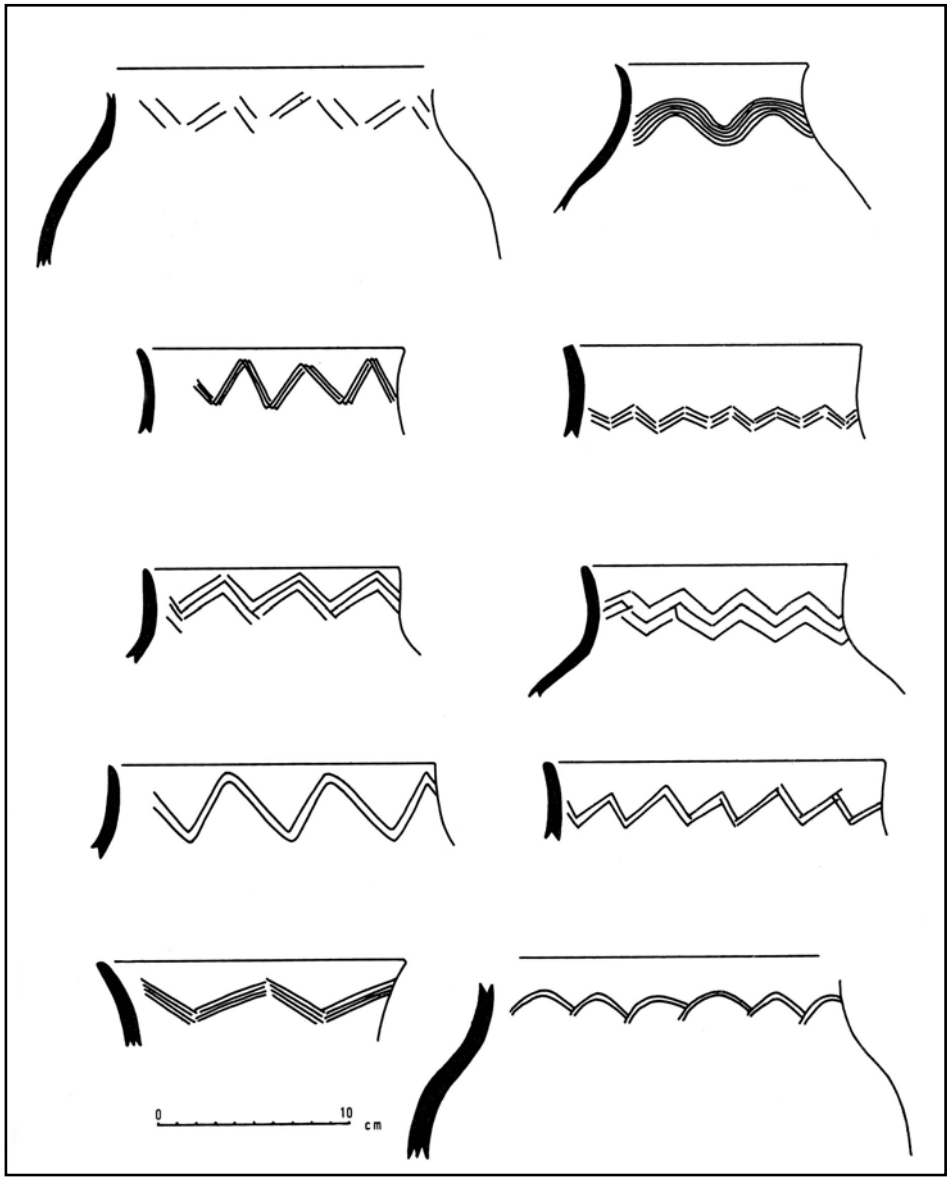


Figure 2.3. Typical Leopard's Kopje ceramics from southwestern Zimbabwe (adapted from Huffman (1974:59).

did not have a Woolandale occupation, and no datable material was recovered from Blue Jay/Bunting Close, he used Robinson's date from Woolandale Mounds (SR-44) to complete the sequence. The results of Huffman's re-dating of Leopard's Kopje main kraal and his re-assignment of Robinson's previous dates are shown in Table 2.2. Interactions between the users of these two, now culturally distinct, styles were viewed by Huffman (1978) as essentially hostile, with Leopard's Kopje peoples driving the earlier Zhizo inhabitants of the region into eastern Botswana (1974, 1978; cf. Huffman 1984, 1986a, 1986b, 1986c, 1996, 1999; Denbow 1983). Thus the stratified ethnic groups which Robinson saw as a possible explanation for the seeming persistence of stamped wares alongside incised wares was to Huffman the result of misread stratigraphy and misinterpreted radiocarbon results.

In addition to redefining the sequence, it should be noted that Huffman's excavations

at Leopard's Kopje also uncovered some of the earliest evidence of relatively large-scale long-distance trade contacts in southern Africa (Huffman 1974:75, Table 16). This evidence consists of 279 glass beads recovered from the Zhizo occupation at the site. Two hundred and seventy-three of these were recovered from four pits, one of which, BP-14, contained 96 beads and has a 1-sigma radiocarbon date range of AD 675 to 890 (SR-225; Table 2.2).

Robinson (1985) did not challenge Huffman's typological separation of Zhizo from Leopard's Kopje, but argued that design elements and techniques shared between the two were indicative of some undetermined level of contact and interaction (Ibid:29). Based on ceramic and radiocarbon data recovered from a series of five excavated sites in the Umguza Valley around Bulawayo, including Norfolk Road, Keendale Farm, Mawala Hill, Rennydene Farm, and Nali Hill, Robinson confirmed Huffman's general view of the relative phasing of Zhizo and Leopard's Kopje A and B, but noted that Zhizo could be divided into two phases, (a) and (b), with Zhizo (a) wares comprising 'pure' Gokomere ceramics, and Zhizo (b) as having shared elements with Mambo assemblages. The dates generated, and their cultural affinities as ascribed by Robinson, are shown in the Table 2.3.

Robinson (Ibid: 28-29) argued that the sharing of design motifs and decoration techniques, specifically comb-stamping and stamped arcades in Mambo assemblages (e.g. Rennydene Farm, Ibid: Fig. 16) and arcades in Zhizo (b) assemblages (e.g. Mawala Hill, Ibid: Fig. 12), was the result of cultural contact. Robinson did not hypothesize about the nature of interaction between Zhizo and Mambo groups, nor did he make any statements about its temporal duration.

The available data on the temporal distribution of Zhizo and Leopard's Kopje assemblages can be interpreted in two ways. First, as the ceramic characterisations by Robinson indicate, Zhizo ceramics first make their appearance in southwestern Zimbabwe by around the 8th century AD and extend into the turn of the 11th century. Importantly, however, the ca. AD 1000 Zhizo assemblages are said by him to share traits with Leopard's Kopje (i.e., Mambo) assemblages, with Zhizo (b) wares resembling a fusion of both Zhizo and Mambo. In addition, later (ca. post-AD 1025) Zhizo and Mambo assemblages share traits, indicating some form of relationship or continued interaction between the two. Huffman's (e.g. 1974; 1986a, b, c) interpretation of the relationship between Zhizo and Mambo is more straightforward, with a strict separation, both culturally and chronologically, between the two. While Huffman's date for the arrival of Zhizo wares in southwestern Zimbabwe (ca. the 8th century AD) agrees with Robinson, his reading of the data indicates that Zhizo disappears from southwestern Zimbabwe around AD 1000. This disappearance of Zhizo coincides for him with the arrival of Mambo wares. As Huffman (1996:177) states, "...(at) about AD 1000 Leopard's Kopje pottery suddenly appears...," while Zhizo "disappears from southwestern Zimbabwe and the northern Transvaal." However, this assessment does not correspond to the

calibrated dates for his Zhizo/Leopard's Kopje sequence at Leopard's Kopje, where the dates for terminal Zhizo have a significant overlap with the first Mambo date (see Table 2.2).

Table2.2. Huffman's (1974) revised Zhizo/Leopard's Kopje chronology.

Sample Designation	Site	Cultural Affinity	Age (bp)	Age Error	Calibrated Age (AD)	1-Sigma Range (AD)
SR-44	Woolandale Mounds	Woolandale	640	±90	1320 or 1345 or 1395	1290-1420
SR-134	Mawala Hill	Mambo	860	±95	1225	1060-1080; 1155-1280
SR-218	Leopard's Kopje	Mambo	880	±80	1210	1055-1085; 1150-1270
SR-217	Leopard's Kopje	Mambo	880	±65	1210	1160-1265
SR-216	Leopard's Kopje	Mambo	950	±50	1160	1035-1190
N-772	Leopard's Kopje	Mambo	1050	±100	1015	965-1160
SR-224	Leopard's Kopje	Mambo	1105	±85	990	890-1025
SR-68*†	Tabazikamambo	Zhizo	1080	±100	1000	895-1040
I-4862	Leopard's Kopje	Zhizo	1130	±95	980	875-1020
SR-55†	Leopard's Kopje	Zhizo	1250	±110	795	680-970
N-1275‡	Makuru Hill	Zhizo	1260	±65	785	700-890
SR-225	Leopard's Kopje	Zhizo	1280	±90	775	675-890

*TX-228 (see Table 2.1) removed from consideration by Huffman (1974:97). †Reinterpreted and moved from L.K. II to Zhizo by Huffman (Ibid). ‡From Huffman (1973).

In assessing these two alternative hypotheses, it is necessary to recall that both Huffman's and Robinson's radiocarbon dates were analysed before the advent of higher precision techniques and that many of the age errors would (some of up to 130 years), by most current standards, be considered uncomfortably wide. Also, it is to be remembered that prior to 1986, with the publication of Stuiver and Pearson's calibration curve, and subsequent calibration refinements, the raw dates and associated age errors comprised all the available temporal data. These opposed interpretations, considered alongside the uncalibrated dates used to generate them, makes it necessary to re-examine the timing of Zhizo:Leopard's Kopje interaction. These issues also need to be kept in mind in the examination of data from eastern Botswana and the area of the Shashi-Limpopo confluence.

Table 2.3. Robinson's (1985) Umguza Valley dates.

Sample Designation	Site	Affinity	Age (bp)	Age Error	Calibrated Age (AD)	1-Sigma Range (AD)
Pta-3726	Rennydene Stone Heap	Woolandale	740	±45	1290	1275-1300
Pta-3302	Nali Hill	Woolandale	850	±50	1235	1195-1270
Pta-3300	Nali Hill	Woolandale	950	±50	1160	1035-1195
Pta-3301	Nali Hill	Woolandale	970	±50	1050 or 1100 or 1135	1025-1175
Pta-3298	Rennydene	Mambo w/Zhizo (Z) influence	960	±50	1055 or 1085 or 1150	1030-1185
Pta-3721	Rennydene	Mambo w/Z	970	±50	1050 or 1100 or 1135	1025-1175
Pta-3722	Rennydene	Mambo w/Z	1030	±50	1025	1000-1040
Pta-3304*	Nali Hill	Zhizo (b)	1060	±50	1010	990-1030
Pta-3308†	Mawala Hill	Zhizo (b)	1070	±45	1010	985-1025
Pta-3305	Mawala Hill	Zhizo (b)	1080	±50	1000	980-1025
Pta-3307	Mawala Hill	Zhizo (b)	1100	±50	990	965-1015
Pta-3732‡	Denver Farm	Zhizo (a)	1130	±40	980	900-1000
Pta-3299	Norfolk Road	Zhizo (a)	1180	±50	895	870-980

*associated with stamp-decorated pottery at base of excavations. †Age error recorded as ±50 in Robinson (1985:36), but by the laboratory (Vogel n.d.) as ±45. ‡Age recorded as AD 850 (i.e., 1100 bp) by Robinson (1985:36), but by the laboratory (Vogel n.d.) as 1130 bp.

Eastern Botswana

The earliest research into the relationship between Zhizo and Leopard's Kopje pottery in eastern Botswana occurred well before either ceramic group was named. Based on the initial investigations and surface collection conducted at the site Toutswemogala by Laidler (1938) and enlarged by V.C. Ellenberger (District Commissioner in Serowe at the time), Schofield (1940) determined that the major ceramic assemblage present there was what he referred to as BP-1 ware. Based on his work on the ceramic material from the Limpopo Valley sites of Bambandyanalo and Mapungubwe (Schofield 1937), he determined that while there were many similarities between the assemblages, they ought to be considered distinct. Summers (1957), however, through his collaboration with Robinson on the excavations at and around Khami (Robinson 1959), saw great similarities between the Ellenberger material from Toutswemogala and Leopard's Kopje assemblages from the collections excavated by Robinson at and around Khami, by Schofield (1950) at Hillside, and by Jones (1937; cf.

Schofield 1937) at Bambandyanalo and Mapungubwe. Summers (1957:65) referred to the Botswana material as "Leopard's Kopje pottery of the Stamped Ware class." Later researchers referred to these wares as either "Toupye" or "Toutswe."

Lepionka (1978, 1979), drawing on the earlier work of Huffman (1974), concluded, like Summers, that Toutswe pottery, despite its heavy reliance on the typically Zhizo decorative technique of stamping, "must be construed as an independent southern facies of the Leopard's Kopje complex, most closely related to Bambandyanalo but differing from it in detail because of its general simplification of motifs and because of its emphasis on the stamp technique (Lepionka 1979:71)." Hence for Lepionka the material from Toutswemogala, which he termed "Tautswe" was for him more closely related to Leopard's Kopje wares than to Zhizo wares. Also, Lepionka generated the first radiocarbon dates for Toutswe pottery (Table 2.4). These dates demonstrated that the Toutswemogala material was clearly contemporaneous with the Leopard's Kopje Limpopo Valley sites of Bambandyanalo (K2) and Mapungubwe (see Hall and Vogel 1980:450-452).

Table 2.4. Lepionka's (1978, 1979) dates for the Toutswemogala assemblage.

Sample Designation	Site	Age (bp)	Age Error	Calibrated Age (AD)	1-Sigma Range (AD)
GX-3772	Toutswemogala	645	±95	1320 or 1350 or 1390	1290-1420
GX-3774	Toutswemogala	750	±95	1285	1245-1315; 1355-1390
GX-3773	Toutswemogala	860	±105	1225	1050-1090; 1150-1285

Similarly, Huffman (1978) in the course of reviewing the origins of what he termed the Kutama Tradition, independently analysed the Ellenberger collection from Toutswemogala and, like both Summers and Lepionka, concluded that Toutswe pottery (Huffman employed the designation "Toupye") was part of the larger Kutama Tradition. This tradition was thought to contain both phases of his earlier defined Leopard's Kopje ware, Bambandyanalo/Mambo and Mapungubwe/Woolandale, and was wholly unrelated to Zhizo wares.

Denbow (1982, 1983, 1986; cf. Denbow and Wilmsen 1986) was the next researcher to apply himself to questions concerning the nature of Toutswemogala ceramics and their relationship to Leopard's Kopje wares. Based on ceramic and radiocarbon data recovered from excavations at the sites Toutswemogala, Taukome, Thatswane and Maiphetwane, Denbow determined that Zhizo ceramics make their appearance in eastern Botswana by ca. AD 700 or 800 (Table 2.5), around the same time as in southwestern Zimbabwe (see Tables 2.2 and 2.3). His analysis indicated that Zhizo ceramics from the 8th through 11th centuries AD have a high degree of correspondence (84%) with contemporary Zhizo wares from

southwestern Zimbabwe (Denbow 1983:87) as described by Huffman (1974). Importantly, approximately 8% of these Botswana Zhizo ceramics consist of materials that closely resemble Leopard's Kopje wares in the area of the Shashi-Limpopo confluence, including decorated beakers. These beakers are found in the earliest dated levels at the site Taukome, although they increase in their relative frequency over time. This early Iron Age assemblage is known as Taukome in Botswana, after the site of the same name. Denbow (1982, 1983) posits that there is a direct continuum between Taukome and later Toutswe wares, and that these wares formed a separate facies of the larger Gokomere Tradition. Representative drawings of Taukome wares are shown in Figure 2.4.

After the beginning of the 11th century, however, Zhizo wares in Botswana begin to change according to Denbow (personal communication, 1997). Generally, decoration executed in comb-stamping and bead/bangle impression becomes much smaller in size, and sometimes moves from the central necks of jars onto the lower neck. Also, raised appliqués on the lower neck decorated with diagonal lines of comb-stamping, bead/bangle impression and incision become more common after this time. Representative drawings of Toutswe vessels are shown in Figure 2.5.

An examination of Denbow's ceramic data (1983) indicates that no single set of ceramic characteristics divide Taukome from later Toutswe wares. General shifts in frequencies of ceramic characteristics occur, but none are radical diversions from previously established trends. At Taukome, decorated beakers, typically associated with Shashi-Limpopo Leopard's Kopje assemblages, as noted above, continue to increase in frequency from the bottom to the top of the stratigraphy (Denbow 1982: fig. 5). The continued presence of shared elements between Taukome/Toutswe and Leopard's Kopje wares, noted previously by Lepionka, Huffman and Summers, was thought by Denbow to have been the result of cultural contact, probably intermarriage, between Leopard's Kopje users and the Taukome/Toutswe using groups of eastern Botswana. It is important to note, however, that these Leopard's Kopje elements occur far earlier at Taukome than in any known, dated, Leopard's Kopje assemblage investigated thus far (see Tables 2.2 to 2.13) in any region discussed here.

Also important among Denbow's findings was the settlement pattern survey he conducted in the Serowe-Palapye area. Based on his results (1983:Table 5.1), a total of 213 sites were recorded with the following distribution of ceramics: four with only Taukome, 181 with only Toutswe, and 28 with both Taukome and Toutswe. It should be noted that Denbow did not specifically define any criteria by which Taukome ceramics were distinguished from Toutswe ceramics. This apparent proliferation in sites from Taukome to Toutswe has been interpreted (e.g. Denbow 1986; Huffman 1986a, 198b, 1996) as indicating a population increase. This apparent increase in total site numbers is thought to have been brought about

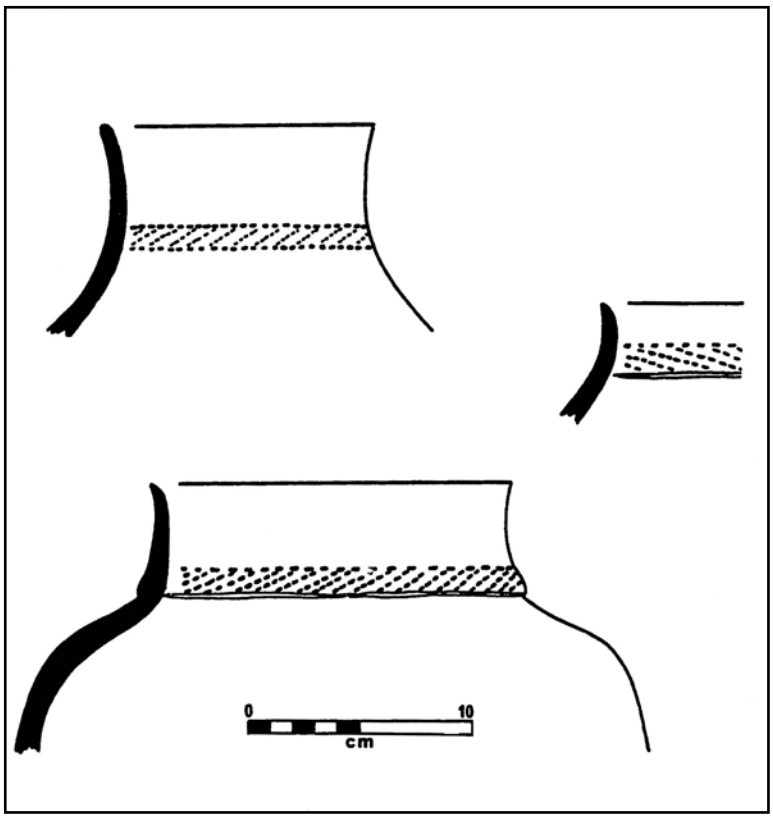


Figure 2.4. Representative Taukome ceramics (adapted from Denbow 1983:131)

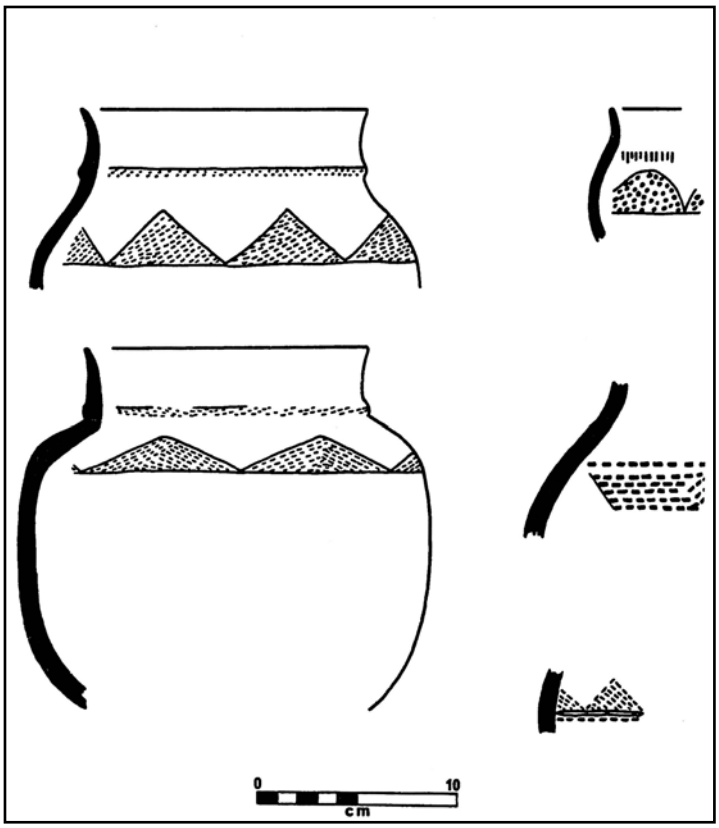


Figure 2.5. Representative Toutswe ceramics (adapted from Denbow 1983:133).

by a massive migration of Zhizo-using peoples into the region fleeing from southwest Zimbabwe and the area of the Shashi-Limpopo confluence following the invasion of their lands by Leopard's Kopje-using groups.

This interpretation of increased population generated by fleeing immigrants is undermined somewhat by the fact that there are no temporally diagnostic markers which serve to distinguish confidently Taukome from Toutswe wares in the absence of radiocarbon dated excavations. Also not taken into consideration is the long time period (ca. AD 700 to 1400) during which all these sites were occupied. Since most of these sites (ca. 87%) (Denbow 1983: Table 5.3) were smaller domestic settlements reliant upon abundant grazing and range, it is likely that each of these settlements was not occupied for more than a few generations. A more accurate knowledge of temporal and spatial distribution of Taukome and Toutswe sites will only be achieved when a representative sample of these sites is excavated and radiocarbon dated, or when an explicit set of diagnostic criteria distinguishing Taukome and Toutswe wares is generated and applied to the assemblages.

Denbow (1983, 1986, 1990) further argued that around AD 1000, a settlement hierarchy appears with the sites of Toutswe, Bosutswe and Shoshong as apexes of regional power. Denbow (1983) argued that the increasing social differentiation and political centralisation apparent in the settlement pattern data from eastern Botswana was the result of the ability of these societies' leaders to accumulate wealth in the form of cattle. This wealth accumulation was the result of herd growth brought about by favourable ecological conditions for pastoralism in the margins of the Kalahari.

The sites Toutswe, Bosutswe and Shoshong are all located on hilltops in highly defensible positions; all three have animal byres on the hilltop, providing evidence that the choice of hilltop locations had more to do with defence rather than status (Huffman 1986a). Huffman (Ibid, 1996) has argued that the defensive nature of these settlements provides evidence of hostility between the Shashi-Limpopo area and eastern Botswana at this time. However, as Denbow (1986) has indicated, it is currently unclear whether all three sites were part of a unified political system. It is thus possible that competition and conflict may have characterized relations between Toutswe, Bosutswe and Shoshong: the defensive nature of these settlements therefore may have had more to do with internal, rather than external, conflict.

Huffman (1984), in keeping with Denbow's (1982, 1983) arguments that Taukome (i.e., Zhizo) ceramics developed directly into Toutswe, and that the Leopard's Kopje elements within both were the product of some undetermined type and intensity of interaction, retracted his earlier (1978) position in which he stated that Toupye (Toutswe) wares were related to the larger ceramic cluster (Kutama) that included Leopard's Kopje. Instead, Huffman (1984:30)

Table 2.5. Denbow's (1982, 1983) and Denbow and Wilmsens' (1983, 1986) dates for Taukome and Toutswe assemblages, eastern Botswana.

Sample Designation	Site	Phase	Age (bp)	Age Error	Calibrated Age (AD)	1-Sigma Range (AD)*
I-11 412	Toutswemogala	Toutswe	755	±75	1285	1255-1305
I-11 415	Thatswane	Toutswe	840	±75	1250	1180-1280
n/a*	Kgaswe B-55	Toutswe	860	±80	1225	1160-1280
n/a*	Kgaswe B-55	Toutswe	940	±80	1160	1025-1225
Pta-2526	Maiphetwane	Toutswe	960	±50	1055 or 1090 or 1150	1030-1185
n/a*	Kgaswe B-55	Toutswe	960	±80	1055 or 1090 or 1150	1020-1210
I-11 413†	Toutswemogala	Toutswe	990	±75	1040	1020-1210
I-11 409	Taukome	Toutswe	995	±75	1040	1010-1180
I-11 414	Thatswane	Toutswe	1025	±80	1025	990-1160
I-11 410	Taukome	Taukome	1240	±80	810 or 850	705-910 or 925-955
I-11 407	Taukome	Taukome	1265	±80	780	690-890

*no laboratory numbers noted by Denbow and Wilmsen (1986) and Wilmsen (1989). †Recorded by Denbow (1983:185) as 1195±75 AD (i.e., 755 bp), but by Denbow and Wilmsen (1983) as shown above.

states that in his original analysis of the Toutswe ceramics he had "mistaken an ethnically diverse political community for a single cultural unit." His recalculations of Core Concept similarity indices lowered the similarity score between Toutswe and Leopard's Kopje assemblages, and raised its similarity to Zhizo. Further, based on improved analytic methods (Huffman 1980), he used the Affiliate Set Typology to calculate the relationship between Zhizo, Toutswe, and Leopard's Kopje. This analysis showed Toutswe as having a 67% relationship with Zhizo and a 24% relationship with Leopard's Kopje. Absent from his re-analysis of the Toupye/Toutswe material is a statement regarding the precise procedures and criteria by which the Ellenberger collection from Toutswe was cleansed of the Leopard's Kopje material, nor does he explain how it came to be incorporated within the assemblage.

Denbow's more recent work (1990, 1996, 1999) focussed on relations extant between agropastoralists and hunter-gatherer groups over time and the changing dynamics of exchange connections between the Toutswe region and the Okavango to the west, with the Atlantic coast even further west, and the Limpopo valley to the east. He has argued convincingly that the Toutswe region participated in an active exchange relationship with both the Atlantic coast of Africa and the Indian Ocean trade network. Recent work at the site Bosutswe, thought by him to have been a political capital, revealed the presence of Leopard's Kopje wares and associated materials that implied the presence of religious specialists and long-

distance trade, leading him to argue (1999:114) that "Bosutswe became a westward extension of Mapungubwe hegemony in the Limpopo valley." Denbow's "Mapungubwe" levels at Bosutswe were dated to between the early 11th and late 13th centuries AD, making them contemporary with the sites K2 and Mapungubwe in the Limpopo Valley. The ceramics which Denbow describes as "Mapungubwe" constitute types which do occur at the Limpopo Valley sites; these consist of jars decorated on the shoulder with incised pendant triangles infilled with punctates and beakers decorated on the lower body with interlocked incised triangles (Denbow, personal communication, 2000). However, their frequency in relation to the Limpopo Valley assemblages, and their relationship to the political hierarchy of the Limpopo Valley sites, is uncertain. The earlier, Taukome period, deposits were very sparse in terms of material recovered, and it was not possible to characterise the assemblage present in those deposits. The Leopard's Kopje and Taukome/Toutswe radiocarbon dates generated from Denbow's excavations at Bosutswe are shown in Table 2.6.

Additional recent work conducted on Leopard's Kopje:Zhizo relations in eastern Botswana was undertaken by Kiyaga-Mulindwa (1990) and Kiyaga-Mulindwa and Widgren (in press) approximately 24 kilometres north of the modern town Mahalapye at a group of related sites. The site complex was dominated by the hilltop at Lose Enclosure, interpreted as an elite settlement, with other areas including Mookotso and East of the River. Their excavations were undertaken in order to test previous models of settlement hierarchy proposed by Denbow (1982, 1983, 1986, 1990) for the Toutswe region. A series of 15 radiocarbon dates places the occupations at the Lose site complex between ca. AD 900 and 1460 (Table 2.7). The ceramics recovered from these sites, although not well-described, are a combination of Toutswe, Leopard's Kopje and Eiland elements.

Based on the combined radiocarbon and ceramic evidence, Kiyaga-Mulindwa and Widgren argued that all areas of the site complex were occupied continuously during the Toutswe period and were interpreted as a single, densely populated nucleated settlement. The authors go on to question Denbow's initial interpretation of Toutswemogala, Bosutswe and Shoshong as a unique large settlements; rather, they see densely populated "agro-towns" as the norm rather than the exception in prehistoric settlement patterns between ca. AD 800 and 1500 in eastern Botswana.

Other recent work in eastern Botswana on the relationship between Leopard's Kopje and Taukome/Toutswe ceramics include excavations at the sites Makodu in the Tswapong Hills (Kiyaga-Mulindwa 1992, cited in Reid and Segobye 2000) and at the Sowa Pan site complex of Kaitshe, Mosu I and Mosu II (Reid and Segobye 2000). Both Makodu and the Sowa Pan sites are distinguished by the co-occurrence of Zhizo and Leopard's Kopje wares. Regarding the stratigraphic relationship between Zhizo and Leopard's Kopje at the site

Kaitshe, which dates between ca. AD 900 and 1000, Reid and Segobye (2000:64) state that "...there is no evidence of a cultural break in which one tradition replaces the other, neither is there any evidence of a chronological divide and reoccupation of the settlement, nor of spatially discrete distributions of pottery." Interestingly, they also note that the Leopard's Kopje elements within the Kaitshe assemblage have more in common with Mambo assemblages from southwestern Zimbabwe than with K2 (Bambandyanalo) assemblages in the Shashi-Limpopo. The spatial and temporal co-occurrence of these wares at Kaitshe led the authors to suggest, drawing on the earlier work of Van Waarden (1998) that Leopard's Kopje may have grown out of Zhizo as the result of internal political changes in eastern Botswana, rather than seeing the appearance of Leopard's Kopje in the area as the result of migration. Unfortunately, the details of the excavations were not forthcoming, the ceramics were not illustrated and the radiocarbon results were presented only in summary form, making more detailed comparisons impossible.

Table 2.6. Radiocarbon dates for Bosutswe, by area and phase/ceramic affinity (Denbow 2000).

Sample Designation	**Site/Area**	**Phase/ Ceramic Affinity***	**Age (bp)**	**Age Error**	**Calibrated Age (AD)**	**1-Sigma Range (AD)**
T6967	Bosutswe/Marasta	Late Leopard's Kopje (LK)	590	±70	1410	1310-1360; 1385-1430
T6983	Bosutswe/Marasta	Late LK	680	±70	1305	1285-1405
T6981	Bosutswe/Marasta	LK	900	±70	1195	1050-1100; 1135-1255
T6982	Bosutswe/Marasta	Taukome	1170	±80	900	795-1000
T6987	Bosutswe/Makgolo	Toutswe	850	±70	1235	1175-1280
T6996	Bosutswe/Makgolo	LK	980	±80	1040	1010-1195
T6993	Bosutswe/Makgolo	LK	1020	±70	1025	1000-1160
T6997	Bosutswe/Makgolo	Taukome	1230	±60	870	770-900
T6985	Bosutswe/Eastern	Toutswe	1070	±60	1010	980-1030
T6995	Bosutswe/Eastern	Toutswe	1070	±60	1010	980-1030
T6994	Bosutswe/Eastern	Taukome	1370	±60	675	655-715; 745-760
T6991	Bosutswe/Eastern	Taukome	1400	±60	665	640-690
T6992	Bosutswe/West	Taukome	1200	±60	890	785-970

*Leopard's Kopje designations defined by me based on comparisons with known assemblages and dates from other areas; originally designated by Denbow simply as "Mapungubwe."

The available archaeological data on Zhizo:Leopard's Kopje relations in eastern Botswana indicate that a situation similar to that in southwestern Zimbabwe prevails, with

multiple hypotheses competing for primacy. Again, however, two general, divergent, strains of thought can be discerned in the disorder. Currently, the most dominant is the one advocated by Denbow (1982, 1983, 1986, 1990, 1996, 1999, 2000) and eventually by Huffman (e.g. 1984, 1986a, 1996) that sees Zhizo (Taukome) wares occurring in eastern Botswana by the 7th or 8th centuries AD and extending to about AD 1000, at which time the region receives a major influx of Zhizo-using immigrants from southwestern Zimbabwe and the area of the Shashi-Limpopo confluence. This massive migration is said to have been brought about by

Table 2.7. Radiocarbon dates for the Lose site complex: Lose Enclosure, Mookotso, and East of the River (Kiyaga-Mulindwa 1990; Kiyaga-Mulindwa and Widgren in press).

Sample Designation	Site Area	Phase/ Ceramic Affinity	Age (bp)	Age Error	Calibrated Age (AD)	1-Sigma Range (AD)
Beta-24517	Lose	Toutswe(T)/ Leopard's Kopje(LK)/ Eiland(E)	510	±60	1435	1415-1455
Beta-24515	Lose	T/LK/E	690	±60	1300	1285-1400
Beta-24516	Lose	T/LK/E	730	±50	1290	1280-1305
Beta-24518	Lose	T/LK/E	750	±60	1285	1265-1300
Beta-24514	Lose	T/LK/E	920	±70	1175	1040-1235
Beta-24519	Lose	T/LK/E	1070	±60	1010	980-1030
Beta-24513	Lose	T/LK/E	1130	±50	980	895-1000
Beta-65885	Mookotso	T/LK/E	660	±50	1310 or 1360 or 1385	1295-1405
Beta-65884	Mookotso	T/LK/E	720	±50	1295	12801310 1370-1380
Beta-65887	Mookotso	T/LK/E	860	±50	1225	1185-1265
Beta-65889	Mookotso	T/LK/E	910	±50	1185	1055-1085; 1150-1225
Beta-65888	Mookotso	T/LK/E	920	±60	1175	1040-1225
Beta-65886	Mookotso	T/LK/E	950	±50	1160	1035-1195
Beta-65890	Mookotso	T/LK/E	1090	±70	1000	910-925; 955-1025
Beta-65891	East of the River	T/LK/E	560	±50	1420	1400-1435

the arrival of, presumably militarily dominant, Leopard's Kopje-users. Political centralisation in eastern Botswana is said to have been spurred on to some degree by this military conflict, and regional settlement hierarchies, coincident with the advent of "Toutswe" pottery, appear. Some contact between Toutswe and Leopard's Kopje users is hypothesised through the 13th

century AD, but is thought to be limited to intermittent intermarriage and violence. After around the turn of the 14th century, however, finds of Leopard's Kopje occupational levels at the site Bosutswe are said to indicate the extension of Leopard's Kopje rule in the region at this time.

This position stands in sharp contrast to the hypotheses offered by other researchers, particularly Reid and Segobye (2000), that see the co-occurrence of the Zhizo/Toutswe and Leopard's Kopje ceramic styles at several sites in the Sowa Pan by at least the mid-10th century AD. Their data, although not yet completely published, would indicate that Leopard's Kopje wares occur earliest in eastern Botswana (ca. AD 900 to 1000), at which time they are not present in southwestern Zimbabwe or the area of the Shashi-Limpopo confluence. They postulate that Leopard's Kopje wares may have developed out of Zhizo ceramics in eastern Botswana. It is suggested here that their interpretation is bolstered somewhat by the presence in the earliest (ca. AD 700 to 1000) levels at Taukome of decorated beakers, diagnostic of Leopard's Kopje A in the area of the Shashi-Limpopo confluence after around the turn of the 11th century AD. Their presence at Taukome can not reasonably be attributed to Zhizo:Leopard's Kopje interaction, if the conventional notion that Leopard's Kopje ceramics did not enter the region until after sometime AD 1000 is accepted. Also potentially supporting the position of Reid and Segobye are the relatively early dates for Leopard's Kopje assemblages at the Lose sites and at Bosutswe (ca. the turn of the 11th century AD); these are slightly earlier than the dates for Leopard's Kopje in the area of the Shashi-Limpopo confluence and at about the same time as in southwestern Zimbabwe. If these dates are accurate, it would be very difficult to accept the argument for an east to west or north to south movement of Leopard's Kopje wares into eastern Botswana or southwestern Zimbabwe. Rather, the recent data outlined previously would appear to indicate precisely the opposite origin and movement of the Leopard's Kopje ceramic style. Working against this idea of a local, Zhizo, origin for Leopard's Kopje in Botswana, however, is the fact that none of the data on which Reid and Segobye's hypothesis is based, including their work at the Sowa Pan sites, Kiyaga-Mulindwa's Tswapong Hills and Lose sites, and Denbow's work at Bosutswe, have yet been published fully.

Shashi-Limpopo Confluence

The first archaeological research in the area of the Shashi-Limpopo confluence which bears on the questions of Zhizo:Leopard's Kopje interaction and the rise of complex society was at the sites K2 and Mapungubwe in 1934 (Fouché 1937) and between 1935 and 1940 (Gardner 1963). The site K2 is located at the base of the hill Bambandyanalo on the farm Greefswald in the Northern Province of South Africa. The site of Mapungubwe is located on

the same farm approximately one kilometre northeast of K2. Mapungubwe is divided into three spatially distinct occupational areas: the hilltop itself, the Southern Terrace, and the surrounding occupational terraces. Access to the hilltop is restricted and limited to three easily guarded ascents. The only areas of these sites for which published information by primary investigators is available are K2, the hilltop, and the Southern Terrace.

The early investigations were prompted by the discovery in 1932 of several human burials on the summit of Mapungubwe Hill associated with golden grave goods. Mapungubwe and K2 were considered to be of extreme importance to the history of southern Africa owing to the fact that while gold had been recovered previously at Great Zimbabwe, no burials had been recovered there; the ceramics from Mapungubwe, furthermore, were considered to have affinities with those from Great Zimbabwe. The "racial" identity of the Mapungubwe and K2 burials were thus seen as potentially crucial in contributing to long-standing debates in southern Africa about the identity of the builders of Great Zimbabwe. A few points concerning the methodology employed during the early investigations at these sites need to be made in order to place their results into perspective.

These extensive excavations at K2, on the summit of Mapungubwe Hill and at the Southern Terrace were wanting in recovery and recording techniques. For example, based on calculations derived from published section and plan drawings and artifact inventories, Gardner's and his assistant Van Tonder's excavations on the summit of Mapungubwe Hill encompassed an area of 3348 m^2, from which approximately 6515 m^3 of archaeological deposit were removed. No records whatsoever were kept for approximately 38% (2506 m^3) of these excavations (Van Tonder's), while Gardner (1963) published only an incomplete inventory of artefacts, along with occasional and vague descriptions of features and depositional strata. In terms of recovery, it is telling that Gardner catalogued only 150 vessels from his 4009 m^3 of deposit, amounting to one vessel recovered for every 27 m^3 excavated. Based on the large quantities of ceramics recovered from later excavations (e.g. Meyer 1980), it can be inferred that Gardner collected a less than representative sample of archaeological material. The little material that was collected, however, was recorded within a grid system. The recovery and recording methods Gardner employed at Mapungubwe were also used at K2 (Gardner 1963:3, 10). Jones' field methods in earlier excavations at both sites, it should be added, were equally wanting. I have thus inferred that both Jones' and Gardner's published data, and unpublished collections from both sites, grossly under represent what was actually present. Also, it needs to be stated that both Jones and Gardner were not overly concerned with collecting representative samples of material culture: their primary focus was the recovery of whole vessels, a factor which invariably skewed their results.

The results of the earliest excavations, directed by Neville Jones, led to the

identification of pottery that Schofield (1937; cf. 1948, 1950) classified as M_1 and M_2 wares. As mentioned previously, the material from Mapungubwe and K2 was related initially to that recovered at Great Zimbabwe by Caton-Thompson (1931) and later to material recovered from Leopard's Kopje and related sites (Robinson 1959). Importantly, Schofield distinguished the more recent M_1 (Mapungubwe) wares from the older M_2 (K2) wares by noting that fine-lined incision dominated the younger wares, while more coarse incision and some comb-stamping prevailed in the older assemblage.

My examination of Schofield's drawings (1937:64-95) indicates that some material which he included within K2 (M_2) would have been classified, according to revised criteria (Huffman 1974), as Zhizo wares. These include all the comb-stamped and bead/bangle-impressed wares recovered. These vessels were recovered from the original excavations in 1934 (Schofield 1937, plates xxvii, 1, 6, 10, 11, 18; xxix, 12; xxxi, 7).

Fouché (1937) concluded that, based on the ceramic evidence and the overall material cultural patterning at both sites, these were locations of indigenous Bantu settlements that dated to Late Mediaeval times. This finding was in keeping with the interpretations of Great Zimbabwe (MacIver 1906 and Caton-Thompson 1931) current at the time. This interpretation was at variance, however, with the physical anthropological analyses that Galloway (1937, 1959) conducted on the human skeletal material. He interpreted the human skeletal remains as representing those of a non-Bantu "Bush-Boskop", "Boskopoid" or "Hottentot" group.

These "original" non-Bantu peoples were, according to Gardner (1956:55), "overrun by savage Negro tribes from the north." The pottery from K2 thus represented the earlier "Boskopoid" pottery, while the later wares from Mapungubwe were produced by the Bantu invaders. These interpretations were taken up wholeheartedly by Dart (1959) and restated by Gardner (1955, 1956, 1957, 1958, 1963). Some dissension, albeit guarded, was voiced by Walton (1956a, 1956b) who saw Gardner's interpretations as being in conflict with the material culture at both sites which indicated, as Fouché, Jones, and Schofield had determined previously, that these were essentially Bantu settlements.

The next several decades saw little active work on the sites, with smaller test excavations carried out by the University of Pretoria, which was granted exclusive research rights by the government soon after the sites were discovered. The work conducted by the University of Pretoria after Jones' and Gardner's efforts was limited to describing and analysing the results of previous researchers, although some limited, and very well-executed, excavations were undertaken. The results and data recovered during this research, encompassing many field seasons, have yet to be published completely. Various specialist studies on ceramics (Meyer 1980), faunal remains (Voigt 1983), glass trade beads (Saitowitz 1996) and human skeletal material (Rightmire 1970; Steyn 1994, 1995; Hennenberg & Steyn

1994, 1995; Steyn & Hennenberg 1994, 1995a, 1995b, 1996, 1997) have been forthcoming, but no overarching synthesis or interpretation has been presented or attempted. One general presentation has appeared (Eloff & Meyer 1981), as have several histories of the University of Pretoria excavations along with descriptive listings of radiocarbon dates and stratigraphy (Meyer 1997, 1998). Representative drawings of the ceramics from K2 and Mapungubwe are shown in Figures 2.6 and 2.7.

The questions of Zhizo:Leopard's Kopje interaction at the early settlement at K2 have not been addressed by previous researchers. However, based on the ceramic drawings, photos and tables presented by Meyer (1980) I have concluded that Zhizo and Leopard's Kopje wares may co-occur at K2 (see Meyer 1980: fig. 46a, b, c, h, l, m, n; fig. 132d; photos 57, 58, 73, 74, 76; cf. Calabrese 2000a). Unfortunately, I can not state securely, based solely on Meyer's published data, where on the site they co-occurred and in which dated levels. Importantly, however, I have recognised that one of the four juvenile interments at K2, Burial 2, had both Zhizo and K2 wares securely associated with the grave assemblage (Figure 2.8)(see Fouché, 1937, plate xi, 4; Schofield, 1937, plates xxv, 1, 4; xxxi, 7; cf. Calabrese 2000a). This burial was recovered from the same area of the site as Trenches TS1 and TS2 (Meyer 1997:fig. 3); samples from these trenches have provided equivocal dates for this area of the site (Table 2.8).

One of the more significant contributions made by the University of Pretoria's recent excavations at the Greefswald sites to our understanding of the Iron Age prehistory of the region has been in the area of radiocarbon dating (see Table 2.8). A series of 33 dates has been generated from the various areas at the K2/Mapungubwe site complex.

The most well dated site is K2, with 15 dates generated. The 1-sigma range of the earliest secure dates runs between the early 11th and the late 12th centuries AD, thereby making it difficult to determine when the earliest occupation at K2 occurred. Vogel (2000), however, employing the idea that the putative end of the Zhizo tradition in southwestern Zimbabwe should reliably mark the beginning of the Leopard's Kopje tradition in South Africa, used the youngest Zhizo dates from Nali Hill and Mawala Hill (see Table 2.3) to infer that K2 was first occupied around AD 1030. The underlying reasoning of this inference was that Leopard's Kopje (K2) and Gokomere (Zhizo) ceramics were part of two culturally and chronologically unrelated ceramic traditions; this assumption may or may not be valid. It should, however, be noted that one of the earliest dates (Pta-768) at the Southern Terrace of Mapungubwe Hill, associated with K2 pottery, has a far more reliable 1-sigma range of AD 1000 to 1040, with an intercept of AD 1025. Based on this date, it is possible to infer that the earliest presence of K2 pottery at the Greefswald site complex can be dated to the first half of the 11th century AD. K2 continued to be occupied by Leopard' Kopje users into the 13th

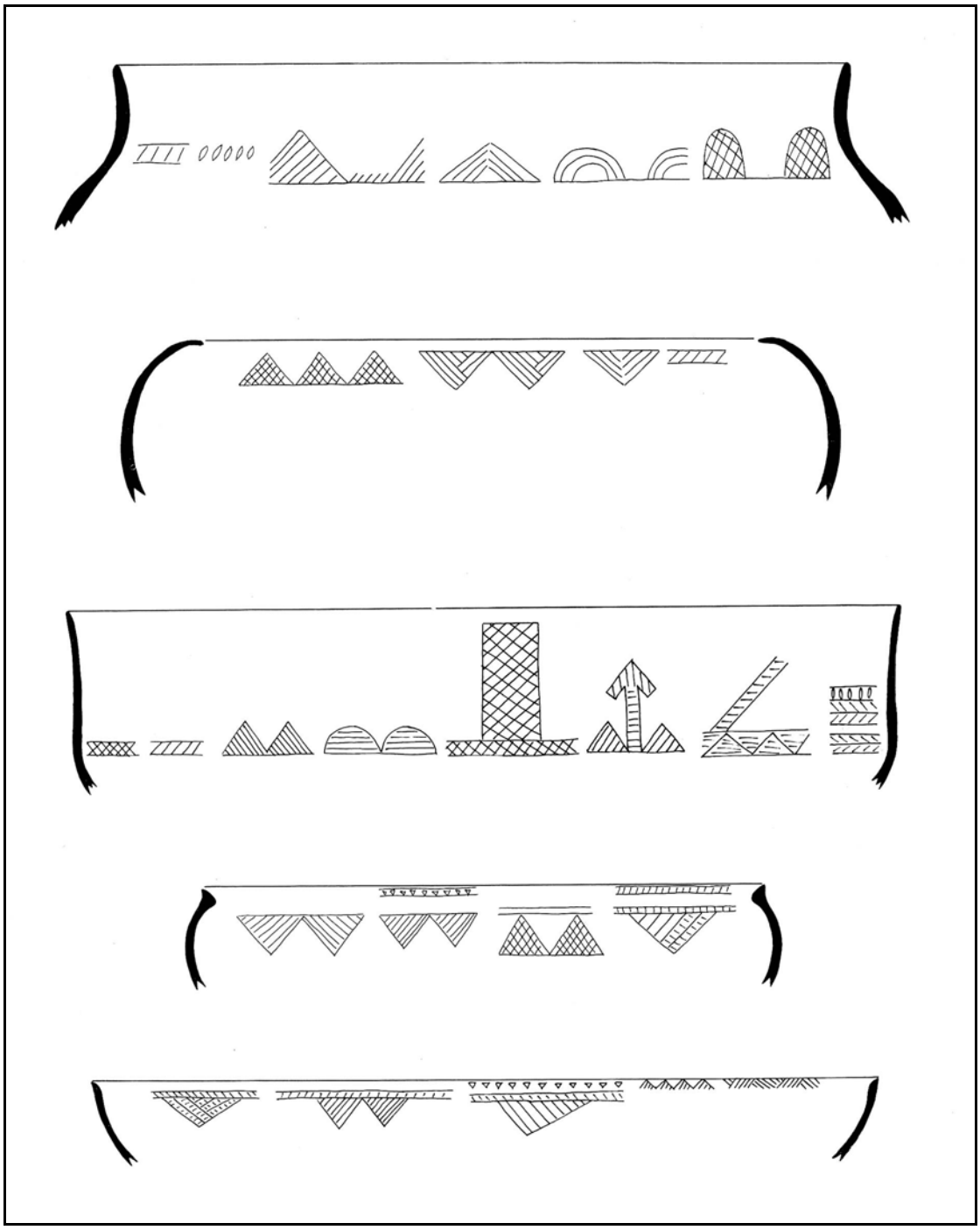


Figure 2.6. Representative ceramics from the site K2 (adapted from Huffman 1974:113).

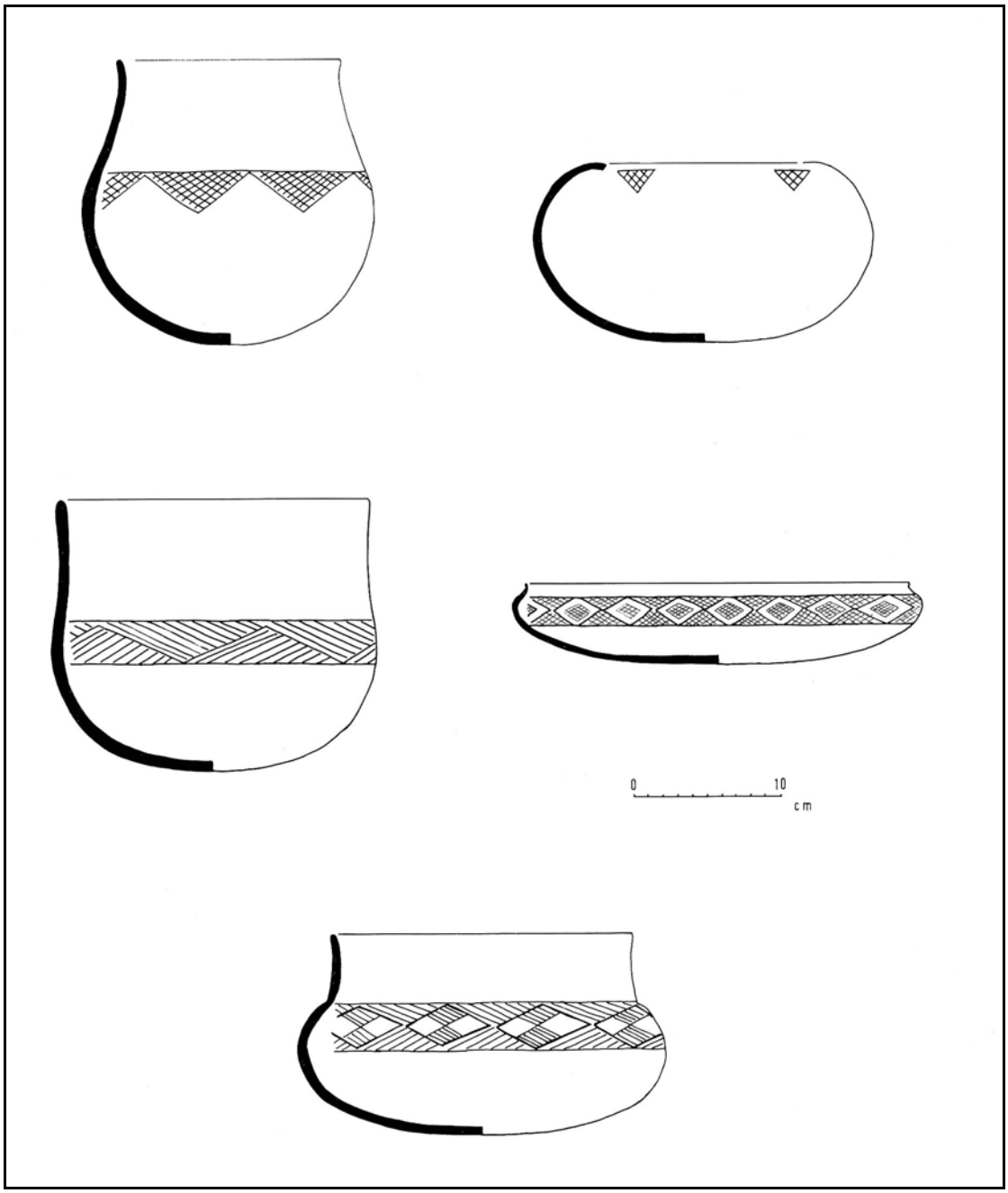


Figure 2.7. Representative Mapungubwe ceramics (adapted from Huffman 1974:115).

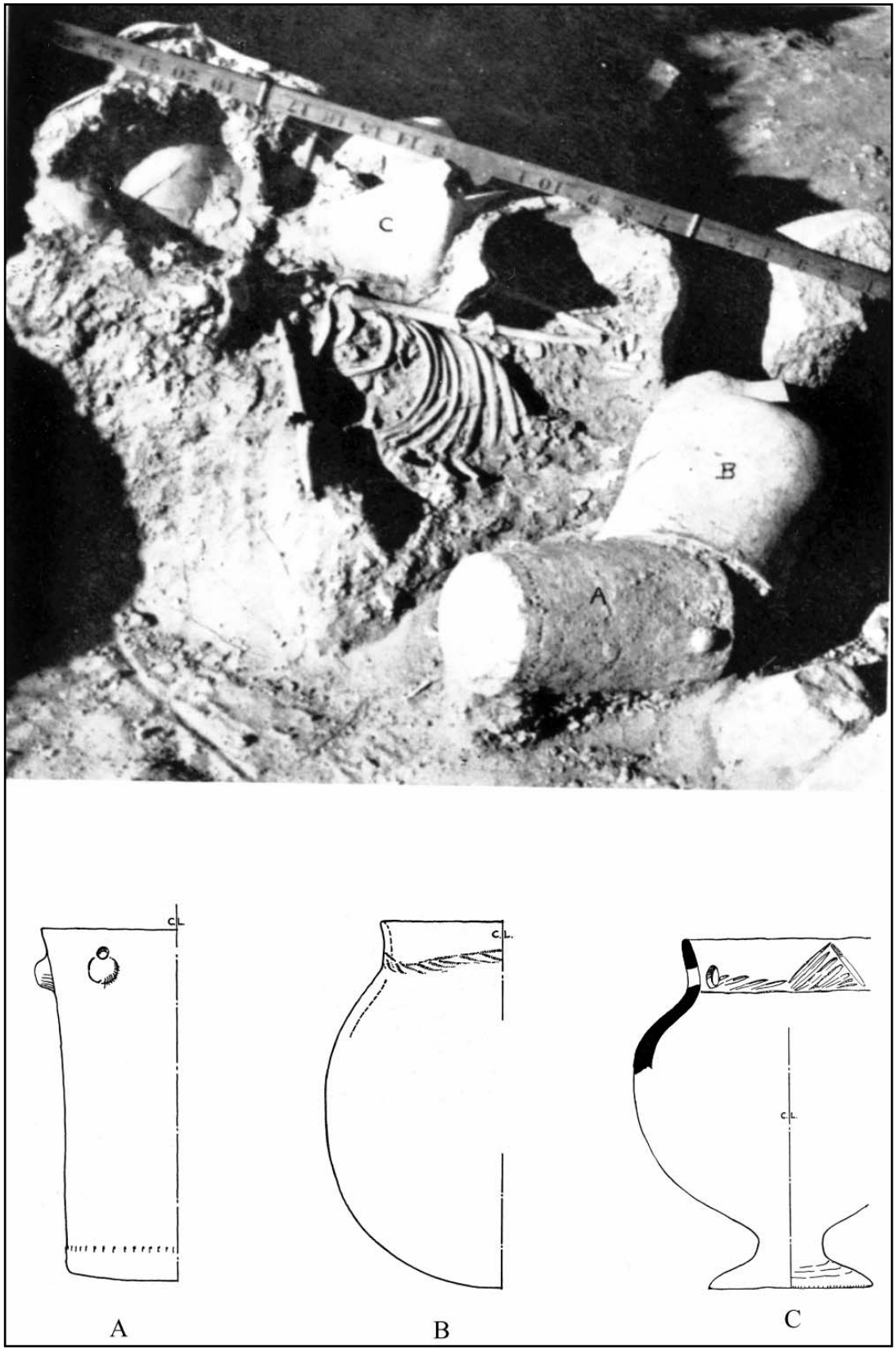


Figure 2.8. Burial 2 from Jones'1937 excavations at K2. Lettered vessels in photograph correspond to lettered drawings. Vessels A and C are Leopard's Kopje A vessels; B is a Zhizo vessel. Adapted employing Fouché 1937 and Schofield 1937.

Table 2.8. Radiocarbon dates for K2, Mapungubwe Hill (MH), and Mapungubwe Southern Terrace (ST) (Vogel n.d., Meyer 1997).

Sample Designation	Site/Excavation Area	Phase/ Ceramic Affinity	Age (bp)	Age Error	Calibrated Age (AD)	1-Sigma Range (AD)
Pta-6570	K2/TS5	Mapungubwe	760	±50	1285	1265-1295
Pta-306	K2/TG68	Mapungubwe	850	±50	1235	1195-1270
Pta-6064	K2/TS1	Zhizo/K2	880	±50	1210	1170-1255
Pta-304	K2/TG68	K2	880	±40	1210	1175-1250
Pta-305	K2/TG68	K2	890	±50	1200	1160-1250
Pta-6073	K2/TS4	K2	920	±50	1175	1050-1100; 1135-1220
Pta-307	K2/TG68	K2	930	±45	1170	1045-1110; 1115-1205
Pta-6080	K2/TS6	K2	940	±50	1160	1040-1200
Pta-1157	K2/TS3	K2	950	±40	1160	1040-1185
Pta-1226	K2/TS3	K2	950	±50	1160	1030-1190
Pta-2051	K2/TS3	K2	970	±40	1050 or 1100 or 1135	1030-1170
Pta-1215	K2/TS3	K2	970	±50	1050 or 1100 or 1135	1025-1175
Pta-1214	K2/TS1	Zhizo/K2	980	±40	1040	1025-1160
Pta-6576	K2/TS2	Zhizo/K2	1010	±50	1030	1010-1055; 1085-1150
Pta-6680	K2/Skeleton UP 245	?	1250	±40	795	770-880
Pta-1138	ST/H5	Mapungubwe	590	±50	1410	1325-1340; 1395-1420
Pta-1209	ST/K8	Mapungubwe	770	±50	1280	1260-1295
Pta-752	ST/K8	Mapungubwe	790	±50	1275	1250-1290
Pta-437	ST/E2	Mapungubwe	810	±45	1265	1230-1280
Pta-438	ST/E2	Mapungubwe	820	±60	1260	1210-1280
Pta-439	ST/E2	Mapungubwe	840	±50	1250	1200-1275
Pta-766	ST/K8	Mapungubwe	860	±40	1225	1195-1260
Pta-1156	ST/K8	Mapungubwe	860	±40	1225	1195-1260
Pta-2023	ST/H5	K2	930	±40	1170	1050-1100; 1135-1200
Pta-2024	ST/F4	K2	1030	±40	1025	1010-1040
Pta-768	ST/K8	K2	1030	±50	1025	1000-1040
Pta-6692	MH/MK4	Mapungubwe	720	±40	1295	1285-1305

Sample Designation	Site/Excavation Area	Phase/ Ceramic Affinity	Age (bp)	Age Error	Calibrated Age (AD)	1-Sigma Range (AD)
Pta-3480	MH/Skeleton A622	Mapungubwe	770	±40	1280	1265-1290
Pta-1159	MH/MK1	K2	840	±40	1250	1210-1270
Pta-3489	MH/Skeleton A621	K2	850	±40	1235	1200-1265
Pta-1158	MH/MK1	K2	850	±50	1235	1195-1270
Pta-1145	MH/MK3	K2	880	±40	1210	1175-1250
Pta-372	MH/Block 6	K2	880	±45	1210	1170-1255

century; with the overall 1-sigma range of the dates at K2 spanning (with some minor breaks) between AD 1010 to 1295. A single older outlying date (Pta-6680) has a 1-sigma range of AD 770 to 880.

As indicated above, the area of the Southern Terrace of Mapungubwe Hill was initially occupied by Leopard's Kopje-using peoples probably around the same time as the site K2. The various 1-sigma ranges from the Southern Terrace dates run between AD 1000 to 1040, 1050 to 1100, 1135 to 1295 and 1325 to 1420. The summit of Mapungubwe Hill has the tightest 1-sigma range of all three areas at Greefswald, running from AD 1170 to 1305.

A great deal of important data has long been known to have been recovered from the Greefswald sites since the earliest excavations in the 1930s; much of it has not, however, been generally available for study. These data relate to the rise of social and political complexity in the region and include information on long-distance trade, religious and ideological transformations, and elite versus commoner burial patterns and settlement patterns, among others. Unfortunately, it has not been until the past decade when more detailed information in these areas has been forthcoming. These will be discussed in detail below in the presentation of Huffman's (1982, 1984, 1986a, 1986b, 1989, 1996, 2000) synthesis of the then available data.

Briefly, however, it should be noted that the Pretoria excavations recovered in the order of 15,611 glass trade beads from K2 (Saitowitz 1996); 248 of these were 'garden roller' beads, named after their cylindrical shape, each of which was fashioned by melting and moulding hundreds of smaller beads. At least some of this re-working was done on site, as is evidenced by the presence of numerous ceramic moulds. In addition, approximately 3,933 glass trade beads were recovered from Mapungubwe Southern Terrace, while around 104,164 were retrieved from Mapungubwe Hill. No garden roller beads were recovered from the Southern Terrace, while only four were recovered from Mapungubwe Hill (Ibid:200). Saitowitz (Ibid) has determined that the glass trade beads had Egyptian and Indian origins.

Other imported goods from the sites include several pieces of Sung Dynasty Chinese celadon ware from Mapungubwe Hill (Jones 1937:25) and cowries and other marine shell species collected from both sites (Jones 1937; Gardner 1963; Voigt 1983; Plug 2000).

Large quantities of iron and copper artifacts were recovered from domestic and burial contexts (Miller, n.d.) at both sites, while evidence of metal production was claimed at K2 by Jones (1937) and at Mapungubwe by Gardner (1963). Other significant finds of metal include the 200 or more ounces of gold recovered from three burials on Mapungubwe Hill (Jones 1937). Finally, relatively large quantities of elephant ivory chips and finished goods have been recovered from K2 (Gardner 1963; Voigt 1983); a few ivory artifacts have been recovered from Mapungubwe, but no evidence of ivory working has been located.

The Greeefswald sites were, with the sole exception of Mapela Hill, the only sites in the region dating to the general time period under consideration here that were investigated until the mid- to late 1960s. Mapela Hill, located 80 kilometres northwest of K2 near the Shashi River in Zimbabwe, is a large, single component Late Leopard's Kopje site that was test excavated by Peter Garlake in 1966 (Garlake 1968, 1973). The site consists of both hilltop and lower lying occupations. Archaeological investigations at Mapela were limited to the excavation of six approximately 2x1-metre test units. These revealed numerous episodes of building construction and midden deposition. The pottery recovered from the site was well-illustrated and most closely resembles Leopard's Kopje B (Woolandale/Mapungubwe) wares. Two radiocarbon dates were generated which provide a combined 1-sigma range of AD 1205 to 1415 (Table 2.9). The dates were stratigraphically inverted, but provide a likely range of occupation in the 13th through 15th centuries.

The glass beads recovered (n=338) generally support the radiocarbon dates. The beads were compared by Garlake (Ibid:Table 2) to those recovered at other Leopard's Kopje and Zimbabwe Period sites. The beads were determined to be most closely related to those recovered from Mapungubwe Hill and other later Leopard's Kopje sites.

Table 2.9. Garlake's (1968) dates for Mapela Hill.

Sample Designation	Site/Area	Ceramic Affinity	Age (bp)	Age Error	Calibrated Age (AD)	1-Sigma Range (AD)
SR-115	Mapela Hill, Trench B, 36-42 in.	Late Leopard's Kopje (LK)	670	±95	1310 or 1370 or 1380	1280-1415
SR-122	Mapela Hill, Trench B, 12-18 in.	Late LK	790	±95	1275	1205-1300

The architectural remains at Mapela Hill were well-documented and interesting; several hut platforms were identified, as were artificially terraced occupational platforms buttressed by roughly piled stone walls. Two of the occupational platforms were separated

from the rest of the hilltop by a combination of natural rock features and stone walling. Access to the hilltop was confined to three possible ascents; two of these were protected with stone walling. The huts on the uppermost, more isolated, platform were constructed of thick, continuous daub floors with massive daub kerbs. This situation is in contrast with hut construction encountered in all other areas of the hilltop, which were constructed of wattle and daub with relatively thin, discontinuous daub floors. Garlake (Ibid:18) suggests that the upper platform "contained...buildings of better quality and somewhat different style to those of the rest of the hill." He further (1973:157) contends that these "were not the work of intruders for they were firmly associated with the terrace walls that surrounded their platform, the earliest of these huts was built at the first occupation of the site and they were renewed and rebuilt several times until the site was abandoned." I would argue that the separation of residential areas at the site, the presence of stone walling and terracing, requiring significant motivation and regulation of labour, and differential standards for residential construction all combine to indicate that at least some of its residents were elites. Garlake (1968:25) described the site "as a centre of political and economic influence" comparable to Mapungubwe Hill, but did not posit what the relationship between the two sites may have been.

The next site investigated in the region that dated to the general Leopard's Kopje period, Mmamagwa Hill, was researched by Trent University, under the direction of Morgan Tamplin. The site is located approximately 40 kilometres due west of K2 in eastern Botswana near the confluence of the Limpopo and Motloutse Rivers. The site was the subject of several field seasons but, to date, the only reporting of the site has been in the form of a series of brief Newsletters of the Royal Ontario Museum (Tamplin 1974, 1977, 1979, 1980) and an unpublished survey report cited in Huffman (1996a:58). The residential core of the site, including the hilltop and adjacent terraces is large (ca. 9 hectares) and is said to rival Mapungubwe in size.

Unfortunately, due to the fact that the site is unpublished and the ceramics are described only as generalised "Leopard's Kopje" I can not comment further on the site or make comparisons with other assemblages. Based on unpublished survey data on file at the University of the Witwatersrand, however, the site has Zhizo, K2 and Mapungubwe components. A single radiocarbon date from the deposit at Mmamagwa (Tamplin n.d., cited in Huffman 1996a) has a 1-sigma range of AD 1000 to 1170 (Table 2.10).

Around the same time that Tamplin was investigating Mmamagwa Hill, Edwin Hanisch (1980, 1981) began research at the Zhizo site Schroda and at the sites Commando Kop and Pont Drif, settlements with both Zhizo and K2 ceramics. The results of Hanisch's excavations at Schroda, located approximately six kilometres northeast of K2, though largely unpublished, indicated that the Zhizo-using residents of the site were probably society's

elites. The site is large (ca. 5 ha.) and was divided by Hanisch into six excavation areas (Areas 1 through 6). Two radiocarbon dates place the occupation at Schroda between ca. AD 880 to 1010 (Table 2.11).

Table 2.10. Tamplin's radiocarbon date for Mmamagwa Hill.

Sample Designation	Site/Area	Ceramic Affinity	Age (bp)	Age Error	Calibrated Age (AD)	1-Sigma Range (AD)
I-10 344	Mmamagwa Hill	Leopard's Kopje	1010	±80*	1030	1000-1170

*inferred from the 1-sigma range in Huffman (1996a), using CAL4C (QUADRU 2001).

Evidence of relatively large-scale long-distance trading contacts occurs at the site in the form of approximately 664 glass trade beads, among which were two garden roller beads (Saitowitz 1996:245), along with moulds of the type used in their production (Hanisch 1980:163-164). Glass beads were recovered throughout the deposit. Based on the faunal remains from the site (Voigt 1981), it is likely that elephant ivory and animal skins were exported. This evidence of the relatively high status of at least some of Schroda's inhabitants, implied by trading contacts with the East African coast, is supported by the large quantities of ceramic figurines recovered from Area 6 (Hanisch 1980, 1981; Van Schalkwyk & Hanisch 2002). These figurines have been interpreted as indicating that initiation rituals, similar to the ethnographically noted *domba* rituals, occurred there under the auspices of the site's leaders (Hanisch 1981; Nettleton 2002; Van Schalkwyk 2002; Wood 2002).

Hanisch's analysis of the ceramic assemblage did not include generating discrete types, thereby making comparisons with assemblages from other sites impossible. His analysis consisted instead of tabulating design motifs, vessel forms, and design placement by excavation area and level. These data were appended to his MA thesis, rather than incorporated into the main body of his work. The only generalized statements which he made were that incision as a decoration technique was seen to increase throughout the deposit, while comb-stamping decreased (Hanisch 1980). The Zhizo wares at Schroda were held to be generally similar to those described by Huffman (1974) at Leopard's Kopje, with recurved jars decorated with lines of stamping in the neck dominating the assemblage. The red and black graphite bowls noted by Huffman in southwestern Zimbabwe Zhizo assemblages were extremely rare in the Schroda assemblage. Hanisch (1980, 1981:52), based on the presence of garden roller beads and moulds at the site (usually associated with K2) and the gradual trend towards incision as the dominant decorative technique in the ceramic assemblage, stated that the available data indicated that the Leopard's Kopje A style may well have developed from Zhizo.

The site Pont Drif (Hanisch 1980), located 23 kilometres due west of K2, was

excavated and analysed employing the same methodology as at Schroda. The ceramic assemblage was subjected to minimal analysis and was not described in sufficient detail to allow for comparative work. The site contains Zhizo and transitional Zhizo/K2 assemblages that have 1-sigma ranges that range from AD 890 to 1010 (see Table 2.11). The site also has K2 and K2 with Zhizo assemblages present; the pure K2 assemblage has not been dated, while the co-occurring K2/Zhizo assemblage has an unusually young 1-sigma range of AD 1200 to 1275 (see Table 2.11). It is important to note that the K2 assemblage is, in places, entirely horizontally and vertically separate from the Zhizo assemblage, while in other areas it partially overlaps or sits above the Zhizo wares. Unfortunately, given the lack of clarity in the available ceramic data from Pont Drif, its stratigraphic ambiguity, and the very young K2 date, it is not possible to state whether Zhizo and K2 ceramics actually co-occurred at the site, or if it was a true multiple component site, with an earlier Zhizo occupation followed by a later, wholly unrelated, K2 occupation.

The site Commando Kop is located nine kilometres northwest of K2 across the Limpopo River in Botswana on the farm Glennel. The site has not been published, and only a very brief excavation summary has been made available (Hanisch, n.d.). The ceramics have not been described in any detail. The only information available on the site is in the form of the radiocarbon sample descriptions and results in Vogel (n.d.)(see Table 2.11). According to these, the site retained archaeological deposits with co-occurring Zhizo and K2 wares. The earlier, predominantly Zhizo, deposit had a 1-sigma range spanning between AD 880 to 1010,

Table 2.11. Hanisch's (1980, 1981, n.d.; Vogel, n.d.) dates from Schroda, Pont Drif and Commando Kop (Glennel).

Sample Designation	Site/Area/Level	Ceramic Affinity	Age (bp)	Age Error	Calibrated Age (AD)	1-Sigma Range (AD)
Pta-1818	Pont Drif/Trench 1/Level 4	K2 with Zhizo	840	±50	1250	1200-1275
Pta-1961	Pont Drif/Trench 1/Level 5	Zhizo with K2	1110	±50	990	910-925 or 955-1010
Pta-1959	Pont Drif/Trench 2/Level 14	Zhizo	1140	±50	970	890-1000
Pta-1957	Commando Kop/ Square H15	K2 with Zhizo	1010	±40	1030	1015-1050 or 1100-1135
Pta-1817	Commando Kop/ Square C25	Zhizo with K2	1120	±60	980	895-1010
Pta-1819	Schroda/Square F1/Level 8	Zhizo	1110	±50	990	910-925 or 955-1010
Pta-1967	Schroda/Square C1/Level 10	Zhizo	1160	±50	910 or 925 or 955	880-990

while the later, K2-dominated, deposit ranged between AD 1015 to 1050 and AD 1100 to 1135. Like Pont Drif, however, the lack of detailed information about the ceramic assemblage and the ambiguous vertical and horizontal relationships of the Zhizo and K2 wares make it unclear if the deposit at Commando Kop represents a true co-occurrence of Zhizo and K2 ceramics, or if it was a multiple component site.

The last documented archaeological excavation in the Shashi-Limpopo region that dated to the time period under question here was excavated by J. Van Ewyk as part of his MA thesis at the University of Pretoria (Van Ewyk 1987). The site, Skutwater is located on the farm of the same name approximately 18 kilometres northeast of K2. The site is a relatively large Mapungubwe period homestead arranged in a manner consistent with the Central Cattle Pattern. The site was intensively excavated and well-documented.

The Skutwater ceramics were adequately described and represent types consistent with those previously recorded by Schofield (1937), Gardner (1963) and Meyer (1980) from Mapungubwe Hill. Van Ewyk statistically compared the ceramic, bead, metal and faunal collections from Skutwater with those from Mapungubwe. Based on his analysis, the assemblages from both sites were not significantly different. The radiocarbon dates from the site (Table 2.12) were also well within the range of the bulk of the Mapungubwe Hill and Southern Terrace dates, with an overlapping 1-sigma range of AD 1215 to 1280.

Four additional sites in the region have been tested and dated. These include Kromdraai 2 and 3, and Samaria and Stayt Farm; all are located in the South African portion of the area of the Shashi-Limpopo confluence. None of these sites has yet been published. However, according to the radiocarbon sample descriptions noted by Vogel (n.d.), all these sites have Mapungubwe ceramics.

Table 2.12. Van Ewyk's (1987) radiocarbon dates from Skutwater.

Sample Designation	Site/Area	Ceramic Affinity	Age (bp)	Age Error	Calibrated Age (AD)	1-Sigma Range (AD)
Pta-3715	Skutwater, Spit 8, 78 cm	Mapungubwe	820	±45	1260	1220-1280
Pta-3734	Skutwater, Spit 4, 34 cm	Mapungubwe	830	±40	1255	1215-1275

As the radiocarbon data presented above indicates, the settlement at Mapungubwe Hill began to decline around the last quarter of the 13th century AD. The decline of Mapungubwe in the Shashi-Limpopo region after around AD 1300 has generally been attributed to environmental deterioration (Tyson *et al* 2002; O'Connor and Kiker 2004). Decreasing rainfall patterns are cited as the main cause of the declining viability of agro-

pastoralism after this time and the concomitant cultural decline at Mapungubwe Hill (cf. Smith 2005).

Mapungubwe period pottery continues on after the abandonment of Mapungubwe Hill after AD 1300, however, at sites like Mapela Hill in southwestern Zimbabwe (Garlake 1968) through the 14th century. Similar data from the Soutpansberg Mountains to the south (Loubser 1988, 1989, 1990) indicates that Mapungubwe sites are present there both during and after the 13th century as well. These include the sites Princess Hill, Mutamba, Tshitaka, Vhuneyla, Verulam, Tavhatshena, and Begwa. The Mapungubwe presence in the Soutpansberg was strongest on the north side of the mountain range. Two sets of radiocarbon dates are available for the Mapungubwe occupation in the Soutpansberg (Table 2.13). The combined 1-sigma range of this occupation is AD 1240 to 1430. It is interesting to note that the date from Princess Hill is contemporary with the late occupation at Mapungubwe Hill.

Loubser notes that that the Mapungubwe sites in the Soutpansberg show evidence of interaction with groups who used ceramics executed in the Eiland style. This interaction is seen in the co-occurrence of these wares on sites both on the north and south sides of the Soutpansberg. It is also expressed in the Mapungubwe ceramic assemblages from Princess Hill, Mutamba, and Vhuneyla which, according to Loubser (1989:55) "…do not have typical Mapungubwe beakers, and contain decorative motifs that are rare at Mapungubwe Hill. These include cross-hatched bands, single lines with punctates, and bands or lines with pendant ladders." Interestingly, on the north side of the range, Mapungubwe vessels dominate these sites' ceramic assemblages; while on the south side Eiland ceramics dominate the assemblages (Loubser Ibid:Fig. 2). Given that Eiland and related wares are known to occur between around AD 1030 and 1280 in the area encompassing eastern Botswana, the Soutpansberg and south to the Makapan Valley (Denbow 1981, 1983; Loubser 1990; Moore 1981), the interaction postulated between Mapungubwe and Eiland users by Loubser is consistent with the radiocarbon evidence. The results of radiocarbon analysis for Eiland assemblages in Eastern Botswana and the Soutpansberg are shown in Table 2.14.

Table 2.13. Loubser's (1990) dates for the Mapungubwe occupation on the north side of the Soutpansberg.

Sample Designation	Site/Context	Ceramic Affinity	Age (bp)	Age Error	Calibrated Age (AD)	1-Sigma Range (AD)
Wits-1590	Princess Hill, hut post from sealed floor	Mapungubwe with Eiland (E) and E influence	770	±80	1280	1235-1300
Wits-1592/ Wits-1674*	Tshitaka, two samples from same hut post	Mapungubwe with E	620	±100	980	1295-1430

*weighted average of two samples.

Table 2.13. Loubser's (1990) date for the Eiland in the Soutpansberg and Denbow's Eiland date from eastern Botswana.

Sample Designation	Site/Context	Ceramic Affinity	Age (bp)	Age Error	Calibrated Age (AD)	1-Sigma Range (AD)
Wits-1437	Tavhatshena, Eiland level	Eiland	900	±110	1195	1030-1275
I-11, 823	Moritsane	Eiland	855	±75	1230	1170-1280

Loubser further indicates that with decline of Eiland wares after around AD 1300, Mapungubwe peoples in the Soutpansberg co-occupied that region with users of Moloko pottery until around the middle 15th century AD, when users of Khami style pottery arrived. The data on Mapungubwe interaction with groups in the Soutpansberg is interesting in that it indicates the southernmost extent of the spread of the Mapungubwe style. It also indicates that, if Loubser's interpretations are correct, Mapungubwe users engaged in rather accommodating types of interaction with other groups outside of the Shashi-Limpopo region.

Huffman (1974), drawing on his work at the site Leopard's Kopje wherein he posited a strict typological, cultural and temporal separation between Zhizo and Leopard's Kopje wares, has interpreted this settlement pattern data to indicate that the early (ca. AD 900 to 1000) Zhizo occupants of the area of the Shashi-Limpopo confluence were overrun by Leopard's Kopje groups who first settled at K2. Huffman (1978, 1986a, 1996) and Denbow (1983) have argued that Zhizo peoples were driven out of the Shashi-Limpopo area and southwestern Zimbabwe around AD 1000 by Leopard's Kopje groups who migrated into the region from the southeast (Huffman 1978). In the Shashi-Limpopo area, Huffman (Ibid) has referred to this putative population replacement as "an 11th century *difaqane*," thereby implicitly comparing this period in prehistory to the time of general societal unrest and political upheaval current in the 18th through 19th centuries AD in southern Africa (see Hamilton 1995).

The source of Leopard's Kopje is proposed to have been Klingbeil ceramics. These ceramics were first recorded and detailed by Evers (1980), and cited by Huffman (1978). Klingbeil ceramics, said to represent a part of the Kutama Tradition, share some elements with K2, particularly the presence of upturned and pendant triangles incised on the necks of recurved jars, and the presence of beakers. Importantly, however, none of the Klingbeil beakers (n=2) are decorated, while many of the specimens at K2 are. Also, the K2-like triangular incision occurs on only around 13% (n=6) of the total excavated, decorated, assemblage (n=46). Multiple panelled band and herringbone motifs dominate the assemblage. Three dates for Klingbeil at the site 2530 AB1 were generated by Evers (1980) (Table 2.15), two of which had an overlapping 1-sigma range of AD 880 to 1010, while one had a 1-sigma range of AD 1030 to 1170. Based on the relatively small size of the assemblage of Klingbeil

material, its temporal overlap with K2, and its lack of material that is more securely related to K2, it is not clear to what extent Klingbeil can be said truly to represent the "parent" material for Leopard's Kopje.

Huffman's contributions to the study of the rise of K2 and Mapungubwe have been invaluable. Employing the stratigraphic and material cultural data gathered by the University of Pretoria's early excavations he was able to posit a sound model for the social, political, and architectonic developments and transformations at K2 and Mapungubwe. By the middle of the 11th century, K2 was the largest of the early Leopard's Kopje settlements in the region; Huffman (1986a, 1986b, 1996) interpreted it as the regional political centre due to the presence of an enormous kraal midden at the centre of the site. The interpretation of

Table 2.15. Evers' (1980) dates from the Klingbeil site, 2530 AB1.

Sample Designation	Area	Ceramic Affinity	Age (bp)	Age Error	Calibrated Age (AD)	1-Sigma Range (AD)
Pta-1747	Pit 1, 30-50 cm	Klingbeil	970	±40	1050 or 1100 or 1135	1030-1170
Pta-2160	Feature G, 5-40 cm	Klingbeil	1120	±50	980	900-1010
Pta-1663	Feature D, 40 cm	Klingbeil	1160	±50	910 or 925 or 955	880-990

the midden as an indicator of intense political activity is based on the fact that this location in ethnographic southern Bantu society is the place where the local political leader holds court, settling disputes and rendering judgements (Huffman 1982, 1986b). The political importance of K2 and its leaders in the regional power structure was therefore enormous. By about the mid-11th century the midden had grown to such an extent that it overtook the cattle byre and forced the herd to another location. The court at K2 apparently continued as the political focus of the region until around AD 1220 at which time the site was abandoned and its residents moved a short distance away to Mapungubwe Hill.

In a related vein, Denbow (1999:117) has interpreted the overtaking and eventual abandonment of the cattle kraal at K2 and the failure to re-establish one later at Mapungubwe Hill, and the similar lack of cattle dung deposits at higher order sites in eastern Botswana sites after the 12th century AD, as evidence of a "devaluation in the status of cattle" and thus of shifting social and economic priorities. These shifting priorities initiated, at least at the upper tiers of society, changes in the physical organisation of cattle-keeping. These changes were interpreted by Denbow (Ibid) as the result of "a chain reaction of economic and political restructuring" brought about by "the increased volume of Indian Ocean trade." Denbow does not indicate the specific processes by which long-distance trade effected these changes.

The developments Huffman noted from K2 to Mapungubwe are significant as they

provide, for the first time in the prehistory of southern Africa, solid evidence for the physical separation of elites and commoners, and the concomitant emergence of new social and political institutions. The material expression of these transformations is seen most dramatically in the shift away from the socially inclusive village layout seen at K2 to the segmented pattern observed at Mapungubwe. Huffman in a series of well-known articles (1982, 1986a, 1986b, 1986c), building on the ethnographic work of Kuper (1980, 1982b), developed the now standard references to the older commoner centre/surround settlement layout as the Central Cattle Pattern and to the elite segmented layout originating at Mapungubwe as the Zimbabwe Pattern.

In summary then, our knowledge of the relations between the Zhizo and Leopard's Kopje ceramic styles in the area of the Shashi-Limpopo confluence is limited, as in southwestern Zimbabwe and eastern Botswana, to two opposed schools of thought. The first, most often cited, perspective (Denbow 1982, 1983, 1986, 1990, 1999; Huffman 1982, 1986a, 1986b, 1986c, 1996; cf. Hall 1990) sees a strict cultural and temporal separation between Zhizo and Leopard's Kopje wares and, by extension, peoples. Leopard's Kopje-users are said to have invaded from the east and driven the Zhizo-using residents of the area of the Shashi-Limpopo confluence and southwestern Zimbabwe into eastern Botswana. Some arguments and evidence against this hypothesis and its interpretive implications for ceramic sequences and settlement patterns have been discussed in the summaries of the two previous sections and will not be repeated in detail here. I would note, however, that this model, at least in the area of the Shashi-Limpopo confluence, is based on data from archaeological sites which have never been published in enough detail to allow for inter-site or regional comparisons to be made. Of all the sites that have been excavated in the region, only two, Mapela Hill (Garlake 1968) and Skutwater (Van Ewyk 1987) have been published with enough detail suitable for interregional comparison.

Many radiocarbon dates have been made available, but lists of radiocarbon dates are most useful when it is clear what exactly is being dated. For example, I would argue that the claim that the early dates from K2 (ca. the turn of the 11th century) (e.g. Huffman 1996, Vogel 2000) mark the beginning of the Leopard's Kopje occupation of the region and the end of Zhizo, seems to weaken when one considers that at least one juvenile interment at K2 contained both Zhizo and Leopard's wares, and that Zhizo wares were reported on by earlier investigators, but were not recognised as such (Calabrese 2000a). The number of similar co-occurrences of the two wares at K2, if any, is currently not known because these data have not been published.

The argument in precisely the other direction is made by Hanisch (1980), although not very forcefully. His position, based on internal trends in the frequency of comb-stamping versus incision in the Schroda ceramic assemblage is that Leopard's Kopje wares could easily

have developed out of Zhizo. Unfortunately, his work at Schroda, Pont Drif and Commando Kop has not been completely published.

In terms of models concerning the rise of complexity specifically in the area of the Shashi-Limpopo confluence, two have been postulated (Huffman 1982, 1984, 1986a, 1986b, 1986c, 1996, 2000; Hall 1987). Huffman's model sought to explain the rise of K2 and Mapungubwe and, by extension, Great Zimbabwe and later southern African states, through the application of historic period ethnographic data. Huffman put forth three overarching principles as the underpinnings of settlement and political hierarchies in southern Africa. I summarise these as follows: 1) there is a limit, based on traditional wealth alone, on how large and complex a political unit can become; 2) as a result of 1), long-distance trade was a necessary prerequisite to the development of social and political classes; and, finally, 3) as a result of 1) and 2), political power and the institutionalisation of inequality and the rise of bureaucratic classes flowed directly from control over wealth, particularly the wealth generated from long-distance trade. He states that the Leopard's Kopje-using peoples at K2 entered the Shashi-Limpopo confluence around AD 1000, drove the Zhizo-users away, and thereupon built a state based on long-distance trade wealth.

Martin Hall (1987), synthesising and drawing upon the work of previous researchers in the region, posited a model for the growth of social and political complexity in the area of the Shashi-Limpopo confluence which saw the shift from accumulating wealth in cattle to wealth in exotic trade goods as the defining characteristic of increasing complexity in the region. As Hall (1987:89) states:

> …the commodities which were assiduously sought by the occupants of Schroda and K2 had very little in common with livestock as a source of wealth. Although personal ornaments could be made from shell or bone, and weaving was soon to become an important craft, the glass beads and exotic cloth imported from the coast were not a 'renewable resource' like cattle, for their value was in their rarity rather than in their potential for increase. This suggests that those in power in the early settlements in the Limpopo basin were seeking a form of wealth that was qualitatively different from livestock, and would provide them with a means of breaking out of the chiefly cycle of fusion and fission.

Hall further posits that a new system of mutually agreed upon symbolic signification developed amongst society's elites whereby these new exotic goods came to serve as emblems or markers of status, the bearers of which were owed fealty and tribute. This apparently brittle and fragile system was propped up by military coercion

It should be noted that Hall's position can be viewed as an extension of Huffman's arguments regarding the role of long-distance trade in the development of complexity in the region. Some details of both these theoretical approaches to complexity need to be studied further. These models were based on the notion that the primary basis for and means by which social and political power were exercised were through wealth items, both traditional and exotic. The ability to gather wealth, and one's right to acquire it, are taken in these

models as givens. Absent therefore from their discussions of these issues are a sense of the underlying social dimensions and construction of value systems and their extension into the material world.

As I will discuss in greater detail in Chapter III, cattle, the primary traditional form of wealth, derived a great deal of their importance in exchange systems from their identification with ancestral and lineal fertility (e.g. Kuper 1982b). Social power furthermore, is derived from genetic distance, real or fictive, to an apical ancestor. This distance also presumably serves to some degree as the basis for political power. Status, class, and leadership thus do not derive from possession of or control over exotic wealth items; rather, wealth items are used as criteria for signalling membership and identity and in building and maintaining horizontal and vertical relationships of dependency, superiority, and subordination. Further, it should also be noted that undertaking long-distance trade is costly, risky, dangerous, and requires the prior ability to appropriate surplus social production (Renfrew 1986; Hastorf 1990). One might ask how can a system of inequality be built on long-distance trade when inequality is required to engage initially in that trade? Long-distance trade, therefore, is viewed here as a symptom or a result, or as reinforcing, of complexity, not as its primary cause.

The Zhizo and Leopard's Kopje Styles and the Rise of Social and Political Complexity in Southern Africa: State of Current Research

Relatively little can be stated accurately about the relationships, both cultural and chronological, between the Zhizo and Leopard's Kopje styles. Viewed from the three separate, contiguous regions discussed, the archaeological data presentations of their manifestations are, with few notable exceptions (e.g. Garlake 1968; Huffman 1974; Denbow 1983; Robinson 1968, 1985) lacking in sufficient comparative detail. The fact that so few detailed studies are available from so few sites from so large an area and so broad a time period indicates that it is not viable to posit anything but the most tentative hypotheses concerning the character, duration, and context of their relationship.

The dominant model put forth by Huffman and Denbow sees no significant relationship between the users of the two styles and views interactions between their respective users as essentially hostile. Yet such characterisations seem to weaken in the light of data suggestive of the development of Leopard's Kopje from Zhizo, particularly the early dates for Leopard's Kopje elements and assemblages in eastern Botswana. These occur well before Leopard's Kopje is known to be present in either southwestern Zimbabwe or in the area of the Shashi-Limpopo confluence.

Absent from all the approaches to the data discussed above are detailed and explicit theoretical perspectives about what precisely constitutes 'style' and what is meant when the

term ‘people’ (e.g. K2 people or Zhizo people) is applied to an archaeological ceramic assemblage. There is an implication that ethnicity is being cast into the ceramic material, but the relationship between ethnicity and material culture is presented in the starkest of terms. Also, the level of ethnic identification is the only level at which these ceramic assemblages have been considered. Other social identities, such as class and status, are rarely considered as possibly influencing the developmental trajectories of ceramic assemblages and when they have been (e.g. Robinson 1966; Reid and Segobye 2000) these are without theoretical underpinning.

This last point concerning the absence of discussion of class and status considerations in relation to ceramic material culture is to me perhaps the least understandable aspect of the archaeological approaches applied to the Zhizo and Leopard’s Kopje material. In the case of the transition from Gumanye to Zimbabwe ceramics, for example, an instance where significant social and political transformations are known to have occurred, and these transformations were associated with dramatic ceramic stylistic changes, it was simply noted that these changes were, according to Huffman (1980:173), “due to the tremendous social and political changes that occurred as the Zimbabwe culture developed into a state.” The intensity of ceramic change was viewed as proportional to the growth of social and political complexity. When applied to the question of the relationship between the Zhizo and Leopard’s Kopje styles, the relevance of the Gumanye:Zimbabwe transition is evident. Given the fact that so few sites from ca. AD 700 to 1300 in any of the research areas discussed above have been excavated and reported on in detail, combined with the knowledge that this was clearly a period of social and political upheaval and transformation which led ultimately to the rise of Great Zimbabwe, I conclude here that Huffman’s hypothesis concerning the Gumanye:Zimbabwe transition should at least be tested for the relationship between the Zhizo and Leopard’s Kopje styles.

Research Questions

Keeping the substantive and theoretical limitations of previous research in mind, I now turn to a precise statement of research questions addressed in this thesis. These will attempt to address both the theoretical issues of ethnicity and class and the substantive shortcomings of previous work on the issue of the relationship between the Zhizo and Leopard’s Kopje styles in the context of increasing complexity in the wider region.

Theoretical Questions

The theoretical research questions posed in this thesis are as follows:

1) How is ethnicity defined in the literature of the human sciences?;

2) How is class defined in the literature of the human sciences?;

3) How do ethnicity and class interrelate and what are their material correlates?;

4) What are the primary models of social differentiation and increasing sociopolitical complexity in a world perspective and which of these has the most applicability to southern Africa historic and ethnographic data?

5) Based on 1) to 4), what are the archaeological correlates of ethnicity and class in a southern African context?

An attempt to answer these questions is presented in Chapter III.

Substantive Questions

Given the wide temporal and geographic spread of the Zhizo and Leopard's Kopje cultures, it is necessary to limit the scope of the data-related questions addressed here to a single region. The area of the Shashi-Limpopo confluence, hereafter referred to as the study area, was chosen owing to the fact that it is here that the most dramatic changes in society have been noted and the least detailed previous archaeological work has been conducted.

The substantive research questions to be addressed in this thesis are as follows:

1) What precisely constitutes the Zhizo ceramic style in the area of the Shashi-Limpopo confluence?;

2) How does this compare with published descriptions of Zhizo elsewhere (as the state of comparative data permits)?;

3) What is the temporal duration of the Zhizo style in the area?;

4) What precisely constitutes the K2 and Mapungubwe ceramic styles in the area?;

5) How do these compare with published assemblages from other areas (as the comparative data permits)?;

6) What is the temporal duration of the Leopard's Kopje style in the area?;

7) To what extent, if any, do the Zhizo and Leopard's Kopje styles overlap either temporally or geographically?;

8) If overlap between these styles exists, how can this overlap be explained in terms of the constitution of ethnic- or class-based social identities?

9) Based on 1) to 8), to what extent can Zhizo and Leopard's Kopje ceramics be said to be part of the same or distinct ceramic styles?

The methods by which these substantive questions can be answered are outlined in Chapter IV.

CHAPTER III
ETHNICITY, CLASS AND SOCIOPOLITICAL COMPLEXITY IN A SOUTHERN AFRICAN CONTEXT

Introduction

The purpose of this chapter is to introduce the concepts ethnicity and class and to relate them to the rise of social and political complexity in southern Africa. Literature pertaining to the nature and origins of ethnicity, ethnic interaction, social differentiation and socio-political complexity will be reviewed, critiqued and applied to relevant southern African ethnographic information. Archaeologically verifiable correlates of these concepts will be presented and their potential application to the rise of social and political complexity in a southern African context will be proposed. Kopytoff's (1987) model of the internal African frontier, based as it is upon ethnic interaction and polity formation, will then be presented as a potential explanatory framework for ethnic interaction and polity formation in the Shashi-Limpopo region.

Ethnicity and Class

Ethnicity

Since the 1960s the terms ethnicity and ethnic groups have, in the literature of anthropology, sociology and archaeology, slowly replaced or been used alongside the more traditional terms 'tribe', 'culture' and the like. As is also the case with these more traditional terms, ethnicity and ethnic groups are regularly discussed and described, but as Isajaw (1974, cited in Jones 1997:56) and Despres (1975a:2, 1975b:188) have noted, explicit definitions of precisely what constitutes ethnicity, and the more fundamental questions of how and why ethnic groups form, are maintained and interact with each other are very often neglected in the work of many researchers.

Despite this general lack of well-defined theoretical perspectives in the application of ethnic concepts, two dominant, opposed, approaches have arisen in the study of ethnicity, the primordialist and instrumentalist schools (Bentley 1987; Jones 1997). Primordialist approaches are founded in the affective and powerful realm of shared sentiments, beliefs, and values (e.g. Geertz 1973 [1963]; Isaacs 1975; Narroll 1964). Geertz (1973 [1963]:259) defines primordial attachments as stemming from the "givens" of social existence:

> ...immediate contiguity and kin connection mainly, but beyond them givenness that stems from being born into a particular religious community, speaking a particular language, or even a dialect of a language, and following particular social practices. These congruities of blood, speech, custom, and so on, are seen to have an ineffable, and at times overpowering, coerciveness in and of themselves. One is bound to one's kinsman, one's neigbor, one's fellow believer, ipso facto; as the result not merely of personal affection, practical necessity, common interest, or incurred obligation, but at least in great part by virtue of some

> unaccountable absolute import attributed to the very tie itself.

The instrumental approach to ethnicity, conversely, stresses the self-ascribed nature of ethnic or cultural categories and the conscious manipulation of culture in order to advance the political and economic interests of individuals and groups (e.g. Barth 1969; A. Cohen 1969, 1974, 1981; R. Cohen 1978; Young 1983). By the middle of the 1970s, the instrumentalist approach gained intellectual ascendancy primarily through the influence of Barth's (1969) Introduction to *Ethnic Groups and Boundaries* (R. Cohen 1978; Bentley 1987; Jones 1997).

Barth's main contribution to ethnic studies was to draw attention to the analysis of how and why ethnic groups emerge and the nature and persistence of ethnic boundaries. Barth's study was in part a reaction to the then current view "that geographical and social isolation have been the critical factors in sustaining cultural diversity" (1969:9). Rather, he maintains that

> ...categorical ethnic distinctions do not depend on an absence of mobility, contact and information, but do entail social processes of exclusion and incorporation whereby discrete categories are maintained despite changing participation and membership in the course of individual life histories. ...(O)ne finds that stable, persisting, and often vitally important social relations are maintained across such boundaries, and are frequently based precisely on dichotomized ethnic statuses. *In other words, ethnic distinctions do not depend on the absence of social interaction and acceptance, but are quite to the contrary often the very foundations on which embracing social systems are built.* Interaction in such a social system does not lead to its liquidation through change and acculturation; cultural differences can persist despite inter-ethnic contact and interdependence (Ibid:9-10). (emphasis added)

Thus for Barth intergroup interaction may serve to solidify the common culture shared internally by members of ethnic groups. More important than the internal, shared cultural experiences of ethnic groups are, for Barth, the external, sometimes concrete, boundaries which ethnic groups draw around themselves. Such boundaries consist of:

> overt signs or signals--the diacritical features that people look for and exhibit to show identity, often such features as dress, house-form, or general style of life, and...basic value orientations: the standards of morality and excellence by which performance is judged (Ibid:14).

These boundaries serve to signal membership and exclusion, canalize social life, and bound or limit interaction between ethnic categories.

The emergence of ethnic categories and their concomitant boundaries is viewed by Barth as an ongoing process of self-ascription and definition in relation to the "external circumstances to which actors must accommodate themselves (Ibid:12)." The relevant circumstances are considered by him to be those which position the individual or group in relation to productive resources.

I have concluded from the above that, in Barth's instrumentalist approach to ethnicity, ethnic categories are self-ascribed cultural categories, marked by overt signs, signals or behaviours which are employed by individuals or groups to promote or maintain

their economic interests. Ethnicity thus is not seen as static and unchanging, but rather as a fluid, dynamic and ongoing process of self-definition in relation to other individuals and groups in the context of mediating and securing access to resources.

Abner Cohen's (1969) study of ethnic strategies employed by Hausa traders in Yoruba towns shares a similar outlook on ethnicity as Barth's. He states (Ibid:193) that ethnicity among the Hausa is basically a political, as opposed to a cultural, phenomenon. He concludes that "ethnic groups are in fact interest groupings whose members share common economic and political interests and who, therefore, stand together in the continuous competition for power with other groups." Also, for Cohen, like Barth, ethnic boundaries, or cultural diacritics, help define ethnic groupings. These boundaries become more marked in response to economic competition (Ibid:184).

Cohen, however, later (1974:xiii) took exception with what he described as Barth's and other instrumentalists' tendency "to posit ethnicity as a strategy manipulated by *individuals* to advance their personal interests and maximize their power." Cohen sees the instrumental use of ethnicity, rather, as functioning at the level of the group. Individual manipulation of ethnicity is, for Cohen, problematic because it

> ...cannot account for the potency of the normative symbols which the individual manipulates in his struggle for power. An ethnic group is not simply the sum total of its individual members, and its culture is not the sum total of the strategies adopted by independent individuals. Norms, beliefs, and values are effective and have their constraining power only because they are the collective representations of a group and are backed by the pressure of that group. An individual...cannot manipulate others without being ready to be manipulated by them. He must pay the price of membership by participating in the group's symbolic activities and by a measure of adherence to the group's aims (Ibid).

Thus Cohen's approach to ethnicity, stressing as it does the collective primacy of the larger group, bridges, to some degree, the primordialist/instrumentalist divide. Individuals and groups can readily employ ethnic identity in the service of economic interests, but only within culturally prescribed limits.

Following the work of Barth and Cohen, ethnic groups are defined here as self-ascribed cultural categories whose members share common economic and/or political goals and interests. Members of such categories also share a common culture largely defined by external signs, signals and behaviours (i.e., boundaries) which mark group membership or exclusion and make interaction between members regular and predictable. Ethnic groups define themselves in relation to similar groupings, often in the context of resource competition. This process of self-definition is ongoing and continuous, with ethnic boundaries changing to accommodate shifting external circumstances. These boundaries become more marked in response to intergroup competition, but are by no means fixed: ethnic boundaries are fluid and situational, depending upon the interests and needs of the larger group and those of its constituent members.

Class

The relationship between ethnicity and class is one of the least well-defined areas of anthropological thinking (Sollors 1996). Much of this conceptual vagary is due to the great similarity between the two concepts (Schortman 1989). So muddied is the distinction between the two that one of the most noted anthropological scholars of ethnicity, Abner Cohen (1974), used the example of the dress and behaviour codes of London's financial elite (the City Men), a group he described as a nearly endogamous class group, as an illustration of ethnic boundary maintenance.

Like ethnicity the concept of class, although it is regularly employed in anthropological discourse, is rarely defined explicitly. This lack of definitional precision stems from the fact that class is a highly scalar concept, and can be used to denote a variety of social forms. A social class, building on Parsons (1964), Fried (1967, 1978), Haas (1981), Schortman (1989), Hastorf (1990), Upham (1990) and Earle (1997) is broadly defined here as a group of people within a larger society with markedly unequal access to resources, both economic and social. Class groups can range from those of slaves to elites. Membership to the class group may be limited by birth or achievement (or the lack thereof), depending upon local conditions.

The Intersection of Ethnicity and Class: Ethnic Stratification

Class groups can, and very often do, crosscut with ethnic groups, resulting in systems of ethnic stratification. Ethnic stratification can take a variety of forms (e.g. Barth 1969; A. Cohen 1969, 1974, 1981; Despres 1975; R. Cohen 1978) and has typically been examined in modern, urban or post-colonial contexts, and not in archaeological situations. It is therefore appropriate to point out the most salient characteristics of ethnic interaction and stratification, as these may pertain to archaeological situations. Special emphasis will be given to the work of Kopytoff (1987, 1999) who has systematically analysed these types of issues in historical sub-Saharan Africa. Kopytoff's views of African ethnic groups, cast as they are in his view in the constantly recharged forge of fission, interaction, competition and struggle for resources in the form of land and people, most closely conforms to the instrumentalist approach of Barth and is thus well-suited to the task at hand.

Ethnic stratification occurs when two or more previously well-defined ethnic groups come into competition for resources, and one subdues the other(s) and becomes the dominant group. It is possible that all the groups involved may retain to a great extent their internal composition and external (i.e., cultural) boundaries prior to stratification. However, such situations can vary widely in intensity and outcome, with results ranging from economic exploitation to geographic displacement to outright genocide. Alternatively, I would argue,

following Dillehay (1976) that not all interethnic interaction necessarily leads to stratification, violence, or other one-sided outcomes. The situation in the late prehistoric Chillon Valley of Peru's Central Coast, for example, provides an instance in which two discrete ethnic groups coexisted in the Chillon Valley by utilizing separate resource bases. Dillehay (1976) referred to this outcome as multi-ethnic resource sharing.

An African model of ethnic interaction, stratification, and polity formation has been provided by Kopytoff (1987). Before discussing Kopytoff's model, however, it is necessary to investigate further the archaeological correlates of ethnicity and class, as well as the role of kinship and ideology in the constitution of complex societies. These issues will be addressed from southern African and world perspectives. Kopytoff's model relates to all of these issues, and his model will be best understood after the southern African context has been discussed.

Ethnic and Class Boundaries: Emblemic and Heterochrestic Styles

Ethnicity and class can be investigated through the use of the concepts of emblemic style (Wiessner 1983, 1985; Plog 1987; Upham 1990; cf. Conkey 1978, 1980; Sackett 1985; Wobst 1977) and heterochrestic style (Upham 1990). Ethnicity, as previously defined, is primarily about the ongoing process of group differentiation based on competitive intergroup interaction: groups actively define themselves in relation to others in order to secure or maintain access to resources. The ways in which ethnic groups differentiate themselves from other groups can range from language to dress to more nuanced behaviours. Materially, ethnic identity can be expressed in a variety of media. Evers (1988), for example, demonstrated that modern and archaeological ethnic groups in southern Africa differentiate themselves through the repetition of distinctive symbols across a wide variety of media, ranging from ceramics to carving to beadwork to cloth.

The nature of most archaeological data do not, however, allow for the reconstruction of the total range of intergroup ethnic signalling. Since archaeological preservation in the context of the southern African Iron Age is limited primarily to ceramics, stone, faunal material, beadwork of shell and glass and metalwork, it is from these items that symbols of ethnic differentiation must be drawn. On these sites the most durable, abundant and symbolically charged of these artefacts are ceramics. I have singled out ceramics here as highly potent ethnic markers due to their great plasticity of form and their capacity to carry sometimes complex messages, ethnic or otherwise (e.g. Braun 1977, 1985; Plog 1980, 1983; Hodder 1979; Pollock 1983; Evers 1988).

Such boundary-setting messages between groups are typically classified by anthropologists as examples of emblemic, symbolic or iconographic style (Wiessner 1983,

1985; Plog 1987; Upham 1990; cf. Conkey 1978, 1980; Sackett 1985; Wobst 1977). Such use of style, according to Upham (1990:105), consists of

> ...the use of styles that are fixed in convention to convey the identity of a specific subject (an individual or group) and the set of conventions or principles that govern the use of such imagery. Wiessner (1985:161) and Plog (1987:3) have both suggested that iconographic variability is a "special case of stylistic behavior" that is symbolic in content, information-rich, and aimed at a specific target population. The most important characteristic of both symbolic and iconographic behavior is that they communicate identity and membership at the level of the entire cultural or ethnic group; they are boundary-setting, but their use is inclusive at the level of the entire group.

The intended audiences of these emblemic stylistic messages are both the members of the group itself and outsiders. As noted above, internally such markers serve to solidify in-group cohesion and externally to define ethnic boundaries.

As was noted in Chapter I, in southern African Iron Age archaeology ceramic style has been equated with large scale "entities" (e.g. Huffman 1980, 1989a, b) and as a reflection or byproduct of group identity. Given the theoretical stance outlined above, I will not employ this view here. Instead, I view style as having been actively used in the service of interethnic competitive interaction; i.e., in boundary definition and maintenance.

However, signalling ethnic identity is not the sole social use to which style can actively be employed. Other salient social identities, such as class, can be defined, at least partially, by the active use of style in signalling boundaries. Class, like ethnicity, is marked by stylistic behaviours which serve to indicate membership and to make interaction between members regular and predictable. Unlike emblemic or symbolic stylistic behaviours that are employed as ethnic markers, and are present at all levels of a society or ethnic group, the distribution of class-based, or "heterochrestic" (Upham 1990:105-107), stylistic behaviours is restricted. As Upham (Ibid:106-107) states:

> The distinction between symbolic [i.e., emblemic] and heterochrestic styles defines a boundary between two distinct social and political forms. In any society, style in material culture...is a social resource. Because public style displays are always for public consumption, they reflect directly on the nature of access to resources in a society. The boundary that separates symbolic from heterochrestic styles also distinguishes the boundary between unrestricted and restricted access to social resources. ...*(W)hen access to social resources is restricted there are corresponding restrictions...to natural resources that divide a given population into subgroups of varying rank or status. The emergence of these subdivisions, from the standpoint of social and political evolution, is of paramount interest*. (emphasis added)

One of the better material remains with which to identify the operation of heterochrestic style systems in archaeological contexts is ceramics. Their superiority in this task is, as is the case in the identification of emblemic style systems, due to their relative durability, abundance and capacity to carry sometimes complex messages (e.g. Braun 1977, 1985; Plog 1980, 1983; Hodder 1979; Pollock 1983; Evers 1988).

The heterochrestic use of style, however, is not limited to ceramics in archaeologically marking class groups. Interwoven with these are other items and activities which serve to further vertically differentiate elites from other members of society. Such resources are highly variable and range from foodstuffs to exotic goods to ritual and economic activities. These resources are further discussed in the section on archaeological correlates of ethnicity and class.

The Rise of Sociopolitical Complexity: Southern African and Beyond

The process of class group formation, or social differentiation, and its underlying causes, have been seminal issues in the human sciences since at least the middle of the 18th century and have been rousingly debated by the likes of Locke, Rousseau, Comte, Herder, Marx, Hegel, and Smith. Social differentiation, or the movement from kin-based to class-based society, has been variously described as the movement from Volk to Urban society (Herder 1966 [1803]), from *Gemeinschaft* (Community) to *Gessellschaft* (Society) (Tönnies 1889), from mechanical to organic solidarity (Durkheim 1982 [1895]) and from Little to Big Traditions (Redfield 1953). As its ultimate physical expression, social differentiation is seen as resulting in the rise of urban centres and in the formation of state level societies (e.g. Weber 1958 [1921]; Adams 1966; Wheatley 1971; Yoffee 1993). The fundamental, and perennially debated, issues of sociopolitical complexity are, in the words of Yoffee (1993:63):

> ...how institutionalized social and economic dependencies are created outside the kinship system...

and

> how do benificent, redistributive, relatively authorityless, and non-economically stratified...societies become socially and economically riven states with kings and their bureaucracies attempting to exercise repressive force?

In recent decades attempts to answer these questions have been moulded by a sometimes fractious debate between advocates of the voluntarism/integration (e.g. Service 1975; Yoffee 1979; cf. Durkheim 1982 [1895], 1915 [1912]; Malinowski 1944) and conflict/coercion (e.g. Fried 1978; Carneiro 1981; Haas 1981) schools of thought. In terms of intellectual labels, the voluntarism school is identified with advocates of functionalism, cultural ecology, processualism, and the "New" archaeology, while the coercion school is dominated by cultural materialists and other Marxist scholars (see Trigger 1989). The salient views of both schools are briefly presented and critiqued below.

Voluntarism and Coercion in the Constitution of Complex Societies

The integration, or voluntarism, theorists would have social classes and complex societies arising as solutions to the problems of resource scheduling and management needs brought on by increased population, environmental degradation or other equally impersonal

techno-environmental factors (e.g. Sanders, Parsons and Santley 1979; Braun 1990; Netting 1990). This view of complexity has been criticised (e.g. Wheatley 1971; Conrad and Demarest 1984; Earle 1997; Kohl 1993) as teleological and mechanistic in not attributing change in human societies to human agency (cf. Trigger 1989).

The conflict theorists, on the other hand, see sociopolitical complexity arising "as a coercive mechanism to resolve internal conflict that arises between economically stratified classes within a society" (Haas 1981:80). The development of social stratification for them is what it was to Marx (1970 [1867]), Engels (1975 [1880]) and to others before (e.g. Rousseau 1994 [1755]; Saint-Simon 1976 [1788]; Paine 1969 [1776]; Herder 1966 [1803]) and after (e.g. Carneiro 1981; Haas 1981): the institution, first by naked force and later legitimated by law and divine charters of kings, of property rights, privileges, and the seizure of social, political and economic power. As Paine (1969 [1776]:33) states in his discussion of the origins of Europe's hereditary nobility:

> ...it is more than probable, that could we take off the dark covering of antiquity, and trace them to their first rise, that we should find the first of them nothing better than the principal ruffian of some restless gang, whose savage manners or pre-eminence in subtilty (sic) obtained him the title of chief among plunderers; and who by increasing in power, and extending his depredations, overawed the quiet and defenceless to purchase their safety by frequent contributions.

This and other coercive characterisations of the rise of early complexity, while emotive and compelling, have been criticised because they rely too much on the sustained use of force in creating classes (e.g. Earle 1997). Military power cannot be sustained effectively for long enough to institutionalise a class system (at least in the pre-industrial world), and resistance and rebellion would constantly threaten any system of privilege imposed by force (Wheatley 1971:304; Earle 1997).

Control over the economy has long been cited as a key causal factor in the development of complexity by theorists of both the voluntarism and coercion schools. For voluntarism theorists, the development of chiefly, redistributive, authority in some societies is an adaptative mechanism whereby risks are spread out among diverse groups, all of whom stand to benefit by ceding their local autonomy to a manager (e.g. Renfrew 1974; Peebles and Kus 1977). Coercion theorists, however, see local autonomy being ceded only by force. For them, control over the economy is the key element in the formation of social and political complexity (Marx 1970 [1867]). The economy is viewed as the driving engine of all aspects of society, and is posited as structuring and reproducing all important social relations and political formations.

Both the voluntarism and coercion schools' views of the economy are criticised by some (e.g. Wheatley 1971; Friedman and Rowlands 1977; Douglas and Isherwood 1978; Douglas 1990) as flawed by their lack of attention to the work of Mauss (1990 [1950]) and

Polanyi and his colleagues (1957; Polanyi et al. 1957) who recognised that the economies of the ancient world functioned far differently from the market economies of our own. More precisely, these researchers noted that in pre-modern societies price-fixing markets were the exception rather than the norm, and that trade and exchange in such pre-market societies are socially embedded and structured activities. Economic wealth was defined by, and an outgrowth of, culturally defined values and norms. As Wheatley (1971:282) summarises Polanyi:

> ...the economic institutions of the traditional world have, generally speaking, been subordinated to a greater or lesser degree to the moral norms of society. By contrast, it is the self-regulating market which, deriving its dynamic from a set of circumstances independent of the cultural values that integrate society, is capable of imposing its dictates on, and in certain cases of modifying, the structure of society.

Thus, at least in the analysis of traditional or prehistoric cases, it is not possible to speak of economic wealth without also simultaneously referring to the specific emic values, norms and standards that precede it, and socially define and construct it.

One such cultural factor that not only structures the economy, but also is linked to the rise of social and political complexity, is ideology. Adherents of the voluntarism school, influenced primarily by the work of Durkheim (1982 [1895], 1915 [1912]) and Malinowski (1944) see ideology and religious activity as a conservative, stabilising force within society that promotes the *status quo* and reinforces group solidarity. Conversely, proponents of the coercion school see ideology simply as a byproduct of economic forces which acts as a "mystification to legitimize domination"(Earle 1997:145; cf. Conrad and Demarest 1984; cf. Trigger 1989).

Both these views of ideology in the constitution of complex societies are thought here to be inadequate. Following the work of Wheatley (1971), Friedman and Rowlands (1977), Conrad and Demarest (1984), DeMarrrais, Castillo and Earle (1996), and Earle (1997) ideology is proposed here to be considerably more dynamic than the benign stabilising force of the voluntarists and certainly more active than a retrospective justification of economic exploitation. I have therefore defined ideology here, following Kolata (1988), as an amalgam of ideas, strategies, tactics, and practical symbols for promoting or perpetuating a social or cultural order; ideology is actively employed by individuals and groups to promote their interests and as a significant factor in structuring and focussing economic and political activities. I therefore consider ideology and its active manipulation by groups and individuals to be key elements in the formation of class based societies.

Ideology, Social Structure and the Rise of Class-Based Systems: Southern Africa and Beyond

As indicated above, the transformation from kin-based to class-based societies is

associated with the introduction of new social, political and economic institutions and roles (e.g. Friedman & Rowlands 1977; Renfrew 1986; Yoffee 1993; Earle 1997). Some individuals are removed from the daily routine of wresting a living from the earth and engaged in a range of specialised activities, from accounting to soldiering. These activities are underwritten by the appropriation by nascent elites of surplus social production (Renfrew 1986), justified by ideological systems which present class-based interests as 'natural' and part of a larger cosmic order which benefits society as a whole (Wheatley 1971).

These ideological systems have as their fundamental basis the satisfaction of the human need for mitigating environmental insecurity (Ibid). Wheatley's (Ibid:304-305) conception of the development of fertility shrines into urban centres in a world-historical perspective, undertaken in his exhaustive work on the origins of Shang China, *The Pivot of the Four Quarters*, is cited here at length:

> ...It would seem that a developing preoccupation with the seasonal cycles of plant and animal life was providing a new and more powerful integrative focus for group belief. Nor is it difficult to envisage how those persons associated with the shrines to one of these gods of fertility, and therefore closest to the fount of authority, should have come ultimately to mediate that authority and control the power derived from it. Cultivator and craftsman alike..., by submitting to the authority of the divine presence in the shrine, placed themselves within the economic power of the ritual experts who controlled the affairs of the deity. But administration of production eventually hardened into control, and the farmer who once brought his offerings as a sign to the gods that they should begin their great work of fructification, and who took part in seasonal festivals that were for him nothing less than cosmic crises, eventually found himself caught up in a redistributive system whose re-allocative demands were sanctioned by divine authority...
>
> At the same time, as society developed in scale and complexity, so it would have required an increasingly sophisticated set of ethical conceptions to give purpose and direction to life. This would have been especially necessary as there crystallized out new groups who directed their energies to the achievement of novel and unfamiliar goals. The old norms and customs...would have failed to provide both sanction for innovation and authority for new types of decisions. Only a greatly amplified ethical system would have been capable of sanctioning these unaccustomed goals, and of integrating into a coherent and viable synthesis the new values that resulted. This the ceremonial centers seem to have been able to achieve...They functioned as instruments for the dissemination through all levels of society of beliefs which, in turn, *enabled the wielders of political power to justify their goals in terms of the basic values of that society, and to present the realization of class-directed aims as the implementation of collectively desirable policies*. (emphasis added)

Thus I conclude that one of the fundamental sources of elite power in the nascent stages of complexity, following Wheatley, is their role as ideological specialists whose relationships with, and alleged ability to propitiate, the sources of agricultural, animal and human fertility ensure the successful biological and cultural integrity and continuity of the larger community. These ideological systems provide the structure and foundation upon which the larger political economy is built, consolidated and maintained (cf. Friedman and Rowlands 1977; Earle 1997).

Wheatley further states that these ideologies and resultant political economies are ultimately related to the social structure of the societies involved. In particular, those

societies that were organised along the lines of conical clans were thought by Wheatley (1971:53-55, 376-377) as those most likely to be associated with the rise of ideologically-oriented and driven complex social and political systems. Conical clans, as originally defined by Kirchoff (1956, cited in Wheatley 1971:53-55) consist of:

> kinship units which bind their members with common familial ties but which distribute wealth, social standing, and power most unequally among the members of the pseudo-family. Such kin units trace their descent back to an original ancestor, real or fictitious; but, at the same time, they regularly favor his lineal descendants over the junior or 'cadet' lines in regulating access to social, economic, or political prerogatives.

Such descent units would thus display a close correlation between kinship and political status. This notion of the seminal importance of the conical clan structure, or some highly similar social formation, to the development of complexity was also advocated by Friedman and Rowlands (1977). They, like Wheatley, saw such segmentary, stratified kinship formations, when joined to notions of the apical ancestor as the source of fertility, as ideal starting points for the development of complex societies. Those lineages closest to the apical ancestor, owing to their putative ability to ensure the fertility of the land, people and animals, formed the core of what later developed into royal lines, elites, and upper classes[1]. The economic benefits accruing to those groups closest to the apical ancestor included the ability to appropriate surplus production and labour (i.e., tribute) for prestation and feasting, activities which further enhanced their status, and the relatively higher cost of brides from, or nearer to, the source of power. A highly idealised representation of these economic relations and overall social structure is shown in Figure 3.1.

Ideology in the Constitution of Southern African Societies

That similar social, ideological and economic patterns were present in historic and ethnographic southern Africa is well-documented (e.g. Junod 1927: II, 372-376, 403-408; E. Krige 1965 [1936]:233; Krige and Krige 1980 [1943]:231-249, 271-281; Bourdillon 1978; Rennie 1978; Hunter 1979 [1934]: 227-271, 378-433; Kuper 1982b:10-25). Kuper, for example, although he rejects the description of Southern Bantu social organisation using the terms "clan" and "lineage" (1982a, 1982b) and is not overly concerned with historical questions, provides a very explicit model of southern African social and political organisation in which status, within or between a descent group or groups, is a function of genetic proximity, real or fictive, to the ruling line (1982b:50-53) and, ultimately, to the ruler's (i.e., the national) ancestors. Situations wherein rulers provide land, fertility, and cattle (roles

[1]Following the remonstrations made by Kuper (1982a, b) to exorcise the imprecise terms clan and lineage from the vernacular of Africanists, such descent units will be referred to here as "stratified lineal descent groups" or, following Kopytoff (1987:47), as "corporate kin groups.

derived from their nearness to national or "tribal" ancestors), in return receiving tribute (labour, meat and beer), are, according to Kuper (Ibid:16), "systematic and evident" throughout southern Africa's indigenous Bantu societies. Kuper's schematic representation of the basic principles of this system is shown in Figure 3.2, while explicit ethnographic, historic, and archaeological examples of these hierarchical ideological and material principles are discussed in the next section.

Hierarchical Relationships

Useful historic illustrations of these principles come from a varied assemblage of ethnographic sources. Junod's (1927) ethnography of the Tsonga, for example, includes an account of a gathering of the Makaringe family, described by Junod (Ibid:II, 401) as a "sub-clan" of the larger Ba-ka-Baloyi descent group, during which the Makaringes' ancestors are propitiated through animal sacrifice and are asked very directly: "May the harvest be plentiful; may the cattle multiply; may all our wives become pregnant" (Ibid:II, 403).

The hierarchical relations obtaining between ancestors, leaders, and the rest of the population are also manifested in the enactment of a variety of agricultural rituals carried out by Southern Bantu societies. For example, the first crop of certain traditional cultigens can only be eaten by the mass of people after their consecration in the first fruits ceremony, and their initial consumption, in order of status, by the ancestors, the paramount chief, sub-chiefs, counsellors and headmen. This ceremony, with some (sometimes important) variations, was widespread in ethnographic southern Africa (e.g. Junod 1927:I, 396-406; Krige 1965 [1936]:249-260; Stayt 1968 [1931]:254-257; Hunter 1979 [1934]:404-406; Aschwanden 1989:226-229).

Interestingly, in one relatively recent ethnography, recorded among the Karanga Shona (Aschwanden 1989), the hierarchical aspect of the ceremony does not occur. The Karanga forbid any to enjoy the first fruits until the "ancestors and God have been thanked" (Ibid:226), without reference to the human political hierarchy. A female spirit medium instead is given greater importance than the chief. This lack of emphasis on the chief is probably a reflection of a long-term trend in southern African societies in which chiefs, owing to their subordination to the White authorities, have lost a great deal of their influence to spirit mediums. These mediums, because of their ability to act outside of the political structure, can access, propitiate, and divine the will of the ancestor spirits, the original owners of the land, in direct opposition to, and as a reaction against, political regimes which have undermined

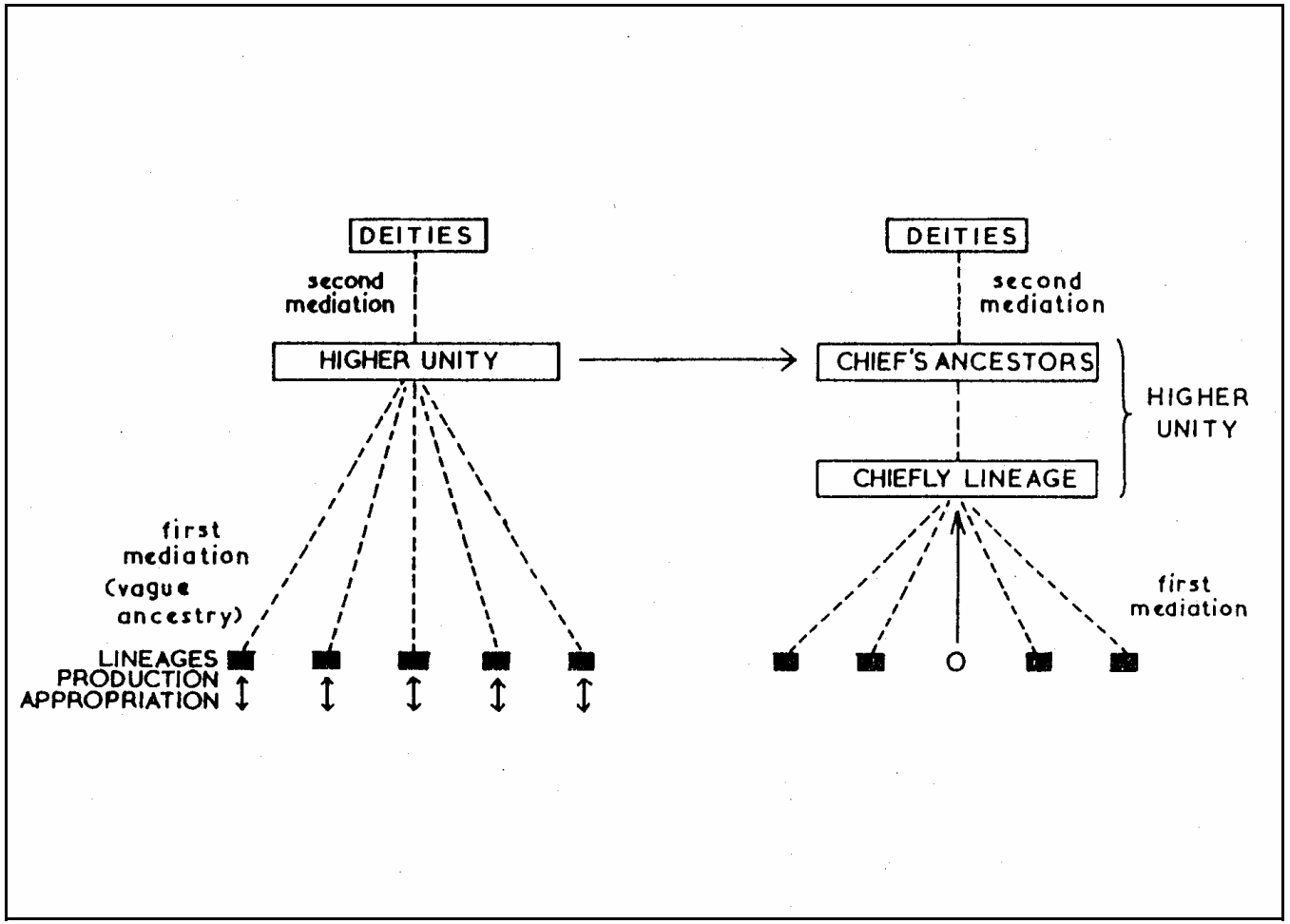


Figure 3.1. Idealized schematic representation of Fridman and Rowlands (1977) conical clan organization.

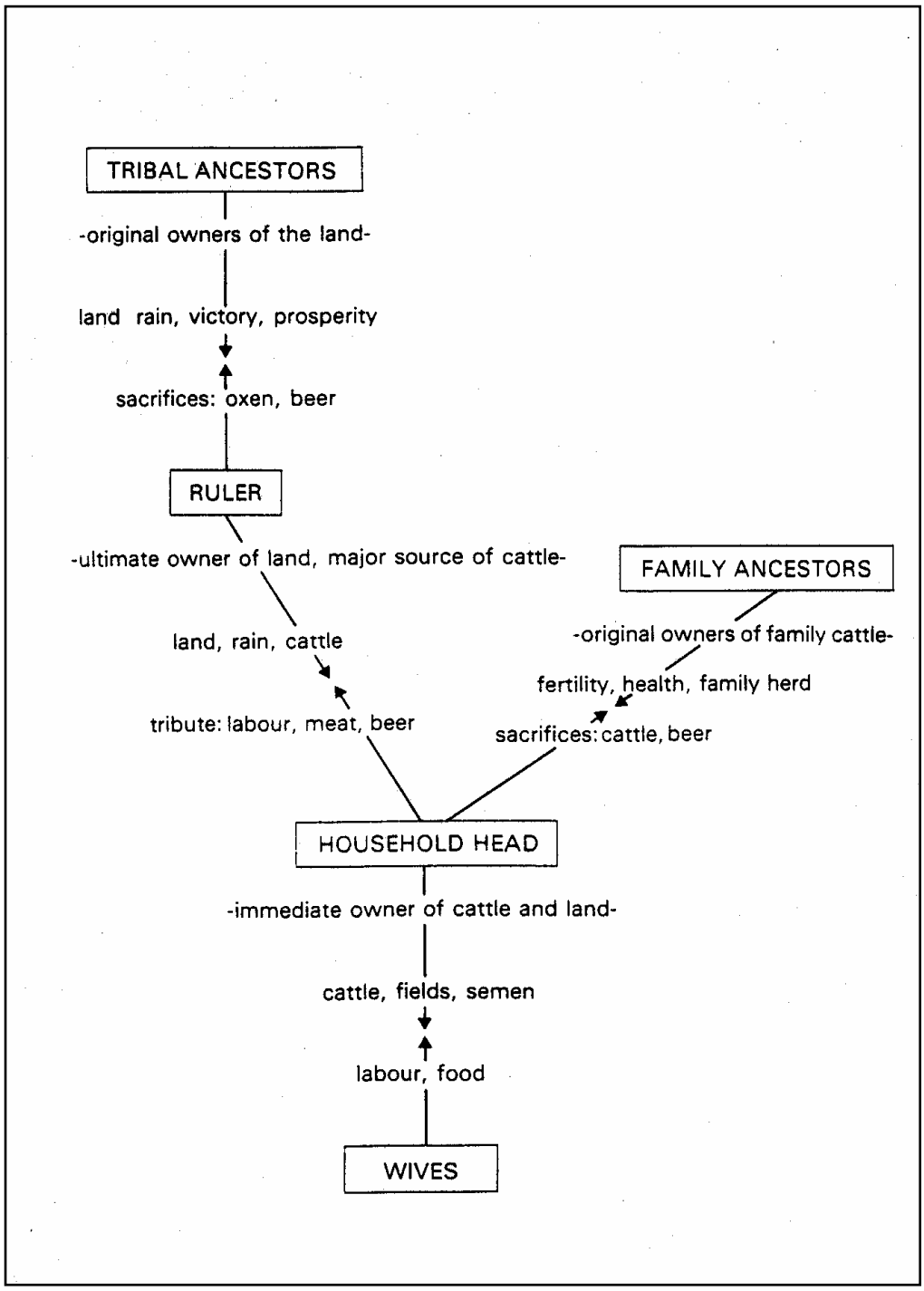


Figure 3.2. Hierarchical relationships in the traditional Southern Bantu exchange system. Adapted from Kuper (1982b:17).

chiefly authority.[2]

Hierarchical social and political relations are also reified and reinforced during the

[2]This is not to imply that spirit mediums did not exist in precolonial times. Following Huffman (1997:206-212), it is thought here that if they did they served the interests of, and owed allegiance to, the political hierarchy. Discussion of this issue is found in Rennie (1978), Bucher (1980) and Huffman (1996).

vhusha and *domba* (*thomba*) initiation ceremonies (e.g. Blacking 1969; Krige 1965 [1936]:92-120; Richards 1945; Mönnig 1967; Stayt 1968 [1931]:117-122). During these ceremonies individuals' reproductive identities are sanctioned and legitimated by society's leaders. Sexual and social instruction employing figurines as teaching aids occurs during the course of these ceremonials. Huffman (1996:148; cf. Nettleton 2002; Van Schalkwyk 2002, Wood 2002) has pointed out in his interpretation of the large cache of figurines found in the Great Enclosure at Great Zimbabwe, which included stylised male and female figurines and animals, that "an unusual cluster of figurines...inside a settlement almost always denotes an initiation centre." Interpretive ambiguity exists, however, regarding what types of pottery figurines constitute those indicative of purely domestic ritual for the promotion and maintenance of fertility and those used in state fertility rituals. Also, it is not clear at what level of political authority *vhusha* and *domba* ceremonies were conducted; that is, it is unclear if the rituals were only conducted at the national level, or if rituals were also conducted at lowers levels of either chiefly or lineage authority. Whatever the case, Huffman's observation that when relatively large amounts of figurines, in particular those associated with fertility (phallic representations, etc.) are recovered, it is safe to interpret these as indicative of liminal, initiation-related ceremonies.

Further explicit connections between chiefly authority and fertility are seen in the use of the physical remains of deceased chiefs and others of royal blood in activities and rituals concerned with rain-making and fertility. Portions of the physical remains of important Lovedu royal ancestors (facial skin, body dirt, and skulls) are incorporated into rain medicines and in the *digomana* (sacred drums)(Krige and Krige 1980 [1943]:126-140, 167-168). The most sacred of the drums was the smallest, named *raŋwedi*, which

> ...has the facial skin of a human being placed (in strips, it is said) under the resonator of ox hide and has, smeared on the outside, the body dirt of the person (said to be always a chief councillor or other important person of the royal blood) killed for its manufacture. This drum is thought to be closely associated with the welfare of the tribe. Should the chief have occasion to escape from enemies, she should take with her this drum, and it is said that, when the heir to the throne receives instruction in the use of rain medicine just prior to the death of the ruling chief, she must be sitting upon it (Ibid:127).

The most important uses of the *gomana* drums among the Lovedu were in agricultural rituals thought to secure rainfall, in marking the sowing and the harvest, and in male and female initiation rituals (Ibid:126-140).

The use of the physical remains of members of elite descent groups was also current among the Tsonga (Junod 1927:II, 405-408). Some Tsonga descent groups possessed an object called the great *mhamba* (lit. offering; also euphemistically called *hlengwe*, or riches, wealth). Among the Tembe descent group of the Tsonga, when a chief dies

> ...the more or less perishable portions of his body, such as the nails and the hair of his head and beard, are carefully cut, kneaded together with the dung of the oxen which have been

> killed at his death, and a kind of pellet is thus made. This is bound round with thongs of hide. When another chief dies, a second pellet is made and added to the first, and so on down through the centuries. The mhamba of the Tembe clan is currently one foot in length (Ibid:II, 406).

Similarly, among the Shirindja descent group of the Tsonga, the *mhamba* was fashioned from the digits and facial skin of deceased chiefs (Ibid:407-408). These physical remains were used, like the *digomana* of the Lovedu, in rituals ensuring the fertility of the land. A portion of the Tsonga *mhamba* was burnt and the smoke inhaled by warriors on their way to battle. Importantly, gaining possession of or control over these items was, according to Junod (Ibid), the primary objective of intergroup warfare (Ibid).

The examples cited above, drawn from the deeply held social, religious, and political life of the subcontinent, serve to underline the primary importance of the ideology of fertility to the constitution of class-based societies in southern Africa. However, with the notable exception of the figurines used in initiation ceremonies, very few of these activities leave discernible material traces in the archaeological record.

The Archaeological Correlates of Ethnicity and Class

Ethnicity and Class

Ceramics can be viewed as symbolic objects which can potentially represent both emblemic (i.e., ethnic-based) style or heterochrestic (i.e., class-based) style. Unfortunately, it is not possible for me at this point to identify other symbolically charged objects which, at least in a southern African context, directly materialised (*sensu* Demarrais, Castillo & Earle 1996) ethnic identities which have good archaeological visibility. Such limitations are also present in the determination of the correlates of materialised commoner identities. Commoner ceramics may be identified and defined, but only in relation to elite ceramics. It is, however, possible to identify markers of elite status in the archaeological record.

Elite symbolic objects, be they locally manufactured or obtained through trade, are considered to be of special importance here as the distribution (or restricted circulation) of these items can be used to signal horizontal links of elite identification (Schortman 1989), both within and between societies, or be used to reinforce local vertical relationships of dependency and subordination. Such items vary widely in material, and can include items ranging from metalwork to textiles to ceramics, but are generally distinguished either by their social, political, religious, or ideological affinity or by the large investment in time and resources necessary to obtain or manufacture them. The local manufacture of these objects, either by full- or part-time craft specialists, may be underwritten by nascent elites who, in some cases, are the actual specialists themselves (Friedman & Rowlands 1977). I should stress here that these items may be derived from exotic sources, thus making heterochrestic

stylistic disjunctions more pronounced. Monumental architectural constructions and settlement layout are also discussed here as material correlates of elite ideology.

Religious/Initiation/Fertility Paraphernalia

As discussed above, I conceive of elite power as having its ultimate basis in the role of stratified lineal descent groups as mediators between the fertility-giving ancestors and the bulk of the population. This role of elites as mediators/negotiators of fertility is seen clearly in the details of ethnographic accounts of initiation ceremonies in which young men and women pass from one socially-sanctioned stage of reproductive life to the next.

Figurines

The most durable and archaeologically visible artifacts associated with such ceremonies are relatively large quantities of unusual ceramic figurines. While it is not possible to state with absolute certainty what types or amounts of these are necessary to identify initiation activities, I posit here that relatively more and more types of these will be found at elite sites.

Metallurgy and Metals

The manufacture and distribution of copper and iron objects are discussed here due to the strong association which these metals have, in sub-Saharan Africa, with notions of fecundity and transformation (e.g. Childs 1991a; Childs & Killick 1993; cf. Reid & MacLean 1994) in the context of status and kingship (e.g. Sassoon 1983; Herbert 1984, 1993, 1996; de Maret 1985, 1994). Quite simply stated, the smelting of metals, a male-dominated activity, is identified with copulation, gestation and parturition, and represents male control over female procreation.

Ethnographic examples from Central Africa portray control, real or ideal, over metallurgy as the prerogative of the chief or king who is often a metallurgist himself, or whose authority is legitimated in investiture ceremonies by metallurgists. Royal insignia in Burundi and Rwanda, for example, include hammers and anvils (de Maret 1985, 1994). The kings of the Congo, in addition to being smiths, were also rainmakers (de Maret 1985:79), underlining the strong identification between kingship, metallurgy and fertility. Less far afield, amongst the Venda in southern Africa, attached Lemba smiths were prohibited from making copper ornaments for any but Venda royals (Stayt 1968 [1931]:62).

Central African elites on at least three occasions are known to have been buried with metal-working tools, in contexts ranging in age from end of the first millennium AD to the eighteenth century (de Maret 1985). The furthest south of these is from Ingombe Ilede Hill, located near the confluence of the Lusitu and Zambezi Rivers in Central Zambia (Fagan et al.

1969); four of the Ingombe Ilede burials included metal-working tools as grave goods. Although the Ingombe Ilede burials themselves are not securely dated, the site itself dates no later than the fifteenth century AD (Fagan 1963a:128, 1965:111; Fagan et al. 1969:81-82; Phillipson & Fagan 1969).

This association between elites and metallurgy, although ethnographically and archaeologically attested to, needs to be further investigated. Pierre de Maret (1985), for example, while citing instances of elite burials with metal-working tools as evidence of the potential time depth of historical associations and institutions, wavers on the question as to whether or not these were the burials of elite practising metallurgists, or were interred with these items as symbols of their authority in life. This ambivalence is due, in part, to the vague ethnographic and historical data, which variously portray kings as actual metallurgists, or as elites who controlled the activities of craft specialists.

From the above I conclude that there are obvious historical connections in sub-Saharan Africa between metallurgy, fertility and political leadership. This knowledge, however, is limited to ethnographic and historical data indicating that, at least in the recent past, kings or chiefs acted both as metallurgists and patrons of metallurgists, and archaeological data which suggest, at best, some degree of continuity between the historically documented past and the precolonial era.

The strong archaeological and ethnographic associations between metallurgy, fertility and leadership in Africa has lead me to propose that nascent elites in the prehistoric southern Africa would have exerted, or attempted to exert, some form of control, real or ideal, over metal production and the subsequent distribution of finished copper and iron products. The products that interest us here are those used in the non-utilitarian, "expressive sphere" as defined by Childs (1991b), and which may have been used as emblems or markers of social identity, variously based on age/rank, status, or gender. Like other fertility-related paraphernalia, the relative status of a site can be determined, in part, by the differences in diversity, density, and abundance of these items at archaeological sites.

Exotic Goods

I posit that the presence of exotic goods at archaeological sites represents the ability of elites to appropriate surplus social production in order to provide themselves with materials that physically differentiate themselves from the rest of society (Friedman and Rowlands 1977; Schortman 1989) and with which to create structural imbalances in power relations through aggressive prestation (*sensu* Mauss 1950). The goods most frequently obtained for this purpose were glass trade beads and, far less frequently, exotic porcelain. I should emphasise that the value of these items, and all other exotic goods acquired by trade, lies not within a modern western conceptualisation of wealth, but in their role as signifiers of status.

The acquisition of and control over such goods does not and can not cause social differentiation; rather, their use and differential distribution relate to the expression and "*extension* of power in an already differentiated society" (Hastorf 1991:154). As with finished non-utilitarian metal items, the relative status of a site can be determined, in part, by the differences in diversity, density, and abundance of these items at archaeological sites.

Craft Production

It has been hypothesised by some (e.g. Friedman and Rowlands 1977) that the manufacture of items employed in the maintenance or creation of elite identity was an activity which would have been underwritten by elites, and possibly even carried out directly by them. Thus I posit here that evidence for the production of metals, given the ideologically charged nature of these activities and their associations with fertility and fecundity in the context of leadership, is a likely correlate of elite status. The determination of the number and location of centres of production is important as this will indicate the level of control, centralised or otherwise, over these symbols. It is important to note that the scale of activity at production centres at sites examined here, if identified, is expected to be comparatively minor. The relatively small scale of the societies in question, and their pre-market economic status, leads me to this expectation.

With the exception of metal production, however, other evidence of craft production will not be taken here to indicate elite status. Rather, it is much more likely that evidence of craft production generally would impart evidence of producing items for local or regional exchange or perhaps as tribute items that moved upwards and outwards in a long-distance trade network of the sort that is known to have been in place in the Shashi-Limpopo region after during and after the 10th century AD. Evidence of this type of production for insertion into the long-distance trade network may include ivory working debris and evidence of hide processing, particularly leopard (al-Masudi 1962[915]). Evidence for production or preparation of items that may have been produced for internal exchange or use would include moulds for glass trade beads re-fashioned into larger garden roller beads, spindle whorls for thread manufacturing, wasters from pottery manufacture, rough-outs, blanks and bead-grinding stones indicative of *Achatina* sp. shell or ostrich eggshell, and adzes or awls indicating woodworking or leatherworking (adzes, awls, etc.).

Monumental Architecture, Monuments, and Settlement Layout

The presence of differential patterns of settlement layout, as seen in the commoner Central Cattle Pattern (CCP) and the elite Zimbabwe Pattern (Huffman 1982, 1986, 1996) will be taken here as indicating differential status. The Zimbabwe Pattern, characterised by the presence of stone walling and hilltop elite settlements (monumental architecture), with

nearer bureaucrats and further commoner occupations below will be taken as a fairly reliable indicator of elite status.

Other elements of the elite Zimbabwe pattern that may be present on earlier sites are carved monoliths or stelae that impart messages about status, political power, and leadership. For example, monoliths decorated with diamonds, according to Huffman (1996:29-30), are in recent Shona and Venda iconography indicative of crocodiles. When these types of symbols appear on pillars and in association with high status settlement in more recent and earlier in southern African Iron Age contexts, they are thought by Huffman (Ibid) to signify "sacred leadership and its responsibilities." The reader is referred to Caton-Thompson (1931: Plate LII, 1, far left) for an example of a similarly decorated stelae from Great Zimbabwe. To what extent these types of artefacts are present on earlier sites has yet to be determined, but I hypothesize that these may be present.

The characterisation of CCP sites as consistently indicating commoner status is, however, more problematic. Central Cattle Pattern sites are characterised by a semicircular arrangement of dwellings surrounding a round cattle corral, or byre. The byre, owing to the identification of cattle with ancestors and fertility, is the location of the men's court and a burial place for important ancestors (Kuper 1980, 1982b; Huffman 1982, 1986, 1996). The transformation from the Central Cattle Pattern to the Zimbabwe Pattern did not in all likelihood occur spontaneously. Rather, I posit that it is likely, in the course of the development of social differentiation and societal complexity, that those other indicators of elite status will be present at CCP sites, sometimes in relatively large quantities. Changes noted within the settlement pattern system are reflective of, and instrumental to, larger ongoing ideological and structural changes within society. Questions relating to the origins of the Zimbabwe pattern and its elation to the CCP will be addressed in Chapter XII in greater detail.

Faunal Remains

Finally, hierarchical relationships in southern African Bantu societies are seen in differential access to cattle, both in terms of bridewealth and as a food source. As noted previously, within a system of stratified lineal descent groups the daughters of relatively higher status individuals will bring a higher bridewealth payment. In the case of southern African Bantu societies, such payments were made, ideally, with cattle. Cattle were (and still are) identified with the ancestors and bridewealth payments of them were viewed as transferences not just of wealth but also of group identity and fertility (e.g. Kuper 1982b). Thus, the higher one's status and the more one's reproductive activity (i.e., the more wives and hence more children one has) the greater will be the accumulation of cattle. This relationship is not straightforward either practically or in archaeological expressions, as the

exchanges and loaning of beasts to solidify and maintain alliances was a regular and continuous process (e.g. Krige 1965 [1936]; Krige and Krige 1980 [1943]; Kuper 1982b). Nevertheless, the presence of relatively large herds of cattle can be equated generally with higher status.

Archaeological expression of this differential access to cattle, particularly cattle as a food source, has been documented by Thorp (1984, 1995). She compared access to cattle between high status and commoner sites on the Zimbabwe Plateau. Thorp found that relatively more, and younger, cattle remains were found in high-status middens, while older animals (particularly older males) were found in commoner middens.

Cattle played a central role in southern African Bantu societies, as is reflected in the settlement layout of Central Cattle Pattern sites (Kuper 1980, 1982b; Huffman 1982, 1996). Their importance was due to their association with the ancestors and group fertility which was associated with their role as the traditional, preferred method of bridewealth payment. As Thorp (1984, 1995) has demonstrated, differential slaughter patterns of cattle correlate with elite/commoner (CCP/Zimbabwe Pattern) settlement layouts on 14th to 15th century sites on the Zimbabwe Plateau, with older males being more ubiquitous at commoner sites, and younger individuals at elite sites. Following the logic of the arguments made above about the ideological and social significance of cattle, and the results of Thorp's work, similar differential distributions of cattle remains may also be present at the earlier sites under study here.

Archaeological Correlates of Ethnicity and Class in Southern Africa: Summary

One of the purposes of this chapter has been to define ethnicity and class and the archaeological correlates of each in a southern African context. I have defined both of these concepts through the application of theoretical perspectives which stress the primacy of human agency in stylistic behaviours, and in the active manipulation and conscious display of cultural symbols. The formation of ethnic and class groups, as I have defined them, are processes that revolve around control over resources and which define the boundaries that human groups draw around themselves. These boundaries are the proposed archaeological correlates described above. For purposes of clarity, a summary of these correlates is presented in Table 3.1.

I have defined the concepts of ethnicity and class and posited the likely archaeological correlates of each in a southern African context. These definitions are derived from particular theoretical perspectives. In the case of ethnicity, the instrumentalist approach has been advocated, while in the case of class, a structural functionalist approach has been adopted. These approaches were employed because they provided the best fit to known ethnographic and archaeological cases in both southern African and world perspectives.

I need to stress here that the determination of the relative social status of the occupants of any site needs to be based on more than the presence or absence of any single class of items or settlement layouts discussed above. Rather, the determination of these social identities will be accomplished through a cumulative analysis and weighing of the evidence. The presence of a single glass bead or copper bangle, for example, will not confer elite status on a site. A preponderance of these items, in relation to evidence from other sites, however, will. This process of determining relative status is not easily quantified, as we are dealing for the most part with activities which require a great amount of good fortune to come upon traces if in the field, or which are so gross in scale (e.g. settlement layout) that they utterly defy quantification. Only two of the items mentioned above, glass trade beads and metal, are relatively easily recovered (if present) archaeologically and are readily quantifiable.

Table 3.1. Proposed archaeological correlates of ethnic-based versus classed-based society within southern African Iron Age society.

Correlates	Ethnic-Based	Class-Based	
		Commoner	Elite
Ceramics	Emblemic style, shared throughout society	Heterochrestic style, restricted distribution	Heterochrestic style, restricted distribution
Initiation/Fertility Paraphernalia	Undifferentiated	Less	More
Figurines	Undifferentiated	Less	More
Non-utilitarian metals	Undifferentiated	Less	More
Metal Production	Undifferentiated	Less	More
Exotic Goods	Undifferentiated	Less	More
Settlement Layout	CCP	Elements of CCP	Elements of Zimbabwe Pattern
Faunal remains	Undifferentiated	Less cattle; older animals slaughtered	More cattle; younger animals slaughtered

In addition, I should note that as the political economy and concomitant ideological apparatus of a society becomes more centralised, I expect that fewer of the elite correlates above will be found at otherwise relatively high status sites. Instead, they may be concentrated at fewer, but more powerful, sites; alternatively, activities like initiation may be concentrated at special-use locations away from domestic occupations.

Craft production activities are particularly problematic as they may be assigned to attached specialists who live adjacent to elites or to detached specialists who live further afield (Friedman and Rowlands 1977). Importantly, at the onset and early stages of social differentiation and elite group formation, all such items and activities will be more widely distributed than in later, more occupationally specialised and governmentally centralised, times. Also, it is uncertain whether specific craft production activities, such as shell bead manufacture, can be definitively stated to have been used in the prosecution of the long-distance trade. Evidence of such activities, however, does indicate production beyond the

level of household use. In such cases, then, it can be said that such evidence points to an overall intensification of production (*sensu* Renfrew 1986:8), thereby allowing the accumulation of production beyond subsistence. The accumulation of this surplus could then be inserted, directly in the form of goods or indirectly in the form of labour, into the trade system.

Now that I have presented the archaeological correlates of ethnicity and status in a southern African context, I conclude this Chapter with a presentation of Kopytoff's model of the internal African frontier. The interpretive and explanatory utility of the model is discussed and archaeological correlates for various aspects of it are identified.

Ethnic Interaction and Polity Formation

Kopytoff's Model of the Internal African Frontier

Kopytoff (1987, 1999) has proposed a model of ethnic interaction and polity formation in sub-Saharan African. The stage upon which Kopytoff sets his actors is what he calls the "internal African frontier." Kopytoff's model is sweeping and complex and I will therefore limit my presentation to the basic elements of his model and its relevance to the study of ethnic interaction and polity formation and development.

Kopytoff posits that the political history of sub-Saharan Africa is one of constant expansion, segmentation, fissioning, growth, collapse and reconstitution of polities owing to internal, contradictory tendencies present within African societies. On the one hand African society promoted the notion of "equal potentiality" by which every individual theoretically could achieve a higher status, while on the other it tenaciously adhered to the sex and age grade hierarchy that promoted the interests of the gerontocracy. These contradictions led to resentments on the part of younger members of society; tendencies for fissioning were therefore constantly in the making. This fissioning, along with the well-documented disputes over political succession and factional struggles, led to groups migrating from their own society (the "metropole", in Kopytoff's phraseology) and strike out on their own into the frontier in an attempt to build a new polity.

The growth and expansion of Bantu-speaking sub-Saharan African societies since their initial departure from the Bantu heartland around 3,500 BP are a result of this frontier process. Owing to their ultimately common origins, these societies' encounters with each other in the frontier, despite ethnic differences, were always predicated upon a similar worldview and a basic set of mutually shared cultural principles. Interactions between these groups were thus far more predictable than, for example, initial encounters between Europeans and the residents of southern Africa.

In their search for political independence, such immigrant groups had to move far

enough away from the metropole in order to gain effective independence. They attempted to establish themselves in the spaces between existing polities or in already populated areas. The choice to settle in unpopulated territory, or in a marginally populated or well-populated area, depended upon the local political geography, and in consideration of their own numbers and level of military force in relation to the population, or lack thereof, of the area they entered. In some instances, the force or size of the incoming group was so overwhelming as to cause the prior inhabitants to flee. These instances, according to Kopytoff, were relatively rare. In most cases, the immigrants groups were absorbed into pre-existing groups with no further development taking place. I am not interested here with those situations in which immigrants either took over unoccupied land or were immediately successful or unsuccessful in their attempt at conquest. Rather, due to the persistent questions relating to Zhizo:Leopard's Kopje interaction noted in Chapter II, it is those situations in which the immigrant ethnic group and the pre-existing population were forced into interaction that are of interest.

Kopytoff's (1987:49-50) characterisation of the narrative told by the frontier group ("newcomers") of the interactions that ensued when confronted by a recalcitrant pre-existing ("firstcomer") group in the context of an eventually successful quest for political authority is cited here:

> The story begins in a foreign land which the rulers' ancestors leave after an incident, such as a quarrel over some resources or over succession; or they leave in search of new hunting grounds, or new pastures, or trade, or subjects; or they are sent out as agents of their seniors or rulers. They often travel a considerable distance, and split up into several groups on the way. When they arrive in the present area, they find it empty, or occupied by a few people whom they expel outright, or by people too strong to be subdued or dislodged. In the latter case, after a period of co-existence, or submission to their hosts, and inter-marriage, the newcomers eventually clash with their hosts. Then they expel them, or conquer them, or co-opt their rulers, or at least secure the hosts' acceptance of their autonomy.
>
> The clash is usually triggered by a dispute of seemingly petty origins…In fact, the [clash] involve(s) the visible symbols of precedence in the land: to yield to them is to recognize the "firstcomer" status of the host; to refuse is to deny this precedence…Sometimes, however, there is no early quarrel. Instead, the newcomers' leader insinuates himself into power—for example, by marrying the daughter of the local ruler. And he may bring to his hosts some new crops or techniques that raise them to a new level of civilization. In the end, the newcomers establish their rule by superior knowledge, or intrigue, or trickery, or force…

Conversely, on part of the newly subjected peoples, their perspective is one of having "always" having been in the area, and of having ultimately allowed the current rulers to take power.

What is striking in Kopytoff's discussion just cited is the wide variety of means available to take power in these situations. Certainly, overwhelming numbers or military force would have been possible. However, in situations in which the newcomers were not able to oust immediately or conquer the firstcomers, the use of intermarriage and, more generally, the kinship system, stand out as the most convenient means of manipulating the political system.

In situations where two or more ethnic groups by necessity co-existed, the manipulation of the local kinship system by newcomers thus plays a large role in Kopytoff's analysis. If the new potential polity was to succeed and expand, it was necessary to gain adherents or followers. As the possibility of simply picking up and leaving in the face of an adverse situation existed in many cases in sub-Saharan Africa, it was in the interests of newcomers to promote situations of relative calm and mutual benefit in an attempt to keep potential adherents in place. Thus, the very forces that promoted the initial fission and creation of the frontiersman had to be held in check if the new frontier society was to succeed. The most efficient means of gaining the population necessary to form a viable polity was, according to Kopytoff (Ibid:44), "by acquiring adherents who could qualify as kinsmen rather than by bringing in mere followers who, in time, might become competitors."

Other salient aspects of the firstcomers' relationships with the newcomers is that, in those instances where the they were not able to be expelled or immediately assimilated, the initial group was, as Kopytoff (Ibid:53) states "in some sense the 'owner' of the land, with a special ritual relationship to it and its spirits." Importantly, similar relationships between firstcomers and the land have been documented in southern Africa during the colonial and early historic periods (see, e.g. Bourdillion 1978 and Rennie 1978 for examples from Zimbabwe).

Kopytoff postulates that a regular feature of interaction between African ethnic groups in situations in which firstcomers were able to be expelled a distinction between two types of power, spiritual and political, developed. When discussing the Goba, he (1987:55) states that the firstcomer Tonga groups were "owners of the land," while the newcomer Korekore were "owners of the people." This distinction

> …attempted to allocate ritual power to oldtimers and political power to the newcomers. But when the numerical preponderance of the conquered made their exclusion from the political sphere impossible, the distinction might become an integral part of the political system…
>
> What is common to all these arrangements is this: once the earlier settlers are recognized to exist, the newcomers attempt to co-opt their mystical powers in relation to the land. The institutional means of this co-optation may be quite direct…

The importance of this primacy of the firstcomers' in relation to the land is critical to Kopytoff because it forces the newcomers to recognise, at least in the period before they achieve primacy, that their legitimacy as a political entity rests upon the assent of the firstcomers.

A situation analogous to that of the Tonga and the Korekore cited by Kopytoff was that described by Bourdillon (1978) between the firstcomer Tavara and the newcomer Korekore. Bourdillon relates how the territorial cults of Dzivaguru and Karuva, powerful spirits associated with human and animal fertility and rainfall were eventually defeated. Traditions relate that with the defeat of the Tavara by the Korekore the chiefs of the Tavara

were submerged into pools or lakes. Bourdillon suggests that ritual and political power within Tavara-Korekore society were thereafter separated.

The internal African frontier model is eminently useful in problematizing and interpreting archaeological situations of ethnic interaction in sub-Saharan Africa, as it predicts a series of dynamic, complex relationships between groups. Archaeological situations that might provide examples of such frontier situations may include instances of interaction that were cited in Chapter II. The example that is most relevant to the present study is Loubser's (1989, 1990) documentation of Mapungubwe and Eiland interaction in the Soutpansberg. Other potential cases upon which to test Kopytoff's model from southern African prehistory are also readily apparent; these include the case of Khami:Moloko interaction (also in the Soutpansberg)(Loubser 1988, 1989, 1990) which eventually led to the emergence of Venda ethnic identity and the dominance of the Singo within it. Importantly, the case at hand, the relations extant between Zhizo- and Leopard's Kopje-using groups, may also be susceptible to explanation, or at least interpretation, employing Kopytoff's model.

As I discussed previously, ethnicity regularly crosscuts with class. In situations of ethnic interaction possibly involving dominance of one group over one or more other groups, two or more pottery styles may co-exist in a heterochrestic system, and this stylistic variability may be reinforced by differential access to the correlates of status listed above. However, in order for such a situation to be verified archaeologically, it must be demonstrated conclusively that the co-existing styles derive from different sources. Otherwise, it is likely in such a case that an internal, rather externally derived, transformation from an emblemic to a heterochrestic style system has occurred. Thus the use of Kopytoff's model should be restricted to situations wherein the separateness of groups can readily be demonstrated.

Archaeological Correlates of Kopytoff's Frontier Model

Ethnic Interaction

The archaeological correlates of some of the types of ethnic interaction postulated by Kopytoff are presented here. The case of two ethnic groups co-inhabiting the same territory may be indicated by two distinct ceramic styles co-existing, perhaps with one or both influencing the stylistic trajectory of the other. The degree to which one group was more or less dominant might be reflected in the direction and extent to which mutual or unidirectional stylistic influence could be determined.

Kinship Relations

Correlates of ongoing kinship relations may be expressed in archaeological traces of intermarriage. The bride would in all likelihood have gone to live at her spouse's settlement and she may have brought ceramics from her group with her. Alternatively, she could make

them at her new residence. In any event, finds of one group's ceramic style at the other's site, in the absence of indications of a multicomponent occupation, may be indicative of intermarriage. They might also, however, simply be evidence of the exchange of goods or foodstuffs, rather than wives, from one group to another. Given the equivocal nature of such evidence I will not employ it here as evidence of intermarriage.

Less equivocal correlates of interethnic kinship alliances would be found in burial assemblages. Burial assemblages containing ethnically identifiable pottery from multiple groups would provide better evidence of kinship relations between ethnic groups. Other, far more direct and reliable, evidence would consists of human osteological metric, and comparative DNA analyses of burials themselves. Such analyses could establish real genetic distance between populations, and thus presumably kinship.

Separation of Ritual and Political Power

It may be possible to recover evidence of the separation of ritual and political power that Kopytoff described in frontier situations. For example, evidence of initiation activities, best preserved as assemblages of figurines other initiation paraphernalia, continuing at firstcomer sites, or a corresponding dearth of these at newcomer sites may be evidence of this separation. It will be remembered that in Kopytoff's model the newcomers will attempt to appropriate or co-opt the ritual power of the firstcomers. Given the evidence already presented from the Shashi-Limpopo region in Chapter II regarding the shifts in settlement pattern from the socially inclusive and ancestor-oriented CCP to the exclusive and class-oriented Zimbabwe Pattern, then shifts in the internal settlement configurations may also be evidence of shifting ideological and structural relations as regards ritual power. All of these issues will be discussed in later chapters, once it established whether or not Zhizo:Leopard's Kopje interaction in the Shashi-Limpopo region constituted a frontier situation.

CHAPTER IV
METHODOLOGY

Introduction

The purpose of this Chapter is to outline the rationale for the choice of research venues and to provide a detailed account of the field, laboratory, and statistical methods employed in this thesis. A brief discussion of the limitations of the data used in this thesis will also be presented. Discussions of all these areas will be related to the research questions set forth in Chapter II.

Choice of Research Venues: Site and Data Set Selection

Site Selection

The study of ethnicity, class, and the rise of social and political complexity in the area of the Shashi-Limpopo confluence has been hampered, at least in part, by the lack of a well-defined regional archaeological sequence. While several sites have been excavated, none dating to the time period under question here have been published adequately for comparative purposes. One of the main substantive goals of this thesis is to correct this situation. Therefore, I sought a broad range of sites in terms of stylistic affiliation for excavation. For ease of interpretation, sites were also chosen if, on the basis of surface indications, they appeared to be of relatively short-term occupation and simply structured. The excavation of simpler, smaller sites would make deposits and associated material easier to interpret and date and, it was hoped, provide a series of stylistic "snapshots" to be used in constructing a regional chronology. It is important to note here that by choosing individual, previously identified, Zhizo-using or Leopard's Kopje-using sites for excavation, and employing these names, does not indicate that these identifications, and the bases upon which they were initially made, are accepted. Quite to the contrary, the use of the terms Zhizo and Leopard's Kopje here simply is for convenience until the relationship between these styles is established more securely.

Also included in the criteria for choosing sites for excavation were indications that they were of possible elite or commoner status. These criteria included architectural features, settlement layout and surface indications (or the lack thereof) of status. For example, a site perched high up on a hill with no indications of a cattle byre, and a proliferation of glass beads was thought to be a more likely candidate for elite status than, for example, a lower-lying site arranged in accordance with the Central Cattle Pattern. These field assessments prior to excavation were used only to attempt to gather a representative sample of sites and assemblages; such designations continued to be applied only if the results of excavation confirmed the initial designation.

I excavated four archaeological sites during the course of the fieldwork for this thesis. These include Baobab, Castle Rock, Leokwe Hill (Areas A and B), and Edmondsburg. The National Monuments Council issued permits for all these sites.

Baobab, Castle Rock, Leokwe Hill, Area B, and Edmondsburg were thought to represent commoner status sites while Leokwe Hill, Area A, was thought to represent an elite settlement. In terms of gross stylistic affiliations, Baobab was thought to represent a primarily Zhizo-using site, Castle Rock K2-using, Leokwe Hill, Area B, Zhizo-using, and Edmondsburg Mapungubwe-using. Leokwe Hill, Area A, was thought to represent a primarily Mapungubwe-using occupation. These initial stylistic designations were made based on the results of past surface collections (unpublished survey data on file at Wits Dept. of Archaeology), field observations by the author, and published interpretations of surface collections (in the case of Leokwe Hill, Area A)(Huffman 1986a, 1996), and were subject to reinterpretation based on the results of excavation.

While the sites chosen, if accurately identified initially, were clearly adequate for examining ethnicity, class, and style at the lower end of the socio-economic spectrum, the single "elite" site of Leokwe Hill, Area A, was not. No Zhizo-using probable elite site had been identified in the field besides Schroda, and only K2, Mapungubwe and Mmamagwa Hill were thought to represent "elite" Leopard's Kopje sites in the study area. The inadequacy in the Leopard's Kopje sample was mitigated to a great degree by obtaining a permit to surface collect Guy Gardner's spoil heap at Mapungubwe Hill. Surface indications provided evidence that a good sample of ceramics and indicators of status would be recovered there. A similar procedure at the site K2 was not employed because the University of Pretoria was completing its final excavations there at the time of fieldwork. Some material from the excavations at K2 and Mapungubwe was, however, examined by the author. This material is housed at the University of Pretoria and the University of the Witwatersrand.

Additional Data Set Selection

Since no adequate comparative data from Schroda, the only known Zhizo-using, nominally elite, site in the study area were published, it was necessary to examine the excavated collections from the site. These are housed at the National Cultural History and Open Air Museum in Pretoria. Not all the excavated material from the site was examined. This lack of complete scrutiny was due to the fact that water damage had impacted a part of the collection, and various components of the collection had previously been studied (glass beads) (Saitowitz 1990), or were then being re-examined (figurines and shell beads). Given the volume of the collection (literally hundreds of large boxes of artifacts), it was decided to limit the examination to the ceramics from the previously radiocarbon dated portion of the site (Area 5). Some metallurgical material recovered from Area 6 was also examined.

Given the constraints of accessibility, time, and money, no other previously excavated collections were examined physically and systematically. However, the work of several authors outside of the study area was sufficiently detailed to lend itself to limited comparative analysis. This work includes Huffman's (1974) reporting of the Zhizo- and Leopard's Kopje-using components at Leopard's Kopje and Blue Jay/Bunting Close in southwestern Zimbabwe, as well as Robinson's (1985) data from the Zhizo(b)-using occupation at Mawala Hill. Lepionka's (1979) data from Toutswemogala and Denbow's (1983) data from the same site, as well as from Taukome, are also available. Unfortunately, no other work in any of the areas discussed in Chapter II is sufficiently detailed for comparative study.

Data Recovery Methods

Field Procedures

Initial site inspection included a very thorough, systematic examination of the surface to identify particularly dense concentrations of undisturbed archaeological material or grey, ashy soils indicative of prehistoric middens and concentrations of conflagrated daub or stone concentrations indicative of remnant structural features. I mapped all clearly identifiable features and other significant details prior to excavation employing a Nikon C-100 Total Station; the horizontal locations of all excavation units were also recorded. Site locations were plotted on South African Geological Survey maps using a Garmin GPS system. Maps of each site investigated are presented in their respective chapters.

Since one of the major goals of this research is to provide a detailed record of stylistic changes in the ceramic sequence of the study area, middens were sought out as the most obvious repositories of such information. It was hoped that middens would provide not only abundant ceramic data but also burnt organic material suitable for radiocarbon dating. The need for providing reliable radiocarbon dates with associated ceramic material also meant that complete or partially complete burnt structures and features (huts, cattle byre fences, grain bins, etc.) that retained organic material suitable for dating were sought out and excavated when encountered. Given that remote sensing apparatus was unavailable at the time of the fieldwork, the identification of such features relied on surface indications and chance encounter in excavations. Thus the great rarity (or at least archaeological invisibility) of such features meant that this search was more of a desire than a practically attainable goal.

Once areas on sites were located which had good surface indications of significant midden deposition, or were thought to represent a feature, excavation blocks measuring between 2 and 6 metres on a side were placed over these areas. These larger blocks were subdivided into 1 x 1 m excavation units numbered sequentially. Excavation teams of two individuals were assigned to each 1 x 1 m unit. A Block Officer was assigned to collect

paperwork and check field recording under the supervision of the Field Supervisor and Project Director. Working in concert to remove single depositional layers (or strata) at a time, excavation typically proceeded in arbitrary 10- to 15- cm levels within natural or cultural strata. Trowels, brushes and dustpans were the most commonly employed excavation tools. The single exception to this procedure was in the case of ancient and modern springhare, rat, and other rodent burrows. These were excavated separately and as deeply and completely as possible upon initially encountering them, and were removed separately as excavations were lowered. No soil from these was sieved and all soil and associated material from them was excluded from analysis and immediately consigned to the spoil heaps without examination.

I interpreted substantial changes in soil colour and texture in the field. For the purposes of vertical control, I designated each stratum with a Roman numeral reflecting its sequential position from top to bottom in the soil profile. Correlation of strata between different excavation blocks and within them was a separate analytical step from defining them in individual test units. Individual excavation level records were kept for each level excavated within each 1 x 1m unit on standardised excavation level forms. The accuracy of these forms was checked by the Block Officer and Field Supervisor prior to inclusion within the larger Block Record. Information recorded on each level form included provenance information, dates opened and closed, supervisor, level depth by corners and centre, excavation method, screening method, material collected, material observed but not retained, features present, disturbances present, level description, soil description (including Munsell colour designation), and photographic and drawing log cross-references. Information redundant with previously recorded levels within the same stratum in the same block was not duplicated, but referenced instead to a master level description.

Features (though rarely encountered) were numbered on each site individually by block, unit(s), and order encountered. Recording forms similar to those used for individual excavation levels were employed. Plan and section drawings were made for all features and soil from them sieved separately, and material recovered from them recorded separately.

All soil excavated (with the exception of disturbances as noted above) was passed through either 1.6 or 3 mm stainless steel hardware screen sieves. Half of all material was passed through the finer screen and half through the coarser. Prior to fieldwork, a laboratory test of the 3 mm screen demonstrated that the smallest artifacts typically found on sites in the study area (glass beads) were recovered 75% of the time with the 3 mm screen and 95% of the time with the 1.6 mm screen. As identical procedures were employed on all sites investigated, inter-site comparison of the assemblages recovered was thought to be highly reliable. All cultural material recovered in the course of excavation and by sieving was placed in bags marked by site, area, block, unit/feature, stratum and level and retained for laboratory analysis.

Unfortunately, large single pieces of burnt wood, charcoal or other organic material suitable for reliable radiocarbon dating were not found in abundance on many sites, and features with datable associated material were even rarer. Therefore excavators were instructed, upon identifying relatively dense patches of larger (ca. 1 cm across or wider) fragments of datable material, to collect these on the spot for possible dating. Such patches did not exceed 10 cm across the horizontal plane or more than 5 cm in vertical thickness. Samples were lifted by trowel or tweezer point and placed into a clean aluminium foil envelope. Each sample thus collected was point-plotted within the excavation block by a northing, an easting, and a depth from datum. The most stratigraphically secure or, in some cases, the largest, of these were submitted for analysis. Individual samples or sets of samples submitted are discussed in the presentation of each site in later chapters.

Representative section and plan drawings were made as appropriate. A photographic record was kept of all excavations in both black-and-white and colour film. Unfortunately, in the cases of Baobab and Edmondsburg, the photographic record was compromised owing in both cases to faulty equipment and in the latter to theft of equipment as well. Fortunately, detailed drawings and maps were made and retained. All excavation records, notes, extant photographs and drawings will be placed on file and made available for inspection at the University of the Witwatersrand, Department of Archaeology, upon the final disposition of this thesis.

Laboratory Procedures

Prior to leaving the field, a preliminary cleaning, examination, and culling of ceramics was conducted in order to reduce transportation costs. Since the major goals of the ceramic analysis were stylistic, only potsherds that were excavated as portions of larger single vessels, comprised rims, or were complete enough to determine vessel form, design motif and motif placement, were retained for analysis. All other ceramic material was counted and placed at the bottom of the excavation blocks and filled over with screened soil. The remaining diagnostic ceramics and all other cultural material were boxed and transported to the laboratory at the Department of Archaeology, University of the Witwatersrand, in Johannesburg. I only instituted the practice of culling ceramics after the third field season in 1997; prior to this time, all material was retained from excavations.

All ceramics were cleaned and painted with a strip of white water-based paint on the interior or undecorated portion of a shard. This strip was then marked with its provenance in black drawing pen, and this mark covered over with a thin layer of clear natural lacquer. All other non-pottery ceramic items (i.e., figurine fragments and spindle whorls) were also marked in this fashion. Complete beads were strung with non-reactive metal wire or pure cotton thread and tagged with acid-free material. Incomplete beads and items of metal, bone,

lithic materials, and all other items of cultural material were not marked on their surfaces, but placed in suitable containers that were re-marked with provenance information.

Analytic Procedures: Identification and Interpretation

The relatively large size of the collections of cultural material recovered from all the sites investigated made it necessary to employ a computerised database system for recording and analytical purposes; Microsoft Access 97 was the programme used to record provenience information and the attributes selected for each artifact category. Attributes were recorded with a numeric coding system, with each variable of each attribute being identified by an Arabic numeral. The complete coding system and database generated are not detailed here, but may be made available by the author to interested researchers upon request.

Metal Identification

Metal artifacts were divided into two main categories, bead and non-bead, with metal beads being subsumed under the larger category of beads. Non-bead metal artifacts were classified using three main variables: type, material and colour. Artifact type was divided into two main categories, production debris and finished material.

Production-related Artifacts

Items of metallurgical production were defined in the following manner:

1) Ore: metal-bearing mineral or rock (e.g. azurite and malachite for copper and magnetite and haematite for iron);

2) *Tuyère:* pipe through which air is either pumped or drawn into a furnace (Miller and Van der Merwe 1994:36). *Tuyères* employed in smelting often have heat-altered ends with slag adhering to them, while those used in smithing are not typically so altered;

3) Pouring splash: cooled droplets of metal lost during the process of casting molten metal into a mould;

4) Furnace wall: the refractory lining, composed variously of ceramic, daub, or stone, used in smelting ovens or other containments in which ore and fuel are reduced (Ibid: 34-35);

5) Slag: molten, or solidified, waste product of smelting and, sometimes, smithing, consisting of fused components derived from ore, flux, fuel, and furnace lining (Ibid:35). Slag, however, can be divided into numerous categories. Of these, two categories, one comprehensive and one specific, are presented here:

a) Flow-type slag, cinder, and smithing slag: these three types of metallurgical debris are combined here due to the fact that they are not always easily distinguished in the absence of chemical and physical analyses. This inability to easily distinguish between them can lead to erroneous conclusions about whether smelting or smithing activities are represented. Thus

the presence of any of these three is simply thought to indicate generalised metallurgical activity;

b) Furnace bottom/pooled slag: following the definition of Friede, Hejja and Koursaris (1982:38) and Miller and Van der Merwe (1994:35), the slag left at the bottom of a non slag-tapping furnace or drained to the outside from a slag-tapping furnace; the shape of such slag ranges from irregular to concave, having sometimes been formed at the base of furnaces. The presence of these slags is a fairly reliable indicator of smelting;

6) Slag skimmers: pottery fragments with slag adhering mainly to one side, usually the concave interior, that have not been exposed to the temperatures necessary for smelting either copper or iron (>1100E C or 1200E C, respectively)(Tylecote 1980:184, 209); these artifacts were used to skim molten slag during some unspecified stage of metal production;

7) *Tuyère* flow: artifact produced when molten furnace material backs up into an operating *tuyère* and is not expelled, but is allowed to solidify; possibly produced after the main smelt while awaiting slag/metal separation;

8) Furnace copper: according to Tylecote (Ibid:184-185), a small globule or prill of copper produced through smelting but which is not adhering to the main metal output; often trapped in slag after smelting and recovered by grinding or breaking open slag;

9) Furnace ingot: metal (usually copper) formed "in the bottom of the smelting furnace as the result of the liquation of the smelted copper from the superincumbent slag" (Ibid:194); typically, these ingots are plano-convex in shape;

10) Poured ingot: metal artifact produced for trade, transport, or convenient working size by casting molten metal into a desired shape employing a mould (Ibid; Miller and Van der Merwe 1994:33);

11) Crucible sherd: denatured, burnt and sometimes heat-warped ceramic sherd with adhering slag that has been exposed to temperatures sufficient for the smelting or re-melting of metal;

12) Iron bloom: product of iron smelting, consisting of a "mixture of solid iron, slag, and pieces of unburned charcoal" (Tylecote 1980:209).

13) Whetstone: ground, fine-grained stone slab, sometimes with a V-shaped groove or grooves, suitable for the sharpening of bladed metal tools.

<u>Finished Metal</u>

Finished metal artifacts were divided into the following categories (following Miller 1996:19, 24-30):

1) Bead: small annular form, suitable for stringing;

2) Chain link: closed form of bent ribbon;

3) Helix: helically wound ribbon, usually hollow;

4) Pendant: spatulate shape with twisted shaft to form an eye;

5) Pin: tapered rod with spatulate end;

6) Plate: flat form with areal extent;

7) Ring: round wire bent into closed form with flattened top;

8) Strip: flat fragment of ribbon;

9) Wire: round or square cross-section;

10) Indeterminate worked metal: objects composed of finished worked metal, but which were too small or fragmentary to be securely identified.

In addition to identifying metal artifacts by type, they were sorted by material type (iron or copper), weighed, and corrosion or rust, if present, was noted.

Metal Analysis

The purpose of the metals analysis in this thesis is twofold: first, to determine at which sites in the study area metals were being produced and, secondly, to determine inter-site patterns of metal distribution. As was discussed in Chapter III, the strong archaeological and ethnographic associations between metallurgy, fertility and leadership, led me to propose that nascent elites in the area of the Shashi-Limpopo confluence would have exerted, or attempted to exert, some form of control, real or ideal, over metal production. Also, such attempts at control would have been attempted over the subsequent distribution of finished, non-utilitarian, copper and iron products. Thus the determination of the number and location of centres of metal production in the region is important as this will indicate the level of control, centralised or otherwise, over these products. The discernment of the overall distribution of finished products within these polities, moreover, can aid in establishing patterns of horizontal and vertical relationships between producers and consumers, thus aiding in delimiting larger patterns of social identification.

The identification of centres of metal production will be accomplished without reference to specific the types of metallurgical activities that may have taken place. Thus, instead of saying that a specific site's artifact assemblage indicates smelting, smithing, or secondary re-melting activities did or did not occur there, all that will be stated is that either a site appears to have been a locus of metal production or not. A site will be judged to be or not to be a locus of metal production based on the amount and types of metallurgical debris present in comparison to other sites. This purposeful analytical ambiguity is adopted here in recognition of the fact that detailed chemical and physical archaeometallurgical analyses that are well beyond my expertise need to be undertaken on all the production debris prior to their conclusive identification. Thus the identification of production-related artifacts as particular types of metallurgical debris is only a working hypothesis and not a positive identification.

On the other hand, the quantification of the relative access to finished metal artifacts

which residents of various sites in the area enjoyed is a much more accurate procedure. This exercise will help provide criteria for determining the relative status of each site's residents and their standing in the sociopolitical hierarchy. First, I tabulated the total types, weights and counts of artifacts present at sites, or portions of sites, where the total metric volume of deposit excavated could be calculated. I then measured three variables for finished, non-utilitarian, artifacts that were used in what Childs (1991b) refers to as the "expressive sphere." These variables, as I have defined them, are diversity, density, and abundance. Diversity refers to the variety or range of objects present, density refers to the mass of these objects, and abundance refers to the number of objects, or fragments of objects, which were present on as particular site. Diversity was measured on the basis of simple presence or absence, while density and abundance were measured in reference to grams/m^3 and parts/m^3, respectively. These variables were measured separately for copper and iron artifacts, and then considered together. Once these calculations were made from data at individual sites, they were then placed together in a standardised format, with the largest score for each measurement placed at 100%, and smaller scores measured as percentages of the largest score.

Data on metal production and on metal distribution will be located in the presentation on each site and in the larger intersite comparative exercise in Chapter XII.

Bead Identification

Initial identification of beads involved sorting by material type: shell, glass, metal, bone, ceramic, soapstone and ivory. Shell beads were further subdivided into ostrich eggshell or *Achatina* sp. (giant land snail), state of repair (broken or complete), colour (natural or burnt) and stage of manufacture (blank or finished). In addition, the diameter, thickness and aperture size of each bead was measured to the nearest one-hundredth of a millimetre using Tesa dial calipers. Each shell bead was also weighed to the nearest one-hundredth of a gram. A series of size classes was also generated for shell beads, based on their diameter. These diameter measurements were rounded up to nearest whole millimetre; for example, beads with diameters between 0 and 1.00 mm were placed into size class 1, beads with diameters between 1.01 and 2.00 mm were placed into size class 2, and so on.

Glass trade beads, and locally manufactured re-meltings of these, were initially sorted by shape (oblate, disc, octagonal, garden-roller[1]); subsequently, the same variables recorded for shell beads were also noted, with the exceptions being that size classes were not recorded and a large variety of colours of these were noted. A much improved typological system has been developed by Wood (2000, 2005) for glass beads from the Shashi-Limpopo region. Her

[1]The term "garden roller" was first coined by Guy Gardner who found these items in large quantities at K2, based on their barrel, cylindrical shape.

glass bead types will be employed here. The presence of melted clusters of glass trade beads and fired, longitudinally-halved, barrel-shaped ceramic moulds, presumably used in the manufacture of garden roller beads, was also recorded.

The remaining metal, bone, ceramic, soapstone and ivory beads, comprising relatively few beads from all site collections, were also measured and weighed according to the procedures as set out above for shell beads, and their colour, condition, and state of manufacture noted. Again, like the glass beads, size class information for these was not noted.

Bead Analysis

As is the case with metal artifacts, my purpose in the analysis of beads was to discern larger patterns of production and distribution in the study area. The presence of glass trade beads and evidence of their re-melting and manufacture were used, alongside finished metal items, as one of the most potentially significant and meaningful measurements of the relative status of a site.

Evidence of shell beads and shell bead production, whatever its apparent intensity, either in ostrich eggshell or *Achatina*, was not used to indicate the relative status of a site. Evidence of such manufacturing consisted of unfinished beads that were either left undrilled or with rough-cut edges, and ground stone artifacts with long hemispherical grinding ruts. This material was not used to aid in measuring the relative status of a site because it is not clear to what extent the materials used were locally available or exotic. For example, I posit that larger quantities of ostrich eggshell beads on a site could imply semi-arid conditions amenable to ostriches, and not necessarily interregional trading contacts indicative of the ability to appropriate surplus social production. Also, the presence, absence, or varying frequencies of ostrich eggshell versus *Achatina* shell may simply indicate preference or taste, rather than status considerations. Until and unless a refined micro-environmental reconstruction of the study area that is independent of archaeological data is completed, such shell bead data must remain ambiguous.

The presence of glass trade beads and re-manufactured, cylindrical, garden roller beads, conversely, are far more reliable indicators of the relative status of a site. The utility of these items in measuring status is due to the fact of their exotic origins. I hold that their presence at a site is a direct measure of either the ability of leaders to appropriate surplus production to trade directly for such items. Their presence is also a measure of the level of favour and esteem with which a site's leaders are held by the national rulers (the truly powerful that in all likelihood did engage directly in external exchange). It is important to note, however, that the archaeological contexts from which such material is derived are of extreme importance to their interpretation. Glass beads from a burial, for instance, have far

less importance than those derived from a midden or from a house floor. The great value and relative rarity of such objects would indicate that they would be well looked after, carefully curated, and used especially for commemorative acts such as human burial. Thus, due to the vagaries of sampling strategies and chance, one may happen upon (or not) a single burial with several hundred glass beads, but find no others on a site. On the other hand, however, those beads that are recovered from middens or house floors represent unpatterned, random activities comprising accidental loss through carelessness. The fact of the lack of care taken by their owners to preserve or curate them is indicative of their confidence in securing more of them at a future date; their presence in refuse contexts is thus a more reliable measure of their actual former ubiquity on a site.

The presence of moulds used for the production of garden roller beads, and melted clusters of beads which may have been intended for re-manufacture (or which minimally represent the confident carelessness just noted), is an indicator of the relative status of a site and its place in the web of exchange and redistribution. The great importance of manufacturing evidence is due to the fact that, based on analysis of previously excavated laboratory collections, each garden roller bead required the destruction of between eighty and several hundred smaller beads. The presence of items used in manufacturing garden roller beads therefore represents ready access to relatively large quantities of trade beads.

Unlike the procedures detailed above for conducting intersite comparisons on finished metal, the procedures used for quantifying and comparing data on glass beads from different sites were not straightforward. The three measurements of diversity, density, and abundance were not able to be applied to all the sites detailed in this thesis; rather they were only applied to the assemblages excavated by this author. This analytic difficulty was due to the fact that, in the case of the assemblages from other Limpopo Valley sites (e.g. Schroda, K2 and Mapungubwe), neither Wood (2000; in progress) nor Saitowitz (1996) recorded the mass of the beads, ruling out density as a measurement; fortunately, however, Wood (personal communication 2004) provided access to her bead classification typology, thereby allowing diversity to be measured. Ideally, all the assemblages should have been analysed by the same individual as this would have led to the construction of a data set that, whatever its inherent faults, would at least have been internally consistent. Unfortunately, the actual beads from the excavations at the other Limpopo Valley sites that concern us here were not available for examination at the time of this study. Therefore, only diversity and abundance will be used to compare all the assemblages.

Non-pottery Ceramics

The category of non-pottery ceramics refers to items fashioned of fired clay that were used either as figurines or, in a few cases, portions of pottery vessels re-used either as

abraders or possible spindle weights.

Figurine Identification

Figurines were recovered as fragments, complicating identification of all but the most obvious representations. Refitting of figurine fragments was attempted in all cases. Two types of generalised representations were recovered, human and animal. Human representations were identified on the basis of physical characteristics, if present, such as cicatrisation, breasts, buttocks and genitalia, while the shape of the head or appendage identified animal representations.

Figurine Analysis

The relative inter-site distribution of figurines is thought here to be an important indicator of a site's status when considered in combination with other potential correlates of status. Unlike non-utilitarian metal items and glass beads, however, it is not possible to quantify their presence on a comparative inter-site basis employing all three measurements of diversity, density, and abundance. Density clearly was not a meaningful measurement, given that figurines were fashioned out of clay, a widely accessible, locally available material. Abundance, modified here to include minimum number of figurines count and not the total number of figurine fragments, was, however, considered an appropriate measurement. Diversity, based upon types of individual ceramic figurines recovered, was also used as a point of inter-site figurine comparison.

Faunal Remains and Lithic Material

I did not analyse faunal remains and lithic materials as part of this thesis. Only the faunal material from the site Edmondsburg was able to be analysed, due to funding constraints. Numerous attempts were made to engage specialised researchers for both these classes of material, but without success. Both these areas of analysis fall well outside the range of my expertise and it was thought best to leave their analysis to more qualified personnel.

Eventual analysis of the faunal material may provide a means of independently testing the hypotheses generated in this thesis concerning the relative status of the sites studied. An interesting and profitable comparative study could be made employing the broad research goals outlined in Chapter III and following the work of Brain (1974), Thorpe (1984, 1995) and De Wet (1993). Such a study would provide a data set on the relative status of each site, and could provide independent refutation or verification of the results and conclusions set forth in later chapters.

The lithic material excavated was not analysed or reported in any detail here, save the

mention of the broad chronological period or periods represented by each assemblage (Middle Stone Age, Later Stone Age, etc.) in each sites' data chapter.

Ceramics

The analytical focus of this thesis is on the ceramic material. As was established in Chapter II, previous work on the relationship between the Zhizo and Leopard's Kopje styles has been unable to discern clearly the relationship between the Zhizo and Leopard's Kopje ceramic styles. Many possible scenarios exist, but the core analytical issues revolve around whether: 1) Leopard's Kopje wares derived from Zhizo wares and, if this was the case, what social or political cleavages this stylistic disjunction represents; or 2) Leopard's Kopje wares are intrusive and indicate a migration or invasion that displaced Zhizo-users from the area of the Shashi-Limpopo confluence and thus both styles represent ethnic markers.

In order to begin to address these issues, the spatial and chronological distributions of ceramic styles at the sites investigated were determined. After I determined the distributions of ceramic types, these were then analysed in relation to the other indicators of social identity outlined above. This multivariate analysis aided in delimiting ethnic- and class-based boundaries as expressed in ceramic style, and thereby elucidated the historical relationship between the Zhizo and Leopard's Kopje ceramics. The precise methods by which I classified and analysed the ceramic material are described below.

Ceramic Analysis: Typological Procedures

Since the central questions regarding the relationship between the Zhizo and Leopard's Kopje styles are those of group affinity and continuity versus disjunction, it was decided early on not to pre-judge ceramic assemblages based on prior analyses. Therefore, the terms "Zhizo" and "Leopard's Kopje" will not be applied to ceramic assemblages in the course of this analysis. Rather, the ceramic classifications generated here employ a version of the Type-Variety method of ceramic analysis (Wheat, Gifford, and Walsey 1958; Gifford 1960; Phillips 1970), combined with the multi-dimensional approach to Southern and Central African ceramics developed by Huffman (1980, 1989).

The Type-Variety method of ceramic classification seeks, according to Sinopoli (1991:230), to "group ceramics into successively finer categories on the basis of some combination of variables..." Ceramics can be divided first on the basis of paste, for example, and then further subdivided on the basis of decoration technique, and so on. Typically, ceramic types generated using the Type-Variety system receive a binary nomenclature, with the first term referring to the region of occurrence and the second term referring to the primary defining variable. For example, a ceramic type found in the Komati River Basin of Swaziland, defined primarily on the basis of incised decoration, would be called "Komati

Incised." Varieties in this system refer to types that are temporally or geographically restricted.

The great utility of the Type-Variety system is its ability to generate a regional framework for ceramic analysis. Designations of ceramic types, furthermore, are based on objective criteria such as decorative or other physical characteristics. Contemporary or diachronic relationships between sites, groups of sites, or areas, can be examined without reference to the ethnically charged terms typically used. One can thereby objectively judge relationships between sites and assemblages over time and space using appropriate statistical procedures.

The Type-Variety method does not, however, specify those variables that are most useful or relevant to generating ceramic types for individual regions or answering specific research questions. Fortunately, an excellent groundwork for generating ceramic types in Southern and Central Africa has already been laid by Huffman (1980, 1989). Through a combination of field, collections-based and ethnoarchaeological research, he was able to determine that the types generated by examining the combinations of the three variables of vessel form, decorative technique/motif, and decoration placement were the most useful in establishing group identity.

Much of his research on these issues has been conducted on a large, sometimes continental, scale. Migrations of people or their *in situ* development were tracked employing types established using the three criteria and he was able to discern, for example, different occupations by Eastern or Western Bantu peoples (e.g. Huffman 1989). Differences between assemblages were calculated and similarity indices and other statistical criteria, primarily straight frequency comparisons, were employed to arrive at conclusions about group identity. Precise statistical criteria for establishing difference in group identity, it needs to be noted, were not established; rather, types were generated from sites that were widely geographically or temporally dispersed, statistical comparisons between assemblages were made, and conclusions drawn. When ceramic analyses are being conducted on a more detailed scale of analysis, involving geographically proximal sites over a shorter time period, a proportionately more detailed analysis and comparison of ceramic types should prevail.

A combination of the Type-Variety system and Huffman's typing system will be used to classify the ceramic material in this thesis in the following manner: first, binomial ceramic nomenclature will be employed, using the term "Limpopo" as the first term and the decorative technique (e.g. incision, comb-stamping, etc.) employed as the second term. Thus, the major ceramic divisions, described here as "Wares", will be "Limpopo Incised," "Limpopo Comb-Stamped," "Limpopo Bead/Bangle-Impressed," and so on. The ceramic material will be further divided into Types and Sub-Types on the basis of vessel form, groups of one or more similar design motifs (design sets), and the placement of those design sets upon the vessel.

Thus, under the category of Limpopo Incised Wares, all recurved jars decorated with incision, for example, would constitute a series of types further subdivided by design set. The level of type would thus include, then, all recurved jars decorated with a particular set of incised design motifs. An example would be Limpopo Incised, Recurved Jar, Horizontal Line (Type 1). The more specific sub-type would then be based upon the placement of the design motif upon the recurved jar.

The major advantage of this system is that it makes it possible to examine the occurrence and varying frequencies of ceramic wares, types, and sub-types within and between sites without making reference to their presumptive cultural affinity. The comparison of resultant data will then allow for the generation of value-neutral observations about the diachronic and synchronic relationships between depositional strata within a site or such relationships between sites and analysed assemblages. The statistical methods that will be employed in these comparisons will be outlined in the next section, following a detailed exposition on the methodology employed in ceramic analysis, including laboratory procedures, and precise definitions of those variables used in characterisation: vessel form, decorative technique, design motif clusters, and decoration placement.

Ceramic Analysis: Definitions and Laboratory Procedures

Definitions

The following definitions are limited to those central variables that were used in the generation of ceramic types. These include vessel form, decoration, and decoration placement. Other variables, including rim profile, lip form, lip shape, surface treatment, colour, lip thickness and wall thickness, were recorded, but these are not presented here. The specific definitions for the three central variables are detailed in the following sections.

Vessel Form

Four major vessel form categories, further divided into twelve more distinct vessel forms, were identified during the course of ceramic analysis. The four major categories included jars, bowls, beakers, and plates. Jars were further divided into recurved/shouldered jars, short-necked jars, bag-shaped/constricted neck jars, and bellied jars. Bowls were divided into simple deep bowls, simple shallow bowls, very shallow bowls, incurvate bowls, and necked bowls. Beakers and plates were not further divided. Each of these divisions contains many variations in rim and lip profile. The eleven major vessel form categories used in this thesis are shown graphically in Figures 4.1 through 4.11.

An attempt was made to consolidate similar profiles together to aid in the generation of a more manageable volume of ceramic types. This lumping was undertaken due to the great difficulty in generating ceramic types by previous researchers in the region, particularly Hanisch (1980). He recorded a total of forty-three distinct profiles, a number far too large for

generating statistically meaningful sets of ceramic types. Also, this consolidation was due to the fact that while it was usually an easy matter to determine if a particular vessel was a jar, it was sometimes difficult to distinguish if it was recurved or shouldered. Thus, while such distinctions were recorded, if apparent, during analysis, all variations on these two themes were subsumed by the larger category of recurved/shouldered jars.

Recurved/Shouldered Jars: necked, globular vessels with a height greater than mouth diameter. Shoulders are sometimes distinct. Rim profiles range from vertical to highly excurvate. These vessels are included in Hanisch's (1980:19) category of Necked Pots and correspond to a great extent with Huffman's (1974:38-40) categories of recurved and shouldered jars, particularly his Shapes 2 and 3. The vessel form shown in 4.1 will be used for purposes of general description and illustration of types.

Short-Necked Jar: a globular form with height greater than mouth diameter. Neck is present, but is extremely short (one to three centimetres in height). Rim profiles range from vertical to highly excurvate. This form corresponds with Hanisch's (1980:19-20) Vessel Forms 8 and 9, subsumed under his larger category of Necked Pots (Figure 4.2). This form has no directly corresponding form in Huffman's (1974:38-39) profiles.

Conical/Bag-Shaped Jar: a conical form with height greater than mouth diameter. Oftentimes no neck is present, as in the example shown here; however, if present, the neck is generally very short. Rim profiles range from strongly incurvate to vertical. This vessel form corresponds with Hanisch's (1980:19-24) Vessel Shape 19 and, to a lesser extent, his Vessel Shape 12 (Figure 4.3). This form has no directly corresponding form in Huffman's (1974:38-39) profiles.

Bellied Jars: globular form with height greater than mouth diameter. Shape is best described geometrically as a cylindrical neck sitting atop an ellipsoid body (Figure 4.4). If not for the cylindrical neck, this vessel would be classified as an incurvate bowl.

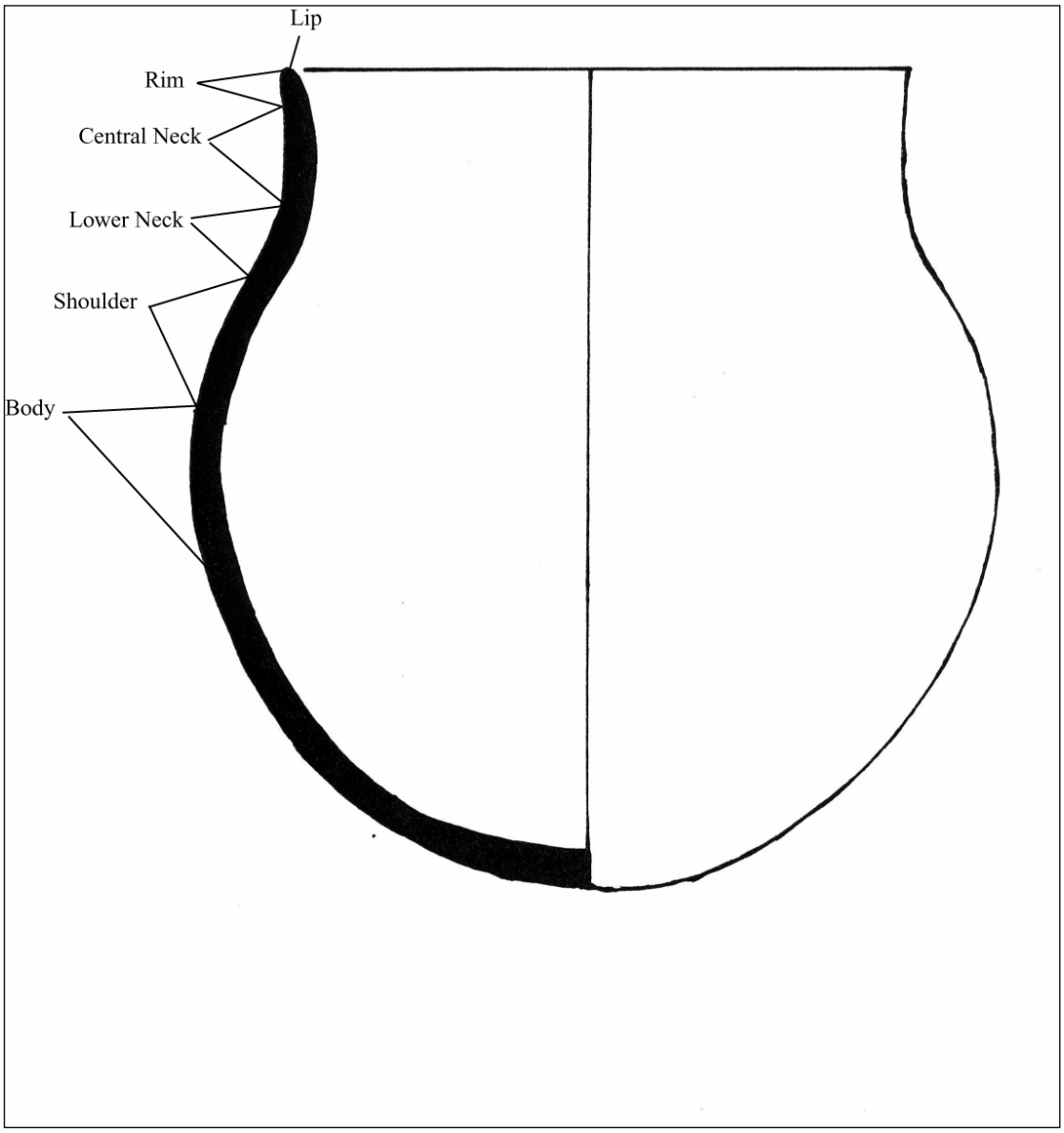


Figure 4.1. Recurved Jar, typical profile and cross-section, showing location of design placement areas.

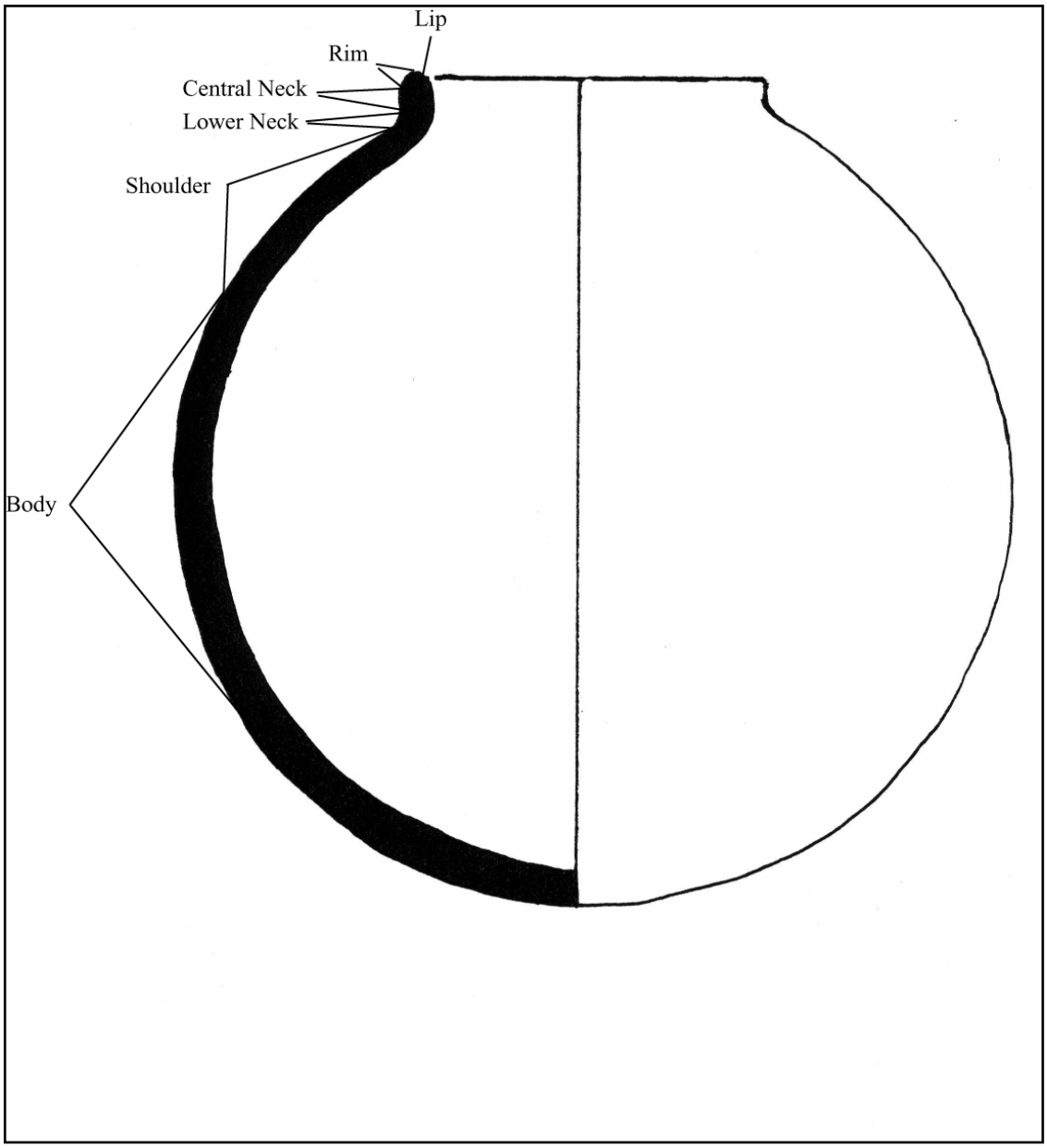


Figure 4.2. Short-necked Jar, typical profile and cross-section, showing design placement areas.

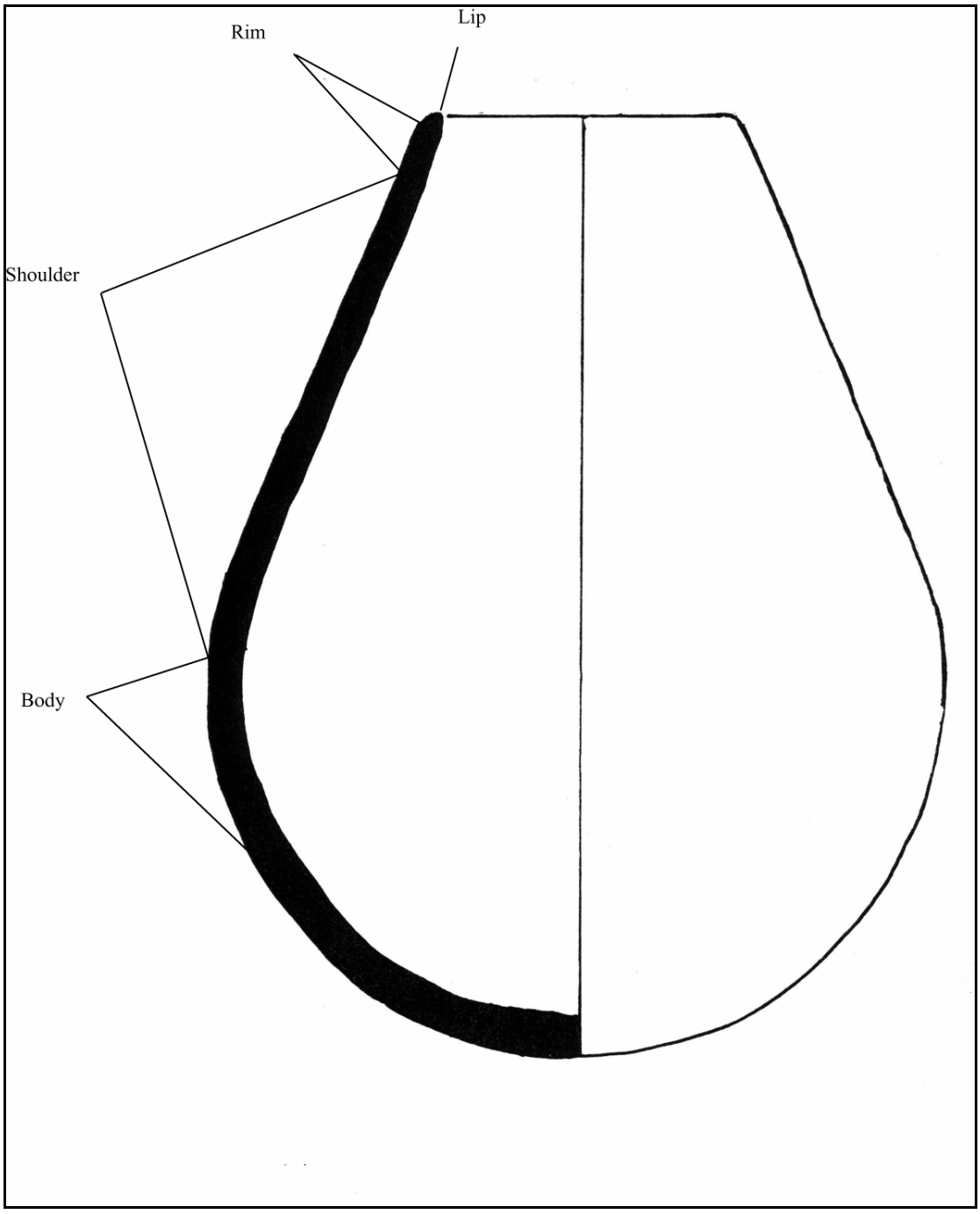


Figure 4.3. Bag-shaped Jar, typical profile and cross-section, showing design placement areas.

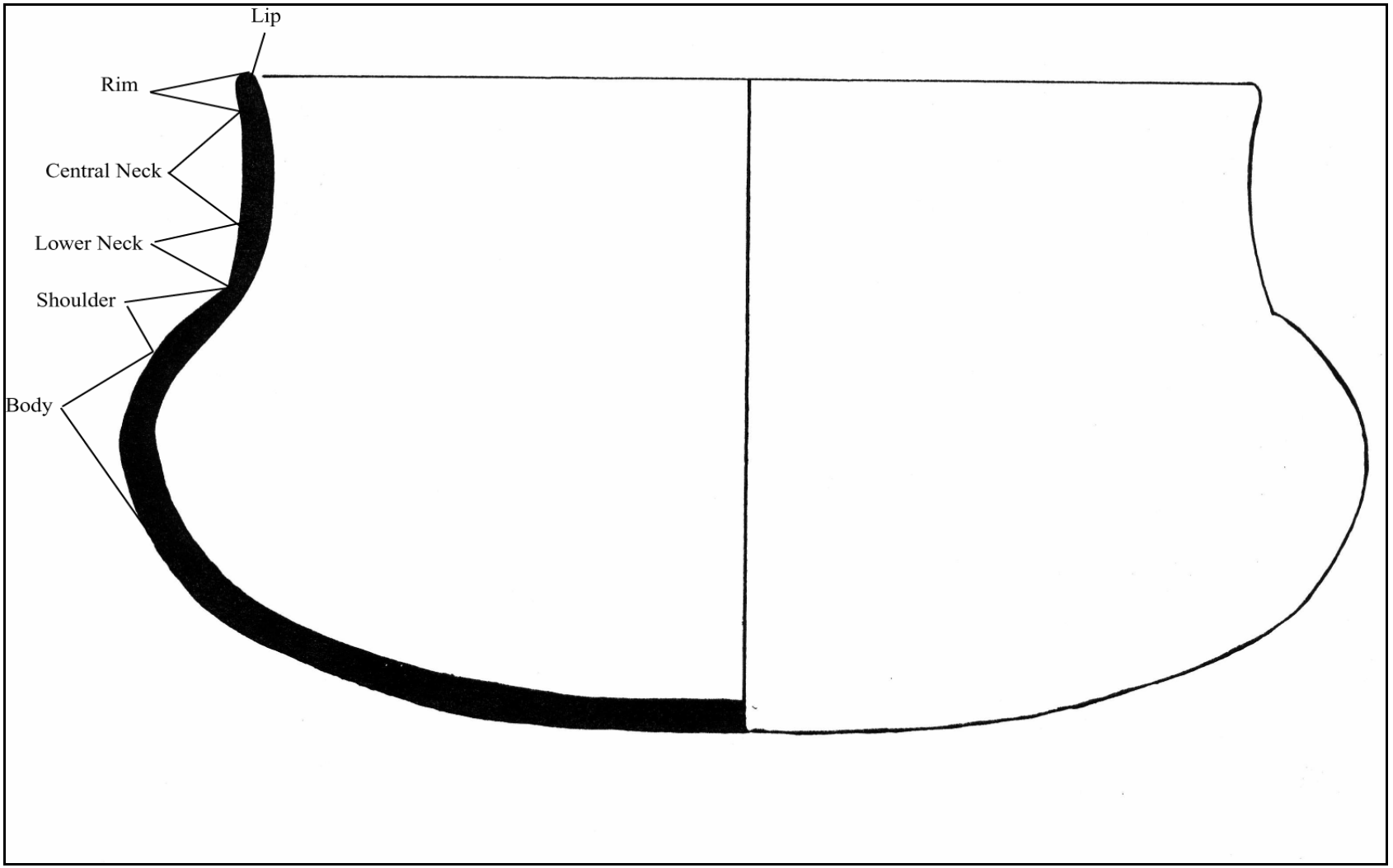


Figure 4.4. Bellied Jar, typical profile and cross-section, showing design placement areas.

Neck/shoulder junction is typically very distinct. Rim profiles vary from vertical to highly excurvate. This vessel form corresponds to Hanisch's (1980:20) Vessel Shapes 11, 13 and 14, but has no clearly corresponding form in Huffman's (1974) profiles.

Beakers: Small vessel with nearly vertical sides and a flat base, with height equal to or greater than mouth diameter. Rim profile ranges from vertical to slightly excurvate (Figure 4.5). This vessel form corresponds with Hanisch's (1980:22-24) Vessel Shapes 39, 41, and 43 and with Huffman's (1974:39-40) Shapes 6 and 7.

Simple Deep Bowls: Simple hemispherical vessels whose height is one-half of mouth diameter or greater. Rim profiles range from vertical to moderately excurvate (Figure 4.6). This vessel form corresponds with Hanisch's (1980:21-23) Vessel Shapes 20, 28 and 29, but has no precisely corresponding form in Huffman's (1974) vessel shape profiles.

Simple Shallow Bowls: Simple hemispherical vessels whose height is one-third to one-half of mouth diameter. Rim profiles range from vertical to strongly excurvate (Figure 4.7). This vessel form has no direst correspondence with either Hanisch's (1980) or Huffman's (1974) profiles.

Very Shallow Bowls: Simple hemispherical vessels whose height is between one-third and one-fifth of mouth diameter. Rim profiles range from vertical to strongly excurvate (Figure 4.8). Generally, these vessels are small in overall size, with diameters of around fifteen to twenty centimetres. This vessel form has no directly corresponding forms in either Hanisch's (1980) or Huffman's (1974) profiles.

Plates: Simple, nearly flat ellipsoid vessels whose height is one-fifth or less of mouth diameter. Rim profile is consistent and is slightly incurvate (Figure 4.9). Generally, these vessels are small in size, with diameters of around twenty centimetres. This vessel form has no directly corresponding forms in either Hanisch's (1980) or Huffman's (1974) profiles.

Necked Bowls: necked, globular vessels with mouth diameter greater than height. Shoulders are distinct. Rim profiles range from vertical to strongly excurvate (Figure 4.10). These vessels in profile resemble recurved jars in miniature. This vessel form has no corresponding vessel shape in Hanisch's (1980) shape lists, but has a

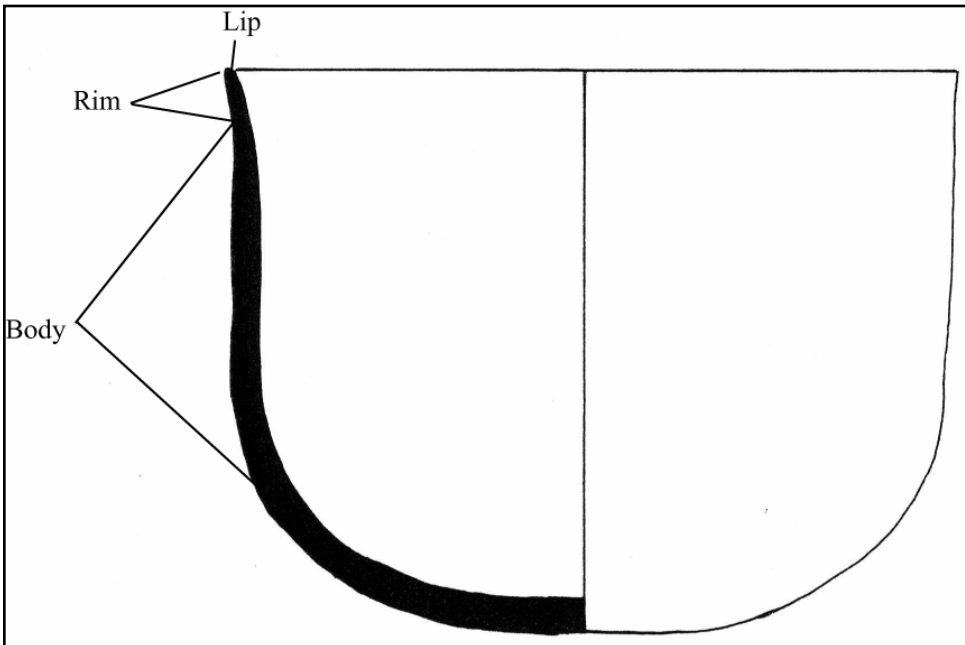


Figure 4.5. Beaker, typical profile and cross-section, showing design placement areas.

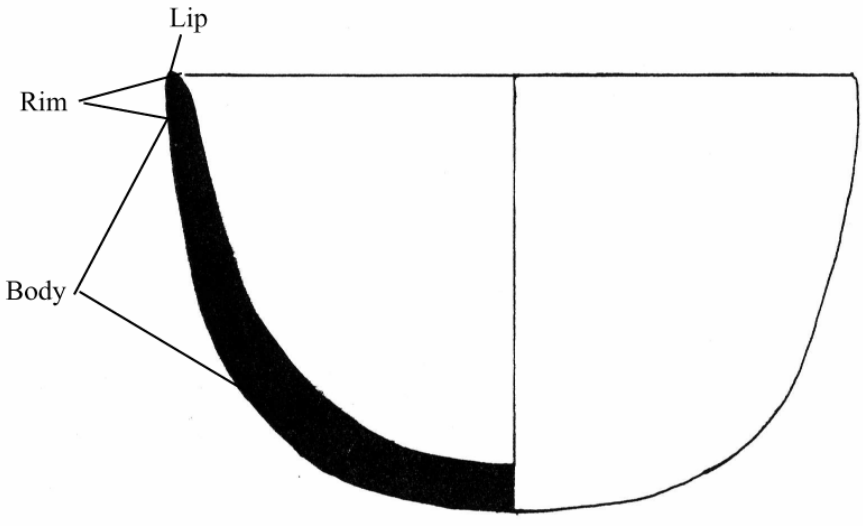


Figure 4.6. Simple Deep Bowl, typical profile and cross-section, showing design placement areas.

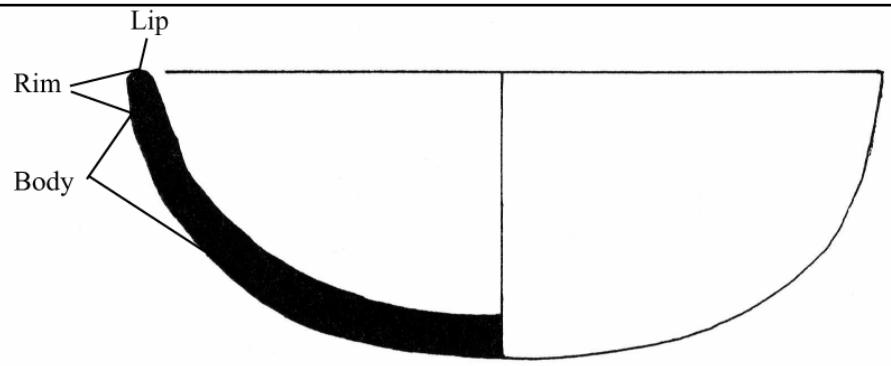


Figure 4.7. Simple Shallow Bowl, typical profile and cross-section, showing design placement areas.

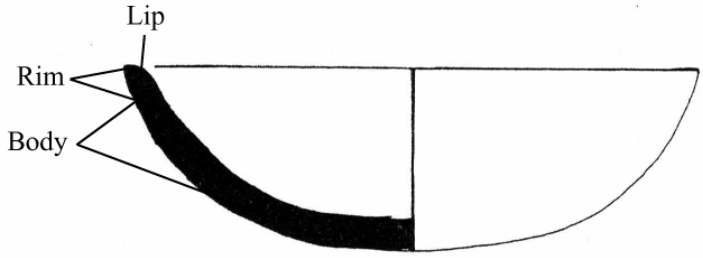


Figure 4.8. Very Shallow Bowl, typical profile and cross-section, showing design placement areas.

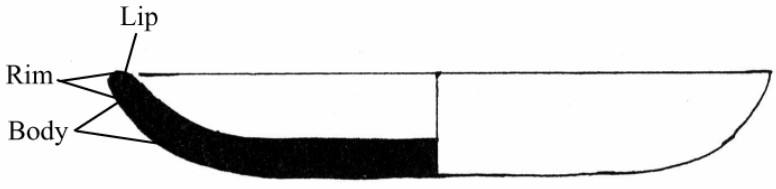


Figure 4.9. Plate, typical profile and cross-section, showing design placement areas.

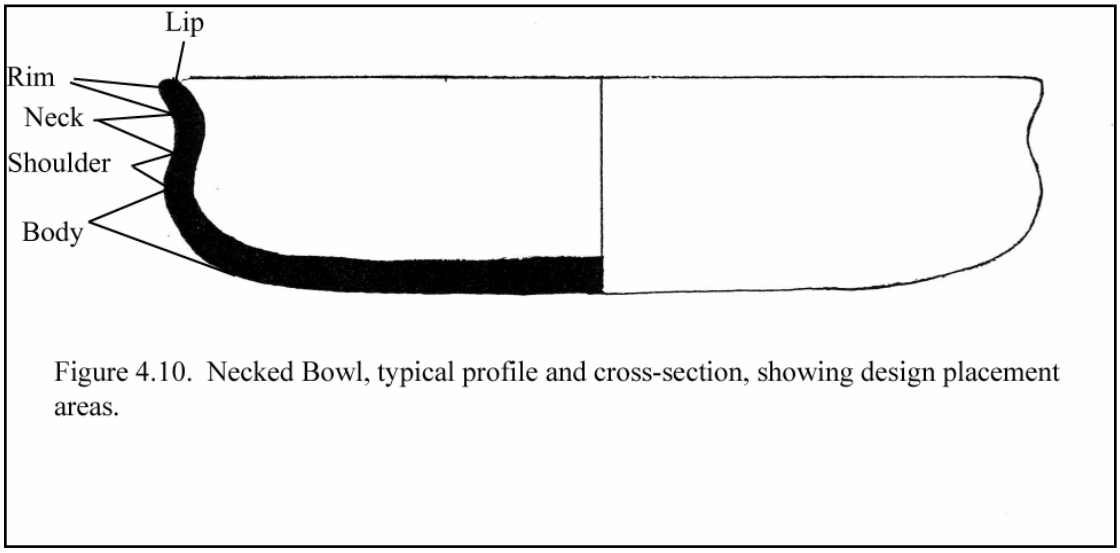


Figure 4.10. Necked Bowl, typical profile and cross-section, showing design placement areas.

corresponding form in Huffman's (1974:38-40) Shape 5.

Incurvate Bowls: Simple, spheroidal vessels with constricted mouths. Vessel height as a ratio of mouth diameter on these vessels varies, but can range from one-third to two-thirds. Rim profiles range from moderately to highly incurvate (Figure 4.11). This vessel form has numerous corresponding vessel shapes in Hanisch's (1980) shape lists, specifically his Shapes 15-17, 21-27 and 32; this form also corresponds with the range of vessels represented in Huffman's (1974:39-40) Shapes 8 and 9.

Several additional vessel forms including spouted bowls and a wide assortment of very roughly made miniature vessels were also present on several sites. The spouted vessels are not included in the larger typological analysis because they were not decorated and thus could not be classified.

The miniature vessels present a more problematic topic. These types of vessels have been interpreted in the past, typically in conversations amongst professionals, as either "*muti* (i.e., witchcraft/magic/shaman's) bowls" or as practice or toy vessels made by children and used in play. These types of vessels were found in large numbers in only one of the collections excavated and included miniature jars, bowls, spoons and other forms. Some of these were decorated. These vessels will be described in detail in the individual presentations of data made in each site report chapter; an interpretation of their function will be made in the specific context of each site.

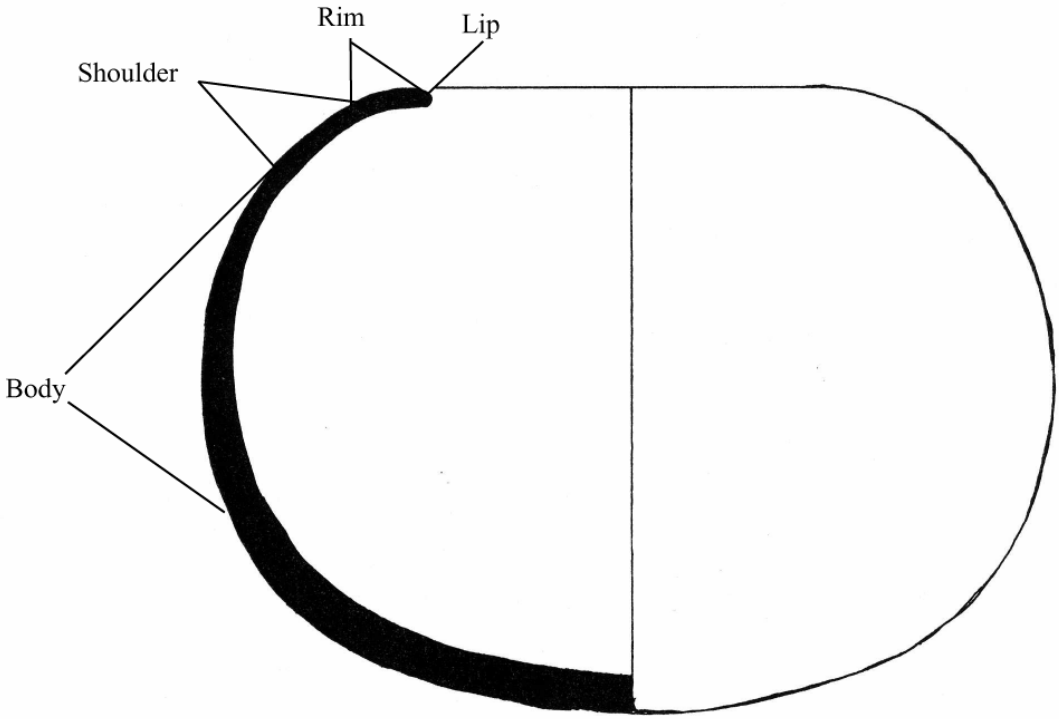


Figure 4.11. Incurvate Bowl, typical profile and cross-section, showing design placement areas.

Design Elements and Design Motifs

As discussed previously, the most useful level of ceramic decorative analysis consists of the combination of similar design motifs executed in the same decorative technique (singly or in combination). Before describing the various design sets identified in the ceramic analysis, it is necessary to define more precisely those decorative units of analysis that are included in design sets.

All of the design sets that will be outlined below can be further classified into more or less discrete groups of decoration techniques, design elements, and design motifs. A decorative technique, simply stated, is a method of surface modification or enhancement (e.g. incision, punctation, etc.). A design element consists of the discrete portions of decoration (e.g. a single incised line, circle, or arc, or a single line of stamping). Design motifs consists of combinations of elements of one or more decoration techniques that form a fixed pattern (e.g. an upturned incised arcade infilled with horizontal lines of comb-stamping form a design motif, as does a single horizontal incised line). Sets of similar design motifs employing the same decoration technique form what are called here design sets. Design elements and design motifs are straightforward definitions, and will not be elaborated upon; however, the larger categories of decorative technique require further description.

Decoration Technique

Ceramic decoration or, more properly, surface enhancement, has been divided by Rice (1987:144-152) into two major categories, displacing or penetrating enhancements and additive enhancements. These general surface treatments and their specific varieties are not mutually exclusive and combinations of decoration techniques may be found on the same vessel. Each of the types of enhancements found in the ceramic assemblages from the study area and employed in the present typology is defined below. All definitions follow those in Rice (Ibid) and the reader is referred to her for a more thorough presentation. Displacing surface enhancements are presented first:

> Incision: cutting lines into the surface of a vessel with a pointed implement. Incised decoration in the study area ranges from fine-lined to coarse-lined. Incision can occur in various stages of pottery manufacture, but usually was executed when the vessel was either in a wet or leather-hard state. Incision on fired clay is termed engraving.

Impression is a wide-ranging technique consisting of a variety of more specific procedures, including simple impression, stamping, rouletting, rocker-stamping, and punctation, among others. The distinctions within this broader type depend on the object and specific type of method used. Impressed enhancements can be executed on either wet or leather-hard clay. Specific impressed techniques employed in the area of the Shashi-Limpopo confluence from assemblages presented in this thesis include comb-stamping, bead/bangle impression, fingernail impression, stabbing and punctation. Each of these techniques is described below.

> Comb-stamping: the use of a comb as a die to produce a repeated pattern of identical motifs. The individual tooth marks from comb-stamping in the study area range from roughly squarish to rectangular. The size of individual tooth marks also varies, but averages between 2 and 4 mm in length. Comb-stamping could have been executed in either wet or leather-hard clay.

> Bead/bangle impression: the use of a string or strings of beads fashioned from glass, shell, or other material, or a wound, flexible metal bangle as a die to create a repeated, continuous pattern. Bead/bangle impression could have been executed in either wet or leather-hard clay.

> Fingernail impression: the use of what appears to be a fingernail to leave an

impression in the clay. Fingernail impression could have been executed in either wet or leather-hard clay.

Stabbing: this technique consists of the use of a sharp, indeterminately shaped object to leave a round- to teardrop-shaped impression in the wet clay. The overall effect of this technique is to give the appearance a sloppy, yet deliberate, execution.

Punctation: the use of an implement to punch depressions into wet clay. The implement used can vary widely in material and shape, ranging from reeds and sticks to carefully crafted tools. Punctated decoration can range almost infinitely in shape; however, in the study area punctated decorations are typically round or triangular.

The final type of displacing decoration technique described here is fluting. Fluting is described by Rice (1987:146) as creating:

> "one or more shallow, broad grooves or channels in the clay, running either around the piece or vertically (usually as multiple contiguous flutes)...(V)ertical flutes often create melon like forms..." A single instance of fluting was noted in all of the assemblages discussed in this thesis.

The additive surface enhancements encountered within the ceramic assemblages presented in this thesis include the addition of appliqué and chromatic enhancement.

Appliqué: this term refers, according to Rice (1987:148) "to the application of small, shaped pieces of clay to the surface of the vessel, including fillets, pellets, spikes, flanges, and other attachments...(A)ppliqués may be large and complex modelled (sic) attachments that are not only ornamental but also functional. Vessel supports (feet or bases) and handles may be elaborately shaped, often in natural or effigy forms, and attached to the vessel. These elements may be shaped and modelled (sic) by hand or formed in moulds (sic).

Polychrome: typically, this term refers to the application of painted pigmentation to the surface of the vessel. However, pigmentation in the area of the Shashi-Limpopo confluence during the time period under study was limited to the application of black graphite and red to yellow ochre. The only other form of polychrome decoration found in the study area was formed through differential firing, with exposure to an oxygen-reducing environment producing a black or greyish smoke-clouded appearance over portions of a vessel. Typically, such decoration separated horizontal

sections of vessels so treated. Both these types of polychrome decoration in the study area were comparatively rare, occurring only two and thirteen times each.

Design Sets

The most efficient means of presenting the design sets employed in this thesis is to display them in a tabular layout (Tables 4.1 to 4.59). Design sets can include more than one decoration technique, so sets will have designations like "Incision, Crosshatching" or "Incision, Horizontal Line. The designation for each design motif is shown in the bottom left hand corner of each motif. These numeric designations will not appear in sequence, as they were encountered at different times in the course of fieldwork and subsequent analysis.

Decoration Placement

The location on a particular vessel form of the various design motifs presented above is known as decoration placement. The exterior surface of each of the eleven vessel forms described above has been divided into a set of placements. These divisions are based on the very straightforward and descriptive decoration placement nomenclature used by archaeologists in southern Africa. These divisions are, in part, based on the observation that sub-Saharan African pottery is symbolic of the human form (e.g. Aschwanden 1982:185-203; cf. Barley 1994). Recurved jars, for example, have lips, necks, shoulders and bodies, while bowls have lips and bodies. Other, non-physiological terms are also used in decoration placement description, such as rim.

Incised (I) Design Sets

Table 4.1. Design Set I1, Horizontal Line.

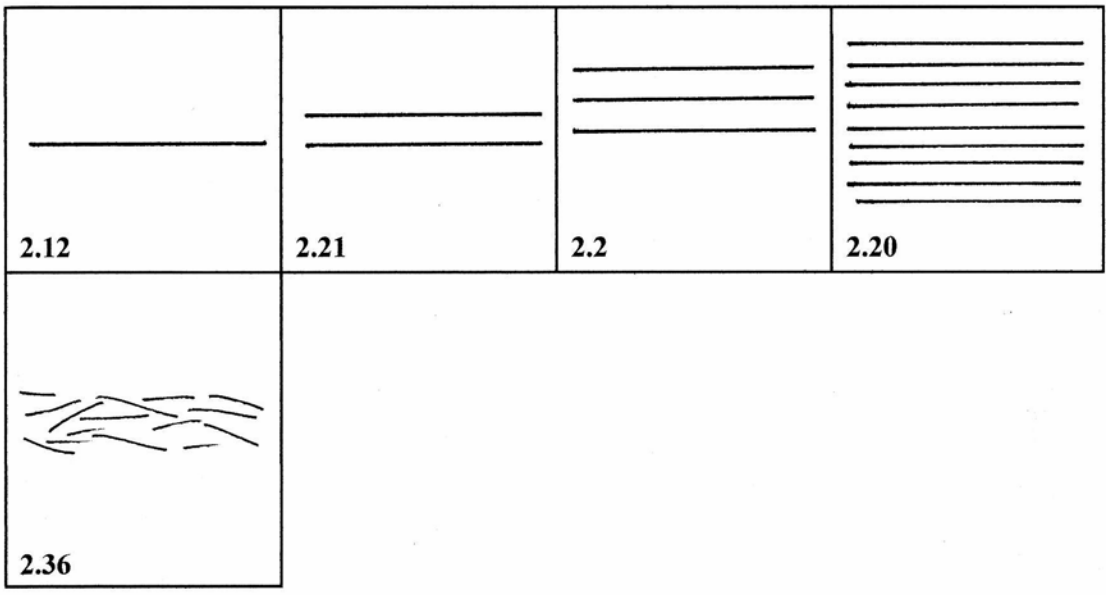


Table 4.2. Design Set I2, Diagonal Line.

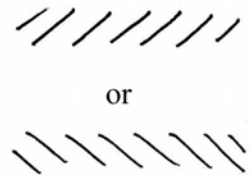
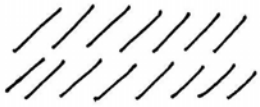
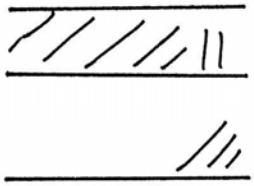
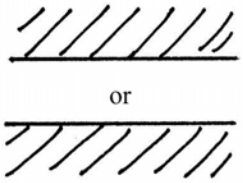
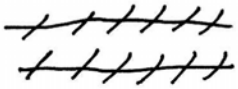
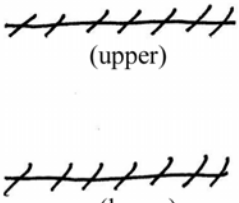
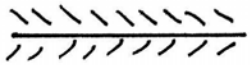
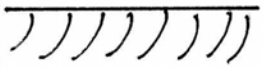
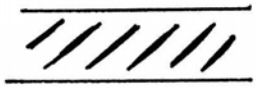
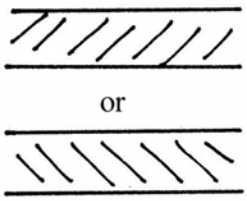
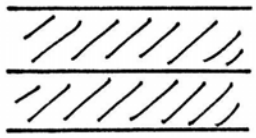
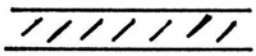
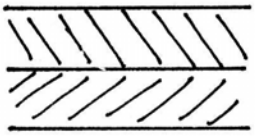
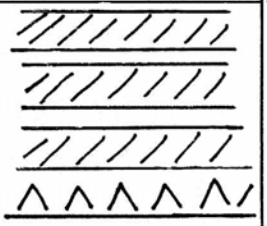
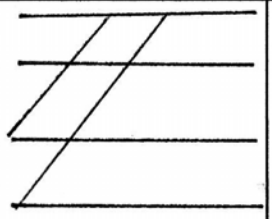
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 **2.56**	 **2.7**	 **2.43**	 **2.90**
 **2.72**	 **2.4**	 **2.8**	 **2.22**
 **2.54**	 **2.91**	 **2.89**	 **2.60**
 **2.3**			

Table 4.3. Design Set I3, Crosshatching.

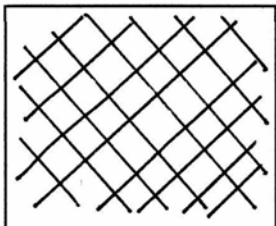
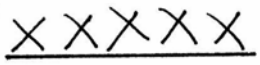
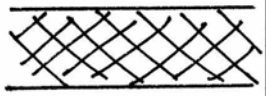
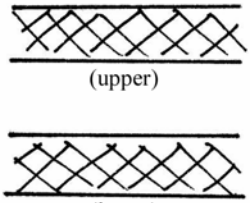
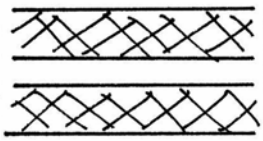
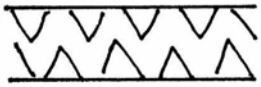
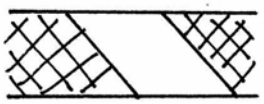
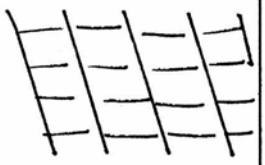
 **2.1**	 **2.70**	 **2.71**	 **2.44**
 **2.9**	 (upper) **2.87** (lower)	 **2.88**	 **2.48**
 **2.98**	 **2.45**		

Table 4.4. Design Set I4, Unzoned Curvilinear.

 **2.10**	 **2.13**

Table 4.5. Design Set I5, Upturned Arcade.

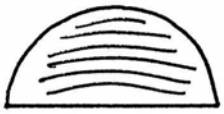
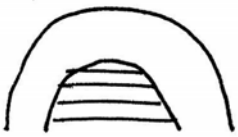
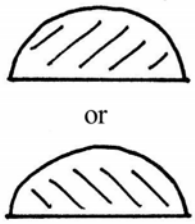
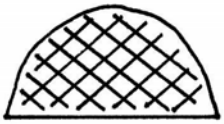
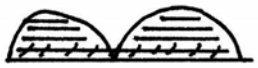
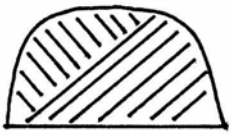
 **2.46**	 **2.5**	 **2.83**	 **2.67**
 **2.38**	 or **2.29**	 **2.34**	 **2.6**
 **2.84**	 **2.86**		

Table 4.6. Design Set I6, Upturned Triangle.

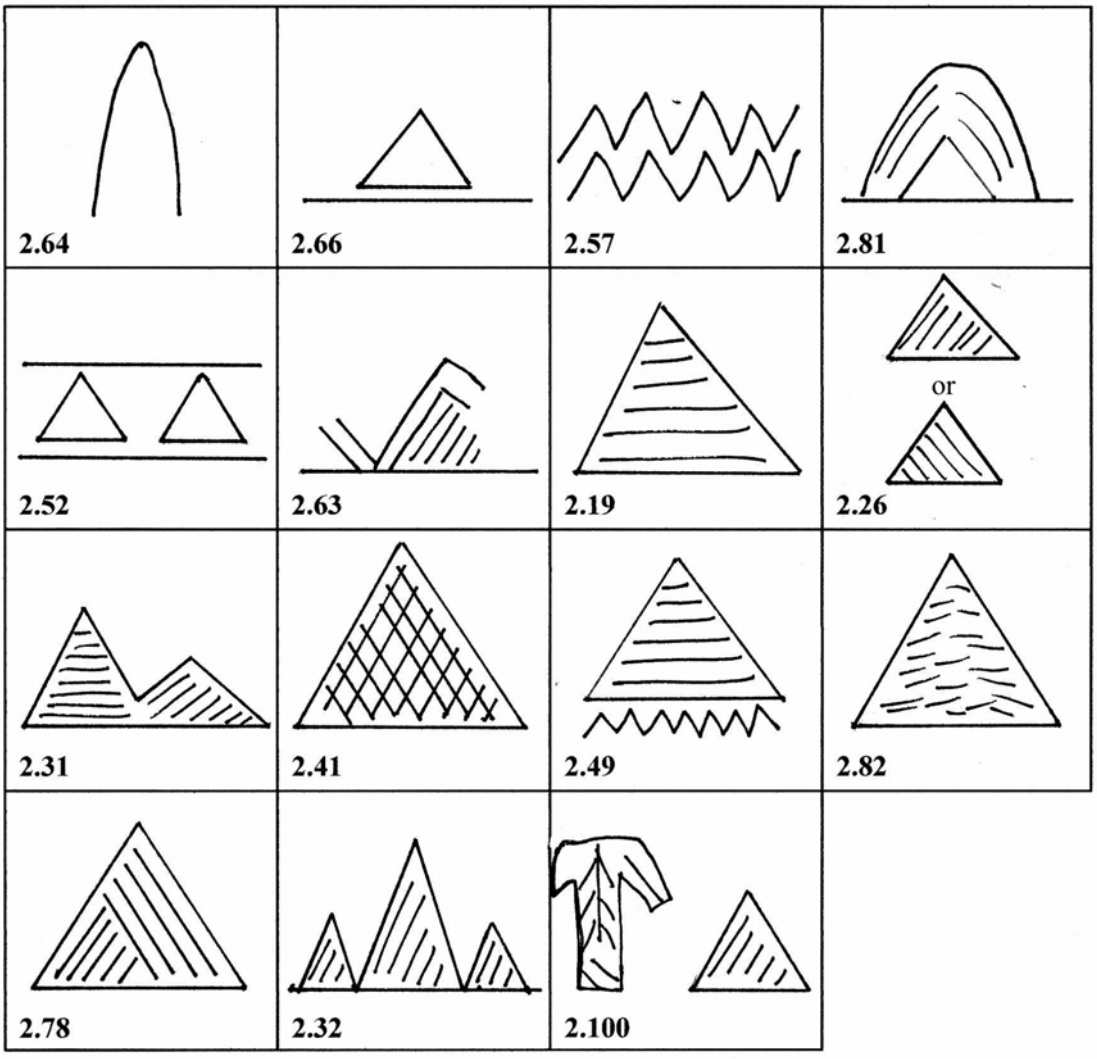


Table 4.7. Design Set I7, Unzoned Curvilinear and Geometric.



Table 4.8. Design Set I8, Herringbone.

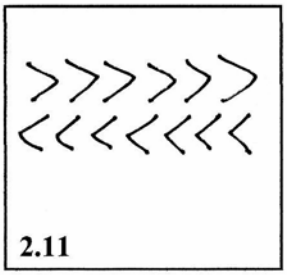


Table 4.9. Design Set I9, Panelled.

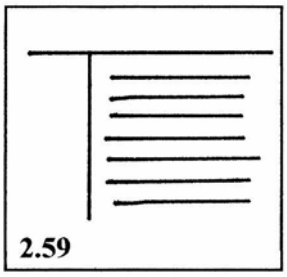


Table 4.10. Design Set I10, Curvilinear Geometric

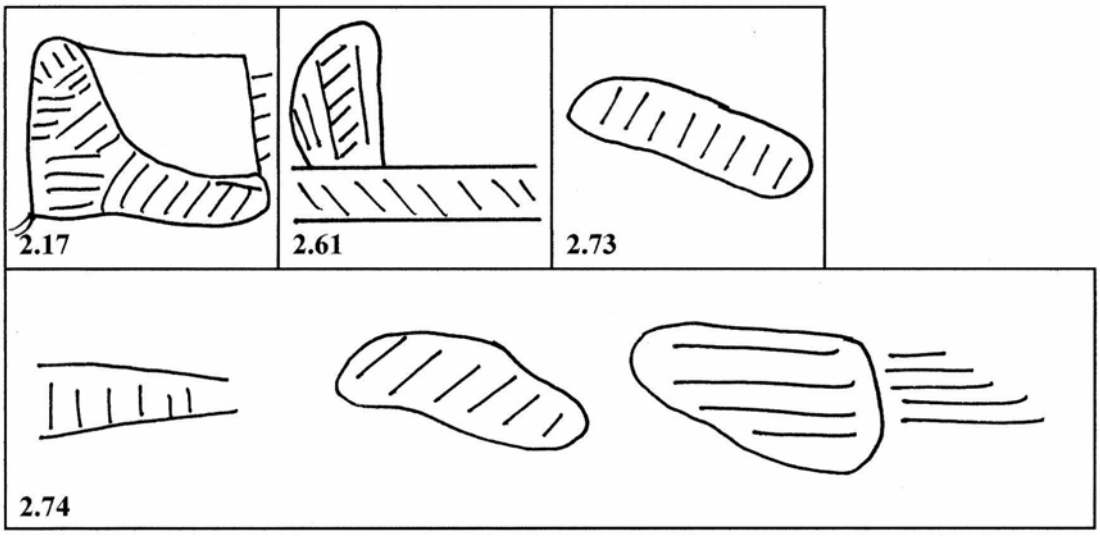


Table 4.11. Design Set I11, Downturned Triangle.

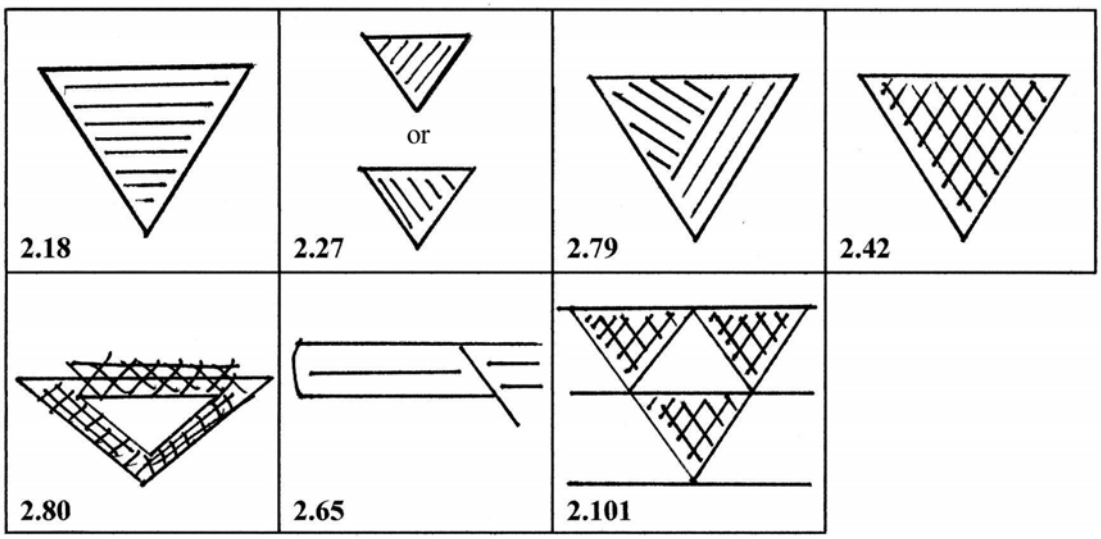


Table 4.12. Design Set I12, Downturned Arcade.

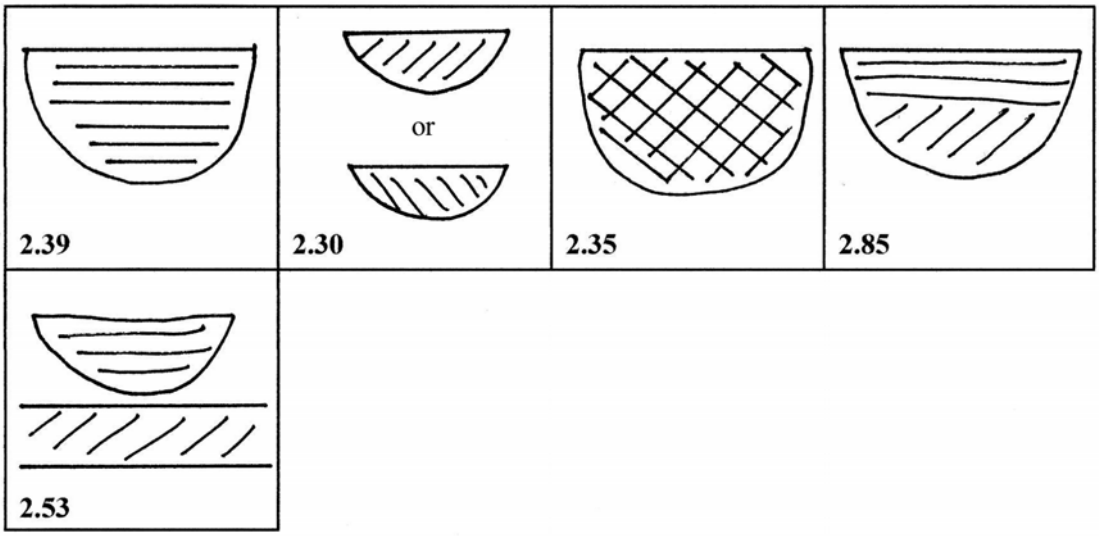


Table 4.13. Design Set I13, Geometric, Bisected Oval.

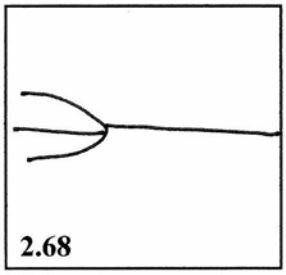


Table 4.14. Design Set I14, Interlocked Triangles.

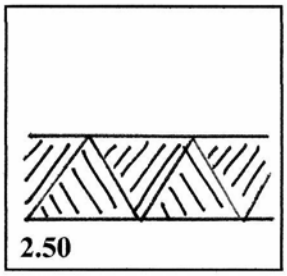


Table 4.15. Design Set I15, Geometric, Diamonds.

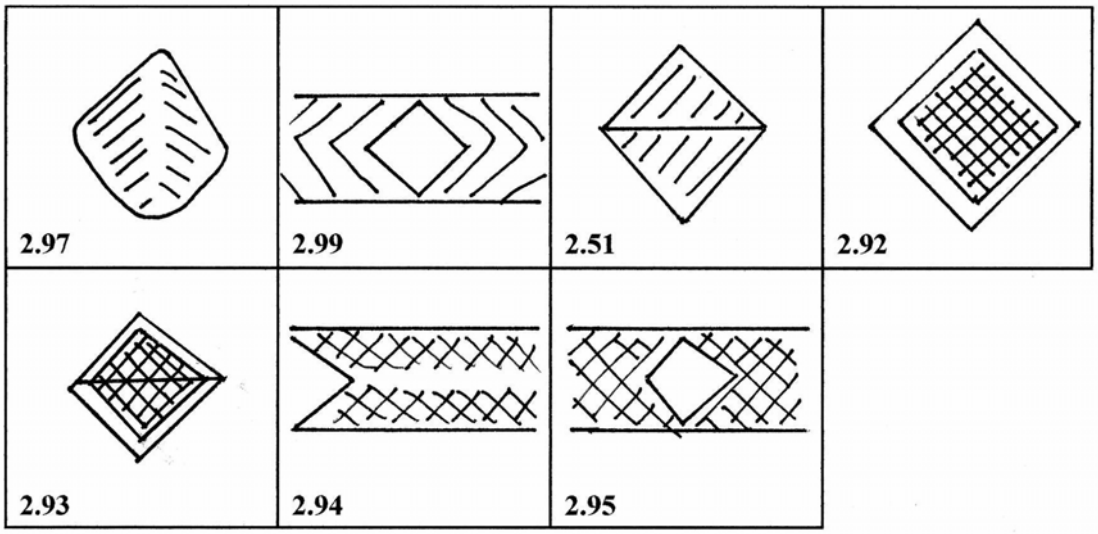


Table 4.16. Design Set I16, Zoomorphic, Avian.



Comb-Stamped (CS)Design Sets

Table 4.17. Design Set CS1, Horizontal Lines.

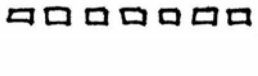
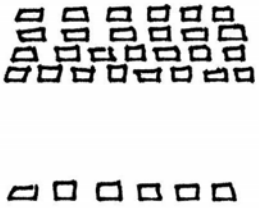
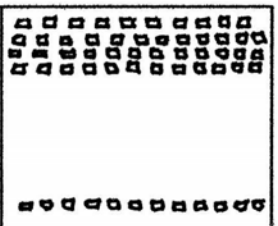
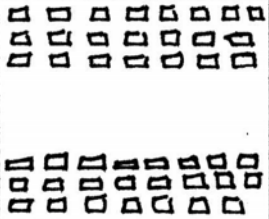
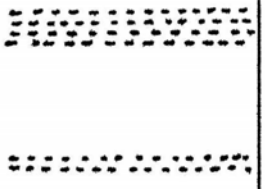
 3.1	 3.2	 3.8	 3.17
 3.11	 3.3	 3.16	 3.22
 3.25	3.26	 3.13	

Table 4.18. Design Set CS2, Diagonal Line.

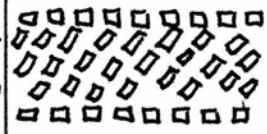
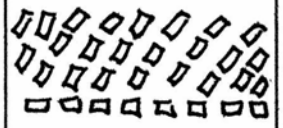
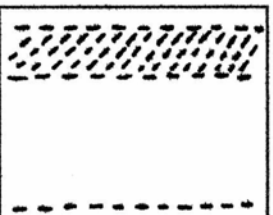
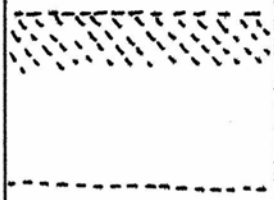
 3.4	 3.5	 3.21	 3.23
 3.18	 3.20	 3.15	

Table 4.19. Design Set CS3, Upturned Triangle.

 3.7	 3.10	 3.19

Bead/Bangle-Impressed (BB)Design Sets

Table 4.20. Design Set BB1, Horizontal Line.

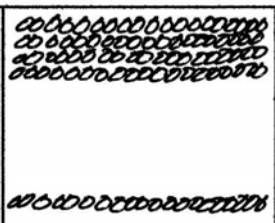
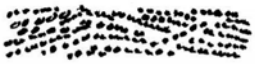
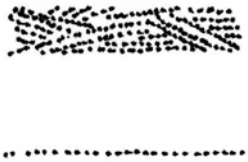
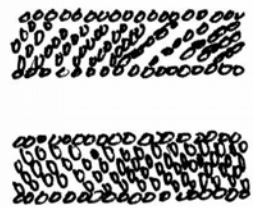
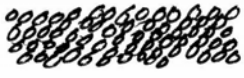
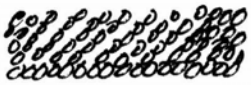
 4.2	 4.3	 4.14	4.5
 4.12	 4.8		

Table 4.21. Design Set BB2, Diagonal Line.

 4.1	 4.6	 4.9	 4.4
 4.13			

Punctated (P) Design Sets

Table 4.22. Design Set P1, Rounded Impression, Horizontal Line.

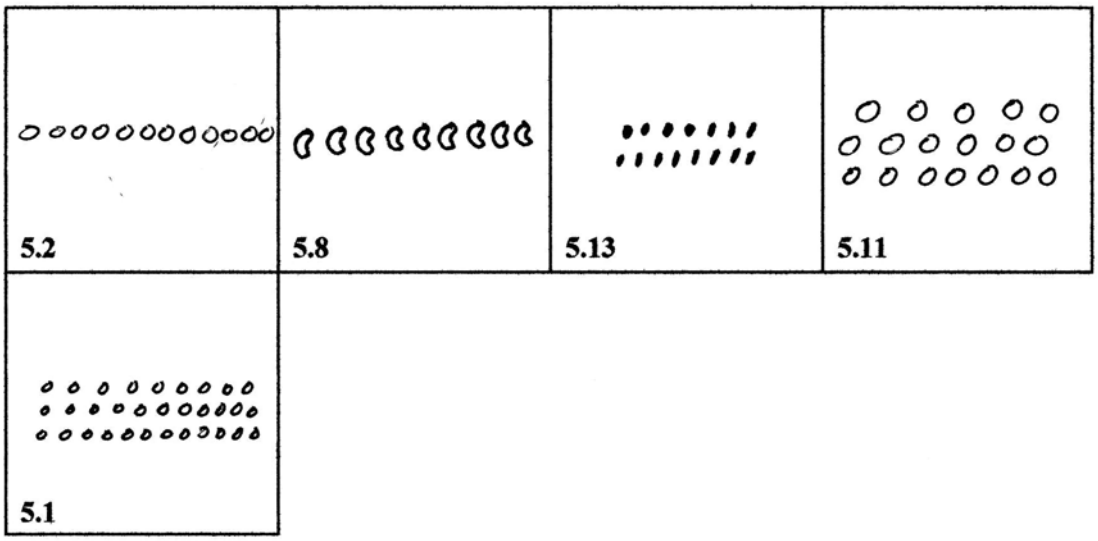


Table 4.23. Design Set P2, Unzoned Rounded Impression.

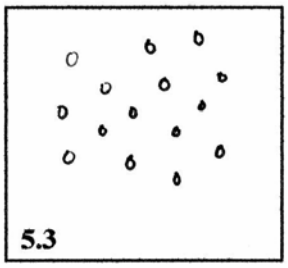


Table 4.24. Design Set P3, Rounded Impression, Upturned Arcade.

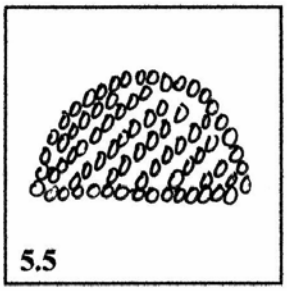


Table 4.25. Design Set P4, Rounded Impression, Upturned Diagonal Lines and Triangles.

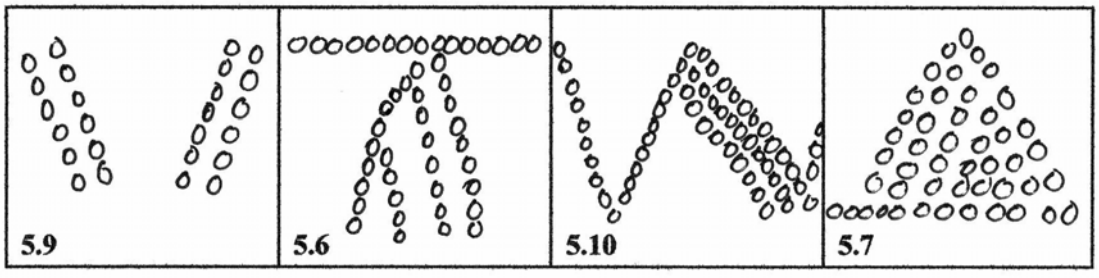
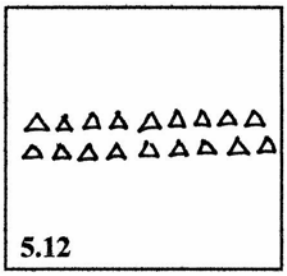
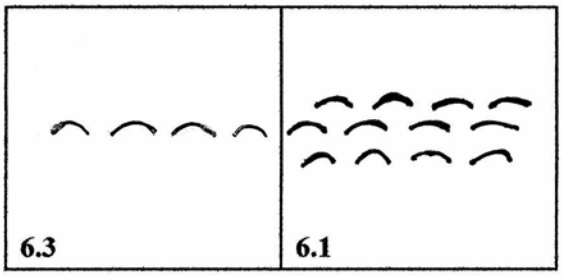


Table 4.26. Design Set P5. Triangular Impression, Horizontal Line.



Fingernail-Impressed (F) Design Sets

Table 4.27. Design Set F1, Horizontal Line.



Stabbing (ST) Design Sets

Table 4.28. Design Set ST1, Diagonal Teardrop, Horizontal Line.

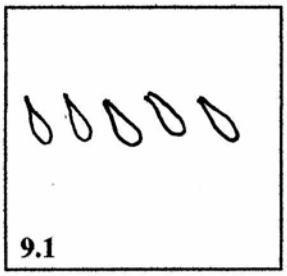


Table 4.29. Design Set ST2, Vertical Teardrop, Horizontal Line.

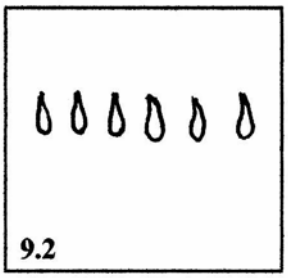
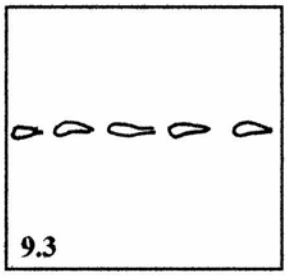


Table 4.30. Design Set ST3, Horizontal Teardrop, Horizontal Line.

 9.3

Incised and Comb-Stamped (I/CS) Design Sets

Table 4.31. Design Set I/CS1, Zoned Horizontal.

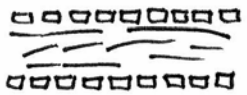
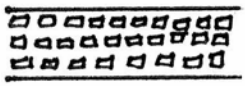
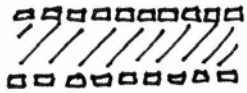
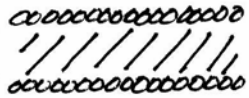
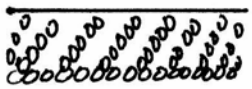
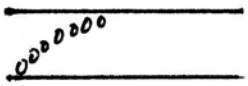
 12.2	 12.4

Table 4.32. Design Set I/CS2, Zoned Diagonal.

 12.1	 12.3

Incised and Bead/Bangle-Impressed (I/BB) Design Sets

Table 4.33. Design Set I/BB1, Zoned Diagonal.

 11.1	 11.2	 11.3

Incised and Punctated (I/P) Design Sets

Table 4.34. Design Set I/P1, Connected Round, Horizontal Line.

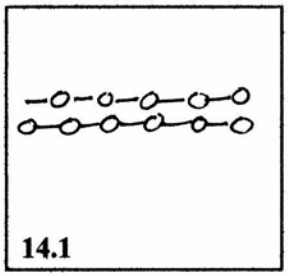


Table 4.35. Design Set I/P2, Round Impression, Zoned Diagonal.

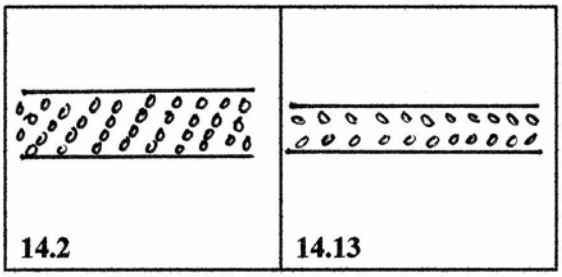


Table 4.36. Design Set I/P3, Rounded Impression, Arcades.

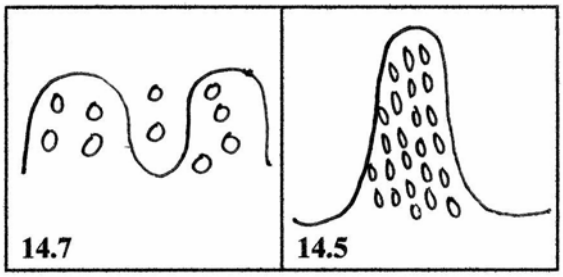


Table 4.37. Design Set I/P4, Round Impression, Zoned Crosshatching, Horizontal Line.

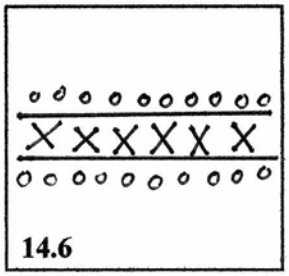


Table 4.38. Design Set I/P5, Round Impression, Zoned Horizontal Line.

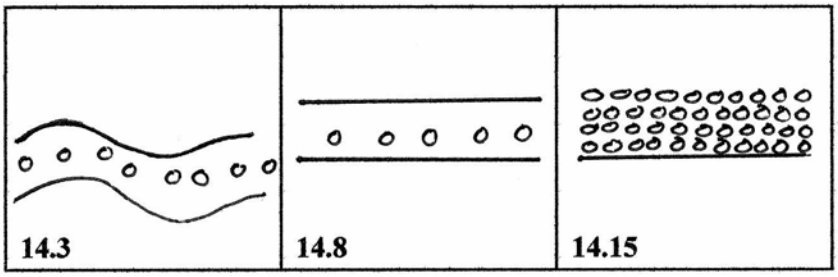


Table 4.39. Design Set I/P6, Round Impression, Downturned Triangle.

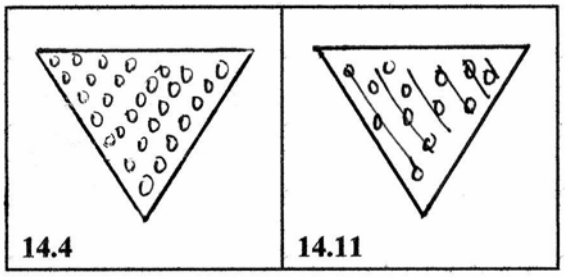


Table 4.40. Design Set I/P7, Round Impression, Diamond.

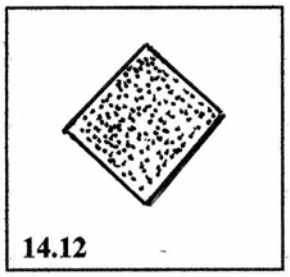


Table 4.41. Design Set I/P8, Round Impression, Interlocked Triangles.

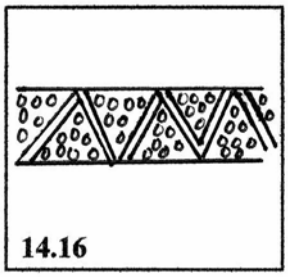
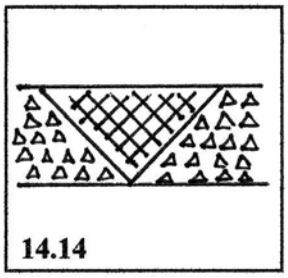


Table 4.42. Design Set I/P9, Triangular Impression, Interlocked Triangles.



Incised and Stabbed Design (I/ST) Sets

Table 4.43. Design Set I/ST1, Zoned Vertical Stabbing.

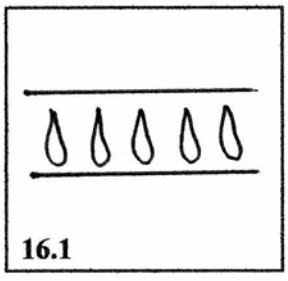


Table 4.44. Design Set I/ST2, Zoned Horizontal Stabbing.

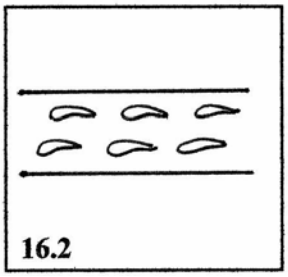
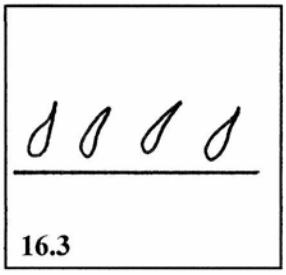


Table 4.45. Design Set I/ST3, Zoned Diagonal Stabbing.



Applied and Comb-Stamped (A/CS) Design Sets.

Table 4.46. Design Set A/CS1, Horizontal Applique with Diagonal Stamping.

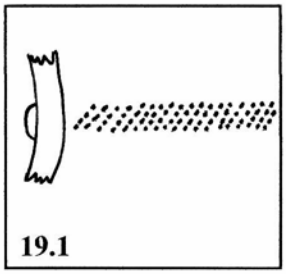
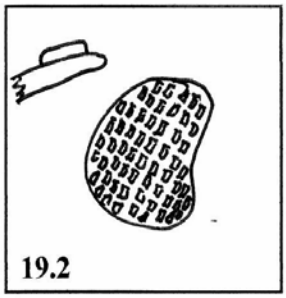


Table 4.47. Design Set A/CS2, Globular Applique with Diagonal Stamping.



Applied (A) Design Sets

Table 4.48. Design Set A1, Horizontal Band of Plain Raised Appliqué.

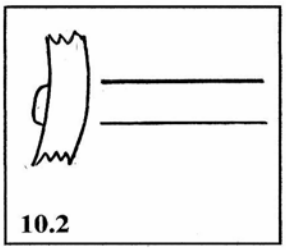
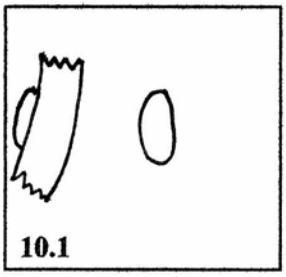
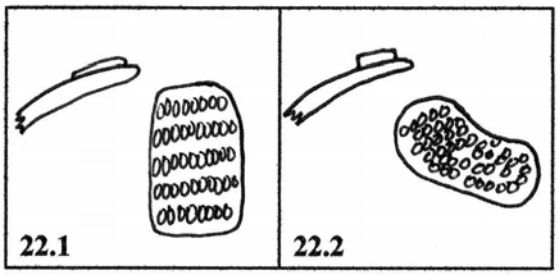


Table 4.49. Design Set A2, Plain Lugged.



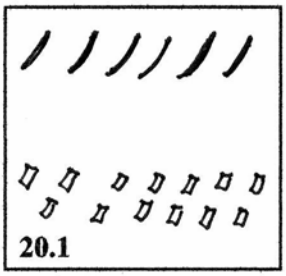
Applied and Bead/Bangle-Impressed (A/BB) Design Sets

Table 4.50. Design Set A/BB1, Globular Appliqué with Horizontal to Irregular Bead/Bangle Impression.



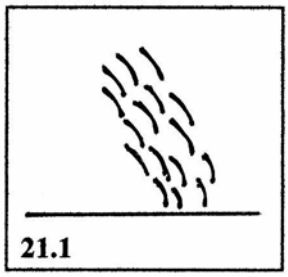
Comb-Stamped and Fingernail-Impressed (CS/F) Design Sets

Table 4.51. Design Set CS/F1, Upper: Diagonal Fingernail Impression; Lower: Diagonal Comb-Stamping.



Limpopo Incised and Fingernail-Impressed (I/F) Design Sets

Table 4.52. Design Set I/F1, Zoned Diagonal Fingernail Impression.



Applied and Stabbed (A/ST) Design Sets

Table 4.53. Design Set A/ST1, Raised Horizontal Appliqué with Horizontal Stabbing.

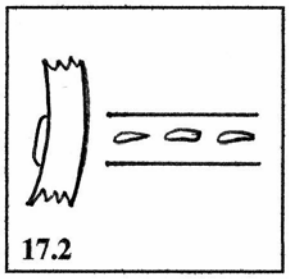
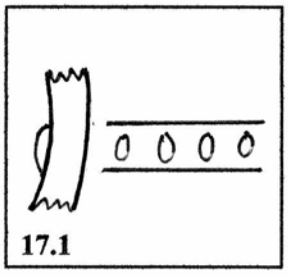
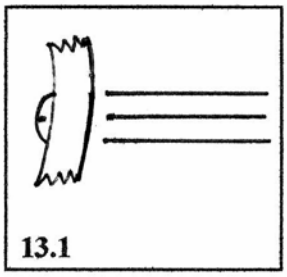


Table 4.54. Design Set A/ST2, Raised Horizontal Appliqué with Vertical Stabbing.



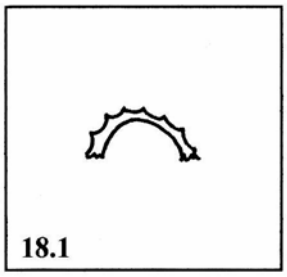
Incised and Applied (I/A) Design Sets

Table 4.55. Design Set I/A1, Raised Horizontal Applique with Single Line of Horizontal Incision.



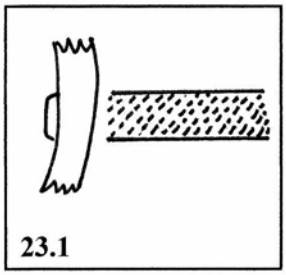
Fluted (FL) Design Sets

Table 4.56. Design Set FL1, Vertical Fluting (overhead cross-section).



Incised, Applied, and Comb-Stamped (I/A/CS) Design Sets

Table 4.57. Design Set I/A/CS1, Raised Zoned Horizontal Applique with Diagonal Stamping.



Polychrome (PC) Design Sets

Table 4.58. Design Set PC1, Black Smoke-Clouding and Oxidized Red.

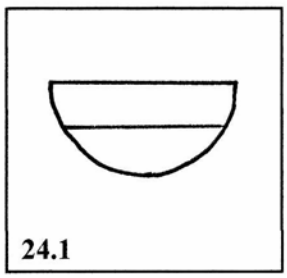
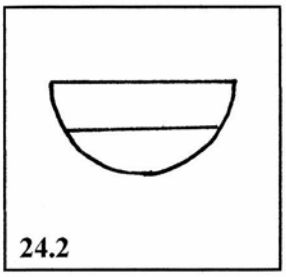


Table 4.59. Design Set PC2, Black Smoke-Clouding with Oxidized Brown.



As was the case with the descriptions of the various design motifs comprising design sets outlined above, graphic representations are the most efficient means of presenting the various decoration placements employed in this thesis. The various decoration placements found on each of the eleven vessel forms presented above are shown above on Figures 4.1 through 4.11.

Ceramic Analysis: Statistical Procedures

The aim of the statistical analyses of the ceramic assemblages presented in this thesis was to attempt to determine the relationship, or distance, between and within these assemblages. Several types of statistical analyses were employed to meet this end; percentage frequencies were calculated, simple presence/absence of a various ceramic attributes or ceramic types was noted, and slightly more complex calculations of similarity coefficients and hierarchic cluster analysis were completed.

The calculations of various attribute frequencies and the noting of presence/absence was very straightforward and was made simply to illustrate, albeit in a gross manner, basic similarities and differences within and between assemblages. These will be noted in the course of each site's detailed presentation in Chapters V to X and in Chapters XI and XII in which the ceramic and total data are synthesised. The more complex calculations resulting in the production of similarity coefficients within and between ceramic assemblages require more explanation as to the rationale for choosing a particular analytic procedure.

Based on the discussion of ceramic style and other correlates of ethnicity and class presented in Chapter III, it was hypothesised that differences between ceramic assemblages relate to the material manifestation of both ethnic and class differences. The question that needs to be answered for the relationship between ceramic assemblages is whether they represent examples of emblemic (ethnic) style or heterochrestic (class-based) style. The procedure that will be used to answer this question involves two steps. First, all ceramic assemblages will be compared using the calculation of Brainerd-Robinson Coefficient of Agreement; they were then subjected to a hierarchic cluster analysis.

The Brainerd-Robinson similarity coefficient (*BR*), as Cowgill (1991:513) states is

"related to the total of the absolute differences in type percentages between the two collections being compared." The calculation of the *BR* coefficient is represented mathematically as the following equation, where p_{iA} is the percentage of type I in collection A and p_{iB} is the percentage of the same type in collection B:

$$BR = 200 - \sum_{i=1}^{N} \left| p_{iA} - p_{iB} \right|$$

This calculation is a summation operation whereby the absolute value of the different percentages of each ceramic type present in two assemblages is determined. The sum of these absolute value differences is then subtracted from 200. Identical collections will have a value of 200, while collections with no types in common will have a score of zero.

The calculation of the Brainerd-Robinson (BR) coefficient is a straightforward procedure and is statistically more reliable than the typically used Pearson's *r* (Cowgill 1990) and has been used to good effect in previous ceramic studies in southern Africa (Huffman 1980). It also has the advantage over other procedures, like Chi-squared calculations, that require the comparison of two or more known assemblages with one assemblage given the arbitrary role of the normative, or expected, value. With the BR coefficient, direct comparisons are made without reference to expected outcomes. A significant limitation of the Brainerd-Robinson similarity coefficient, however, is that it is most reliable when directly comparing either whole assemblages from different sites, or when comparing relatively large samples from different, stratigraphically discrete, contexts from within a site.

The BR coefficients determined for each assemblage in relation to every other assemblage will be placed in tabular form in order to allow for a direct comparison to be made between assemblages. This will allow for clusters of similar assemblages to be identified and, when information from absolute dating of assemblages is added, differences across time to be noted. The Brainerd-Robinson similarity coefficient will also be used, when the sample size is large enough, to directly compare assemblages from different depositional contexts within the same site.

The ceramic assemblages will also be subjected to hierarchic cluster analysis employing the Shared Near Neighbour algorithm (Jarvis and Patrick 1973; Jarvis 1977). This analysis will be undertaken employing measurement of the Euclidean distance of square rooted frequencies of various traits between the assemblages. The Bonn Archaeological Software Package for Windows (BASP; Scollar 1994) will be used. Scollar (1994) indicates that this measurement essentially mirrors the BR summation function; however, it has the great advantage of comparing multiple assemblages simultaneously and generating clusters of similar, dissimilar, and residual assemblages.

The results of the BR similarity coefficient determinations will be presented

throughout the site data presentation chapters. Both the BR determinations and the results of cluster analysis will be presented in Chapter XI.

The final analytical step will be, once these clusters of like and dissimilar assemblages are identified, to determine if these clusters correspond with the correlates of ethnicity and class discussed in Chapter III. The comparison of the determined absolute differences between ceramic assemblages to the other artifactual indications of ethnicity or class will be a critical step in making an objective determination of the diachronic relationships between sites and the social identities of their residents. I present the results of this second step in Chapter XII.

CHAPTER V
SCHRODA REVISITED

Edwin Hanisch (1980, 1981, 2002) excavated the site Schroda from the late 1970s through the early 1980s. The site is located on a sandstone plateau overlooking the Limpopo River to the north (see Figure 1.1). A long sandstone ridge forms the southern edge of the site, while the eastern and western edges are bordered by low, rocky outcrops. The site is large, measuring approximately 500 m in length east to west and 300 m north to south. As was discussed in Chapter II, the site has been most commonly interpreted as the political centre of the region between around AD 900 and AD 1000. The final occupation at Schroda is generally thought to correspond with the initial occupation the site K2.

Hanisch's thesis (1980) and excavation report (1981), while describing the stratigraphy and material culture in some detail, were lacking in three important respects for our current purposes. First, the extensive ceramic collection was not described in sufficient detail to allow for comparative work with other sites. Second, only two radiocarbon dates were generated for the site, both of which were from fairly deep in the deposit. Third, while some important details on the artefact assemblage were presented (e.g. the figurine collection), little data were made available on those artefacts that could be used to define the ethnic- or class-based social identities of Schroda's inhabitants. As a way of addressing the first of these concerns, related to the limited state of knowledge concerning the temporal and cultural relationships between Zhizo and Leopard's Kopje A (i.e., K2) ceramics, and the nature of Zhizo:K2 interaction, a portion of the Schroda ceramic collection was re-analysed. The second concern, the lack of a clear temporal framework for Schroda's occupation, was addressed by securing more samples from Hanisch's excavations and submitting them for radiocarbon dating. The third problem, the lack of a clear inventory of artefacts that may relate to the social identity of Schroda's inhabitants, was addressed in two ways: first, by physically examining and cataloguing portions of the collection and, secondly, by consulting the work of other researchers (e.g. Saitowitz 1996) who have already gathered and published some of this data.

This chapter will proceed in the following manner: first, I will briefly describe the stratigraphy of the areas under consideration at Schroda; I will follow with the results of recent radiocarbon analyses. The results of the radiocarbon analyses will be followed by the ceramic analysis. The general purpose of the ceramic analysis is to define the assemblage over time through a combination of multidimensional typing and diachronic characterisation studies. Finally, a brief presentation will be made on those parts of the assemblage that relate to class-based social identities. In particular, I will focus on the work of previous researchers

that relates to the correlates of ethnic- vs. class-based society discussed in Chapter III. Finally, data on craft production at Schroda that were present in the Schroda collection but was not reported by Hanisch (1980, 1981), in particular metallurgical debris, will also be presented.

Stratigraphy and Dating

Hanisch excavated six areas at Schroda (Figure 5.1) (Hanisch 1980). Of these, the most extensive excavations were undertaken in Areas 5 and 6, both located in the southwest portion of the site. The two original radiocarbon dates were generated from the material recovered from the deposit in Area 5, and since this was also the largest area excavated, it was decided that this portion of the Schroda collection would be examined.

Hanisch's excavations at Area 5 consisted of a single 27 m long by 3 m wide trench, divided into nine 3 x 3 m blocks. A single 3 x 3 m lateral extension block was also excavated. The deposit reached a maximum depth of 110 cm. Stratigraphy in the Area 5 deposit was fairly straightforward. The uppermost strata included Levels 1 and 2 which consisted, respectively, of a thin (2 cm) layer of aeolian sand and a thicker (6 cm) layer of recently animal-disturbed deposit. Material from Levels 1 and 2, due to its insecure context, was excluded from the ceramic analysis. Below Level 2, the deposit consisted of seven intact soil strata which were excavated by a combination of natural and arbitrary levels (Levels 3 to 12). A single structure, consisting of a burnt, collapsed hut, was found in Level 8. A representative profile of the Area 5 stratigraphy is shown in Figure 5.2.

Levels 3 and 4 consisted of a greyish brown sandy soil found between 8 and 22 cm below surface (cmbs). Below this stratigraphic unit, between 23 and 43 cmbs, was a grey sandy soil. Below level 6, between 44 and 110 cmbs, were Levels 7 through 12. These levels consisted of a series of alternating layers of arbitrarily- and naturally-divided soil strata, consisting of ash, dung, and sandy soil. Detailed stratigraphic profiles of the excavations in Area 5 can be found in Hanisch (1980:99-113).

Based on the vertical distribution of the 2,195 vessels recovered from Levels 3 to 12, and which were analysed by this author, the densest portion of the deposit was in the upper two intact strata (Levels 3 and 4 and Levels 5 and 6) which contained, respectively, 29% (n=633) and 31% (n=678) of the total ceramic assemblage. Thereafter, Level 7 contained 11% (n=255) of the ceramics, with a gradual thinning down to Level 12 which contained only 2% of the assemblage (n=51). Owing to the natural stratigraphic divisions between Levels 3/4 and 5/6, and between Levels 5/6 and the deposit below, coupled with the difficulty in separating out strata below Level 6 into meaningful analytic units, and the ceramic distribution just noted, three stratigraphic Depositional Units (DUs) have been identified here for purposes of analysis: DU I (Levels 3 and 4), DU II (Levels 5 and 6), and DU III (Levels 7

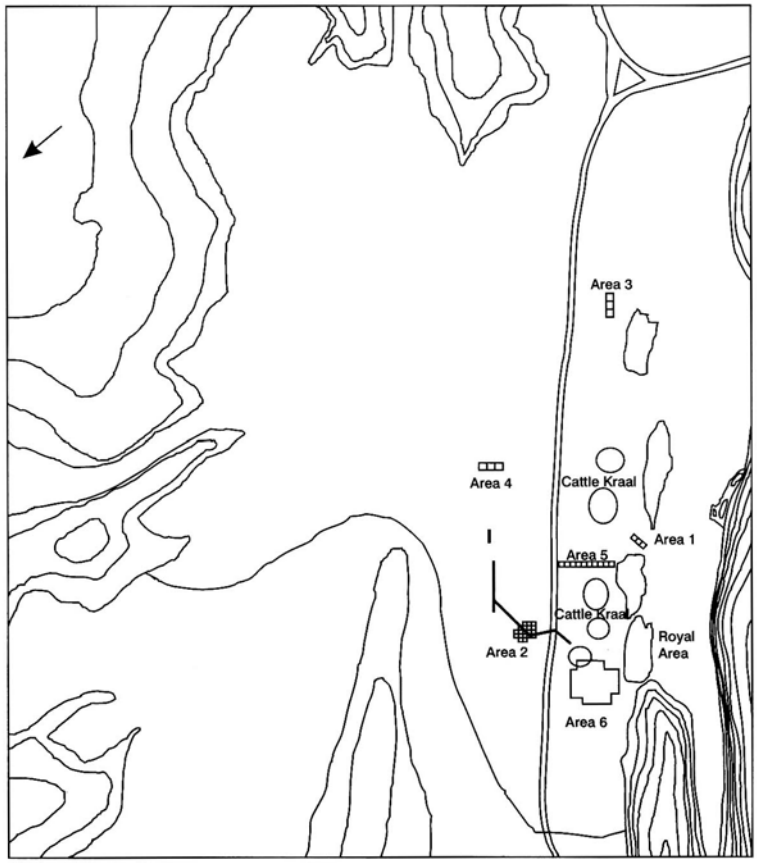


Figure 5.1. Schroda, showing Hanisch's (1980) excavation areas (adapted from Hanisch 2002:27).

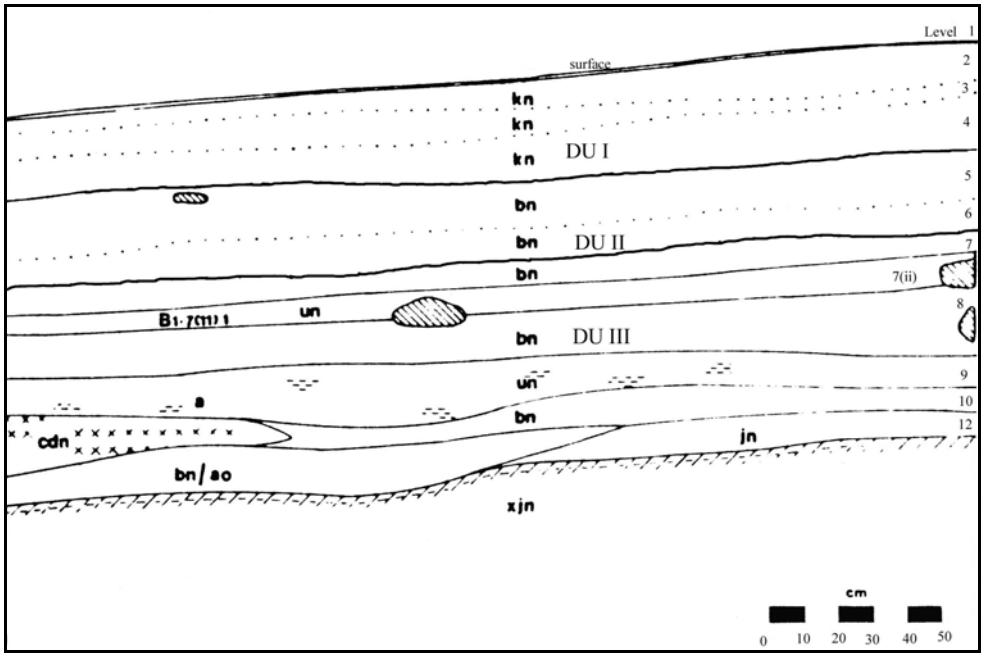


Figure 5.2. Schroda, Area 5, typical wall profile, showing Depositional Units (DUs) (adapted from Hanisch 1980:100).

to 12). Due to their internal stratigraphic similarity and the relative paucity of ceramic material contained within them, Levels 10 to 12 were collapsed for purposes of analysis by level.

The two original radiocarbon analyses (Hanisch 1980, 1981) were derived from the deepest analytic unit, DU III, in Levels 8 and 10. The results of these analyses are shown in Table 5.1. The date from Level 8 was derived from a burnt hut post collected from beneath hut rubble, while the Level 10 analysis dated charcoal or carbonised wood. The results of these analyses, when calibrated, indicate that these levels of the deposit were formed between around AD 915 and AD 990.

Table 5.1. Original radiocarbon analyses for Schroda, Area 5.

Sample Designation	Level/DU	Uncalibrated Age (years BP)	Age Error	Calibrated Age (years AD)	1-Sigma Range (years AD)
Pta-1819	8/III	1110	±50	990	910 to 920, 950 to 1010
Pta-1967	10/III	1160	±50	915 or 955	880 to 990

A date of around AD 990 as the end of occupation at Schroda seems highly unlikely, given the fact that approximately 60% of the ceramic material was recovered above Level 8 in Depositional Units I and II. In order to refine further the chronology of the site, I submitted the extant collection of charcoal and carbonised wood collected by Hanisch from Area 5 to Dr. John Vogel of the Quaternary Dating Research Unit of the Centre for Scientific and Industrial Research in Pretoria, the laboratory which conducted the original analyses (cf. Vogel and Calabrese 2000). I hoped that suitable samples from above and below Level 8 could be analysed in order to determine more accurately the beginning and ending dates of occupation at this area of the site. Vogel and his colleagues selected four samples for analysis: one from Level 5, two from Level 8 and one from Level 12. Unfortunately, none of the samples from DU I were selected for analysis. The results of these additional analyses are shown in Table 5.2.

These additional dates confirmed the original analyses for Level 8 and demonstrated that, based on the calibrated age for Pta-7659, the terminal date for the deposition in Area 5 probably did not occur until after the turn of the 11th century. Bearing in mind that a full 29% of the ceramic assemblage, found in the upper intact deposit in Levels 3 and 4, has yet to be dated, it is likely that material continued to be deposited well into the 11th century AD. The relative internal consistency of the dates is also noteworthy, and suggests that the deposit excavated at and analysed from Area 5 may be largely intact.

The question that this finding of a relatively young date for the terminal occupation of Schroda raises is whether the ceramics display evidence of stylistic continuity throughout the

deposit, or if they display evidence of stylistic displacement.

Table 5.2. Further radiocarbon analyses, Schroda, Area 5.

Sample Designation	Level/DU	Uncalibrated Age (years BP)	Age Error	Calibrated Age (years AD)	1-Sigma Range (years AD)
Pta-7659	5/II	1030	±45	1025	1010 to 1040
Pta-7650*	8/III	1060	±20	1010	1000 to 1020
Pta-7660	8/III	1170	±20	900	890 to 965
Pta-7664	12/III	1140	±45	970	890 to 1000

*Mistakenly attributed to Level 5 in Vogel and Calabrese (2000:Table 2).

As was started in Chapter II, Huffman (1978, 1982, 2000) has hypothesised a Leopard's Kopje migration into and conquest of the area, coincident with the initial settlement of K2 at around AD the turn of the 11th century. If, as has been argued by Huffman (2000), the youngest date (Pta-7659) represents a K2 occupation, then the ceramics from DU II (Levels 5/6) and DU I (Levels 3/4) should be markedly dissimilar from those found in DU III (Levels 7 to 12). That is, if a replacement occurred, the ceramics should provide evidence of a stylistic discontinuity consistent with a wholesale, rapid replacement of one group by another. Huffman (1989:6) states that at least two of the three following archaeological correlates must be met if such a replacement is attested to in the archaeological record: first, the change must be at the assemblage level; second, the change should be abrupt, and; third, the change must be geographically widespread.

Thus the ceramic data from Schroda can aid in addressing at least two of the main substantive issues raised at the end of Chapter II that deal with nature and timing of the relationship between the Zhizo and Leopard's Kopje styles in the area of the Shashi-Limpopo confluence. An analysis of the ceramic assemblage, following the methods outlined in Chapter IV, is presented below.

Ceramic Analysis: General Characteristics, Internal Tendencies, and "Foreign" Influences

The results of the typological and statistical analyses presented here were expected to aid in answering the research questions generated by the discussion at the end of Chapter II and those generated by the most recent radiocarbon dates for Schroda. These questions are: 1) what was the baseline ceramic assemblage at Schroda for comparison with other sites in the region and; 2) what are the diachronic internal tendencies or trends within the ceramic assemblage and; 3) to determine to what degree, if any, K2 or K2-like ceramic types or traits,

were present within the Schroda assemblage and finally; 4) to determine when such K2 or K2-like ceramic traits, if apparent, were present.

I present the results of the analysis of the ceramic material from Area 5 at Schroda as a classification by Depositional Unit in Table 5.3. The reader is referred to Appendix B for more detailed information on the ceramic assemblage, including the specific numbers and placements of design motifs in each design set. I will present this information here divided and analysed by Depositional Unit and, when appropriate, by level.

Table 5.3. Schroda, Area 5, Decorated Ceramics: Showing types present by major deposition unit, and per cent of each type found in each unit.

Type	**Decoration Placement**	**DU I (Levels 3 and 4) (%)**	**DU II (Levels 5 and 6) (%)**	**DU III (Levels 7 to 12) (%)**
Limpopo Incised, Recurved Jars, Design Set I1, Horizontal Line	Rim	0.33	0.66	0.96
	Central Neck	5.94	3.63	4.08
	Lower Neck	0.66	0.33	0.48
	Shoulder	1.98	3.29	0.24
	Central Neck to Lower Neck	-	0.33	-
Limpopo Incised, Recurved Jars, Design Set I2, Diagonal Line	Rim	2.31	0.66	0.24
	Central Neck	14.47	6.25	2.85
	Lower Neck	1.32	0.66	-
	Central Neck and Shoulder	0.33	-	-
	Shoulder	1.64	-	0.24
Limpopo Incised, Recurved Jars, Design Set I3, Crosshatching	Rim	0.66	0.66	0.24
	Central Neck	0.33	-	-
	Shoulder	0.33	-	-
Limpopo Incised, Recurved Jars, Design Set I4, Unzoned Curvilinear	Rim	-	0.33	-
	Central Neck	-	0.33	0.48
	Shoulder	0.66	-	-
Limpopo Incised, Recurved Jars, Design Set I5, Upturned Arcade	Central Neck	0.99	-	-
	Lower Neck	-	-	0.24
	Shoulder	-	-	0.48
Limpopo Incised, Recurved Jars, Design Set I6, Upturned Triangles	Central Neck	0.33	-	-

Type	Decoration Placement	DU I (Levels 3 and 4) (%)	DU II (Levels 5 and 6) (%)	DU III (Levels 7 to 12) (%)
	Lower Neck to Shoulder	-	-	0.24
Limpopo Incised, Recurved Jars, Design Set I7, Unzoned Curvilinear and Geometric	Rim	-	-	0.24
Limpopo Incised, Recurved Jars, Design Set I8, Herringbone	Central Neck	-	-	0.24
Limpopo Incised, Short-Necked Jars, Design Set I1, Horizontal Line	Rim	-	-	0.24
	Central Neck	-	0.99	0.96
	Lower Neck	-	-	0.24
Limpopo Incised, Short-Necked Jars, Design Set I2, Diagonal Line	Rim	-	-	0.72
	Central Neck	-	0.33	0.24
Limpopo Incised, Short-Necked Jars, Design Set I3, Crosshatching	Lip	0.33	0.33	-
	Lower Neck	0.33	-	-
Limpopo Incised, Bag-Shaped Jars, Design Set I2, Diagonal Line	Rim	0.66	-	-
Limpopo Incised, Very Shallow Bowl, Design Set I11, Downturned Triangle	Body	-	-	0.24
Limpopo Incised, Simple Shallow Bowl, Design Set I1, Horizontal Line	Body	-	0.33	-
Limpopo Incised, Simple Shallow Bowl, Design Set I2, Diagonal Line	Lip	0.33	-	-
	Rim	0.33	-	-
Limpopo Incised, Incurvate Bowl, Design Set I1, Horizontal Line	Rim	0.32	-	-
Limpopo Comb-Stamped, Recurved Jars, Design Set CS1, Horizontal Line	Rim	0.99	2.30	4.51
	Central Neck	21.05	31.58	31.35
	Lower Neck	0.66	1.32	1.43
	Central Neck and Shoulder	-	0.66	0.72
	Shoulder	6.58	8.88	6.89
	Central Neck to Lower Neck	-	0.33	-
Limpopo Comb-Stamped, Recurved Jars, Design Set CS2, Diagonal Line	Rim	0.66	0.66	0.96
	Central Neck	12.50	12.50	10.93
	Lower Neck	1.64	0.66	0.96
	Central Neck and Shoulder	0.33	-	-
	Shoulder	-	0.66	0.24

Type	Decoration Placement	DU I (Levels 3 and 4) (%)	DU II (Levels 5 and 6) (%)	DU III (Levels 7 to 12) (%)
Limpopo Comb-Stamped, Recurved Jars, Design Set CS3, Upturned Triangle	Shoulder	0.33	0.66	0.48
Limpopo Comb-Stamped, Short-Necked Jars, Design Set CS1, Horizontal Line	Rim	0.33	-	-
	Central Neck	-	1.32	2.85
	Lower Neck	-	0.66	0.72
	Rim and Shoulder	-	-	0.24
	Central Neck and Shoulder	-	0.33	0.48
Limpopo Comb-Stamped, Short-Necked Jars, Design Set CS2, Diagonal Line	Central Neck	-	0.99	1.19
	Lower Neck	-	-	0.24
	Central Neck and Shoulder	-	-	0.24
Limpopo Comb-Stamped, Simple Deep Bowls, Design Set CS2, Diagona1 Line	Body	-	-	0.24
Limpopo Comb-Stamped, Incurvate Bow1s, Design Set CS 1, Horizontal Line	Rim	-	-	0.48
Limpopo Bead/Bangle-Impressed, Recurved Jars, Design Set BB1, Horizontal Line	Rim	0.66	0.33	0.72
	Central Neck	4.28	2.96	4.99
	Central Neck and Shoulder	-	-	0.24
	Shoulder	1.65	0.66	1.90
Limpopo Bead/Bangle-Impressed, Recurved Jars, Design Set 2, Diagonal Line	Rim	0.66	0.33	-
	Central Neck	1.97	0.66	0.72
	Lower Neck	0.33	0.33	0.24
	Shoulder	2.63	0.33	0.24
Limpopo Bead/Bangle-Impressed, Short-Necked Jars, Design Set BB1, Horizontal Line	Central Neck	-	-	0.72
	Lower Neck	-	-	0.24
Limpopo Bead/Bangle-Impressed, Incurvate Bowls, Design Set BB1, Horizontal Line	Rim	-	-	0.24
Limpopo Punctated, Recurved Jars, Design Set P1, Horizontal Line	Central Neck	0.33	0.66	-
	Lower Neck	-	-	0.24

Type	Decoration Placement	DU I (Levels 3 and 4) (%)	DU II (Levels 5 and 6) (%)	DU III (Levels 7 to 12) (%)
	Shoulder	-	-	0.24
Limpopo Punctated, Recurved Jars, Design Set P2, Unzoned Round Impression	Central Neck	-	0.33	-
Limpopo Punctated, Short-Necked Jars, Design Set P1, Horizontal Line	Central Neck	-	0.33	-
Limpopo Fingernail-Impressed, Recurved Jars, Design Set F1, Horizontal Line	Central Neck	0.33	0.33	-
	Lower Neck	0.33	-	-
	Shoulder	0.33	-	-
Limpopo Stabbed, Recurved Jars, Design Set ST1, Diagonal Teardrop, Horizontal Line	Central Neck	0.99	-	-
	Lower Neck	0.33	-	-
	Shoulder	0.33	-	-
Limpopo Stabbed, Recurved Jars, Design Set ST2, Vertical Teardrop, Horizontal Line	Lower Neck	-	0.33	-
	Shoulder	0.99	-	0.24
Limpopo Incised and Bead/Bangle-Impressed, Recurved Jars, Design Set I/BB1, Zoned Diagonal	Rim	0.33	-	0.24
	Central Neck	-	0.66	0.96
	Lower Neck	0.33	-	-
Limpopo Incised and Comb-Stamped, Recurved Jars, Design Set I/CS2, Zoned Diagonal	Rim	0.66	1.64	1.43
	Central Neck	3.95	3.62	3.56
	Lower Neck	-	0.33	-
	Shoulder	0.33	-	-
Limpopo Incised and Comb-Stamped, Recurved Jars, Design Set I/CS1, Zoned Horizontal	Rim	-	-	0.24
	Central Neck	0.66	1.97	1.90
	Lower Neck	0.33	-	-
Limpopo Incised and Comb-Stamped, Short-Necked Jars, Design Set I/CS1, Zoned Horizontal	Central Neck	-	-	0.24
Limpopo Incised and Comb-Stamped, Short-Necked Jars, Design Set I/CS2, Zoned Diagonal 2	Rim	-	-	0.24
	Central Neck	-	0.33	0.24

Type	Decoration Placement	DU I (Levels 3 and 4) (%)	DU II (Levels 5 and 6) (%)	DU III (Levels 7 to 12) (%)
Limpopo Incised and Punctated, Recurved Jars, Design Set I/P1, Connected Round, Horizontal Line	Rim	-	-	0.24
	Central Neck	-	0.33	-
	Shoulder	0.33	-	-
Limpopo Incised and Punctated, Recurved Jars, Design Set I/P2, Round Impression, Zoned Diagonal	Shoulder	0.33	-	-
Limpopo Incised and Stabbed, Recurved Jars, Design Set I/ST1, Zoned Vertical Stabbing	Central Neck	-	0.33	0.72
	Lower Neck	0.66	-	-
	Shoulder	-	-	0.24
Limpopo Incised and Stabbed, Recurved Jars, Design Set I/ST2, Zoned Horizontal Stabbing	Central Neck	-	0.33	-
Limpopo Applied and Comb-Stamped, Short-Necked Jars, Design Set A/CS1, Horizontal Appliqué with Unzoned Diagonal Stamping	Central Neck	-	-	0.24
Limpopo Polychrome, Simple Shallow Bowls, Design Set PC1, Black and Red	Rim to Body	-	-	0.24

Approximately two-thirds of the Schroda ceramic assemblage, for all the Depositional Units combined, is represented by nine very specific stylistic sub-types. A representative sample of ceramics from the site is shown in Plate 5.1.

I calculated Brainerd-Robinson similarity coefficients for the relationships between the ceramic assemblages in DU I and DU II, DU II and DU III, and DU I and DU III. These coefficients were then converted to actual percentage similarity. Similarity indices were calculated first by type (combining vessel form and design set), and then by the more accurate sub-type (combining vessel form, design set and decoration placement). Both calculations are presented in Tables 5.4 and 5.5.

Table 5.4. Schroda, Area 5, ceramic types (vessel form and design set), percent similarity index for Depositional Units I to III.

	DU I	DU II	DU III
DU I	100		
DU II	74	100	
DU III	68	87	100

Table 5.5. Schroda, Area 5, ceramic sub-types (vessel form, design set and decoration placement), percent similarity index for Depositional Units I to III.

	DU I	**DU II**	**DU III**
DU I	100		
DU II	67	100	
DU III	62	82	100



Plate 5.1. Typical Schroda ceramics.

Both of these similarity indices demonstrate a high relationship between all of the DUs, with the strongest relationship between DU II and DU III, and the weakest relationship between DU I and DU III. As will be seen below, these frequencies are best explained in terms of the internal trends within the assemblage which, although they demonstrate a high overall degree of continuity, do display some noticeable changes over time. The internal trends within the assemblage will be discerned by examining vessel form, decoration technique and decoration placement.

Vessel Form, Schroda, Area 5

Vessel forms at Schroda, Area 5, were divided into those categories presented in

Chapter IV. The most common vessel form at Area 5 over the whole period of occupation was the recurved jar (n=1263 or 58%), followed in frequency by simple shallow bowls (n=481 or 22%), incurvate bowls (n=356 or 16%), short-necked jars (n=64 or 3%), simple deep bowls (n=22 or 1%), and bag-shaped jars (n=6) and very shallow bowls (n=3), with less than 1% each. Data on the number and percentage frequency of these vessel forms is presented in Table 5.6. For ease of presentation, the six bag-shaped jars were subsumed into the recurved jar category. These data are also presented graphically, by percent and by level, in Figure 5.3

Table 5.6. Schroda, Area 5, number and frequency occurrence of major vessel forms, by level and by Depositional Unit.

		Recurved Jars			Short-Necked Jars			Simple Shallow Bowls			Simple Deep Bowls			Incurvate Bowls			Very Shallow Bowls		
DU	**Level**	**#**	**%**	**DU %**	**#**	**%**	**DU %**	**#**	**%**	**DU %**	**#**	**%**	**DU %**	**#**	**%**	**DU %**	**#**	**%**	**DU %**
	3	170	70	64	-	-	0.	37	15	2	-	-		36	15	1	-	-	0.
I	**4**	236	61		3	1	5	95	24	1	-	-	-	55	14	1	1	0.25	2
	5	240	62	57	11	3		81	21	2	3	1		53	14	1	-	-	
II	**6**	149	51		7	2	3	70	24	2	5	2	1	59	20	7	-	-	-
	7	142	56		16	6		51	20		5	2		41	16		-	-	
	8	88	52		4	2		43	25		4	2	1.6	33	19		-	-	0.
III	**9**	97	51	54	12	6		39	21	2	2	1		39	21	1	1	0.53	2
	10-12	147	55		11	4	5	65	24	2	3	1		40	15	7	1	0.63	3

Overall, the data on vessel forms at Schroda, Area 5, indicate a fairly stable diachronic distribution of vessel forms. Some changes are apparent, but these are gradual in nature. The first, and most obvious, of these is the increase in recurved jars noted from the bottom of the deposit to the top, beginning with 55% in Levels 10 to 12 and ending at 70% in Level 3. While noteworthy, it does not represent an abrupt change, as this relative increase in recurved jars begins in Level 6 and continues up to the top of the deposit in Level 3. The second most prominent development in terms of vessel form is the gradual disappearance of short-necked jars from the assemblage. Initially, short-necked jars account for 5% of the assemblage, but peter out to none at the very top. A similar situation is noted for simple deep bowls, beginning at about 1.6% and ending at none. The occurrence of incurvate bowls also declines over time, remaining steady at about 17% in Depositional Units II and III, but dropping to around 11% in DUI.

Despite the changes noted for these forms, other forms remain fairly constant across time, most conspicuously simple shallow bowls; these average approximately 21% frequency throughout the deposit. Very shallow bowls also remain stable throughout the deposit. This continuity is further demonstrated when the similarity coefficients for vessel form between each Depositional Unit were calculated (Table 5.7). These indicate a high similarity between

all the DUs, with a range of 87% to 96%.

Decoration Technique, Schroda, Area 5

Decoration techniques at Schroda, Area 5, were divided into those categories presented in Chapter IV. Decoration occurred on 1,031 vessels recovered from Depositional Units I to III. Decoration occurred most frequently on jars (n=1027 or 99.6%), followed up by bowls (n=4 or 0.40%). The most common decoration technique at Area 5 over the whole period of occupation was comb-stamping (n=599 or 58%), followed in frequency by incision (n=218 or 21%), bead/bangle impression (n=96 or 9%), and incision and comb-stamping (n=75 or 7%). Other decoration techniques were present, but each of these accounted for less than 1% of the total assemblage. These additional techniques included stabbing (n=10), stabbing and incision (n=8), incision and bead/bangle impression (n=8), punctuation (n=7), punctuation and incision (n=4), fingernail impression

Table 5.7. Schroda, Area 5, ceramic vessel form, similarity index for Depositional Units I to III.

	DU I	**DU II**	**DU III**
DU I	100		
DU II	90	100	
DU III	87	96	100

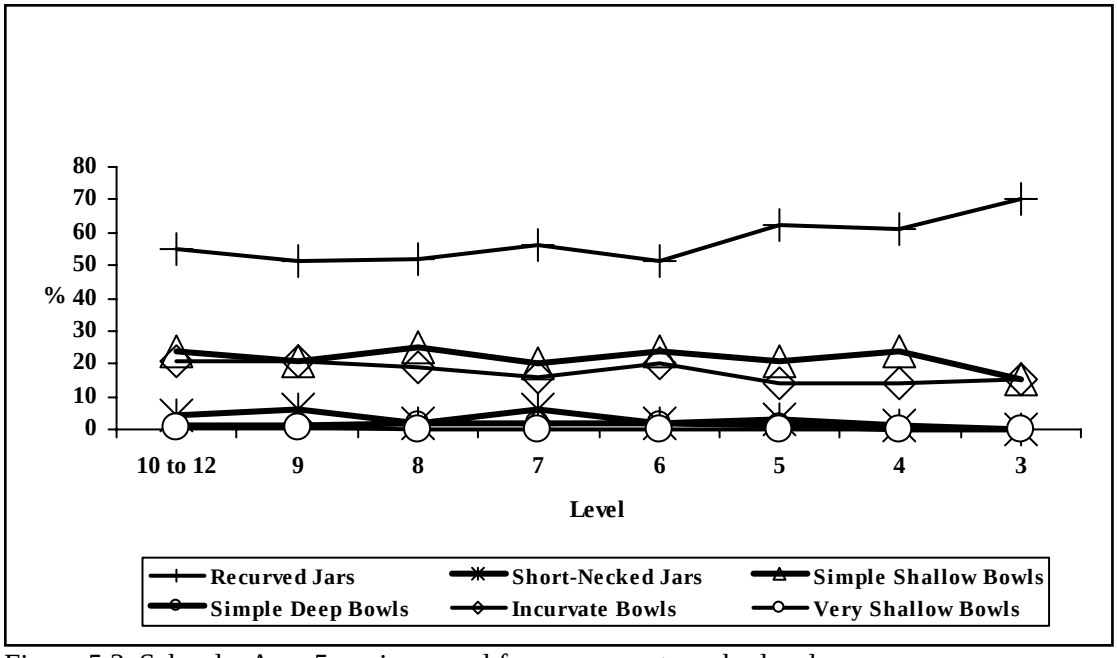


Figure 5.3. Schroda, Area 5, major vessel forms, percentage, by level.

(n=4), appliqué and comb-stamping (n=1), and polychrome (n=1). The single instance of

polychrome, it should be noted, was an instance of a partially oxygen-reduced simple shallow bowl with a red-and-black appearance; no actual pigmentation (graphite or ochre) was employed. Data on the number and percentage frequency of the major decoration techniques are presented in Table 5.8. These data are also presented graphically, by percent and by level, in Figure 5.4.

Table 5.8. Schroda, Area 5: number and frequency occurrence of major decoration techniques, by level and by Depositional Unit.

		Incision			Comb-Stamping			Bead/Bangle-Impression			Incision and Comb-Stamping		
DU	Level	#	Level %	DU %	#	Level %	DU %	#	Level %	DU %	#	Level %	DU %
	3	45	34.62		57	43.85		10	7.69		5	3.85	
I	4	56	32.37	33.33	74	42.77	43.24	26	15.03	11.88	13	7.51	5.94
	5	44	22.68		114	58.76		15	7.73		14	7.21	
II	6	15	13.64	19.40	79	71.81	63.49	2	1.81	5.59	10	9.09	7.89
	7	18	13.64		87	65.91		10	7.58		11	8.33	
	8	16	20.78		51	66.23		5	6.49		5	6.49	
III	9	9	10.59	13.68	57	67.06	64.86	12	14.12	10.14	6	7.06	7.78
	10-12	15	11.53		80	61.54		16	12.31		11	8.46	

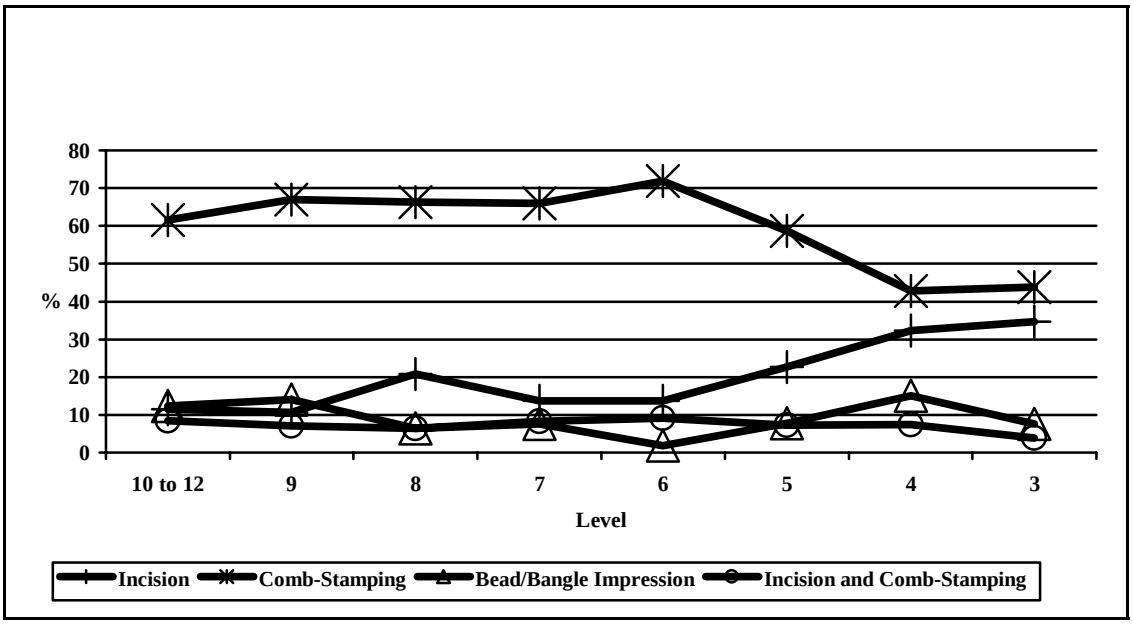


Figure 5.4. Schroda, Area 5, major decoration techniques, percentage, by level.

The data on decoration techniques at Schroda, Area 5, indicate a fairly stable, though shifting, diachronic distribution of techniques. Some changes are apparent, but these are not abrupt. The most readily apparent of these changes is the movement, beginning in Level 6 and continuing to the top of the deposit, away from comb-stamping and towards incision.

Comb-stamping, while remaining the dominant decoration technique throughout the deposit, shifts from approximately 65% in DU III to approximately 44 % in DU I. Conversely, incision begins in DU III at about 12% and ends in DU I at around 35%. These two shifts, though significant, represent a gradual, incremental, trend, not a radical change.

Despite the changes noted for comb-stamping and incision, the two other major decoration techniques, bead-bangle impression and incision and comb-stamping, remain fairly constant across time. This continuity is further demonstrated when the similarity coefficients for decoration technique between each Depositional Unit were calculated (Table 5.9). These indicate a high similarity between all the DUs, with a range of 76% to 94%.

Table 5.9. Schroda, Area 5, ceramic decoration technique, similarity index for Depositional Units I to III.

	DU I	**DU II**	**DU III**
DU I	100		
DU II	78	100	
DU III	76	94	100

Decoration Placement, Schroda, Area 5

Decoration placements at Schroda, Area 5, were divided into those categories presented in Chapter IV. Decoration, and therefore decoration placement, occurred on 1,031 vessels recovered from Depositional Units I to III. Decoration placement occurred most frequently on jars (n=1027 or 99.6%), followed in frequency by bowls (n=4 or 0.40%). The most common decoration placement at Area 5 over the whole period of occupation was the placement on the central neck of jars (n=714 or 69%), followed in frequency by shoulder placement (n=147 or 14%), rim placement (n=91 or 9%), and placement on the lower neck (n=56 or 5%). Other decoration placements were present, but each of these accounted for 1% or less of the total assemblage. These additional placements on jars included central neck and shoulder (n=12), lip (n=3), central neck to lower neck (n=2), lower neck to shoulder (n=1), and rim and shoulder (n=1). Decoration also occurred on the body of bowls (n=4). Data on the number and percentage frequency of the major decoration placements are presented in Table 5.10. These data are also presented graphically, by percent and by level, in Figure 5.5.

The data on decoration placements at Schroda, Area 5, indicate a highly stable diachronic distribution of placements. A single major shift is apparent, but this appears as a brief fluctuation, not an abrupt break. This shift consists of a sharp spike in central neck placement in Level 4 to 90%. This spike was, however, preceded by a central neck frequency of 68% in Level 5, and was followed by a decline to a more typical frequency of around 64% in Level 3. Other discernible shifts also occur in the other major decoration placements. Decoration placement on the shoulders of jars increases, beginning at around 11% in DUIII

and ending at 20% in DU I. Placement on the rim gradually decreases from around 11% in DUIII to 8% in DU I. Conversely, lower neck decoration is seen to gradually rise from around 5% in DUIII to around 7% in DUI. All these shifts appear to either represent a temporary fluctuation (in the case of central neck frequency), or gradual shifts over time. This overall continuity is further demonstrated when the similarity coefficients for decoration placement between each Depositional Unit were calculated (Table 5.11). These indicate a high similarity between all the DUs, with a range of 91% to 95%.

Table 5.10. Schroda, Area 5, number and frequency occurrence of major decoration placements, by level and by Depositional Unit.

		Rim			Central Neck			Lower Neck			Shoulder		
DU	Level	#	Level %	DU %	#	Level %	DU %	#	Level %	DU %	#	Level %	DU %
	3	7	5.38		83	63.85		11	8.46		26	20.00	
I	4	16	9.25	7.59	117	90.00	66.00	10	5.78	6.93	29	16.76	17.82
	5	15	11.36		132	68.04		10	5.15		34	17.53	
II	6	7	6.36	7.23	85	77.27	71.38	4	3.64	4.61	10	9.09	14.47
	7	15	11.36		85	64.39		13	9.85		16	12.12	
	8	9	11.68		58	75.32		1	1.30		7	9.09	
	9	11	12.94		62	72.94		3	3.53		7	8.24	
III	10-12	11	8.46	10.85	92	70.77	70.04	3	3.08	4.95	18	13.85	11.32

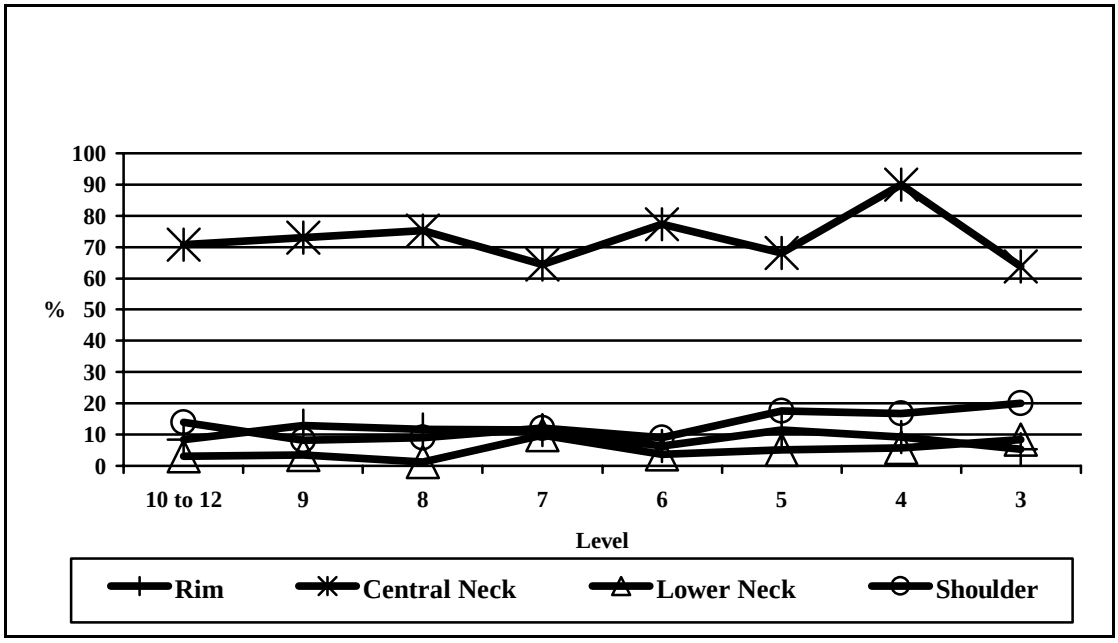


Figure 5.5. Schroda, Area 5, major decoration placements, percentage, by level.

Before I discuss the few exotic elements noted within the Schroda, Area 5, assemblage I will make a few observations about the internal ceramic trends noted above, and what these trends suggest about the overall integrity of the deposit. First, none of the ceramic changes noted from level to level or DU to DU are suggestive of a radical change within the assemblage, or

Table 5.11. Schroda, Area 5, ceramic decoration placement, similarity index for Depositional Units I to III.

	DU I	DU II	DU III
DU I	100		
DU II	94	100	
DU III	91	95	100

that would be consistent with major episodes of mixing. All the changes noted are gradual, and all are consistent with what would be expected within an intact archaeological deposit. The internal consistency within the ceramic assemblage, coupled with the internal consistency of the radiocarbon dates noted previously, combine to suggest to me that Hanisch's excavation techniques were sufficiently rigorous to have ensured the successful recovery of sound data.

Leopard's Kopje-like Elements: Frequency, Vertical Occurrence, and Dating

A total of nine vessels, or approximately 0.87%, of the decorated assemblage in Depositional Units I to III at Schroda, Area 5, could be said to have direct correlates with the Mambo, or Leopard's Kopje A (i.e., K2), styles. These vessels were all of those that had design motifs consisting of either arcades or triangles. Five of these vessels were from DU III, while the remaining four were recovered from DU I. The type and provenience of each of these vessels is shown in Table 5.12. A sample of these vessels is shown in Plate 5.2.

The Leopard's Kopje-like vessels from DU I date to the last period of occupation at Area 5 at Schroda, that is, sometime after around the turn of the 11th century AD. The presence of these vessels in the Schroda assemblage could be attributed to influence from the contemporary Leopard's Kopje A-using occupation at the nearby site K2. The interpretation of the Leopard's Kopje A-like vessels from DU III at Schroda, Area 5 is more problematic.

Table 5.12. Schroda, Area 5: Provenience, vessel form, design set, design motif, decoration placement, and number of Leopard's Kopje A-like vessels.

DU	Level	Vessel Form	Design Set	Design Motif	Decoration Placement	Number
I	3	Recurved Jar	I6: Upturned Triangle	2.26	Rim to Central Neck	1
I	3	Recurved Jar	I5: Upturned Arcade	2.29	Central Neck	1
I	4	Recurved Jar	I5: Upturned Arcade	2.29	Central Neck	2
III	8	Recurved Jar	I6: Upturned Triangle	2.49	Lower Neck to Shoulder	1
III	8	Recurved Jar	I5: Upturned Arcade	2.46	Shoulder	1
III	9	Recurved Jar	I5: Upturned Arcade	2.46	Lower Neck	1
III	10	Recurved Jar	I5: Upturned Arcade	2.46	Shoulder	1
III	10	Simple Shallow Bowl	I11: Downturned Triangle	2.27	Body	1



Plate 5.2. Leopard's Kopje-like ceramics from Schroda.

The K2-like vessels from DUIII occurred in Levels 8 through 10, and therefore probably date to between ca. AD 900 and AD 1010. It is important to note that, barring some disturbance that re-deposited all of these Leopard's Kopje A-like sherds from higher in the deposit to DU III, these K2-like vessels from DUIII occur at Schroda prior to the Leopard's Kopje A-using occupation at the K2/Mapungubwe site complex. The earliest dates for a K2-like occupation there are from samples Pta-768 and Pta-2024 (see Table 2.8). Both of these samples are identical to the youngest date at Schroda (Pta-7659), with 1-sigma ranges from around AD 1000 to AD 1040; they differ from Pta-7659 only in their respective age errors.

The combined ceramic and radiocarbon data from Area 5 at Schroda, therefore lead me to conclude that, at least in the case of the deposit in Area 5, the following inferences can be drawn: 1) Schroda was occupied well into the occupation at K2 and the Southern Terrace at Mapungubwe Hill; 2) the ceramics at Area 5 did not undergo any radical change indicative of a population replacement; 3) to the contrary, any changes noticed in the ceramic assemblage are incremental; 4) the few Leopard's Kopje A-like ceramics found at Schroda occur both prior and well into the Leopard's Kopje A occupation at K2.

These conclusions raise some important questions regarding both the regional ceramic chronology and the nature of prehistoric social and political interaction in the region. First, if Leopard's Kopje A (i.e., K2) ceramics were markers of a separate ethnic/social entity which overran the area of the Shashi-Limpopo confluence around AD the turn of the 11th century, driving the Zhizo-using inhabitants of the region into eastern Botswana, why have so

few K2-like ceramics been recovered from Schroda, Area 5, in or above the ca. turn of the 11th century AD deposit (i.e., Level 5 and above)? Similarly, why do K2-like ceramics occur in the deposit prior to the initial Leopard's Kopje A occupation of K2? Finally, why does such a dense deposit comprised of almost purely Zhizo ceramic material occur at the putatively conquered Zhizo capital well after a new capital was established at K2? These questions will be discussed in greater detail in Chapters XI and XII.

Class and Religious Specialisation and Craft Production at Schroda

Schroda has long been interpreted as the political and economic centre of the Shashi-Limpopo confluence between its initial occupation around AD 900 and the rise of K2 around the turn of the 11th century AD. This interpretation was based on its large size (Huffman 1982, 1986a, 1986b, 1996a, 2000) and the presence at the site of relatively large numbers of glass trade beads (n=666), including two garden roller beads (Huffman 1982, 1986a, 1986b, 1996a, 2000; Hanisch 1980, 1981; cf. Saitowitz 1996; Wood 2000, personal communication 2003). Owing to these factors, Schroda was thought to have been the regional capital, where society's elites lived and held court, rendering judgements and arbitrating disputes. As was discussed at the end of Chapter III, several potential archaeological correlates exist that are useful in differentiating between ethnic- and class-based societies in southern African prehistory. Among these, exotic goods in the form of glass trade beads have already been mentioned. The presence of these goods serves to illustrate the ability of a site's residents to appropriate surplus social production.

Two additional correlates of class-based society have also been observed at Schroda. These correlates relate to a preponderance of initiation/fertility paraphernalia and possible evidence of metal production. The presence of large quantities of initiation/fertility figurines, it will be remembered from the discussion in Chapter III, is significant in that they represent symbolic control over the transformative and reproductive forces of society. Similarly, evidence for metal production at the site, particularly evidence of production of such symbolically charged objects such as non-utilitarian metals, also serves to reinforce the elite associations of a site.

Hanisch (1980, 1981) described a large collection of fired clay figurine fragments at Area 6 (see Figure 5.1). Many of these are animal or human representations, although some represent fanciful or impossible beasts. Birds are the creature most commonly represented. Phalli are also represented (Wood 2002; Hanisch 2002; Van Schalkwyk 2002). As was discussed in Chapter III, concentrations of these types of objects typically denote initiation activities and, by extension, the presence of elites who would have overseen these activities.

Hanisch published some evidence for craft production (Hanisch 1980) at Schroda. This evidence consisted of material consistent with the re-melting of glass trade beads,

woodworking and/or leatherworking, and metal smithing. Specifically, Hanisch recovered two fragments of ceramic garden roller bead moulds from Area 6 (Ibid:163-164). These moulds, it has been hypothesised (Gardner 1963; Saitowitz 1996; Wood 2000), were used to form larger garden roller beads from melted trade beads. It is interesting to note that these garden roller bead moulds are usually associated with the Leopard's Kopje A deposit at the site K2. An analysis of the ceramic data at Area 6, where the moulds were recovered, presented by Hanisch (1980:381-383) indicates that this portion of the site was utilised by Zhizo-using people.[1]

Shell beads were also common at the site (n=5,543), with *Achatina* sp. (giant land snail) beads (n=4,733 or 85%) occurring in much higher numbers than ostrich egg shell beads (n=810 or 15%). Although Hanisch did not mention it in his thesis (1980) or subsequently (1981, 2002), also present at the site, in Area 6, was evidence of fairly large scale ostrich egg shell bead production. Hall & Smith (2000:36) describe Hanisch's data for this production as consisting of:

> …a large cache of ostrich eggshell rough-outs numbering in the thousands. This cache comprises drilled rough-outs that were strung and ready for final rounding, and, importantly, bead-manufacturing debris was also included. The implication is that ostrich eggshell bead manufacture took place within the settlement at Schroda…

The evidence for bead production at Schroda is suggestive of an organised, fairly large-scale effort.

Iron tools associated with woodworking (adzes)(n=1) and leatherwork (awls)(n=5) were also recovered from the site (Hanisch 1980). The single adze was recovered from Area 4, as were two of the awls. Another awl was recovered from Area 5, while the remaining two were found in Area 6. Evidence for metallurgical activity published by Hanisch (Ibid:164-165) was not detailed; rather he states that

> No direct evidence of copper or iron smelting was found. There was no abundance of ore, nor signs of slag heaps or remains of furnaces, but fragments of tuyère and pieces of slag were picked up on the surface of the site and were also excavated. Neither was very common, and the type and size of the remains is more suggestive of the reworking of metals such as is done by a smith…
>
> …The slag remains were not analysed but probably are from copper and iron working, as both metals were found on the site in various forms. Several pieces of slag showed the typical green discolouration of copper, and several potsherds were recovered showing vitrification with adhering copper nodules.

The ceramics with slag adhering he interpreted as fragments of vessels used for re-melting copper (*sensu* Stayt 1968:64-65). Hanisch also mentions that a total of seven *tuyère* fragments were recovered from Areas 4, 5, and 6, but without reference to their specific

[1] The majority of vessels (n=26 or 65%) from Area 6 were Zhizo types (comb-stamped and bead/bangle impressed), while 32.5% (n=13) are incised types that could be either Zhizo or Leopard's Kopje A, while a single vessel (2.5%) has an incised motif that could be considered to be without question a Leopard's Kopje A (i.e., K2) ceramic type.

provenance. The condition of the surviving *tuyère* fragments, only one of which preserved any of the "funnel", as opposed to the lower end, led him to suggest that were exposed to only fairly low temperatures, with only the lower end having been baked during presumed smithing activities.

I examined Hanisch's Schroda collection at the National Cultural History Museum in Pretoria in 1999 and determined that his initial assessment of the type and scale of metallurgy at the site needs to be reconsidered. Much more metallurgical material was recovered from the site by Hanisch after submission of his thesis, in particular from Area 6, between 1980 and 1984. In total, excavations at Area 6 produced 509 pieces of slag (62 of which are furnace bottom slag following the description of Friede, Hejja and Koursaris [1982]), 128 *tuyère* fragments, one large piece of daub furnace wall with slag adhering, one highly heat-distorted piece of ceramic with slag adhering, and one piece of ceramic with slag adhering to its interior. Many of the *tuyère* fragments are nearly complete (Plate 5.3) and numerous (n=45) ends are present. Of these end fragments, 12 are still attached to furnace bottom slag (Plate 5.4), 30 have slag adhering to their exterior and sometimes their interior, while only three are not slagged.

The heat-distorted sherd I have tentatively interpreted here as a crucible fragment or perhaps a piece of furnace lining, as it has been exposed to considerable heat for a sustained period of time. The piece of ceramic with slag adhering to its interior is probably one of the items which Hanisch (1980) referred to as 'crucible sherds', as did Gardner (1963) in reference to similar material from K2. These artefacts are better described using the term 'ceramic with slag adhering', following Miller (n.d.). As these are pottery fragments with slag adhering only to one side, usually the interior, and have clearly not been exposed to the minimum temperature required for reducing copper or iron ores (1100°C and 1200°C, respectively) (Tylecote 1980:184, 209), a more accurate functional interpretation of these artefacts would be that they were used to skim molten slag during some, unspecified, stage of metal production. The presence of relatively large quantities of *tuyère* fragments and furnace bottom slag, as well as the piece of daub furnace wall at Area 6 at Schroda may indicate that some smelting occurred there.

Summary: Class and Religious Specialisation and Craft Production at Schroda

The archaeological evidence I have presented here seems to indicate that Schroda was a regionally significant site that preserves evidence of a robust trade in exotic goods and also maintains evidence of its probable importance as a religious/initiation centre. Craft production appears to have taken place, with evidence for the manufacture of shell beads and, possibly, garden roller beads. Wood, leather, and metal were also in all likelihood worked at the site. Initiation/fertility figurines may also have been produced, as well as used, at the site.



Plate 5.3. Schroda, slagged tuyère fragments recovered from Area 6.



Plate 5.4. Schroda, tuyère fragment (left)adhering to plano-convex furnace bottom slag

It is significant to note that the vast majority of evidence for metallurgy at the site is concentrated in Area 6. Importantly, this was the same area of the site from which the large quantity of figurine fragments was recovered (Hanisch 1980, 1981). At least some of the figurines, according to Hanisch (personal communication 1999; Hanisch 2002), Van Schalkwyk (2002), and Nettleton (2002), were probably involved in some form of initiation ceremony. The association between metallurgical debris and paraphernalia for initiation rituals, given the prior discussion of the link between metallurgy, fertility and leadership in Chapter III, is not surprising. Whether this material was brought in specifically for use in the same contexts as the figurines, or represents waste from an on-site production area, is unclear and it would be premature at this point to make such an assessment. The possible association of metalworking debris with ritual paraphernalia used by society's leaders to legitimate the transition from one reproductive stage of life to the next is, however, provocative. Should such an association be determined, it would reinforce both the actual and metaphorical importance of metallurgy and its links with fertility and notions of leadership in southern African Iron Age societies.

As it stands, the data indicate that Area 6 at Schroda was the locus of a significant quantity of religious paraphernalia in the form of figurines. It is unclear if they were used on site or were meant for use elsewhere. Shell beads were also made here as were glass garden roller beads. The large quantity of metallurgical debris is suggestive of smithing and, quite possibly, smelting activities. Archaeological evidence of all of these activities serves to reinforce the prior interpretations of Schroda as a regional social, political, and economic centre. The evidence for metal production and religious specialisation in particular are correlates of elite-based society that were posited at the end of Chapter III.

Chapter Summary

The description and analysis of the ceramic data from Area 5 at Schroda represents the achievement of one of the major substantive goals of this thesis, as discussed at the end of Chapter II, in that I have described the ceramic style known as Zhizo in the Shashi-Limpopo area. It is now possible to employ this ceramic data as a baseline against which to compare ceramic data from other sites within and outside the region. Also, I have established that the ceramics from Schroda, Area 5, represent a stylistically homogenous assemblage that did not undergo any drastic alterations between the beginning of deposition around AD 900 and the end of deposition sometime after around the turn of the 11th century AD. Some diachronic changes are apparent, however, and consist primarily of a gradual increase in incised decoration and a concomitant decrease in comb-stamped decoration; both these changes begin at the outset of deposition in Level 5 (i.e., the beginning of DUII). Comparative analysis with other, later assemblages in the region will determine if these changes represent an actual long-

term trend or are best interpreted as being within a normal range of variation. This comparison will take place in Chapter XI.

The data from Schroda pertaining to the correlates of class-based society indicate fairly strongly that Schroda was a religious centre and a metal production centre and in all likelihood was the residence of nascent, if not developed, elites in the region. Craft production activities took place here, in particular shell and glass bead manufacture; these activities may relate to the production of goods used in the prosecution of long-distance trade. This data on the correlates of class-based society at Schroda will prove very useful as a measure against which to judge the relative status of other sites in the region. I will more completely discuss these data from Schroda and similar data from all the sites reported on in this thesis in Chapter XII.

CHAPTER VI
EXCAVATIONS AT BAOBAB

The site Baobab (Site 2229 AD 6)(S 22.18.37, E 29.17.13) represents the remains of a small settlement located on the farm Edmondsburg, near the eastern end of a narrow, east to west running hill range (Figure 6.1; Plate 6.1). The range is characterized on its eastern half by a 1 km long, narrow valley which runs along the hilltop, bordered on both the north and south by steep to sheer precipices down to the valley floor below, alternating with steep rock faces which shelter the hilltop and block the view to the valley floor. Access to the top of the range is limited to relatively easy ascents on either end. Baobab sits in a relatively open portion of the range, with commanding views to the north and south. The nearest current water source is the Kolope River, located 1 km to the west. In antiquity nearer sources of water were probably present, as numerous dry stream channels braid the valley below the range. One of these runs 300m to the east of the site. A spring-fed pool is also present at the southern base of the hill range, approximately 600 m to the west. Currently, an intermittent drainage channel runs east to west along the site; this channel has negatively impacted the archaeological deposit at the centre of the site.

The site measures 90 by 70 m in area, and is characterised by several daub features interpreted as remnant hut floors and grain bin foundations, as well as by a large, elevated midden deposit located on the southern edge of the site (Plate 6.2; see Figure 6.1). No animal byre area was positively identified, but small concentrations of dung were observed on the surface and in the vertical profile of the drainage channel. The animal byre deposit therefore has been either washed downslope to the east, or has been capped by alluvium transported from further to the west. The overall settlement pattern is suggestive of the Central Cattle Pattern (*sensu* Huffman 1982), with an outer arc of houses partially enclosing an animal byre.

The Excavations

I concentrated excavations at Baobab in the southern midden area. Additional excavations were carried out on two of the hut floors (see Figure 6.1). The midden area was excavated to gather stratigraphic data, a representative sample of cultural material, and samples for radiocarbon dating. The two hut floors were excavated, it was hoped, to provide data on activity areas and secure samples (fallen posts, hearths, etc.) for radiocarbon analyses. Excavations at the site were conducted in August of 1996 and in July of 1997. I present the results of these excavations below. Stratigraphic and chronological information on all three areas are presented first. This presentation is followed by a detailed summary of the material Culture recovered from the site as a whole.

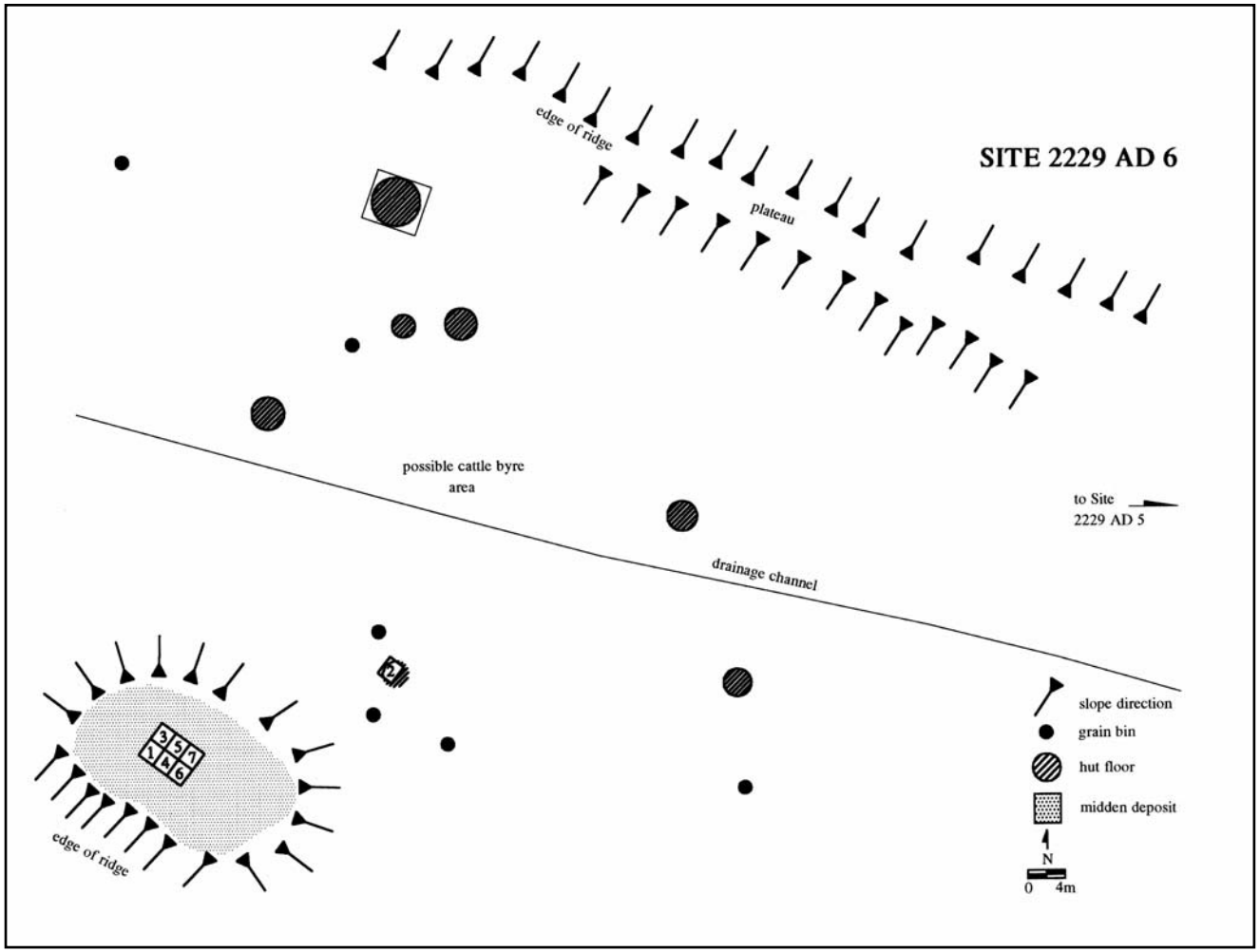


Figure 6.1. Baobab (2229AD6), showing surface features and location of excavations.

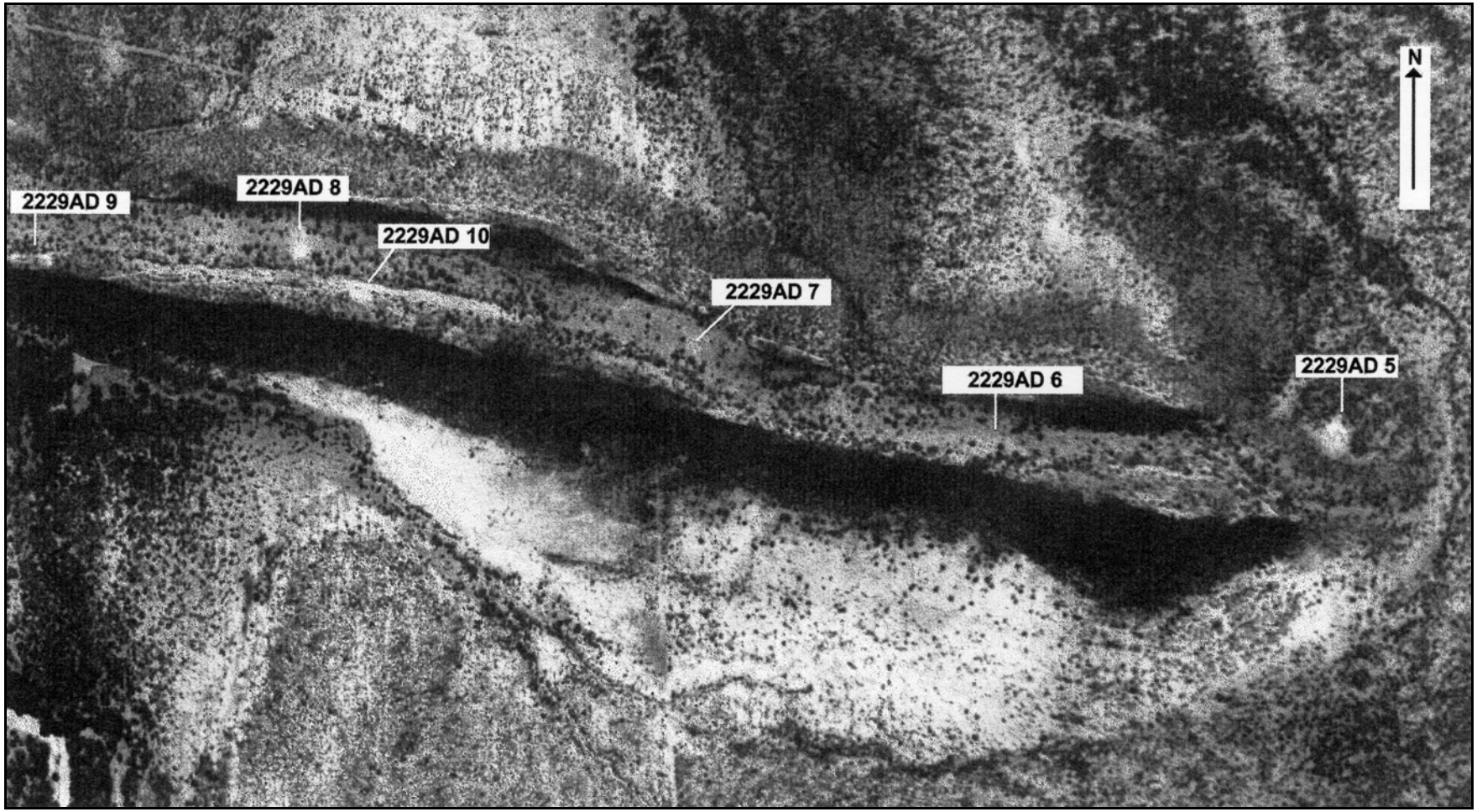


Plate 6.1. Aerial photograph showing location of Baobab (2229AD 6).

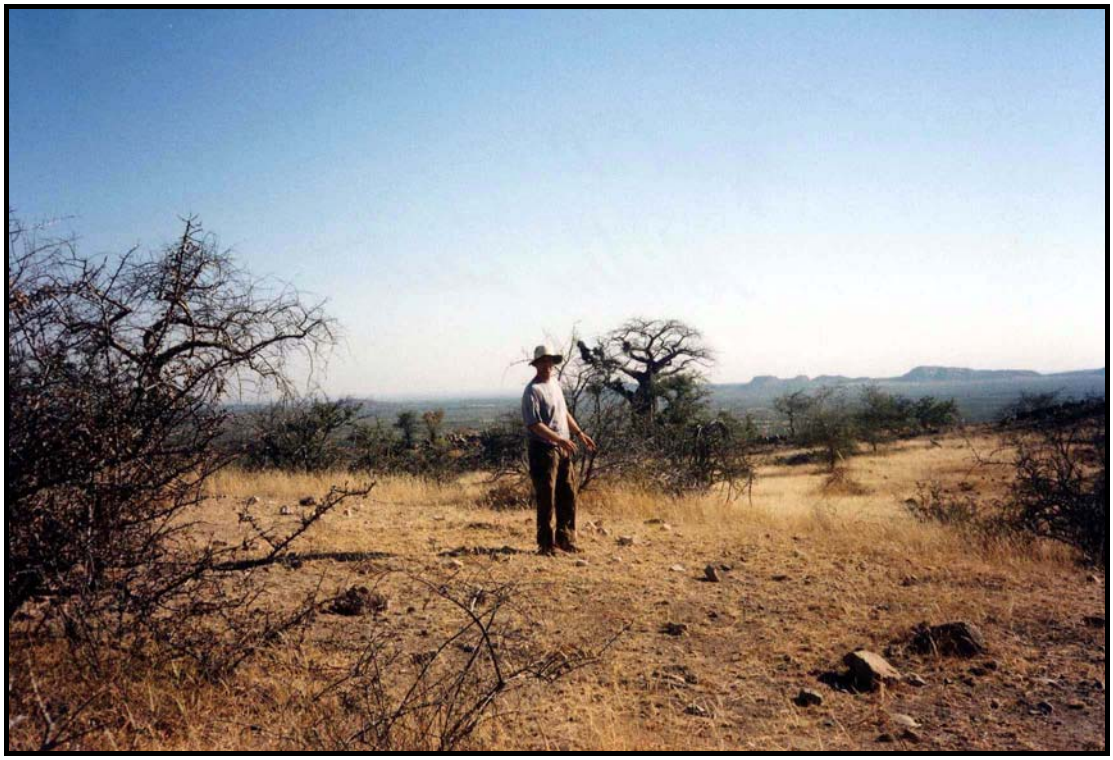


Plate 6.2. Baobab, Southern Hilltop Midden, the author indicating location of future test units. Aspect: N/NW.

Southern Midden Area

This portion of the site sits approximately 5 m above the central occupational area, well removed from the current drainage channel. The elevated position of this midden and its location outside of the erosion channel would indicate that no material from elsewhere has washed or rolled into the deposit. Some material has probably washed or rolled off the midden, but what is left is intact archaeological deposit.

Stratigraphy and Dating

I excavated a total of 24 m^2, encompassing a single 6 x 4 m block, divided into six 2 x 2 m test units, in the southern midden (see Figure 6.1). Each test unit was assigned a numeric designation (Test Unit 1, and Test Units 3 to 7).

The soil profile in this deposit was straightforward, consisting of a single, homogenous stratum of a light grey (10YR5/3) ash (Stratum I) which extended from the surface to a depth of between 30 and 50 cm (Figure 6.2) before bedrock was reached. Cultural material was confined to the upper 390 cm (Levels 1 to 3). No features were encountered. Disturbance was confined to occasional grass root action and a few large animal burrows, probably made by springhares. These burrows were clearly demarcated from the original midden deposit due to their heavy organic content and decaying nesting material. All burrows were excavated separately and the sparse cultural material recovered from them was removed from analytic

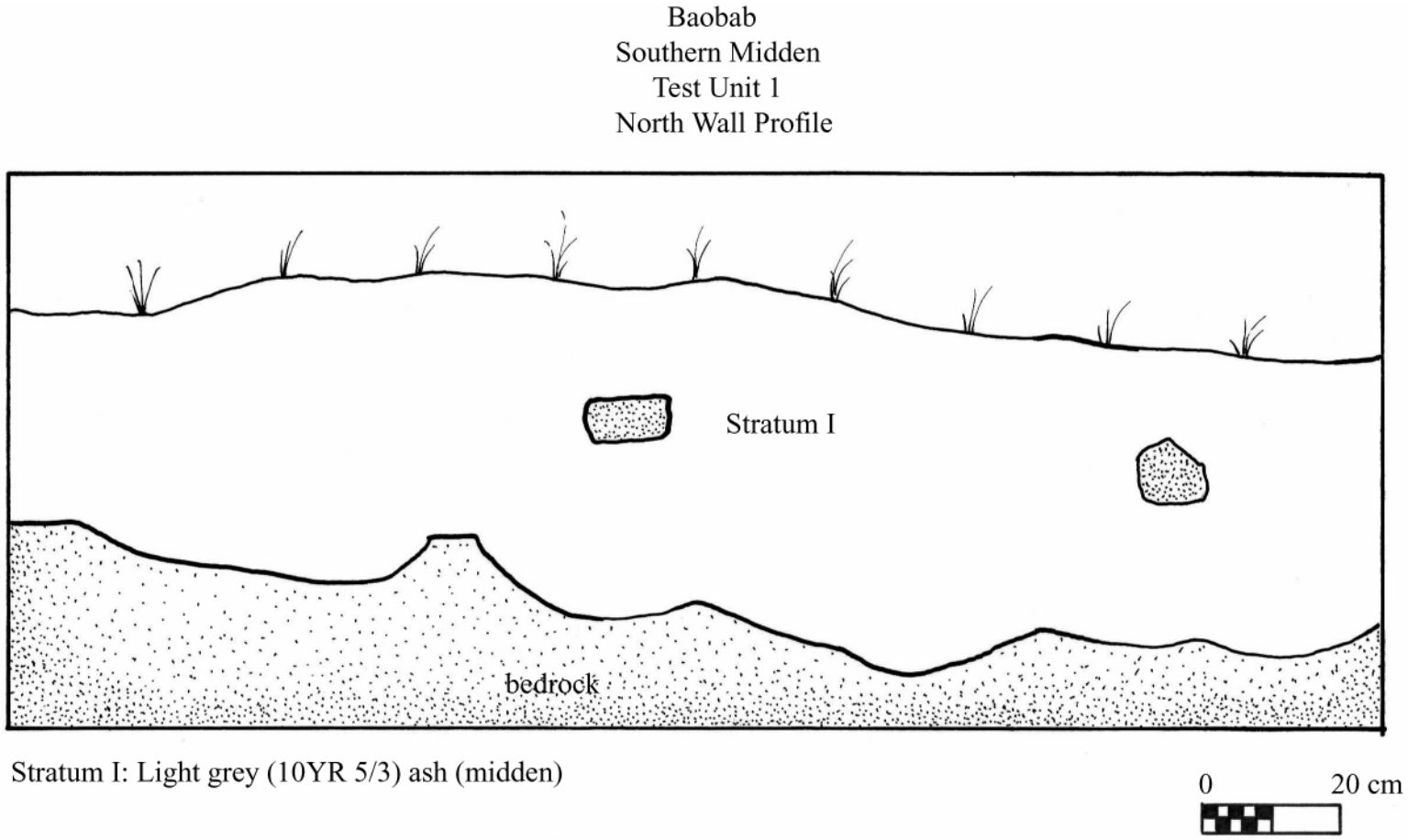


Figure 6.2. Baobab, southern hilltop midden, north wall profile.

consideration. A total of 7.36 m^3 was excavated in the midden deposit.

Organic preservation in the midden was poor, and only a single carbon sample was recovered which was large enough for standard radiocarbon analysis. This sample (Pta-7450), recovered from Level 2 in Test Unit 7, produced a before present (bp) date of 1040 ±40, which in turn provided a 1-sigma range of AD 1000 to AD 1030.

Hut Floor 1

A single 2 x 2 m test unit (Test Unit 2) (see Figure 6.1; Figure 6.3) was excavated over the remains of a hut floor approximately 16 m to the north and east of the midden deposit. A single stratum of reddish brown (7.5YR3/4) silt sat atop the remains of the hut floor. Upon removal of the silt, it was revealed that the hut floor was badly decayed and washed. All that remained of the flooring were small chunks of daub and daub-stained soil. The overall dimensions of this structure were calculated from the arc and chord of the remains observed. The estimated original size of this structure is 15 m in circumference and 5 m in diameter. No carbon suitable for dating was present.

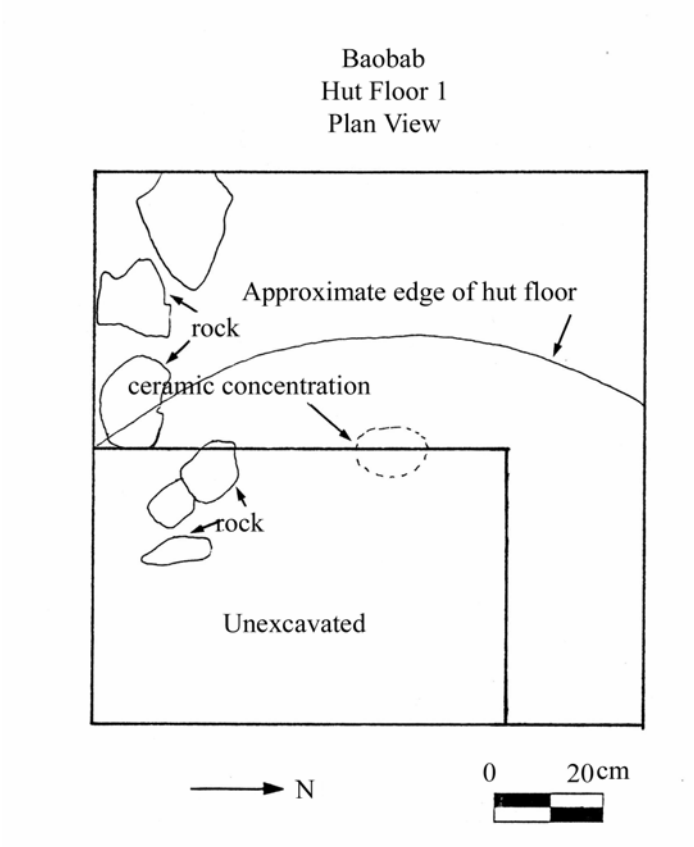


Figure 6.3. Baobab, Hut floor 1, Plan View

Hut Floor 2

A single 5 x 6 m block was excavated over Hut Floor 2, located in the far northwest portion of the site (see Figure 6.1). It was hoped that the location of this structure away from the drainage channel would have afforded it some protection from alluvial washing. Like Hut Floor 1, however, the remnant flooring in Hut Floor 2 was covered by a thin stratum of reddish brown (7.5YR3/4) silt which sat atop a very badly preserved, alluvially washed, floor. Some pieces of pole-impressed walling were recovered, but no carbon samples suitable for dating were present.

Material Culture

The following is a presentation of the artefacts recovered from all excavations at Baobab. With the exception of three ceramic vessels recovered from Hut Floor 1, all of the cultural material was derived from excavations in the southern midden. Data on the ceramics are presented first, followed by information on beads, metal and figurine fragments. Following the presentation of data, a preliminary chronological and functional interpretation of the site will be offered. A synthetic interpretation of this data in relation to that from other sites excavated will be offered in Chapters XI and XII.

Ceramics

A total of 2,028 ceramic sherds comprising 107 vessels were recovered from Baobab. Of these, 55 were decorated and therefore able to be analyzed according to the typological procedures outlined in Chapter IV. The results of the typological analysis of the vessels presented here will aid in answering the substantive research questions posed at the end of Chapter II that relate to the nature, duration, and geographical extent of various ceramic styles in the study area.

Owing to the unitary nature of the stratigraphy and the shallowness of the occupational deposit, the ceramic material was analysed as a single unit. Table 6.1 therefore presents the results of the analysis of the ceramic material from Baobab as a classification for the whole site. The vast majority of ceramics in the assemblage, based on the predominance of comb-stamping and bead-bangle impression, conform closely to the ceramics described in Chapter V for Schroda, indicating that the Baobab ceramic assemblage is part of the larger Zhizo ceramic style. Precisely how closely the Baobab assemblage corresponds to other sites in the region, however, will be discussed in Chapter XI. The reader is referred to Appendix A for drawings of vessels from Baobab. Appendix C contains detailed information on the ceramic assemblage, including the specific numbers and placements of design motifs in each design set.

Table 6.1. Baobab, Decorated Ceramics: Showing types from all contexts, by number and percentage.

Type	Decoration Placement	#	%
Limpopo Incised, Recurved Jars, Design Set I1, Horizontal Line	Lower Neck	2	3.57
	Shoulder	1	1.78
Limpopo Incised, Recurved Jars, Design Set I2, Diagonal Line	Rim	1	1.78
	Central Neck	4	7.14
	Central Neck to Lower Neck	1	1.78
	Lower Neck	4	7.14
Limpopo Incised, Recurved Jars, Design Set I5, Geometric, Upturned Arcade	Shoulder	1	1.78
Limpopo Incised, Recurved Jars, Design Set I9, Panelled	Central Neck to Lower Neck	2	3.57
Limpopo Incised, Recurved Jars, Design Set I10, Curvilinear Geometric	Central Neck to Lower Neck	1	1.78
Limpopo Comb-Stamped, Recurved Jars, Design Set CS1, Horizontal Line	Central Neck	12	21.42
	Lower Neck	3	5.36
	Shoulder	3	5.36
Limpopo Comb-Stamped, Recurved Jars, Design Set CS2, Diagonal Line	Central Neck	3	5.36
	Lower Neck	2	3.57
Limpopo Bead/Bangle-Impressed Wares, Recurved Jars, Design Set BB1, Horizontal Line	Shoulder	3	5.57
Limpopo Bead/Bangle-Impressed Wares, Recurved Jars, Design Set BB2, Diagonal Line	Central Neck	5	8.93
	Lower Neck	1	1.78
Limpopo Punctated Wares, Bag-Shaped Jars, Design Set P1, Horizontal Line	Rim	1	1.78
	Central Neck	1	1.78
Limpopo Stabbed Wares, Recurved Jars, Design Set ST1, Diagonal	Lower Neck	1	1.78
Limpopo Incised and Comb-Stamped, Recurved Jars, Design Set I/CS2, Zoned Diagonal	Central Neck	1	1.78
Limpopo Incised and Stabbed Wares, Recurved Jars, Design Set I/ST3, Zoned Diagonal	Shoulder	3	5.36

Vessel Form, Decoration, and Placement

A minimum total number of 107 ceramic vessels were identified from the excavations at Baobab. Vessels forms present included simple shallow bowls, incurvate bowls, spouted bowls, recurved jars, sack-shaped jars, and informal jars. A summary, by excavated level in the southern midden (1-3) and Hut Floor 1 (HF1), of the vessel forms present is shown in Table 6.2. These data indicate that the Baobab assemblage insofar as vessel form is concerned, is fairly homogenous, with a slight differential trend between levels.

The data on ceramic decoration technique and decoration placement, conversely, are problematic. Major fluctuations in percentage frequencies in both categories are present. These fluctuations are due, in large part, to the small sample size of decorated wares from the site as a whole (n=56). The relatively small sample size, considered alongside the main deposit in the southern midden's stratigraphic homogeneity, is considered here to be sufficient justification for placing the ceramic data from the site into a single unit for purposes of both intra- and inter-site analysis.

Table 6.2. Baobab, vessel forms present, by number and percentage, by level and by site area.

Level	Simple Shallow Bowls		Incurvate Bowls		Spouted Bowls		Recurved Jars		Sack-shaped Jars		Informal Jars		Site Total	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%
1	11	17	4	6	-	-	49	77	-	-	-	-	64	60
2	6	18	3	9	1	3	21	64	1	3	1	3	33	31
3	-	-	1	14	-	-	5	71	1	14	-	-	7	7
HF 1	-	-	-	-	-	-	3	100	-	-	-	-	3	2
Site Total	17	16	8	7	1	1	78	73	2	2	1	1	107	100

Table 6.3. Baobab, ceramic decoration technique, by occurrence and percentage, by level in midden and by site area.

Level	Incised		Comb-Stamped		Bead/ Bangle-Impressed		Incised and Comb-Stamped		Incised and Stabbed		Punctate		Stabbed		Site Total	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
1	14	40	11	33	7	21	-	-	1	3	-	-	1	3	34	60
2	3	-	8	50	2	13	-	-	2	13	1	6	-	-	16	29
3	-	-	3	75	-	-	-	-	-	-	1	25	-	-	4	7
HF1	-	-	1	50	-	-	1	50	-	-	-	-	-	-	2	4
Site Total	17	30	23	41	9	16	1	2	3	5	2	4	1	2	56	100

Table 6.4. Baobab, ceramic decoration placement, by occurrence and percentage, by level in midden and by site area.

Level	Rim		Central Neck		Lower Neck		Shoulder		Central Neck to Lower Neck		Site Total	
	#	%	#	%	#	%	#	%	#	%	#	%
1	1	3	16	49	10	27	5	15	2	6	34	60
2	1	6	6	4	2	13	5	31	2	13	16	29
3	-	-	2	50	1	25	1	25	-	-	4	7
HF 1	-	-	2	100	-	-	-	-	-	-	2	4
Site Total	2	4	26	46	13	23	11	20	4	7	56	100

Ceramics: Presence of Exotic Styles

An important aspect of the Baobab ceramic assemblage is the relatively high percentage of vessels which were executed in styles other than Zhizo. A total of five vessels (or 9%) within the decorated assemblage are similar to contemporary Leopard's Kopje A wares from the nearby site K2 (turn of the 11th century AD) and to those documented at the Klingbeil site 2530 AB 2 in the Mpumalanga province near Lydenburg (ca. AD 900 to 1100) (Evers 1980) and from the site Beauley located at the southern foot of the Blouberg mountain range (ca. AD 900 to 1010) (Van Schalkwyk 1998). The Klingbeil sites are located approximately 300 km to the south of the area of the Shashi-Limpopo confluence, while the Beauley site is located 125 km to the southwest. Table 6.5 shows the provenience and pertinent typological features of each of these vessels. These vessels are shown in Plates 6.3. Klingbeil ceramics, it will be recalled from the discussion in Chapter II, are part of the larger Kutama Tradition, which includes Leopard's Kopje wares, and are thought by Huffman (1978, 1984) to be the precursor to Leopard's Kopje A wares. The ceramics from the site Beauley, however, are less well-known and not much can be said about their place in the larger regional ceramic sequence. Based on the drawings provided by Van Schalkwyk (1998:39), it is difficult to place them into the regional sequence.

The two examples of panelled ware (Plate 6.3), could be placed into Class 2 of Beauley ceramics (cf. Van Schalkwyk 1988:39, Fig. 5.2); these vessels could, however, equally as well be placed into Class 4 ceramics from the Klingbeil site 2530 AB 2 (cf. Evers 1980:54, Fig. 6.8). The example of horizontal line ware (Plate 6.3), on the other hand, is clearly executed in the Klingbeil style (cf. Evers 1980:Figs. 4.3, 4.11, 4.12). This sherd has most in common with Class 3 ceramics from 2530 AB 1 (Ibid:Figs. 5.4 to 5.6 and Figs. 6.1 to 6.7). The remaining two vessels not executed in the Zhizo style have clear correlates with material from secure Leopard's Kopje A (i.e., K2) contexts from the site K2 (Meyer 1980) and, as will be seen in later Chapters, from other excavated contexts in the region. The significance of the presence of these sherds executed in exotic styles in such a relatively high frequency at Baobab will be discussed in the final section of this chapter and in greater detail in Chapter XI.

Beads

A total of eleven beads were recovered from the site; all were recovered from the southern midden. Two were fashioned from ostrich eggshell; one of these was fragmentary. The remaining nine were fashioned from *Achatina sp.* (giant land snail) shell. The size class and vertical distribution of the ostrich eggshell beads is shown in Table 6.5, while equivalent data for the Achatina beads are shown in Table 6.6. Size class refers to the measured diameter of

the beads on an ordinal scale; beads included in Size Class 1 measure between 0 and 0.99 mm

Table 6.5. Baobab: Provenience, vessel form, design set, design motif, decoration placement, and number of exotic vessels from site.

Site Area	Unit	Level	Vessel Form	Design Set	Design Motif	Decoration Placement	Number	Probable Stylistic Affiliation
Midden	7	2	Recurved Jar	I9: Panelled Horizontal Lines	2.59	Central Neck to Lower Neck	1	Blouberg or Klingbeil
Midden	3	1	Recurved Jar	I9: Panelled Horizontal Lines	2.59	Central Neck to Lower Neck	1	Blouberg or Klingbeil
Midden	5	1	Recurved Jar	I2: Horizontal Line	2.60	Central Neck to Lower Neck	1	Klingbeil
Midden	4	2	Recurved Jar	I10: Zoned Curvilinear	2.61	Central Neck to Lower Neck	1	Leopard's Kopje A
Midden	6	1	Recurved Jar	I5: Upturned Arcade	2.38	Shoulder	1	Leopard's Kopje A

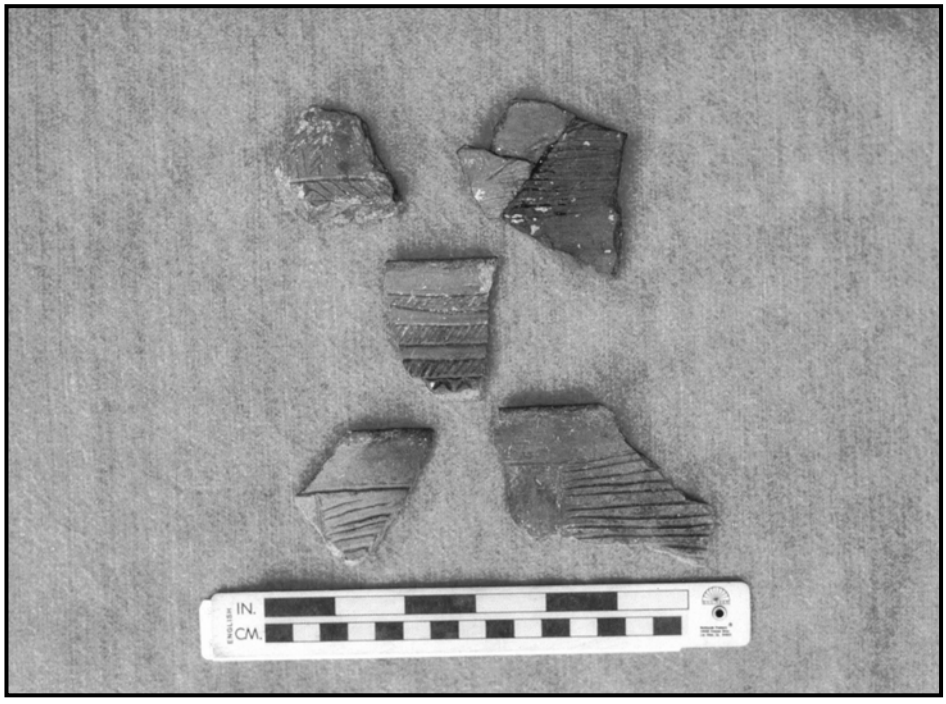


Plate 6.3. Baobab, exotic vessels. Upper row: Leopard's Kopje A; Center: Klingbeil; Bottom row: Beauley/Panelled Ware.

in diameter, while those in Size Class 2 measure between 1.00 and 1.99 mm in diameter, and so on.. All of the beads recovered were finished, and no evidence of bead manufacturing (blanks, grinding stones, etc.) was recovered.

Table 6.6. Size Classes of Ostrich Eggshell Beads at Baobab, by level and by number.

Level	Class 7	Class 9
1	1	
2	-	1

Table 6.7. Size Classes of *Achatina* Beads at Baobab, by level and by number.

Level	Class 5	Class 6	Class 7	Class 8
1	1	-	2	2
2	-	1	1	-
3	-	-	1	1

Metal

A single piece of worked metal, unidentifiable as to its type or function, was recovered. This artefact was a small corroded piece of iron, weighing 2.43 g. It was recovered from the southern midden area from Level 3 in Test Unit 7. In addition, a single piece of slag, weighing 1.61g, was also recovered from the southern midden; the slag was found in Level 1 in Test Unit 1. No ore, *tuyères*, or any other artefacts relating to metallurgy were recovered. It is thus inferred that if metallurgy did take place at the site, such activities were limited to the very infrequent smithing, as opposed to smelting, of metals.

Figurine Fragments

Two figurine fragments were recovered from the deposit in the southern midden. Both of these fragments were found in Level 2 of Test Unit 1. The first (Plate 6.4) represents a stylized human female, with pronounced breasts and cicatrisation marks on the abdomen. The second fragment appears to be an appendage, either an arm or a leg, to a second human figurine.

Chapter Summary

I interpret the site Baobab as representing the remains of a small settlement that was occupied between AD 1000 and AD 1030, sometime very near the end of the occupation at Schroda and the beginning of the occupation at K2. Despite the lack of good vertical preservation within much of the deposit, surface archaeological visibility indicates that the site was arranged in accordance with the Central Cattle Pattern (*sensu* Huffman 1982), with an outer arc of structures partially enclosing an animal byre. The structures enclosing the probable area of the byre, based on the pattern of the remains, likely consisted of huts and



Plate 6.4. Baobab, stylised human female figurine; from Southern Hilltop Midden.

grain storage bins. Archaeological preservation appears to be best on the southern edge of the site, directly adjacent to the escarpment overlooking the valley floor.

The Baobab ceramic assemblage indicates that Baobab's inhabitants primarily used ceramics executed in the Zhizo ceramic style. Interestingly, however, approximately nine percent of the decorated assemblage consisted of foreign styles, indicating a degree of interregional interaction during the period of the site's occupation. This interaction apparently occurred with users of the Leopard's Kopje and Klingbeil and/or Blouberg ceramic styles. The issue of stylistic interaction will be presented more fully in Chapter XI.

The artefact assemblage indicates that the residents of Baobab had little access to metal, and little access to items of personal adornment in the form of ostrich eggshell and *Achatina* beads. Unlike Schroda, there is no evidence that metal production took place. Similarly, the presence of only two figurine fragments from the assemblage would indicate that, at least as compared to Schroda, Baobab was not a religious and/or initiation centre. As was discussed in Chapter IV, the artefact assemblage recovered from Baobab will be compared with those from other sites discussed in this thesis in order to determine the site's relative socio-political status. I will present this larger comparative discussion in Chapter XII.

CHAPTER VII
EXCAVATIONS AT CASTLE ROCK

The site Castle Rock (S 22.12.23, E 29.15.43) contains the remains of a settlement located on the eastern edge of a kopje on the farm Den Staat 27MS (Figure 7.1). The kopje runs approximately 250 m east to west and 150 m north to south. The site was originally surface inspected and recorded by Huffman and Hanisch in the early 1980s (unpublished survey data on file, Department of Archaeology, University of the Witwatersrand). The name Castle Rock derives from an unfinished modern stone structure in the shape of a cylindrical tower that sits on the southern edge of the kopje (Plate 7.1), and which is built partially into its sheer southern face. Construction activities relating to this tower, including the borrowing of material from the prehistoric animal byre, or kraal, for fill, road construction, and grading, have negatively impacted much of the formerly extant archaeological deposit. The former horizontal extent of the site is no longer discernible on the surface, owing to the construction disturbance just noted. However, based on the probable size of the kraal (a minimum diameter of between 15 and 20 m), as determined by examination of the borrow pit, the settlement was in all likelihood fairly large. I was not able to infer the former internal organization of the settlement as no prehistoric structural remains (e.g. huts or grain bins) were encountered either on the surface or during excavation.

The kopje itself is an isolated geological feature, rising above the current floodplain of the Limpopo River, located 1.5 km to the north. The Kolope River, however, is located 400 m to the west. The top of the kopje provides a clear view in all directions. The kopje is steeply inclined on its southern and western exposures, but is relatively easily ascended on its northern exposure, thereby making defence seem an unlikely primary reason for choice of site location. Based on its location in the middle of a floodplain, and the relatively easy ascent to the summit, I hypothesize that the site was located on this hilltop for easy access to fertile agricultural land, while also keeping above and out of the floodplain. The choice of site location may also have been influenced by the status needs or aspirations of the site's residents, as may be implied by its hilltop location.

The floodplain to the south and east of the kopje has been converted in the recent past into a fish farm accessible over a system of causeways, while the land to the north consists of agricultural fields used primarily for potato cultivation. An historic period (ca. AD 1900 to 1950) one room stone house is located on the northern edge of the kopje, approximately 75 m northwest of the site.

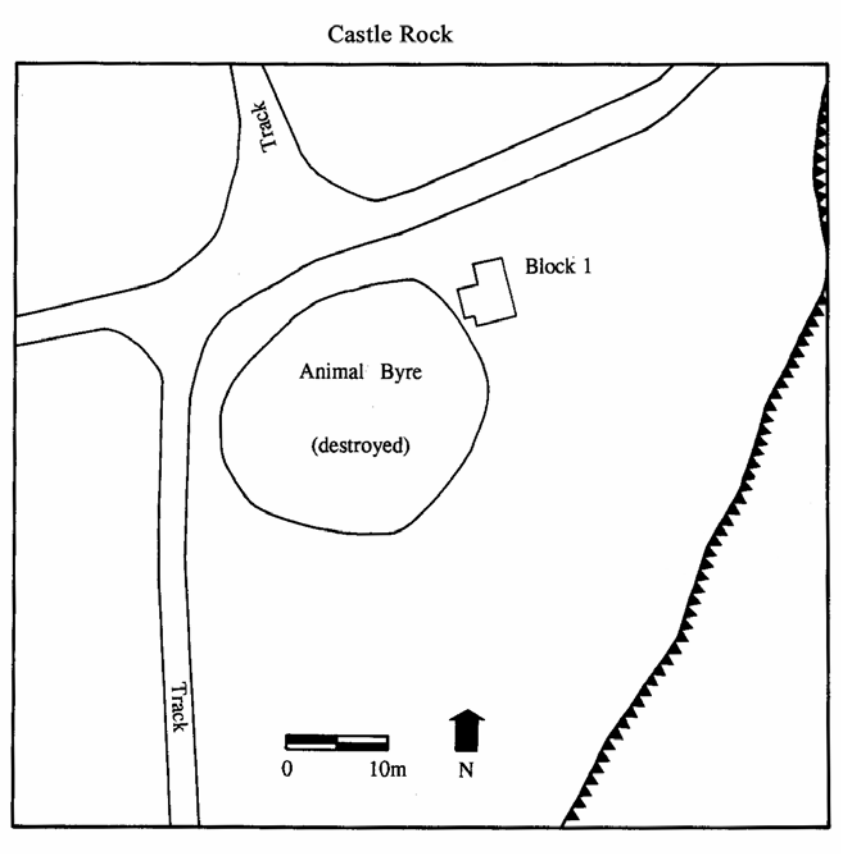


Figure 7.1. Map of Castle Rock, showing location of surface features and excavation block.



Plate 7.1. Castle Rock, showing excavations in upper level of Block 1. Incomplete tower in background. Aspect: S/SE.

The Excavations

Surface inspection of the site revealed that the soil located just to the north and east of the borrow pit appeared to retain maximum integrity in relation to the surrounding soil. This relatively small (ca. 50m^2) area consisted of a grey ash typically indicative of midden deposition. I thus placed excavations at Castle Rock in the remaining relatively undisturbed midden area (see Figure 7.1). The midden area was excavated to gather stratigraphic data, a representative sample of cultural material, and samples for radiocarbon dating. Excavations at Castle Rock were undertaken in June and July of 1999. I present the stratigraphic and chronological information here, and follow with a detailed summary of the cultural remains recovered from the site as a whole.

Southern Midden Area

Stratigraphy and Dating

A total of 30m^3, encompassing one 6 x 5 m block, divided into thirty 1 x 1 m test units, was planned for excavation in the eastern midden area (Figure 7.2). Each test unit was assigned a numeric designation (Test Units 1 to 30). Of these 30 planned units, the four square metre northwest corner, comprising Test Units 1, 2, 6, and 7, was not excavated past the upper 10 cm. I discovered that the archaeological deposit in these test units had been thoroughly disturbed by a combination of modern construction activities and rodent burrowing, rendering any data retrieved from them of minimal analytic value. Test Unit 26, conversely, was not excavated due to time constraints. It is likely that another ten to twenty further square metres of intact deposit remains at the site, directly next to the southern and eastern edges of the excavation block shown in Figures 7.1 and 7.2.

The soil profile in this deposit was straightforward (Figures 7.3 and 7.4; Plate 7.2). Stratum I consisted of a single, homogenous layer of dark greyish brown (10YR4/2) fine silt (Stratum I) which extended from the surface to a depth of between 5 and 18 cm below ground surface. Stratum I was disturbed by a combination of construction activities, animal trampling, and rodent activity. The deposit in Stratum I also appears deflated. The base of Stratum I was marked by a very noticeable change in texture and composition, with the next stratum (Stratum II) marked by a more solid, compact matrix. Numerous large pottery fragments were found laying flat on the interface of Strata I and II (Plate 7.3), indicating that Stratum II held a high probability of retaining archaeological integrity.

Stratum II consisted of midden material undisturbed by modern activities and comprised a greyish brown (10YR5/2) very fine silt that extended from the base of Stratum I to a maximum depth of 55 cmbs. Disturbance in Stratum II was confined to occasional grass root action and several large animal burrows, probably made by springhares. These burrows

TU 1	TU 2	TU 3	TU 4	TU 5
TU 6	TU 7	TU 8	TU 9	TU 10
TU 11	TU 12	TU 13	TU 14	TU 15
TU 16	TU 17	TU 18	TU 19	TU 20
TU 21	TU 22	TU 23	TU 24	TU 25
TU 26	TU 27	TU 28	TU 29	TU 30

Figure 7.2. Plan of excavation Block 1. Shaded areas not excavated.



Plate 7.2. Castle Rock, Block 1, south wall profile.

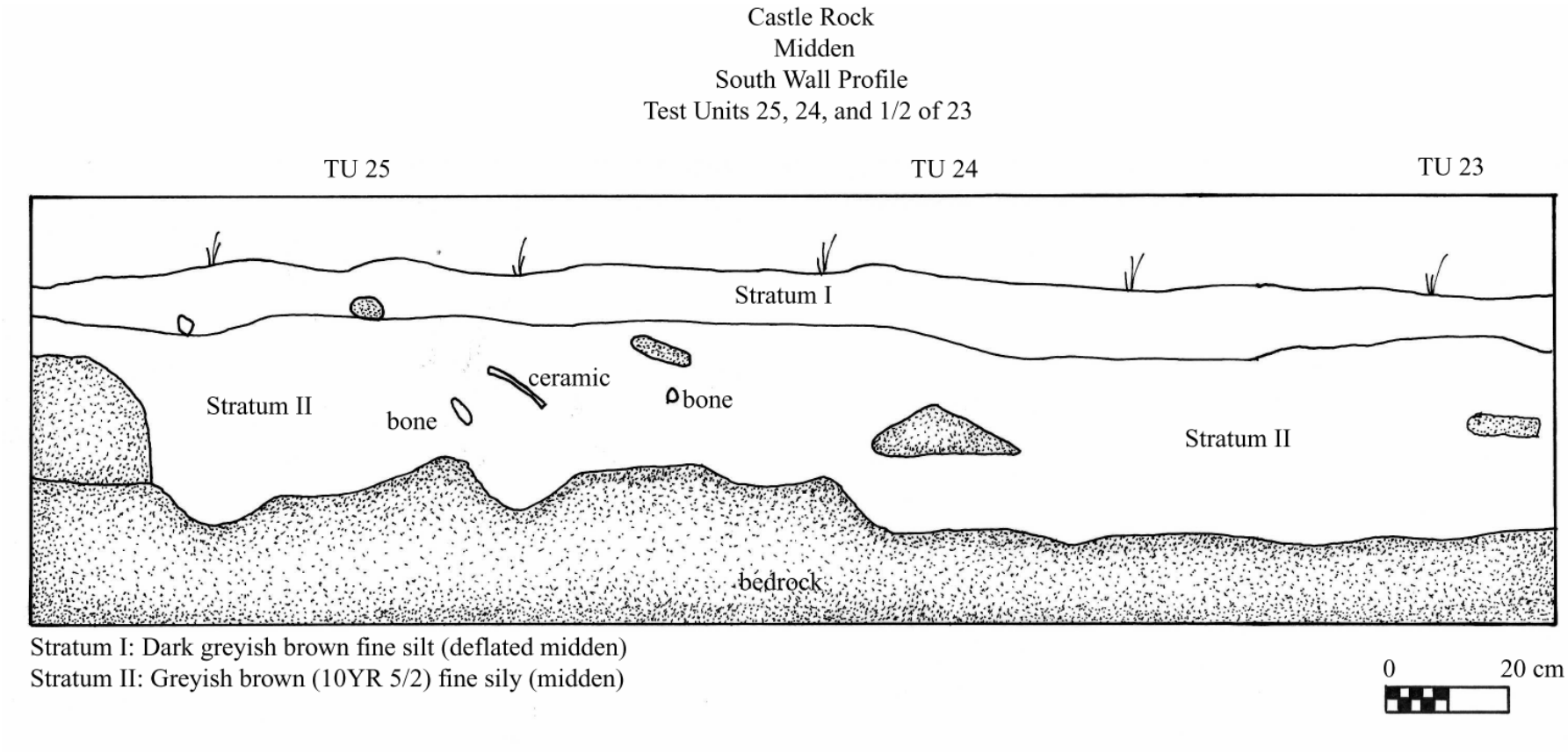


Figure 7.3. Castle Rock, Block 1, south wall profile.

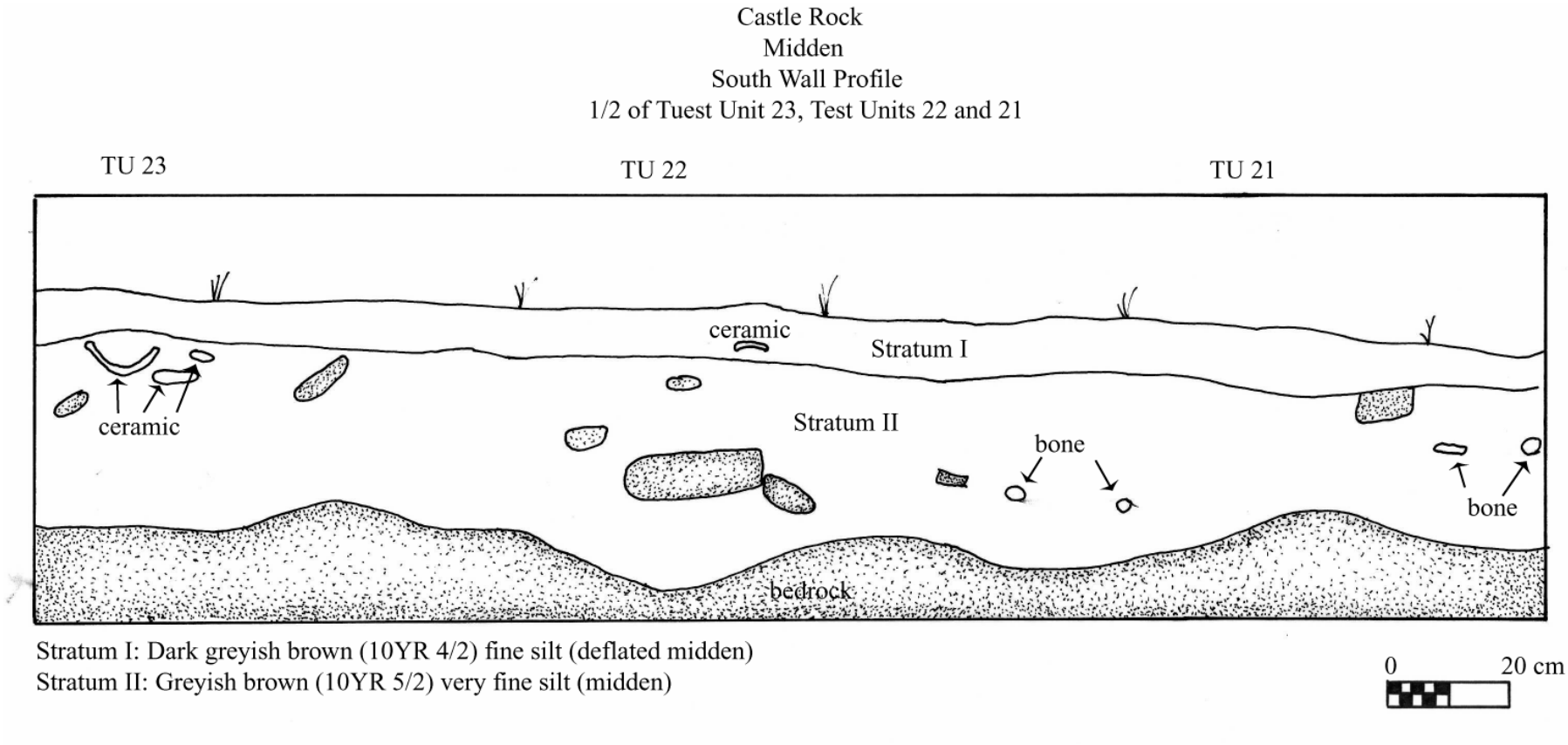


Figure 7.4. Castle Rock, Block 1, south wall profile, continued.

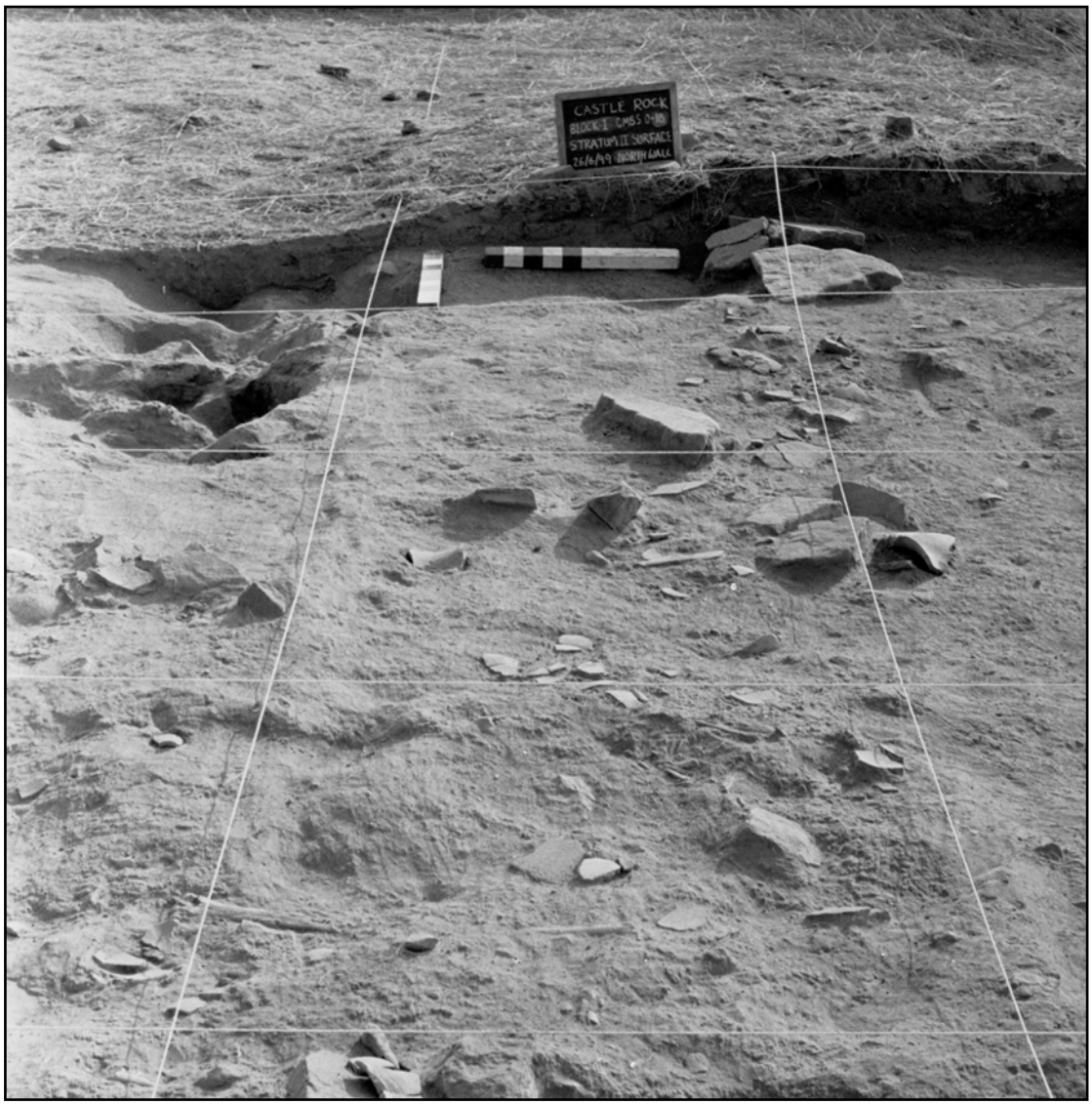


Plate 7.3. Castle Rock, showing excavation to interface of Strata I and II. Note sherds lying flat. Aspect: N/NE.

were clearly demarcated from the original midden deposit, due to their heavy organic content and decaying nesting material. All burrows were excavated separately and the sparse cultural material recovered from them was removed from analytic consideration. A total of 9.25 m^3 of deposit was excavated in the midden.

Organic preservation in the midden was poor, and a single carbon sample was recovered from an intact context which was large enough for standard radiocarbon analysis. This sample (Pta-7969), recovered from the base of Feature 1 in Test Unit 25 at a depth of 34 cmbs, produced a before present (bp) date of 965 ±20, which in turn provided a 1-sigma range of AD 1040 to AD 1160. This date range places the deposition of the midden at Castle Rock as contemporary with the occupation at K2 and sometime near or after the end of the occupation at Schroda.

Another sample from the site (Pta-7966) produced a bp date of 830 ± 45, which in turn generated a 1-sigma range of AD 1225 to 1280. The material that this date derived from consisted of scattered charcoal flecks collected over a fairly large area (ca. 20 cm^3) in the upper portion of the midden area in Test Unit 3 at the interface of Strata I and II. This sample was collected due to the paucity of dateable material found in the midden as a whole. If this sample is accepted as dating the deposition of material in the upper portion of the midden, then Stratum I would date to the height of the Mapungubwe Period.

Feature 1

I located a single feature in Test Unit 25. This feature extended between 30 and 37 cmbs and consisted of a very dark grey fine ash (10YR3/1), mottled with a relatively high percentage of charcoal (ca. 15%) and small fragments of calcined bone. The feature was oval in plan view and measured 42 cm across at its widest extent. The feature was clearly demarcated from the over- and underlying midden, and in profile was roughly saucer-shaped. A seven-centimetre long fragment of carbonized wood was found near the base of the feature, underneath a stone. This fragment of carbonized wood was later designated as radiocarbon sample Pta-7969.

Based upon the fact that the feature was fairly shallow and, apart from the fragments of calcined bone present, was devoid of cultural material, it is thought here to represent the remains of a single dumping episode within the larger midden. It is likely that the material dumped was generated from the cleaning out of an exhausted fire from a nearby hut or other activity area.

Stratum I: Inclusion, Exclusion, Archaeological Integrity, and Dating

As I discussed above, the upper stratum of archaeological deposit at Castle Rock has been negatively impacted by a combination of construction disturbance and natural forces, most notably the borrowing of the kraal deposit and aeolian-induced deflation. Field observations indicated that the area of deposit chosen for excavation was decidedly intact upon reaching the interface of Strata I and II, with the exception of the occasional rodent burrow. The integrity of Stratum I, and the appropriateness of including or excluding material from it for analysis, however, is unclear. The only way to assess the extent of the damage to the informational value of this stratum brought about by disturbance is to compare the material from it with that from Stratum II. The continuity or discontinuity revealed by analysis will reveal the extent to which both mechanical and natural forces have acted on the deposit in Stratum I, and to the site as a whole.

The material from Stratum I will also be included in the analysis because its fit or lack of fit with underlying material will prove useful in determining if the younger,

Mapungubwe era, date generated from the Pta-7966 sample was accurate. If the pottery and other cultural material recovered in Stratum I is reflective of a Zhizo or K2 assemblage, rather than of a Mapungubwe assemblage, it is likely that Pta-7966 does not accurately date the deposition of archaeological material in Stratum I. Conversely, if the material in Stratum I signals an abrupt shift in material culture indicative of the Mapungubwe era, then it is likely that Pta-7966 accurately dates the assemblage in Stratum I.

Material Culture

The following is a presentation of the artefacts recovered from excavation of the midden at Castle Rock. I present data on the ceramics first, followed by information on miniature ceramic vessels and implements, ceramic figurines, metal, groundstone, and beads. Following the presentation of data, I will offer a preliminary chronological and functional interpretation of the site. I will offer a synthetic interpretation of this data in relation to that from other sites excavated in Chapters XI and XII.

Ceramics

A total of 12,286 ceramic sherds were recovered from Castle Rock; these were found upon analysis to comprise a total of 586 formal ceramic vessels. Of these, 207 (35%) were decorated and therefore able to be analyzed according to the typological procedures outlined in Chapter IV. Table 7.1 presents the results of the analysis of the ceramic material from Castle Rock as a classification for the whole site. The results of the typological analysis of the vessels presented here will aid in answering the substantive research questions posed at the end of Chapter II that relate to the nature, duration, and geographical extent of various ceramic styles in the study area.

The similarity or lack of fit of the Castle Rock ceramic assemblage with assemblages from other sites in the region will be discussed in Chapter XI. The reader is referred to

Table 7.1. Castle Rock, decorated ceramic types, from all contexts, by number and percentage.

Type	Decoration Placement	#	%
Limpopo Incised, Recurved Jars, Design Set I1: Horizontal Line	Central Neck	14	6.76
	Lower Neck	12	5.79
	Shoulder	1	0.48
Limpopo Incised, Recurved Jars, Design Set I2: Diagonal Line	Rim	1	0.48
	Rim to Central Neck	1	0.48
	Central Neck	42	20.28
	Central Neck to Lower Neck	2	0.96
	Lower Neck	23	11.11
	Shoulder	1	0.48
Limpopo Incised, Recurved Jars, Design			

Type	Decoration Placement	#	%
Set I3: Crosshatched	Central Neck	1	0.48
	Lower Neck	3	1.45
	Shoulder	3	1.45
Limpopo Incised, Recurved Jars, Design Set I5: Geometric, Upturned Arcade	Central Neck	1	0.48
	Lower Neck	1	0.48
Limpopo Incised, Recurved Jars, Design Set I6: Geometric, Upturned Triangle	Central Neck to Lower Neck	2	0.96
	Lower Neck	1	0.48
	Shoulder	1	0.48
Limpopo Incised, Recurved Jars, Design Set I10: Curvilinear Geometric	Rim to Central Neck	1	0.48
	Lower Neck	1	0.48
	Lower Neck to Shoulder	1	0.48
Limpopo Incised, Recurved Jars, Design Set I11: Geometric, Downturned Triangle	Lower Neck to Shoulder	1	0.48
	Shoulder	1	0.48
Limpopo Incised, Recurved Jars, Design Set I12: Geometric, Downturned Arcade	Shoulder	1	0.48
Limpopo Incised, Recurved Jars, Design Set I13: Geometric, Bisected Oval	Lower Neck	1	0.48
Limpopo Incised, Short-Necked Jars, Design Set I2: Diagonal Line	Central Neck	3	1.45
Limpopo Incised, Simple Shallow Bowls, Design Set I2: Diagonal Line	Body	1	0.48
Limpopo Incised, Incurvate Bowls, Design Set I2: Diagonal Line	Lip	1	0.48
	Rim	2	0.96
Limpopo Incised, Incurvate Bowls, Design Set I16: Zoomorphic Avian	Rim	1	0.48
Limpopo Incised, Very Shallow Bowls, Design Set I11: Geometric, Downturned Triangle	Rim to Body	1	0.48
Limpopo Comb-Stamped, Recurved Jars, Design Set CS1: Horizontal Line	Rim to Central Neck	1	0.48
	Central Neck	7	3.38
	Lower Neck	4	1.98
	Lower Neck to Shoulder	1	0.48
	Shoulder	3	1.45
Limpopo Comb-Stamped, Recurved Jars, Design Set CS2: Diagonal Line	Rim to Central Neck	1	0.48
	Central Neck	5	2.41
	Lower Neck	5	2.41
	Shoulder	1	0.48
Limpopo Comb-Stamped, Recurved Jars, Design Set CS3: Upturned Triangle	Shoulder	1	0.48
Limpopo Bead/Bangle-Impressed Wares, Recurved Jars, Design Set BB1, Horizontal Line	Lower Neck	2	0.96
Limpopo Bead/Bangle-Impressed Wares, Recurved Jars, Design Set BB2: Diagonal Line	Central Neck	5	2.41
	Lower Neck	1	0.48
	Shoulder	2	0.96
Limpopo Punctated, Recurved Jars, Design Set P1: Horizontal Line, Round	Rim	1	0.48
	Central Neck	4	1.93

Type	Decoration Placement	#	%
	Shoulder	4	1.93
Limpopo Punctated, Recurved Jars, Design Set P3: Geometric, Upturned Arcade, Round	Central Neck	1	0.48
Limpopo Punctated, Recurved Jars, Design Set P4: Geometric, Upturned Triangle, Round	Rim to Central Neck	2	0.96
	Central Neck to Lower Neck	3	1.45
Limpopo Punctated, Bag-Shaped Jars, Design Set P1: Horizontal Line	Central Neck	2	0.96
Limpopo Punctated, Incurvate Bowls, Design Set P2: Random Round	Body	3	1.45
Limpopo Fingernail-Impressed, Recurved Jars, Design Set FI: Horizontal Line	Shoulder	2	0.96
Limpopo Incised and Comb-Stamped, Recurved Jars, Design Set I/CS2: Zoned Diagonal	Lower Neck	1	0.48
Limpopo Incised and Bead/Bangle-Impressed, Recurved Jars, Design Set I/BB1: Zoned Diagonal	Central Neck	1	0.48
Limpopo Incised and Punctated, Recurved Jars, Design Set IP3: Geometric Upturned Zoned Arcades	Central Neck to Lower Neck	1	0.48
	Shoulder	1	0.48
Limpopo Incised and Punctated, Recurved Jars, Design Set IP4: Zoned Crosshatching	Central Neck	1	0.48
Limpopo Incised and Punctated, Recurved Jars, Design Set IP5: Zoned Horizontal Lines	Lower Neck	1	0.48
Limpopo Applied and Comb-Stamped, Incurvate Bowls, Design Set A/CS2: Raised Horizontal Line	Rim	1	0.48
Limpopo Applied, Recurved Jars, Design Set A1: Plain Raised	Shoulder	1	0.48
Limpopo Applied and Bead/Bangle-Impressed, Incurvate Bowls, Design Set A/BB1: Raised Horizontal	Rim	2	0.96
Limpopo Comb-Stamped and Fingernail-Impressed, Recurved Jars, Design Set CS/F1: Diagonal	Lower Neck to Shoulder	1	0.48
Limpopo Incised and Fingernail-Impressed, Recurved Jars, Design Set I/F1: Zoned Diagonal	Central Neck	1	0.48
Limpopo Polychrome, Simple Shallow Bowls, Design Set PC2: Brown and Black Smoke-Clouded	Rim to Body	3	1.45
Limpopo Polychrome, Simple Deep Bowls, Design Set PC1: Red and Black Smoke-Clouded	Rim to Body	1	0.48
Limpopo Polychrome, Simple Deep Bowls, Design Set PC2: Brown and Black Smoke-Clouded	Rim to Body	1	0.48
Limpopo Polychrome, Very Shallow Bowls, Design Set PC1: Red and Black Smoke-Clouded	Rim to Body	1	0.48

Type	Decoration Placement	#	%
Limpopo Polychrome, Very Shallow Bowls, Design Set PC2: Brown and Black Smoke-Clouded	Rim to Body	1	0.48
Limpopo Polychrome, Plates, Design Set PC1: Red and Black Smoke-Clouded	Rim to Body	1	0.48

Appendix A for ceramic drawings and to Appendix D for more detailed information on the ceramic assemblage, including the specific numbers and placements of design motifs in each design set.

Vessel Form, Decoration, and Placement

The 586 ceramic vessel forms identified from the excavations at Castle Rock included simple shallow bowls, very shallow bowls, plates, simple deep bowls, incurvate bowls, spouted bowls, recurved jars, short-necked jars, sack-shaped jars, beakers, and beaker bowls. A summary, by excavated level in the midden of the vessel forms present, is shown in Table 7.2. The most common vessel form present in the assemblage is the recurved jar (n=265 or 45%), and was followed in frequency by incurvate bowls (n=133 or 23%), and simple shallow bowls (n=106 or 18%); the remaining vessel forms all accounted for 4% or less of the overall assemblage.

The majority of vessel form frequencies were fairly uniform from the bottom to the top of the deposit, with a few exceptions. The frequency of recurved jars was seen to slightly decrease over the length of occupation. These vessels accounted for 50% of the forms in Level 4, 45% in Level 3, 48% in Level 2, and 42% in Level 1. Incurvate bowls account for 19% of the assemblage in Level 4, 23% in Level 3, 20% in Level 2, and 26% in Level 1. Finally, I should note that spouted bowls (n=14), beakers (n=1) and beaker bowls (n=1), all make their appearance in and above Level 2. These vessels are typically associated with Leopard's Kopje assemblages. Overall, however, the pattern noted for vessel forms at Castle Rock is one of slight increase or decrease of individual vessel form frequency over the duration of the site's use. These data indicate that the Castle Rock assemblage, insofar as vessel form is concerned, is relatively stable, with only slight differential trend between levels, and with no distinct break between Stratum I (Level I) and Stratum II (Levels 2, 3, and 4). The vertical frequency of the major vessel forms at Castle Rock is shown in Figure 7.5.

The number and frequency of the various decoration techniques employed within the ceramic assemblage is shown in Table 7.3. Decoration techniques present in the Castle Rock assemblage, occurring either alone or in combination, include incision, comb-stamping, punctation, bead/bangle impression, fingernail impression, appliqué, and polychrome coloration. The type of polychrome decoration present within the assemblage was not

Table 7.2. Castle Rock: number and frequency of ceramic vessel forms present in midden deposit, by level and by site.

Level	Simple Shallow Bowls		Very Shallow Bowls		Plates		Simple Deep Bowls		Incurvate Bowls		Spouted Bowls		Recurved Jars		Short-Necked Jars		Sack-Shaped Jars		Beakers		Beaker Bowls		Site Total	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
1	35	14	6	2	9	4	5	2	63	26	8	3	103	42	2	1	11	5	1	<1	-	-	**243**	**41**
2	40	20	5	2	2	1	3	1	40	20	6	3	98	48	1	<1	9	4	-	-	1	<1	**205**	**35**
3	22	23	-	-	5	5	1	1	22	23	-	-	43	45	-	-	3	3	-	-	-	-	**96**	**16.50**
4	9	21	1	2	1	2	1	2	8	19	-	-	21	50	-	-	1	2	-	-	-	-	**42**	**7**
Total	**106**	**18**	**12**	**2**	**17**	**3**	**10**	**2**	**133**	**23**	**14**	**2**	**265**	**45**	**3**	**<1**	**24**	**4**	**1**	**<1**	**1**	**<1**	**586**	**100**

Table 7.3. Castle Rock: number and frequency of ceramic decoration techniques present in midden deposit, by level and by site.

Level	Incised		Comb-Stamped		Bead/ Bangle-Impress.		Punctate		Fngrnl. Impress.		Incised and Comb-Stamped		Incised and Bead/ Bangle-Impress.		Incised and Punc.		Applied and Comb-Stamped		Applied		Applied and Bead/ Bangle-Impress.		Comb-Stamped and Fingrnl. Impress.		Incised and Fngrnl. Impress.		Poly-chrome		Site Total	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
1	52	65	7	9	5	6	7	9	-	-	1	1	1	1	1	1	-	-	1	1	1	1	-	-	1	1	3	4	**80**	**39**
2	46	63	8	11	3	4	7	10	2	3	-	-	-	-	3	4	1	1	-	-	1	1	1	1	-	-	1	1	**73**	**35**
3	17	52	9	27	2	6	3	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	6	**33**	**16**
4	11	52	5	24	-	-	3	14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	10	**21**	**10**
Total	**126**	**61**	**29**	**14**	**10**	**5**	**20**	**10**	**2**	**1**	**1**	**<1**	**1**	**<1**	**4**	**2**	**1**	**<1**	**1**	**<1**	**2**	**1**	**1**	**<1**	**1**	**<1**	**8**	**4**	**207**	**100**

Table. 7.4. Castle Rock: number and frequency of ceramic decoration placements present in midden deposit, by level and by site.

Level	Lip		Rim		Rim to Central Neck		Rim and Body		Central Neck		Central Neck to Lower Neck		Lower Neck		Lower Neck to Shoulder		Shoulder		Body		Site Total	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
1	-	-	2	3	4	5	2	3	31	39	2	3	27	34	-	-	8	10	4	5	80	39
2	-	-	1	1	1	1	2	3	31	42	4	5	17	23	3	4	11	15	3	4	73	35
3	-	-	1	3	-	-	-	-	15	45	2	6	7	21	1	3	4	12	3	9	33	16
4	1	2	1	5	1	5	-	-	11	52	-	-	5	24	-	-	-	-	2	10	21	10
Total	**1**	**<1**	**5**	**2**	**6**	**3**	**4**	**2**	**88**	**43**	**8**	**4**	**56**	**27**	**4**	**2**	**23**	**11**	**12**	**6**	**207**	**100**

executed with painted or mineral pigmentation (i.e., ochre and/or graphite) as was common with Zhizo assemblages in Zimbabwe and in later Khami and Moloko assemblages (cf. Robinson 1959; Huffman 1974; Hanisch 1979); rather, it was achieved through partial reduction of the ceramic vessel in an oxygen-reduced firing environment. This partial reduction produced dark grey to black smoke-clouding on one portion of the vessel and a red or brown earthenware colour on the other.

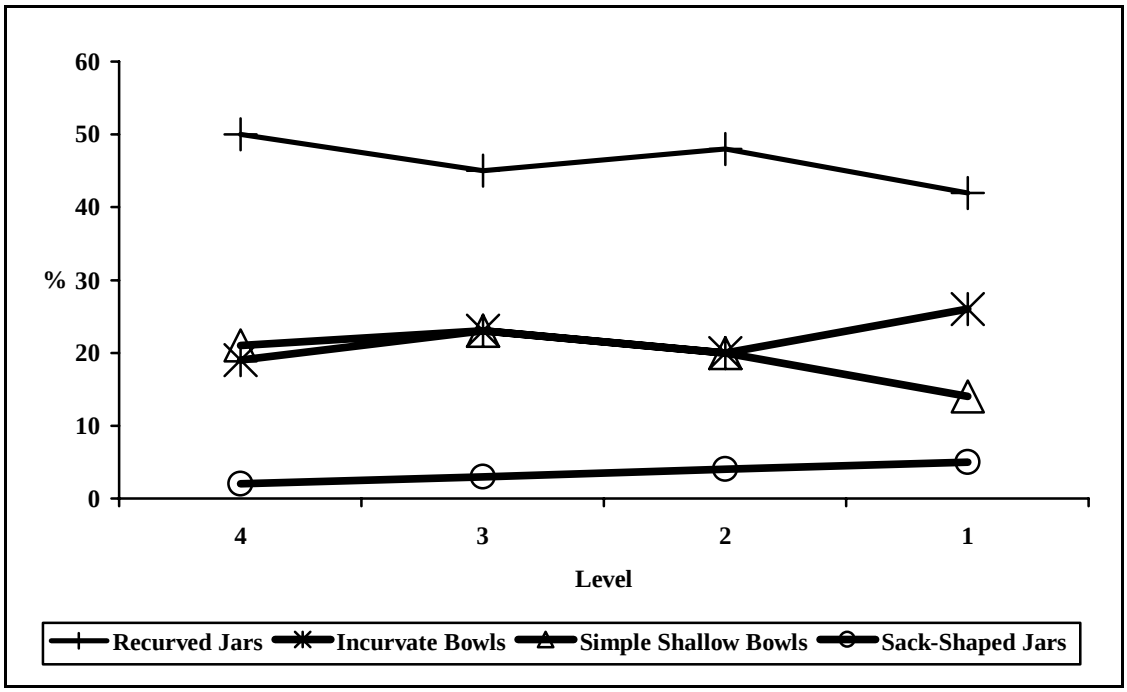


Figure 7.5. Castle Rock, major vessel forms, percentage, by level.

Incision, comb-stamping, punctation, and bead/bangle impression are the four most commonly employed techniques within the Castle Rock assemblage, and account for 90% of the decoration techniques present. An examination of the data on the frequency by level of each of the major techniques reveals that no significant break occurs between Levels 1 and 2. However, a shift in the relative frequencies of both incision and comb-stamping is noted between Levels 2 and 3. Incision is seen to increase from 52% in both Levels 3 and 4, to 63% in Level 2 and 65% in Level 1. A concomitant decrease in comb-stamping is apparent, with a drop from 27% of the assemblage in Level 3 to only 11% in Level 2 and 9% in Level 1. The frequency of both bead/bangle-impression and punctation, conversely, remains stable throughout the deposit (Figure 7.6).

Decoration placement on the central neck, lower neck, shoulder and body accounts for 87% of the decoration placements in the total ceramic assemblage. An examination of the relative frequencies of decoration placements (Table 7.4) indicates that, similar to the vessel form frequencies, some gradual shifts are apparent within the assemblage but that no radical

breaks are apparent. Central neck placement, for example, decreases from 52% in Level 4 to 39% in Level 1; this decrease is not sudden, but is seen to shift gradually throughout the deposit (Figure 7.7).

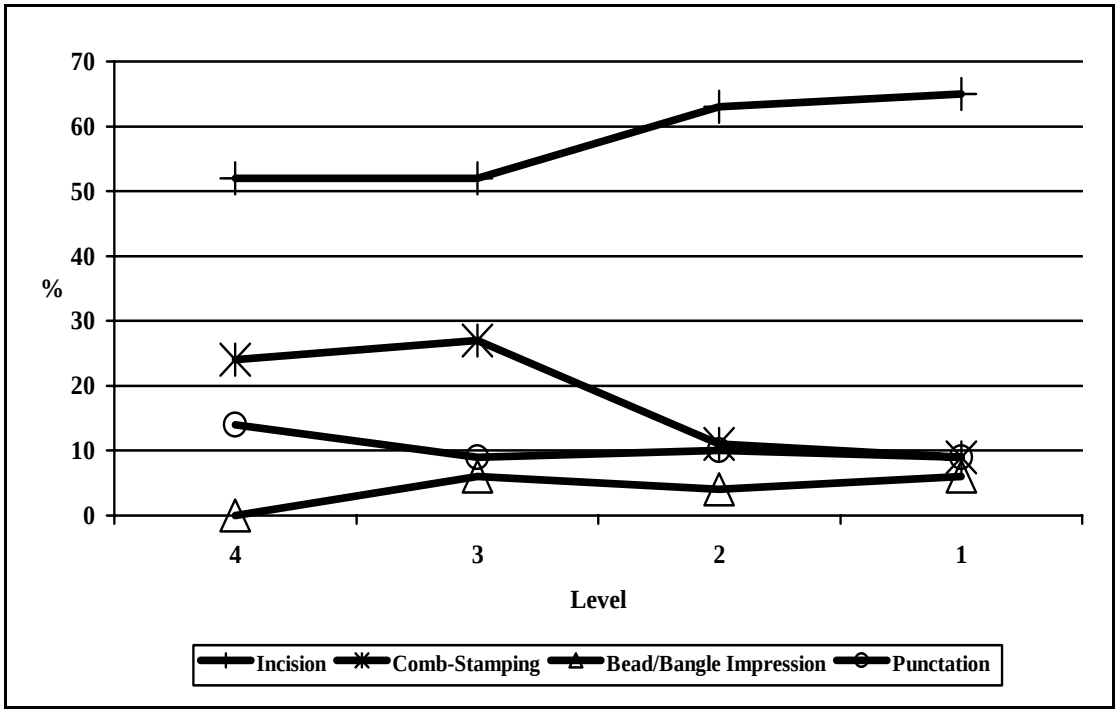


Figure 7.6 Castle Rock, major decoration techniques, percentage, by level.

The only significant shift observed in all three main areas of form, decoration, and placement within the Castle rock ceramic assemblage was the increase in incision and the concomitant decrease in comb-stamping. When viewed in the context of otherwise comparatively diachronically stable data on vessel form and placement, I posit here that such shifts in incision and stamping frequencies are best interpreted as discrete stylistic changes made within the assemblage, rather than as indicative of a wholesale stylistic replacement. The relative frequency of incision and comb-stamping are, as was discussed in Chapter II, diagnostic of the Leopard's Kopje and Zhizo styles, as traditionally defined, with Leopard's Kopje wares dominated by incised motifs and Zhizo wares dominated by comb-stamping and bead/bangle-impression.

Some 37% of the ceramic assemblage at Castle Rock does, in fact, correspond to ceramic types found in either Zhizo or Leopard's Kopje A assemblages. The remaining 63% of the assemblage consists of ceramic types that could be placed in either style. Table 7.5 shows the vertical distribution of those ceramics executed in the Zhizo and K2 styles, as traditionally defined, as well as those ceramics that could be comfortably be defined as either tradition. Zhizo ceramics were defined as any executed with Design Sets CS1, CS2, BB1, BB2, I/CS2, I/BB1, A/BB1, CS/F1, PC1, PC2, and A/CS2, while Leopard's Kopje A wares

were defined as any executed with Design Sets I5, I6, I10, I11, I12, I13, I/P3, P3, and P4. Indeterminate wares included those employing Design Sets I1, I2, I3, I16, I/P4, I/P5, I/F1, F1, P1, P2, and A2. One vessel executed with an I2 motif (Motif 2.3) was placed into the Leopard's Kopje A column in Table 7.5. The reader is referred to Chapter IV for detailed descriptions of each design set. In brief, however, Zhizo ceramics consisted of those employing comb-stamping, bead/bangle-impression, and polychrome decoration techniques, singly or in combination with other techniques. It is interesting to note that five of the Zhizo vessels are wares with design motifs clearly related to contemporaneous Toutswe assemblages from eastern Botswana; these wares consisted of those executed with Design Motifs 3.18, 3.25 and 3.26. These are all very fine, physically small, comb-stamped motifs. These Toutswe-related wares occur throughout the deposit at Castle Rock, with one recovered from Level 4, two from Level 3, one from Level 2, and one from Level 1.

Table 7.5. Castle Rock, number and frequency of identifiable and indeterminate ceramic types, by level and by site.

Level	Zhizo		Leopard's Kopje A		Indeterminate		Site Total	
	#	%	#	%	#	%	#	%
1	17	21	8	10	55	69	80	39
2	15	21	12	16	46	63	73	35
3	13	39	2	6	18	55	33	16
4	7	33	2	10	12	57	21	10
Total	**52**	**25**	**24**	**12**	**131**	**63**	**207**	**100**

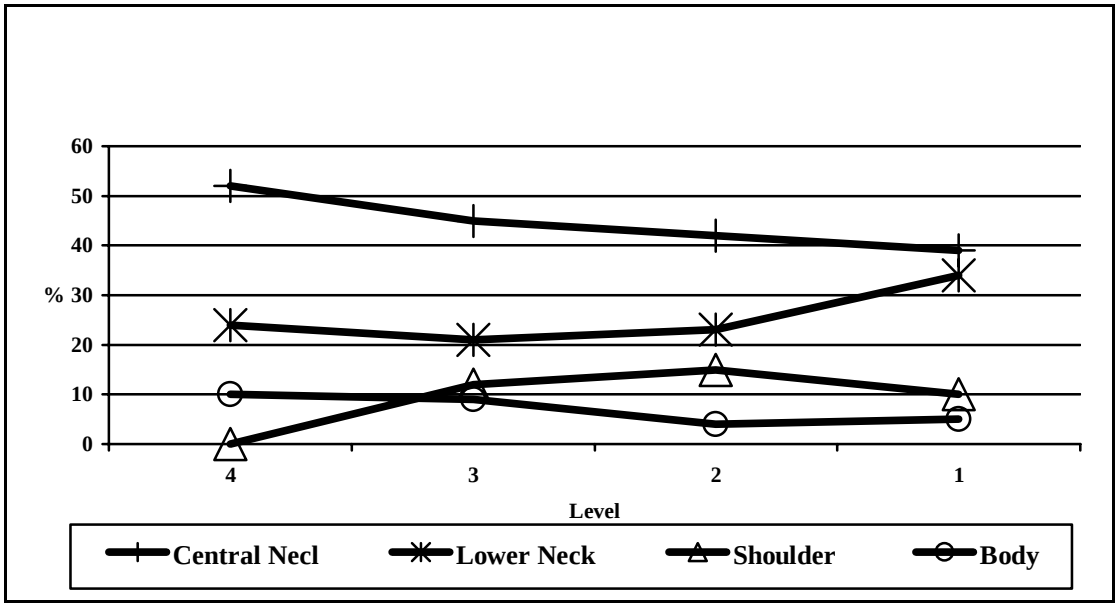


Figure 7.7. Castle Rock, major decoration placements, percentage, by level.

Leopard's Kopje A wares were defined primarily by their use of incised geometric

motifs, generally upturned or downturned triangles and arcades, or by the use of punctated geometric motifs (i.e., triangles and arcades). Indeterminate wares were those executed employing incision, appliqué, punctation, and fingernail impression, either individually or in combination, that could not be placed with confidence into either the Zhizo or Leopard's Kopje A styles as traditionally defined.

Ceramic Analysis: Integrity, Dating, and the Regional Chronology

Before going on to the presentation of the remaining material culture at Castle Rock, it is important to make a few observations about the internal ceramic trends noted above in terms of what they indicate about the integrity of the deposit, the reliability of the radiocarbon results, and our current understanding of the regional chronology as presented in Chapter II. First, as was discussed earlier, the integrity of the deposit in Level 1 was questioned due to the deflation of the upper few centimetres portion of the site, and owing to damage caused by construction activities. The internal trends for ceramic vessel form, decoration technique, and decoration placement at Castle Rock are, however, indicative of stylistic continuity throughout the entirety of the deposit.

The only significant trends within the area of vessel form, beyond those gradual, incremental, changes that are expected as the result of normal stylistic processes, were the introduction of spouted vessels, beakers, and beaker bowls in and above Level 2. These vessel forms taken together account for less than 3% of the total ceramic assemblage; therefore it seems highly unlikely that their introduction was the result of a wholesale stylistic replacement. Similarly, the data on decoration techniques also appear to indicate an overall continuity throughout the deposit, with the only discernible trends being the gradual increase in incised motifs and the apparently concomitant decrease in comb-stamped motifs. This trend, it will be remembered, was also noted at Schroda. Interestingly, a suite of new decoration techniques appear in and above Level 2 (see Table 7.3); all but two of these techniques are derived from techniques consistent with those expected in Zhizo assemblages. The new techniques found in and above Level 2 include motifs employing fingernail-impression, incision, comb-stamping, and appliqué. Two instances of vessels with incised and punctated motifs found in Design Set I/P3 (14.5 and 14.7) are the only examples of K2 materials associated with the new decoration techniques found in and above Level 2. Given the overall continuity noted in ceramic vessel form, decoration technique, and decoration placement, it is posited here that the material from Level 1 is directly related to the material immediately below in Level 2.

Second, also in question was the utility of one of the results of one of the radiocarbon assays (Pta-7966) which placed the upper occupation of the site to the latter portion of the Mapungubwe period. It was hoped that the analysis of the ceramic data would aid in

determining if Pta-7966 accurately dates the upper portion of the deposit. The ceramic data presented above indicate that the ceramic assemblage at Castle Rock is not stylistically similar to ceramics from the Mapungubwe time period. Therefore, the late 13th century date from Pta-7966 will be omitted from further discussion or analysis. The much more secure, earlier, date (Pta-7969, with a 1-sigma range of AD 1040 to AD 1160) from the base of the deposit will be used as the *terminus post quem* for the deposit and, given the unity of the ceramic assemblage, the 1-sigma range will serve as the postulated span of the site's overall occupation and use.

Before going on to discuss the rest of the material culture at Castle Rock, it should be noted that the combined ceramic and radiocarbon data from Castle Rock indicate that the site contains evidence of contemporary Zhizo and Leopard's Kopje A (i.e., K2) ceramics which co-occur on or after the mid-11th century. It is concluded that the dominant identifiable stylistic elements at the site are consistent with Zhizo, with a far less abundant Leopard's Kopje A stylistic presence. The presence of these vessels in the Castle Rock assemblage could easily be attributed to influence from the contemporary Leopard's Kopje A-using occupation at the nearby site K2. The most interesting conclusion drawn from the ceramic and radiocarbon data is that while Castle Rock was occupied well after the establishment of the Leopard's Kopje A-dominated site at K2, ceramics executed in the Zhizo style persist and dominate the assemblage throughout the occupation of the site.

These conclusions raise some important questions regarding both the regional ceramic chronology and the nature of prehistoric social and political interaction in the region. First, if Leopard's Kopje A (i.e., K2) ceramics were markers of a separate ethnic/social entity which overran the area of the Shashi-Limpopo confluence around AD the turn of the 11th century, driving the Zhizo-using inhabitants of the region into eastern Botswana, why do Zhizo wares at Castle Rock persist after the establishment of K2 and dominate the site's ceramic assemblage? Also, why do some Zhizo ceramics from the site display stylistic affinities with Botswana assemblages? Finally, since the co-occurrence of these wares seems to militate against the notion of a Leopard's Kopje A invasion of the region that replaced the Zhizo style, it is thus necessary to determine whether the co-occurrence of these two styles, as traditionally defined, represents some as yet undetermined interaction between two separate ethnic entities, or represents an instance of internal heterochrestic stylistic development. These questions will be discussed in greater detail in Chapters XI and XII.

Miniature Ceramic Vessels and Implements

A total of 48 miniature ceramic vessels were recovered from Castle Rock. Vessel forms identified included incurvate bowls (n=13), open bowls (n=22), and recurved jars (n=13). Five miniature incurvate bowls are shown in Plate 7.4. In addition, seven miniature

spoons were also recovered (Plate 7.5). The vertical distribution, design sets, design motifs, decoration placement and vertical distribution of the miniature vessels and implements are shown in Table 7.6.

Two interpretations for the presence of these vessels at Castle Rock are available. The first explanation is that these vessels were employed as exhibits or "shows" (Venda: *matano*, *sensu* Nettleton 2002:97) during the enactment of initiation rituals. Ceramic vessels and other household implements figure prominently in the wedding paraphernalia and ceremonial of many southern Bantu groups (e.g. the Karanga Shona [Aschwanden 1982]), and perhaps these vessels and implements represent such *matano*. The second possible explanation for the presence of these vessels at Castle Rock is that they were produced by children in imitation of their parents' handiwork. This second explanation seems far less likely, due to the fact that such relatively large caches of these types of vessels and implements have not, to the best of my knowledge, been recorded from other comparable sites in the area or the wider region.

Figurines

A total of 36 clay figurine fragments, representing a minimum number of nine individual figurines after refitting, were recovered from the midden at Castle Rock. The vast majority of these fragments (n=30 or 83%) were recovered from Level 1, while six fragments were found in Level 2; a single fragment was recovered from the surface. Of these, three were representations of humans or of human anatomy, while the other six were animal representations. The horizontal distribution of these fragments in the excavation block, by test unit, by identified representation and by number of fragments, is shown in Table 7.7.

The two human representations consisted of fragmentary stylized female figurines. One of these, Female Figurine 1 (Plate 7.6), is fashioned from well-fired red clay. The figurine has stubby legs, prominent buttocks, anus, genitalia and pubic hair, and a prominent navel. A single vertical row of punctation, possibly representing cicatrisation, runs from above the navel to the top of the fragment. The area above the midriff is not present. This figurine was reconstructed from two fragments found in Test Unit 10. Owing to its fragmentary nature it is not possible to draw comparisons with examples from other sites in the region.

The other fragmentary female figurine, Female Figurine 2 (Plate 7.7), is made from a poorly-fired grey to black clay. The figurine has a phallic head with incised horizontal furrows at the base of the neck, stubby arms, breasts and four vertical columns of punctation (again, presumably cicatrisation) extending down past the presumed midriff. This figurine was recovered directly adjacent to the figurine just described, and was reconstructed entirely from fragments found in Test Unit 5 in Levels 1 and 2. This figurine does not bear any direct



Plate 7.4. CastleRock, sample of miniature vessels recovered from midden.



Plate 7.5. Castle Rock, sample of miniature spoons recovered from midden.



Plate 7.6. Castle Rock, Female Figurine 1.



Plate 7.7. Castle Rock, Female Figurine 2.

Table 7.6. Vertical distribution, by level, of miniature ceramic vessels and implements, Castle Rock.

				Level 4	Level 3	Level 2	Level 1	
Vessel Form	**Design Set**	**Design Motif**	**Decoration Placement**	#	#	#	#	**Total**
Open Bowl	none	none	none	1	3	9	7	**20**
Open Bowl	I/A2	13.3	Body	-	-	-	1	**1**
Open Bowl	I/P10	14.10	Body	-	-	1	-	**1**
Incurvate Bowl	none	none	none	-	1	5	7	**13**
Recurved Jar	none	none	none	1	-	2	5	**8**
Recurved Jar	I/P10	14.9	Central Neck to Shoulder	-	-	-	-	**1**
Recurved Jar	I17	2.75	Rim to Lower Neck	-	-	-	1	**1**
Recurved Jar	I17	2.76	Lower Neck to Shoulder	-	-	-	1	**1**
Recurved Jar	I17	2.77	Central Neck to Lower Neck	-	-	-	1	**1**
Recurved Jar	P2	5.3	Central Neck	-	-	-	1	**1**
Spoons	none	none	None	-	-	2	5	**7**
				2	**4**	**19**	**30**	**55**

resemblance to any of the published examples from the area of the Shashi-Limpopo confluence. It does, however, very closely resemble an example illustrated by Denbow (1983:Figure 6.9,upper right) from the Zhizo site Taukome in Botswana.

The other human-related figurine (Plate 7.8) represents a phallus. The phallus is decorated with vertical, horizontal, and diagonal single rows of punctation, as well as with three two- to three-centimetre long areas comprising individual columns of bead/bangle impression. The *glans* area is marked with two perpendicular lines of incision that form an "X" shape when viewed from above. This phallus was recovered from both Levels 1 and 2 in three proximally located test units (Test Units 17, 21, and 27), indicating that the figurine was in all likelihood incomplete when placed in the midden. The possibility therefore exists that this figurine may have been deliberately broken and its fragments intentionally scattered in a manner consistent with the disposal of figurines used in supra-household fertility/initiation rituals (Blacking 1969). This phallus is similar to at least one clay specimen from Schroda (Hanisch 2002:66, Category P3); it is also similar to stone phalli recovered from Great Zimbabwe (Caton-Thompson 1931:Plate LII, 2).

Table 7.7. Horizontal distribution of figurine fragments at Castle Rock, by Test Unit, by identifiable type, and by fragment ().

TU 1	**TU 2**	**TU 3**	**TU 4**	**TU 5** Female Figurine 2 (6) (see Plate 7.7) Fragments (2)
TU 6	**TU 7**	**TU 8** Fragment (1)	**TU 9**	**TU 10** Female Figurine 1 (2) (see Plate 7.6) Giraffe Head (2) Fragments (3)
TU 11	**TU 12** Domestic Bovid Head (1)	**TU 13**	**TU 14** Fragment (1)	**TU 15**
TU 16	**TU 17** Phallus (2) (Plate 7.8)	**TU 18** Elephant (1) (see Plate 7.10) Fragment (2)	**TU 19** Fragment (1)	**TU 20** Baboon Head (1) Fragment (1)
TU 21 Phallus (1) (see Plate 7.8) Fragment (1)	**TU 22**	**TU 23** Stopper/ Phallus (?) (1) (see Plate 7.11) Fragment (1)	**TU 24** Fragment (2)	**TU 25**
TU 26	**TU 27** Phallus (2) (see Plate 7.8)	**TU 28**	**TU 29** Fragment (1)	**TU 30**

The remaining identifiable figurines consist of five animal representations: two giraffe heads (7.9), one domestic bovid head, a baboon head, and a rhinoceros or elephant leg (Plate 7.10). All these animals have also been identified from Schroda (Hanisch 2002). The presence in the assemblage of giraffes may indicate, however, that this assemblage was related, at least in part, to initiation activities. Giraffes are animals are known to be associated with the *domba* (Blacking 1969:94, cited in Huffman 1996:121). Within the *domba* the giraffe is known as "country's inspector." Also, should the animal leg in Plate 7.10 represent a rhino, this figurine may be representative of leadership, given the explicit connections rhinoceroses have with kingship in the subsequent Mapungubwe culture (Huffman 1996). If it represents an elephant, on the other hand, it may also be symbolic of leadership, given the power and stature of the species, in many ways comparable to that of the black rhino, upon which the Mapungubwe rhinoceros is modelled (Huffman 1996).

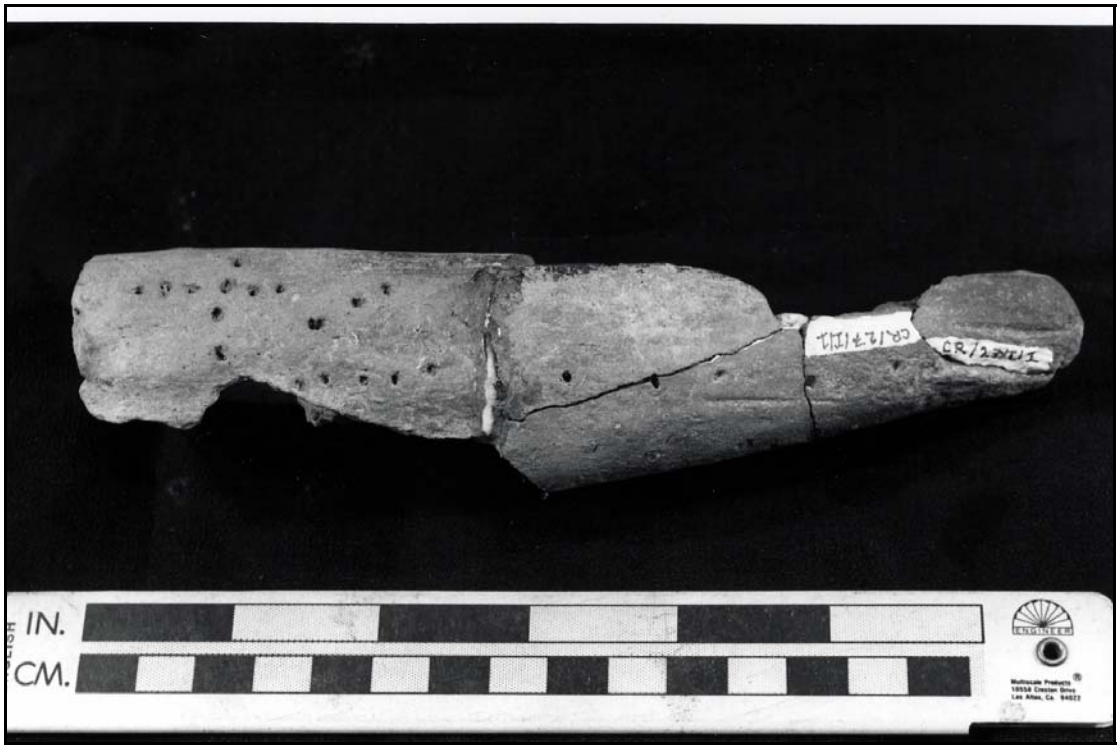


Plate 7.8. Castle Rock, phallus figurine.



Plate 7.9. Castle Rock, probable fragments of giraffe figurines. Left: profile of head; right: dorsal view, showing ears.



Plate 7.10. Castle Rock, figurine fragments. Left: possible elephant or rhinoceros leg; right: stopper or phallus-like object.

Also recovered was a stopper-like specimen that may have phallic associations as well (see Plate 7.10). Another example of this type of figurine has also been recovered from the site Leopard's Kopje in Zimbabwe (Robinson 1959:124; Figure 36:23)

Figurines: Discussion

As was discussed in Chapter III, following Huffman (1996:148), the presence of relatively large amounts of unusual figurines will be interpreted as indicative of fertility or initiation-related ceremonies. However, considerable interpretive ambiguity exists regarding the precise number, types and contexts of figurines necessary to distinguish domestic rituals for the promotion and maintenance of fertility from those conducted at the corporate kin group, regional, national or state level. Importantly, the single relatively well-preserved female figurine recovered from Castle Rock, Female Figurine 2, differs significantly from those examples from Schroda and elsewhere interpreted by Wood (2002) as indicative of domestic fertility rituals. It was not well-fired or as durably constructed as the "domestic use" figurines she illustrated. It also has arms, features not found on any of the examples she interprets as having been used in domestic fertility contexts.

Similarly, the phallus recovered from the site is not a type of artifact commonly found in domestic contexts; these are typically associated with rituals for the promotion and maintenance of the fertility of the nation (Wood 2002); the focus and scope of these rituals is

more broadly defined here as being for the promotion and maintenance of a supra-household group, given the interpretive uncertainty as to what types of figurines were used in what contexts, and at what level of sociopolitical organisation were they employed (i.e., individual, domestic, community or national levels). Garlake (1973, cited in Wood 2002) reported that many phalli were recovered by Hall at Great Zimbabwe in areas of the site identified by Huffman (1996: 133-136, 146-154) as the location of nationally significant fertility/initiation rituals (e.g. from the Speaker's Platform near the Conical Tower in the Great Enclosure and in the Eastern Enclosure at the Acropolis).

Based on the fertility associations of at least three of the figurines from the assemblage at Castle Rock and the typically high-status context of at least one of these types of representations (the phallus), in combination with the presence of at least five animal representations, two which (the giraffes) are known to be associated with the *domba* and one of which may be representative of leadership, I tentatively posit here that the figurine assemblage at Castle Rock provide evidence of fertility/initiation rituals conducted at the supra-household level. This interpretation will be viewed in comparison to findings from other sites and discussed in greater detail in Chapter XII.

Metal

A total of eight finished metal artifacts were recovered from Castle Rock. These included three iron bangle fragments, one iron plate fragment, one possible fragmentary iron pin, one copper bead, one copper bangle fragment, and a piece of worked iron of indeterminate type. In addition, twelve pieces of slag were recovered. The artifact type, material, provenance, and weight of each piece is shown in Table 7.8. The horizontal distribution of these artifacts in the Castle Rock excavation is shown in Table 7.9.

Also included as metallurgical debris recovered from the site are two pieces of ground stone (Plates 7.11 and 7.12). One of these (see Plate 7.12) is a fragment of what appears to be a heavily-utilised whetstone. This stone was recovered from Level 2 in Test Unit 25. The other (see Plate 7.12), also fragmentary, is a stone with five V-shaped grooves, presumably used for sharpening metal items. The sharpening stone was recovered from Level 2 in Test Unit 23.

It is interesting to note that the only identifiable remains of finished metal consisted of items of personal adornment, rather than utilitarian implements. Metallurgical material recovered from Castle Rock included a relatively small quantity of slag and two pieces of ground stone interpreted here as whetstones. The relatively small amount of slag probably indicates that smithing, rather than smelting, activities occurred at the site. The presence of ground stone tools for finishing or maintaining metals is significant, as it indicates that the residents of Castle Rock had ready access to some quantity of metal.



Plate 7.11. Castle Rock, broken whetstone recovered from midden.



Plate 7.12. Castle Rock, probable sharpening stone with V-shaped grooves, recovered from midden.

Table 7.8. Metal and debris at Castle Rock, by type, by material, by provenance, and weight.

Type	Material	Test Unit	Level	Weight (g)
Indeterminate	Iron	13	2	8.86
Possible Pin	Iron	5	1	2.86
Bangle Fragment	Iron	16	1	0.33
Bangle Fragment	Iron	16	1	0.29
Bangle Fragment	Iron	16	1	0.11
Plate Fragment	Iron	16	1	0.15
Bead	Copper	22	1	0.45
Bangle Fragment	Copper	22	1	0.46
Slag	Slag	8	1	0.19
Slag	Slag	12	1	21.64
Slag	Slag	12	1	6.15
Slag	Slag	12	1	9.03
Slag	Slag	12	1	11.29
Slag	Slag	12	1	4.23
Slag	Slag	13	1	2.40
Slag	Slag	14	1	6.51
Slag	Slag	15	1	5.77
Slag	Slag	15	1	0.62
Slag	Slag	15	1	0.16
Slag	Slag	18	1	2.76

Table 7.9. Horizontal distribution of metal fragments and metallurgical debris at Castle Rock, by Test Unit, by identifiable type, and by fragment.

TU 1	**TU 2**	**TU 3**	**TU 4**	**TU 5** Possible Pin (Fe) (1)
TU 6	**TU 7**	**TU 8** Slag (1)	**TU 9**	**TU 10**
TU 11	**TU 12** Slag (5)	**TU 13** Indeterminate Fragment (Fe) (1) Slag (1)	**TU 14** Slag (1)	**TU 15** Slag (3)
TU 16 Bangle (Fe) (3) Plate (Fe) (1)	**TU 17**	**TU 18** Slag (1)	**TU 19**	**TU 20**
TU 21	**TU 22** Bead (Cu) (1) Bangle (Cu) (1)	**TU 23** Broken Sharpening Stone (1)	**TU 24**	**TU 25** Broken Whetstone (1)
TU 26	**TU 27**	**TU 28**	**TU 29**	**TU 30**

Ground Stone

In addition to the sharpening stone and the whetstone just noted, six additional ground stone artifacts were recovered at Castle Rock. These included two complete and two broken upper grinding stones of the type used to grind grain. Also present were two small, polished river pebbles which may have functioned as burnishing stones. These may have been used in finishing pottery. Three of the upper ground stones were recovered from Level 3, while one was recovered from Level 2. One of the burnishing stones was recovered from Level 3, while the other was recovered from Level 2.

Beads

A total of 361 identifiable beads were recovered from Castle Rock. These were fashioned from *Achatina sp*. (giant land snail) shell (n=295 or 82%), glass trade beads (n=43 or 12%) and re-melted and reworked beads fashioned from glass trade beads (n=3 or 1%), bone (n=6 or 2%), soapstone (n=4 or 1%), ceramic (n=4 or 1%), freshwater shell (n=3 or <1%), ostrich egg shell (n=2 or <1%), and copper (n=1 or <1%). In addition, fragments of additional reworked beads fashioned from glass trade beads were recovered, as were two moulds presumably used in the manufacture of garden roller beads. The single copper bead, it should be noted, was already discussed in the preceding section on metals.

The size class and vertical distribution of the *Achatina sp*. beads is shown in Table 7.10. Size class refers to the measured diameter of the beads on an ordinal scale; beads included in Size Class 1 measure between 0 and 0.99 mm in diameter, while those in Size Class 2 measure between 1.00 and 1.99 mm in diameter, and so on.

Table 7.11 shows the vertical distribution of the two size classes of ostrich eggshell beads recovered from Castle Rock. It is interesting to note that so few ostrich eggshell beads were recovered when compared to the *Achatina sp.* bead assemblage.

The glass trade bead assemblage from Castle Rock consisted of forty-three beads. Information on the type, colour, vertical distribution, and weight of the glass trade bead assemblage is shown in Table 7.12. These data indicate that by far the most common type of glass trade bead at Castle Rock was K2 Blue Green, followed by Zhizo Blue and Indo-Pacific Green. The predominance of K2 Blue Green beads and a corresponding absence of black beads (common in later Mapungubwe assemblages) are diagnostic of K2 assemblages in the region (Wood 2000:82-83). The relative frequency of the bead colour types within the assemblage therefore supports the interpretation posited above that, based upon the radiocarbon data and the lack of a Mapungubwe ceramic component, the site dates firmly to the K2 period. The presence of the single, presumably later, Mapungubwe Blue bead in the

assemblage is interpreted here as an anomaly.[1]

Table 7.10. Castle Rock, vertical distribution of *Achatina sp.* beads, by size class and by level.

Level	Size Class									
	10	**9**	**8**	**7**	**6**	**5**	**4**	**3**	**Indet.**	**Site Total**
Surface	-	1	1	-	-	-	-	-	-	2
1	1	-	2	7	29	39	15	2	1	96
2	-	2	7	15	38	31	9	1	-	103
3	3	2	6	12	17	31	6	-	-	77
4	-	-	1	4	5	4	3	-	-	17
Site Total	**4**	**5**	**17**	**38**	**89**	**105**	**33**	**3**	**1**	**295**

Table 7.11. Castle Rock, vertical distribution of ostrich eggshell beads, by size class and by level.

Level	Size Class		
	9	**7**	**Total**
Surface	-	-	**-**
1	-	-	**-**
2	1	1	**2**
3	-	-	**-**
4	-	-	**-**
Total	**1**	**1**	**2**

A total of three halves of broken reworked beads were recovered from the site, as were thirteen additional reworked bead fragments (presumably from garden roller beads) (Table 7.13). The total weight of these reworked beads and fragments is 4.37 g. The calculated average glass trade bead weight for the regular K2 Blue Green glass trade beads described in Table 7.12 is 0.03 g. Therefore the total number of glass trade beads it probably required to fashion these reworked beads was approximately 145, or nearly four times the amount by weight of glass trade beads recovered from the rest of the deposit.

Two of the reworked beads fashioned from glass trade beads were garden roller beads as originally recognized by Gardner (1963). One of the reworked bead halves was clearly fashioned from two different coloured bead types, with one K2 Blue Green and the other K2 Green (Plate 7.14). All of the reworked beads recovered and published from the region to date have been garden roller beads that are either barrel-shaped, spherical, or cylindrical (Wood 2000:81). This bead, however, was vertically fluted, making it the only known representative of its type documented from the region thus far. It should be mentioned that

[1] Wood (2005, personal communication, 2004) has indicated that these types of beads (Mapungubwe Series) did not enter the region until AD 1240 or 1250 based upon their stratigraphic occurrence Layer 9i in excavation MK1 on Mapungubwe Hill (Meyer 1998). This is not a bead type, however, that has been specifically sourced, and therefore its manufacturing history and temporal availability have not been determined. I would contend that extrapolating the regional temporal distribution of this bead type from data from a single excavation may be erroneous; I posit instead that such beads may well have been present in the region at the time of the occupation at Castle Rock, but perhaps only in small quantities.

this particular specimen may represent a long-distance trade item that was finished before it reached southern Africa. This possibility does not seem likely given the somewhat crude craftsmanship exhibited in the unevenness of the surface and of the fluting, coupled with the mineral inclusions apparent near its base (see Plate 7.14), a trait consistent with other specimens of garden rollers manufactured locally (Wood, in a personal communication 2004).

Table 7.12. Castle Rock, vertical distribution of glass trade beads, by colour, number (#), and weight (g), by level.

	Zhizo Blue		K2 Blue Green		Indo-Pacific Brownish Red		Indo-Pacific Yellow		Indo-Pacific Green		Mapungubwe Blue*	
Level	**#**	**g**	**#**	**g**	**#**	**g**	**#**	**g**	**#**	**g**	**#**	**g**
Surface	-	-	2	.05	-	-	-	-	-	-	-	-
1	1	.03	19	.52	1	.03	-	-	2	.08	1	.02
2	-	-	10	.30	-	-	1	.04	-	-	-	-
3	1	.05	5	.18	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-	-	-	-	-
Site Total	2	.08	36	1.05	1	.03	1	.04	2	.08	1	.02

*See Note 5.

Table 7.13. Castle Rock, re-worked beads, halves and fragments, by type, number, weight (g), and frequency, by level and by site.

	Garden Roller (1/2), K2 Blue Green		Fluted Reworked Bead (1/2), K2 Green & Blue Green		Garden Roller Fragments, K2 Blue Green	
Level	**#**	**g**	**#**	**g**	**#**	**g**
Surface	-	-	1	1.16	1	.18
1	2	1.98	-	-	11	.93
2	-	-	-	-	1	.12
3	-	-	-	-	-	-
4	-	-	-	-	-	-
Site Total	**2**	**1.98**	**1**	**1.16**	**13**	**1.23**

Interestingly, two halves of garden roller bead moulds of the types found at Schroda and K2 were recovered from Level 3 in Test Unit 23. The overall dimensions of the fragments varied sufficiently to determine that they were from two separate moulds. The presence of these moulds at Castle Rock indicates that the site's residents had glass trade beads in numbers sufficient to allow for their re-melting and reworking in order to manufacture garden roller beads.

The remaining beads recovered from Castle Rock were fashioned from bone, ceramic, freshwater shell, and soapstone. Information on these beads is provided in Table 7.14. Finally, a total of forty-eight *Achatina sp.* blanks were recovered from the midden at

Table 7.14. Castle Rock, miscellaneous beads, by type, number, level, and site.

Level	Bone	Ceramic	Freshwater Shell	Soapstone White	Soapstone Black	Soapstone Brown	Site Total
Surface	-	-	-	-	-	-	**-**
1	1	4	1	-	1	-	**7**
2	5	-	1	1	-	2	**9**
3	-	-	-	-	-	-	**-**
4	-	-	-	-	-	-	**-**
Site Total	**6**	**4**	**2**	**1**	**1**	**2**	**16**

Table 7.15. Castle Rock, unfinished size class of *Achatina sp.* blanks, by number, level, and site.

	Unfinished Size Class			
Level	**9**	**8**	**7**	**Total**
Surface	-	-	-	**-**
1	1	8	2	**11**
2	2	7	5	**14**
3	1	8	9	**18**
4	-	2	3	**5**
Site Total	**4**	**25**	**19**	**48**



Plate 7.13. Portion of a broken fluted, bicoloured bead, probably re-melted, reworked and fashioned from glass trade beads. Scale in millimetres. Photograph courtesy of M. Wood.

Castle Rock. Twenty- five of these blanks were drilled through the centre, while the remaining twenty-three were not drilled. All of the blanks were either very roughly rounded or were roughly square. The unfinished size class of each blank, based upon its maximum diameter, is shown in Table 7.15.

Castle Rock: Chapter Summary

The site Castle Rock represents the remains of a prehistoric settlement that was occupied between ca. AD 1040 through AD 1160. Although the site was contemporary with the Leopard's Kopje occupation at the nearby site K2, the primary ceramic component was Zhizo with a far less abundant Leopard's Kopje A presence. Some changes within the artifact assemblage have been noted, such as the introduction of new vessel forms and decoration techniques in the upper two levels, as well as the stratigraphic clustering of finished metal artifacts and figurines in Level 1. Despite these apparent differences in the vertical distribution of some items of material culture, overall the analysis of the stratigraphic, radiocarbon, and ceramic data indicates that the two ceramic styles did in fact co-occur at the site and that the co-occurrence of the two styles was not the result of a Zhizo site that was later re-occupied by Leopard's Kopje ceramic users and then subjected to disturbance and mixing. Rather, the excavation methods employed ensured to the maximum extent possible that only archaeological material from intact deposits was retained for analysis. The chronological span of the site during the period of K2's occupation is further attested by the composition of the glass trade bead assemblage, which most closely matches that from the site K2.

These conclusions raise some important questions regarding both the regional ceramic chronology and the nature of prehistoric social and political interaction in the region. First, if Leopard's Kopje A (i.e., K2) ceramics were markers of a separate ethnic/social entity which overran the area of the Shashi-Limpopo confluence around the turn of the 11th century AD, driving the Zhizo-using inhabitants of the region into eastern Botswana, why do Zhizo wares at Castle Rock persist after the establishment of K2 and dominate the site's identifiable ceramic assemblage? Also, why do some Zhizo ceramics from the site display stylistic affinities with Botswana assemblages? Finally, since the co-occurrence of these wares would appear to argue against the notion of a Leopard's Kopje A invasion of the region that wholly replaced the Zhizo style, it is thus necessary to determine whether the co-occurrence of these two styles, as traditionally defined, represents some as yet undetermined interaction between two separate ethnic entities, or represents an instance of internal heterochrestic stylistic development. These questions will be discussed in greater detail in Chapter XI.

As was discussed at the end of Chapter III, several potential archaeological correlates exist that are useful in differentiating ethnic-based societies from class-based societies in

southern African prehistory. Among those correlates present at Castle Rock are glass trade beads, finished non-utilitarian metal items and probable supra-household use figurines. It was proposed that the presence of these items and activities has the potential, when compared to similar data sets from other sites, to illustrate the ability of a site's residents to appropriate surplus social production in the context of manifesting elite identity.

Forty-three glass trade beads were recovered from Castle Rock. The equivalent (by weight) of an additional 145 glass trade beads in the form of reworked beads and fragments was also recovered. Nine ceramic figurines, representing human females, a phallus, and animals associated with the *domba*, were also recovered, as was a quantity of finished non-utilitarian iron and copper items. While the types and amounts of these items at Castle Rock were by no means overwhelming, they do represent a greater quantity, and a more diverse assemblage, than was found, for example, at Baobab.

There is also some evidence of craft production at Castle Rock, including limited metal production or maintenance. Such activities included the re-melting and reworking of glass trade beads, the manufacture of *Achatina sp*. disk-shaped beads, and some indications in the form of slag and ground sharpening stones that metal was smithed and the edges of tools maintained on site.

As was discussed in Chapter IV, the artefact assemblage recovered from Castle Rock, in particular those items potentially demonstrative of status and religious specialisation will be compared with those from other sites discussed in this thesis in order to determine the site's relative socio-political status. This comparison will take place in Chapter XII.

CHAPTER VIII
EXCAVATIONS AT LEOKWE HILL

Leokwe Hill

The site Leokwe Hill is located on the farm Little Muck (S 22.15.20, E 29.15.50) (Figure 8.1; Plates 8.1). The site was first identified by Hanisch in 1973 and was later interpreted by Huffman (1986, 1986b) as a Mapungubwe period provincial capital. The Leokwe Hill site is large, encompassing roughly 80,000 m^2. The site has been divided into Areas A through D, consisting of the western hill summit (Area A) and adjacent areas of prehistoric occupation (Areas B through D) (see Figure 8.1; Plate 8.2). The site's Western Summit was interpreted by Huffman (Ibid:291) as a "royal hilltop settlement." To date, all areas have been surveyed and at least partially tested, although only Areas A and B (the Western Summit and the Northern Terrace) have been excavated extensively. The results of archaeological investigations of Areas A through D are presented below.

Following the presentation of data on all these areas, a preliminary chronological and functional interpretation of the site complex as a whole will be offered. A synthetic interpretation of these data in relation to that from other sites excavated will be offered in Chapters XI and XII.

Area A

Area A of the Leokwe Hill site complex includes the far Western Summit, saddle, and associated features of the larger hill of the same name (Plate 8.2, Plate 8.3). The larger, and higher, eastern portion is separated from the Western Summit by a deep saddle. Access to the Western Summit is limited to an ascent on the northern slope below the saddle. The Western Summit measures 100 m north to south and 50 m east to west. The Kolope River flows on the valley floor directly to the west of Area A (see Figure 8.1).

Prior to excavation, the results of 1996 surface reconnaissance indicated Zhizo, K2, Mapungubwe and Venda components on the Western Summit, and only a Venda component on the eastern remainder. The Venda occupation of the area is reported to have ended around 1866 (Van Warmelo 1940:94-95, n. 5).

Surface features noted on the Western Summit were located near its northern edge; these consisted of a large, circular stone feature (possibly a grain storage bin foundation) and some partially exposed hut platforms. Other features associated with Area A included a large, fallen stone wall below the northern edge of the saddle; in antiquity this wall restricted access to the saddle and thus to the summit. Two other portions of Area A, the courtyard in the

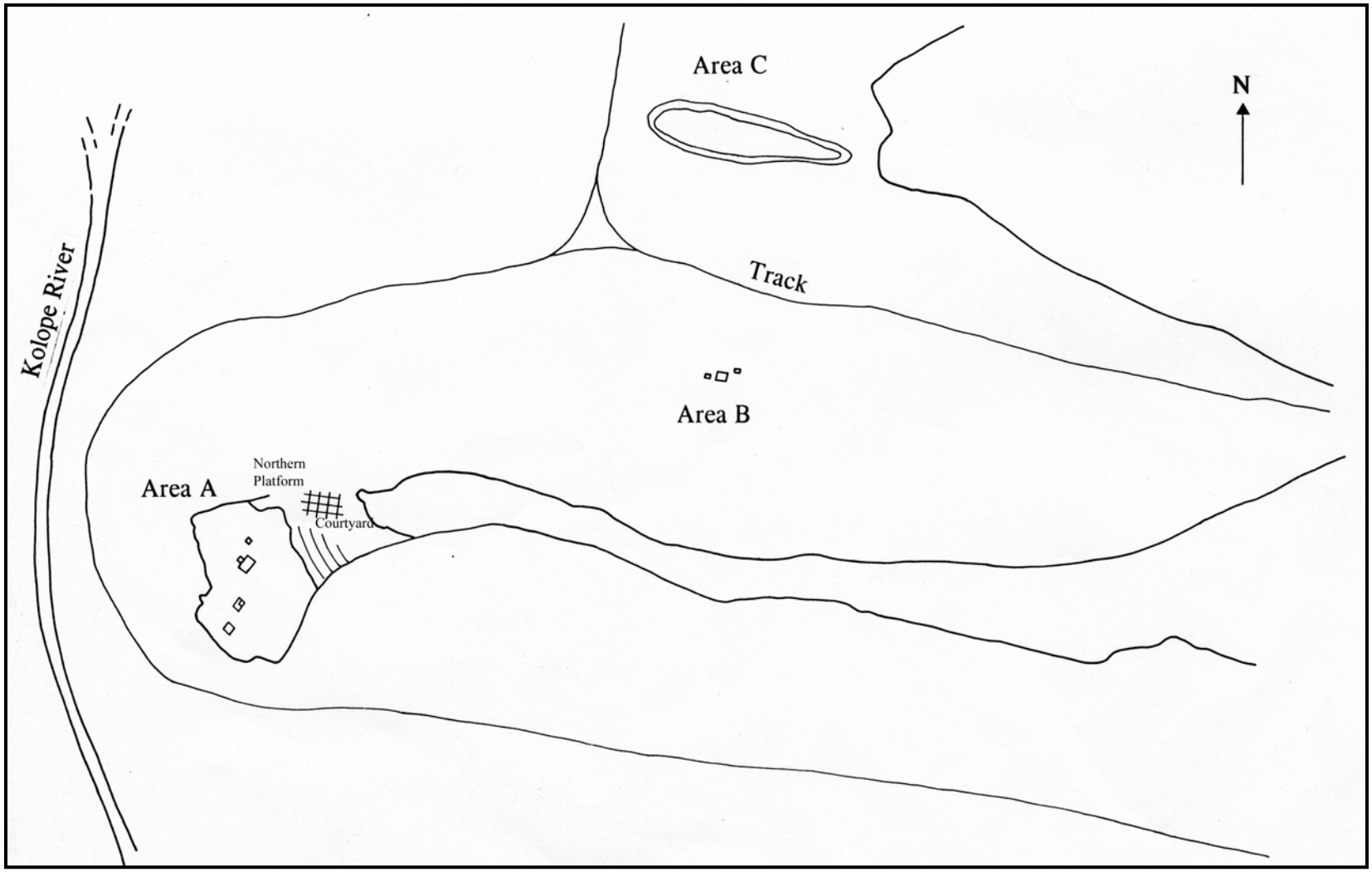


Figure 8.1, Leokwe Hill, showing Areas A through C. Area D located just to the north and east of Area C.

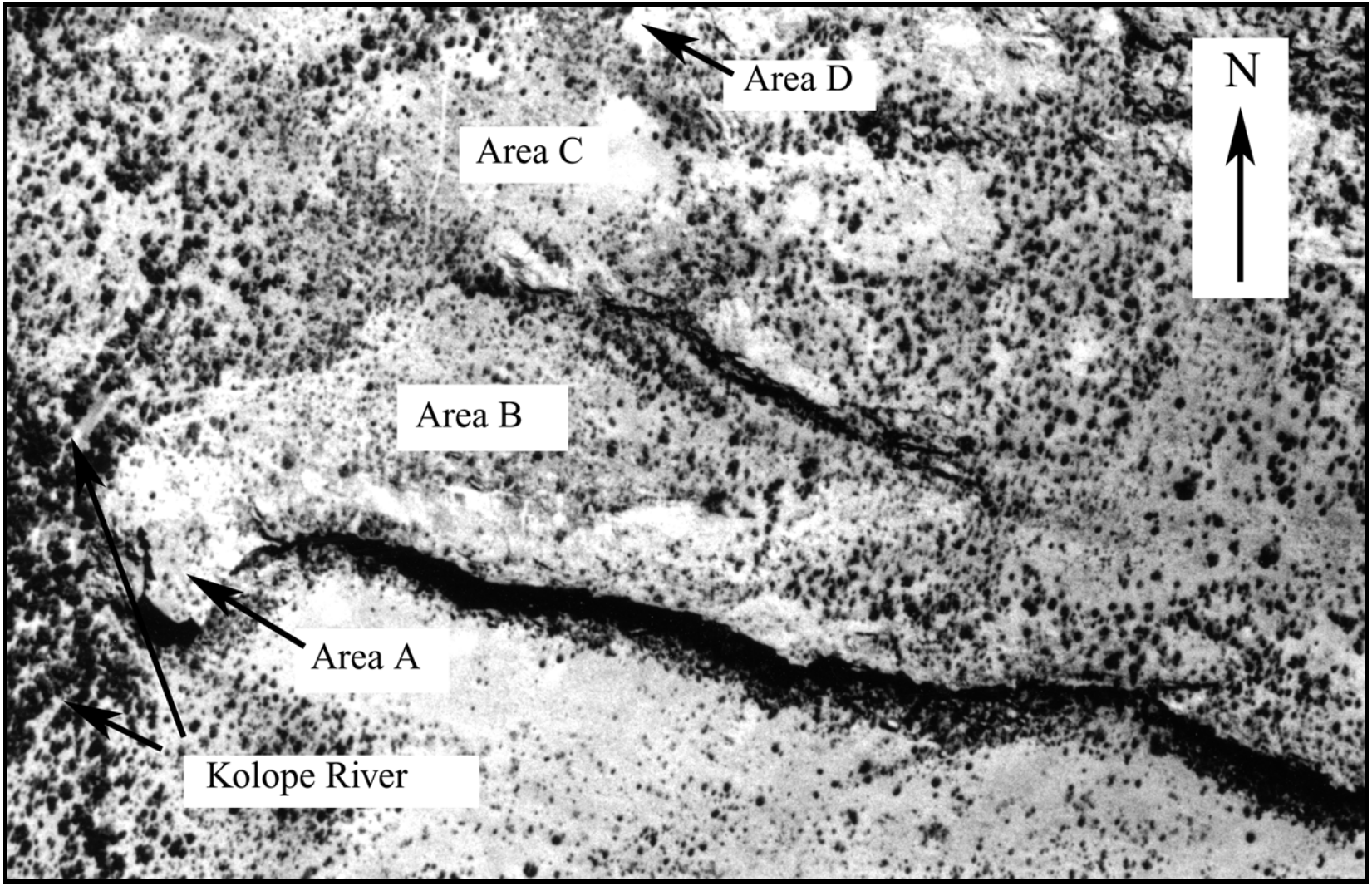


Plate 8.1. Aerial view of Leokwe Hill, showing Areas A through D. Scale: 1 cm equals 110 m.



Plate 8.2. Leokwe Hill, Western Summit seen from the higher, eastern side. Aspect: W.



Plate 8.3. Leokwe Hill from a distance. Taken from the old road to Messina. Aspect: S/SE.

saddle and the northern platform area, will be discussed separately from the main excavations on the summit.

Area A, Western Summit: Stratigraphy and Dating

A total of 69 m^2, encompassing four blocks (A through D), was excavated on the Western Summit (Figure 8.2). Initial excavation took place in late April and early May of 1997 at which time a single 2 x 2 m test unit (Test Unit 1) and a single 2 x 2 m test unit (Test Unit 2) were excavated. Further excavation took place in mid-July through late August of 1997. At that time Test Unit 1 was extended to form a portion of Block C; Test Unit 2 was not extended and was later designated as Block D. A description of the stratigraphy recorded in each of these blocks follows below, and is followed by a detailed presentation of the material culture recovered in Area A.

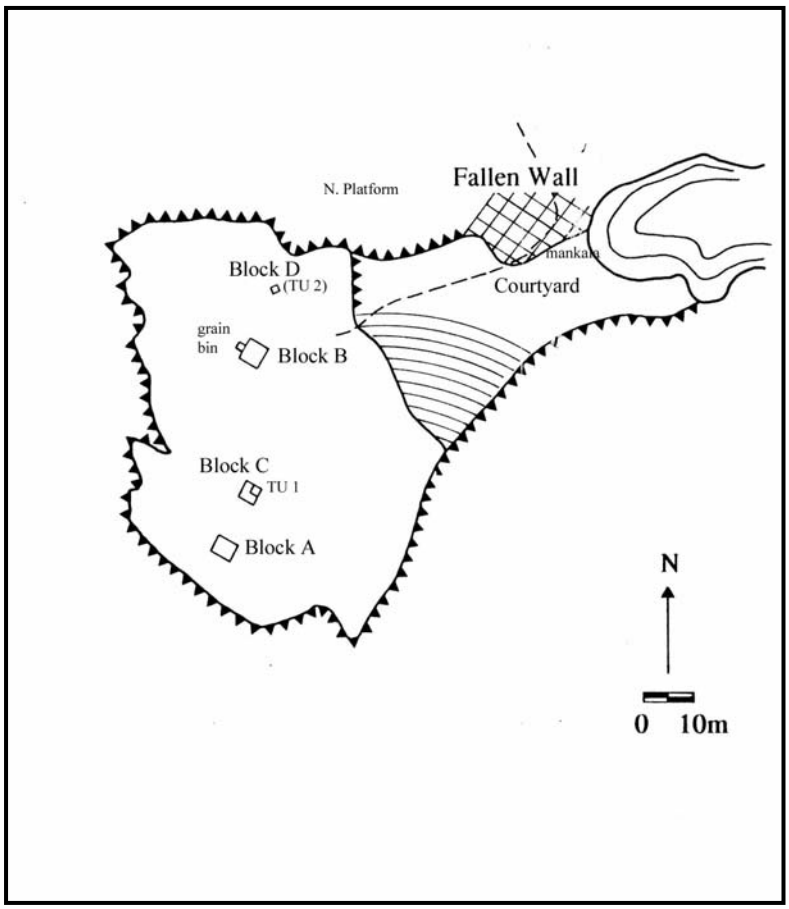


Figure 8.2. Leokwe Hill, Western Summit, showing location of surface features and excavation blocks.

Stratigraphy

Block A

Block A consisted of a 5 x 5 m excavation block located on the far southern edge of

Leokwe Hill (see Figure 8.2). The block was divided in 25 1 x 1 m units (Test Units 3 to 27). The initial intended plan of action was to excavate the block in horizontally continuous arbitrary or natural levels, as appropriate, in order to reveal former hut floors and other features. Once the upper stratum had been removed from all the test units it was evident that rodent activity had negatively impacted a large portion (ca. 30% to 40%) of the deposit, thereby greatly lessening the chances of recovering *in situ* features. It was decided to excavate 1 m wide by 5 m long strips of deposit down to bedrock, and then to examine and record the stratigraphy present in each profile thus exposed. It was hoped that this method would allow for the identification of features in profile which could then be recorded and, if they retained sufficient integrity, to expose them in larger horizontal excavations. Owing to time constraints, the northernmost 1 x 5 m strip of Block A was not excavated past Stratum I.

The soil stratigraphy in Block A consisted of a surface stratum of a dark yellowish brown (10YR 4/4) very fine ashy sand (Stratum I). Stratum I has been reworked by a combination of aeolian (wind) and alluvial (rain, runoff) forces, and appears to be deflated. Stratum I also displays evidence of substantial rodent burrowing: between 10% and 70% of the soil in Stratum I was lost to burrowing. Excavation in Stratum I continued until Stratum II was reached. Plate 8.4 shows Block A, with Stratum I and all visible rodent burrows removed.



Plate 8.4. Leokwe Hill, Western Summit, Block A, with all visible disturbance removed.

Stratum II was also a dark yellowish brown (10YR 4/4) fine ashy sand that differed from Stratum I in that it was far more compact, and a relatively large proportion of it consisted of burnt daub (ca. 10% to 20%) and angular stones (ca. 5%). The daub recovered was remnant material from both walling and floors. Stratum II was excavated in arbitrary 10 cm levels (Levels 2 to 5) until bedrock was reached. Stratum II extended to a maximum depth of 55 cm below ground surface. Large amounts of domestic debris, including numerous ceramics and faunal remains, were recovered in Stratum II.

A single intact feature (Feature 1) (Figure 8.3; Plate 8.5) was recorded in Stratum II. Feature 1 consisted of a series of diagonally-oriented stones arranged in a circular pattern. A complete recurved jar stained with soot from cooking was found sitting in this feature. Sherds from several other vessels were found lying inside the top of the jar, and the remains of half of a deep bowl with a Leopard's Kopje A design motif was found inside of it. The feature is interpreted here as a pot stand base. It is unclear, however, as to what larger feature or structure, if any, this pot stand formerly sat inside. No intact daub flooring or walling was adjacent to it, and none was seen in the section walls to the north and west of it. Some pink to purple gravel was located in patches around it and at the same depth, but none of these formed a continuous pattern owing to the rodent disturbance already noted. It is possible that that pot stand formerly sat in a hut that was never burnt and baked, and that the daub simply decayed and became indistinguishable from the surrounding soil matrix.

An examination of the section profiles did not reveal the location of any further intact features as was initially hoped (Figures 8.4 through 8.6). They did, however, indicate the likely presence of highly disturbed and decayed daub hut floor foundations. These were noted in the profiles by roughly continuous horizontal concentrations of daub flooring as well as by the presence of 2 to 8 cm thick gravel lenses. These gravel lenses appear to represent the remains of unburnt and decayed daub flooring, curbs, and walling. A good example of one of these gravel lenses is shown in Figure 8.4, near the base of Test Unit 21. Based on the section profiles, it appears as if there were at least two episodes of hut construction and related midden deposition in Block A on Leokwe Hill.

Block B

Block B encompassed a 5 x 5 m excavation block divided into 25 1 x 1 m test units (Test Units 29 to 53) that were placed approximately 40 m north and 15 m west of Block A, towards the centre of the Western Summit (see Figure 8.2; Plate 8.6). A single 1 x 1 m test unit (TU 28) was added to the western side of Block B. The location of Block B was chosen owing to its proximity to the large grain bin shown in Figure 8.3, in the hope that some hut floor foundations or other features associated with the occupation of the hill would be identified.

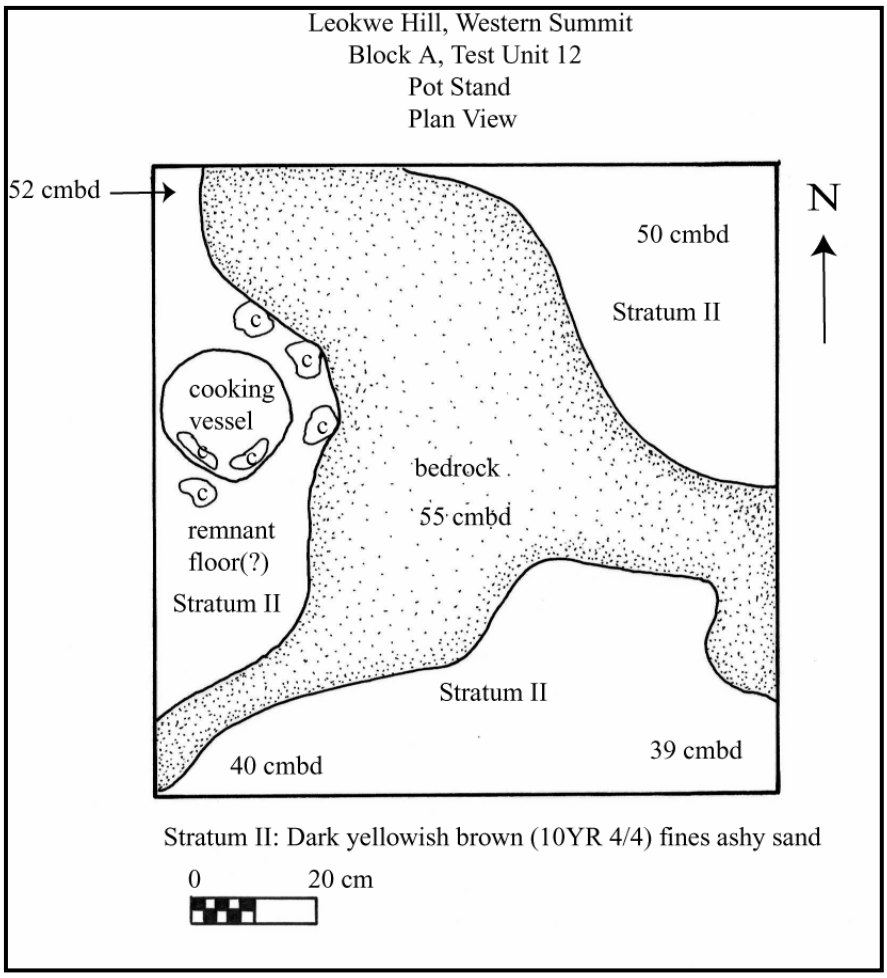


Figure 8.3. Leokwe Hill, Western Summit, Block A, pot stand in Test Unit 12.



Plate 8.5. Leokwe Hill, Western Summit, Block A, Feature 1, remnant pot stand/possible former hut floor.

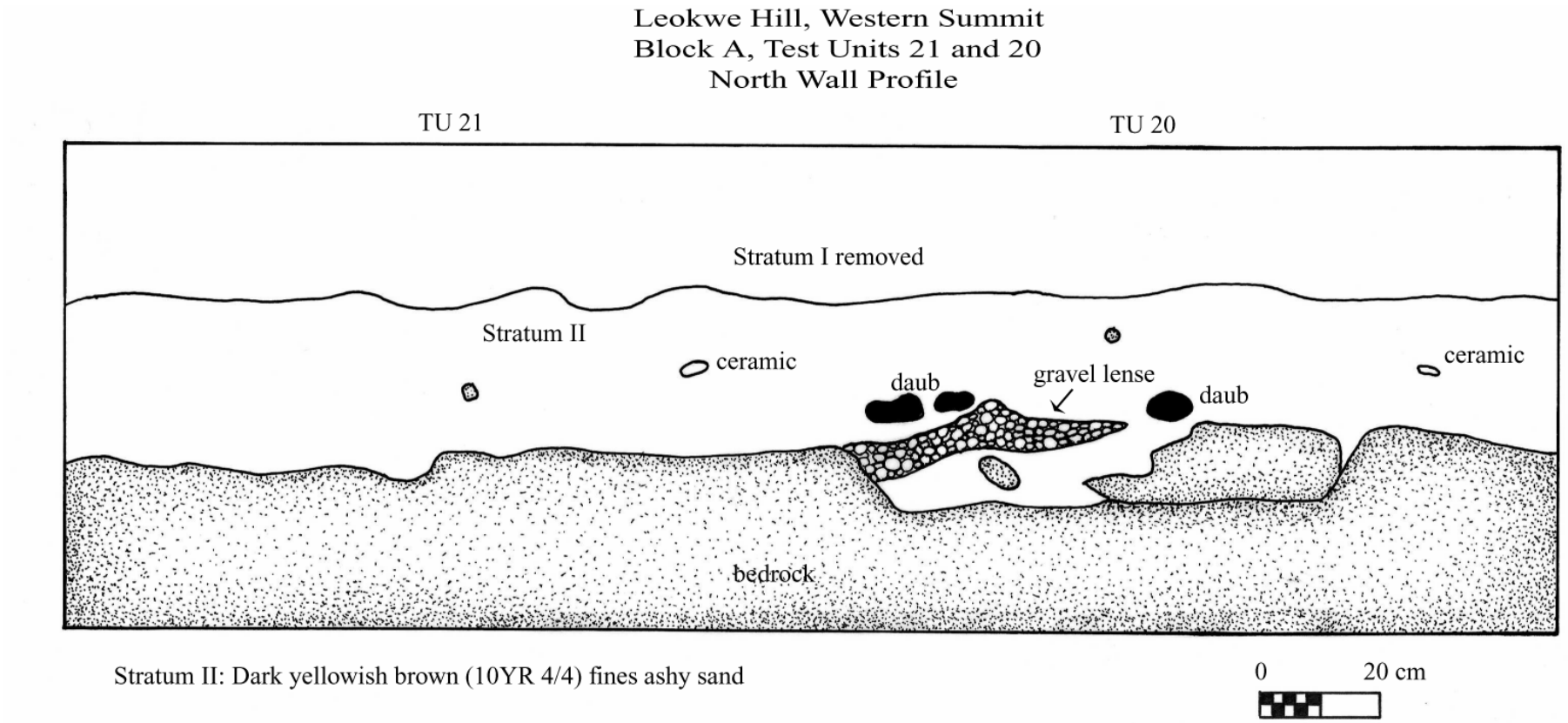


Figure 8.4. Leokwe Hill, Western Summit, Block A, Test Units 21 and 20, north wall profile.

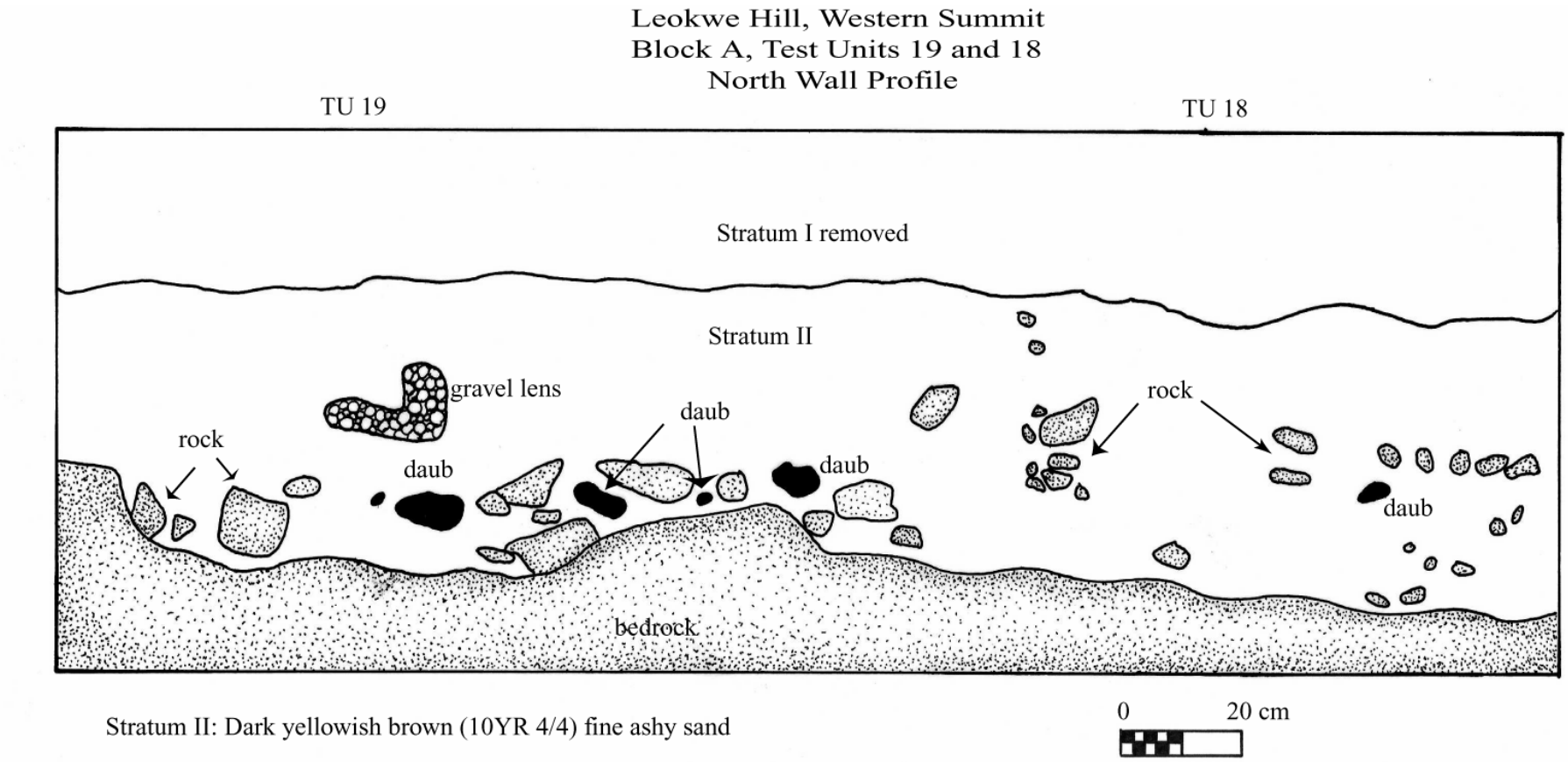


Figure 8.5. Leokwe Hill, Western Summit, Block A, Test Units 19 and 18, north wall profile.

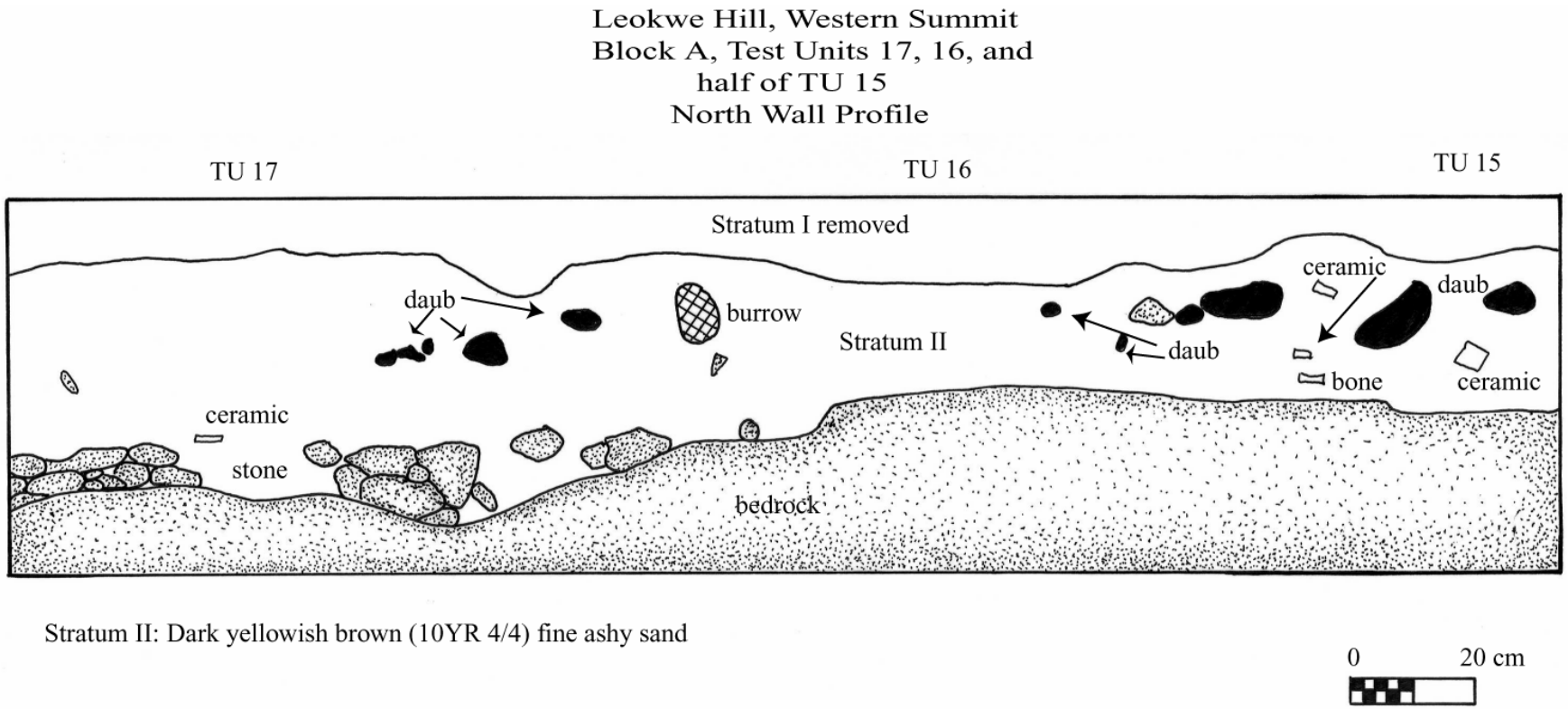


Figure 8.6. Leokwe Hill, Western Summit, Block A, Test Units 17, 16, and half of 15, north wall profile.



Plate 8.6. Leokwe Hill, Western Summit, Block B, excavation complete. Aspect: W.

Block B was excavated employing the same methodology as Block A with Stratum I removed in one level, and Stratum II removed in arbitrary 10 cm levels. All levels were taken down concurrently throughout the Block.

The stratigraphy in Block B was very similar to that of Block A, with the notable exception being that the deposit in Block B was not as deep as that in Block A. Also, the degree of rodent disturbance in Block B was negligible compared to that noted in Block A. A brown (10 YR 4/3) very fine sand (Stratum I) that had been subjected to deflation was found between 0 and 4 cmbs. Stratum I sat atop a dark yellowish brown (10YR 4/4) very fine sand (Stratum II), that extended to a maximum depth of 43 cmbs. Figure 8.7 shows the stratigraphy in Block B. The deposit in Block B was consistent with midden deposition seen in other sites in the region, with a high concentration of ceramics, wall and flooring daub, faunal remains, and other domestic remains.

A single feature, a pot stand (Feature 2)(Plate 8.7) consisting of vertically and diagonally placed stones oriented into a circular pattern with a single concave smoothed stone in the centre, was identified in Block B. The pot stand extended into the western edge of the block and an additional test unit was opened. Several vessel fragments were found in or next to the pot stand. One of these was a large fragment of a recurved jar with downturned triangles on its shoulder, thereby identifying it as a Leopard's Kopje A vessel.

Block C

Block C consisted of a 4 x 4 m block that was subdivided into 1 x 1 m test units

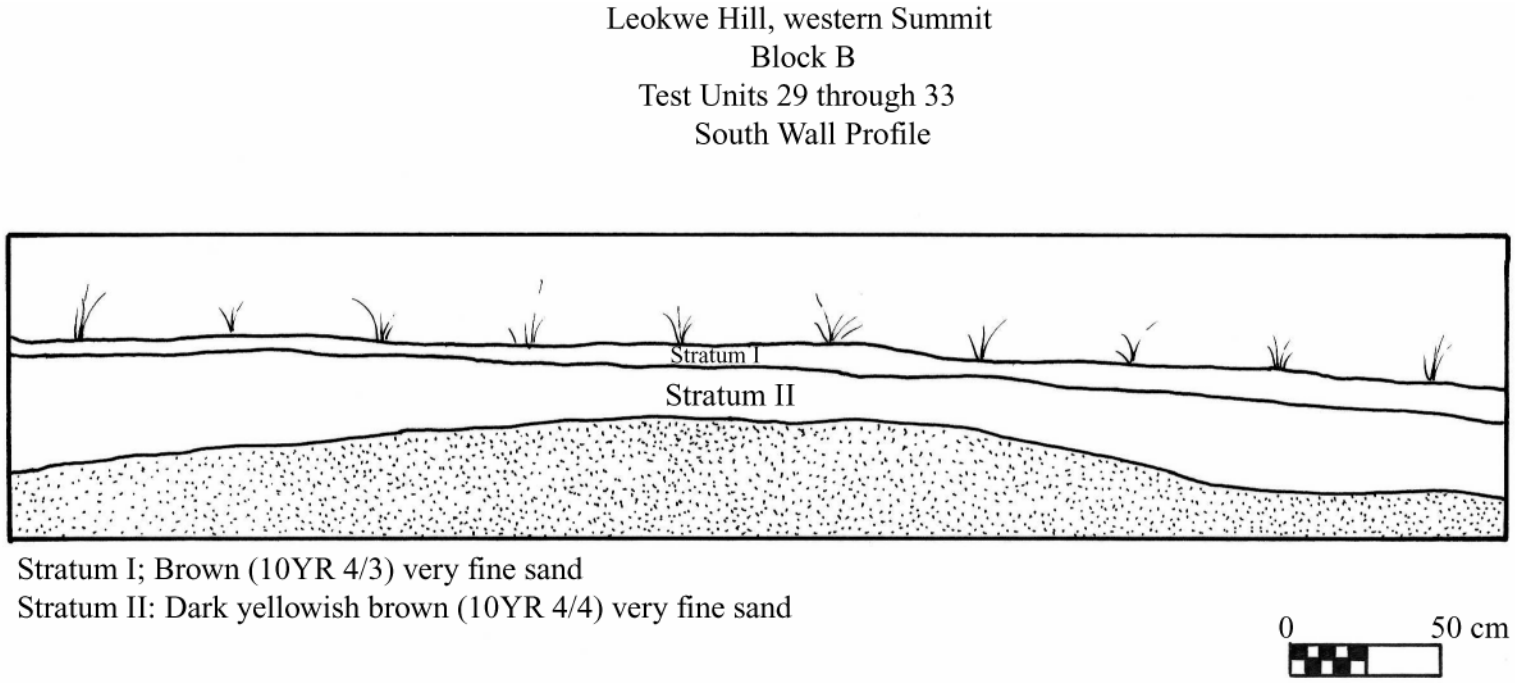


Figure 8.7. Leokwe Hill, Western Summit, Block B, Test Units 29 through 33, south wall profile.

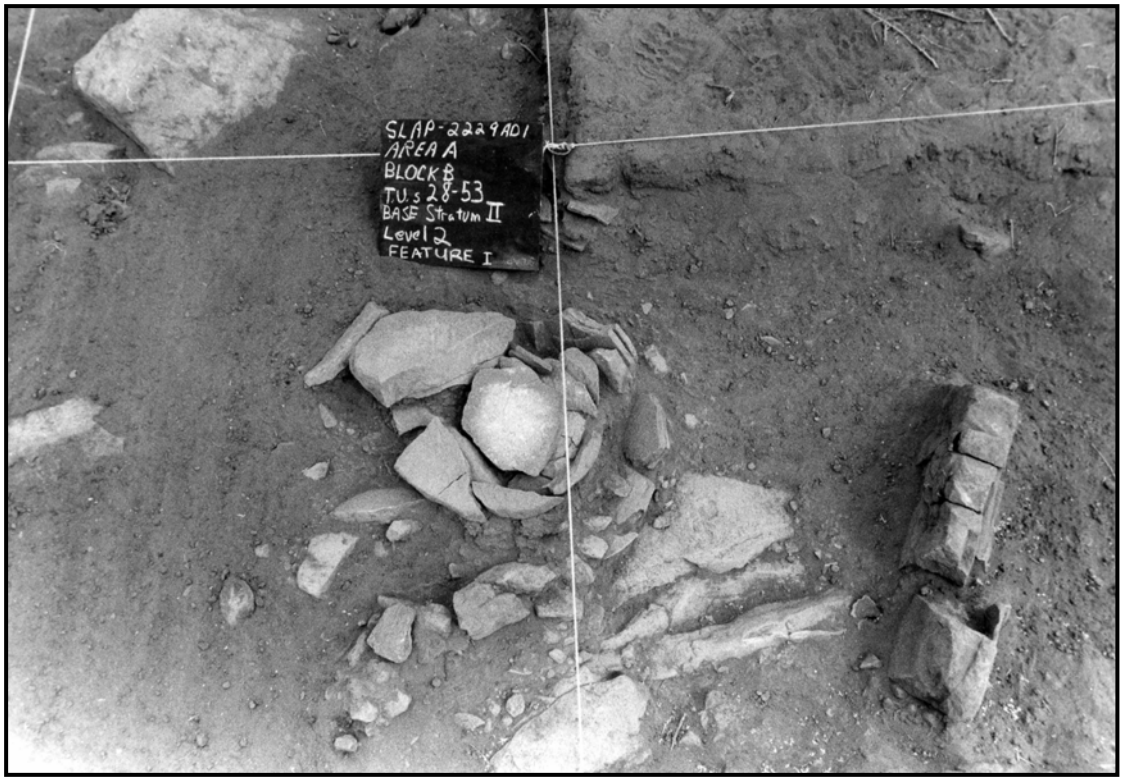


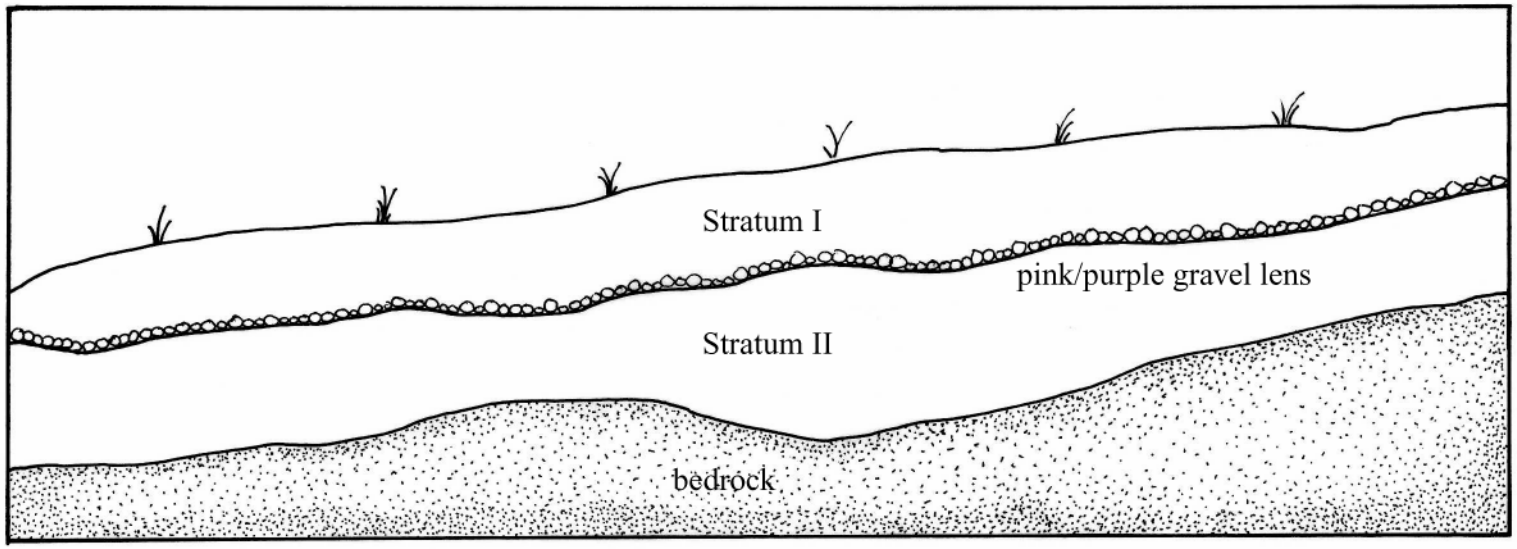
Plate 8.7. Leokwe Hill, Western Summit, Block B, Feature 2, probable pot stand. Plan view.

with the exception of its northeast quadrant which was previously excavated as a 2x2-meter test unit (Test Unit 1). The twelve new test units were numbered 54 through 65. Block C was located 13 m north of the edge of Block A.

The stratigraphy present in Block C was very similar to that already presented for Blocks A and B (Figure 8.8). As in Block B, the degree of rodent disturbance noted in Block C was not as extensive as it was in Block A. In fact, all observations indicate that Block C had suffered the least from rodent disturbance of all areas excavated on the Western Summit. A dark yellowish brown (10 YR 4/4) very fine sand (Stratum I) that had been subjected to deflation was found between 0 and 12 cmbs. Directly below Stratum I in Test Unit I and in the southern and eastern portions of Block C was a pink to purple gravel lens that was between 3 and 10 cm thick. The lens was thin towards the north in Test Unit 1 (see Figure 8.8), but became progressively thicker towards the southern edge of the Block. For example, the interface between Strata I and II in Test Unit 56 was a 9 cm thick lens of soil that consisted primarily (70%) of gravel.

Directly below this gravel was a dark yellowish brown (10YR 4/4) more compact very fine sand (Stratum II). Once the gravel lens was removed, the surface of Stratum II was shown to be a rich midden deposit with large chunks of daub walling and flooring, rock, ceramic sherds, faunal remains, and ground stone. The deposit in Stratum II extended to a maximum depth of 37 cmbs before bedrock was reached.

Leokwe Hill, Western Summit
Block C
TU 1
Eastern Wall Profile



Stratum I: Dark yellowish brown (10YR 4/4) very fine sand with colluvium
Stratum II: Dark yellowish brown (10YR 4/4) very fine sand

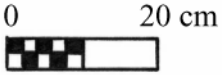


Figure 8.8. Leokwe Hill, Western Summit, Block C, eastern wall profile.

Based on the dense deposit of midden material found below the gravel lens, it is posited here that this lens was intentionally lain down over the midden deposit. Why it was put down is not clear, but I hypothesize that it may have been used to cap or seal the midden for sanitary purposes, or that it may have been put down as fill during an episode of construction or site levelling. No additional features were recorded in Block C.

Block D

Block D consisted of a 2 x 2 m test unit (Test Unit 2) that was excavated in an area of the Western Summit with surface indications of relatively high concentrations of archaeological material and ashy soil consistent with a midden deposit. Block D was located on the northern edge of the hill, directly adjacent to a point at which the archaeological deposit begins to thin out and bedrock is visible on the surface.

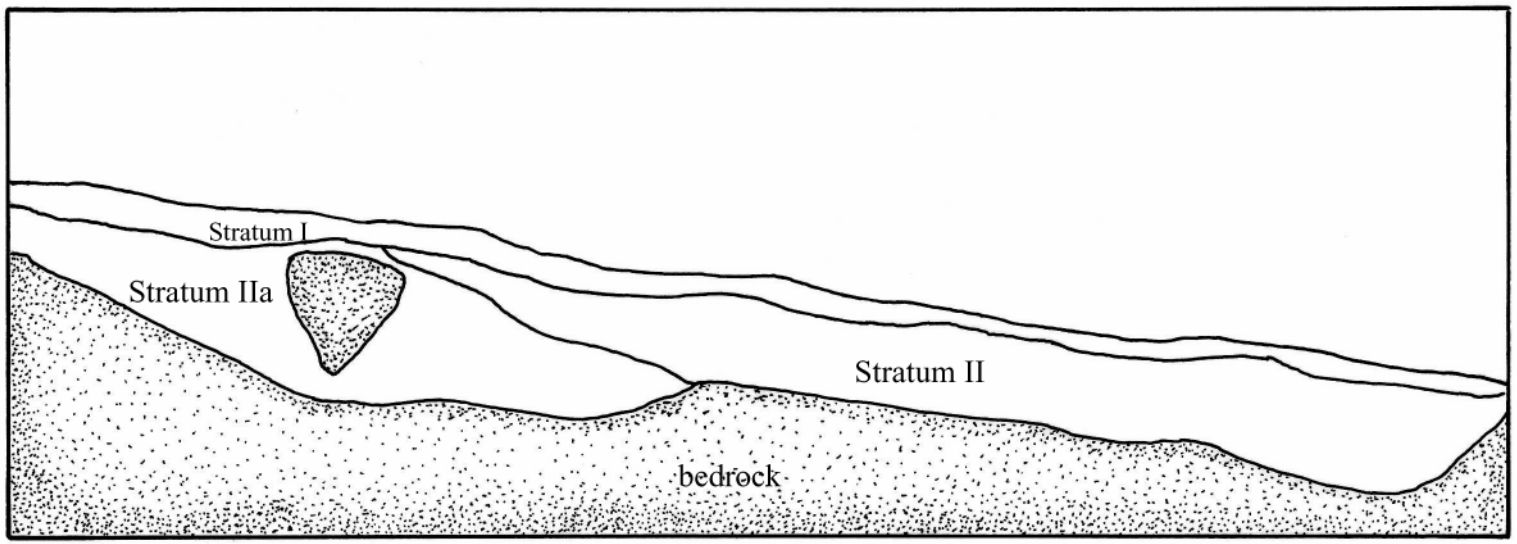
The uppermost soil stratum in Block D consisted of an upper layer of yellowish brown (10YR 4/4) very fine sand mixed with coarse colluvially-deposited gravels (Stratum I) between 0 and 5 cmbs (Figure 8.9). Stratum I was underlain to the north by a light brownish grey to greyish brown (10YR 6/2 to 10YR 5/2) ash midden (Stratum II) and to the south by a dark yellowish brown (10YR 4/4) midden deposit (Stratum IIa). Stratum II was seen to partially overlie Stratum IIa. Stratum II extended between 2 and 16 cmbs, while Stratum II a extended between 2 and 25 cmbs. Bedrock was found below both strata II and IIa. Apart from the midden deposit in Strata II and IIa, no features were recorded in Block D.

Dating

A total of four samples of charred wood or charcoal were submitted for radiocarbon analysis from the Western Summit. One sample was submitted from each excavation block. Unfortunately, only two of the samples taken were from relatively secure deposits (GrA-9011 and Pta-7444). GrA-9011 was retrieved from Level 4 in TU 11 of Block A, while Pta-7444 was recovered from Level 3 in Test Unit 33 in Block B. Both of these samples were retrieved from underneath pieces of rock or daub that were associated with remnant structures from deposit that showed clear indications of being free from rodent activity. Since GrA-9011 was too small for standard radiocarbon analysis it was sent the Centre for Isotope Research at the University of Groningen for analysis employing an Accelerator Mass Spectrometer (AMS). The results of all radiocarbon analyses from Area A are shown in Table 8.1.

Clearly, the two more recent dates from Blocks C and D date the Venda use of the hilltop and an unknown mid-20th century event and do not relate to the Leopard's Kopje assemblage. The other two samples, however, fall well within the range of the Leopard's Kopje A occupation at the site K2. Their weighted average gives a calibrated 1-sigma range of AD 1160 to 1215 (Vogel and Calabrese 2000:48). The significance of these dates will be

Leokwe Hill, Weestern Summit
Block D
Test Unit 2
Western Wall Profile



Stratum I: Yellowish brown (10YR 4/4) very fine sand
Stratum II: Light brownish grey to greyish brown (10YR 6/2 to 10YR 5/2) ash (midden)
Stratum IIa: Dark yellowish brown (10YR 4/4) ash (midden)

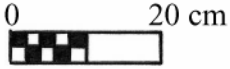


Figure 8.9. Leokwe Hill, Western Summit, Block D, Test Unit 2, western wall profile.

discussed in detail at the end of this chapter after data is presented on all four excavation areas.

Table 8.1. Results of radiocarbon analyses, Leokwe Hill, Area A, Western Summit

Sample Designation	Block	TU	Level	Depth (mm)	Context	Age (bp)	Age Error	Calibrated Age (AD)	1-Sigma Range (AD)
GrA-9011	A	11	4	430	remnant hut floor	890	±40	1200	1165 to 1235
Pta-7444	B	33	3	290	remnant hut floor	940	±60	1160	1035 to 1210
Pta-7445	C	1	3	260	midden	60	±40	1905	1810 to 1930
Pta-7448	D	2	2	410	midden	120	±45	1955	1955

Area A, Western Summit: Material Culture

Owing to the extensive rodent disturbance on the Western Summit noted above, it was not thought necessary or fruitful to compare the Western Summit assemblage on the basis of differences or similarities noted in the vertical distribution of material culture. Rather, due to the tight overall probable age range for the occupation of the summit (ca. AD 1160 to 1215) during its Leopard's Kopje occupation, it was thought that simply presenting the data set on the material culture for the Western Summit as a whole was sufficient. Reference will be made to the horizontal or vertical provenance of specific artifacts or classes of artifacts as necessary.

A preliminary analysis of the decorated ceramic vessels recovered from the hilltop indicated that the predominant ceramics are wares that are best described as Leopard's Kopje A (K2) that appear to be transitional to Leopard's Kopje B (Mapungubwe), with much smaller amounts of Zhizo wares and two much earlier (ca. AD 400) Early Iron Age Happy Rest (De Vaal 1943; Prinsloo 1974) sherds. Both Happy Rest sherds were recovered directly on or above bedrock, while the Zhizo material was interspersed throughout and in association with the Leopard's Kopje material. Thirteen decorated sherds and an additional forty-one plain vessels were identified as Venda on the basis of decoration, surface treatment and paste (coarse surface treatment and a distinctive gritty brown to black micaceous paste); these Venda wares were collected from the surface and recovered from throughout the Western Summit deposit, although they were restricted mainly to Level 1. Their presence in lower levels, however, underlines the disturbed nature of the deposit.

Additional cultural material recovered from the hilltop included beads, ground stone and metal artefacts, as well as numerous lithic artifacts and faunal materials that have yet to be analysed. The lithic tools represent a primarily Later Stone Age (Wilton) assemblage.

Before going on to a presentation of the material culture from the Western Summit, it should be noted that, owing to the disturbed nature of the deposit, differentiating between certain classes of Zhizo/Leopard's Kopje-era and Venda-era artifacts is problematic. Particularly challenging is differentiating between items that are common throughout southern African Iron Age archaeological sites. Chief among these are ground stone artifacts, metallurgical items, and shell beads. Ceramics and glass beads, conversely, are sufficiently diagnostic to identify readily their place in either the Zhizo/Leopard's Kopje or Venda periods. Finished decorative metal items were also identifiable as to overall time period, based upon use of the comparative collection housed at the University of the Witwatersrand.

The following is a presentation of the artefacts recovered from excavation of the Western Summit at Leokwe Hill. Data on the ceramics is presented first, followed by information on miniature ceramic vessels, metal, ground stone, and beads. Following the presentation of data, I will offer a preliminary chronological and functional interpretation of the Western Summit. I will offer a synthetic interpretation of these data in relation to that from other sites excavated in Chapters XI and XII.

Western Summit, Ceramics

A total of 9,866 ceramic sherds comprising 753 formal ceramic vessels were recovered from the Western Summit at Leokwe Hill. Six hundred and ninety-six of these were, on the basis of design elements and surface treatment, clearly executed in either the Leopard's Kopje or Zhizo styles. Of these, 294 (42%) were decorated and therefore able to be analysed according to the procedures laid out in Chapter IV. Table 8.2 presents the results of the analysis of the ceramic material from the Western Summit as a classification for the entire site. The results of the typological analysis of the vessels presented here will aid in answering the research questions posed at the end of Chapter II that relate to the nature, duration, and geographical extent of various ceramic styles in the study area.

The similarity or lack of fit of the Western Summit assemblage with those from other sites in the region will be discussed in Chapter XI. The reader is referred to Appendix A for ceramic drawings and to Appendix E for more detailed information on the Western Summit assemblage, including the specific numbers and placements of design motifs in each type and representative drawings of ceramic types.

Vessel Form, Decoration, and Placement

The 696 vessel forms identified from the excavations on the Western Summit determined to be of Leopard's Kopje or Zhizo styles included simple shallow bowls (n=134 or 19%), simple deep bowls (n=13 or 1%), very shallow bowls (n=31 or 4.45%), necked

bowls (n=1 or <1%), plates (n=17 or 2%), incurvate bowls (36 or 5%), beakers (n=19 or 3%), recurved jars (n=362 or 52%), bag-shaped jars (n=82 or 12%), and bellied jars (n=1 or <1%).

Table 8.2. Leokwe Hill, Area A, Western Summit, decorated ceramic types, from all contexts, by decoration placement, number and percentage.

Type	**Decoration Placement**	Western Summit Total	
		#	%
Limpopo Incised, Recurved Jars, Design Set I1: Horizontal Line	Lower Neck	1	**0.34**
	Shoulder	6	**2.04**
Limpopo Incised, Recurved Jars, Design Set I2: Diagonal Line	Central Neck	5	**1.70**
	Lower Neck	6	**2.04**
	Shoulder	25	**8.50**
Limpopo Incised, Recurved Jars, Design Set I3: Crosshatched	Lower Neck	1	**0.34**
	Shoulder	3	**1.02**
Limpopo Incised, Recurved Jars, Design Set I5: Geometric, Upturned Arcade	Central Neck	1	**0.34**
	Central Neck to Lower Neck	1	**0.34**
	Lower Neck	9	**3.06**
	Lower Neck to Shoulder	12	**4.08**
	Shoulder	27	**9.18**
Limpopo Incised, Recurved Jars, Design Set I6: Geometric, Upturned Triangle	Central Neck	1	**0.34**
	Lower Neck	15	**5.10**
	Lower Neck to Shoulder	32	**10.88**
	Shoulder	29	**9.86**
Limpopo Incised, Recurved Jars, Design Set I11: Geometric, Downturned Triangle	Central Neck	1	**0.34**
	Lower Neck	2	**0.68**
	Lower Neck to Shoulder	3	**1.02**
	Shoulder	5	**1.70**
Limpopo Incised, Recurved Jars, Design Set I12: Geometric, Downturned Arcade	Lower Neck to Shoulder	2	**0.68**
	Shoulder	2	**0.68**
Limpopo Incised, Recurved Jars, Design Set I14: Geometric, Interlocked Triangles	Lower Neck	5	**1.70**
	Shoulder	21	**7.14**
Limpopo Incised, Recurved Jars, Design Set I15: Geometric, Diamonds	Lower Neck to Shoulder	1	**0.34**
Limpopo Incised, Bag-Shaped Jars, Design Set I1: Horizontal Line	Body	1	**0.34**
Limpopo Incised, Bag-Shaped Jars, Design Set I2: Diagonal Line	Central Neck	1	**0.34**
	Shoulder	1	**0.34**
Limpopo Incised, Bag-Shaped Jars, Design Set I5: Geometric, Upturned Arcades	Lower Neck	1	**0.34**
	Shoulder	1	**0.34**
Limpopo Incised, Bag-Shaped Jars, Design Set I6: Geometric, Upturned Triangles	Shoulder	1	**0.34**
Limpopo Incised, Beakers, Design Set I5: Geometric, Upturned Arcades	Body	3	**1.02**
Limpopo Incised, Beakers, Design Set I6: Geometric, Upturned Triangles	Body	3	**1.02**
Limpopo Incised, Beakers, Design Set I14: Geometric, Interlocked Triangles	Body	2	**0.68**

Type	**Decoration Placement**	Western Summit Total	
		#	%
Limpopo Incised, Simple Deep Bowls, Design Set I12: Geometric, Downturned Arcade and Diagonal Line	Body	1	**0.34**
Limpopo Incised, Simple Shallow Bowls, Design Set I1: Horizontal Line	Rim	1	**0.34**
Limpopo Incised, Simple Shallow Bowls, Design Set I2: Diagonal Line	Body	1	**0.34**
Limpopo Incised, Simple Shallow Bowls, Design Set I5: Geometric, Upturned Arcades	Body	2	**0.68**
Limpopo Incised, Simple Shallow Bowls, Design Set I11: Geometric, Downturned Triangles	Rim to Body	1	**0.34**
Limpopo Incised, Very Shallow Bowls, Design Set I3: Crosshatched	Body	3	**1.02**
Limpopo Incised, Very Shallow Bowls, Design Set I6: Geometric, Upturned Triangles	Body	3	**1.02**
Limpopo Incised, Very Shallow Bowls, Design Set I11: Geometric, Downturned Triangle	Lip	1	**0.34**
	Body	3	**1.02**
Limpopo Incised, Very Shallow Bowls, Design Set I14: Geometric, Interlocked Triangles	Body	5	**1.70**
Limpopo Incised, Plates, Design Set I3: Crosshatched	Body	1	**0.34**
Limpopo Incised, Plates, Design Set I5: Geometric, Upturned Arcades	Body	2	**0.68**
Limpopo Incised, Plates, Design Set I6: Geometric, Upturned Triangles	Body	4	**1.36**
Limpopo Incised, Plates, Design Set I11: Geometric, Downturned Triangles	Rim to Body	1	**0.34**
	Body	4	**1.36**
Limpopo Incised, Necked Bowls, Design Set I11: Geometric, Downturned Triangles	Body	1	**0.34**
Limpopo Comb-Stamped, Recurved Jars, Design Set CS1: Horizontal Line	Central Neck	3	**1.02**
	Lower Neck	4	**1.36**
	Shoulder	2	**0.68**
Limpopo Comb-Stamped, Recurved Jars, Design Set CS2: Diagonal Line	Lower Neck	1	**0.34**
Limpopo Bead/Bangle-Impressed Wares, Recurved Jars, Design Set BB1, Horizontal Line	Central Neck	1	**0.34**
	Lower Neck	1	**0.34**
	Shoulder	1	**0.34**
Limpopo Punctated, Recurved Jars, Design Set P1: Horizontal Line, Round	Shoulder	1	**0.34**
Limpopo Fingernail-Impressed, Recurved Jars, Design Set FI: Horizontal Line	Lower Neck	1	**0.34**
	Shoulder	2	**0.68**
Limpopo Stabbed, Recurved Jars, Design Set ST1: Diagonal Stab, Horizontal Line	Shoulder	2	**0.68**
Limpopo Stabbed, Recurved Jars, Design Set ST2: Vertical Stab, Horizontal Line	Shoulder	1	**0.34**
Limpopo Stabbed, Bag-Shaped Jars, Design Set ST2: Horizontal Stab, Horizontal Line	Shoulder	1	**0.34**
Limpopo Incised and Comb-Stamped, Recurved Jars, Design Set I/CS2: Zoned			

Type	Decoration Placement	Western Summit Total	
		#	%
Diagonal	Lower Neck	1	**0.34**
Limpopo Incised and Stabbed, Recurved Jars, Design Set I/ST3: Zoned Diagonal	Lower Neck	2	**0.68**
	Shoulder	5	**1.70**
Limpopo Fluted, Incurvate Bowls, Design Set FL1: Vertical	Rim to Body	1	**0.34**

Incised wares (n=264 or 90%) dominated the decorated assemblage, and were followed in frequency by comb-stamped wares (n=10 or 3%), stabbed and incised wares (n=7 or 2%), stabbed wares (n=4 or 1%), bead/bangle-impressed wares (n=3 or 1%), and fingernail-impressed wares (n=3 or 1%). A single occurrence each of fluting, comb-stamping and incision, and punctation were also recorded. These singular techniques each accounted for less than 1 per cent of the total decorated ceramic assemblage.

The decoration techniques most commonly associated with the Zhizo ceramic style (comb-stamping, bead/bangle impression, and comb-stamping and incision) occurred horizontally and vertically throughout the deposit. Four of the ten comb-stamped sherds were recovered from Block A, one each from Blocks B and C, and four from Block D. All three bead/bangle-impressed sherds were from Block A, while the single comb-stamped and incised sherd was recovered from Block B. Comb-stamped vessels were recovered from Levels 2 to 4, bead/bangle-impressed wares from Levels 3 and 4, and the single instance of incised and comb-stamped ceramics was recovered from Level 3.

Decoration placement on recurved and bag-shaped jars was dominated by shoulder placement (n=136 or 54%), and was followed in frequency by decoration on the lower neck (n=50 or 20%), on the lower neck to shoulder (n=50 or 20%), on the central neck (n=14 or 6%), and on the body (n=1 or <1%). Decoration placement on open bowl forms, including simple shallow bowls, simple deep bowls, very shallow bowls, necked bowls, and plates, was dominated by decoration on the body (n=30 or 88%), and was followed in frequency by rim decoration (n=2 or 6%), lip decoration (n=1 or 3%) and decoration on the rim and the body (n=1 or 3%). All of the decorated beakers were decorated on the body (n=8 or 100%), and the single example of a decorated incurvate bowl was decorated on the vessel's rim to its shoulder.

Western Summit, Ceramics: Discussion

Based upon the varying frequencies of ceramic styles typically associated with Zhizo and Leopard's Kopje wares, the ceramic assemblage from the Western Summit at Leokwe Hill is interpreted tentatively here as most closely resembling a Leopard's Kopje assemblage. As was discussed in Chapter II, Zhizo wares are most often characterised by comb-stamped and bead/bangle-impressed design motifs; Leopard's Kopje wares, conversely, are

characterised by incised motifs including pendant and upturned triangles and arcades. The tabulation of the relative frequency of these very gross differences indicate that Leopard's Kopje wares, as traditionally defined, account for 71% (n=208) of the Western Summit assemblage, while Zhizo wares account for only 5% (n=14) of the assemblage. Wares that could not confidently be placed into either style account for 24% (n=72) of the assemblage. Design sets that were included here as associated with Leopard's Kopje wares are I5, I6, I11, I12, I14, I15 and FL1; Zhizo-associated Design Sets include CS1, CS2, B/B1, and I/CS2; indeterminate wares bore design sets I1, I2, I3, P1, F1, ST1, ST2, and I/ST3. These ceramic data will be drawn upon in Chapter XI during our discussion of ceramic changes across time in the region.

Western Summit, Miniature Ceramic Vessels

A total of four miniature vessels were recovered from the Western Summit at Leokwe Hill. These included two small incurvate coarse bowls, and two small coarse open bowls. One of the open bowls was decorated with a double row of chevrons on its rim. One of the incurvate bowls was recovered from Block A, Test Unit 13, Stratum II, Level 4, while the other was found in Block B, Test Unit 35, Stratum II, Level 3. The plain open bowl was recovered from Block A, Test Unit 21, Stratum II, Level 4, while the decorated open bowl was recovered from Block A, Test Unit, 10, Stratum I, Level 1.

Owing to the disturbance noted previously, it is not possible to assign the undecorated small coarse bowls to a specific time period. The small decorated bowl, however, bears a chevron design motif very common in Leopard's Kopje assemblages in southwestern Zimbabwe (Huffman 1974).

Western Summit, Metal

Finished Metal Items

A total of 18.93 g of finished, non-utilitarian metal items in all likelihood associated with the Leopard's Kopje occupation of the Western Summit was recovered. The type, material, count, and weight (in grams) of these items are shown in Table 8.3.

In addition, two very fragmentary finished iron implements, both of which were decayed to the point of having fragmented into annealed plates, were also recovered. One of the implements, possibly an adze, weighed 132.22 g, was recovered from Block B; the other, as yet unidentified implement, weighed 15.79 g, and was recovered from Block A.

Finally, I should note that two metal items of decidedly Venda origin were recovered from the Western Summit. These consisted of a wire bracelet fashioned from copper weighing 3.31 g, and copper bangle fragment weighing 0.09 g. These items were differentiated from Leopard's Kopje era items based on reference to the comparative

collection of finished K2, Mapungubwe, and Venda metal materials housed at the Van Riet Lowe Collection at The University of the Witwatersrand.

I should like to take the opportunity here to note some previous errors. I (Calabrese 2000b: Table 2) mistakenly included the Venda bangle fragment mentioned above in the Leokwe Hill, Area A, data. Also, wishing to err on the side of caution, I mistakenly excluded the three sweat scraper blades from the same table. Finally, the sweat scraper handle noted in Table 8.3 was originally identified simply as a "Pendant" in Calabrese 2000b. It and the blades are identified here as sweat scraper fragments based on their similarity to similar items recovered from Mapungubwe and which are contained in the Van Riet Lowe collection at the University of the Witwatersrand. Also, this item was originally identified (Ibid) as having a weight of 7.49 g, not its actual weight of 4.59 g. This last error was typographical.

Table 8.3. Finished non-utilitarian metal items, Leokwe Hill, Western Summit, by material, type, excavation block, count and weight (g).

Material	**Type**	**Block Count**					**Total Count**	**Total Weight**
		Surf	**A**	**B**	**C**	**D**		
Copper	Bangle/Helix Fragments	5	1	4	1	1	12	5.25
	Beads			4			4	0.12
	Ring	1					1	0.53
	Unidentified Ornament				1		1	1.5
Copper Totals		**6**	**1**	**8**	**2**	**1**	**18**	**7.40**
Iron	Bangle/Helix Fragments			2	1	1	4	0.84
	Beads		2	4		1	7	2.41
	Pin			1			1	3.60
	Sweat Scraper Handle		1				1	4.59
	Sweat Scraper Blade				3		3	12.99
Iron Totals		**-**	**3**	**7**	**4**	**2**	**16**	**24.43**
Total, Copper and Iron		**6**	**4**	**15**	**6**	**3**	**34**	**31.83**

Metallurgical Items

Metallurgical items from the Western Summit consisted of two pieces of possible iron bloom, two pieces of slag, and two pieces of copper pouring splash. One piece of possible iron bloom was recovered from the surface while the other was recovered from Block D. Both pieces of slag were recovered from the surface, while both pieces of copper pouring splash were recovered from Block A. This very limited assemblage of metallurgical remains is interpreted here as indicating that some smithing may have occurred at the site, as well as possible secondary re-melting of copper. Again, it should be remembered that it is not possible to determine if such activities took place during the Leopard's Kopje occupation or

the Venda occupation.

Western Summit, Ground and Worked Stone

A total of sixteen items of ground stone were recovered from the Western Summit at Leokwe Hill. These included upper and lower sorghum/millet grinding stones, probable pottery burnishing stones, a shaft-straightening/bead-grinding stone, an ochre-stained smoothed pebble, and a carved monolith fragment. The monolith fragment is shown in Plate 8.8. The distribution of these items on the Western Summit, by excavation block, is shown in Table 8.4.

Table 8.4. Ground and worked stone items recovered from the Western Summit, Leokwe Hill, by material type, excavation block, and total count.

Material	**Excavation Block**					**Total Count**
	Surf	**A**	**B**	**C**	**D**	
Grinding stone, upper, whole		1	1	2		4
Grinding stone, upper, broken			2	1	1	4
Grinding stone, lower, broken	1*					1
Burnishing stone			2	2		4
Shaft straightening/bead-grinding				1		1
Monolith/stelae fragment		1				1
Totals	**1**	**2**	**5**	**6**	**1**	**15**

*recovered from the surface of Block B

The types and amounts of ground and worked stone from the Western Summit (excepting the monolith fragment) are typical of what would be expected from a domestic residential/occupational site, with material from probable grain processing dominating the ground stone assemblage (n=9 or 64%), and followed in frequency by items associated with probable pottery manufacture (n=4 or 29%), and craft manufacture (n=1 or 7%).

The monolith fragment is intriguing, as it appears to represent the upper half of what may have been a diamond. This monolith fragment, I should point out, was recovered from a secure context in Level 3 in Block A and therefore is in all likelihood not associated with the Venda occupation of the summit. The possibility that it is of more recent Venda origin, however, does exist. Diamonds, according to Huffman (1996:29-30), are in recent Shona and Venda iconography indicative of crocodiles. When these types of symbols appear on pillars and in association with high status settlement in more recent and earlier southern African Iron Age contexts, they are thought by Huffman (Ibid) to signify "sacred leadership and its responsibilities." The reader is referred to Caton-Thompson (1931: Plate LII, 1, far left) for an example of a similarly decorated stelae from Great Zimbabwe. To what extent the settlement on the Western Summit at Leokwe Hill was a high status residence will be discussed below and in greater detail in Chapter XII.



Plate 8.8. Leokwe Hill, Western Summit, fragmentary stela recovered from the northern portion of Block A, near bedrock.

Western Summit, Beads

A total of 399 beads were recovered from the Western Summit of Leokwe Hill, excluding the metal beads previously discussed. Those beads most often recovered were fashioned from ostrich eggshell (n=221 or 55%), glass (n=173 or 43%), and bone (n=3 or 1%). Beads recovered were also fashioned from *Achatina* sp. (n=1) and freshwater shell (n=1); both of these material types accounted for less than 1% of the total bead assemblage. The 173 glass beads discussed here include some that were fragmentary (n=9) or, in one instance, was a melted cluster representing six beads.

As is the case with the rest of the Western Summit assemblage, the context of these materials is referenced only in relation to their horizontal location (i.e., by excavation block), owing to the vertical disturbances previously noted. The lack of unambiguous vertical integrity of these materials has made it impossible to distinguish between Venda period and earlier beads, with the sole and notable exception of glass beads. The glass trade beads from the Western Summit were examined by Marilee Wood as part of her Masters dissertation. She identified 105 Venda period beads; the remainder of the glass trade beads (n=68) were placed into the Leopard's Kopje or earlier periods based upon reference to the Van Riet Lowe Collection and in consultation with Ms. Wood.

As was the case with the metal items, I am taking this opportunity to emend my previous summary of these materials (Calabrese 2000a: Table 1; 2000b: Table 1). I

previously omitted the Venda beads from discussion. Also, I did not include three broken ostrich eggshell beads. Finally, I previously undercounted a partially melted cluster of Leopard's Kopje period Indo-Pacific reddish brown beads from Block B. The data set presented below corrects these errors. However, I note here that further examination of this material, in particular the analysis of glass trade beads undertaken by Marilee Wood, should take precedence over the information presented here.

Detailed information on the bead assemblage is found in Tables 8.5 through 8.7. These tables begin with ostrich eggshell beads and continue with glass beads and miscellaneous beads. In addition to these ostrich eggshell beads, two ostrich egg shell bead blanks were recovered, as were two fragments of unworked ostrich eggshell.

Table 8.5. Western Summit, Leokwe Hill, ostrich eggshell beads, by size class, and by excavation block.

	Size Class										
Block	**12**	**11**	**10**	**9**	**8**	**7**	**6**	**5**	**4**	**Ind.**	**Total**
A	1	3	8	3	17	12	22	22	4	1	93
B	1	1	2	10	28	16	19	3	2	1	83
C	1	2	5	6	8	10	6	1	-	-	39
D	-	-	-	1	2	-	2	-	-	1	6
	3	6	15	20	55	38	49	26	6	3	221

Blue green beads account for 50% of the assemblage, Indo-Pacific brownish red beads comprise 32%, and black beads comprise 9%. These percentages most closely conform to those from the site K2 (Wood 2000: Table 1). Following Wood (Ibid), the presence of a very small percentage of clearly Mapungubwe period beads (n=4 or 6%), combined with a relatively large percentage of Indo-Pacific brownish red beads indicates that this bead assemblage represents a terminal K2/early Mapungubwe assemblage.

The Venda beads will not be discussed here in any detail, save to note that they included materials that were blue, brownish red, green, Indian red-on-green, white and oyster. The Indian red-on-green beads are sensitive temporal markers, as they were of European origin and are known to have been manufactured between ca. AD 1600 and 1836 (Wood 2000:90). Venda beads recovered from or on the surface of excavation block were as follows: twenty-four from Block A, fifty-nine from Block B, four from Block C, sixteen from Block D. Two Venda beads were recovered on the surface away from an excavation block.

In addition to the ostrich eggshell and glass trade beads discussed above, five additional beads were recovered. The type and provenience of these are shown in Table 8.7.

Table 8.6. Western Summit, Leokwe Hill, glass beads, by type, colour, number (#), weight (g), and by excavation block.

	Block									
	A		B		C		D		Total	
Type	**#**	**g**	**#**	**g**	**#**	**g**	**#**	**g**	**#**	**g**
Mapungubwe Black			1	.05					1	.05
Mapungubwe Green					1	.03			1	.03
Mapungubwe Orange			1	.05			1	.04	2	.09
Indo-Pacific Black			3	.08					3	.08
Indo-Pacific Brownish Red			20	.44	1	.02	1	.03	22	.49
K2 Green			2	.06					2	.06
K2 Blue Green	8	.25	19	.49	2	.05	5	.15	34	.94
Zhizo Blue			2	.04	1	.01			3	.05
Total	8	.25	48	1.21	5	.11	7	.22	68	1.79

Table 8.7. Leokwe Hill, Western Summit, miscellaneous beads, by type and by block.

Block	**Bone**	***Achatina* sp.**	**Freshwater Shell**	**Total**
A	1	-	-	**1**
B	2	1		**3**
C	-	-	-	**-**
D	-	-	1	**1**
Total	**3**	**1**	**1**	**5**

Discussion: Leokwe Hill, Western Summit

The Western Summit at Leokwe Hill represents the remains of a prehistoric settlement that was first occupied during the Iron Age between ca. AD 1160 through AD 1215, with a later historic period Venda occupation. A Later Stone Age component is also present, and may be responsible for the two Early Iron Age Happy Rest/Matakoma sherds recovered. The site was contemporary with the Leopard's Kopje occupation at the nearby site K2; the primary ceramic component present fits traditional definitions of contemporary Leopard's Kopje A assemblages. A far less abundant Zhizo component is also present, and appears to occur in association with the Leopard's Kopje A component. This interpretation of stylistic co-occurrence, as opposed to mixing, is supported by the lack of any Zhizo-period dates (i.e., ca. pre-AD 1000) dates, as well as the comparatively small, limited assemblage of wares executed with Zhizo-style motifs. A much larger collection of wares executed in the Zhizo style would be expected if there were an actual Zhizo occupational component present.

The main period of occupation, based upon radiocarbon dating and the glass trade bead assemblage, occurred within the Leopard's Kopje A use of the hill. This occupation, based upon the extant ceramic assemblage, appears to have been decidedly domestic and residential, with the remains of numerous hut floors identified in association with a mixture of

Leopard's Kopje cooking, serving, and storage vessels.

The possible association of a Zhizo ceramic component with the putative Leopard's Kopje A assemblage raises some important questions regarding both the regional ceramic chronology and the nature of prehistoric social and political interaction in the region. First, if Leopard's Kopje A (i.e., K2) ceramics were markers of a separate ethnic/social entity which overran the area of the Shashi-Limpopo confluence around the turn of the 11th century AD, driving the Zhizo-using inhabitants of the region into eastern Botswana, why do Zhizo wares at the Western Summit of Leokwe Hill appear to persist after the establishment of K2? The heavy disturbance noted at the site may, of course, be responsible for the apparent co-occurrence of these wares, and there may indeed be a separate, as yet unidentified, Zhizo occupation on the Western Summit. If however, evidence from other areas of the larger Leokwe Hill site complex indicates that these wares do co-occur, as was documented at Castle Rock and Baobab, this co-occurrence would argue against the notion of a Leopard's Kopje A invasion of the region that wholly replaced the Zhizo style. As will be seen below in our discussion of the Northern Terrace at Leokwe Hill, evidence is available with which to address these issues of stylistic co-occurrence. Addressing these issues is necessary if we are to determine if such co-occurrence represents some as yet undetermined interaction between two separate ethnic entities, or represents an instance of internal heterochrestic stylistic development. These questions will be discussed in greater detail in Chapter XI.

As was discussed at the end of Chapter III, several potential archaeological correlates exist that are useful in differentiating ethnic-based societies from class-based societies in southern African prehistory. Among those correlates present at the Western Summit of Leokwe Hill are glass trade beads, finished non-utilitarian metal items, and elements of the Zimbabwe settlement pattern. It was proposed that the presence of these items and settlement patterns has the potential, when compared to similar data sets from other sites, to illustrate the ability of a site's residents to appropriate surplus social production in the context of manifesting elite identity.

Sixty-eight glass trade beads from the Leopard's Kopje occupation were recovered from the Western Summit, as was a quantity of finished non-utilitarian iron and copper items. While the types and amounts of these items at the site are not overwhelming, they do represent a greater quantity, and a more diverse assemblage than was found, for example, at either Baobab or Castle Rock. The location of the site on top of a large, prominent hill, in the absence of any other clear indications of defence, such as a hilltop cattle byre, would also seem to indicate that this may have been an elite settlement.

Interestingly for a site that has other indications of elite settlement, there is very little evidence of either metal production or religious specialisation at the site. While it may be possible that the site was not truly elite based on the lack of evidence of these activities, their

absence may also be explained by the increased specialisation of society as a whole at this juncture in the region's social and political history; i.e., such activities may have been increasingly controlled over time by the residents of K2 and Mapungubwe, and the period of the site's occupation may correspond to an era of increased centralisation and control.

As was discussed in Chapter IV, the artefact assemblage recovered from the Western Summit at Leokwe Hill, in particular those items potentially demonstrative of status differentiation will be compared with those from other sites discussed in this thesis in order to determine the site's relative socio-political status. This comparison will take place in Chapter XII.

Area A, Courtyard

Directly below the Western Summit is a large saddle that separates the narrow eastern length of the hill from the Western Summit (see Figure 8.1). The saddle measures approximately 50 m southwest to northeast and 25 m northwest to southeast. The saddle is bounded to the south by a sheer precipice to the valley floor below and to the north by the remains of a large wall that in antiquity restricted access to the saddle. A gaming or *mankala* board is carved into the bedrock near the northern edge of the saddle; also present in the saddle is an outcropping of sandstone that was naturally formed in the shape of a backed chair or seat. An individual seated in this formation would be facing north. Overall, this saddle area gives the impression of a reception area or courtyard.

Area A, Courtyard: Stratigraphy

The ground surface of the courtyard area consists primarily of exposed bedrock, thereby limiting the opportunities for excavation. A narrow area of grey ashy soil indicative of midden deposition was present near the northwest portion of the saddle. A single 1 x 4 m test unit was placed in this area.

The soil stratigraphy present was very straightforward (Figure 8.10), consisting of an upper layer of yellowish brown (10YR 4/4) very fine sand mixed with coarse colluvially-deposited gravels (Stratum I) between 0 and 12 cmbs. Stratum I was underlain to the north by light brownish grey (10YR 6/2) fine silt (Stratum II) between 12 and 32 cmbs.

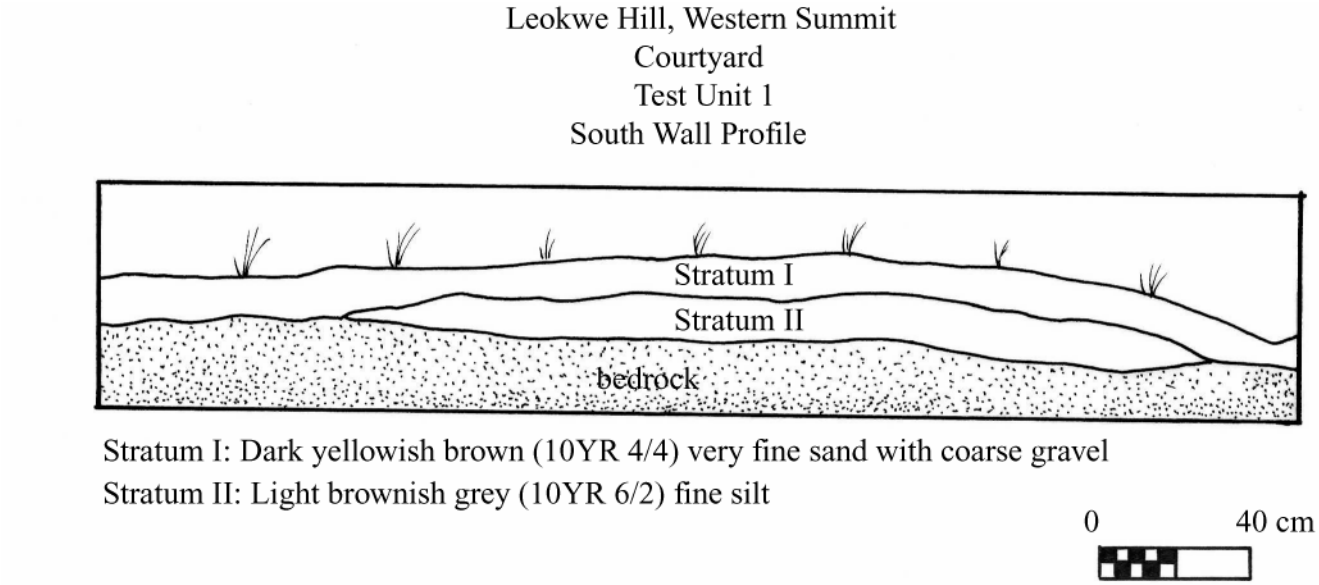


Figure 8.10. Leokwe Hill, Western Summit, Courtyard, Test Unit 1, south wall profile.

Area A, Courtyard: Material Culture

Before going on to present data on material culture from the courtyard, it should be noted that, owing to the fact that the material assemblage is relatively small, to the fact that courtyard deposit has not been radiocarbon dated, these items will not be drawn upon in the larger discussions in Chapter XI and XII. These data are presented here, however, in order to make the total data from the site available to future researchers.

Courtyard, Ceramics

A total of nineteen formal ceramic vessels were recovered from the courtyard area below the Western Summit at Leokwe Hill. All of these were, on the basis of design elements and surface treatment, clearly executed in the Leopard's Kopje style. Of these, thirteen (68%) were decorated and therefore able to be analysed according to the procedures laid out in Chapter IV. Table 8.8 presents the results of the analysis of the ceramic material from the courtyard below the Western Summit as a classification for the area. The results of the typological analysis of the vessels presented here will aid in answering the research questions posed at the end of Chapter II that relate to the nature, duration, and geographical extent of various ceramic styles in the study area.

Vessel Form, Decoration, and Placement

Vessel forms identified from the excavations in the courtyard included simple shallow bowls (n=1 or 5%), very shallow bowls (n=1 or 5%), recurved jars (n=12 or 63%), bag-shaped jars (n=5 or 26%). Thirteen of the nineteen vessels recovered from the courtyard in Area A were decorated. Incised wares (n=11 or 85%) dominated the decorated assemblage, and were followed in frequency by punctated wares (n=1 or 7.6%), and stabbed wares (n=1 or 7.6%). Decoration placement on recurved jars was dominated by shoulder placement (n=8 or 62%), and was followed in frequency by decoration on the lower neck to shoulder (n=3 or 23%), and on the lower neck (n=1 or 5%). Decoration placement on open bowl forms, including one example of a very shallow bowl, consisted of body placement. A classification of these vessels is shown in Table 8.8.

Courtyard, Metal

A total of four pieces of finished metal were recovered from the excavation in the courtyard area below the Western Summit of Leokwe Hill. These included one piece of slag weighing 8.31 g, two unidentifiable pieces of finished metal weighing 2.58 g and 1.47 g, respectively, and a single copper bangle fragment weighing 0.46 g.

Table 8.8. Leokwe Hill, Area A, Courtyard, decorated ceramic types, from all contexts, by number and percentage.

Type	Decoration Placement	Courtyard Total	
		#	%
Limpopo Incised, Recurved Jars, Design Set I2: Diagonal Line	Shoulder	1	**7.6**
Limpopo Incised, Recurved Jars, Design Set I5: Geometric, Upturned Arcade	Shoulder	1	**7.6**
	Lower Neck to Shoulder	1	**7.6**
Limpopo Incised, Recurved Jars, Design Set I6: Geometric, Upturned Triangle	Lower Neck	1	**7.6**
	Shoulder	1	**7.6**
	Lower Neck to Shoulder	2	**15.8**
Limpopo Incised, Recurved Jars, Design Set I11: Geometric, Downturned Triangle	Shoulder	2	**15.8**
Limpopo Incised, Recurved Jars, Design Set I12: Geometric, Downturned Arcade	Shoulder	1	**7.6**
Limpopo Incised, Very Shallow Bowls, Design Set I14: Interlocked Triangles	Body	1	**7.6**
Limpopo Punctated, Recurved Jars, Design Set P1: Horizontal Line, Round	Shoulder	1	**7.6**
Limpopo Stabbed, Recurved Jars, Design Set ST1: Diagonal Stab, Horizontal Line	Shoulder	1	**7.6**

Courtyard, Beads

Eight shell beads were recovered from the courtyard excavation below the Western Summit on Leokwe Hill. Seven of these were fashioned from ostrich eggshell, while the eighth was fashioned from *Achatina* sp. shell. Four of the ostrich eggshell beads were placed in Size Class 9, while the remaining three were placed one each in Classes 5, 6, and 7. The single *Achatina* bead was placed in Size Class 6.

Area A, Northern Platform

Below the saddle near the base of the hill in a portion of the site designated as the Northern Platform, a series of three low (ca. .50 m high) semicircular uncoursed masonry walls are present. These walls appear to have functioned as retaining walls.

Area A, Northern Platform: Stratigraphy

A single 2 x 1 m test unit was excavated behind and upslope of one of the low stone walls located at the base of the Western Summit in order to determine if the soil in the area behind the wall contained intact archaeological deposit. The stratigraphy present in the area south of the wall consisted of an upper level of a dark yellowish brown (10YR 4/4) fine silt mixed with around 50% colluvially-deposited gravels, daub hut rubble and stones (Stratum I) between 0 and 15 cm below surface. Bedrock was reached at the base of Stratum I.

Area A, Northern Platform: Material Culture

A total of 175 ceramic sherds were recovered from the courtyard. Upon analysis, a

total of four vessels were identified. These vessels all appeared to have been executed in the K2 style. One green K2 period glass trade bead was also recovered. This bead is a type commonly found at K2 (Wood 2000). In addition, four Venda period beads were recovered from this platform. This low stone walling may thus be associated with either the Leopard's Kopje or Venda occupations of the Western Summit.

As is the case with material culture from the courtyard area just presented, these data from the Northern Platform area will not be used in the larger analyses of data in Chapters XI and XII owing to their lack of a secure dating and the relatively small of the sample recovered.

Area B, Northern Terrace

Area B, referred to hereafter as the Northern Terrace, is located below and just to the north of the eastern portion of Leokwe Hill (Figure 8.11), 200 m east of Area A (see Figure 8.2). A currently dry tributary to the Kolope River runs through the far northern portion of the Northern Terrace. This drainage runs directly along the base of a small rocky hill which separates the Northern Terrace from Area C. Surface reconnaissance on the Northern Terrace indicated a strong comb-stamped and bead/bangle-impressed component consistent with descriptions of Zhizo ceramics, with a modicum of incised wares with clear correlates of Leopard's Kopje A and Venda ceramics. The far southern portion of the Northern Terrace, adjacent to the face of the hill, contains a 20 m long rock overhang with low uncoursed masonry walling in front of it. Surface features observed included a substantial midden deposit on the edge of an unburnt animal byre and two grain bin foundations. A 3 x 5 m trench (Block A), a 2 x 2 m trench (Block B), and a 2 x 3.25 m trench (Block C) were excavated here. Five additional 1 x 1m test units were excavated on the Northern Terrace.

I should note that, in contrast to the situation on the Western Summit, archaeological integrity at the Northern Terrace, although still challenging to interpret owing to rodent disturbance, was sufficient to allow for vertical analysis of the material recovered. This analytic and interpretive situation was also greatly improved owing to the fact of there being no significant evidence of components unrelated to the time period under study: a single Venda bead was recovered from the Northern Terrace and only two slightly more recent Mapungubwe sherds were recovered. These relatively minor occurrences of outlying materials, coupled with the rigorous excavation techniques employed, ensured that the integrity of recovered materials was adequate to the task of vertical interpretation.

Following the description of the stratigraphy present in each set of related excavation blocks or spatially distant test units, data on radiocarbon dates if available and material

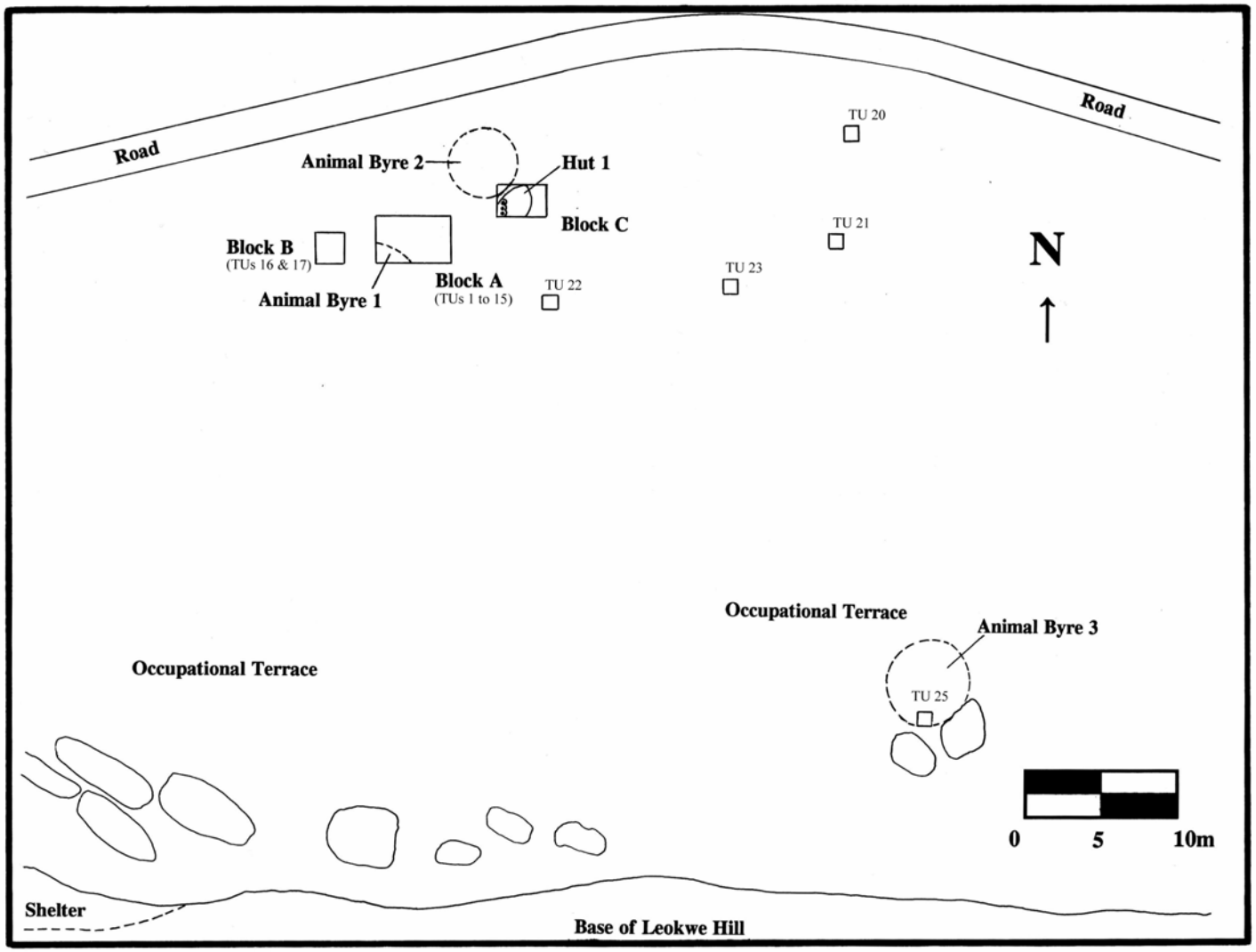


Figure 8.11. Leokwe Hill, Northern Terrace, showing location of excavation blocks and features.

culture recovered in each area are presented. Data on the ceramics is presented first, followed by information on other metal, figurines and other ceramic items, ground stone, and beads. Following the presentation of data, I will offer a preliminary chronological and functional interpretation of the Northern Terrace. I will offer a synthetic interpretation of these data, presented from the Northern Terrace as whole, in relation to that from other sites excavated in Chapters XI and XII.

Northern Terrace : Stratigraphy, Dating, and Material Culture

Blocks A and B: Central Midden and Animal Byre 1

Stratigraphy

Five soil strata were encountered during excavation in Blocks A and B on the Northern Terrace. Block A was a 3 x 5 m trench that comprised Test Units 1 through 15, while Block B was a 2 x 2 m trench that comprised Test Units 16 through 19. Block A was excavated to a maximum depth of 108 cm below surface before bedrock was reached, while Block B was excavated to a depth of 120 cm below surface. Block A is described here and is illustrated in Figure 8.12. Stratum I consisted of a brown (10YR 5/3) heavily trampled, loose ashy silt sitting atop a more compact dark yellowish brown (10YR 4/4) ashy silt (Stratum II). Both of these strata have been subjected to animal disturbance in the recent past and in antiquity. A very clear change in the colour and texture of the soil matrix was noted below Stratum II, which came down onto either an unburnt pale yellow (2.5Y 7/4) dung deposit (Stratum III) or onto an ash midden (Stratum IV). Stratum III was unevenly distributed throughout the deposit. It became progressively thicker and more compact towards the southwestern portion of the excavation, where it formed a rough horizontal arc. Stratum III was not present in Block B. Stratum IV was a heavily burrowed, very fine and powdery light brownish grey (10YR 6/2) ash. Approximately 30 to 40% of this stratum was lost to burrowing activities. Strata III and IV sat atop a yellowish brown (10YR 5/4) moderately ashy silt (Stratum V) on bedrock. Again, this stratum had also been subjected to extensive animal disturbance, although it was at times difficult to detect. In terms of depositional integrity, it should be reiterated that although the site has been clearly subjected to bioturbation, the excavation procedures employed ensured that little contaminated deposit was retained, as all burrows were removed separately and materials recovered from them were excluded from analysis.

Upon further examination, I decided that, for purposes of vertical comparison and analysis, these five soil strata should be divided into three depositional units (DUs). Based upon their great similarity in respect to their composition, Strata I and II were merged into DU I. Strata III and IV were merged into DU II, owing to the fact that they occur at relatively the same depth and thus appear to have been deposited at roughly the same time. Strata V

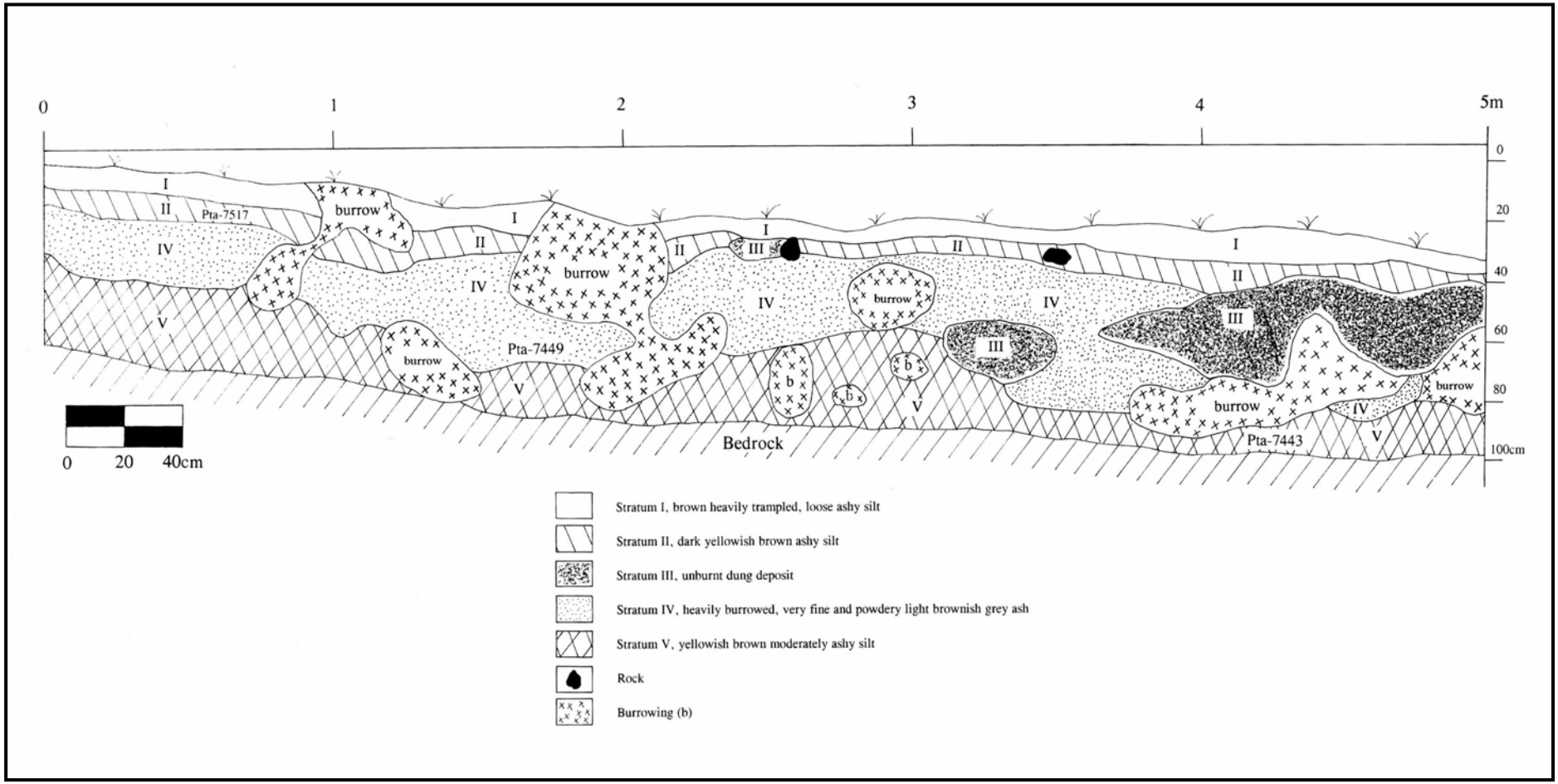


Figure 8.12. Leokwe Hill, Northern Terrace, Block A, south wall profile.

formed DU III. The following section on material culture from this portion of the Northern Terrace makes reference to these depositional units.

Dating

Three samples of charred wood or charcoal from the midden at Leokwe Hill, Northern Terrace, were submitted for radiocarbon analysis. These samples were all from the deposit in Block A; all were taken from contexts that appeared to be stratigraphically secure, but which may have been subjected to bioturbation at some point in the past. The Block A samples, as will be discussed below, clearly derived from deposits associated with ceramic material best identified, using the traditional ceramic typology, as Zhizo. The results of radiocarbon analyses from the midden on the Northern Terrace are shown in Table 8.9.

The radiocarbon dates from Block A indicate a date range for the occupation associated with the midden on the Northern Terrace as occurring sometime between ca. AD 1050 and 1150. The apparent reversal of the ages with depth is well within the statistical uncertainty of the measurements (Vogel and Calabrese 2000:48). The significance of these dates will be discussed in detail at the end of this section and again at the end of this chapter after data is presented on all four excavation areas.

Table 8.9. Results of radiocarbon analyses, Leokwe Hill, Northern Terrace, midden.

Sample Designation	Block	TU	Depth (mm)	Context	Age (bp)	Age Error	Calibrated Age (AD)	1-Sigma Range (AD)
Pta-7443	A	11	350	midden	1000	±60	1035	1010 to 1160
Pta-7449	A	7	590	midden	980	±50	1040	1025 to 1165
Pta-7517	A	11	790	midden	940	±50	1160	1040 to 1200

Material Culture, Northern Terrace, Blocks A and B

Ceramics

A total of 9,221 ceramic sherds comprising 563 ceramic vessels were recovered from the main midden area in Blocks A and B. Of these, 248 (44%) were decorated and therefore able to be analyzed according to the typological procedures outlined in Chapter IV. Table 8.10 presents the results of the analysis of the ceramic material from the midden area on the Northern Terrace as a classification for all depositional units in the midden area. The results of the typological analysis of the vessels presented here will aid in answering the substantive research questions posed at the end of Chapter II that relate to the nature, duration, and geographical extent of various ceramic styles in the study area. This presentation emends the preliminary ceramic reporting (Calabrese 2000a).

The similarity or lack of fit of the Northern Terrace midden area ceramic assemblage with assemblages from other sites in the region will be discussed in Chapter XII. The reader is referred to Appendix F for more detailed information on the ceramic assemblage, including the specific numbers and placements of design motifs in each design set. Ceramic drawings can be found in Appendix A.

Table 8.10. Leokwe Hill, Northern Terrace midden area, decorated ceramic types, by number and percentage.

Type	Decoration Placement	#	%
Limpopo Incised, Recurved Jars, Design Set I1: Horizontal Line	Central Neck	10	**4.03**
	Lower Neck	6	**2.42**
	Shoulder	4	**1.61**
	Rim to Central Neck	1	**0.40**
Limpopo Incised, Recurved Jars, Design Set I2: Diagonal Line	Central Neck	13	**5.24**
	Lower Neck	15	**6.05**
	Shoulder	1	**0.40**
Limpopo Incised, Recurved Jars, Design Set I5: Geometric, Upturned Arcade	Lower Neck to Shoulder	1	**0.40**
Limpopo Incised, Recurved Jars, Design Set I8: Herringbone	Central Neck to Lower Neck	1	**0.40**
Limpopo Incised, Simple Deep Bowls, Design Set I1: Horizontal Line	Body	1	**0.40**
Limpopo Incised, Simple Deep Bowls, Design Set I2: Diagonal Line	Body	1	**0.40**
Limpopo Incised, Simple Deep Bowls, Design Set I5: Geometric, Upturned Arcade	Body	1	**0.40**
Limpopo Comb-Stamped, Recurved Jars, Design Set CS1: Horizontal Line	Central Neck	48	**19.35**
	Lower Neck	13	**5.24**
	Central Neck & Shoulder	3	**1.21**
	Shoulder	8	**3.22**
Limpopo Comb-Stamped, Recurved Jars, Design Set CS2: Diagonal Line	Central Neck	10	**4.03**
	Lower Neck	5	**2.02**
Limpopo Comb-Stamped, Incurvate Bowls, Design Set CS1: Horizontal Line	Body	1	**0.40**
Limpopo Comb-Stamped, Recurved Jars, Design Set CS3: Upturned Triangle	Shoulder	3	**1.21**
Limpopo Bead/Bangle-Impressed Wares, Recurved Jars, Design Set BB1, Horizontal Line	Central Neck	4	**1.61**
	Lower Neck	10	**4.03**
	Central Neck & Shoulder	1	**0.40**
	Shoulder	3	**1.21**
Limpopo Bead/Bangle-Impressed Wares, Recurved Jars, Design Set BB2: Diagonal Line	Central Neck	8	**3.22**
	Lower Neck	9	**3.63**
	Central Neck to Lower Neck	25	**10.08**
	Shoulder	2	**0.81**

Type	Decoration Placement	#	%
Limpopo Bead/Bangle-Impressed Wares, Incurvate Bowls, Design Set BB2: Diagonal Line	Body	1	**0.40**
Limpopo Punctated, Recurved Jars, Design Set P1: Horizontal Line, Round	Central Neck	3	**1.21**
	Shoulder	4	**1.21**
Limpopo Punctated, Recurved Jars, Design Set P2: Unzoned Round	Central Neck	1	**0.40**
	Lower Neck	1	**0.40**
	Central Neck to Lower Neck	2	**0.81**
Limpopo Fingernail-Impressed, Recurved Jars, Design Set FI: Horizontal Line	Rim	1	**0.40**
	Central Neck	5	**2.02**
	Lower Neck	3	**1.21**
Limpopo Stabbed, Recurved Jars, Design Set ST1: Row of Diagonal Teardrops	Lower Neck	1	**0.40**
	Shoulder	1	**0.40**
Limpopo Stabbed, Recurved Jars, Design Set ST2: Vertical Teardrops	Lower Neck	1	**0.40**
Limpopo Stabbed, Recurved Jars, Design Set ST4: Indeterminate Stabbing	Central Neck	1	**0.40**
Limpopo Incised and Bead/Bangle-Impressed, Recurved Jars, Design Set I/BB1: Zoned Diagonal	Lower Neck	1	**0.40**
Limpopo Incised and Punctated, Recurved Jars, Design Set IP1: Connected Round, Horizontal Line	Central Neck	2	**0.81**
	Lower Neck	1	**0.40**
Limpopo Incised and Punctated, Recurved Jars, Design Set IP2: Round Impression, Zoned Diagonal	Lower Neck	1	**0.40**
Limpopo Incised and Punctated, Recurved Jars, Design Set IP5: Zoned Horizontal Lines	Central Neck	1	**0.40**
Limpopo Incised and Stabbed, Recurved Jars, Design Set I/ST1: Zoned Stabbing	Central Neck	1	**0.40**
Limpopo Applied and Stabbed, Recurved Jars, Design Set A/ST1: Raised Horizontal Appliqué with Horizontal Stabbing	Shoulder	1	**0.40**
Limpopo Applied and Stabbed, Recurved Jars, Design Set A/ST2: Raised Horizontal Appliqué with Vertical Stabbing	Lower Neck	1	**0.40**
Limpopo Incised and Applied, Recurved Jars, Design Set I/A1: Raised Horizontal Appliqué with a Single Line of Horizontal Incision	Lower Neck	2	**0.81**
Limpopo Polychrome, Incurvate Bowls, Design Set PC1: Red and Black Smoke-Clouded	Body	4	**1.61**

Vessel Form, Decoration, and Placement

The 563 ceramic vessel forms identified from the excavations at the Northern Terrace midden at Leokwe Hill included simple shallow bowls, simple deep bowls, incurvate bowls, recurved jars, sack-shaped jars, and beakers. A summary, by depositional unit in the midden, of the vessel forms present, is shown in Table 8.11. The most common vessel form present in the assemblage is the recurved jar (n=303 or 54%), and was followed in frequency by simple shallow bowls (n=132 or 23%), incurvate bowls (n=78 or 14%), and simple deep bowls (n=27 or 5%); sack-shaped jars, plates, and beakers accounted for less than 4% each of the overall assemblage.

The majority of vessel form frequencies were fairly uniform from the bottom to the top of the deposit, with a few exceptions. The frequency of recurved jars was seen to remain relatively stable over the length of occupation. These vessels account for 55% of the forms in DU III, 48% in DU II, and 55% in DU I. Simple shallow bowls account

Table 8.11. Leokwe Hill, Northern Terrace midden area, vessel forms, by number and percentage, by depositional unit (DU).

DU	Recurved Jars		Simple Shallow Bowls		Incurvate Bowls		Simple Deep Bowls		Sack-Shaped Jars		Plates		Beakers		Site Total	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
I	172	55	76	25	41	13	7	2	12	4	2	<1	-	-	310	55
II	50	48	18	17	20	19	11	10	6	6	-	-	-	-	105	19
III	81	55	38	25	17	11	9	6	2	1.5	-	-	1	<1	148	26
Total	**303**	**54**	**132**	**23**	**78**	**14**	**27**	**5**	**20**	**3.5**	**2**	**<1**	**1**	**<1**	**563**	**100**

for 25% of the assemblage in DU III, 17% in DU II, and 25% in DU I. Incurvate bowls represent 11% of the assemblage in DU III, 19% in DU II, and 13% in DU I. Sack-shaped jars form 1.5% of the assemblage in DU III, 6% in DU II, and 4% in DU I. Finally, it should be noted that beakers (n=1) make their appearance in DU III, while plates (n=2) appear in DU I. Overall, the pattern noted for vessel forms at the Northern Terrace midden is one of slight increase or decrease of individual vessel form frequency over the duration of occupation. These data indicate that the assemblage, insofar as vessel form is concerned, is relatively stable, with only slight differential trend between levels, and with no distinct break between DUs III through I. Figure 8.13 demonstrates the vertical stability of the major vessel forms at the Northern Terrace midden.

The number and frequency of the various decoration techniques employed within the Leokwe Hill Northern Terrace midden ceramic assemblage is shown in Table 8.12. Decoration techniques present in the assemblage, occurring either alone or in combination, include incision, comb-stamping, punctation, bead/bangle impression, fingernail impression, stabbing, appliqué, and polychrome coloration. As was the case at Castle Rock, the type of

Table 8.12. Leokwe Hill, Northern Terrace, midden area, decoration techniques present, by number and percentage, by depositional unit (DU).

DU	Comb-Stamping		Bead/ Bangle Impression		Incision		Punctation		Fingernail Impression		Punctation and Incision		Polychrome		Stabbing		Appliqué and Stabbing		Appliqué and Incision		Stabbing and Incision		Bead/ Bangle and Incision		Site Total	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
I	43	33	42	32	27	21	4	3	6	5	2	1.5	1	<1	3	2	2	1.5	-	-	1	<1	-	-	131	53
II	15	33	8	18	15	33	1	2	1	2	1	2	3	7	-	-	-	-	1	-	-	-	-	-	45	18
III	33	46	13	18	13	18	6	8	2	3	2	3	-	-	1	1	-	-	1	-	-	-	1	<1	72	29
Total	**91**	**37**	**63**	**25**	**55**	**22**	**11**	**4**	**9**	**4**	**5**	**2**	**4**	**1.5**	**4**	**1.5**	**2**	**<1**	**2**	**<1**	**1**	**<1**	**1**	**<1**	**248**	**100**

Table 8.13. Leokwe Hill, Northern Terrace, midden area, decoration placements present, by number and percentage, by depositional unit (DU).

DU	Rim		Rim to Central Neck		Central Neck		Central Neck to Lower Neck		Central Neck and Shoulder		Lower Neck		Lip to Rim and Shoulder		Lower Neck to Shoulder		Shoulder		Body		Site Total	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%	#	%
I	-	-	1	<1	55	42	2	1.5	-	-	39	30	-	-	-	-	30	23	4	3	131	53
II	1	2	-	-	16	36	1	2	2	4	12	27	-	-	1	2	8	18	4	9	45	18
III	-	-	-	-	36	50	2	3	2	3	19	26	1	1	-	-	12	17	-	-	72	29
Total	**1**	**<1**	**1**	**<1**	**107**	**43**	**5**	**2**	**4**	**1.5**	**70**	**28**	**1**	**<1**	**1**	**<1**	**50**	**20**	**8**	**3**	**248**	**100**

polychrome decoration present within the assemblage was not executed with painted or mineral pigmentation (i.e., ochre and/or graphite) as was common with Zhizo assemblages in Zimbabwe and in later Khami and Moloko assemblages (cf. Robinson 1959; Huffman 1974; Hanisch 1979); rather, it was achieved through partial reduction of the ceramic vessel in an

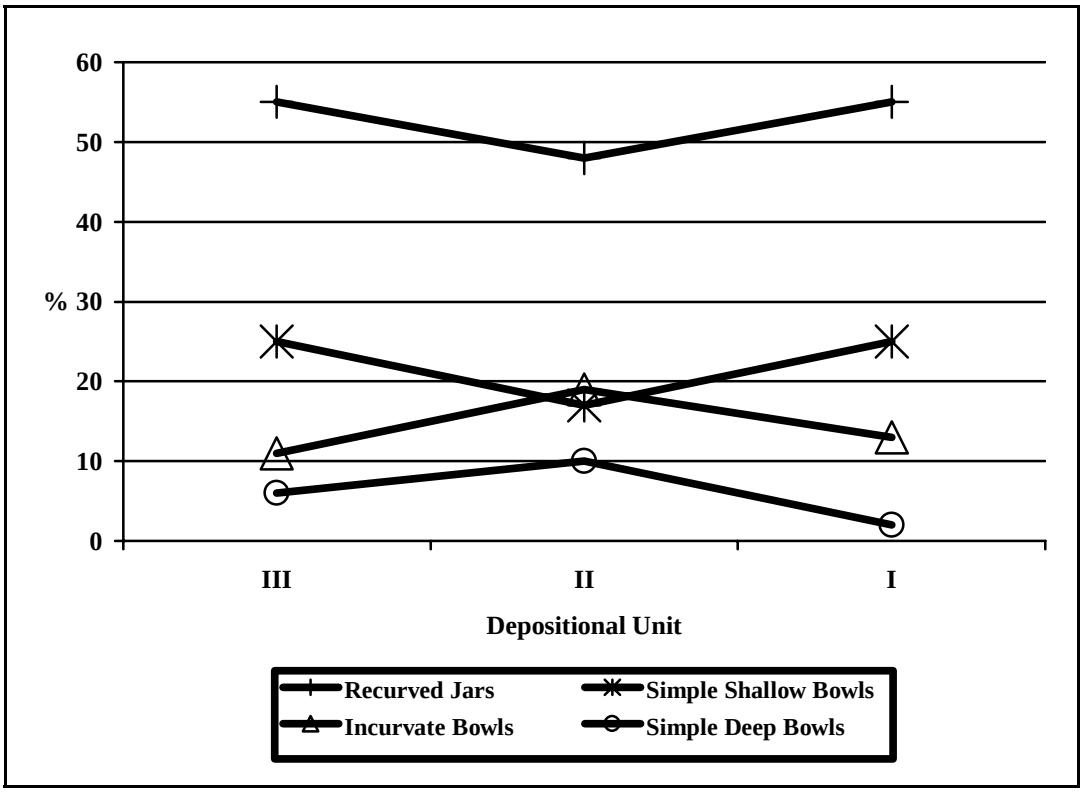


Figure 8.13 Leokwe Hill, Northern Terrace, midden, major vessel forms, percentage, by Depositional Unit.

oxygen-reduced firing environment. This partial reduction produced dark grey to black smoke-clouding on one portion of the vessel and a red or brown earthenware colour on the other. Comb-stamping, bead/bangle impression, incision, punctation, and fingernail impression are the five most commonly employed techniques within the Northern Terrace midden assemblage, and together account for 92% of the decoration techniques present. An examination of these data on the frequency by level of each of the major techniques reveals that no radical shift or break occurs between the Depositional Units. Some significant shifts are, however, apparent from the bottom to the top of the deposit. Incision is seen to increase from 18% in DU III to 21% in DU I. A much more pronounced change in comb-stamping is evident, with a drop from 46% of the assemblage in DU III to 32% in DU I. Bead/bangle-impression also changes, with an increase from 18% in DU III to 32% in DU I (Figure 8.14).

Decoration placement on the central neck, lower neck, and shoulder accounts for over 91% of the decoration placements in the total ceramic assemblage. An examination of the relative frequencies of decoration placements (Table 8.13) indicates that, similar to the vessel

form and decoration technique frequencies, some gradual shifts are apparent within the assemblage but that no radical breaks are apparent. Central neck placement, for example, decreases from 50% in DU III to 42% in DU I. Similarly, lower neck placement increases from 26% in DU III to 30% in DU I, while shoulder placement increases from 17% in DU III to 23% in DU I. None of these shifts is sudden or drastic; rather, they appear to shift gradually throughout the deposit (Figure 8.15).

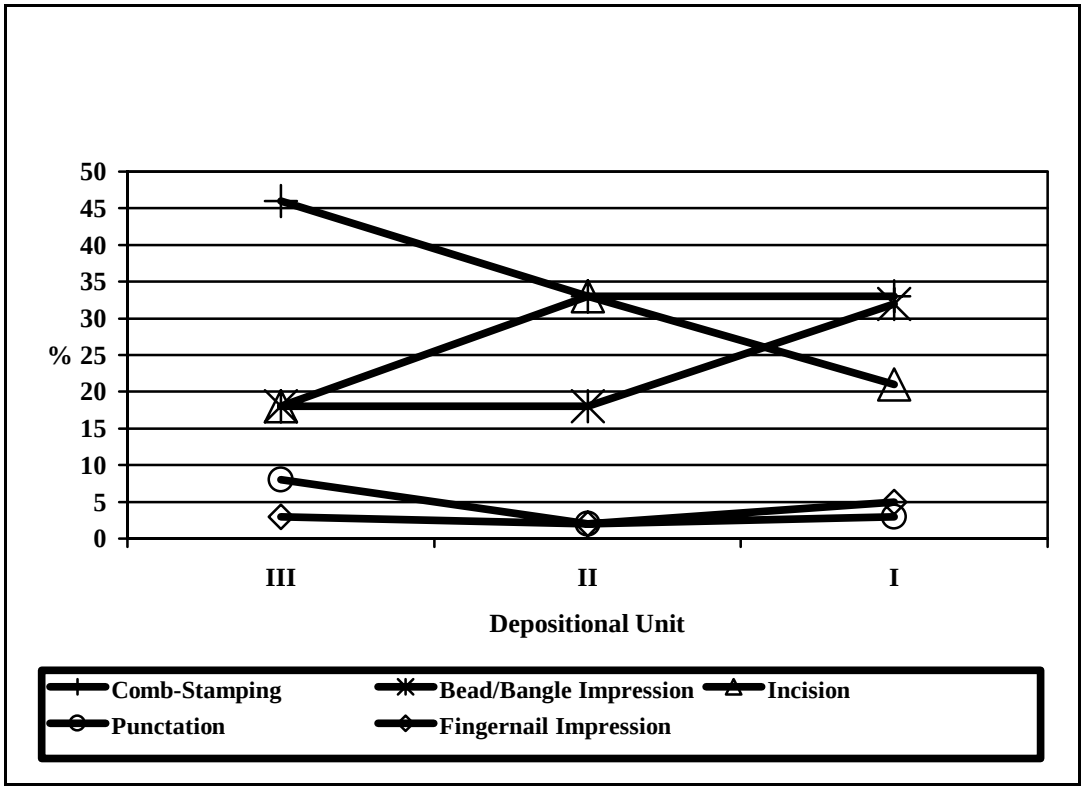


Figure 8.14 Leokwe Hill, Northern Terrace midden, major decoration techniques, percentage, by Depositional Unit.

The only significant shifts observed in all three main areas of form, decoration, and placement within the Northern Terrace midden assemblage were the increase in bead/bangle impression and the concomitant decrease in comb-stamping. When viewed in the context of otherwise comparatively diachronically stable data on vessel form and placement, it is thought that such shifts in incision and stamping frequencies are best interpreted as discrete stylistic changes made within the assemblage, rather than as indicative of a wholesale stylistic replacement. The relatively high frequencies of comb-stamping and bead/bangle impression are diagnostic of the Zhizo style. The Leopard's Kopje style, conversely, is typically associated with very high frequencies of incised wares.

A full 67% of the ceramic assemblage at the Northern Terrace midden area corresponds to ceramic types found in either Zhizo or Leopard's Kopje A assemblages. The remaining 33% of the assemblage consists of ceramic types that could be placed in either

style. Table 8.14 shows the vertical distribution of those ceramics executed in the Zhizo and K2 styles, as traditionally defined, as well as those ceramics that can not be readily placed in either tradition. Zhizo ceramics were defined as any executed with Design Sets CS1, CS3, BB1, BB2, I/BB1, and PC1; Leopard's Kopje A wares were defined as any executed with Design Set I5. Indeterminate wares included those employing Design Sets I1, I2, P1, P2, F1, ST1, ST2, ST4, I/P1, I/P2, I/P5, I/ST1, A/ST1, A/ST2, and I/A1. Two vessels with I1 motifs and four vessels decorated with I2 motifs were placed into the Leopard's Kopje A category

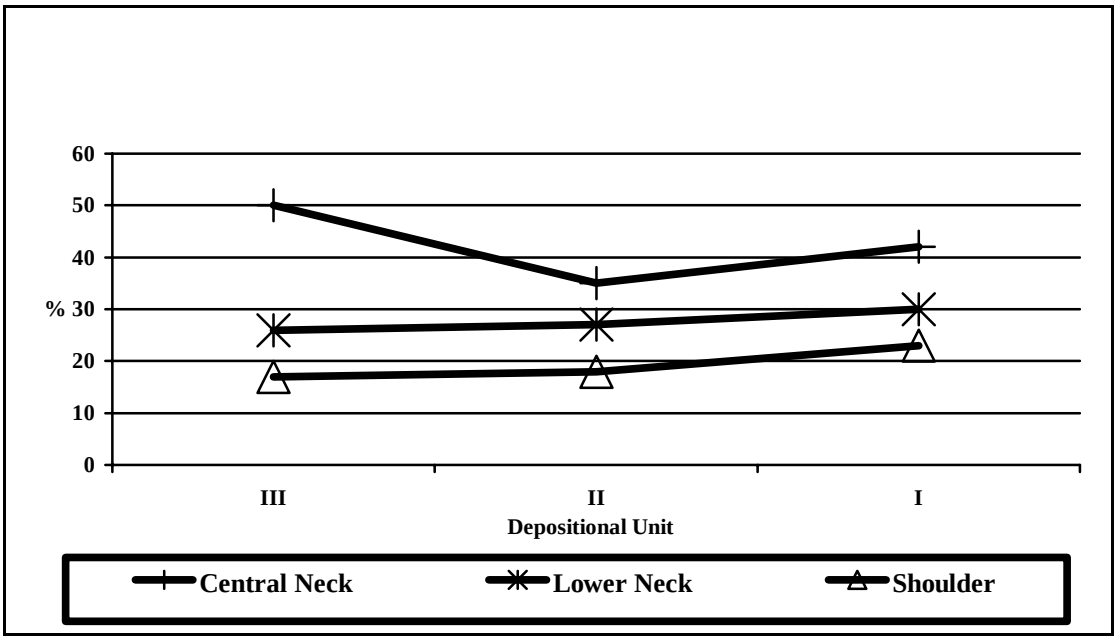


Figure 8.15. Leokwe Hill Northern Terrace midden, major decoration placements, percentage, by Depositional Unit.

based upon their execution. The reader is referred to Chapter IV for detailed descriptions of each design set.

In brief, however, Zhizo ceramics consisted of those employing comb-stamping, bead/bangle- impression, and polychrome decoration techniques, singly or in combination with other techniques. Leopard's Kopje A wares were defined primarily by their use of incised geometric motifs, generally upturned or downturned triangles and arcades. Indeterminate wares were those executed employing incision, appliqué, punctation, stabbing and fingernail impression, either individually or in combination, that could not be placed with confidence into either the Zhizo or Leopard's Kopje A styles as traditionally defined. These data indicate that, over the duration of this portion of the site's use, 64% of the assemblage was dominated ceramics traditionally defined as Zhizo, with only 3% identifiable as Leopard's Kopje A ceramics.

Table 8.14. Leokwe Hill, Northern Terrace, midden, number and frequency of identifiable and indeterminate ceramic styles, by level and by site.

DU	Zhizo		Leopard's Kopje A		Indeterminate		Midden Area Total	
	#	%	#	%	#	%	#	%
I	86	66	5	4	40	30	131	53
II	26	58	3	7	16	35	45	18
III	47	65	-	-	25	35	72	29
Total	**159**	**64**	**8**	**3**	**81**	**33**	**248**	**100**

Ceramic Analysis, Dating, and the Regional Chronology

Before going on to the presentation of the remaining material culture at the Leokwe Hill Northern Terrace midden, it is important to make a few observations about the internal ceramic trends presented above and their implications for our understanding of the regional chronology.

First, I note here that the combined ceramic and radiocarbon data from the Leokwe Hill Northern Terrace midden indicate that this portion of the site preserves evidence of a primarily Zhizo ceramic assemblage, as traditionally defined, with a very minor Leopard's Kopje A (i.e., K2) presence. Based on the radiocarbon data, these ceramics co-occur at the site between ca. AD 1050 and 1150. The presence of the Leopard's Kopje A vessels in the Northern Terrace midden assemblage could easily be attributed to influence from the contemporary Leopard's Kopje A-using occupation at the nearby site K2. The most interesting conclusion drawn from the ceramic and radiocarbon data is that while the midden was deposited well after the establishment of the Leopard's Kopje A-dominated site at K2 at around the turn of the 11th century AD, the ceramics in the Northern Terrace midden are executed overwhelmingly in the Zhizo style; these ceramics dominate the assemblage throughout the occupation of the site.

Second, as was discussed earlier, the internal trends for ceramic vessel form, decoration technique, and decoration placement at this portion of the Northern Terrace are indicative of stylistic continuity throughout the entirety of the deposit. The only significant trends within the area of ceramic style, beyond those gradual, incremental, changes that are expected as the result of normal stylistic processes, were the decrease in comb-stamping and the concomitant increase in bead/bangle impression. These changes account for a 13 to 14 percent shift in the composition of the assemblage between depositional units. However, when considered alongside other data on decoration techniques, placement, and vessel form that otherwise indicate an overall stylistic continuity from the bottom to the top of the deposit, it seems highly unlikely that these shifts were the result of a wholesale stylistic replacement.

These conclusions raise some important questions regarding both the regional

ceramic chronology and the nature of prehistoric social and political interaction in the region. First, if Leopard's Kopje A (i.e., K2) ceramics were markers of a separate ethnic/social entity which overran the area of the Shashi-Limpopo confluence around the turn of the 11th century AD, driving the Zhizo-using inhabitants of the region into eastern Botswana, why do Zhizo wares at Leokwe Hill Northern terrace midden persist after the establishment of K2 and dominate the site's ceramic assemblage, much as they did at the roughly contemporary occupation at Castle Rock? Since the co-occurrence of these wares seems to argue against the notion of a Leopard's Kopje A invasion of the region that wholly replaced the Zhizo style, it is necessary to determine whether the co-occurrence of these two styles, as traditionally defined, represents some as yet undetermined interaction between two separate ethnic entities, or represents an instance of internal heterochrestic stylistic development. These questions will be discussed in greater detail in Chapters XI and XII.

Finished Metal Items

Nine fragments of finished non-utilitarian metal items were recovered from the midden area of Northern Terrace at Leokwe Hill. All of these were recovered from the midden deposit. A description of these items and their vertical distribution is shown in Table 8.15. In addition to the identifiable metal items, three pieces of unidentifiable iron were also recovered. Two of these were recovered from DU II, and together weighed 1.6 g. The remaining piece of unidentifiable iron was recovered from DU III; it weighed 1.28 g.

Table 8.15. Finished non-utilitarian metal items, Leokwe Hill, Northern Terrace, midden area, by material, type, depositional unit, count and weight (g).

Material	**Type**	**Depositional Unit**			**Total Count**	**Total Weight (g)**
		I	**II**	**III**		
Copper	Bangle/Helix Fragments	-	1	-	1	0.13
	Links	2	-	-	2	1.12
	Beads	3	1	-	4	2.46
Copper, Totals		**5**	**2**	**-**	**7**	**3.71**
Iron	Bangle/Helix Fragments	-	-	1	1	0.94
	Links	4	1	-	5	2.45
	Beads	-	1	1	2	0.73
Iron, Totals		**4**	**2**	**2**	**8**	**4.12**
Total, Copper and Iron		**9**	**4**	**2**	**15**	**7.83**

Metallurgical Items

A single piece of slag, weighing 19.21 g, was recovered from DU I in Stratum II, Level 3, of Test Unit 13. The presence of a single piece of slag at this portion of the site, alongside the fact that no other metallurgical items were recovered, would seem to indicate

that metallurgical activities at this portion of the Leokwe Hill site were limited to smithing, if indeed metallurgy was practiced at all.

Figurines and Other Non-Pottery Ceramic Items

A total of three figurine fragments were recovered from the midden deposit at the Northern Terrace of Leokwe Hill. These fragments consisted of three body fragments. I was not able to discern if these figurine fragments were portions of either human or animal representations. One body fragment was recovered from the surface between Blocks A and B, while the remaining three were recovered from the subsurface deposit. One body fragment was recovered from DU III (Stratum V, Level 7) in Test Unit 13; the last body fragment was recovered from DU I (Stratum I, Level 2) in Test Unit 8. Owing to the very incomplete nature of these figurine fragments, I am unable to draw any conclusions about the role of figurines in religious specialisation at the Northern Terrace, other than noting that there is no evidence for it in the figurine assemblage.

Two fragments of ceramic disks with perforated holes were also recovered from the Northern Terrace midden (Plate 8.9). These disk fragments are consistent with items that have been previously described in the literature (Meyer 1980, Huffman 2000) as spindle whorls (i.e., weights used in the spinning of thread). These spindle whorl fragments were recovered from DU I in the midden, with one recovered from Stratum II, Level 3, in Test Unit 4 and the other recovered from Stratum I, Level 2, in Test Unit 2. The presence of these items in a deposit dated to before or very near the turn of the 13th century is significant, as previous analysts (Meyer 1980, Huffman 2000) have indicated that, based on the available evidence, spinning thread was first practised in the region at Mapungubwe Hill sometime after around AD 1200. The presence of these items in the Northern Terrace midden deposit seems to indicate that the spinning of thread that occurred here was either prior to or contemporary with the same practice at Mapungubwe Hill. It should be noted that these items have been interpreted as indicative of craft production associated with the East African trade network (Huffman 2000; UNESCO 2003; cf. Caton-Thompson 1931:25, n. 2).

Ground Stone

Four pieces of ground stone were recovered from the Leokwe Hill Northern Terrace midden. These included two pieces interpreted as upper portions of sorghum or millet grinding stone sets. Both of these upper ground stones was recovered from DU III; one was found in Stratum V, Level 7, of Test Unit 7, while the other was recovered from Stratum 5, Level 8, of Test Unit 5. A possible ceramic burnishing stone was recovered from DU II in Stratum IV, Level 6, in Test Unit 12.



Plate 8.9. Leokwe Hill, Northern Terrace. Fragmentary spindle whorls.

Finally, a broken portion of a probable bead-grinding stone was found on the surface of Block B. This stone is very similar to a much larger bead-grinding stone found by Hanisch at Schroda which was reported on by Hall and Smith (2000:36) and which I have inspected. The presence of this item on the Northern Terrace suggests that beads were rounded from rough-outs at the site. Due to the lack of a stratigraphic context for this item, however, it is not possible to associate these activities with any specific time period. Given the dearth of material culture from other time periods or ceramic traditions, I suggest that these activities in all likelihood occurred during the main period of occupation; they would therefore be associated with the predominantly comb-stamped and bead/bangle-impressed ceramic assemblage consistent with traditional descriptions of Zhizo ceramics.

Beads

A total of 252 beads were recovered from the Northern Terrace midden area of Leokwe Hill, excluding the metal beads previously discussed. Those beads most often recovered were fashioned from *Achatina* sp. (n=186 or 74%), ostrich eggshell (n=51 or 20%), and bone (n=7 or 3%). Glass (n=2) beads and a single bead fashioned from ivory were also recovered; these material types accounted for less than 1% each of the total bead assemblage.

In addition, a single cobalt blue octagonal glass bead was recovered from the site, as were three deep navy blue glass oblates, and a single black glass oblate. The octagonal bead and three navy blue oblates were all recovered from the surface on or near the midden area,

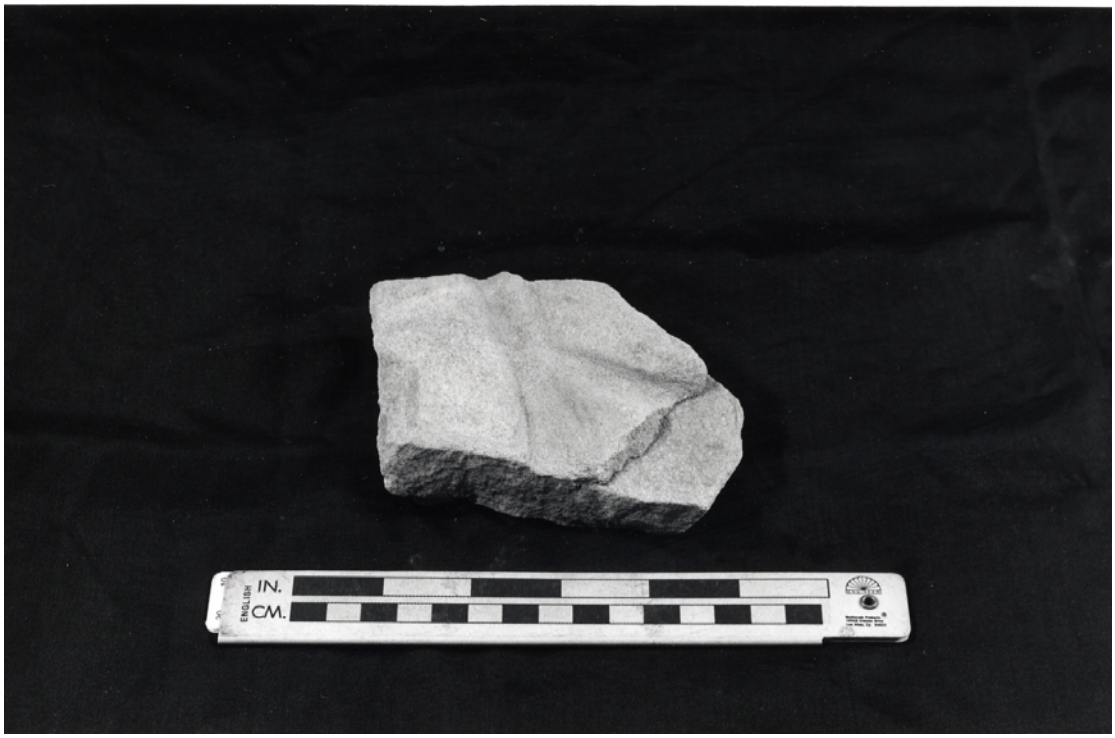


Plate 8.10. Leokwe Hill, Northern Terrace. Probable bead-grinding stone recovered from surface.

while black oblate was recovered from DU I in Test Unit 9. Wood (in a personal communication, 1999) indicated that these beads all date to the Venda period.

As was the case with the metal items from the Western Summit, I am taking this opportunity to correct my previous summary of these materials (Calabrese 2000a: Table 1; 2000b: Table 1). I previously omitted the ostrich eggshell blanks from discussion and omitted a single finished ostrich eggshell bead. Also, I undercounted the glass beads associated with the main assemblage at the site by one bead, and I did not previously discuss the five Venda period glass beads just mentioned. These errors will be corrected in the following discussion as well as in the following sections dealing with Block C Hut/Byre area and in the discussions of individual Test Units.

Detailed information on the bead assemblage is found in Tables 8.16 through 8.18. These tables begin with ostrich eggshell beads and continue with glass beads and miscellaneous beads.

In addition to these ostrich eggshell beads, two ostrich egg shell bead blanks were recovered, as were two fragments of unworked ostrich eggshell. Multiple unworked *Achatina* sp. shells were recovered during excavation but these were not retained owing to their uncertain age and the means by which they entered the deposit.

The two glass beads recovered from the midden area were clearly associated with the early use of this area of the site. Both of these beads were recovered in DU III. The first of

these was a Zhizo Blue tubular bead weighing 0.03 g; it was recovered from Stratum V, Level 8, in Test Unit 2. The second was a Zhizo Blue Green tubular bead weighing 0.01 g; it was recovered from Stratum V, Level 10, in Test Unit 17.

Table 8.16. Leokwe Hill, Northern Terrace, midden area, ostrich eggshell beads, by depositional unit and by size class.

	Size Class						
DU	**4**	**5**	**6**	**7**	**8**	**9**	**Total**
I		9	6	4	3	-	**22**
II		2	-	1	2	2	**7**
III	1	2	1	4	7	7	**22**
Total	**1**	**13**	**7**	**9**	**12**	**9**	**51**

Table 8.17. Leokwe Hill, Northern Terrace, midden area, *Achatina* sp. beads, by depositional unit and by size class.

	Size Class							
DU	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**Total**
I	8	33	29	33	7	4	1	**115**
II	-	8	9	12	5	2	-	**36**
III	6	10	10	6	3	-	-	**35**
Total	**14**	**51**	**48**	**51**	**15**	**6**	**1**	**186**

In addition to the ostrich eggshell, *Achatina* sp., and glass trade beads discussed above, eight additional beads were recovered. The type and provenience of these are shown in Table 8.18.

Table 8.18. Leokwe Hill, Northern Terrace, midden area, miscellaneous beads, by type, and by depositional unit.

DU	**Bone**	**Ivory**	**Total**
I	1	-	**1**
II	3	-	**3**
III	3	1	**4**
Total	**7**	**1**	**8**

Block C: Hut 1 and Animal Byre 2

Block C, a 2 x 1m and a 2 x 2 m trench separated by a 25 cm balk, was excavated 4 m to the east of Block A (see Figure 8.11). The 2 x 1 m trench originally comprised Test Units 24 and 26, while the 2 x 2 m trench was designated as Test Unit 27. These units were excavated in an attempt to locate structural remains and associated cultural materials. It was hoped that such features would yield carbon samples suitable for dating. Two features, a collapsed, burnt hut and the rock-and-pole lined edge of an animal byre, were located.

The stratigraphy in Block C was straightforward (Figure 8.16); it consisted of a

stratum of mixed alluvium and colluvium (Stratum I), identical in colour and texture to Stratum II in Block A, which occurred between 20 and 32 cm below surface. This stratum sat atop a pale yellow dung (Stratum II) that was restricted to the northern corner of Block C and a mixed stratum of light greyish brown ash and pale yellow dung (Stratum III) that was approximately 15 cm in thickness. Stratum III sat atop a burnt thatch layer associated with the burning of the hut, the hut rubble, and the edge of the animal byre. The hut rubble (Stratum IV) was between 5 and 40 cm thick and sat directly on bedrock. The bedrock rose up in the area of the animal byre where the maximum depth of deposit was 47 cm below surface.

The hut was roughly oval in shape, approximately 2.5 m in diameter, and constructed of a wattle and daub frame supported at its exterior base by rock fill (Figure 8.17, Plate 8.11). The hut was situated in a natural hollow in the former land surface and was therefore protected from alluvial washing after it had burnt down. Three pot stands, on a low bench raised approximately 5 cm off the floor, were found in the southwestern portion of the hut. The remains of four highly burnt ceramic vessels were recovered near these pot stands, and all were executed in a style consistent with descriptions of Zhizo ceramics. One of these was a recurved jar decorated with a band of multiple horizontal lines of comb-stamping on the central neck, while two were recurved jars decorated with bands of diagonal rows of comb-stamping, zoned by a single horizontal line of comb-stamping at the top and bottom of the band, on the lower neck. The fourth vessel consisted of a recurved jar decorated with a band of oblique unzoned lines of bead/bangle-impression on the lower neck. Several carbon samples suitable for dating were recovered from the rubble, including the bases of five, burnt, upright posts and five fallen posts. All of these samples were securely associated with the burning of the structure.

The edge of the animal byre (Animal Byre 2) was lined with stones; a pair of wooden posts was placed approximately every 20 cm (see Fig. 8.17). This structure had, like the hut, been burnt, although to a lesser extent. A single large diagnostic ceramic fragment executed in a style consistent with descriptions of Zhizo wares was recovered from the byre. This potsherd was found under one of the stones and directly adjacent to a pair of burnt posts.

Dating

A total of four samples of charred wood or charcoal from Block C at the Northern Terrace of Leokwe Hill were submitted for radiocarbon analysis. All were from the structural remains and were from exceptionally secure deposits; all of them were from either upright, burnt structural posts or comprised burnt posts found under thick deposits of burnt and collapsed daub walling (see Figures 8.16 and 8.17). The dates generated were derived from deposits associated with ceramic material best identified as Zhizo. The results of all

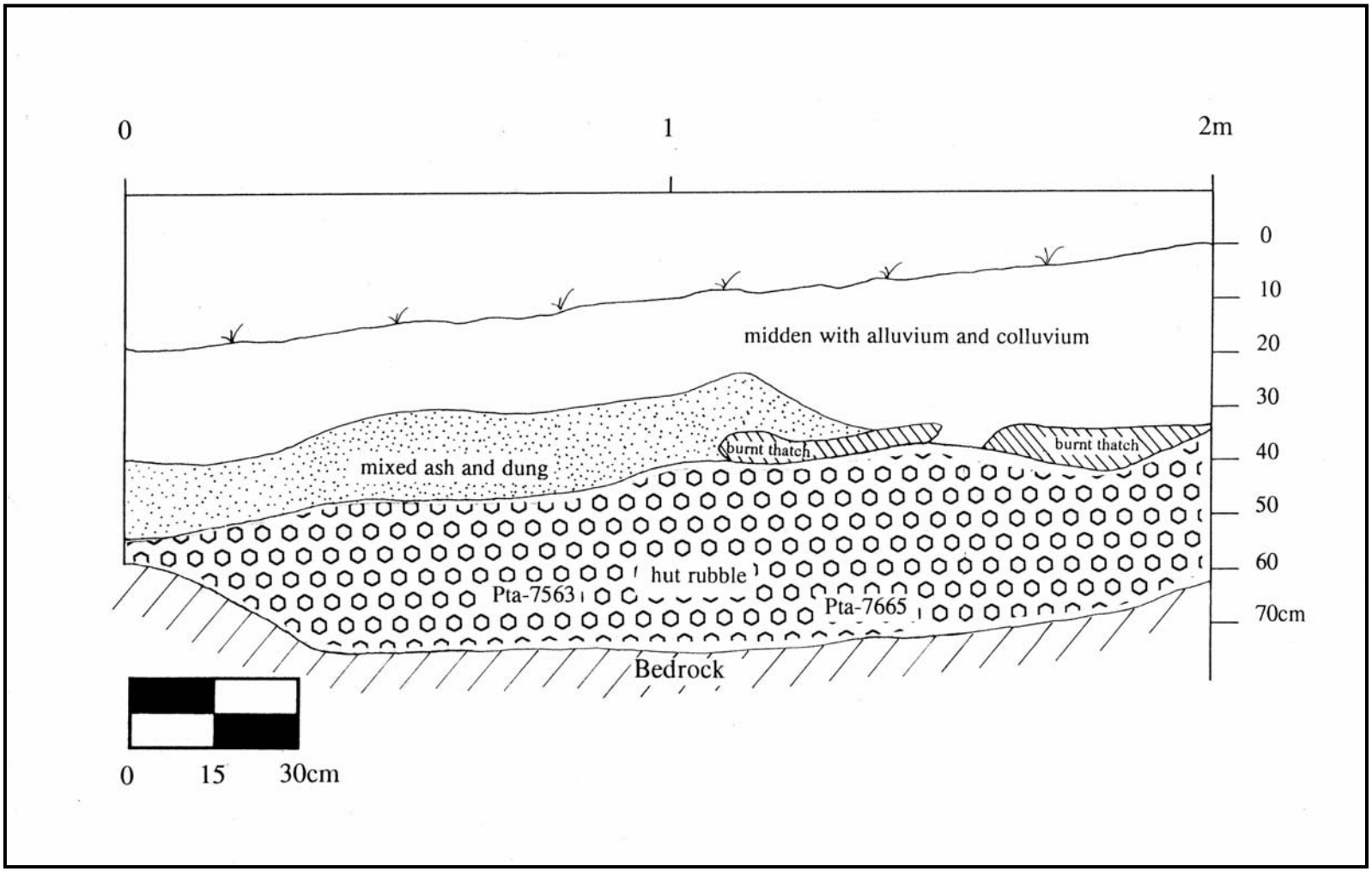


Figure 8.16. Leokwe Hill, Northern Terrace, Block C, east wall profile, showing hut rubble and locations of radiocarbon dated samples.

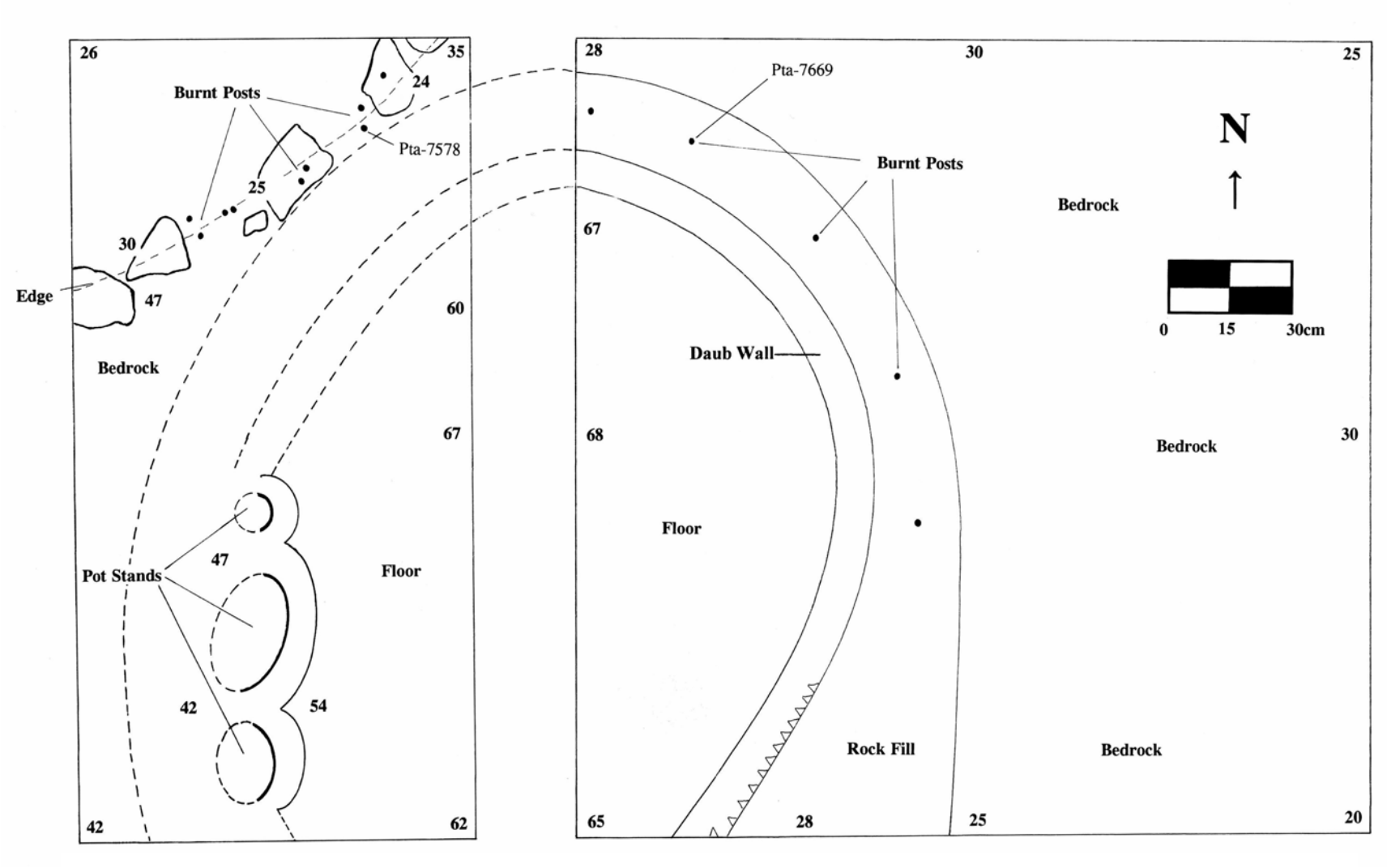


Figure 8.17. Leokwe Hill, Northern Terrace, Block C, hut floor, plan view, showing dating samples and internal and structural features.

Table 8.19. Results of radiocarbon analyses, Leokwe Hill, Northern Terrace.

Sample Designation	Block	TU	Depth (mm)	Context	Age (bp)	Age Error	Calibrated Age (AD)	1-Sigma Range (AD)
Pta-7669	C	27	300	upright hut post	910	±40	1185	1155 to 1215
Pta-7563	C	24	510	fallen hut post	880	±25	1210	1190 to 1230
Pta-7665	C	24	600	fallen hut post	950	±50	1155	1035 to 1195
Pta-7578	C	26	370	upright animal byre post	890	±20	1200	1180 to 1220



Plate 8.11. Leokwe Hill, Northern Terrace, Block C, Hut Floor 1. Note edge of animal byre in foreground.

radiocarbon analyses from the Northern Terrace, Block C, are shown in Table 8.19. The radiocarbon dates from Block C indicate that the hut was abandoned and burnt down

sometime between ca. AD 1180 to 1215 (Vogel and Calabrese 2000:48).

Material Culture

Owing to the relatively small size of the data set on material culture from Block C, and the apparent stylistic unity of the ceramic assemblage, the percentages of ceramic attributes by soil strata will not be calculated. Instead, data will be presented on the overall frequency of attributes for the whole block, as will information on the vertical distribution of ceramic attributes.

Ceramics

A total of 714 sherds comprising 48 ceramic vessels were recovered from Block C on the Northern Terrace of Leokwe Hill. Of these, 18 (37%) were decorated and therefore able to be analyzed according to the typological procedures outlined in Chapter IV. Table 8.20 presents the results of the analysis of the ceramic material from Block C at the Northern Terrace as a classification for all strata. The results of the typological analysis of the vessels presented here will aid in answering the substantive research questions posed at the end of Chapter II that relate to the nature, duration, and geographical extent of various ceramic styles in the study area.

The similarity or lack of fit of the Northern Terrace, Block C, ceramic assemblage with assemblages from other sites in the region, in combination with other ceramic data from other portions of the Northern Terrace, will be discussed in Chapter XI. The reader is referred to Appendix A for ceramic drawings. Appendix F contains detailed information on the ceramic assemblage, including the specific numbers and placements of design motifs in each design set.

Vessel Form, Decoration, and Placement

The 48 ceramic vessel forms identified from the excavations at the Northern Terrace midden at Leokwe Hill included simple shallow bowls, incurvate bowls, recurved jars, sack-shaped jars, and beakers. The most common vessel form present in the assemblage is the recurved jar (n=21 or 44%), and was followed in frequency by incurvate bowls (n=12 or 25%), simple shallow bowls (n=11 or 23%), sack-shaped jars (n=3 or 6%), and beakers (n=1 or 2%). The vertical distribution of vessel forms in Block C is shown in Table 8.21.

Decoration techniques present in the Northern Terrace Block C assemblage include incision, comb-stamping, and bead/bangle impression. Comb-stamped motifs (n=11) accounted for 61% of the motifs present, and were followed in frequency by bead/bangle impression (n=6 or 33%) and incision (n=1 or 6%). The vertical distribution of decoration techniques is shown in Table 8.22.

Table 8.20. Leokwe Hill, Northern Terrace, Block C, decorated ceramic types, by number and percentage.

Type	Decoration Placement	#	%
Limpopo Incised, Recurved Jars, Design Set I1: Horizontal Line	Shoulder	1	**6**
Limpopo Comb-Stamped, Recurved Jars, Design Set CS1: Horizontal Line	Central Neck	2	**11**
	Lower Neck	6	**33**
Limpopo Comb-Stamped, Incurvate Bowls, Design Set CS1: Horizontal Line	Rim	1	**6**
Limpopo Comb-Stamped, Recurved Jars, Design Set CS2: Diagonal Line	Lower Neck	2	**11**
Limpopo Bead/Bangle-Impressed Wares, Recurved Jars, Design Set BB1, Horizontal Line	Lower Neck	1	**6**
Limpopo Bead/Bangle-Impressed Wares, Recurved Jars, Design Set BB2: Diagonal Line	Lower Neck	2	**11**
	Shoulder	2	**11**
Limpopo Bead/Bangle-Impressed Wares, Incurvate Bowls, Design Set BB2: Diagonal Line	Rim	1	**6**

Table 8.21. Vertical distribution of vessel forms in Block C, by stratum.

Stratum	Simple Shallow Bowls	Incurvate Bowls	Beakers	Recurved Jars	Sack-Shaped Jars	Total
I: Alluvium & colluvium	8	9	-	11	3	**31**
II: Dung	-	1	-	1	-	**2**
III: Ash & dung	3	2	1	5	-	**11**
IV: Hut rubble/floor	-	-	-	4	-	**4**
Total	**11**	**12**	**1**	**21**	**3**	**48**

Decoration placement within the Block C assemblage included placements on the rims of incurvate bowls (n=2), and central neck, lower neck, and shoulder placements on recurved jars. Placement on recurved jars was dominated by lower neck placement (n=11 or 69%), and was followed in frequency by placement on the shoulder (n=3 or 19%), and central neck (n=2 or 12%). The vertical distribution of decoration placements in Block C is shown in Table 8.23.

Table 8.22. Vertical distribution of decoration techniques in Block C, by stratum.

Stratum	Comb-Stamping	Bead/Bangle Impression	Incision	Total
I: Alluvium & colluvium	3	4	1	8
II: Dung	1	-	-	1
III: Ash & dung	4	1	-	5
IV: Hut rubble/floor	3	1	-	4
Total	**11**	**6**	**1**	**18**

Table 8.23. Vertical distribution of decoration placements in Block C, by stratum.

Stratum	Rim	Central Neck	Lower Neck	Shoulder	Total
I: Alluvium & colluvium	1	-	4	3	8
II: Dung	-	-	1	-	1
III: Ash & dung	1	1	3	-	5
IV: Hut rubble/floor	-	1	3	-	4
Total	**2**	**2**	**11**	**3**	**17**

Ceramic Analysis, Dating, and the Regional Chronology

Clearly, the small size of the Block C assemblage precludes determining any vertical trends in the ceramic assemblage. However, the comb-stamped and bead/bangle-impressed ceramics recovered from the hut floor securely date to the turn of the thirteenth century (ca. AD 1180 to AD 1215). This range of dates for the basal occupation of Block C on the Northern Terrace is important as it firmly establishes the presence of groups using ceramics executed in the Zhizo style almost two centuries after the turn of the 11th century AD, the time period that is generally accepted as the beginning of the Leopard's Kopje A-using (i.e., K2) occupation of the region. It is also significant to observe that these Block C dates from the Northern Terrace demonstrate near contemporaneity with the Leopard's Kopje dates from the hilltop occupation on the Western Summit.

The combined ceramic and radiocarbon data from the Leokwe Hill Northern Terrace midden indicate that this portion of the site preserves evidence of a primarily Zhizo-associated ceramic assemblage, as traditionally defined. Based on the radiocarbon data, these ceramics co-occur at this area of the site between ca. AD 1180 and AD 1215. The most interesting conclusion drawn from the ceramic and radiocarbon data is that while the midden was deposited well after the establishment of the Leopard's Kopje A-dominated site at K2 at around the turn of the 11th century AD, the ceramics at Block C are executed in the Zhizo style.

These conclusions raise some important questions regarding both the regional ceramic chronology and the nature of prehistoric social and political interaction in the region. First, if Leopard's Kopje A (i.e., K2) ceramics were markers of a separate ethnic/social entity which overran the area of the Shashi-Limpopo confluence around the turn of the 11th century AD, driving the Zhizo-using inhabitants of the region into eastern Botswana, why do Zhizo wares at Block at the Northern Terrace of Leokwe Hill persist almost two hundred years after the establishment of K2 and dominate the site's ceramic assemblage, much as they do at Northern Terrace midden deposit and at the roughly contemporary occupation at Castle Rock? Since the co-occurrence of these wares seems to argue against the notion of a Leopard's Kopje A invasion of the region that wholly replaced the Zhizo style, it is necessary to determine whether the co-occurrence of these two styles, as traditionally defined,

represents some as yet undetermined interaction between two separate ethnic entities, or represents an instance of internal heterochrestic stylistic development. These questions will be discussed in greater detail in Chapters XI and XII.

Figurine Fragments

A single figurine fragment was recovered from Block C. It consisted of a leg fragment found in Stratum I in Test Unit 24. Four small lines of horizontal incision are present on either side of the fragment.

Metallurgical Items

A single piece of slag, weighing 4.44 g, was recovered from Stratum II, Level 2, in Test Unit 27. The presence of a single piece of slag at this portion of the site, considered alongside the fact that no other metallurgical items recovered, and that only a single piece of slag was recovered from the midden area, would seem to indicate that metallurgical activities at this portion of the Northern Terrace of Leokwe Hill were limited to smithing, if indeed metallurgy was practiced at all.

Beads

A total of 17 beads were recovered from Block C on the Northern Terrace. Beads recovered were fashioned from *Achatina* sp. (n=13 or 76%), ostrich eggshell (n=3 or 18%), and glass (n=1 or 6%). Summaries of the size class and provenance of the *Achatina* sp. and ostrich eggshell beads are presented in Tables 8.24 and 8.25.

The single glass trade bead recovered from Block C was a black oblate that most closely resembles Mapungubwe Black beads. This bead was recovered from the hut floor beneath the rubble layer. This bead weighed 0.03 g.

Table 8.24. Leokwe Hill, Northern Terrace, Block C, ostrich eggshell beads, by stratum and by size class.

	Size Class			
Stratum	**7**	**8**	**9**	**Total**
I: Alluvium & Colluvium	-	1	1	2
II: Dung	-	-	-	-
III: Ash & Dung	-	-	-	-
IV: Hut Rubble	1	-	-	1
Total	**1**	**1**	**1**	**3**

Table 8.25. Leokwe Hill, Northern Terrace, Block C, *Achatina* sp. beads, by stratum and by size class.

	Size Class			
Stratum	**5**	**6**	**7**	**Total**
I: Alluvium & Colluvium	4	3	3	10
II: Dung	-	-	2	2
III: Ash & Dung	-	1	-	1
IV: Hut Rubble	-	-	-	-
Total	**4**	**4**	**5**	**13**

Test Units 20, 21, 22, 23, and 25

Five 1 x 1 m test units, in addition to the larger excavation blocks just described, were placed at various locations around the Northern Terrace in order to investigate surface features and to gather more data on the horizontal and vertical distribution of cultural material (see Figure 8.11). No samples suitable for radiocarbon dating were recovered from any of these smaller excavations. A description of each of these excavations is presented here. The cultural material recovered from test units will be presented with the discussion of each test unit. At the outset of this discussion I note that all the ceramic recovered from all these smaller test units were executed either in the style traditionally described as Zhizo, or were of an indeterminate stylistic affinity.

Test Unit 20: Grain Bin 1

Test Unit 20 was placed over the location of what appeared to be a grain storage bin foundation noted on the surface. The unit was placed in such a way so as to bisect the feature. Three soil strata were recognized in Test unit 20. These consisted of an upper layer of heavily trampled brown (10YR 5/3) ashy silt (Stratum I) between 0 and 5 cm below surface. This stratum was found both above and at the same depth as the stones that formed the grain bin foundation. Stratum I was underlain both beneath the grain bin and outside of it by a lighter and more compact dark yellowish brown (10YR 4/4) moderately fine silt (Stratum II) between 5 and 12 cm below surface. Between 12 and 17 cm below surface was a slightly ashy light yellowish brown (10YR 6/4) silt (Stratum IV) that sat directly atop bedrock.

Twelve ceramic vessels were recovered from Test Unit 20. These included simple shallow bowls (n=7 or 58%) and incurvate bowls (n=2 or 17%). Also recovered were one example each of simple deep bowls, recurved jars, and plates. These vessels each accounted for around 8% of ceramic assemblage. The vertical distribution of the vessel forms is shown in Table 8.26.

The recurved jar was the only vessel that exhibited decoration. This jar was decorated on the shoulder with a single horizontal line of diagonal teardrop-shaped stabbing. Employing the methodology outlined in Chapter IV, this vessel was classified an example of

Table 8.26. Vertical distribution of ceramic vessel forms in Test Unit 20, by stratum.

Stratum	Simple Shallow Bowls	Incurvate Bowls	Recurved Jars	Simple Deep Bowls	Plates	Totals
I : Trampled Silt	-	-	-	1	1	**2**
II: Compact Fine Silt	5	1	1	-	-	**7**
IV: Ashy Silt	2	1	-	-	-	**3**
Total	**7**	**2**	**1**	**1**	**1**	**12**

Limpopo Stabbed, Design Set ST1, Shoulder. This vessel was recovered from Stratum II.

Four beads were recovered from Test Unit 20. These included an ostrich eggshell bead, an *Achatina* sp. bead, and two glass beads. The ostrich eggshell bead was of Size Class 8 and was recovered from Stratum II. The Achatina bead, also from Stratum II, was of Size Class 7. The two glass beads were recovered from Stratum IV. The two glass beads were tubular Indo-Pacific Black beads. These two glass beads together weighed 0.09 g.

Test Unit 21: Grain Bin 2

Test Unit 21 was located 19 m east of Block B over a remnant stone grain bin foundation. As with Test Unit 20, one side of Test Unit 21 was placed directly over the middle grain bin foundation in order to bisect it. The stratigraphy in Test Unit 21 was identical to that from Test Unit 20, with the exception that the vertical depth of each stratum differed (Figure 8.18; Plate 8.12). Stratum I in Test Unit 21 extended between 0 and 5 cmbs, while Stratum II extended between 5 and 21 cmbs. Stratum IV extended between 21 and 35 cmbs before reaching bedrock. The excavation of Test Unit 21 is shown in Plate 8.11.

A total of twelve ceramic vessels were recovered from Test Unit 21. Eleven of these vessels were recovered from Stratum II, while one was found in Stratum I. Of all the vessels from Test Unit 21, seven (58%) were decorated and therefore able to be classified according to the procedures set out in Chapter IV. Six of the decorated vessels were recovered from Stratum II, while the seventh was recovered from Stratum I. The single decorated vessel from Stratum I was a Limpopo Incised recurved jar decorated with a diagonal row of incision on the central neck. Table 8.27 presents a classification of these vessels. Vessels forms present included recurved jars (n=8 or 67%), incurvate bowls (n=3 or 25%), and simple shallow bowls (n=1 or 8%). Decoration techniques recorded in the Test Unit 21 assemblage consisted of incision (n=3 or 43%), bead/bangle impression (n=2 or 29%), punctation (n=1 or 14%), and fingernail impression (n=1 or 14%). Decoration placements present within the assemblage included those on the central neck (n=4 or 57%), shoulder (n=2 or 29%), and the lower neck (n=1 or 14%).

A single bead was recovered from Stratum II in Test Unit 21. It consisted of an

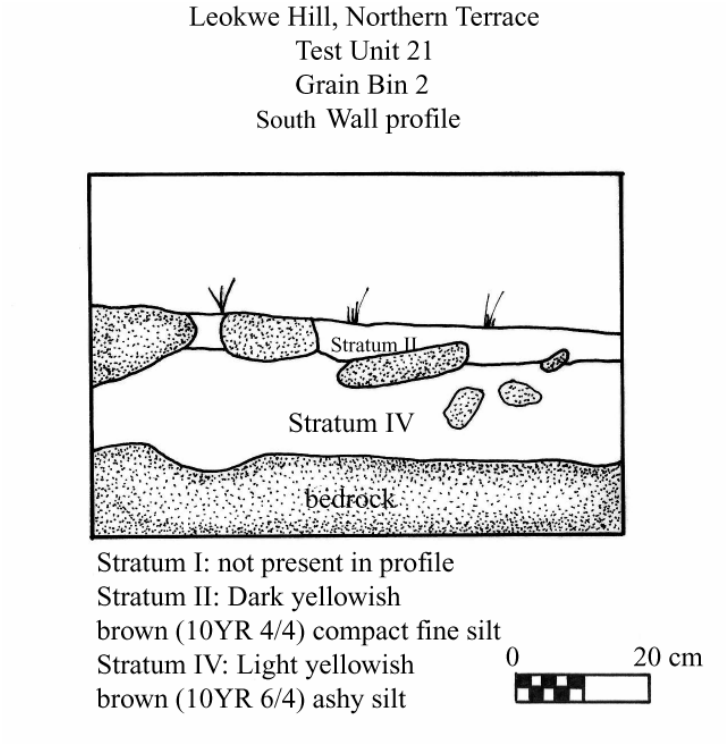


Figure 8.18. Leokwe Hill, Northern Terrace, Test Unit 21, Grain Bin 2, south wall profile.



Plate 8.12. Leokwe Hill, Northern Terrace, Test Unit 21, south wall profile.

Table 8.27. Leokwe Hill, Northern Terrace, Test Unit 21, decorated ceramic vessels by type, decoration placement, and by number.

Type	Decoration Placement	#
Limpopo Incised, Recurved Jars, Design Set I2: Diagonal Line	Central Neck	**3**
Limpopo Bead/Bangle-Impressed Wares, Recurved Jars, Design Set BB1, Horizontal Line	Shoulder	**1**
Limpopo Bead/Bangle-Impressed, Recurved Jars, Design Set BB2: Diagonal Line	Shoulder	**1**
Limpopo Punctated, Recurved Jars, Design Set P1: Rounded Impression, Horizontal Line	Central Neck	**1**
Limpopo Fingernail-Impressed, Recurved Jar, Design Set F1: Horizontal Line	Lower Neck	**1**

ostrich eggshell bead blank that was 13.55 mm in diameter, placing it in Size Class 14.

Test Unit 22

Test Unit 22 was placed 5 m south of Block A in Area B in order to determine if the midden in Block A extended to the south. The stratigraphy in Block A consisted of a single, very shallow stratum of brown (10YR 5/4) very fine heavily trampled silt between 0 and 7 cm below surface. Bedrock was reached at 7 cm below surface. It was determined that the midden in Block A did not extend as far south as Test Unit 22.

Fragments from a total of nine ceramic vessels were found in Test Unit 22; one of these vessels was decorated. Vessel forms present in the Test Unit 22 assemblage included simple shallow bowls (n=6 or 67%), recurved jars (n=2 or 22%) and simple deep bowls (n=1 or 11%). The single decorated vessel was a Limpopo Bead/Bangle Impressed recurved jar with a single line of bead/bangle impression on the shoulder.

Seven beads were recovered from Test Unit 22. These were fashioned from *Achatina* sp. shell (n=4 or 57%), ostrich eggshell (n=2 or 29%), and metal (n=1 or 14.3%). Two of the Achatina beads were in Size Class 6, one was in Size Class 7, and the remaining one was in Size Class 8. One of the ostrich eggshell beads was in Size Class 5, while the other was in Size Class 7. The metal bead was fashioned from iron and weighed 0.30 g.

Test Unit 23

Test Unit 23 was placed 5 m east of Test Unit 22 in an effort to locate subsurface structural remains. Stratigraphy in Test Unit 23 consisted of an upper layer of brown (10YR 5/4) heavily trampled fine silt (Stratum I) between 0 and 8 cmbs. Directly below Stratum I was a thin hard, coarse surface between 8 and 10cmbs consisting of grit (ca. 50%) and soil from Stratum I (ca. 50%). This gritty surface (Stratum II) is interpreted here as a former walking/occupational surface. This surface was underlain by a slightly ashy yellowish brown (10YR 6/4) silt between 10 and 14 cmbs.

A total of six ceramic vessels were recovered from Test Unit 23; all of these were recovered from Stratum I. These vessels included incurvate bowls (n=3 or 50%), simple shallow bowls (n=2 or 33%), and recurved jars (n=1 or 17%). The single decorated vessel was the recurved jar; it was an example of Limpopo Bead/Bangle Impressed ware, and was decorated with a band on zoned diagonal bead/bangle impression on the shoulder.

Test Unit 25: Animal Byre 3

Test Unit 25 was placed in the central portion of an animal byre located adjacent to a large boulder outcropping near the southern edge of the site (Figure 8.19; Plate 8.13). The stratigraphy in Test Unit 25 consisted of an upper layer of brown (10YR 5/4) heavily trampled silt (Stratum I) that was found between 0 and 6 cmbs. Stratum I was underlain between 6 and 23 cmbs by a very pale brown (10YR8/2) burnt dung deposit (Stratum II). Stratum II was underlain between 23 and 53 cmbs by very fine light brownish grey (10YR 6/2) silt (Stratum III).

A total of nine ceramic vessels were recovered from Test Unit 25. Vessel forms present included recurved jars (n=4 or 45%), simple shallow bowls (n=3 or 33%), incurvate bowls (n=1 or 11%), and simple deep bowls (n=1 or 11%). All four of the recurved jars were decorated. Two of the decorated recurved jars were Limpopo Bead Bangle Impressed, decorated with zoned diagonal bands of bead/bangle impression on the central neck. One of these vessels was recovered from Stratum II while the other was recovered from Stratum III. The third vessel was another Limpopo Bead/Bangle Impressed ware decorated with a band of zoned diagonal bead/bangle impression on the lower neck; this vessel was recovered from Stratum II. The fourth decorated vessel was an example of Limpopo Comb-Stamped, decorated on the lower neck with an unzoned band of comb-stamping; this vessel was also recovered from Stratum II.

Area C, Occupational Flat

Area C is located to the north of the Northern Terrace in a large natural amphitheatre that forms a half-moon that opens to west (see Figure 8.1; Plate 8.1). The southern edge of the amphitheatre is formed by a low sandstone hill that runs east to west just north of the Northern Terrace, while its northern and eastern edges are formed by a steep hill slope leading up to a stony plateau.

The northern, eastern, and southern edges of Area C are covered in low *mopane* bushes, *acacia* and scrub. Away from the edges of the amphitheatre the ground is noticeably clear of vegetation. An aerial photograph of the site complex shows two large open grey patches that may be indicative of the locations of former cattle kraals. Surface inspection of Area C revealed that these areas, while they did contain some indications of their use as cattle

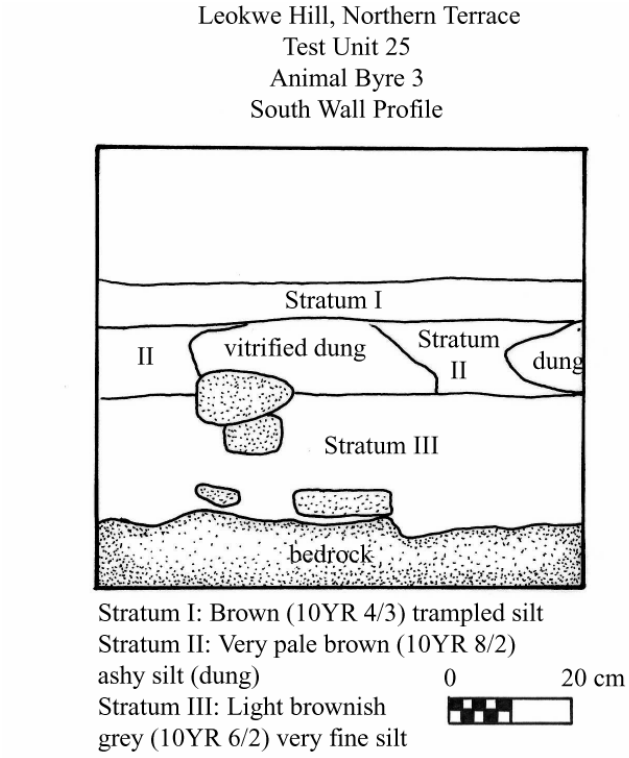


Figure 8.19. Leokwe Hill, Northern Terrace, Test Unit 25, Animal Byre 3, south wall profile.



Plate 8.13. Leokwe Hill, Northern Terrace, Test Unit 25, south wall profile.

kraals (i.e., dung deposits), were composed primarily of ashy grey soils indicative of midden deposition and intensive human occupation and use.

A few large pieces of hut rubble were found scattered over the surface of Area C, as were several probable grain bin foundations and numerous ceramic fragments. Zhizo, K2, and Mapungubwe ceramic components, as traditionally defined, were identified on the surface. Area C covers approximately 150 m southwest to northeast and 200 m southeast to northwest. Overall, visual inspection and surface reconnaissance of Area C impart the impression of a large, densely utilised occupational area. The stratigraphy recorded in Area C is presented below, as are data on the material culture recovered.

Area C, Occupational Flat: Stratigraphy

A single 2 x 2 m test unit was excavated in the southern portion of Area C in order to gain a very preliminary indication of the type of deposit present in this portion of Area C and its archaeological research potential. The soil stratigraphy present in this test unit consisted of a single stratum of brown (10YR 5/3) fine ashy silt that extended between 0 and 50 cmbs. Bedrock was reached at 50 cm below surface (Figure 8.20). A few large stones and gravel was present, but accounted for less than 5% of the overall deposit. No features were encountered. Two carbon samples were recovered from the test unit, but both were too insubstantial for conventional radiocarbon dating. Owing to the fact that they were not recovered from features or from more secure contexts, they were not submitted for AMS analysis.

Area C, Occupational Flat: Material Culture

Ceramics

A total of 681 sherds comprising 22 ceramic vessels were recovered from the single soil stratum noted in the excavation block in Area C. Of these, eight (36%) were decorated and therefore able to be classified according to the procedures laid out in Chapter IV. A classification of these vessels is shown in Table 8.28.

Vessels forms present within the entire ceramic assemblage were primarily recurved jars (n=15 or 68%) and simple shallow bowls (n=4 or 18%). Incurvate bowls (n=1), very shallow bowls (n=1), and bag-shaped jars (n=1), each accounted for slightly more than 4% each of the ceramic assemblage. Decoration techniques recorded in the Area C assemblage consisted exclusively of incision. Decoration placements present within the assemblage included those on the shoulder (n=7 or 88%) and on the central neck (n=1 or 12%). The ceramics present in the Area C deposit are consistent with description of ceramics traditionally described as Leopard's Kopje A, or K2, ceramics.

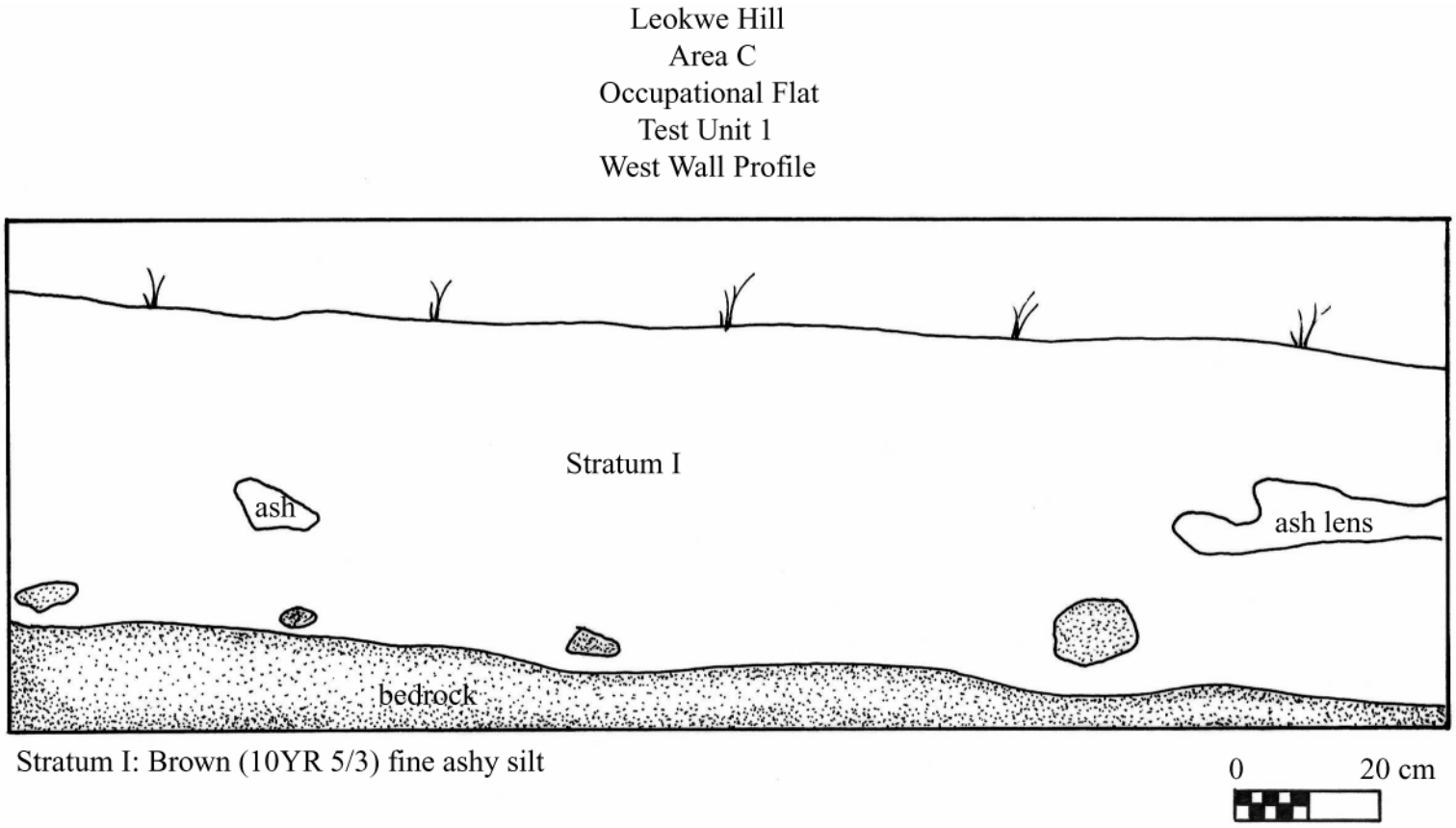


Figure 8.20. Leokwe Hill, Area C, Occupational Flat, Test Unit 1, north wall profile.

Table 8.28. Leokwe Hill, Area C, decorated ceramic vessels, by type, decoration placement, and number.

Type	Decoration Placement	#
Limpopo Incised, Recurved Jars, Design Set II: Horizontal Line	Shoulder	**2**
Limpopo Incised, Recurved Jars, Design Set I2: Diagonal Line	Shoulder	**2**
Limpopo Incised, Recurved Jars, Design Set I6: Upturned Triangles	Central Neck	**1**
Limpopo Incised, Recurved Jars, Design Set I11: Downturned Triangle	Shoulder	**3**

Beads

Three beads were recovered from Area C. These consisted of ostrich eggshell beads, with one each in Size Classes 5, 6, and 7.

Area D, Central Cattle Pattern Settlement

Area D is located on the low stony plateau above and to the northeast of Area C. The site is characterised by a large (ca. 20 x 20 m) cattle byre surrounded by several probable remnant grain bin foundations. Much of the site's surface consists of exposed bedrock outcroppings. The southern portion of the cattle byre area, however, is marked by a grey ashy soil indicative of midden deposition. Based on the distribution of surface features present, the total area of the Area D settlement is 60 by 80 m. Area D imparts the impression of a settlement organised in accordance with the centre/surround Central Cattle Pattern settlement layout.

Area D, Central Cattle Pattern Settlement: Stratigraphy

Two 2 x 1 m test units were placed on the southern edge of the cattle byre directly atop areas with surface indications of midden deposition. These test units were excavated in order to gather data with which to form an initial characterisation of the archaeological deposit present and to determine its research potential.

The soil stratigraphy in both test units consisted of a brown (10YR 4/3 to 5/3) very fine and compact silt that extended to bedrock at a depth of between 0 and 28 cmbs. A few large stones were present in the deposit in both test units. The northern section of Test Unit 2 (Figure 8.21) contained a 2 to 5 cm thick pink to purple gravel lens between 4 and 18 cm below surface. The lens was present in the western and northern portions of the test unit. It is unclear what this gravel lens represents, but it is very similar to the lens identified in Block C, Test Unit 1 on the Western Summit and may represent an episode of midden capping.

Area D, Central Cattle Pattern Settlement: Material Culture

Ceramics

A total of 591 ceramic sherds comprising 23 ceramic vessels were recovered from the single soil stratum noted in the two excavation units opened in Area D. Of these, nine (39%) were decorated and therefore able to be classified according to the procedures laid out in Chapter IV. A classification of these vessels is shown in Table 8.29.

Vessels forms present within the entire ceramic assemblage were primarily recurved jars (n=16 or 70%), simple shallow bowls (n=3 or 13%), and very shallow bowls (n=2 or 9%). Incurvate bowls (n=1) and bag-shaped jars (n=1) each accounted for slightly more than 4% each of the ceramic assemblage. Decoration techniques recorded in the Area C assemblage consisted exclusively of incision. Decoration placements present within the assemblage included those on the shoulder (n=5 or 56%), on the lower neck and shoulder (n=3 or 33%) and on the body (n=1 or 11%). Overall, the ceramic present within the Area D assemblage are consistent with description of those ceramics traditionally described as Leopard's Kopje B, or Mapungubwe, wares.

Table 8.29. Leokwe Hill, Area D, decorated ceramic vessels, by type, decoration placement and number.

Type	**Decoration Placement**	**#**
Limpopo Incised, Recurved Jars, Design Set I2: Diagonal Line	Shoulder	**1**
Limpopo Incised, Recurved Jars, Design Set I3: Crosshatching	Shoulder	**1**
Limpopo Incised, Recurved Jars, Design Set I5: Upturned Arcades	Shoulder	**1**
Limpopo Incised, Recurved Jars, Design Set I6: Upturned Triangles	Lower Neck and Shoulder	**2**
	Shoulder	**1**
Limpopo Incised, Recurved Jars, Design Set I11: Downturned Triangle	Lower Neck and Shoulder	**1**
	Body	**1**
Limpopo Incised, Recurved Jars, Design Set I14: Interlocked Triangles	Shoulder	**1**

Beads

A total of thirteen beads were recovered from Area D. All of these were fashioned from ostrich eggshell. Size Classes 6, 7, 8, 9, and 10 were represented, with one from Class 6, two from Class 7, three from Class 8, four from Class 9, and three from Class 10.

Leokwe Hill: Chapter Summary

The site Leokwe Hill represents the remains of a large prehistoric settlement that appears to have been occupied contemporaneously by two stylistically distinct groups. The settlement was divided into four main occupation areas. Users of the ceramic style traditionally defined as Leopard's Kopje A occupied Areas A and C, while users of the style

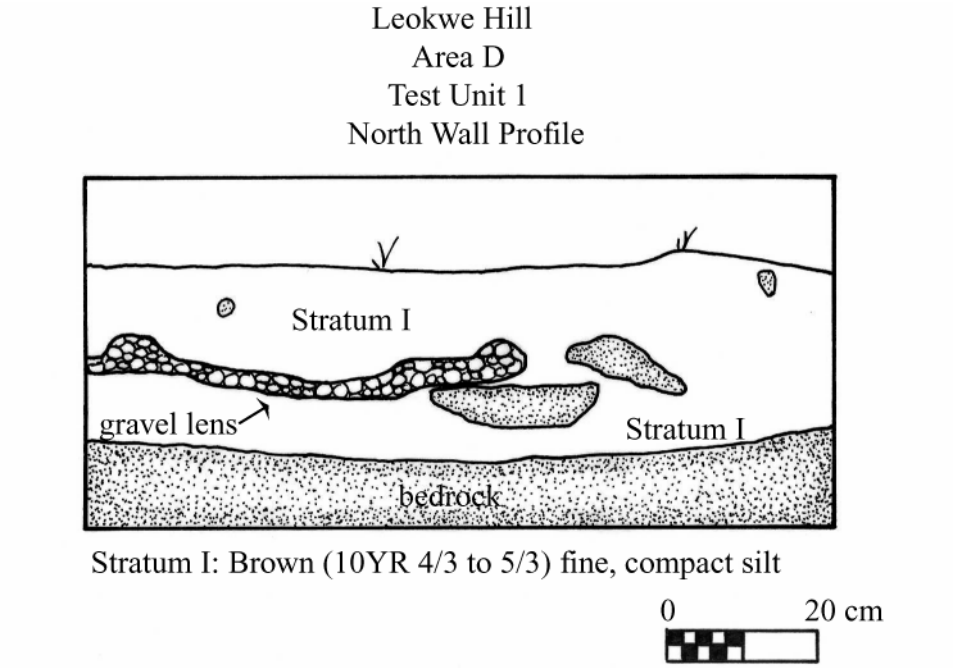


Figure 8.21. Leokwe Hill, Area D, Test Unit 1, north wall profile.

traditionally defined as Zhizo occupied the Northern Terrace. Users of Leopard's Kopje B ceramics occupied Area D. Based on ceramic, radiocarbon, and stratigraphic evidence, three of these areas (A: Western Summit; B: Northern Terrace and; C: Occupational Flat) were occupied roughly contemporaneously. The Western Summit dates to between around AD 1160 and 1215. The Northern Terrace appears to have been occupied continuously during the period spanning from around AD 1050 to at least AD 1215. The occupational flat, although it remains largely unexcavated, yielded ceramics consistent with Leopard's Kopje A material, indicating an occupation between around AD 1000 to 1220. Area D, a Central Cattle Pattern settlement, although also largely unexcavated, appears, based on its ceramic assemblage, to date to Leopard's Kopje B times, placing its period of occupation between ca. AD 1220 to1290. The stylistic complexity of the site, reminiscent of the ward system seen during the historic period in southern African indigenous towns, coupled with its large size, indicates that this settlement could be accurately described as a large town.

Early Iron Age Happy Rest and Late Iron Age Venda components are also present at the site, but appear to be largely confined to the Western Summit. The Happy Rest component is confined to the basal level of the Western Summit and is associated with a later Stone Age assemblage, while the Venda component, although horizontally extensive, has little vertical substance to it.

The central focus of the site appears, after around the mid-12th century AD, to have been the Western Summit of Leokwe Hill. This occupation, based upon the extant assemblage, appears to have been decidedly domestic and residential, with several episodes of

hut construction noted, and a typical mixture of cooking, serving, and storage vessels present. The remaining areas of the site also appear to have been primarily areas of domestic and residential occupation.

Analysis of the ceramic, radiocarbon, and stratigraphic data from Areas A through D indicate that the two ceramic styles known as Zhizo and Leopard's Kopje in all likelihood coexisted at the site. This conclusion raises some important questions regarding both the regional ceramic chronology and the nature of prehistoric social and political interaction in the region. First, if Leopard's Kopje A (i.e., K2) ceramics were markers of a separate ethnic/social entity which overran the area of the Shashi-Limpopo confluence around the turn of the 11th century AD, driving the Zhizo-using inhabitants of the region into eastern Botswana, why do Zhizo wares at the Northern Terrace at Leokwe Hill persist after the establishment of K2 and dominate the Northern Terrace's identifiable ceramic assemblage? Also, since the co-occurrence of these wares would appear to argue against the notion of a Leopard's Kopje A invasion of the region that replaced the Zhizo style, it is necessary to determine whether the co-occurrence of these two styles, as traditionally defined, represents some as yet undetermined interaction between two separate ethnic entities, or represents an instance of internal heterochrestic (i.e., class-based) stylistic development. These questions will be discussed in greater detail in Chapters XI and XII, but are briefly discussed here.

As was discussed at the end of Chapter III, several archaeological correlates exist that are useful in differentiating class-based from ethnic-based societies in southern African prehistory. Among those correlates are settlement layout/monumental architecture, exotic goods, non-utilitarian metal goods, and evidence of metal production and religious specialisation. I will begin here with settlement layout. The Western Summit, although it is located in a defensible position and may have walling associated with the Leopard's Kopje occupation of the hill, lacks other, less ambiguous, indications of defence. Specifically, no animal byres are present on the summit, as are present at contemporary Toutswe sites in Botswana (Denbow, 1983, 1984) and at much later *difaqane* period settlements in the subcontinent. If the main purpose of the hilltop location was defensive, the presence of byres on the summit would be expected (cf. Huffman 1986). The walling would then appear to have served as a marker of the relative status of the summit's inhabitants. An additional element included under the category of settlement layout/monumental architecture is the carved stele found in Block A on the Western Summit. While the actual carved motif is fragmentary, the presence of at least half of a diamond is suggestive of the stelae marking a high status residence. According to Huffman (1996:29-30), when these types of symbols appear on pillars and in association with high status settlement in more recent and earlier southern African Iron Age contexts, they are thought to signify "sacred leadership and its responsibilities."

Other indications of elite status are present on the summit, but are limited or entirely absent in Areas B through D. These include exotic goods in the form of glass trade beads and non-utilitarian metal items. Specifically, the density (measured in grams per m^3 excavated) of glass trade beads dating to the main Leopard's Kopje occupation of the Western Summit was 0.0986, while on the Northern Terrace it was 0.0083, a nearly twelve-fold difference. No glass trade beads were found in Areas C and D. Also, a higher density of finished non-utilitarian metal items, relative to those recovered from the Northern Terrace, was found on the Western Summit. For example, the density, also measured in grams per m^3, of non-utilitarian metal on the Western Summit is 1.75, while on the Northern Terrace it is 0.41, and in Areas C and D it is nil. These differences in items of material culture indicative of relative social status will be thoroughly discussed in Chapter XII.

There is little evidence of either metal production or religious specialisation on the Western Summit of Leokwe Hill. Evidence for metallurgical activity is scant, and any such activity appears to have been restricted to very limited smithing of already finished metals. In addition, no clear evidence of glass melting and re-working into larger beads was present, as was evident, for example, at Castle Rock. The Northern Terrace provided evidence of thread manufacture in the form of spindle whorls, perhaps providing evidence of a level of involvement with the long-distance trade network. There was also very limited evidence for smithing. The presence of the spindle whorls is important to the overall economic history of the region, as they appear to be among the earliest documented in southern Africa thus far.

Figurines are also conspicuous by their absence on the Western Summit, while only fragmentarily represented on the Northern Terrace. None of those types or fragments of figurines associated with supra-household fertility (cf. Wood 2002) were recovered from any area of Leokwe Hill.

As I suggested earlier, the lack of evidence of metal production and religious specialisation at all areas at Leokwe Hill may indicate that the site was occupied during a period of overall increased centralisation and control, with such activities being more tightly controlled and managed by the elites at the site K2 and, later, at Mapungubwe.

Based on the settlement pattern layout of the site, its associated monuments, and the relative distribution of metals and exotic goods, I posit here that the Western Summit of Leokwe Hill was an elite residential zone during the major period of the site's occupation. Areas B, C, and D would then appear to be areas of lower status occupation.

In summary, the results from the Western Summit partially support the current interpretation of the prehistory of the area described in Chapter II, as they indicate an elite Leopard's Kopje-using population living on a hill summit around the turn of the 13th century. It is interesting to note, however, that the dates for the hilltop occupation and the associated glass beads on the Western Summit are markedly earlier than those from Mapungubwe Hill

(ca. AD 1220), its political superior (Wood 2005; cf. Vogel 2000).

The radiocarbon results from the Northern Terrace were unexpected and have forced a reconsideration of the larger current regional chronology. As stated in Chapter II, Zhizo-using populations were thought to have been expelled from the region by Leopard's Kopje users around AD the turn of the 11th century AD. The dates from the Northern Terrace, in particular those from Block C and the associated ceramics, clearly indicate that the Zhizo style was still in place in the Shashi-Limpopo area by the turn of the 13th century AD. Given the near contemporaneity of the dates from Areas A and B, it is reasonable to infer that Zhizo and Leopard's Kopje users were living together at Leokwe Hill during the late 12th century AD. A detailed discussion of these results and their meaning within the larger regional chronology will be presented in Chapter XI.

CHAPTER IX
THE GREEFSWALD SITES REVISITED

Introduction

The purpose of this chapter is to present ceramic data recovered from Mapungubwe Hill, and to present data on the distribution of non-utilitarian metal goods and evidence for metal production, in particular metallurgy, at both K2 and Mapungubwe Hill. The ceramic data were gathered in order to have a sample from an indisputably elite Mapungubwe period context against which to view ceramic data from other sites examined in this thesis. Similarly, the data on finished metal items and evidence for metallurgy at K2 and Mapungubwe are presented in order to provide comparative data on metal distribution and metallurgy from elite contexts.

The data presented here were gathered from a wide variety of sources, using a combination of archival and collections-based methods, as well as standard archaeological reconnaissance and excavation. Initial study consisted of examining the Van Riet Lowe Collection, stored at the University of the Witwatersrand and the University of Pretoria Greefswald Core Collection, both of which include securely provenanced material from the early excavations at K2 and Mapungubwe, conducted between 1934 to 1940, as well as Jones' (1937) and Gardner's (1963) published descriptions and inventories.

The early excavations on the farm Greefswald at the sites Mapungubwe Hill and K2 were undertaken by the University of Pretoria. Early exploratory excavations at these sites were led in the field by the Rev. Neville Jones in 1933 and 1934 (Jones 1937; cf. Fouché 1937), under the institutional aegis of the University of Pretoria. Larger excavations were then conducted by the University of Pretoria in 1934 and 1935; these were led by Capt. Guy Gardner. A few points concerning the nature of the early investigations at K2 and Mapungubwe need to be made before continuing. Both of these early excavation efforts were, as was characteristic of the methodology of the time, wanting in recovery and recording techniques. For example, Gardner's and his assistant Van Tonder's excavations on the summit of Mapungubwe Hill encompassed an area of 3,348 m^2, from which approximately 6,515 m^3 of archaeological deposit were removed. No records were kept for approximately 38% (2506 m^3) of these excavations (Van Tonder's), while Gardner published only an incomplete inventory of artefacts, along with occasional and vague descriptions of features and depositional strata. In terms of recovery, it is telling that Gardner (1963) catalogued only 150 vessels from his 4,009 m^3 of excavated deposit, amounting to one vessel recovered for every 27 m^3 excavated. In comparison, excavation of similar deposits on the Western Summit at the slightly earlier site Leokwe Hill presented in the last chapter produced a minimum number of

696 vessels from 18.15 m^3, or roughly 38 recovered from each cubic metre excavated. If the Leokwe Hill sample is used as a benchmark against which to measure Gardner's recovery techniques, then it can be inferred that he collected less than 1% of all archaeological material present. The little material that was collected, however, was recorded within a grid system. The remaining material was discarded over the side of the summit, mainly in two dumps. The smaller of these is located on the western slope down to the base of the hill and the larger is on the northern slope, below the major excavation block. The recovery and recording methods Gardner employed at Mapungubwe were also used at K2 (Gardner 1963:3, 10). Jones' field methods in earlier excavations at both sites, it should be added, were equally wanting. It can reasonably be inferred that Jones' and Gardner's published data, and unpublished collections from both sites, grossly underrepresented what was actually present. Both Jones and Gardner were not overly concerned with collecting representative samples of material culture: their primary focus was the recovery of finished, complete, items. Nevertheless, their data, alongside information from more recent and very well recorded, but far less extensive, excavations at both sites undertaken by the University of Pretoria (e.g. Eloff 1979; Eloff and Meyer 1981; Meyer 1997, 1998) represent the available data on these important sites.

The two main spoil heaps formed by Gardner's and Van Tonder's excavations were examined in June of 1999 in order to gather a representative sample of ceramics and production debris related to metallurgy. Jones' main spoil heap was located, but not investigated owing to time constraints. The first, smaller, of Gardner's spoil heaps is located at the base of the western point of the hill. The second, larger, spoil heap is located on the northern base of Mapungubwe Hill, below Blocks 5 and 3 excavated by Gardner and Van Tonder. Both spoil heaps have formed into artificial talus slopes. The formation and current condition of the larger, northern spoil heap is described here. Deep wheelbarrow ruts on the hill indicate where Gardner and Van Tonder dumped deposit onto a central point, where it initially formed a cone. Over the past 60 years this cone has weathered and slumped, forming a talus that is 14 m in height with a 50% slope over an area of approximately 1,100 m^2. Artefacts and larger soil particles have sunk to the base of the deposit, while finer silts and sands remain at the top. The majority of artefacts, therefore, are capped by a thick (ca. 1 to 3 m thick) layer of primarily sterile matrix. Colluvial forces, however, have pushed some material towards the base of the slope and out of the talus where they are present in abundance on the surface, while alluvial action has washed some material from the main gully onto the surface or into the smaller branch gullies. Thus, while the bulk of archaeological material is still deeply buried, some of it is readily accessible.

Excavation in the main portion of the dump itself was deemed unnecessary and, due to the steep slope and unconsolidated soil matrix, unsafe. Over the course of four days, the

dump was surface collected and a small (1 x 1 m) unit was excavated in one of the branch gullies, a 4 x 2 m surface collection trench was laid out directly to the north of and below the edge of the talus, and a 4 x 1 m unit was excavated on the ledge at the top of the dump. Excavation in the small branch gully revealed a deposit that consisted primarily of artefacts in a sparse matrix of fine silt and sand. The deposit on the ledge, however, was virtually devoid of artefacts and consisted of very fine, powdery silt which collapsed upon reaching 60 cm in depth. The stratigraphy of the talus portion of the spoil heap, as observed in the main open gully channel that bisects the talus, is simple, consisting at its thickest section (approximately 3 m) of alluvially and colluvially deposited silts, sands, gravels and rocks sorted by size. Numerous artefacts are present within the matrix; these increase in size and frequency towards the bottom of the deposit. Due to the fact that all artefacts recovered from the dump are from secondary contexts, the material recovered will be described and discussed here as a single analytical unit.

I recently learned (Huffman 2004, personal communication) that the University of Pretoria excavated a large portion of the main spoil heap below the summit in 2003. The talus slope was sieved and all cultural material from it was retained for analysis; the soil was sandbagged and transported to the hilltop as part of a rehabilitation project. No report has been generated thus far, but it will be enlightening to gain a more complete picture of Mapungubwe Hill's material culture once these data are published.

Reliability of the Mapungubwe Spoil Heap Sample

Over the course of years since the spoil heap was initially deposited, numerous artefacts have undoubtedly been collected by visitors to the site, thereby compromising the informational value of the remaining material found there. I would argue, however, that the informational value of the material recovered from the spoil heap is sound for the purposes of the present study for the following reasons: 1) collection from the spoil heaps favoured small, easily portable items such as glass trade beads, garden roller beads, gold beads, and large, near complete ceramic vessels over the smaller, yet far more abundant, ceramic fragments and other cultural remains; 2) owing to the active nature of the talus, more material regularly emerges from the spoil heap, thereby continually replenishing the data set on the surface and; 3) the overall date range for Mapungubwe Hill, the source of the material, is approximately AD 1220 to 1290, a comparatively tight date range. Therefore, even though the artefacts are clearly out of context, they in all likelihood provide reliable generalised data on ceramic style and activities conducted on the hill during its overall period of occupation. Despite this general confidence that the data will be representative, it is possible that some specific ceramics, such as fragments of finely decorated necked bowls and plates, characteristic of the Mapungubwe ceramics, may be underrepresented. Once the analysis of the University of

Pretoria's recent excavation in the main spoil heap are published, it will be possible to assess more completely the reliability of the surface sample reported on here. For the present, however, it remains the only available suitable comparative ceramic sample.

The following sections will begin with a presentation of the ceramics recovered from Gardner's main spoil heaps below the western point and the north side of Mapungubwe Hill. This ceramic presentation will be followed by discussions of non-utilitarian metal at both K2 ad Mapungubwe, and the evidence for metallurgical activity at both sites.

Mapungubwe Hill: Ceramics

I should note that while Meyer's (1980) data on Mapungubwe and K2 ceramics are available, they were not presented in such a way as to be compatible with the research design of this thesis. Specifically, it was not possible to associate individual design motifs on specific locations on particular vessel forms. It will be remembered that this combination of form, decoration, and decoration placement are the central core of the typological procedures employed here. Also, while Meyer graciously offered access to the Greefswald Core Collection, and to material excavated by him, the University of Pretoria was, at that time, in the process of cataloguing and archiving the whole of the Greefswald collections. It therefore was not realistic to access the Mapungubwe and K2 collections at the time of research.

Seven hundred and one ceramic vessels were recovered from all contexts in the two spoil heaps examined at the base of Mapungubwe Hill. Of these, 328 (47%) were decorated and able to be analysed according to the typological procedures outlined in Chapter IV. Table 9.1 presents the results of the analysis of the ceramic material from the Mapungubwe Hill spoil heaps as a classification for the site as a whole. The results of the typological analysis of the vessels presented here will aid in answering the substantive research questions posed at the end of Chapter II that relate to the nature, duration, and geographical extent of various ceramic styles in the study area.

The similarity or lack of fit of the Mapungubwe Hill ceramic assemblage with assemblages from other sites in the region will be discussed in Chapter XI. The reader is referred to Appendix A for ceramic drawings. Appendix G contains more detailed information on the ceramic assemblage, including the specific numbers and placements of design motifs in each design set, and representative drawings of ceramic types.

Vessel Form, Decoration, and Placement

The 701 vessels recovered from the spoil heaps investigated at Mapungubwe Hill included recurved jars (n=432 or 62%), simple shallow bowls (n=51 or 7%), very shallow bowls (n=48 or 7%), plates (n=44 or 6%), incurvate bowls (n=37 or 5%), beakers (n=24 or 3%), bellied jars (n=23 or 3%), sack-shaped jars (n=15 or 2%), necked bowls (n=14 or 2%),

and simple deep bowls (n=13 or 2%).

Table 9.1. Mapungubwe Hill, spoil heaps, decorated ceramic types, from all contexts, by number and percentage.

Type	Decoration Placement	#	%
Limpopo Incised, Recurved Jars, Design Set I1: Horizontal Line	Lower Neck	5	**1.52**
Limpopo Incised, Recurved Jars, Design Set I2: Diagonal Line	Rim	2	**0.61**
	Central Neck	1	**0.30**
	Lower Neck	4	**1.22**
	Shoulder	15	**4.57**
Limpopo Incised, Recurved Jars, Design Set I3: Crosshatched	Rim	1	**0.30**
	Central Neck and Shoulder	1	**0.30**
	Shoulder	6	**1.83**
Limpopo Incised, Recurved Jars, Design Set I5: Geometric, Upturned Arcade	Central Neck	3	**0.91**
	Lower Neck	8	**2.44**
	Lower Neck to Shoulder	24	**7.32**
	Shoulder	7	**2.13**
Limpopo Incised, Recurved Jars, Design Set I6: Geometric, Upturned Triangle	Central Neck to Lower Neck	1	**0.30**
	Lower Neck	16	**4.88**
	Lower Neck to Shoulder	37	**11.28**
	Shoulder	8	**2.44**
Limpopo Incised, Recurved Jars, Design Set I11: Geometric, Downturned Triangle	Lower Neck to Shoulder	6	**1.83**
	Shoulder	36	**10.98**
Limpopo Incised, Recurved Jars, Design Set I12: Geometric, Downturned Arcade	Central Neck	1	**0.48**
	Lower Neck to Shoulder	2	**0.61**
	Shoulder	3	**0.91**
Limpopo Incised, Recurved Jars, Design Set I14: Geometric, Interlocked Triangles	Lower Neck	1	**0.48**
	Lower Neck to Shoulder	9	**2.74**
	Shoulder	11	**3.35**
Limpopo Incised, Recurved Jars, Design Set I15: Geometric, Diamonds	Central Neck	1	**0.30**
	Lower Neck to Shoulder	1	**0.30**
	Shoulder	1	**0.30**
Limpopo Incised, Bellied Jars, Design Set I3: Crosshatched	Shoulder	3	**0.91**
Limpopo Incised, Bellied Jars, Design Set I6: Geometric, Upturned Triangle	Lower Neck	1	**0.30**
Limpopo Incised, Bellied Jars, Design Set I11: Downturned Triangles	Shoulder	16	**4.88**
Limpopo Incised, Recurved Jars, Design Set I15: Geometric, Diamonds	Shoulder	3	**0.91**
Limpopo Incised, Beakers, Design Set I1: Horizontal Line	Body	1	**0.30**
Limpopo Incised, Beakers, Design Set I2: Diagonal Line	Body	3	**0.91**
Limpopo Incised, Beakers, Design Set I3: Crosshatching	Body	1	**0.30**

Type	Decoration Placement	#	%
Limpopo Incised, Beakers, Design Set I5: Geometric, Upturned Arcades	Body	3	**0.91**
Limpopo Incised, Beakers, Design Set I6: Geometric, Upturned Triangles	Body	1	**0.30**
Limpopo Incised, Beakers, Design Set I14: Geometric, Interlocked Triangles	Body	9	**2.74**
Limpopo Incised, Simple Shallow Bowls, Design Set I3: Crosshatching	Rim	1	**0.30**
Limpopo Incised, Simple Shallow Bowls, Design Set I5: Geometric, Upturned Arcade	Rim and Body	3	**0.91**
Limpopo Incised, Simple Shallow Bowls, Design Set I6: Geometric, Upturned Triangles	Rim to Body	1	**0.30**
	Body	1	**0.30**
Limpopo Incised, Simple Shallow Bowls, Design Set I11: Geometric, Downturned Triangles	Rim to Body	2	**0.61**
	Body	3	**0.91**
Limpopo Incised, Simple Shallow Bowls, Design Set I12: Geometric, Downturned Arcade	Body	1	**0.30**
Limpopo Incised, Simple Shallow Bowls, Design Set I14: Geometric, Interlocked Triangles	Lip	1	**0.30**
	Body	1	**0.30**
Limpopo Incised, Very Shallow Bowls, Design Set I2: Diagonal Line	Body	1	**0.30**
Limpopo Incised, Very Shallow Bowls, Design Set I3: Crosshatching	Lip	1	**0.30**
Limpopo Incised, Very Shallow Bowls, Design Set I5: Geometric, Upturned Arcades	Body	1	**0.30**
Limpopo Incised, Very Shallow Bowls, Design Set I6: Geometric, Upturned Triangles	Body	2	**0.61**
Limpopo Incised, Very Shallow Bowls, Design Set I11: Geometric, Downturned Triangles	Body	10	**3.05**
Limpopo Incised, Very Shallow Bowls, Design Set I12: Geometric, Downturned Arcade	Body	1	**0.30**
Limpopo Incised, Necked Bowls, Design Set I3: Crosshatching	Body	1	**0.30**
Limpopo Incised, Necked Bowls, Design Set I11: Geometric, Downturned Triangles	Shoulder to Body	4	**1.22**
Limpopo Incised, Necked Bowls, Design Set I14: Geometric, Interlocked Triangles	Shoulder to Body	2	**0.61**
	Body	1	**0.30**
Limpopo Incised, Necked Bowls, Design Set I15: Geometric, Diamonds	Shoulder to Body	4	**1.22**
Limpopo Incised, Incurvate Bowls, Design Set I15: Geometric, Diamonds	Shoulder	1	**0.30**

Type	Decoration Placement	#	%
Limpopo Incised, Incurvate Bowls, Design Set I16: Geometric, Upturned Triangles	Body	1	**0.30**
Limpopo Incised, Plates, Design Set I6: Geometric, Upturned Triangles	Body	1	**0.30**
Limpopo Incised, Plates, Design Set I11: Geometric, Downturned Triangles	Body	8	**2.44**
Limpopo Incised, Plates, Design Set I14: Geometric, Interlocked Triangles	Body	1	**0.30**
Limpopo Incised, Plates, Design Set I15: Geometric, Diamonds	Body	1	**0.30**
Limpopo Punctated, Recurved Jars, Design Set P1: Horizontal Line, Round Punctation	Shoulder	4	**1.22**
Limpopo Punctated, Recurved Jars, Design Set P5: Horizontal Line, Triangular Punctation	Shoulder	1	**0.30**
Limpopo Punctated, Necked Bowls, Design Set P1: Horizontal Line, Round Punctation	Shoulder	1	**0.30**
Limpopo Stabbed, Recurved Jars, Design Set ST3: Horizontal Line, Horizontal Stabbing	Shoulder	5	**1.52**
Limpopo Incised and Comb-Stamped, Recurved Jars, Design Set I/CS3: Zoned Incised Herringbone (Eiland)	Shoulder	1	**0.30**
Limpopo Incised and Punctated, Recurved Jars, Design Set I/P2: Diagonally Oriented Round Punctates, Zoned	Shoulder	1	**0.30**
Limpopo Incised and Punctated, Recurved Jars, Design Set I/P5: Horizontal Line, Round Punctates, Zoned	Central Neck	1	**0.30**
Limpopo Incised and Punctated, Recurved Jars, Design Set I/P6: Geometric, Incised Downturned Triangles Infilled with Random Round Punctates	Shoulder	1	**0.30**
Limpopo Incised and Punctated, Recurved Jars, Design Set I/P7: Geometric, Incised Diamond Infilled with Random Small Round Punctates	Lower Neck to Shoulder	1	**0.30**
Limpopo Incised and Punctated, Necked Bowls, Design Set I/P9: Geometric, Interlocked Triangles; Downturned Incised Crosshatched Triangles Alternating with Upturned Incised Triangles Infilled with Upturned Triangular Punctates, Zoned	Shoulder to Body	1	**0.30**
Limpopo Incised and Punctated, Plates, Design Set I/P6: Incised Downturned Triangles Infilled with Round Punctates	Body	1	**0.30**
Limpopo Applied, Beakers, Design Set A2: Plain Lugged	Body	1	**0.30**
Limpopo Incised, Applied, and Comb-Stamped, Recurved Jars, Design Set I/A/CS1: Raised Horizontal Appliqué			

Type	Decoration Placement	#	%
Zoned by Incision, Infilled with Small Diagonal Lines of Comb-Stamping (Toutswe)	Lower Neck	1	**0.30**
Limpopo Polychrome, Incised and Punctated, Recurved Jars, Design Set P/I/P1: Zoned Incised Crosshatching bordered by a single Line of Round Punctates, with Alternating Areas of Red Ochre and Black Graphite (Moloko?)	Rim to Central Neck	2	**0.61**

Incision was the dominant decoration motif in the assemblage accounting for 307 of the 328 decorated vessels, or 93.5% of the total decorated ceramic assemblage. Punctation (n=6 or 2%) was the next most frequently occurring decoration technique and was followed by incision and punctation (n=5 or 1.5%), and stabbing (n=5 or 1.5%). Vessels decorated with a combination of polychrome, incision, and punctation, and those decorated with appliqué, comb-stamping and incision, and the combination of appliqué, comb-stamping and incision each account for less than 1% of the total decorated assemblage.

Decoration placement on jars forms (n=251) was dominated by shoulder decoration (n=122 or 49%) and was followed infrequency by decoration on the lower neck to shoulder (n=80 or 32%), the lower neck (n=35 or 14 %), the central neck (n=7 or 3%), and rim (n=3 or 1%). Decoration on the rim to central neck, central neck to lower neck, and central neck and shoulder each accounted for less than 1% of the decoration placement on jar forms. Decoration placement on simple open bowl forms (n=30) was dominated by placement on the body (n=21 or 70%), and was followed in frequency by rim to body (n=6 or 20%), lip (n=2 or 7%), and rim (n=1 or 3%) placements. Decoration placement on incurvate bowls was on the shoulder (n=1) and the upper body (n=1). All beakers (n=19) were also decorated on the body. Decoration on necked bowls (n=14) most often occurred on the shoulder to body (n=11 or 79%), and was followed in frequency by placement on the body (n=2 or 14%), and the shoulder (n=1 or 7%). Decoration on plates (n=12) most often occurred on the body (n=11 or 92%) and was followed in frequency by decoration on the rim to body (n=1 or 8%).

Mapungubwe Hill, Ceramics from Gardner's Spoil Heaps: Discussion

The data from Gardner's spoil heaps is out of context and thus the questions of change over time within the assemblage and the spatial patterning of artefacts are, quite clearly, out of the question. The very narrow dated occupational span of the elite residence on Mapungubwe Hill, from around AD 1220 to 1290, makes at least one of these shortcomings, the lack of diachronic information, a less important issue.

The construction of a ceramic type collection from Mapungubwe Hill meets one of the critical data needs of this thesis, as it will provide a data set against which to compare

material from sites discussed in this thesis. The vessels from Mapungubwe are generally consistent with what would be expected from a Leopard's Kopje B assemblage (see Huffman 1974), with the most commonly occurring ceramic types consisting of recurved jars decorated with geometric motifs.

No material was recovered from the spoil heaps that called into question the current regional chronology. It is interesting to note, however, from the point of view of the data discussed in the preceding chapters, that no vessels decorated in the Zhizo style were recovered from the spoil heaps. Nor were any Zhizo style vessels found in the earlier excavations by Jones and Gardner; nor were any reported in publications generated from the more recent University of Pretoria excavations (e.g. Meyer 1980, 2000; Eloff and Meyer 1981). Numerous Zhizo vessels were recorded at K2 in the earlier excavations, as I mentioned in Chapter II. This lack of a Zhizo presence on Mapungubwe Hill also stands in sharp contrast to the situation at other sites previously discussed in this thesis. The interpretation of this absence will take place in detail in Chapter XI.

Conversely, a sherd from a single vessel clearly executed in the Toutswe style was recovered from the spoil heaps (Plate 9.1). The vessel and one other recovered from the Southern Terrace excavations below the Hill (Schofield 1937: Plate XXXI, 9), constitute the only reported Toutswe vessels from Mapungubwe Hill.



Plate 9.1. Toutswe vessel fragment recovered from Gardner's main spoil heap.

An incised and comb-stamped Eiland sherd was recovered from the spoil heaps. The

presence of this vessel was not unexpected, considering that other herringbone incised wares have been reported from the Hill (Ibid: Plate XXXII; Meyer 1980: Tables 19 and 20). Interestingly all of the herringbone vessels reported earlier combined incised herringbone motifs with elaborate polychrome and other decoration. This vessel, as well as one recovered by Meyer on the Southern Terrace and two recovered from the Hill, represents the evidence for Eiland ceramics at the Mapungubwe Hill site complex.

Finally, the two polychrome, incised and punctated vessels recovered from the spoil heaps bear some discussion, as they most closely resemble later Moloko wares. Similar vessels do occur on Mapungubwe Hill and the southern Terrace (Schofield 1937: Plate XXXII). Given that Mapungubwe sites and Moloko sites co-occur in the Soutpansberg, it may be possible that these vessels represent evidence of a later Mapungubwe re-occupation of the site that incorporated Moloko elements.

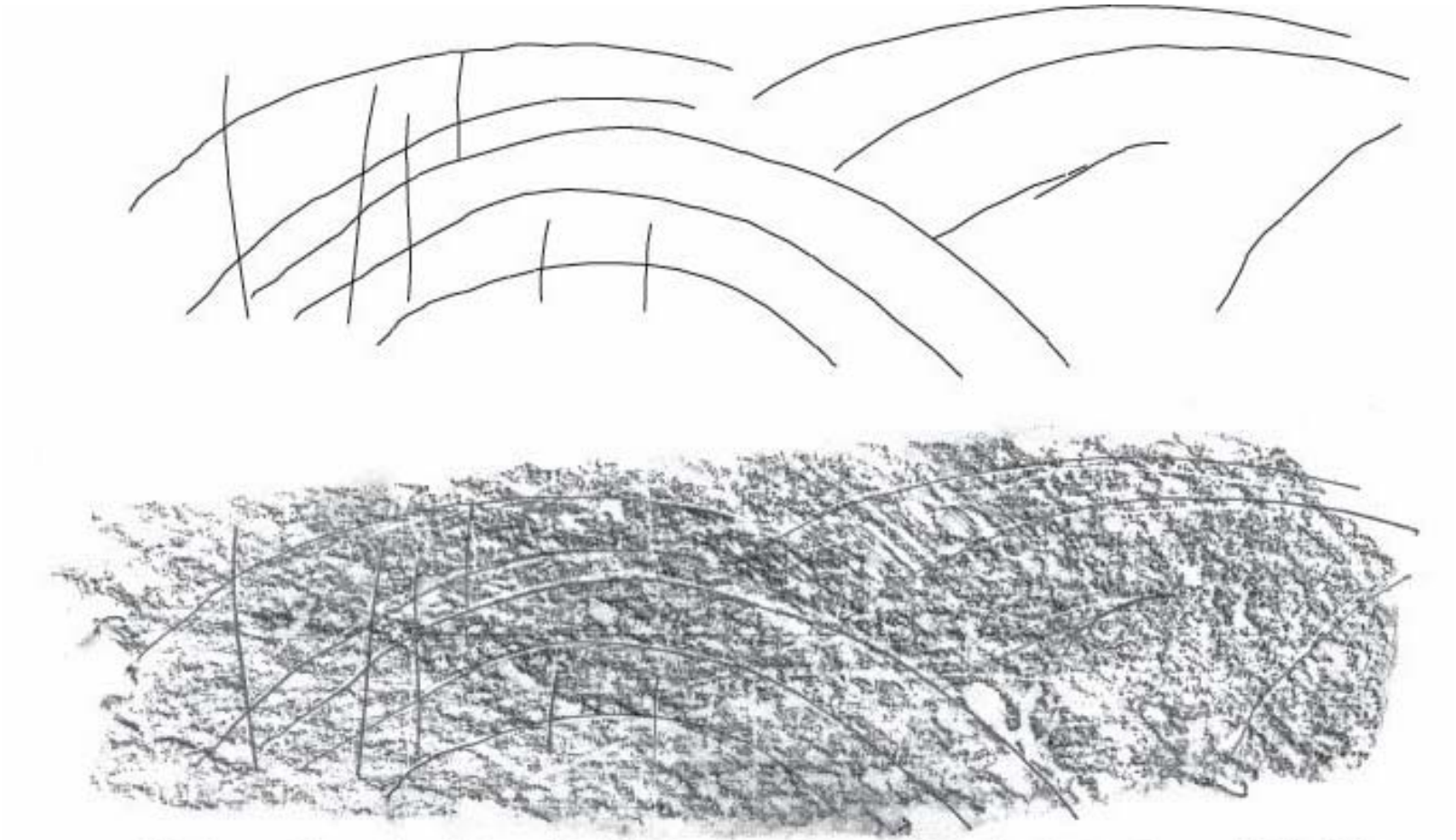
Mapungubwe Hill, Carved Stone

In addition to the ceramic material discussed above, and the metallurgical debris presented below, I would like to report on the discovery of a fragment of a carved stele on the summit of Mapungubwe Hill. A rubbing and line drawing of the decorated surface of the stele are shown in Figure 9.1. It was found on the surface at an unexcavated portion of the summit, near the area interpreted by Huffman (2000:21, Fig. 12) as the palace.

The stele was broken; the portion recovered consisted of a long, angular block of smooth sandstone approximately 70 cm long. The sandstone was carved on one side with a series of concentric arcades. Such arcades are common design motifs in both Leopard's Kopje A and B ceramics; their presence on the stele serves to reinforce its association with the Leopard's Kopje occupation of the Hill. It is interesting to note that similar stelae are also found at Great Zimbabwe. At Great Zimbabwe, however, they are much more richly decorated with the iconography of royal power (cf. Huffman 1996:130). This item at Mapungubwe may thus be a precursor to similar items of sculpture in the round found at later Zimbabwe Tradition sites. It will be recalled that another, also simply decorated, stele was recovered from the Western Summit of Leokwe Hill, perhaps providing further evidence of the elite affinity of that site.

Non-Utilitarian Metals: K2 and Mapungubwe

Data is presented here in an attempt to quantify accurately the relative access to finished metal artefacts which residents of K2 and Mapungubwe enjoyed. This data is derived from the more recent and methodologically superior excavations undertaken by the University of Pretoria (Meyer 1986, 2000), as tabulated by Duncan Miller (n.d.). I calculated



Stele fragment from surface of Mapungubwe Hill, found near palace area. Upper: line drawing. Lower: original rubbing.

Figure 9.1. Line drawing and rubbing of stelae from Mapungubwe Hill.

the total types, weights and counts of artefacts present at K2 and Mapungubwe, where the total metric volume of deposit excavated could be reconstructed (Table 9.2). I extrapolated the metric volume excavated at portions of K2 and Mapungubwe based on section drawings presented by Meyer (1998). The only portions of these excavations for which metric volume could be calculated accurately were the excavations on Mapungubwe Hill in Trench MK1, Blocks B3, B4 and B5, and at K2 from Block A2 in Trenches TS5 and TS6.

This data will be employed in Chapter XII, when an attempt is made to determine the relative status of each site's residents and their standing in the sociopolitical hierarchy. It is instructive to note here that the mass of non-utilitarian material exceeds that at all the other excavated sites reported here by several factors.

I should note here that in an earlier publication (Calabrese 2000b), I reported on the metallurgical debris discussed below. I came to some tentative conclusions, in particular regarding evidence for smelting that, once the material was examined by an expert archaeometallurgist (Miller 2001), proved to have been erroneous. Therefore, in the following discussion whenever Miller (2001) is cited, know that the information being offered represents his corrections to my original interpretation.

Table 9.2. Finished iron and copper artefacts at K2 and Mapungubwe, by type, number and weight.

	K2, TS5 and TS6 (A2)		**Mapungubwe Hill, MK1 (B3, B4, B5)**	
Volume excavated (m^3)	22.17		43.47	
	#	wt(g)	#	wt(g)
Cu, finished				
Bangle/Helix	88	32.09	531	49.13
Wire, round	1	2.27	11	1.24
Wire, square	1	0.44	-	-
Bead	-	-	2	0.16
Strip	-	-	3	1.61
Plate	-	-	2	2.81
Total, Cu	90	34.80	549	54.95
Fe, finished				
Bangle/Helix	72	35.33	1032	272.92
Wire, round	1	0.13	4	0.46
Wire, square	-	-	2	1.11
Plate	2	2.70	6	7.88
Total, Fe	75	38.16	1044	282.37
Total, Cu and Fe	165	72.96	1593	337.32

Metallurgical Debris

K2 Period

Potential evidence of smelting from the early excavations at K2 comes from both Jones' and Gardner's excavations. Jones' second trench excavated just east of the central

mound (Fouché 1937: diagram 5) contained "abundant evidence of copper smelting having been carried on, and fragments of *tuyères* and pieces of slag were numerous" (Jones 1937:19). None of this material, however, was quantified or described in detail, thus making it difficult to ascertain if the remains were indicative of smelting or of smithing activities. Subsequently, Gardner's excavations in the area of the central midden recovered the following artefacts, all of which were re-located in the Greefswald Core Collection: six *tuyère* fragments with slag adhering to their ends, seven slag skimmers, 16 pieces of slag, and one small droplet of copper pouring splash. All of these items were securely provenanced, save one *tuyère* fragment which was labelled simply as having come from K2. Subsequent excavations by the University of Pretoria recovered two pieces of ceramic with slag adhering to their surface and 161 pieces of slag (Miller, n.d.).

During surface reconnaissance at K2 in May and June of 1999, I recovered one large piece of possible iron bloomery slag, four pieces of slag, one piece of iron bloom and three fragments of basalt with a thick layer of slag adhering to them. The fragments of basalt are interpreted here as possible pieces of refractory furnace wall or lining or perhaps as part of a smithy (cf. Miller 2001).

This evidence for metallurgy at K2, though by no means overwhelming, appears to indicate that some form of metallurgy was practised there, and that this activity occurred in the residential core of the site, within or adjacent to the area interpreted by Huffman (1982) as the court. As Miller (2001) has concluded, evidence for smelting of iron and copper at K2 is tendentious, at best, and it is much more likely that smithing of these metals occurred. Also, Miller argues that the available evidence indicates that the only other metallurgical activity that took place at K2 was the secondary re-melting and casting of copper into more easily worked and transported ingots, an activity that I had previously described as occurring there (Calabrese 2000b).

Mapungubwe Period

Jones (1937; cf. Stanley 1937) and Gardner (1963) reported what they considered to be evidence of metallurgy from their investigations on the summit of Mapungubwe Hill. Jones recovered a fragment of solid *tuyère* flow, produced when molten slag backs up into the *tuyère* of an operating furnace, a ceramic *tuyère* fragment, and an unknown number of slag pieces. Unfortunately, these items were provenanced only by the trench from which they came, without other references. Interestingly, in his section drawing of the eastern end of Trench JS(4), located just outside of Van Tonder's later excavations in Block 3, Jones (in Fouché 1937: diagram 2b; Gardner 1963: diagram 5) recorded the section of what could be interpreted as an iron smelting furnace. It was a well-defined pit, approximately 1.25 m wide and 0.75 m deep, labelled in the drawing simply as "much iron slag." This feature could also

be interpreted as a smithy, however.

Table 9.3. K2 and Mapungubwe, metallurgical debris, from all contexts.

	K2	**Mapungubwe Hill**
Artefact Type		
Slag	180(+)*	271(+)*
Slag skimmers	9	105
Furnace bottom slag	1	33
Tuyère fragments	6(+)*	36
Bloomery slag, Fe	1	-
Ore, Fe	-	1
Ore, Cu	-	16
Crucible sherds	-	5
Possible stone furnace or smithy wall	3	13
Tuyère flow	-	2
Furnace ingot, Cu	-	1
Matte, Cu	-	1
Pouring splash, Cu	1	-
Ingot, Cu	-	9
Bloom, Fe	1	2

*additional material was reported by Jones (1937), but was not quantified or described in detail, and was not found in the University of Pretoria collections.

Some slag and other metallurgical debris were submitted to G.H. Stanley at the University of the Witwatersrand. Stanley's report and discussion (Stanley 1937:30, 1937b:117-118) are lacking in detail; he does state that most of the specimens submitted are "apparently genuine iron smelting slags." Material which he identified included the previously mentioned *tuyère* flow fragment along with at least six pieces of iron smelting slag, a piece of partially reduced iron ore with slag and charcoal adhering, a furnace wall or crucible support fragment and a large piece of copper *matte* (sulfide of copper). As Miller (2001) and Greenfield and Miller (2004) have pointed out, the presence of bloomery slag and pieces of iron ore with charcoal adhering do not necessarily indicate that iron smelting occurred on a site; rather, since blocks of iron bloom were often the form in which smelted iron was regularly transported, they contend that the bloom was simply cleaned of impurities before being smithed. Thus, as opposed to indicating iron smelting, these items could also be interpreted as the remains of iron smithing.

Gardner subsequently recovered an additional *tuyère* flow fragment, a ceramic *tuyère* fragment, two ceramic slag skimmers, one large plano-convex copper furnace ingot, seven pieces of furnace copper, four pieces of copper ore, nine copper ingots, and 11 pieces of slag; four of these are furnace bottom slag. Of special interest is the large copper furnace ingot. This ingot was recovered from the veranda of the hut complex located at the base of Gardner's excavations; the hut complex was constructed on bedrock in Block 5, Section 1 (Gardner 1963:18-21, plate VIII) in the area referred to as the hollow, or Great Depression. Three

Leopard's Kopje A (i.e., K2) beaker bowls were recovered from the same hut floor, indicating that the hut complex and associated activities dated to the earliest occupation of the hill.

Gardner (Ibid:19-20) describes his impressions of metallurgical activities in this specific area of the hill summit as follows:

> Metal in the hollow appeared to have been not only worked but possibly smelted, for large quantities of slag, iron and copper in various forms were found just below the surface, down to approximately 7 feet. Lumps of unworked iron, usually in the last stage of oxidisation, and evidently the product of a nearby furnace, were embedded in thick ash and slag deposits, while several rough copper discs full of blow-holes, and bearing traces of the sand on which they had fallen in a viscous state when fresh from the smelter, gave proof that this material was obtained in large quantities.

Gardner's impressions of metallurgy on the hill are reinforced by the University of Pretoria's later excavations on the summit, in Trench MK1, located 30 m from the hut complex, while producing only two pieces of copper ore and 15 pieces of slag (Miller, n.d.), uncovered a feature, constructed on bedrock, consisting of "a small hollow containing burnt sandy soil, charcoal and traces of copper globules indicat[ing] some form of copper processing" (Meyer 1998:203).

Given the relative paucity of actual material recovered and provenanced by both the early and more recent excavations, however, it is not possible, based on this evidence alone, to determine the actual type and scale of metal production.

Metallurgical material I recovered from the dump consisted of 103 ceramic fragments with slag adhering to them (slag skimmers), six pieces of furnace copper, 13 fragments of basalt with slag adhering to them, 278 pieces of slag (29 of which are furnace bottom slag), 34 highly fragmented and slagged *tuyère* fragments and five highly burnt and heat-distorted ceramic fragments with slag adhering to them. The burnt, slagged ceramic sherds are interpreted tentatively here as crucible fragments or perhaps as furnace or smithy lining (Miller 2001). Twenty six of the ceramic slag skimmers and eight pieces of slag bear visible traces of copper oxide. One of the slag skimmers, a beaker fragment decorated with a Mapungubwe design motif, has a small nodule of copper ore adhering to the slag. All of the furnace wall fragments have copper prills or copper oxide within the slag. Since iron is typically present in copper smelting slags, but copper is usually present in iron smelting slags only in very small amounts (<0.5%), if at all, (Tylecote 1980:223, tables 7.1, 7.9), it is likely that these slagged rocks were from either a smelting furnace (Calabrese 2000b) or perhaps from a copper smithy on Mapungubwe Hill (Miller 2001). Again, it is unclear if copper metallurgy on Mapungubwe Hill involved actual reduction of ore into metal; it is clear, however, that secondary melting of furnace copper followed by sand- or mould-casting into ingots did occur (Calabrese 2000b; Miller 2001). Miller (Ibid) has confirmed that copper was re-melted and cast into bars or ingots at Mapungubwe Hill, but remained ambiguous about the possibility that primary copper smelting occurred there.

Evidence for iron smelting or smithing on the hill is much more difficult to ascertain without more archaeological evidence and archaeometallurgical analyses. Stanley's initial analyses and the descriptions given by both Jones and Gardner, and Jones' drawing of a possible furnace appear to indicate that iron smelting may have occurred on Mapungubwe Hill. Miller (2001:96-97), has observed the following regarding my previous arguments about possible iron smelting at Mapungubwe Hill:

> The question of whether iron was actually smelted at Mapungubwe or K2 cannot be answered definitively with the available information…Ore could have been imported, but no unambiguous remains of smelting furnaces have been described…Blocky slag fragments, tuyère fragments and iron blooms probably indicate only iron smithing at both K2 and Mapungubwe. The presence of slagged stones and several slag plugs from blocked tuyères has suggested that smelting was performed on these sites (Calabrese 2000). This is unlikely in view of the extent of the excavations, the scattered nature of the slag recovered to date, the absence of any identified furnace and the lack of proximal ore sources. The suggestive slag plugs are reminiscent of some of the cylindrical figurines found at Greefswald and may have been carried on to these sites as talismans.

I agree with Miller that the evidence for iron smelting at Mapungubwe and K2 is by no means unambiguous. I would counter, however, that some of his interpretive arguments could use some strengthening. First, he does not mention the descriptions given of the original excavations by Jones and Gardner, nor does he indicate that he examined Jones' drawing of the section in Trench JS(4) which could easily be interpreted as a smelter (or, granted, as a smithy). Second, he claims that it is unlikely that smelting occurred due to the "extent of the excavations" and the "scattered nature of the slags recovered". These statements stand in sharp contrast to the data presented here and earlier (Calabrese 2000b) concerning the quality of the early excavations. The material is "scattered" because the overwhelming majority of the excavated material was simply not recovered or recorded, or was only very poorly recorded. The vast majority of data from these sites was consigned to the spoil heaps where they remain. I contend that no determination as to whether smelting activities occurred at Mapungubwe Hill can be made until and unless the spoil heaps are thoroughly examined; such an examination has recently been completed by the University of Pretoria, although at the time of this writing the results have not been published. Finally, Miller's argument that the slagged tuyère plugs were "talismans" carried onto the site is far too particularistic and idiosyncratic to be given much weight. I would argue that, rather than talismans, they would potentially be "hot", dangerous items, associated as they are in the ethnohistoric record with iron smelting which was a liminal and perilous ritualised activity.

Fortunately, some of these issues may be resolved in the near future, as the identification and analysis of the material from the University of Pretoria's recent rehabilitation project proceeds and the data are published. I would expect that much more evidence for metallurgical activities will be recovered from the spoil heap, and that it is possible, but by no means certain, that smelting remains indicating either iron or copper

production may be found.

Metallurgy at K2 and Mapungubwe: Discussion

The data presented here indicate that smithing of both iron and copper took place at K2 and Mapungubwe, and that such activities took place either in or near the residential core of each site. The presence of a plano-convex copper ingot from the veranda of what has been interpreted as the king's residence at Mapungubwe Hill underlines this association. Also, the evidence fairly unambiguously indicates that secondary melting and casting of copper into smaller, more easily transported and traded, ingots took place (Calabrese 2000b; Miller 2001). No such evidence for secondary casting of iron has been identified.

This metallurgical data from these sites is significant in that it demonstrates that the leaders of these societies took a direct interest in the production of finished iron and copper goods, and that such production took place within, or at least within view of, their residential space. While it is not possible to determine if the leaders of K2 and Mapungubwe were smiths or metallurgists themselves, the link between leadership and metallurgy in their society seems clearly to be indicated. The closest analogous situation to that at K2 and Mapungubwe comes from Central and West Africa (cf. Herbert 1984, 1993). The kings of the Congo, for example, were smiths (De Maret 1985:79); in Burundi, royal insignia included hammers and anvils (Ibid, 1994).

The presence of these potential associations in a culture so far removed from Central and West Africa raises some interesting questions regarding trade and interaction. It has long been assumed that long-distance trading was oriented to the East African coast and to the Indian Ocean trade that plied between the Near East, eastern coastal Africa, and India and the Southeast Asia. The possibility, however remote, of a West or Central African connection to the Greefswald sites, although by no means established here, raises interesting possibilities for future discussion and research.

Conclusions

The ceramic data gathered from the Mapungubwe spoil heaps has met one of the primary goals of this thesis. Ceramic data is now available from an indisputably elite context against which to examine data from other sites in this thesis. This examination of the similarity or lack of fit with ceramic data from other sites in the region will be discussed in Chapter XI.

As was discussed in Chapter IV, the artefact finished non-utilitarian metal goods and metallurgical debris from the Mapungubwe assemblage will be drawn upon in Chapter XII. These data will be compared from data from other sites discussed in this thesis in order to determine each site's relative socio-political status.

CHAPTER X
EXCAVATIONS AT EDMONDSBURG

The site Edmondsburg (Site 2229 AD 5) (S 22.18.35, E 29.15.26) represents the remains of a small settlement, in all likelihood a homestead, located on the farm of the same name. The site is approximately 400 m east of the site Baobab, at the eastern base of a narrow, east to west running hill range (Figure 10.1, Plate 10.1; see Plate 6.1). The site is located on nearly level terrain, but is bordered to the south and west by a moderately steep (15%) slope. The nearest current water source is the Kolope River, located 1.4 km to the west. In antiquity nearer sources of water were probably present, as numerous intermittent and currently dry stream channels braid the valley floor. One of these runs 100 m to the west of the site. A spring-fed pool is also present at the southern base of the adjacent hill range, approximately 1 km to the west.

The site measures 60 by 70 m in area. The location of the site at the base of a hill slope has ensured that a combination of alluvial and colluvial forces have deposited a mixed layer of water- and gravity-transported material over much of the site, effectively capping and obscuring large areas of archaeological deposit. Sixteen stone features interpreted as remnant grain bin foundations were noted, as were two roughly rectangular stone features of unknown function. A slightly raised mound of vitrified dung is present on the northern portion of the site; this area, interpreted here as an animal byre, was quite small, and measured only around 7 m in diameter at its widest point. Two areas displayed grey, ashy soil and surface artefacts indicative of midden deposition. The smaller of these midden areas was located just north and adjacent to the animal byre, while the other was located in the southern portion of the site. The overall settlement pattern is suggestive of the Central Cattle Pattern (*sensu* Huffman 1982), with an outer arc of houses partially enclosing an animal byre.

The Excavations

Excavations at Edmondsburg were concentrated in the midden areas and in the animal byre. The midden areas were excavated to gather stratigraphic data, a representative sample of cultural material, and samples for radiocarbon dating. The animal byre was excavated, it was hoped, to provide data on human burials and secure samples (burnt posts) for radiocarbon analyses. Initial excavations were undertaken at the site in late August and early September of 1996; follow-up excavations were completed in the first week of April 1997.

I present the results of these excavations below. Stratigraphic and chronological information on all three areas are presented first. This presentation is followed by a detailed

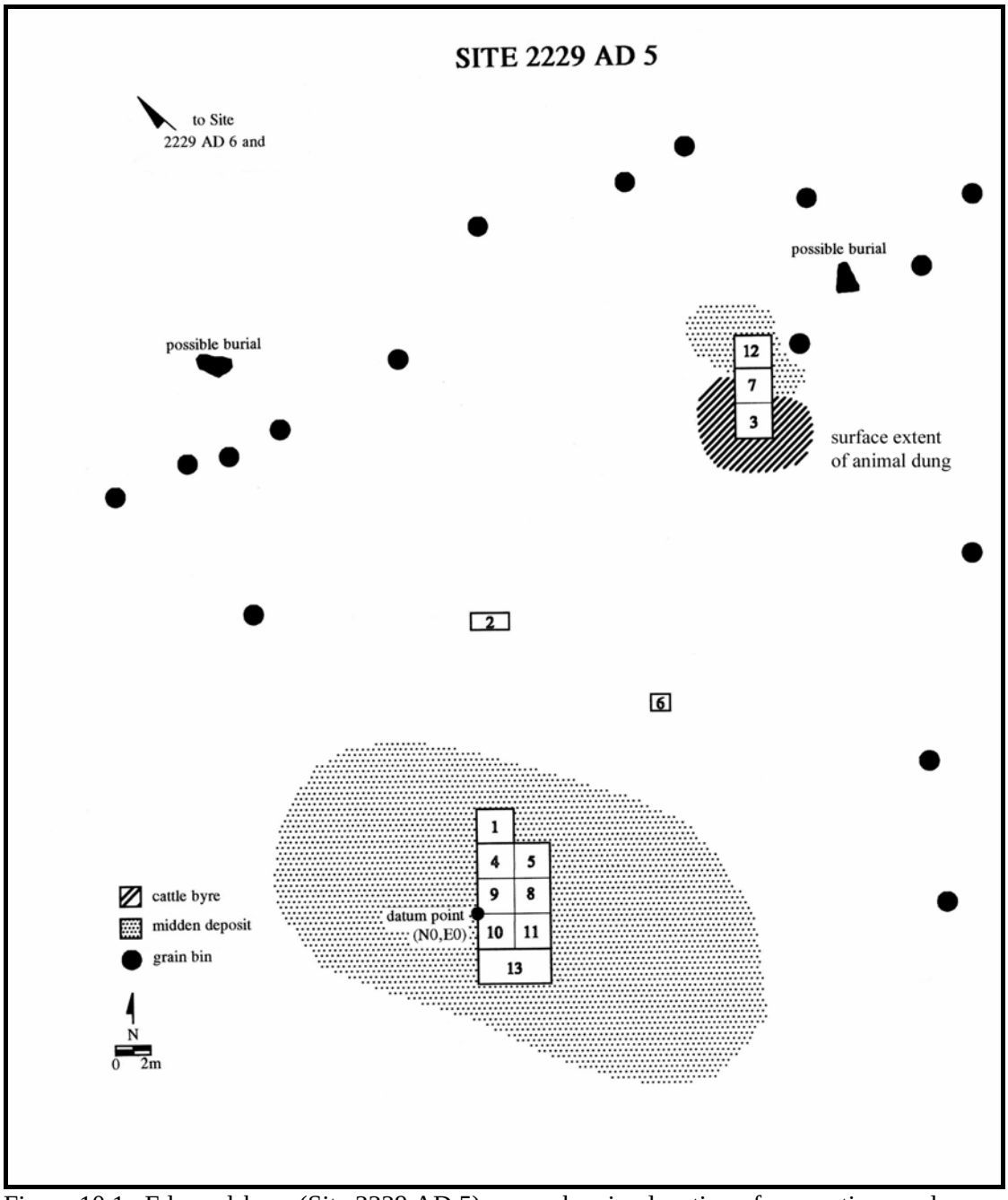


Figure 10.1. Edmondsburg (Site 2229 AD 5), map, showing location of excavations and surface features.



Plate 10.1. Edmondsburg, showing location of site at the base of the Edmondsburg-Blyklip range. Photograph shows the author standing in base of finished excavation in the southern midden.

summary of the cultural remains recovered from the site as a whole.

Southern Midden Area

Surface inspection of the site revealed that an area of midden deposit approximately 30 by 15 m east to west was present in the southern portion of the site. The majority of excavation efforts were concentrated on this midden deposit, as it was thought that it would be the most likely area of the site to produce a representative sample of ceramics, debris from daily activities, and samples suitable for radiocarbon dating.

Stratigraphy and Dating

A total of 36 m^2, divided into seven 2 x 2 m test units and one 4 x 2 m test unit, were excavated in the southern midden (see Figure 10.1). Each test unit was assigned a numeric designation (Test Unit 1, Test Units 4, 5, 8 to 11, and 13).

The soil profile in this deposit was straightforward (Figure 10.2). The uppermost stratum consisted of a brown (10YR 5/3) fine silt mixed with colluvium (Stratum I) which appears to have been subjected both to deflation and to alluvial washing. This layer extended between 0 and 9 cm below surface. Stratum I was underlain by a homogenous stratum of a dark greyish brown (10YR4/2) very ashy silt (Stratum II), interpreted here as a midden deposit, which extended from the base of Stratum I to a depth of between 17 and 25

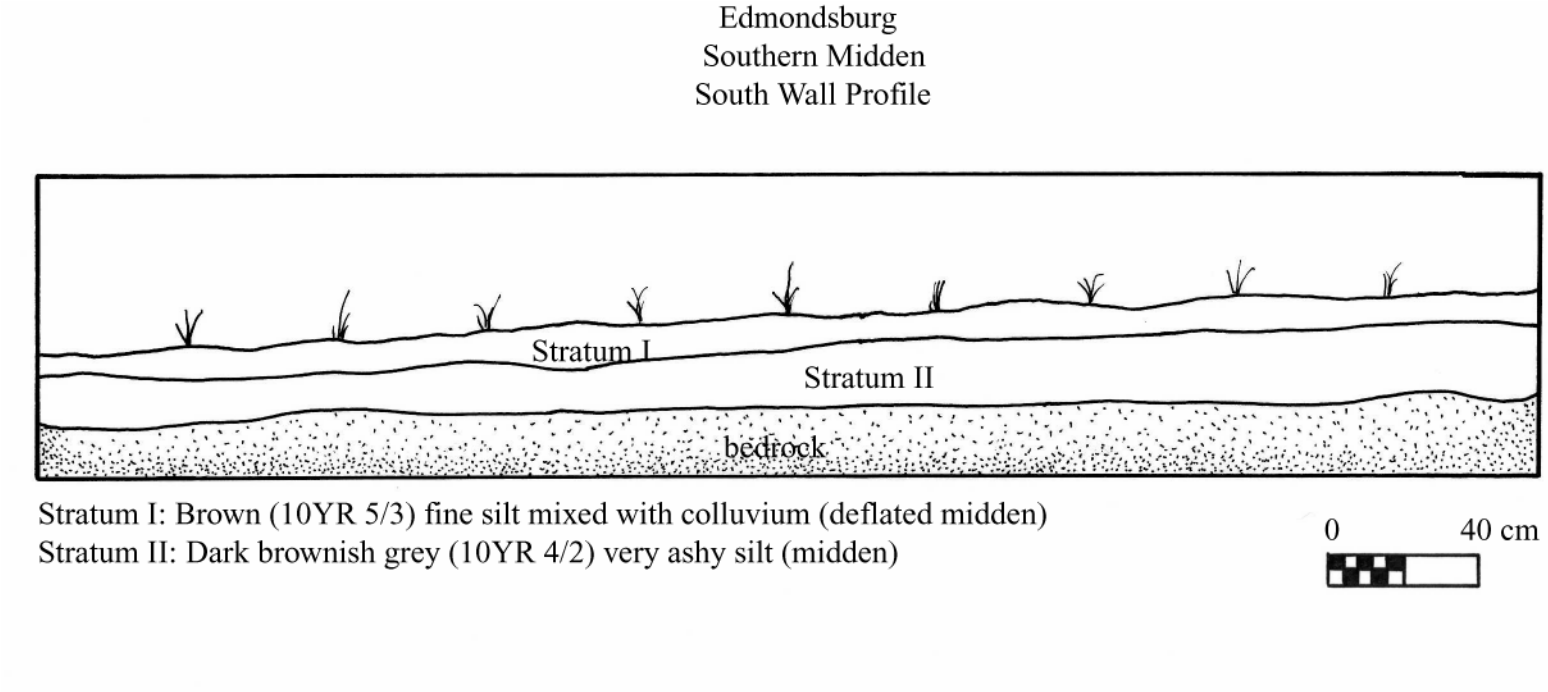


Figure 10.2. Edmondsburg, Southern Midden, Test Unit 13, south wall profile.

cm below surface. Cultural material was recovered from both Strata I and II. Sterile subsoil or bedrock was reached below Stratum II.

Disturbance was confined to occasional grass root action and to some animal burrows, probably made by springhares. These burrows were clearly demarcated from the original midden deposit due to their heavy organic content and decaying nesting material. All burrows were excavated separately and the sparse cultural material recovered from them was removed from analytic consideration. Material culture within the midden indicated a Leopard's Kopje B, or Mapungubwe Period, occupation.

Despite the appearance of organic preservation in the midden as good, only a single carbon sample was recovered which was large enough for standard radiocarbon analysis. This sample (Pta-7279), recovered from the base of Test Unit 10 at a depth of 25 cmbs, produced a before present (bp) date of 850±50, which in turn provided a 1-sigma range of AD 1190 to AD 1270. This date places the deposition of the midden in the late or terminal K2 Period to the Mapungubwe Period occupation of the region.

Animal Byre/Northern Midden Area

The animal byre located in the northern portion of the site was estimated to measure approximately 18 m in diameter, and consist of approximately 254 m^2 of surface area. This initial estimate was based on the surface concentrations of pale brown vitrified dung. Surface inspection also indicated that a midden deposit was located north of and directly adjacent to the animal byre.

Stratigraphy

Three 2 x 2 m test units (Test Units 3, 7, and 12) and a single 15 x 1 m exploratory trench (Test Unit 14) were excavated in this portion of the site. The initial 2 x 2 m test units were excavated in order to gather a representative sample of material culture from the site, to investigate the stratigraphic relationship between the animal byre and the midden, and to determine the vertical and horizontal extent of the midden. The exploratory trench was excavated south of Test Unit 3 in order to determine the southern extent of the animal byre, and in the hopes that further deposit and subsurface features would be encountered.

The stratigraphy of this area of the site consisted of a light brown (10YR6/3 to 10YR6/4) powdery, vitrified, dung (Stratum III) that extended to between 0 and 28 cm below surface (Figure 10.3). This dung stratum was underlain by sterile subsoil or rock in Test Unit 3 and in Test Unit 14. A brown (10YR5/3) ashy silt loam (Stratum IV), interpreted here as a midden deposit, was located below the dung layer in the northern half of Test Unit 7; this midden extended into Test Unit 12. In Test Unit 7 this midden deposit was between 4 and 12 cm in thickness; in Test Unit 12 the midden sat below the dung only in the southernmost 40

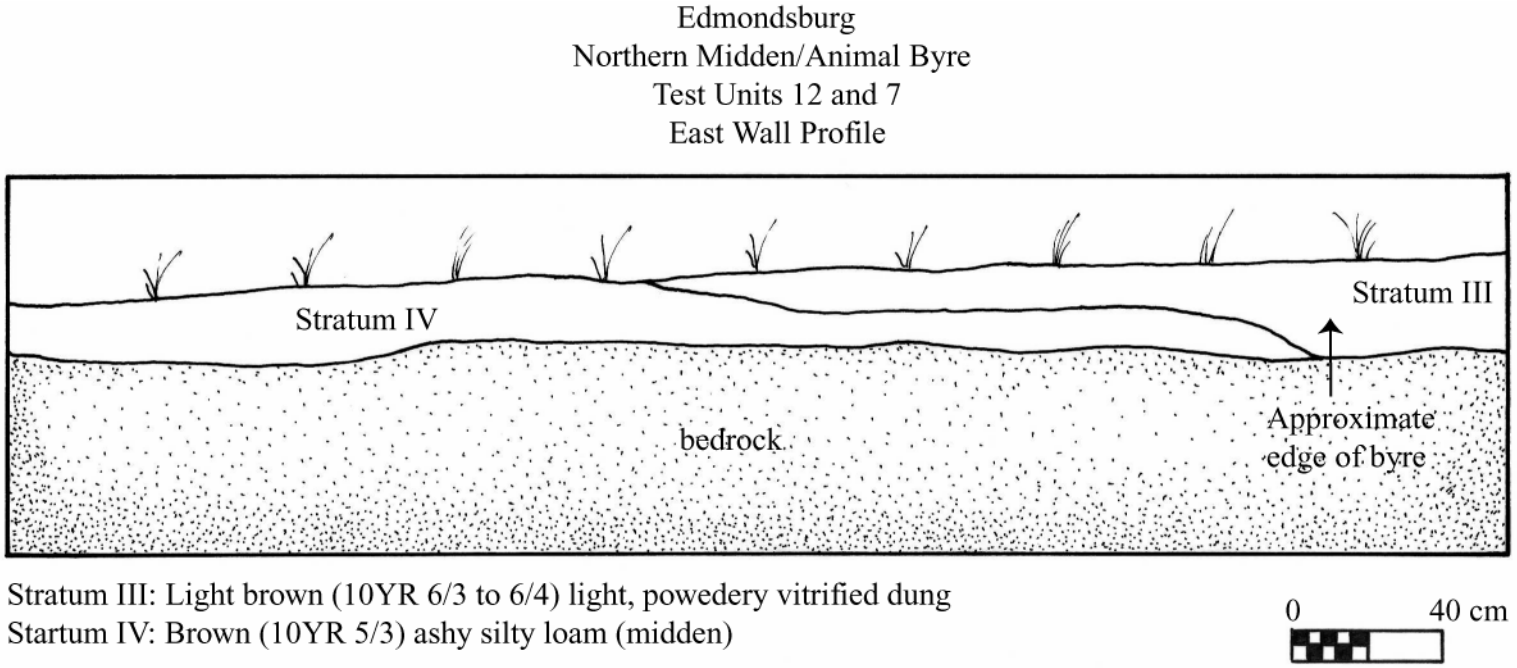


Figure 10.3. Edmondsburg, Animal Byre/Northern Midden, Test Units 12 and 7, east wall profile.

cm of the unit. The midden in the majority of Test Unit 12 was found between 0 and 20 cm below surface. Bedrock or sterile subsoil was located below the midden in both Test Units 7 and 12.

Examination of the section profile indicates that the dung layer appears to have been deposited at roughly the same time as the animal byre. Over time it appears as though the dung deposit expanded out of the byre enclosure and capped the midden. The animal byre measured a maximum diameter of approximately 3.5 to 4 m. The byre was therefore not larger than 13 m^2 in total area. Considering its very small size, I estimate that no more than one or two cattle could have been accommodated within the byre.

Excavation of the exploratory trench (Test Unit 14) revealed the southernmost extent of the animal byre. No cultural material was recovered from this trench, nor was any archaeological deposit encountered beyond the animal byre deposit. This trench is not shown in Figure 10.1.

Cultural material was recovered from both the animal byre and the midden. Ceramics recovered from the animal byre were severely warped and heat-distorted, indicating they had been subjected to very high temperatures. Ceramics from this portion of the site were very similar to those recovered from the southern midden deposit, indicating a Leopard's Kopje B (i.e., Mapungubwe) occupation. No samples suitable for radiocarbon dating were recovered from either the animal byre or the midden.

Material Culture

Owing to the very simple, shallow, stratigraphic and depositional contexts identified at Edmondsburg, and the apparent stylistic unity of ceramic assemblage, I have determined that the material culture at the site would be best described as a single analytic unit. Thus the following is a presentation of the artefacts recovered from all excavations at Edmondsburg. Data on the ceramics are presented first, followed by information on beads, metal, and faunal remains. Following the presentation of data, a preliminary chronological and functional interpretation of the site will be offered. A synthetic interpretation of this data in relation to that from other sites excavated will be offered in Chapters XI and XII.

Ceramics

A total of 3,653 ceramic sherds comprising 164 vessels were recovered from Edmondsburg. Of these, eighty-four were decorated and therefore able to be analyzed according to the typological procedures outlined in Chapter IV. The results of the typological analysis of the vessels presented here will aid in answering the substantive research questions posed at the end of Chapter II that relate to the nature, duration, and geographical extent of various ceramic styles in the study area.

Table 10.1 presents the results of the analysis of the ceramic material from Edmondsburg as a classification for the whole site. The vast majority of ceramics in the assemblage, based on the predominance of incised geometric motifs, conform closely to the ceramics described in Chapter IX for Mapungubwe, indicating that the Edmondsburg ceramic assemblage is part of the larger Leopard's Kopje B ceramic style. Precisely how closely the Edmondsburg assemblage corresponds to other sites in the region, however, will be discussed in Chapter XI. The reader is referred to Appendix H for more detailed information on the ceramic assemblage, including the specific numbers and placements of design motifs in each design set. Ceramic drawings are found in Appendix A.

Vessel Form, Decoration, and Placement

A minimum total number of 164 ceramic vessels were identified from the excavations at Edmondsburg. These included simple shallow bowls (n=6 or 4%), simple deep bowls (n=1 or <1%), incurvate bowls (n=17 or 10%), very shallow bowls (n=7 or 4%), plates (n=7 or 4%), recurved jars (n=110 or 67%), bag-shaped jars (n=8 or 5%), and bellied jars (n=8 or 5%). Incised wares (n=81 or 96%) dominated the decorated assemblage, and were followed in frequency by incised and punctated wares (n=3 or 4%).

Decoration placement on recurved, bag-shaped and bellied jars (n=81) was dominated by shoulder placement (n=56 or 69%), and was followed in frequency by decoration on the lower neck to shoulder (n=20 or 25%), on the central neck (n=3 or 4%), and on the lower neck (n=1 or 1%) and rim (n=1 or 1%). Decoration placement on open bowl forms (n=3), including simple deep bowls and very shallow bowls, was dominated by decoration on the body (n=2 or 67%), and was followed in frequency by rim decoration (n=1 or 33%).

Table 10.1. Edmondsburg, decorated ceramics, types from all contexts, by number and percentage.

Type	**Decoration Placement**	**#**	**%**
Limpopo Incised, Recurved Jars, Design Set I1: Horizontal Line	Central Neck	2	2.4
Limpopo Incised, Recurved Jars, Design Set I2: Diagonal Line	Rim	1	1.2
	Lower Neck to Shoulder	1	1.2
Limpopo Incised, Recurved Jars, Design Set I3: Geometric, Crosshatched	Shoulder	3	3.6
Limpopo Incised, Recurved Jars, Design Set I5: Geometric, Upturned Arcades	Central Neck	1	1.2
	Lower Neck	1	1.2
	Lower Neck to Shoulder	1	1.2
	Shoulder	4	4.8
Limpopo Incised, Recurved Jars, Design Set I6: Geometric, Upturned Triangles	Lower Neck to Shoulder	15	17.9
	Shoulder	4	4.8
Limpopo Incised, Recurved Jars, Design Set I11: Geometric, Downturned Triangles	Lower Neck to Shoulder	3	3.6

Type	Decoration Placement	#	%
	Shoulder	25	29.8
Limpopo Incised, Recurved Jars, Design Set I12: Geometric, Downturned Arcades	Shoulder	3	3.6
Limpopo Incised, Recurved Jars, Design Set I14: Geometric, Interlocked Triangles	Shoulder	8	9.5
Limpopo Incised, Bellied Jars, Design Set I11: Geometric, Downturned Triangles	Shoulder	4	4.8
Limpopo Incised, Bellied Jars, Design Set I14: Geometric, Interlocked Triangles	Shoulder	3	3.6
Limpopo Incised, Simple Deep Bowls, Design Set I2: Diagonal Line	Rim	1	1.2
Limpopo Incised, Very Shallow Bowls, Design Set I3: Geometric, Crosshatched	Body	1	1.2
Limpopo Incised and Punctated, Recurved Jars, Design Set I/P8: Round Impression, Interlocked Triangles	Shoulder	1	1.2
Limpopo Incised and Punctated, Bellied Jars, Design Set I/P6: Geometric, Round Impression, Downturned Triangles	Shoulder	1	1.2
Limpopo Incised and Punctated, Very Shallow Bowls, Design Set I/P6: Geometric, Round Impression, Downturned Triangles	Body	1	1.2

Edmondsburg Ceramics: Discussion

Based upon the high frequency of incised motifs typically associated with Leopard's Kopje B wares, most notably triangles on the shoulders of jars, the Edmondsburg ceramic assemblage is interpreted tentatively here as most closely resembling a Mapungubwe period assemblage. The very high frequency of incised decoration (96%) reinforces this interpretation.

It is interesting to note that this site contains the most internally homogenous ceramic assemblage of all those discussed in this thesis. The assemblage contains no indications of foreign components and elements. These ceramic data will be drawn upon in Chapter XI during our discussion of ceramic changes across time in the region.

Beads

A total of 26 beads were recovered from the site. Twenty-five of these were recovered from the southern midden, while one was recovered from the northern midden area. The single bead recovered from the northern midden area was from Test Unit 12, and consisted of a Size Class 12 *Achatina* sp. bead. Sixteen additional *Achatina* sp. beads were recovered from the southern midden. The nine remaining beads were fashioned from ostrich eggshell. The size class of the *Achatina* sp. beads is shown in Table 10.2, while equivalent data for the ostrich eggshell beads are shown in Table 10.3.

Table 10.2. Size Classes of *Achatina* sp. beads at Edmondsburg, by count.

	Size Class					
	6	**7**	**8**	**9**	**10**	**12**
Number	2	3	2	4	5	1

Table 10.3. Size Classes of ostrich eggshell beads at Edmondsburg, by count.

	Size Class					
	7	**8**	**9**	**11**	**12**	**15**
Number	1	4	1	1	1	1

In addition, four ostrich eggshell bead blanks were recovered from the site. All of these were from the southern midden. The presence of these items at the site indicates that ostrich eggshell beads blanks were in all likelihood processed at the site into finished beads. This activity, based on the number recovered, appears to have been conducted at a fairly small scale.

Ground Stone

Three pieces of ground stone, consistent with the upper pieces typically associated with grinding native grains, were recovered at the site. These were all recovered from the southern midden.

Metal

Two pieces of worked iron, unidentifiable as to their type or function, were recovered. Both of these were from the southern midden. The larger piece weighed 128.20 g, and was heavily corroded. It was recovered from the upper 10 cm in Test Unit 10. It is very tentatively identified here as a hoe fragment. The other, smaller item of unidentifiable iron was found the lower portion of Test Unit 7. It weighed 4.03 g. No slag, ore, *tuyère* fragments or any artefacts relating to metallurgy were recovered. It is thus inferred that no metallurgical activities occurred at the site.

Fauna

Edmondsburg was the only site for which the funds or skill were available to conduct analysis of the faunal remains recovered. Faunal remains were analysed by Dr. Ina Plug of the Transvaal Museum. These data have since been published by Plug (2000). I summarize the results of her analysis in Table 10.4

The faunal data from Edmondsburg indicate reliance upon domestic stock, with cattle, sheep, goats, and other domesticates outnumbering wild antelope and other larger wild food species by a ratio of more than two to one. The residents of Edmondsburg were clearly

involved in a mixed procurement strategy involving herding and hunting.

The faunal data were interesting in that they revealed that the residents of Edmondsburg are among the very first peoples in southern Africa to have documented access to domestic chickens. The presence of large amounts of tortoise shell at the site are intriguing, as they are usually only found in such large quantities at forager sites. Whether

Table 10.4. Analysis of faunal remains from Edmondsburg; presented by species, number of individual skeletal parts (NISP), and minimum number of individuals (MNI).

Species	**NISP**	**MNI**
Domesticates		
Canis cf. familiaris	1	1
Gallus domesticus (chicken)	15	7
Bos taurus (cattle)	117	10
Capra hircus (goat)	7	2
Ovis aries (sheep)	32	7
Ovis/Capra (sheep/goat)	119	3
Totals	**291**	**30**
Wild, Food Species		
Equus burchelii (zebra)	2	1
Suidae	1	1
Sylvicapra grimmia (duiker)	11	2
Aepyceros melampus (impala)	3	1
Hippotragus equinus (roan)	2	1
Syncerus caffer (buffalo)	1	1
Kobus ellipsiprymnus (waterbuck)	1	1
Hippopotamus/Rhinoceros	1	1
Bovid large indeterminate	20	1
Bovid medium indeterminate	38	1
Bovid small	16	2
Total	**96**	**13**
Wild, Possible Food Species		
Rodentia (unknown)	14	7
Lepus saxatilis (hare)	1	1
Pronolagus randensis (hare)	10	3
Lepus/Pronolagus (hare)	14	1
Aves (unknown)	8	3
Geochelone pardalis (leopard tortoise)	245	15
Tortoise	23	2
Totals	**315**	**32**
Wild, Probable Non-Food Species		
Mongoose	1	1
Panthera pardus (leopard)	1	1
Carnivora medium	1	1
Hystrix africaeaustralis (porcupine)	2	1
Varanus niloticus (monitor lizard)	2	1
Pyxicephalus adspersus (bullfrog)	1	1
Unio caffer (freshwater mussel)	2	2
Unionidae	3	1
Totals	**13**	**9**

these animals were used for food or as a medium of exchange with forager groups is unknown. Finally, of some importance is the presence in the assemblage of leopard remains. The presence of this animal on the site is interpreted as potentially indicating the remains of hide processing for eventual use in the Indian Ocean trade network.

Chapter Summary

I interpret the site Edmondsburg as representing the remains of a small domestic settlement that was occupied during the middle of the 13th century AD. The simplicity of the deposit and its attribution to a single occupational component, coupled with excellent surface archaeological visibility, indicates that the site was arranged in accordance with the Central Cattle Pattern (*sensu* Huffman 1982), with an outer arc of structures partially enclosing an animal byre. The structures enclosing the probable area of the byre, based on the pattern of the remains, likely consisted of huts and grain storage bins. Archaeological preservation appears good over the whole of the site.

The Edmondsburg ceramic assemblage indicates that site's inhabitants exclusively used ceramics executed in the Leopard's Kopje ceramic style. No exotic or foreign style sherds were recovered, underlining the cultural homogeneity of the site.

The artefact assemblage indicates that the residents of Edmondsburg had little access to metals outside of a few utilitarian items. They had no access to items of personal adornment in the form of metal items, but did have some in the form of ostrich eggshell and *Achatina* beads. There is some evidence that limited craft production took place, in the form of ostrich eggshell bead production. Hide processing may also have occurred. The lack of religious paraphernalia in the form of figurines would indicate that these items were either lacking on site or were so scarce as to be archaeologically invisible. As was discussed in Chapter IV, the artefact assemblage recovered from Edmondsburg will be compared with those from other sites discussed in this thesis in order to determine the site's relative socio-political status. I will present this larger comparative discussion in Chapter XII.

CHAPTER XI
STYLE, TIME, AND CHANGE: THE SHASHI-LIMPOPO CERAMIC CHRONOLOGY, AD 900 TO 1300

Introduction

The purpose of this chapter is to present a summary and analysis of the ceramic and radiocarbon data recovered from the excavations reported on in previous chapters in order to refine the ceramic chronology of the study area between AD 900 and 1300. This chronology will focus on the temporal and cultural relationships between the Zhizo and Leopard's Kopje styles. Stylistic data presented will consist of a statistical analysis of the ceramic assemblages identified from the archaeological sites presented in this thesis. When viewed alongside the radiocarbon data generated from the excavations reported on here and other well-dated excavations, I will arrive at a local chronology that is firmly grounded in both stylistic analysis and absolute dating. Before continuing to this presentation I will briefly summarise the state of current research on the relationship between the Zhizo and Leopard's Kopje styles. I will conclude this Chapter by addressing the implications of the findings to the issue of the potential emergence of heterochrestic style and its possible significance for the development of social and political complexity in the area of the Shashi-Limpopo confluence.

Relationship between the Zhizo and Leopard's Kopje Styles: Summary

Summary of Research Issues

As was discussed in Chapter II, the current dominant model of the culture history of the area of the Shashi-Limpopo confluence and eastern Botswana, as articulated in the work of Denbow (1982, 1983, 1986, 1990, 1996, 1999) and Huffman (1982, 1986a, 1986b, 1986c, 1996; cf. Hall 1990), sees the rise of the first complex social and political systems in southern Africa between the 10th and 13th centuries AD in the area of the Shashi-Limpopo confluence in South Africa and in the Central District of eastern Botswana. In South Africa, the first complex system is best known from the sites K2 and Mapungubwe (Fouché 1937; Gardner 1963; Garlake 1973; Eloff and Meyer 1981; Huffman 1982, 1984, 1986a, b, 1996; Meyer 1980, 1997, 1999). The first complex system in Botswana is best known from the sites Toutswe, Bosutswe and Shoshong (Denbow 1982, 1983, 1986, 1990, 1999). These societies have been distinguished from each other primarily on the basis of their divergent ceramic styles; the sites in South Africa are characterised by their use of Leopard's Kopje ceramics and those in Botswana by their use of Zhizo ceramics. The rise of both of these systems, however, was roughly contemporaneous, and both societies were geographically contiguous.

Relations between these groups during this period have been viewed as essentially hostile (Huffman 1978, 1986a, 1996), with Leopard's Kopje-users driving Zhizo-users out of the Shashi-Limpopo area and into eastern Botswana around AD 1000, or limited to the exchange of wives (Denbow 1982), or a mixture of the two (Denbow 1983, 1986). More recently, Denbow and Wilmsen (Denbow 1990, 1999; Denbow and Wilmsen 1986; Wilmsen 1989) have posited a two-way system of exchange between both groups, but do not explicitly model the nature of and motivations for this exchange.

Zhizo users are thought to have been present in Botswana (where they are known as Taukome and later in the Botswana sequence as Toutswe) and southwestern Zimbabwe by around AD 800 and in the Shashi-Limpopo area by AD 900. However, after AD 1000, as Huffman (1996:177) states, "...Leopard's Kopje pottery suddenly appears...," while Zhizo "disappears from southwestern Zimbabwe and the northern Transvaal." Leopard's Kopje users are thought to have arrived in southwestern Zimbabwe and the Shashi-Limpopo by AD 1000, at which time eastern Botswana receives a major influx of Zhizo-using immigrants. This massive migration is said to have been brought about by the arrival of, presumably militarily dominant, Leopard's Kopje-users into southwestern Zimbabwe and the area of the Shashi-Limpopo confluence.

Political centralisation in eastern Botswana is said to have been spurred on to some degree by this military conflict, and regional settlement hierarchies, coincident with the advent of Toutswe pottery, appear. Some contact between Toutswe and Leopard's Kopje users is hypothesised through the 13th century AD, but is thought to be limited to intermarriage and violence. The growth of complexity in the Shashi-Limpopo area, in particular at the site K2 and later at Mapungubwe, has been linked to control over wealth generated from participation in the Indian Ocean trade network (Garlake 1973; Huffman 1982, 1984, 1986a, b, 1996; Hall 1987), while the rise of complexity at Toutswe and related sites has been attributed to their control over increased wealth in cattle, and the need to defend it from their Leopard's Kopje neighbours in the Shashi-Limpopo confluence (Denbow 1986; Huffman 1986a, 1996).

Alternative hypotheses have been posited by Robinson (1965, 1966, 1967, 1968, 1985) for southwestern Zimbabwe, and by Reid and Segobye (2000) and Kiyaga-Mulindwa (1990) for Botswana. Robinson (1959, 1965, 1966, 1967, 1968) initially viewed Zhizo and Leopard's Kopje A and B wares as all representing three, temporally overlapping, phases of the same pottery tradition. Following Huffman's (1974, 1978, et al.) re-examination of the data and excavations at Leopard's Kopje Main Kraal, Robinson (1985) thereafter concurred with Huffman's overall framework, but with several important differences. Robinson argued that Zhizo continued in southwestern Zimbabwe after AD 1000 and that several design elements and techniques were shared between the Zhizo and Leopard's Kopje styles after AD

1000, and that these were indicative of some undetermined level of contact and interaction between the two groups (Ibid:29). While confirming Huffman's overall view of the relative phasing of Zhizo and Leopard's Kopje A and B, he noted that Zhizo could be divided into two phases, (a) and (b), with Zhizo (a) wares comprising 'pure' Zhizo ceramics, and Zhizo (b) as having shared elements with Mambo assemblages; these included comb-stamping and stamped arcades in Mambo assemblages and arcades in Zhizo (b) assemblages. He posited that ca. AD 1000 Mambo assemblages in southwestern Zimbabwe shared traits with Leopard's Zhizo assemblages and that Zhizo (b) wares represented a fusion of both Zhizo and Mambo. Interestingly, Robinson (1966:28) was the first researcher to cast the ceramics from the region as potentially indicative of class as well as ethnicity, with both phases II and III (i.e., Mambo and Woolandale) wares representing ceramics of an intrusive ruling elite group[1].

The dominant model of temporal and cultural separation between Zhizo and Leopard's Kopje users has also been challenged by other researchers, particularly Reid and Segobye (2000), who see the co-occurrence of the Zhizo/Taukome and Leopard's Kopje ceramic styles at several sites in the Sowa Pan by at least the mid-10th century AD. Their data, although not yet completely published, would indicate that Leopard's Kopje wares occur earliest in eastern Botswana (ca. AD 900 to 1000), at which time they are not even present in southwestern Zimbabwe or the area of the Shashi-Limpopo confluence. They postulate that Leopard's Kopje wares may have developed out of Zhizo ceramics in eastern Botswana.

The previous research outlined above makes clear that some form of interaction, hostile or otherwise, occurred between Zhizo- and Leopard's Kopje-using groups. Their geographical contiguity and the relative timing of each society's rise indicate as much. However, it is clear that disagreement exists as to what extent Zhizo- and Leopard's Kopje-using groups, and sub-groups thereof, comprised discrete ethnic or class-based groups, and how these groups interacted with one another, and how relations between these groups affected, or were affected by, the growth of social and political complexity documented in the larger region. Further analysis and definition of the Zhizo and Leopard's Kopje styles in the area of the Shashi-Limpopo confluence is therefore necessary to answer those substantive questions previously posed in Chapter II. These questions, it will be recalled, are:

1) What precisely constitutes the Zhizo ceramic style in the area of the Shashi-Limpopo confluence?;

2) How does this compare with published descriptions of Zhizo elsewhere (as the state of comparative data permits)?;

[1] Robinson, like his contemporaries, was mistaken about who was ruling the region during the 11th through 12th centuries AD, as he thought that Leopard's Kopje pottery represented the style of Great Zimbabwe. Great Zimbabwe was occupied as a capital after around AD 1270 or 1290 (Huffman 1996).

3) What is the temporal duration of the Zhizo style in the area?;

4) What precisely constitutes the K2 and Mapungubwe ceramic styles in the area?;

5) How do these compare with published assemblages from other areas (as the comparative data permits)?;

6) What is the temporal duration of the Leopard's Kopje style in the area?;

7) To what extent, if any, do the Zhizo and Leopard's Kopje styles overlap either temporally or geographically?;

8) If overlap between these styles exists, how can this overlap be explained in terms of the constitution of ethnic- or class-based social identities?

9) Based on 1) to 8), to what extent can Zhizo and Leopard's Kopje ceramics be said to be part of the same or distinct ceramic styles?

Question 8) will be expanded by linking it to the larger issue political evolutionary issue raised in Chapter III relating to the emergence of heterochrestic style and the role of such in the rise of complex society in the study area. Questions 8) and 9) will also be further addressed in Chapter XII.

In order to answer these questions in the following analysis I will: first, determine the similarity or lack of fit between the ceramic assemblages described in previous chapters in order to arrive at clear ceramic clusters; second, once similar or dissimilar ceramic clusters are identified, present the overall identifying characteristics of each cluster and; third, once the characteristics of these clusters are defined, I will present the radiocarbon data from the sites investigated and other sites in the region in order to provide temporal and geographic context for the ceramic clusters in order to place them within the regional sequence and to refine the sequence itself. Finally, I will present information on internal trends noted within each cluster in order to provide data which may prove useful in future ceramic analysis and archaeological fieldwork.

Ceramic Analysis and Radiocarbon Dating

During the course of this thesis I have made identifications, albeit provisional, of the ceramic assemblages from each site excavated or reported on. These identifications were fairly straightforward; for example, I identified the ceramic assemblage at Mapungubwe Hill as Leopard's Kopje or the assemblage from Schroda as Zhizo. All these identifications were made based upon reference to previously published descriptions and drawings of Zhizo and Leopard's Kopje ceramics both within and outside the study area. The primary purpose of the following analysis is not, therefore, to determine which assemblage belongs to which style, although the statistical analysis presented will confirm these initial identifications. Rather, the generation of similarity tables and hierarchical clustering will serve to help measure the distance between assemblages and between styles. Neither the similarity indices nor the

results of cluster analysis should be considered as definitive measurements. These types of statistical analyses do not produce results with attached levels of significance; they should therefore be viewed as methods of discovery with which to examine patterns in the data.

When considered alongside radiocarbon data, however, the determinations made employing these measurements of the nature and pace of stylistic change within both ceramic styles in the study area will aid in seriating the ceramics within each style in order to identify more precisely their internal developmental trends or changes across time and space.

Calculation of Brainerd-Robinson Coefficient of Similarity Tables

Following the initial analysis and classification of ceramic vessels at each site discussed, two Brainerd-Robinson Coefficient of Similarity Indices were generated. These indices were made employing ceramic data from the seven major ceramic assemblages reported on in thesis; these included Area 5 at Schroda, the Western Summit at Leokwe Hill, the Northern Terrace at Leokwe Hill, and the entirety of the assemblage from the sites Baobab, Castle Rock, Edmondsburg, and the collection made from Gardner's spoil heap at Mapungubwe Hill.

The first of these indices was a comparison of frequencies of ceramic design sets, while the second was a comparison of frequencies of ceramic sub-types. The ceramic design set comparison was generated in order to examine the similarities between assemblages at a broad level, while the sub-type comparison was produced in order to compare the assemblages at a more refined scale of analysis. In more colloquial terms, the design set analysis can be likened to comparing the frequencies of similar groups or clusters of whole bone china sets between assemblages; the sub-type comparison, on the other hand, can be likened to comparing the frequencies between assemblages of different specific vessels within different sets of bone china, with the design set common to each china set in different, analytically important, placements.

The sub-type frequency comparison is most similar to Huffman's (1980) Affiliate Set analysis. As will be shown below, both analyses essentially mirror each other, with the difference between them being that higher similarity scores both within and between clusters are obtained by employing the design set comparison. It should be noted that these comparison and clustering exercises will take place independently of temporal or geographic considerations until each ceramic cluster is defined.

For the design set comparison, the frequencies of each individual ceramic design set for each assemblage was directly compared to all other analysed assemblages. As was discussed in greater detail in Chapter IV, this comparison was accomplished by a simple summation operation by which the sum of the absolute value of the differences between the frequencies of each individual ceramic sub-type within each assemblage was subtracted from

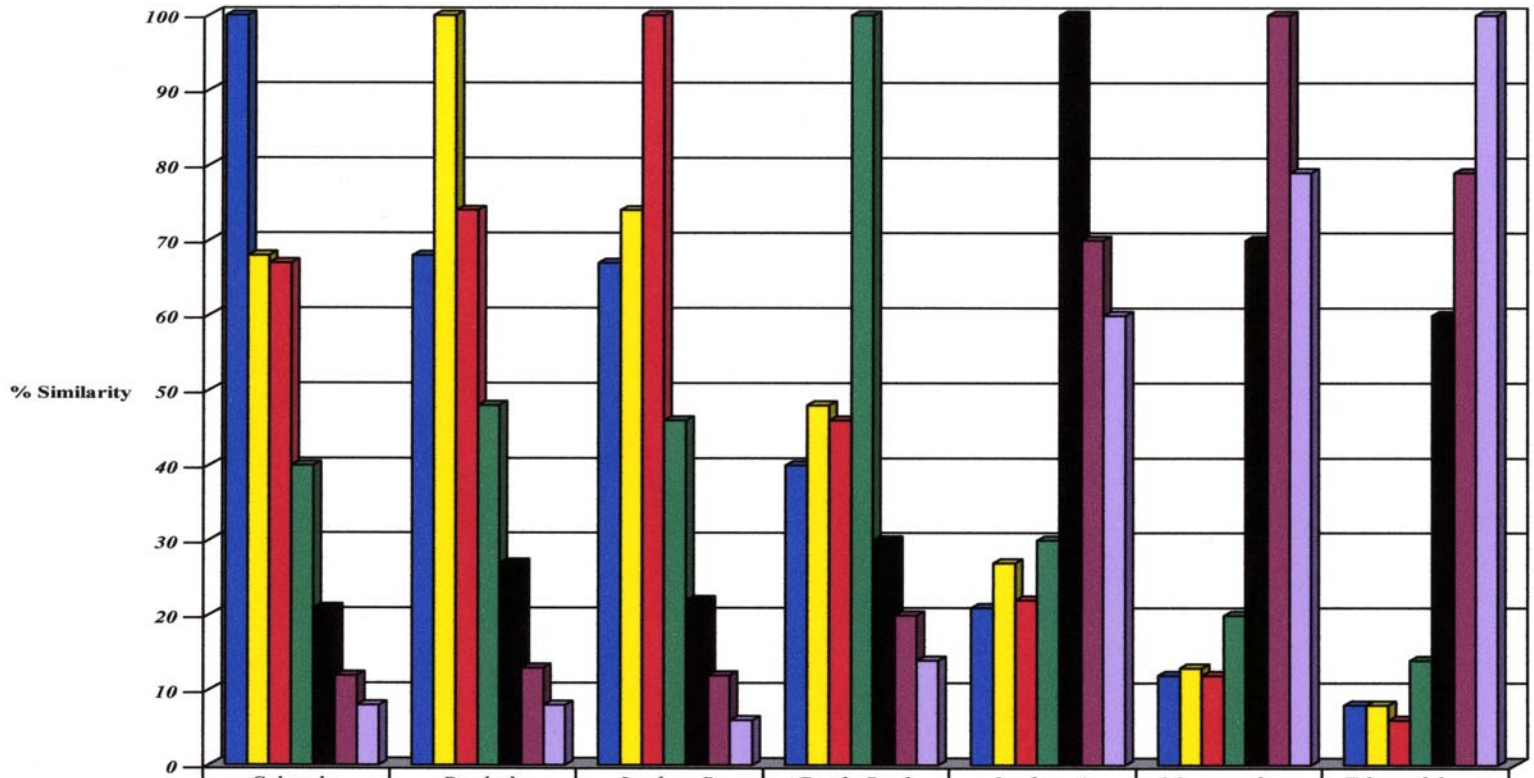
200 (the total possible difference) and then converted to a percentage by dividing by two.

The results of this first calculation (Figure 11.1) indicated that Schroda, Baobab, Leokwe Hill (Northern Terrace), and Castle Rock formed a single ceramic group (Cluster 1, Zhizo). The highest Design Set score within the Zhizo cluster was between Baobab and the Northern Terrace at Leokwe Hill (74%), while the lowest score was obtained between Schroda and Castle Rock (40%). The ceramic assemblages from the Western Summit at Leokwe Hill, Mapungubwe, and Edmondsburg formed a second cluster (Cluster 2, Leopard's Kopje). The highest score in the Leopard's Kopje cluster was obtained between Mapungubwe and Edmondsburg (79%), while the lowest was between the Western Summit at Leokwe Hill and Edmondsburg (60%).

The second Coefficient of Similarity Index similarity for ceramic sub-types (Figure 11.2) was accomplished by the same method as for the first index, with the frequency of individual ceramic sub-types, consisting of vessel form, decoration design set, and placement of that design set, substituted for the frequency of ceramic design sets. This exercise produced results consistent with the first, with the same two ceramic clusters identified. Owing to the more refined scale of analysis, the similarity scores were lower within and between clusters, but the trends separating the two clusters were still apparent.

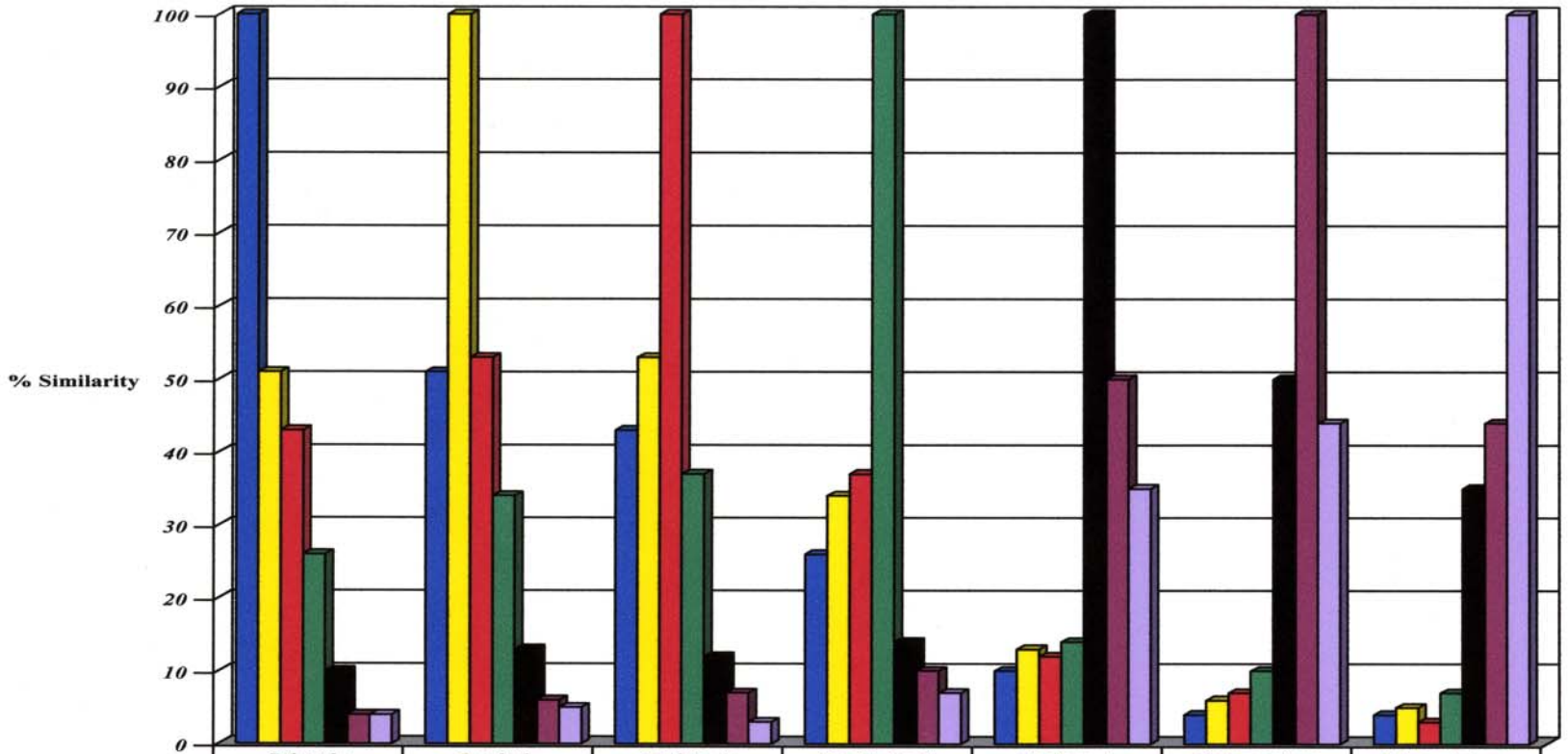
The highest similarity score for ceramic sub-types within the Zhizo cluster was between Baobab and the Northern Terrace at Leokwe Hill (53%), while the lowest similarity score was recorded between Schroda and Castle Rock (26%). Despite its apparent relatively low similarity score with Schroda relative to scores between other Zhizo assemblages, Castle Rock was included within the Zhizo cluster because its highest score with an assemblage in Leopard's Kopje (14% with the Western Summit at Leokwe Hill) was only slightly more than half of its score with Schroda. The highest internal similarity scores within Leopard's Kopje obtained between the Western Summit at Leokwe Hill and Mapungubwe (50%); the lowest score was between the Western Summit at Leokwe Hill and Edmondsburg (35%).

The results of the Brainerd-Robinson Coefficient of Similarity calculations for both the design set types and the sub-types separated the ceramics from the sites presented here into two groups: the first comprised the Zhizo assemblages from Schroda, Baobab, the Northern Terrace of Leokwe Hill and Castle Rock; the second comprised the Leopard's Kopje ceramic assemblages from the Western Summit of Leokwe Hill, Mapungubwe, and Edmondsburg. In order to determine more specifically what specific ceramic traits and types comprise these two groups, we now examine the results of a hierarchical cluster analysis of these assemblages.



	Schroda	Baobab	Leokwe B	Castle Rock	Leokwe A	Mapungubwe	Edmondsburg
Schroda	100	68	67	40	21	12	8
Baobab	68	100	74	48	27	13	8
Leokwe B	67	74	100	46	22	12	6
Castle Rock	40	48	46	100	30	20	14
Leokwe A	21	27	22	30	100	70	60
Mapungubwe	12	13	12	20	70	100	79
Edmondsburg	8	8	6	14	60	79	100

Figure 11.1. Brainerd-Robinson Coefficient of Similarity calculation, Ceramic Design Set Types.



	Schroda	Baobab	Leokwe B	Castle Rock	Leokwe A	Mapungubwe	Edmondsburg
Schroda	100	51	43	26	10	4	4
Baobab	51	100	53	34	13	6	5
Leokwe B	43	53	100	37	12	7	3
Castle Rock	26	34	37	100	14	10	7
Leokwe A	10	13	12	14	100	50	35
Mapungubwe	4	6	7	10	50	100	44
Edmondsburg	4	5	3	7	35	44	100

Figure 11.2. Brainerd-Robinson Coefficient of Similarity calculation, Ceramic Sub-types.

Hierarchical Cluster Analysis

Hierarchical cluster analysis was performed on the seven major ceramic assemblages identified above. The Bonn Archaeological Statistics and Software Program (Version 5.4) (BASP) was used to generate the ceramic clusters. The distance measure used for each calculation was the Euclidean distance of square rooted frequencies, employing the Jarvis shared near neighbour method (Jarvis 1977; Jarvis and Patrick 1973). Two separate sets of cluster analyses were performed in BASP; two for design set types and two for sub-types. The difference between the two measurements for each set was that the first minimum number of common neighbours within each cluster was one of three examined neighbours, while the second analysis was one of two examined neighbours. The minimum allowed number of elements within each cluster was two. Both sets of analyses produced the same results for each type examined.

Euclidean distance was employed because this distance measurement places progressively greater weight on objects that are further apart; it also excludes missing values from computation, thereby not overemphasising the absence of an object (i.e., the frequency of a design sets or ceramic sub-type) from an assemblage. Iterative data checking was employed, ensuring that each object occurred within at least two assemblages. Only objects that comprised 1% or greater of each assemblage were analysed.

The first of these analyses was based on the frequency of design sets present within each assemblage; the second was based on the frequency of specific ceramic subtypes present at each site. The results of these analyses confirmed the results of the Brainerd-Robinson Coefficient of Similarity Indices discussed, but were more useful in that they produced data output not only on which assemblages comprised each cluster, but they also calculated which design sets or sub-types defined each cluster and listed them in order of relative importance within each cluster. I present data on the design set cluster analysis first.

Design Set Clusters

The BASP hierarchical cluster analysis described above for design sets indicated that two ceramic design set clusters were present. The first cluster (Cluster 1 or Zhizo) included the assemblages from Schroda, Baobab, the Northern Terrace at Leokwe Hill, and Castle Rock. The second cluster (Cluster 2 or Leopard's Kopje) consisted of the assemblages from the Western Summit at Leokwe Hill, from Gardner's spoil heaps at Mapungubwe Hill, and from Edmondsburg. Tables 11.1 and 11.2 present information on the design sets that form both clusters. Tables showing the individual decoration motifs which comprise each Design Set can be found in Chapter IV.

The two clusters, or styles, are divided by the dominance or absence of certain design

Table 11.1. Zhizo ceramics (Cluster 1), hierarchy of design sets by importance in cluster, with frequencies within each assemblage. Sites ordered by relative distance.

Design Set	Schroda	Baobab	Leokwe Hill, Northern Terrace (Area B)	Castle Rock
Comb-Stamped 1: Horizontal Line	43	32	29	7
Incised 2: Diagonal Line	10	16	12	37
Comb-Stamped 2: Diagonal Line	15	9	6	6
Bead/Bangle-Impressed 2: Diagonal Line	3	11	20	4
Incised 1: Horizontal Line	8	5	8	13
Bead/Bangle Impressed 1: Horizontal Line	7	5	8	1
Punctated 1: Rounded Impression, Horizontal Line	<1	4	5	3
Incised and Comb-Stamped 2: Zoned Diagonal	5	2	-	<1
Incised and Stabbed 3: Zoned Diagonal Stabbing	-	5	-	-
Incised 3: Crosshatching	1	-	-	3
Fingernail Impressed 1: Horizontal Line	<1	-	4	1
Stabbed 1: Diagonal Teardrop, Horizontal Line	<1	2	1	-
Incised 10: Curvilinear Geometric	-	2	-	1
Incised 5: Upturned Arcade	<1	2	1	1
Polychrome 1: Black Smoke-Clouding and Oxidised Red	<1	-	1	1
Punctated 2: Unzoned Round Impression	<1	-	1	1
Incised 6: Upturned Triangle	<1	-	-	2
Incised 11: Downturned Triangle	<1	-	-	1

Table 11.2. Leopard's Kopje ceramics (Cluster 2), hierarchy of design sets by importance in cluster, with frequencies within each assemblage. Sites ordered by relative distance.

Design Set	Leokwe Hill, Western Summit (Area A)	Mapungubwe Hill	Edmondsburg
Incised 6: Upturned Triangle	30	22	23
Incised 11: Downturned Triangle	7	26	38
Incised 5: Upturned Arcade	20	15	8
Incised 14: Interlocked Triangles	11	11	13
Incised 2: Diagonal Line	14	8	4
Incised 3: Crosshatching	3	4	5
Incised 12: Downturned Arcade	2	2	4
Incised 1: Horizontal Line	3	2	2
Comb-Stamped 1: Horizontal Line	3	-	-
Incised and Stabbed 3: Zoned Diagonal Stabbing	2	-	-
Punctated 1: Rounded Impression, Horizontal Line	<1	2	-
Bead/Bangle Impressed 1: Horizontal Line	1	-	-
Fingernail Impressed 1: Horizontal Line	1	-	-

sets. Comb-stamped and bead/bangle-impressed design sets form a large proportion of Zhizo; importantly, however, so do two incised design sets (Design Sets I1 and I2). These design sets, importantly, are ones that are far less common in the Leopard's Kopje assemblages, at least in those documented here. Design Set I2 (Diagonal Lines) accounts for between 12% and 37% of the Zhizo assemblages; this design set in the Limpopo Leopard's Kopje assemblages presented here accounts for only between 4% and 14% of these assemblages. Similarly, Design Set I1 (horizontal Lines) accounts for between 5% and 13% of Zhizo assemblages, but only between 2% to 3% of Leopard's Kopje assemblages.

As will be discussed below, the data I gathered on Leopard's Kopje in the Shashi-Limpopo covered terminal K2 to Mapungubwe Period assemblages; no K2 period assemblages dating from the main period of occupation during Leopard's Kopje A were represented in my samples. It is therefore unclear if the differences just noted between Design Sets I2 and I1 for Zhizo and Leopard's Kopje will hold true for the K2 period. An examination of the design motifs recorded by Meyer (1980: Tables 18.1 to 18.8) at K2 indicates that motifs which I would place into Design Set I2 form a large proportion of the K2 assemblage (i.e., >50%); however, it must be stressed that the internal settlement history at K2 is currently both poorly understood and not well published. There are both surface and material indications of a Zhizo period component, or perhaps even a settlement, at the site K2, so it is not impossible that ceramics from the two styles may have been analysed as existing concurrently by Meyer; alternatively, both styles may have been contemporary at the site and thus were analysed as a single unit.

Importantly, it should be noted that the Leopard's Kopje assemblages reported on here were dominated by incised design sets (upturned and downturned triangles, arcades, and bands of interlocking triangles), which have very little overlap with those in Zhizo assemblages. It is interesting to note that even while the calculations separated the assemblages into two distinct design set clusters, of the twenty design sets included in both clusters, eleven of these are present in both clusters. Some of this overlap may be due to the existence of shared design sets. If it is established that the two clusters were both contiguous and contemporary, then it can reasonably be posited that some of the stylistic overlap is due to syncretism, borrowing, intermarriage, or some form of interaction. These issues will be addressed in greater detail at the end of this Chapter.

Ceramic Sub-Type Clusters: Initial Definition of the Zhizo and Leopard's Kopje Styles

The BASP hierarchical cluster analysis calculated as described above for ceramic sub-types indicated that two ceramic sub-type clusters were present. The first cluster (Cluster 1, or Zhizo) included the assemblages from Schroda, Baobab, the Northern Terrace at Leokwe Hill, and Castle Rock. The second cluster (Cluster 2, or Leopard's Kopje) consisted

of the assemblages from the Western Summit at Leokwe Hill, from Gardner's spoil heaps at Mapungubwe Hill, and from Edmondsburg. Tables 11.3 and 11.4 present information on the ceramic sub-types that form each cluster. Figures 11.3 to 11.5 illustrate the twelve most dominant ceramic sub-types in Zhizo, while Figures 11.6 to 11.8 illustrate the twelve most dominant ceramic sub-types in Leopard's Kopje.

Zhizo ceramics are dominated by horizontal and diagonal rows of comb-stamping and bead bangle impression on the central necks of recurved jars, with lower frequencies of these design sets on the lower neck and shoulder placements of recurved jars. Incised decoration is also present in high frequencies, with diagonal bands of incision present on the central neck and lower neck placements on recurved jars most common. Other vessel forms are rarely decorated within Zhizo; these include incurvate and simple shallow bowls with an attempt at red/black or brown/black polychrome employing partial oxygen reduction of horizontally divided portions of vessels.

The Leopard's Kopje ceramics described here, on the other hand, are dominated by upturned and downturned triangles and upturned arcades on the lower neck to shoulder and shoulder positions on recurved and bellied jars. Also abundant are bands of interlocked triangles located on the shoulders of jars. Band of diagonal incised lines are also relatively common in Leopard's Kopje, but these are typically located further down on the recurved jar form than in Zhizo, with their most common placement on the shoulder. Beakers, plates, and various bowl forms are often decorated in Leopard's Kopje, with the geometric motifs described for jar forms prevailing. Figures 11.9 and 11.10 illustrate the most common decorated types of these vessels. It should be noted that this description is only applicable to the time period included within these assemblages.

Interregional Comparisons

Huffman (1974) described Zhizo ceramics from the southwestern Zimbabwe as consisting of recurved jars with stamped or incised decoration on the rim and shoulder. Decoration usually comprised "single or multiple bordered bands on the lower rim, simple triangles in the neck and a line on the shoulder (Ibid:100)." Mambo (Leopard's Kopje A) and Woolandale (Leopard's Kopje B) jars from southwestern Zimbabwe were decorated primarily with incised motifs in the neck. Other salient elements included polychrome colouring on Zhizo bowls, and its absence in Mambo and Woolandale, and high burnishing on Mambo and Woolandale jars and its absence on Zhizo wares. The major difference in terms of decoration techniques between the two ceramic assemblages was the predominance of comb-stamping in Zhizo and its virtual absence in Leopard's Kopje (see Huffman 1974, Tables 25-27).

Table 11.3. Zhizo ceramics, ceramic sub-types, by frequency at each site; sites ordered by relative distance; types presented in typological sequence.

Type	Schroda (%)	Baobab (%)	Leokwe Hill, Northern Terrace (%)	Castle Rock (%)
Recurved Jars, Incised 1: Horizontal Line				
Central Neck	4	-	4	7
Lower Neck	<1	4	2	6
Shoulder	2	2	1	<1
Recurved Jars, Incised 2: Diagonal Line				
Rim	<1	2	-	<1
Central Neck	7	7	6	20
Central Neck to Lower Neck	-	2	-	1
Lower Neck	<1	7	5	11
Short-Necked Jars, Incised 2, Diagonal Line				
Central Neck	-	-	-	1
Recurved Jars, Incised 5: Upturned Arcade				
Shoulder	<1	2	-	-
Recurved Jars, Incised 9, Panelled				
Central Neck to Lower Neck	-	4	-	-
Recurved Jars, Incised 10: Curvilinear Geometric				
Central Neck to Lower Neck	-	2	-	-
Recurved Jars, Comb-Stamped 1, Horizontal Line				
Rim	3	-	-	-
Central Neck	28	21	18	3
Lower Neck	1	5	7	2
Shoulder	7	5	3	1
Recurved Jars, Comb-Stamped 2, Diagonal Line				
Central Neck	12	5	4	2
Lower Neck	1	4	3	2
Recurved Jars, Comb-Stamped 3, Upturned Triangles				
Shoulder	<1	-	1	<1
Recurved Jars, Bead/Bangle Impressed 1, Horizontal Line				
Central Neck	4	-	1	-
Lower Neck	-	-	4	1
Shoulder	1	5	2	-
Recurved Jars, Bead/Bangle-Impressed 2, Diagonal Line				
Central Neck	1	9	4	2
Central Neck to Lower Neck	-	-	1	-
Lower Neck	<1	2	4	<1
Shoulder	1	-	10	1
Recurved Jars, Punctated 1, Rounded Impression, Horizontal Line				
Central Neck	<1	-	1	2
Shoulder	<1	-	1	2

Type	Schroda (%)	Baobab (%)	Leokwe Hill, Northern Terrace (%)	Castle Rock (%)
Short-Necked Jars, Punctated 1, Rounded Impression, Horizontal Line				
Rim	-	2	-	-
Central Neck	<1	2	-	1
Incurvate Jars, Punctated 2, Unzoned Round Impression				
Body	-	-	-	1
Recurved Jars, Punctated 4, Upturned Diagonal Lines and Triangles				
Central Neck to Lower Neck	-	-	-	1
Recurved Jars, Fingernail Impressed 1, Horizontal Line				
Central Neck	<1	-	2	-
Lower Neck	<1	-	1	-
Recurved Jars, Stabbed 1, Diagonal Teardrop, Horizontal Line				
Lower Neck	<1	2	<1	-
Shoulder	<1	-	1	-
Recurved Jars, Incised and Comb-Stamped 1, Zoned Horizontal				
Central Neck	1	-	-	-
Recurved Jars, Incised and Comb-Stamped 2, Zoned Diagonal				
Rim	1	-	-	-
Central Neck	4	2	-	-
Recurved Jars, Incised and Stabbed 3, Zoned Diagonal Stabbing				
Shoulder	-	5	-	-
Incurvate Bowls, Polychrome 1, Black Smoke clouding with Oxidised Red				
Body	-	-	1	-
Simple Shallow Bowls, Polychrome 2, Black Smoke Clouding with Oxidised Brown				
Body	-	-	-	1

Table 11.4. Leopard's Kopje ceramics, sub-types, by frequency at each site; sites ordered by relative distance; types presented in typological sequence.

Ceramic Sub-Types	Leokwe Hill, Western Summit (Area A)	Mapungubwe Hill	Edmondsburg
Recurved Jars, Incised 1, Horizontal Line			
Central Neck	-	-	2
Shoulder	2	-	-
Plates, Incised 1, Horizontal Line			
Rim	<1	1	-
Recurved Jars, Incised 2: Diagonal Lines			
Rim	-	1	1
Central Neck	2	<1	-
Lower Neck	2	1	-

Ceramic Sub-Types	Leokwe Hill, Western Summit (Area A)	Mapungubwe Hill	Edmondsburg
Lower Neck to Shoulder	-	-	1
Shoulder	9	5	-
Beakers, Incised 2, Diagonal Lines			
Body	-	1	-
Recurved Jars, Incised 3, Crosshatching			
Shoulder	1	2	4
Very Shallow Bowls, Incised 3, Crosshatching			
Body	1	-	1
Bellied Jars, Incised 3, Crosshatching			
Shoulder	-	1	-
Recurved Jars, Incised 5, Upturned Arcades			
Central Neck	1	1	1
Lower Neck	3	2	1
Lower Neck to Shoulder	4	7	1
Shoulder	9	2	5
Beakers, Incised 5, Upturned Arcades			
Body	1	1	-
Simple Shallow Bowls, Incised 5, Upturned Arcades			
Body	1	-	-
Plates, Incised 5, Upturned Arcades			
Body	1	-	-
Recurved Jars, Incised 6: Upturned Triangles			
Lower Neck	5	5	-
Lower Neck to Shoulder	11	2	18
Shoulder	10	2	5
Beakers, Incised 6, Upturned Triangles			
Body	1	<1	-
Very Shallow Bowls, Incised 6, Upturned Triangles			
Body	1	1	-
Plates, Incised 6, Upturned Triangles			
Body	1	<1	-
Recurved Jars, Incised 11: Downturned Triangles			
Lower Neck to Shoulder	1	2	4
Shoulder	1	11	30
Bellied Jars, Incised 11, Downturned Triangles			
Shoulder	-	5	5
Simple Shallow Bowls, Incised 11, Downturned Triangles			
Body	-	1	-
Very Shallow Bowls, Incised 11, Downturned Triangles			
Body	1	3	-
Necked Bowls, Incised 11, Downturned Triangles			
Shoulder to Body	-	1	-

Ceramic Sub-Types	Leokwe Hill, Western Summit (Area A)	Mapungubwe Hill	Edmondsburg
Plates, Incised 11, Downturned Triangles			
Body	1	2	-
Recurved Jars, Incised 12, Downturned Arcade			
Shoulder	1	1	4
Recurved Jars, Incised 14: Interlocked Triangles			
Lower Neck	2	-	-
Lower Neck to Shoulder	-	3	-
Shoulder	7	3	10
Bellied Jars, Incised 14, Interlocked Triangles			
Shoulder	-	-	4
Beakers, Incised 14, Interlocked Triangles			
Body	<1	2	-
Very Shallow Bowls, Incised 14, Interlocked Triangles			
Body	2	-	-
Necked Bowls, Incised 14, Interlocked Triangles			
Shoulder to Body	-	1	-
Bellied Jars, Incised 15, Geometric, Diamonds			
Shoulder	-	1	-
Necked Bowls, Incised 15, Geometric, Diamonds			
Shoulder to Body	-	1	-
Recurved Jars, Comb-Stamped 1, Horizontal Lines			
Lower Neck	2	-	-
Recurved Jars, Punctated 1, Rounded Impression, Horizontal Line			
Shoulder	-	1	-
Recurved Jars, Stabbed 1, Diagonal Teardrop, Horizontal Line			
Shoulder	1	-	-
Recurved Jars, Stabbed 3, Horizontal Teardrop, Horizontal Line			
Shoulder	-	2	-
Bellied Jars, Incised and Punctated 5, Round Impression, Zoned Horizontal Line			
Shoulder	-	-	1
Very Shallow Bowls, Incised and Punctated 5, Round Impression, Zoned Horizontal Line			
Body	-	-	1
Recurved Jars, Incised and Stabbed 3, Zoned Diagonal Stabbing			
Shoulder	2	-	-

Denbow (1983:188), in describing Taukome wares, recognises that comb-stamping is the dominant technique for Zhizo assemblages both in southwestern Zimbabwe and

Botswana, but adds that

> "…the position of the decoration motifs is lowered so that bordered bands are placed on the neck, rather than near the rim, and triangles and single lines occur on the upper shoulder. Incised motifs occur in greater frequency in the Toutswe area, but combstamping remains the most common decoration technique. Jars with simple bordered bands of dentate stamping in the neck, common in Zhizo, also make up a significant part of the Taukome and Toutswe assemblages…
>
> Zhizo open bowls commonly have a single line of stamping which separates a black rim from a red body…Except for the use of contrasting colors, this class is identical to Class 3 from Taukome. Another class of Zhizo bowl *(from Huffman 1974)*…was not found during excavation or reconnaissance in the Toutswe region suggesting that this type is restricted in its distribution to the Matebeleland facies.

It is not possible to directly statistically compare the Zhizo and Leopard's Kopje ceramic clusters analysed here with assemblages from southwestern Zimbabwe and eastern Botswana, owing to different typological methods and data presentation employed by previous researchers.

However, based on Denbow's (1983) descriptions of Taukome ceramics from the lower levels at the site of the same name and Huffman's (1974) descriptions of Zhizo ceramics from Leopard's Kopje, the Zhizo ceramics I have described for the area of the Shashi-Limpopo confluence have greater affinities with the Botswana pre-AD 1000 Taukome assemblage than with the southwestern Zimbabwe Zhizo assemblages. This greater affinity with the Botswana assemblage is posited here for several reasons.

First, the Botswana and Shashi-Limpopo Zhizo assemblages have far higher frequencies of incised wares. Incision accounts for 31% of the pre-AD 1000 levels at Taukome (Denbow 1983: Table 6.4) and between 19% and 48% of the Shashi-Limpopo Zhizo assemblages described here; incision only accounts for 8% of the southwestern Zimbabwe Zhizo assemblage (Huffman 1974: Table 27). Second, rim placements on recurved jars are absent in the Taukome Zhizo assemblage (Denbow 1983:188) and infrequent (not greater than 5% in any of the Shashi-Limpopo Zhizo assemblages); rim placements accounted for no less than 33% of the southwestern Zimbabwe Zhizo assemblage (calculated from Huffman 1974: Table 24). Finally, the polychrome vessels which were so abundant in the southwestern Zimbabwe assemblages, accounting for approximately 24% of the entire decorated assemblage (Ibid), were absent entirely from both the Taukome and Shashi-Limpopo Zhizo assemblages. Some attempts at polychrome decoration appear to have been made in Shashi-Limpopo Zhizo; these vessels were most common at Castle Rock, accounting for approximately 4% of the decorated assemblage, and accounted for less than 2% of the assemblage at the Northern Terrace at Leokwe Hill. These vessels are absent entirely from Schroda and from Baobab.

The determination that Zhizo wares in the Shashi-Limpopo have more in common with Botswana Zhizo (i.e., Taukome) than with southwestern Zimbabwe Zhizo is significant

in that such similarity may imply more sustained contact and interaction over time between Zhizo users in these areas than with those in southwestern Zimbabwe. This position is bolstered by the early dates (middle to late 7th century AD) for the Taukome component at the site Bosutswe (T6991, T6994; see Table 2.6). The earliest recorded dates for Zhizo in southwestern Zimbabwe tend to cluster in the late 8th century (SR-55, N-1275, SR-225; see Table 2.2). If the affinity between the Shashi-Limpopo Zhizo and Taukome styles I have posited here is correct, and the dates for the early Taukome and early southwestern Zimbabwe Zhizo presented are accurate, then it can further be posited that the origins of Shashi-Limpopo Zhizo may lay to the west in eastern Botswana.

The Leopard's Kopje ceramics from the sites presented here have only one other point of comparison; that is, with contemporary assemblages from southwestern Zimbabwe. The Leopard's Kopje ceramics from the study area generally conform to those described for Mambo (Leopard's Kopje A) and Woolandale (Leopard's Kopje B) assemblages, but again with some important differences. The most significant of these differences is the presence of relatively large frequencies of incised chevrons and meanders in Mambo and Woolandale. Chevrons account for around 39% in Mambo and 21% in Woolandale, while meanders account for 11% and 51% of each assemblage, respectively. Two instances of chevrons were found within all of the Leopard's Kopje assemblages described in this thesis. No meanders were recorded. Meyer (1980: Tables 18.4 19.2, 19.3, and 20.2), however, recorded three meanders at K2, three at the Southern Terrace at Mapungubwe Hill, and none from Mapungubwe Hill. He recorded three chevrons from K2, one from the Southern Terrace, and one from Mapungubwe Hill. These instances account for less than 1% of the total ceramic assemblage at each site.

Now that I have provided a very basic definition as to what constitutes the Zhizo and Leopard's Kopje ceramic styles in the study area for the time periods covered by these assemblages, and determined to some degree their interregional relationships with their counterparts in contiguous regions, a more detailed examination as to how these styles changed across time is warranted. Therefore, I now turn to a discussion of the radiocarbon dates presented in Chapters V through X in relation to the ceramic data from the study area.

Results of Radiocarbon Dating

A total of seven ceramic components were dated throughout the course of this research. These included ceramics executed in the Zhizo style from the sites Schroda, Baobab, Castle Rock, the midden area at the Northern Terrace of Leokwe Hill, and the Animal Byre and Hut Floor area at Leokwe Hill, and ceramics executed in the Leopard's Kopje style from the Western Summit at Leokwe Hill, Mapungubwe Hill, and Edmondsburg. A total of twelve radiocarbon dates for newly excavated sites were analysed, as were four

additional dates using material from Hanisch's excavations at Schroda. The results of all these analyses, along with the results from previous research, are presented in Figure 11.3. The radiocarbon results shown here were all analysed by John Vogel and the staff at the Quaternary Dating Research Unit at the Centre for Scientific and Industrial Research in Pretoria, with exception of a single date that was too small for standard dating (GrA-9011); this sample was sent by Vogel to the Centre for Isotope Research at the University of Groningen for analysis in an Accelerator Mass Spectrometer. All dates were calibrated using the Pretoria Calibration Programme (Talma and Vogel 1993), using re-evaluated tree ring data (INTCAL98)(Stuiver et al. 1998).

The results of these analyses are presented with both the 1-sigma and 2-sigma ranges, thereby showing the statistical uncertainty of the measurements. The actual date represented by each sample has a 68% probability of falling within the 1-sigma range, and a 95% probability of falling within the 2-sigma range. The actual date of each sample thus has a 5% chance of falling outside of the 2-sigma range. The 1-sigma range is shown in thicker, darker block, and is vertically bracketed by thinner lines representing the 2-sigma range. The intercept dates are not shown here as their use, given the statistical uncertainty of the measurements, is of little practical value. The intercept has a very low probability of representing the actual age of any sample (Telford et al. 2004; Darden Hood, Beta Analytic, in a personal communication 2005).

Instead of intercepts, consistent overlaps or groupings of 1-sigma ranges of samples representing different or similar ceramic styles, or weighted averages of clusters of dates from the same contexts (Telford et al. 2004), when combined with information on stylistic change in ceramic or other temporally sensitive material documented stratigraphically, are of much greater utility in establishing a regional chronology than the use of intercept dates to pinpoint stylistic or historical events in the absence of written records.

Two distinct sets of overlaps for ceramics identified as Zhizo at the site Schroda are apparent. The first set of these, represented by the first four dates in Figure 11.3, has a 1-sigma range extending between AD 880 and AD 1010. The second set has a 1-sigma range between AD 1000 and 1040. The first set of dates encompasses what has traditionally been described as the duration of the Zhizo occupation of the study area. After around AD 1000, it is thought that Leopard's Kopje-using peoples moved into the area and drove the Zhizo-users out. These newcomers were thought to have established their capital at the site K2 by AD 1030 as well as an ancillary settlement below Mapungubwe Hill on the Southern Terrace. The second grouping of 1-sigma ranges for Schroda would seem to indicate the possibility that Schroda continued to be occupied well into the time of the arrival of Leopard's Kopje users. The earliest date from K2, Pta-6576, has a 1-sigma range of AD 1010 to 1055, and the earliest dates for the Southern Terrace, Pta-2024 and Pta-0768, have a 1-sigma span from AD

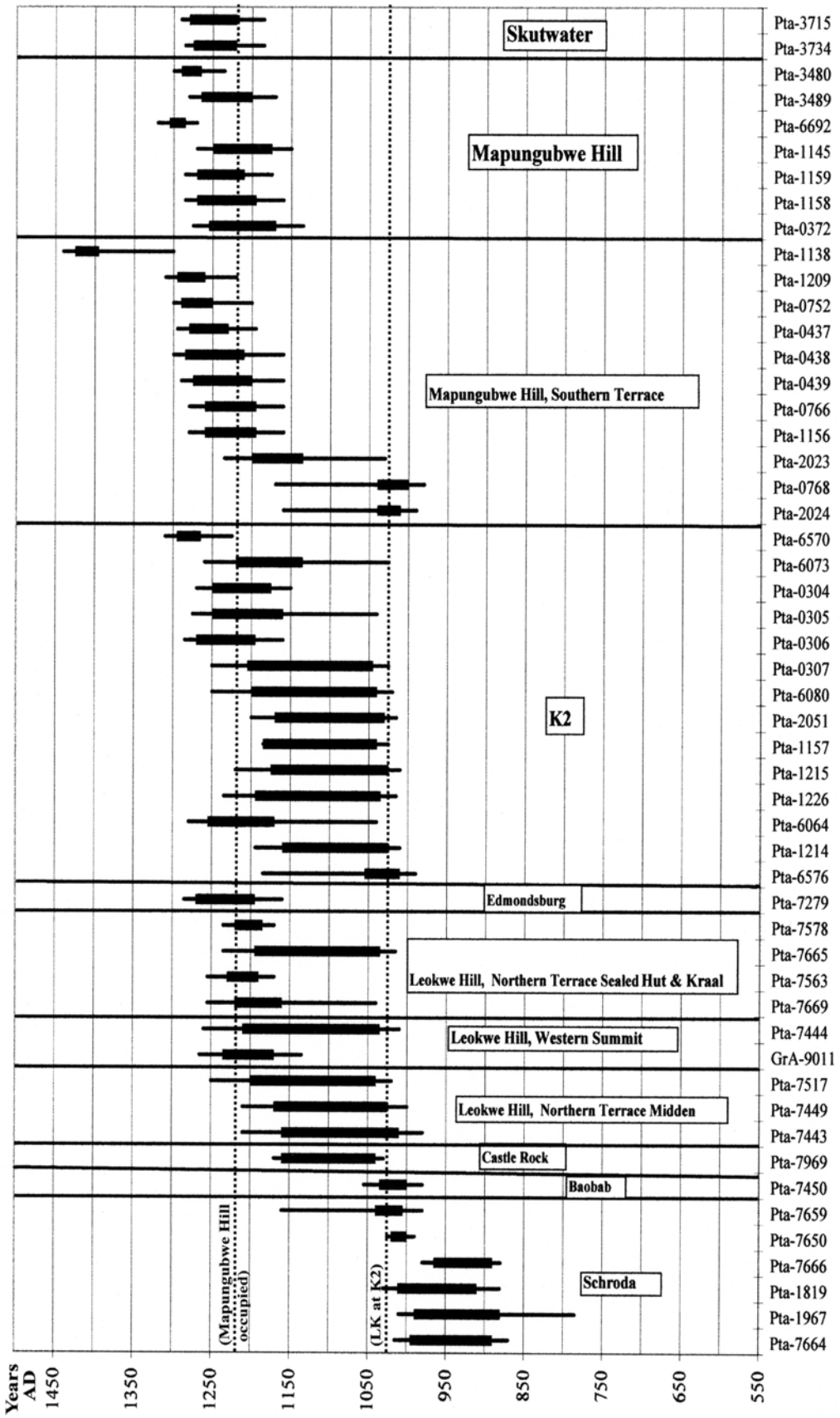


Figure 11.3. Distribution of radiocarbon dates for Zhizo and Leopard's Kopje components, Shashi-Limpopo Region.

1000 to 1040, further underlining this possibility.

The site Baobab, represented by a single radiocarbon date (Pta-7450), is a Zhizo site that has a 1-sigma range between AD 1000 and 1035. Like the second grouping of ceramics and associated radiocarbon dates at Schroda, the presence of a site with Zhizo style ceramics in the study area after AD 1000 indicates the likelihood that Zhizo ceramics persisted in the study area after the occupation of the area by Leopard's Kopje-using peoples.

Sample Pta-7969, from the site Castle Rock, has a 1-sigma range of AD 1040 to 1160, and a 2-sigma range of AD 1030 to 1170. The ceramics from Castle Rock cluster with those executed in the Zhizo style. The range of this sample falls within the period of the main occupation at K2. The glass bead data from Castle Rock further underline the dating of the site to this period. The date cluster at K2 within which the Castle Rock date falls encompasses Pretoria (Pta) sample numbers 1214, 1226, 1215, 1157, 2051, 6080, and 0307. The 1-sigma range of this cluster at K2 is AD 1025 to 1205. This cluster sits in an unfortunate point in the calibration curve wherein less distinct date ranges are produced. The Castle Rock ceramic assemblage clusters with other sites executed in the Zhizo style; the ceramic evidence, considered alongside the radiocarbon data, provides evidence that this site was occupied at the same time as the major Leopard's Kopje occupation at K2.

Similar radiocarbon dates were produced for the Zhizo occupation at the Northern Terrace midden area of Leokwe Hill. These dates, Pretoria sample numbers 7443, 7449, and 7517, have a combined 1-sigma range of AD 1010 to AD 1200, indicating that Zhizo style ceramics persisted well after AD 1000 and into the Leopard's Kopje occupation of the study area.

The hut floor and cattle byre area on the Northern Terrace of Leokwe Hill was also securely associated with Zhizo ceramics; these contexts produced dates with two distinct 1-sigma ranges. The earlier date from the hut floor (Pta-7665) has a 1-sigma range of AD 1035 to 1195, thus placing the burning of the hut represented by the sample sometime during the Leopard's Kopje A, or K2, occupation of the study area. Two additional dates from the hut floor, however, produced a tighter 1-sigma range, of AD 1160 to AD 1230, thus placing the event represented by the burning of the hut towards the end of the major occupation at K2 and at the beginning of substantial use of Mapungubwe Hill and the Southern Terrace. Based on the probability that the two similar dates represent the more likely date for the burning of the structure, it is probable that the hut was burnt down during terminal K2 times (i.e., AD 1160 to AD 1230). This supposition is supported by the fact that the calculation of the weighted average of all the dates from Block C produces a date range of AD 1180 to 1215 (Vogel and Calabrese 2000), encompassing a slightly tighter date range than the one I just proposed for the hut floor. At K2 a similar 1-sigma date range is represented by Pta-6073, which has a 1-sigma range of AD 1135 to 1220, and at the Southern Terrace of Mapungubwe Hill by Pta-

2023, with a 1-sigma range of AD 1135 to 1200.

Leopard's Kopje ceramics from the Western Summit at Leokwe Hill were also represented by dates with two distinct 1-sigma ranges. The potentially earlier of these, Pta-7444, has a 1-sigma range of AD 1035 to 1210, thus placing it directly within the range of the main occupation at the site K2. The later of these dates, GrA-9011, was a small sample of charcoal recovered from a remnant hut foundation constructed on bedrock in Block A on the Western Summit. This sample produced a 1-sigma range of AD 1170 to 1235, placing it into the period roughly at the time of the demise of K2 and the beginning of the major occupation of Mapungubwe Hill. The glass bead data from this site, it will be recalled, were also consistent with a terminal K2 occupation. It is thus likely that the Western Summit of Leokwe Hill was occupied during the last half of the 12th century and its occupation continued on into the terminal K2 period.

The single radiocarbon date (Pta-7279) from Edmondsburg, a site with ceramics executed in the Leopard's Kopje B style, produced a 1-sigma range of AD 1195 to 1270. This range places this date from terminal K2 times well into the period during which Mapungubwe Hill was occupied. This date has correlates from K2 (Pretoria numbers 6064, 0306, 0305, and 0304) which produce a collective 1-sigma range of AD 1160 to 1270. Similar date ranges have been recorded for the Southern Terrace at Mapungubwe Hill (Pretoria numbers 1156, 0766, 0439, and 0438), all which have a collective 1-sigma date range between AD 1195 to 1285. Mapungubwe Hill itself has also produced a series of radiocarbon dates (Pretoria numbers 0372, 1158, 1159, 1145, and 3489) that collectively range between AD 1170 to 1270, thereby also straddling terminal K2 times through the heart of the occupation at Mapungubwe Hill.

In addition, a single late date from K2 (Pta-6570), three dates from the Southern Terrace at Mapungubwe Hill (Pretoria numbers 0437, 0752, and 1209), two dates from Mapungubwe Hill itself (Pta-6692 and Pta-3480), and two dates from Skutwater (Pta-3734 and Pta-3715) provide indications of occupation that began after the establishment of the settlement on Mapungubwe Hill. These dates considered together have a 1-sigma range of AD 1220 to 1305.

Zhizo and Leopard's Kopje in the Shashi-Limpopo Region: Stylistic Co-Occurrence

This presentation of radiocarbon data for the Shashi-Limpopo confluence, when considered alongside the ceramic stylistic data, has identified at least two contexts, the upper levels at Schroda and the site Baobab, which provide likely evidence of Zhizo style ceramics co-occurring in time with the beginning of Leopard's Kopje A ceramics in the study area. Two additional contexts, Castle Rock and the midden area at the Northern Terrace of Leokwe Hill, provide evidence of Zhizo ceramics continuing on into the time of the main Leopard's

Kopje occupation at the site K2. A third pair of related contexts, the animal byre and burned hut documented at the Northern Terrace of Leokwe Hill, provide evidence that Zhizo style ceramics continued still further into the period of Leopard's Kopje occupation in the Shashi-Limpopo, in all likelihood dating into the period of the terminal K2 occupation and possibly into the period of occupation at Mapungubwe Hill.

The ceramic assemblages analysed here thus represent two distinct styles that overlap in time. The first are Zhizo style ceramics that date from the middle of the 9th century AD to at least the turn of the 13th century. These Zhizo ceramics overlap in time with those from the main occupation at K2 (from some time in the early 11th century AD through the turn of the 13th century). The second group that I analysed are Leopard's Kopje ceramics that date from the late 12th or early 13th centuries AD through the middle of the 13th century AD or later (i.e., the late or terminal K2 to Mapungubwe periods). It is critical to note that none of the assemblages analysed here are Leopard's Kopje style ceramics that date to the time of the main occupation at K2. I therefore will not be able to consider the Leopard's Kopje A, or K2, ceramic style in the following analysis, except insofar as the state of comparative data (Meyer 1980: Tables 18.1 to 18.8) permits.

The importance of the late dates for Zhizo style ceramics documented in the Shashi-Limpopo area for our understanding of the regional chronology can not be understated. Considered together they clearly demonstrate that the Zhizo ceramic style persisted in the study area well after the occupation of K2; it lasts at the very least until around the turn of the 13th century AD. Documenting the temporal overlap and coexistence of the Zhizo and Leopard's Kopje ceramic styles forces a rethinking and restatement of the regional chronology. Questions concerning the relationships and interactions between the users of these two ceramic styles can now be considered in a far more concrete and substantive framework.

Before asking and answering some of these questions, in particular those relating to the rise of complex society in the study area, it is necessary to examine the process of stylistic change within the ceramic styles that we have been describing here as Zhizo and Leopard's Kopje. Now that we can control for time as well as style for the assemblages described here, this further examination of the changes within the Zhizo styles is now possible.

Style, Time, and Ceramic Change in the Shashi-Limpopo: the Emergence of Leokwe Ceramics

As I have determined that Zhizo ceramics persist after AD 1000 and last until at least around AD 1200 in the study area, and we have a series of well-dated contexts and well-defined stylistic "snapshots" of Zhizo ceramics, it is now possible to address the issue of stylistic change within Zhizo ceramics. Unfortunately, since I was not able to gather data on

Leopard's Kopje A ceramics, and the data on Leopard's Kopje ceramics which I did acquire were restricted to a very limited time range, the issue of stylistic change within Leopard's Kopje wares can not be addressed here.

This issue of stylistic change within Zhizo ceramics is best addressed by undertaking another hierarchical cluster analysis. This analysis will divide the examined ceramic units into more temporally discrete units than in the first analysis which differentiated Zhizo from Leopard's Kopje ceramics. It is hoped that this tightening of chronological focus will produce stylistic data which impart more refined indications of stylistic change over time within the Zhizo style.

As was documented above, the sites with Zhizo ceramics in the study area can be ordered from earliest to most recent in the following order: Schroda, Baobab, Castle Rock, the midden area at the Northern Terrace at Leokwe Hill and the Animal Byre/Hut Floor Area at Leokwe Hill. Since the data from Schroda were both easily separated stratigraphically and formed such a large body of ceramics, the ceramic data from each Depositional Unit (DU), as previously described in Chapter VI, are presented here as a series of single contexts. Also, the data from the youngest Zhizo context at the Northern Terrace at Leokwe Hill will not be considered here as they contained only eighteen decorated ceramic vessels, of which only five were from secure contexts in the hut rubble or the kraal (although all five were clearly executed in the Zhizo style). Material recovered from undated contexts from the Northern Terrace (i.e., the 1 x 1 m test units) will also be excluded from analysis. The Leopard's Kopje ceramic assemblages from Blocks A-D on the Western Summit of Leokwe Hill, Mapungubwe Hill, and Edmondsburg were all analysed.

The second hierarchical cluster analysis measured the squared Euclidean distance of ceramic sub-type frequencies between all of the assemblages, with the more refined contexts from Schroda and the Northern Terrace at Leokwe Hill included. This analysis was performed at the highest level of statistical resolution possible permissible with the data (1 of 2 examined neighbours). The results of this analysis indicated the presence of three ceramic clusters, along with one residual (i.e., outlying) assemblage. The first of these clusters consisted of DU III, DU II, and DU I at Schroda. The second cluster consisted of the assemblages from Baobab and the midden area at the Northern Terrace of Leokwe Hill. The third cluster consisted of the assemblages from the Blocks A to D on the Western Summit at Leokwe Hill, Mapungubwe Hill, and Edmondsburg. The Castle Rock assemblage was left as a residual. When the same analysis was performed at the level of resolution of 1 of 3 examined neighbours, two clusters were identified. The first consisted of all the Zhizo sites and contexts, including Castle Rock. The second cluster consisted of the Leopard's Kopje assemblages.

The results of these new cluster analyses do not necessarily negate the results of the

earlier analyses in which the Castle Rock assemblage was placed within Zhizo. The initial cluster analyses that separated the Zhizo assemblages from the Leopard's Kopje assemblages are still valid, as they revealed differences between a larger set of ceramics, albeit at a less refined level of analysis. When the level of statistical resolution was reduced, Castle Rock was again seen to cluster with Zhizo, and not with Leopard's Kopje. Thus the Castle Rock assemblage is considered here, at least provisionally, to be a part of the larger Zhizo ceramic style. However, it does not cluster with the other assemblages within the style when examined at a higher level of resolution; I will therefore remove the Castle Rock assemblage from analysis temporarily. In the next section I will explain the apparent anomaly of the Castle Rock assemblage by discussing it in relation to the ceramic trends observed in the two new clusters defined within the larger Zhizo style.

The two new sets of ceramic sub-types present in the two ceramic clusters generated by refining the level of analysis of the Zhizo assemblages are shown in Table 11.15. I have replaced the non-iterative data discarded by BASP during computation, as these types represent occurrences which, although they are found only within an individual site or context, help define the total process of Zhizo stylistic change through time in the region. Clearly exotic vessels, like the Klingbeil, Beauley, and Leopard's Kopje wares from Baobab were, however, removed. I have ordered the various sub-types by vessel, form, design set, and placement for clarity of presentation and ease of reference. The reader is referred to the data chapter on each site and to the Appendices for a more complete representation of the ceramic assemblage for each site.

This table indicates that the two clusters contained within the Zhizo style do not vary much from one to the next. All of the major types within each cluster are represented in the other, and no major stylistic break is apparent. However, when the ceramic sub-types that constitute lower frequencies are examined, many of these are not represented in both clusters. It is this presence or absence data that will help define these clusters in both the laboratory and the field. More useful than this presence/absence data in defining these two clusters, however, are the relative frequencies between clusters of decoration technique and decoration placement

Table 11.5. Zhizo ceramics (Zhizo and Leokwe), sub-types, by frequency at each site or site context; sites ordered by relative distance; types presented in typological sequence.

Type		Schroda, DU III	Schroda, DU II	Schroda, DU I	Baobab	Leokwe Hill, Midden
Recurved Jar, Incised 1, Horizontal Line						
	Rim	<1	<1	1	-	-
	Central Neck	6	4	4	-	4
	Lower Neck	<1	<1	<1	4	2
	Shoulder	2	3	<1	2	2

Type	Schroda, DU III	Schroda, DU II	Schroda, DU I	Baobab	Leokwe Hill, Midden
Short-Necked Jar, Incised 1, Horizontal Line					
Central Neck	-	1	1	-	-
Recurved Jars, Incised 2, Diagonal Lines					
Rim	2	<1	<1	2	5
Central Neck	14	6	3	7	6
Lower Neck	1	<1	-	7	-
Shoulder	2	-	<1	-	-
Recurved Jars, Incised 5: Upturned Arcade					
Central Neck	1	-	-	-	-
Recurved Jars, Comb-Stamped 1, Horizontal Lines					
Rim	1	2	5	-	-
Central Neck	21	32	31	21	19
Central Neck to Shoulder	-	-	-	-	1
Lower Neck	<1	1	1	5	5
Shoulder	7	9	7	5	3
Short-Necked Jars, Comb-Stamped 1, Horizontal Lines					
Central Neck	-	1	3	-	-
Recurved Jars, Comb-Stamped 2, Diagonal Line					
Rim	<1	<1	1	-	-
Central Neck	13	13	11	5	4
Lower Neck	2	<1	1	4	2
Short-Necked Jar, Comb-Stamped 2, Diagonal Line					
Central Neck	-	1	1	-	-
Recurved Jars, Comb-Stamped 3, Infilled Triangles					
Shoulder	-	-	-	-	1
Recurved Jar, Bead/Bangle Impression 1, Horizontal Line,					
Central Neck	4	3	5	-	2
Lower Neck	-	-	-	-	4
Shoulder	2	<1	2	5	2
Recurved Jar, Bead/Bangle Impression 2: Diagonal Line					
Central Neck	2	<1	<1	9	3
Central Neck to Lower Neck	-	-	-	-	10
Lower Neck	<1	<1	<1	2	4
Shoulder	3	<1	<1	-	<1
Recurved Jar, Punctated 1, Rounded Impression, Horizontal Line					
Central Neck	<1	<1	-	-	1
Shoulder	-	-	<1	-	2
Short-Necked Jars, Punctated 1, Rounded Impression, Horizontal Line					
Rim	-	-	-	2	-
Central Neck	-	<1	-	2	-
Recurved Jars, Fingernail Impression, Horizontal Line					
Central Neck	<1	<1	-	-	2
Lower Neck	<1	-	-	-	1

Type	Schroda, DU III	Schroda, DU II	Schroda, DU I	Baobab	Leokwe Hill, Midden
Recurved Jars, Stabbed 1, Diagonal Teardrop, Horizontal Line					
Central Neck	1	-	-	-	-
Lower Neck	<1	-	-	2	-
Recurved Jars, Incision and Comb-Stamped 1, Zoned Horizontal					
Central Neck	<1	2	2	-	-
Recurved Jars, Incised and Comb-Stamped 2, Zoned Diagonal					
Rim	<1	2	1	-	-
Central Neck	4	4	4	2	-
Recurved Jars, Incised and Stabbed 3, Zoned Diagonal Stabbing					
Shoulder	-	-	-	5	-
Incurvate Bowls, Polychrome 1, Red and Black Smoke-Clouded					
Body	-	-	<1	-	2

frequencies. The examination of these will help define how the Zhizo style changed over time in the Shashi-Limpopo region.

A graphic illustration (Figure 11.4) of the frequency of the four major decoration techniques (comb-stamping, incision and comb-stamping, bead/bangle impression, and incision) employed on the most commonly decorated vessel form, the recurved jar, in the four Zhizo assemblages discussed here reveals the following trends. Incision and comb-stamping declines from a high point of 8% of the decorated jar forms in DU III and DU II at Schroda, gradually decreases to 2% at Baobab, and eventually disappears at the Northern Terrace at Leokwe Hill. Comb-stamping gradually decreases across time, from 64% to 65% in DU III and DU II at Schroda, to 43% in DU II at Schroda, to 42% at Baobab, and to 38% at the Northern Terrace at Leokwe Hill. These decreases in incision and comb-stamping and in comb-stamping were offset by increases in bead/bangle impression and incision. Bead/bangle impression increases from between 6% to 12% at Schroda to 26% at the Northern Terrace at Leokwe Hill. Incision increases over time as well, from 14% to 19% in the lowest levels at Schroda to 33% in DU I at Schroda, 29% at Baobab, to 38% at the Northern Terrace at Leokwe Hill.

The trends observed in the data for the decreases or increases in various decoration techniques, as was apparent, were subject to some noteworthy spikes and drops. The first of these major variances was the 21% drop in comb-stamping from DU II (64%) at Schroda to DU I (43%). The second noteworthy variance is the rise in incision from DU II (19%) to DU I (33%) at Schroda.

A similar graphic illustration (Figure 11.5) of decoration placements at each Limpopo Zhizo context considered across time indicates much more continuity between

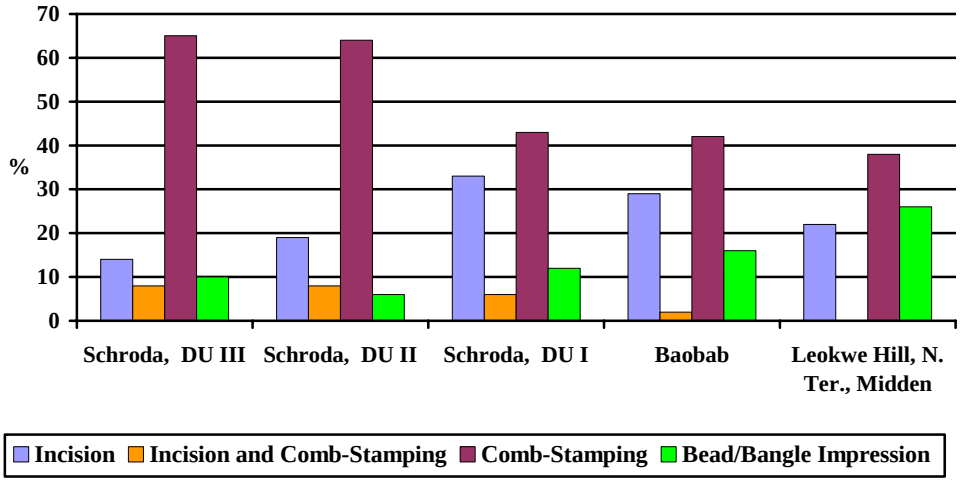


Figure 11.4. Limpopo Zhizo, major decoration techniques, jar forms, by site and by depositional unit (DU).

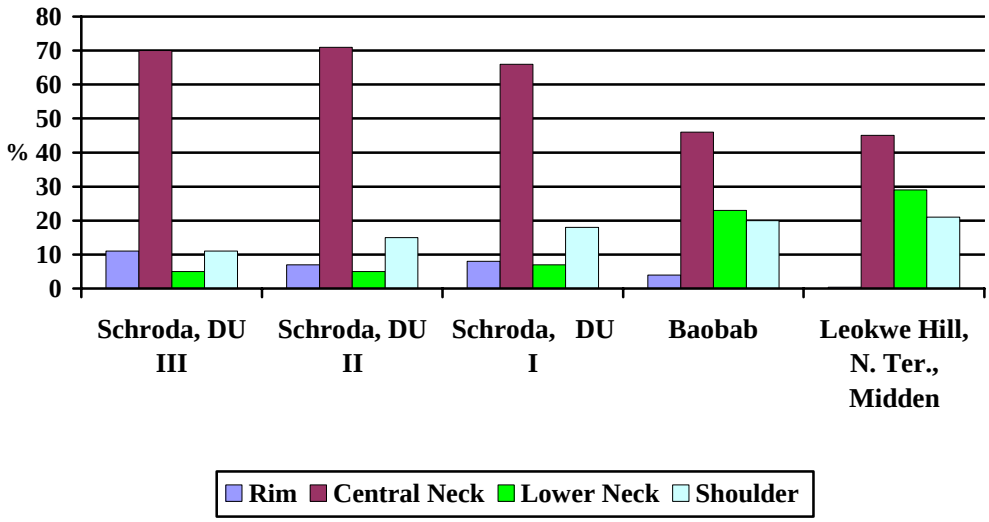


Figure 11.5. Limpopo Zhizo, major decoration placements, jar forms, by site and by depositional unit (DU).

assemblages than does the data on decoration technique just discussed, but with important differences across time noted as well. Decoration placement on the rim decreases consistently from 11% in DU III at Schroda to less than 1% at the Northern Terrace at Leokwe Hill. Interestingly, rim decoration remains somewhat steady from DU III to DU I at Schroda, but then drops by half at Baobab and continues this decline. Central Neck decoration, similarly remains fairly consistent through DU I at Schroda, but drops a full 20 points from DU I to Baobab. Thereafter, central neck decoration holds steady at between 45 to 47%. Lower neck decoration also remains steady through Schroda, but begins to climb after DU I; lower neck decoration was between 5% and 7% at Schroda, but then jumps to 23% in Baobab and climbs to 29% the Northern Terrace at Leokwe Hill. Finally, shoulder placement, which was already beginning to climb from DU III to DU I at Schroda (11% to 18%), climbs further after DU I to 20% at Baobab and closes at 21% at the Northern Terrace at Leokwe Hill. The data on design placement indicate that a major shift in placement on jars across time was seen after DU I at Schroda, with decoration seen to move down the vessel, with a retreat from decoration on the rim, a de-emphasis on the central neck and more importance placed on the lower neck and shoulder.

Leokwe Ceramics Defined

Previously, I (2000a), compared similar ceramic data from Schroda and the Northern Terrace at Leokwe Hill; however, that data were not divided into the more refined depositional units at Schroda and the midden versus other areas at the Northern Terrace as discussed here, nor was the Baobab data employed. At that time I postulated that, based on similar changes in decoration technique and placement to those noted above, the ceramics represented by the assemblage at the Northern Terrace of Leokwe Hill represented a new ceramic manifestation that I referred to as "Leokwe Zhizo." I now confirm the existence of this manifestation, but shorten its name to "Leokwe"; also, I am expanding Leokwe's chronological definition to include the ceramics in the DU I assemblage at Schroda, where they are seen to begin to change. Based on the shifts noted above in decoration technique from DU I to Baobab, the shift in decoration at DU I, in particular the spike in incision and the decrease in comb-stamping, it is clear that the ceramic style called Zhizo was changing at that time. Eventually, these changes came to include an emphasis on bead/bangle impression and a submergence of the technique that combined incision and comb-stamping. Similarly, the changes noted in DU I in decoration placement, with rim decoration eventually disappearing, central neck placement decreasing, and lower neck and shoulder placements increasing, considered alongside the decoration technique changes just noted, also provide evidence of the emergence of a new ceramic manifestation which grows out of Zhizo. It would be premature at this point at this stage of research to offer any more precise definition

as to what specific ceramic sub-types or decoration or placement frequencies constitute Leokwe ceramics. As a general rule of thumb, however, the ceramic sub-types noted in Table 11.5 and the frequencies of decoration technique and decoration placement on recurved jars noted above in relation to Zhizo constitute an adequate definition. The presence or absence of specific ceramic sub-types noted will aid in the laboratory and field definition of Zhizo versus Leokwe, as will the comparison of other assemblages' decoration technique and placement frequencies. As more Leokwe and Zhizo sites are excavated in the region, and more of these are radiocarbon dated, these frequencies and ceramic sub-types will undoubtedly change.

Leokwe ceramics as defined and described here form a third chronological phase and geographic facies of the Nkope Branch of the Urewe Tradition as it was defined by Huffman (2002: 10-11). Leokwe begins around the turn of the 11th century AD (ca. AD 1000) and persists until the turn of the 13th century (ca. AD 1200), if not later.

The Emergence and Transformation of Leokwe Ceramics: Multiethnic Society, Style, and Socio-Political Complexity

The emergence of Leokwe must be considered in relation to the larger social and political history of the region. Its transformation from Zhizo at around the turn of the 11th century coincides with the movement into the region of Leopard's Kopje A, or K2, using groups. I contend that given the level of stylistic and chronological resolution at which I have examined Zhizo, Leokwe, and Leopard's Kopje groups, thereby demonstrating their co-existence in time in the Shashi-Limpopo region, it is reasonable to posit that these ceramic groups do in fact represent the ceramics of two distinct social and cultural entities with distinct origins. I would further hold that, given the persistence of the Zhizo and, later, the Leokwe, styles in the face of an apparently sizeable co-occupation of the region by K2-using groups, these two styles, Leopard's Kopje and Leokwe/Zhizo, represent the ceramics of two different ethnic groups that existed in a frontier situation analogous to the model proposed by Kopytoff (1987). These ethnic groups co-inhabited the region between around AD 1000 and 1200 and at least in one instance, as is suggested by the data from Leokwe Hill, physically occupied different parts of the same site at approximately the same time.

The changes noted from Zhizo to Leokwe, while clearly measurable and tangible, are not very drastic. They are interesting in that the differences noted from Zhizo to Leokwe, while clearly reflecting the influence of Leopard's Kopje ceramics (most obviously in the increase in incised decoration), seem at the same time to reflect a profound retention of pre-Leopard's Kopje intrusion identity. I should add that I have no data on Leopard's Kopje A ceramics from the early period of Leokwe:Leopard's Kopje interaction, thus limiting my ability to determine what effects the Zhizo/Leokwe ceramic style may have had upon Leopard's Kopje A ceramics.

It is instructive to note that even though the two groups were living side by side in the same region for roughly two centuries, remarkably few Leokwe ceramics are found on Leopard's Kopje sites and *vice versa*. Between the time period from around AD 1000 to 1200, the following distributions of Leokwe versus K2 ceramics have been noted: K2 style ceramics accounted for 1.3% of the decorated assemblage within DU I at Schroda; K2 ceramics were 3.5% of the Leokwe assemblage at Baobab and 3% from the Leokwe midden at the Northern Terrace of Leokwe Hill. Similarly, Leokwe wares account for 5% of the otherwise Leopard's Kopje assemblage on the Western Summit of Leokwe Hill. Conversely, K2 style ceramics account for a full 12% of the assemblage at Castle Rock. After AD 1200, this pattern of a certain, albeit limited, stylistic mixing shifts radically, with no Leokwe ceramics found at either Mapungubwe or Edmondsburg. Relatively small finds of Leokwe sherds on Leopard's Kopje A sites and *vice versa* are interpreted here as probably indicative of some undetermined type of interaction between Leokwe and Leopard's Kopje groups.

The stylistic tenaciousness between the 11th and 13th centuries on the part of both Leokwe and Leopard's Kopje groups would, in the terms of the ideas concerning the nature of ethnic identity and their material expressions as presented in Chapter III, indicate that a level of competitive ethnic interaction was occurring between these groups. This ethnic competition was not by any means uniform throughout Leokwe society. For example, the level of competition and interaction between the Leokwe residents of Castle Rock and K2 groups, as suggested by its relatively higher proportion of K2 vessels found there, seems less competitive and was in fact more directly emulative of K2. The overall composition of the Castle Rock assemblage underlines this proposed relationship, as it can be interpreted as a highly exaggerated version of Leokwe which places more emphasis on Leopard's Kopje stylistic elements than do the other documented Leokwe assemblages. When the Castle Rock data are presented alongside the decoration technique data previously presented for other Zhizo and Leokwe sites (Figure 11.6) they do at first glance appear to be highly anomalous. However, when one considers that Leokwe is essentially Zhizo as influenced by K2, the emphasis on incision at Castle Rock is understandable. The near identical frequencies of decoration placements on recurved jars (Figure 11.7) within Leokwe assemblages further demonstrates the essential unity of Castle Rock with other Leokwe assemblages.

The presence of different characters and intensities of interaction between Leokwe and Leopard's Kopje groups as seen in the ceramic assemblages is important to our understanding of the rise of social and political complexity in the region. On the one hand, a stubborn stylistic retention is displayed by both groups as they appear to co-exist with very little change for around two centuries; also, relatively little stylistic sharing in the form of culturally mixed assemblages occurred. This overall retention of stylistic independence would seem to imply a level of competition between these groups that would not be consistent

with a highly centralised and tightly organised, complex society.

On the other hand, we do see Leokwe ceramics emerging out of Zhizo interaction with Leopard's Kopje, suggesting a degree of subordination of Leokwe to Leopard's Kopje. Similarly, we see a situation at Castle Rock where a Leokwe group is clearly emulating Leopard's Kopje ceramics. This more asymmetrical relationship, with a Leokwe group more openly emulating the Leopard's Kopje style, is more indicative of a stylistic reflection of the sort of hierarchical social and political structure consistent with a nascent state level society.

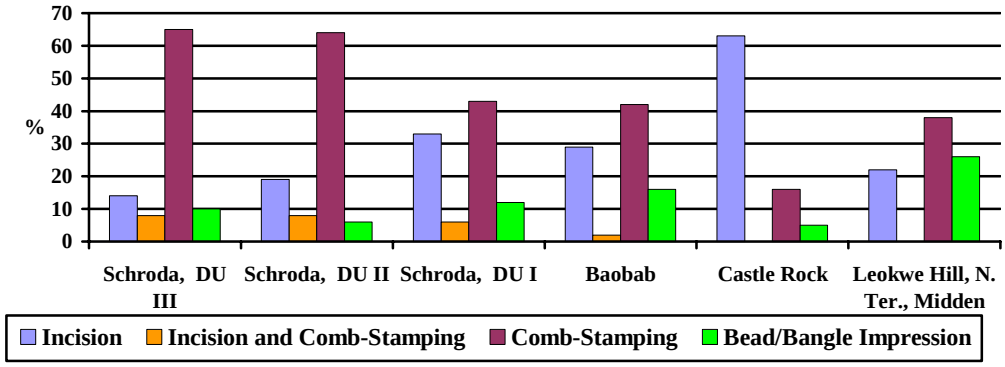


Figure 11.6. Zhizo and Leokwe ceramics, major decoration techniques, jar forms, by site and by depositional unit (DU).

As I (2000a:203) have discussed previously, data from the site K2 further complicate the question of the ceramic expression of interaction and ethnic stratification between Leokwe and Leopard's Kopje groups. At K2, the early Leopard's Kopje capital, a series of four juvenile internments (Fouché 1937:19-20; Plate XI:4) were excavated in 1934. One of these internments, Burial 2, had ceramics clearly executed in both the Leokwe and K2 styles securely associated as part of its grave good assemblage (Ibid; Schofield 1937: Plates XXV:1, 4, XXXI:7). This specific portion of K2 has not been dated, so it is not possible to state unequivocally whether this burial dated to the earlier or later stages of Leokwe:Leopard's Kopje interaction. This stylistic co-occurrence of Leokwe and Leopard's Kopje ceramics in a burial assemblage at the early Leopard's Kopje capital does not support the notion of the total subordination of Leokwe by Leopard's Kopje. Rather, the presence of the two styles together in a burial assemblage points to a generalised interethnic intimacy. I contend that this co-occurrence is generally reflective of the need on the part of both groups to come to an

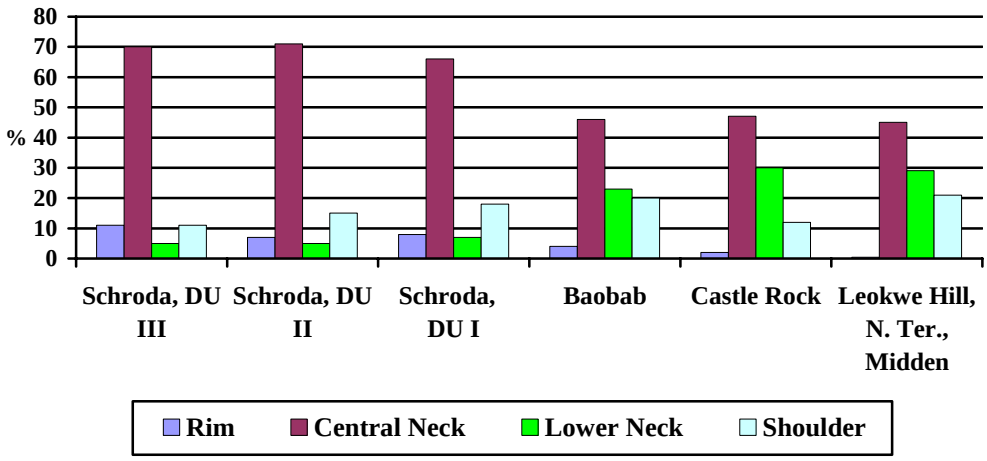


Figure 11.7. Zhizo and Leokwe, major decoration placements, jar forms, by site and by depositional unit (DU).

accommodation expressed in the idiom of kinship.

Given that we know that later developments included the establishment of a new capital at Mapungubwe Hill during the early 13th century, and that Leokwe sites seem not to be present after this time, it is possible that the Leokwe identity, at least as expressed by its ceramics, was ultimately submerged or extinguished by Leopard's Kopje, or Leokwe groups were otherwise eliminated from the region around the time of the establishment of Mapungubwe Hill as the second Leopard's Kopje capital in the region. The two centuries in between the Leopard's Kopje intrusion and the establishment of Mapungubwe Hill are therefore of great importance to our knowledge of the rise of social and political complexity in the region, as it is within this period that we can examine the processes of social and political differentiation, as expressed in the relationships between Leokwe and Leopard's Kopje.

Discussion and Synopsis

The continuing and persistent co-occurrence in the Shashi-Limpopo region of Leokwe ceramics and Leopard's Kopje ceramics between the 11th and 13th centuries AD makes it necessary to reconsider the ceramic chronology and culture history of the region. In particular, the continuation of Leokwe ceramics and their co-occurrence with Leopard's Kopje wares forces a rejection of aspects of the current ceramic and cultural chronology which sees a geographic and temporal separation between users of the two styles. The current

model of invasion and displacement of Zhizo users by Leopard's Kopje users must be reconsidered. Instead I postulate that a frontier situation (*sensu* Kopytoff 1987) may have obtained in the Shashi-Limpopo region between Leokwe and Leopard's Kopje groups.

From the perspective of the research questions outlined in Chapter II and the further elucidation of these in Chapter III as regards stylistic development in the context of social and political development in southern Africa, the co-occurrence of Leokwe and Leopard's Kopje wares during a period of increasing social and political complexity is of vital interest to our understanding of the culture history of the region as it indicates that a shift from emblemic style to heterochrestic style may have occurred. This transition to stylistic complexity clearly involved some elements of competition between the two groups, as well as a certain level of subordination of Leokwe groups to Leopard's Kopje groups. The question remains, however, as to whether, and to what extent, these co-existing styles were indicative of either multi-ethnic resource-sharing, which would have involved the co-existence of two emblemic style systems, or of class-based stylistic signalling indicative of a system of ethnic stratification. Also of interest is how this situation shifted across time. These and related questions are discussed in Chapter XII.

CHAPTER XII
ETHNICITY, CLASS, AND POLITY: LEOKWE AND LEOPARD'S KOPJE IN THE SHASHI-LIMPOPO REGION, AD 1000 TO AD 1300

Introduction

The results of the ceramic and radiocarbon analyses presented in the last Chapter indicated that two ceramic styles, Leokwe (derived from Zhizo) and Leopard's Kopje A (K2), co-occurred in the Shashi-Limpopo region between approximately AD 1000 and 1200, a time of burgeoning social and political complexity. I posited that Leokwe and K2 wares represented the ceramic styles of two distinct ethnic groups, with Leokwe ceramics representing those of the earlier occupants of the region and Leopard's Kopje wares representing those of an immigrant group. Relations between the two groups were complex and dynamic, with varying degrees of hierarchical tendencies prevailing across time. On the side of asymmetrical tendencies it is clear that the emergence of the Leokwe ceramic style was tied to and influenced by the Leopard's Kopje style. This influence is seen in the residents of at least one Leokwe site, Castle Rock, actively seeking to emulate Leopard's Kopje wares. Another potent instance of potential inequality evident between these groups is the case of Leokwe Hill, where Leopard's Kopje people lived on a residential hilltop overlooking a lower-lying Leokwe settlement sometime in the last half of the twelfth century AD. The emergence of the site K2 as the dominant regional centre sometime in the 11th century, displacing the former Zhizo centre at Schroda, lends further weight to the notion that Leopard's Kopje people held considerable sway over Leokwe populations after their arrival around the turn of the 11th century AD.

Evidence for a less asymmetrical relationship between the two groups is the indisputable co-existence of both groups' ceramic styles for approximately two centuries. I posited that this stylistic persistence reflected a level of autonomy and interethnic competition, as would be expected by the instrumentalist understanding of ethnic boundary maintenance presented in Chapter III. Based on this stylistic tenacity, considered alongside evidence of a degree of continuing amicable relations between the two groups, as seen in the co-occurrence of Leokwe and Leopard's Kopje wares in a secure child burial context at the site K2, I further postulated that interaction between the two groups was not wholly asymmetrical for the entire duration of their interaction. Leokwe peoples thus maintained a degree of autonomy after the arrival of Leopard's Kopje groups. Ultimately, however, the formation of the nascent Mapungubwe state after AD 1200 and the apparent decline of the Leokwe style around this time indicate that Leokwe peoples were eventually subdued and

their style submerged.

The critical issue, therefore, is not whether Leokwe peoples were ultimately incorporated into, assimilated by, or possibly expelled from, the Mapungubwe polity. One of these outcomes, or a variant thereof, clearly occurred. Rather, the truly critical issues that can be raised here have to do with gaining an understanding of the process of ethnic interaction that occurred between these groups in prehistoric southern Africa during a time of burgeoning social and political complexity. I am concerned with determining if the co-existence of these two ceramic styles can be said to have at any stage in their relations represented an instance of mutual habitation of the same region in a system of resource-sharing or whether and when, and to what extent, users of one style came to dominate the other in a system of ethnic stratification. In the terms of the discussion of style presented in Chapter III, I am investigating if, immediately after the Leopard's Kopje intrusion, both styles continued with two, concurrent, emblemic stylistic systems in place, or whether a heterochrestic stylistic system had begun to develop after this time, based on status or class divisions that intersected with ethnic divisions. It is hoped that the diachronic examination of these issues will provide further insight into the culture history of the region and into the character of the nascent Mapungubwe state which emerged after AD 1200. The results of this investigation will be useful as a context of interethnic interaction in Iron Age sub-Saharan Africa that can be applied to other archaeological situations.

Evidence for Class-Based Identity in the Shashi-Limpopo Region, ca. AD 1000 to 1200

I have established that the Leokwe and Leopard's Kopje styles, very deliberately described here as the ceramic expressions of two distinct ethnic groups, co-occurred in the region between AD 1000 and 1200 and that, after a period of ethnic interaction, the Leokwe style was eventually overtaken by Leopard's Kopje. In order to determine more precisely the relationships between these groups, however, I need to determine the extent to which users of both styles held relatively equal or unequal access to resources and how this access changed over time. The degree to which it is possible to investigate archaeologically ethnic- versus class- or status-based society in southern African Iron Age societies was discussed in Chapter III. Archaeological indicators of relatively higher or lower status are indicated by differential access to religious/initiation paraphernalia (initiation-related figurines and non-utilitarian metal), exotic goods, differential access to fauna, metal production, and differential settlement pattern layout. As was discussed at the end of Chapter III, it is only possible, given the nature of much of the data at hand, to quantify differential access to these resources and activities or traits in the case of non-utilitarian metal items, glass trade beads, and faunal remains. However, although faunal material was collected from all the sites I excavated, analysis has yet to be conducted on the material from only one of these, Edmondsburg. I am left with

finished non-utilitarian metal items and glass trade beads as quantifiable variables. In addition, other indicators of status, such as evidence of metal production, figurines probably used in supra-household rituals, and settlement pattern traits, will also be discussed; the analysis of these will take place on a qualitative basis. I will begin with a presentation of the evidence of differential distribution of ritual paraphernalia and then move on to a discussion of the distribution of glass beads and non-utilitarian metals. I will diverge from this presentation briefly in order to discuss the distribution and significance of utilitarian metal items.

After this presentation I will characterise the overall nature of the exchange system evidenced with the Shashi-Limpopo region during this period and the role that non-utilitarian metal items and glass trade beads played within it. The nature of this system, including aspects of tribute and craft production, and its possible ramifications to the political, kinship and settlement systems will be explored and developed in the context of class and ethnicity.

Evidence for Ritual Specialisation: Ritual versus Political Authority

As has been discussed previously, evidence for ritual specialisation, and thus of relatively higher-status in southern Africa, may consist of certain types and quantities of ceramic figurines recovered from a archaeological sites. This association is due to widespread ethnographic data which indicate that such figurines were used in initiation rituals and that these rituals were sometimes directly overseen by society's political leadership (Huffman 1996). The Zhizo capital Schroda, for example, yielded hundreds of figurines, both exotic and mundane, some of which have been interpreted (Hanisch 2002; Huffman 2000:17; Nettleton 2002; Wood 2002) as indicating that initiation rituals were carried out there. Huffman (1986b:319) has interpreted the presence of unusual figurines, including a giraffe recovered by Jones from the proposed palace area on Mapungubwe Hill, as indicating that initiation schools were conducted there. Presumably, these schools would have been overseen by Mapungubwe's leaders. Further supporting Huffman's proposal is Gardner's (1963) inventory from his excavations on Mapungubwe Hill; in it he records four female human figurines, eight ceramic phalli, one elephant's foot, one cattle figurine, as well as several unidentifiable figurines. Unfortunately, on the basis of the evidence provided, it is not possible to determine if the female figurines represent those intended for domestic use or for use in initiation rituals (cf. Wood 2002).

Similarly, numerous ceramic figurines were recovered from K2 (Jones 1937; Gardner 1963). Gardner recorded from K2 approximately 20 ceramic phalli, 20 female figurines, one hippopotamus, three cattle, as well as a number of unidentifiable animals. Again, the female figurines were not well-illustrated, and it is unclear what type of figurine use (domestic use or ritual use) they represent. The presence of numerous phalli is, however, suggestive of

initiation rituals having occurred there.

A collection of unusual figurines and miniature pottery vessels which I have interpreted as initiation figurines and associated exhibits or *matano* (*sensu* Nettleton 2002) was recovered from the Leokwe site Castle Rock. These figurines included two female representations, a phallus, two giraffe heads, an elephant or rhinoceros leg, and a baboon head. I posit here that the figurine assemblage at Castle Rock provides evidence of initiation rituals conducted at the supra-household level. This interpretation is given here owing to with well-known association of the giraffe with the *domba* (Blacking 1966:94, cited in Huffman 1996; Huffman 1986b) and the obvious associations of the phallus with fertility and the recovery of similar items by R. N. Hall at Great Zimbabwe in areas of the site identified by Huffman (1996:133-136, 146-154) as the location of nationally significant fertility/initiation rituals (i.e., from the Speaker's Platform near the Conical Tower in the Great Enclosure and in the Eastern Enclosure at the Acropolis).

Interestingly, no other comparable figurine assemblage was recovered from any of the other sites I excavated, including the Western Summit of Leokwe Hill, a site which as will be discussed in detail below, exhibits other indications of elite status. The Leokwe site Baobab had two figurine fragments, one suggestive of a domestic use female doll, while the Leokwe site at the Northern Terrace of Leokwe Hill had three unidentifiable figurine fragments. No figurine fragments were recovered from either of the Leopard's Kopje sites I excavated, the Western Summit of Leokwe Hill and Edmondsburg. As was just noted, however, probable initiation-related figurine assemblages have been recovered from all three regional centres from the time period under study. This distribution pattern suggests that initiation rituals were being conducted at both the regional centres as well as at Castle Rock.

The presence of this evidence for initiation rituals having occurred at the Leokwe site Castle Rock during the period of Leopard's Kopje occupation raises some important questions about the nature of ritual and political power during the Leopard's Kopje occupation of the region, especially considering that there is no such evidence for ritual activities from the Western Summit of Leokwe Hill, a site I have interpreted as a late K2/early Mapungubwe period high-status site, and which Huffman previously interpreted (1986) as a royal hilltop settlement. The question that first comes to mind in regards to this distribution is, if Leopard's Kopje people dominated Leokwe peoples, why were the Leokwe able to continue their ritual life, especially when these rituals apparently included initiation rituals which were probably overseen by local chiefs or other social or political authorities? Second, why is such evidence for initiation rituals absent at the Western Summit of Leokwe Hill, a site interpreted here as a high-status Leopard's Kopje settlement, but present on the Leopard's Kopje regional centres of K2 and Mapungubwe?

A possible answer to these questions lies by way of reference to Kopytoff's (1987)

model of the internal African frontier, as discussed in Chapter III. Kopytoff stated that in frontier situations in which the newcomers could not readily oust, remove, or otherwise immediately subjugate the firstcomers, then a schism between ritual and political power would develop, with the firstcomers retaining ritual power, including the power over their ancestors as the owners of the land, and the newcomers exercising political authority. Kopytoff's model further predicted that the newcomers' political authority would, to some degree, need to be validated by the firstcomers through their ritual role. The newcomers would, however, ultimately attempt to co-opt or otherwise seize ritual power. It will be recalled that this portion of Kopytoff's model was supported by the ethnohistoric data presented by Rennie (1978) and Bourdillon (1978) for Zimbabwe.

Based on the distribution of items indicative of the initiation/ritual activities, I propose that a situation similar to the model proposed by Kopytoff had developed in the Shashi-Limpopo region during the K2 period. The Leokwe residents of Castle Rock were exercising their ritual authority as did the earlier residents at Schroda. It is unclear when Schroda was actually abandoned but there are, as was discussed in Chapter V, stratigraphic, ceramic, and radiocarbon indications that it may have been occupied well into the occupation at K2; it is therefore possible that it continued on as a ritual centre well after the establishment of K2. At the same time that Leokwe peoples were exercising their ritual authority, similar practices were apparently being undertaken at K2 and later on at Mapungubwe. Owing to a lack of stratigraphic and chronological control for those items potentially indicative of ritual activity from K2 and Mapungubwe, it is unclear when in the sequence such activities started at these sites, or if they were being conducted throughout their respective occupations. Their lack at the Western Summit is interesting in that it may imply that such activities, while practised by Leokwe groups owing to their special ritual status, were not practiced by residents of otherwise high-status Leopard's Kopje sites.

Such a restricted distribution of these activities and associated items indicate the great importance of these rituals; it may also indicate the desire on part of the leaders of K2 and Mapungubwe to control their incidence within their own ethnic group, something that were apparently unable to do in regards to Leokwe people. I thus propose that a dual ritual system, involving at the very minimum initiation activities, was in place in the Shashi-Limpopo during the early period of Leokwe:Leopard's Kopje interaction through at least the period of the Leokwe occupation at Castle Rock, which coincided with the main period of occupation at K2. How this dual ideological system articulated with the exchange system and the political system will be discussed below.

Non-Utilitarian Metal Distribution

This section will provide information on the distribution of items of non-utilitarian finished metals within Leokwe and Leopard's Kopje societies and thus of the role metals played in their internal political economies. The strong archaeological and ethnographic associations between metallurgy, fertility and leadership discussed in Chapter III lead me to propose that nascent elites in the Shashi-Limpopo region would have exerted, or attempted to exert, some form of control, real or ideal, over the distribution of finished copper and iron products. The products that interest me here are those used in the non-utilitarian, "expressive sphere" as described by Childs (1991b), and which may have been used as emblems or markers of social identity, variously based on age/rank, status, or gender. They are thus included here under the category of initiation/fertility paraphernalia as their possession ultimately relates to their role as signifiers of one's place in the web of negotiated social and political relations. The discernment of the overall distribution of finished non-utilitarian metal products, when discussed in concert with the data on metal production presented later, between these sites can aid in establishing patterns of horizontal and vertical relationships between producers and consumers, thus aiding in delimiting larger patterns of social identification.

Data is presented here in an attempt to quantify the relative access to finished metal items which residents of various sites in the area enjoyed. This exercise, it is hoped, will help provide criteria for determining the relative status of each site's residents and their standing in the sociopolitical hierarchy. First, the total types, weights and counts of artefacts present at sites, or portions of sites, where the total metric volume of deposit excavated could be calculated, were tabulated (Table 12.1). The metric volume excavated at portions of K2 and Mapungubwe was extrapolated based on drawings presented by Meyer (1998). Those portions of these excavations for which metric volume could be calculated accurately and for which data were available were the excavations on Mapungubwe Hill in Trench MK1, Blocks B3, B4 and B5, and at K2 from Trenches TS5 and TS6 (Block A2 only). Since I am interested in examining the time period that covers the late K2 and early Mapungubwe periods, the data from Level 9 and below in Blocks B3 and B4 in Trench MK1 were used. These contexts were the stratigraphically most secure and in all likelihood date to the earliest periods of occupation on the hill (Meyer 1998). Data on finished metalwork from both K2 and Mapungubwe were provided by Duncan Miller (n.d.).

Artifacts were then quantified by type, weight, and number to arrive at standardized measurements of diversity, density, and abundance (or ubiquity). Simply stated, diversity refers to the variety or range of objects present (i.e., types), density refers to the mass in grams of these objects, and abundance refers to the number of objects, or fragments of objects, which were present. Diversity was measured on the basis of relative percentage,

	K2 TS5 & TS6 (A2)		Baobab		Castle Rock		Mapungubwe B3, B4 (Levels 9 to base)		Leokwe Hill, Western Summit		Leokwe Hill, Northern Terrace		Edmondsburg	
Volume excavated (m^3)	22.17		7.36		9.25		14.22		18.15		19.21		6.68	
	#	wt(g)	#	wt(g)	#	wt(g)	#	wt(g)	#	wt(g)	#	wt(g)	#	wt(g)
Cu, finished														
Bangle/Helix	88	32.09	-	-	1	0.46	138	13.88	12	5.25	1	0.13	-	-
Wire, round	1	2.27	-	-	-	-	6	0.58	-	-	-	-	-	
Wire, square	1	0.44	-	-	-	-	-	-	-	-	-	-	-	-
Bead	-	-	-	-	1	0.45	-	-	4	0.12	4	2.46	-	-
Strip	-	-	-	-	-	-	3	1.61	-	-	-	-	-	-
Plate	-	-	-	-	-	-	2	2.81	-	-	-	-	-	-
Ring	-	-	-	-	-	-	-	-	1	0.53	-	-	-	-
Link	-	-	-	-	-	-	-	-	-	-	2	1.12	-	-
Unid. Ornament	-	-	-	-	-	-	-	-	1	1.50	-	-	-	-
Total, Cu	90	34.80	-	-	2	0.91	149	18.88	18	7.40	7	3.71	-	-
Fe, finished														
Bangle/Helix	72	35.33	-	-	3	0.73	137	31.01	4	0.84	1	0.94	-	-
Wire, round	1	0.13	-	-	-	-	-	-	-	-	-	-	-	-
Wire, square	-	-	-	-	-	-	2	1.14	-	-	-	-	-	-
Plate	2	2.70	-	-	1	0.15	1	4.747	-	-	-	-	-	-
Bead	-	-	-	-	-	-	-	-	7	2.41	3	1.03	-	-
Pin	-	-	-	-	1	2.86	-	-	1	3.60	-	-	-	-
Sweat Scraper Handle	-	-	-	-	-	-	-	-	1	4.59	-	-	-	-
Sweat Scraper Blade	-	-	-	-	-	-	-	-	3	12.99	-	-	-	-
Links	-	-	-	-	-	-	-	-	-	-	5	2.45	-	-
Total, Fe	75	38.16	-	-	5	3.74	140	36.90	16	24.43	9	4.42	-	-
Total, Cu and Fe	165	72.96	-	-	7	4.65	289	55.78	34	31.83	16	8.13	-	-

Table 12.1. Finished copper and iron artifacts, by site, type, number and weight.

while density and abundance were measured in reference to grams/m^3 and parts/m^3, respectively. These variables were measured separately for copper and iron artefacts, and then considered together. Once these calculations were made from data at individual sites, they were then placed together in a standardised format, with the largest score for each measurement placed at 100%, with smaller scores measured as percentages of the largest score. The results of this analysis for the K2 period, which includes data from K2 (TS5 and TS6 [A2]), Castle Rock and Baobab, are shown in Figures 12.1 to 12.3. Results for the terminal K2/early Mapungubwe period, which includes data from Mapungubwe Hill (MK1, Blocks B3 and B4, Level 9 and below), both the Western Summit and Northern Terrace at Leokwe Hill, and Edmondsburg, are shown in Figures 12.4 to 12.6. The data from the Northern Terrace at Leokwe Hill were included in this second, later, set of sites because the results of radiocarbon dating and the ceramic distance measurement (similarity and cluster analysis) determined that of the three Leokwe sites, the Northern Terrace at Leokwe was the youngest of the three.

These data indicated that the highest scores for the two time periods in all three categories of non-utilitarian metal were from K2 and Mapungubwe, respectively. What was unexpected is the degree to which the circulation of both copper and iron was restricted in both periods. For example, relative to the assemblage from K2, the residents of Castle Rock had 94% less access to copper and iron in terms of density, and 91% less access to both metals in terms of abundance. The residents of Baobab, further down the distribution hierarchy, had no access to finished, non-utilitarian, metal items.

Afterwards, during the later Leokwe and terminal K2/early Mapungubwe period, the overall situation appears to have been similar, although there was relatively more access in the middle of the hierarchy. The Leopard's Kopje residents of the Western Summit at Leokwe Hill had approximately 55% less access to copper and iron in terms of density than the residents of Mapungubwe Hill, and almost 89% less access in terms of abundance. The residents of the Northern Terrace at Leokwe Hill, a settlement probably contemporary with and immediately adjacent to the Western Summit, had almost 91% less access to finished metals in terms of density and 96% less in terms of abundance in relation to the residents of Mapungubwe Hill. The Leokwe residents of the Northern Terrace also had less access to both metals in relation to the Western Summit, with 76% less in terms of density and 44% less in terms of abundance. The residents of Edmondsburg, similar to the previous situation at Baobab, were also at the bottom of the distribution hierarchy, with no access to finished, non-utilitarian, metal items. It should be noted that Edmondsburg was clearly occupied later than the Northern Terrace at Leokwe Hill; the data from both these sites are therefore not directly comparable. It is, however, posited here that similar patterns of increasing and decreasing access to metals were present both during late Leokwe times and early

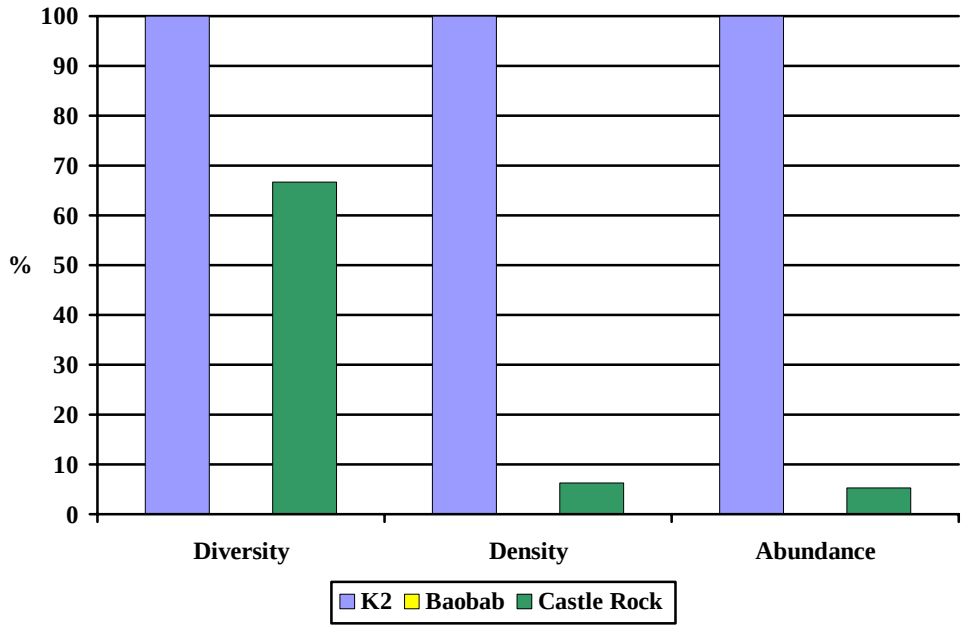


Figure 12.1 Leokwe/K2 period, standardised percentage frequencies of copper diversity, density, and abundance, by site.

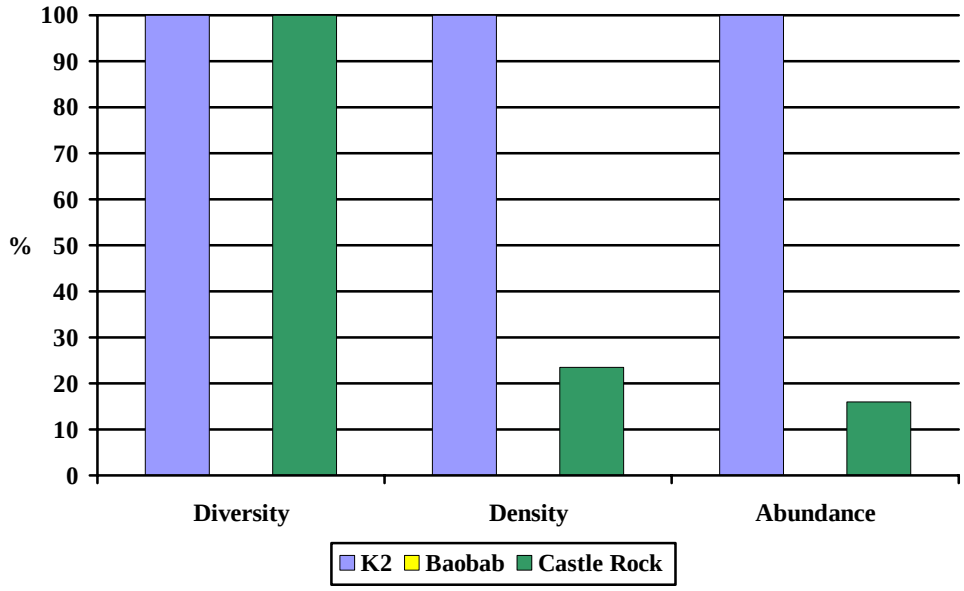


Figure 12.2 Leokwe/K2 period, standardised percentage frequencies of iron diversity, density, and abundance, by site.

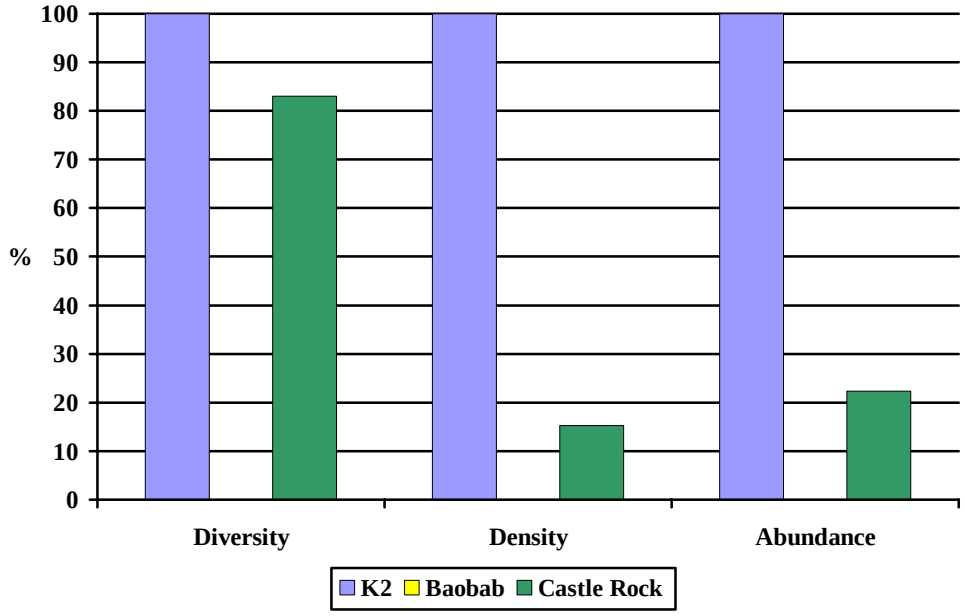


Figure 12.3 Leokwe/K2 period, standardised percentage frequencies of copper and iron diversity, density, and abundance, by site.

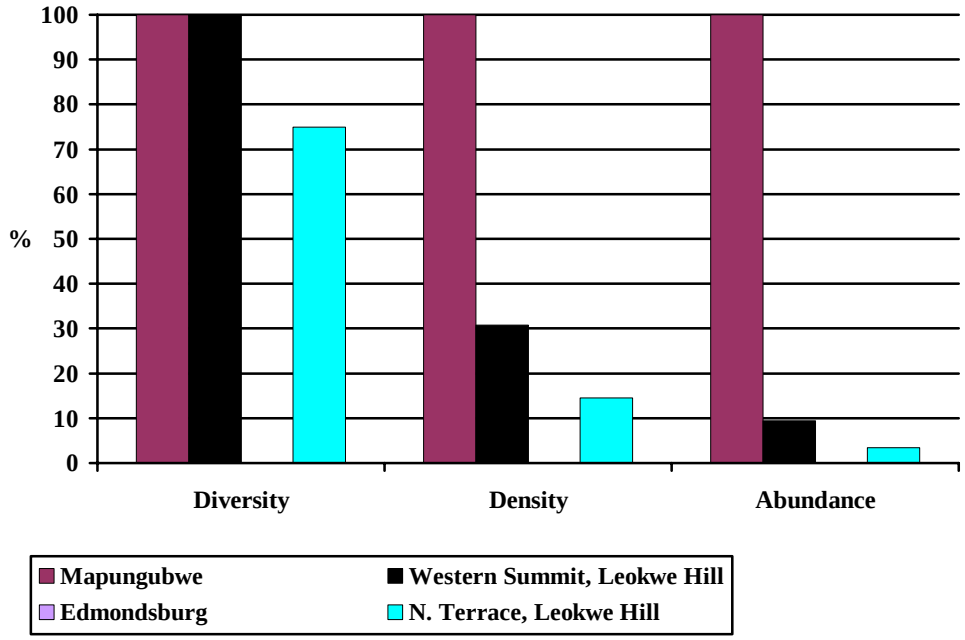


Figure 12.4 Leokwe/Terminal K2/Mapungubwe period, standardised percentage frequencies of copper diversity, density, and abundance, by site.

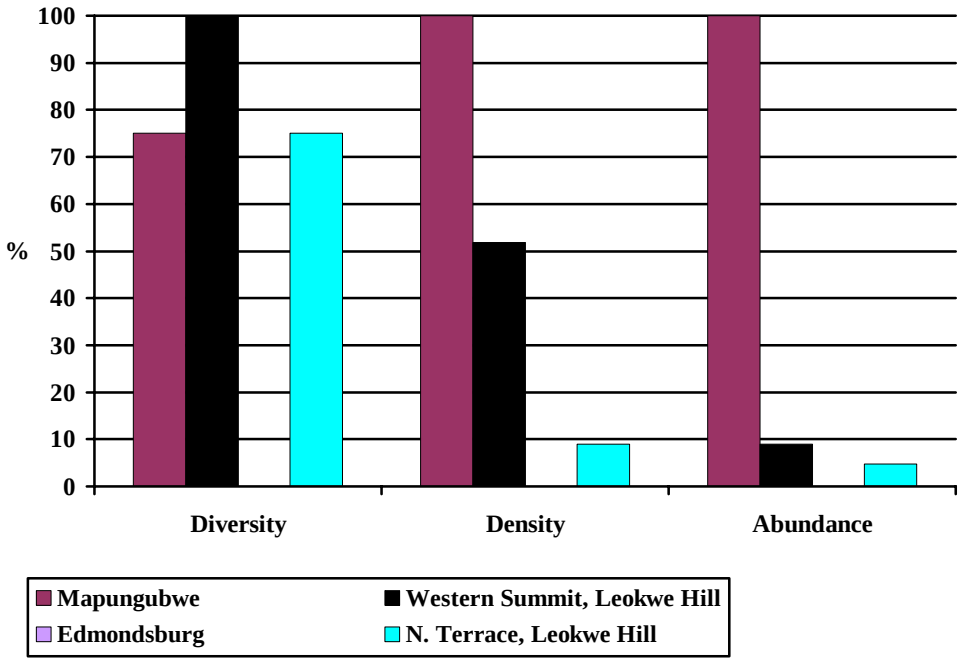


Figure 12.5 Leokwe/Terminal K2/Mapungubwe period, standardised percentage frequencies of iron diversity, density, and abundance, by site.

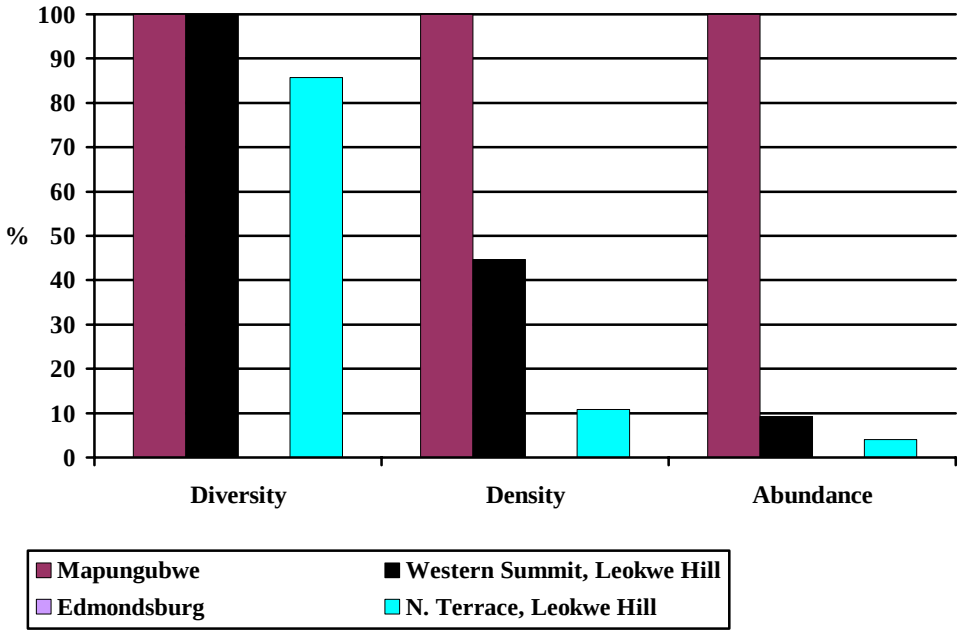


Figure 12.6 Leokwe/Terminal K2/Mapungubwe period, standardised percentage frequencies of copper and iron diversity, density, and abundance, by site.

Mapungubwe times, as is evidenced by both the Northern Terrace's and Edmondsburg's relative lack of metals. If we accept that the Northern Terrace was in fact earlier than Edmondsburg, it would appear that this tight control over metal distribution intensified after the Leokwe period and into early Mapungubwe times as it clearly extended to Leopard's Kopje populations.

Some shifts in the distribution of metals occurred from the K2 to Mapungubwe periods. The variable density will be used for purposes of discussion and analysis of these shifts, as it is the most accurate of the three variables measured in terms of limiting the confounding effects of taphonomy, handling breakage, etc. While roughly the same density of copper was recovered from K2 and Mapungubwe (1.57 g/m^3 and 1.33 g/m^3, respectively), much more of this material appears to have been distributed to lower order sites during the Mapungubwe period. For example, the copper density at Castle Rock during the K2 period was roughly 0.09 g/m^3, while later at the Western Summit of Leokwe Hill copper density was 0.41 g/m^3 and at the Northern Terrace the score was 0.19 g/m^3. Similarly, significant shifts in iron distribution also occurred between the two periods. First, while the density score for iron at K2 was 1.72 g/m^3, at Mapungubwe it was 2.59 g/m^3, marking a nearly 51% increase. Since, apart from the data at hand, the overall patterns of metal distribution for each period are unknown, it is unclear to what extent this increased access was due to a generalised pattern of increasing production and distribution emanating from the Greefswald site complex or to other factors.

These data indicate that the distribution of copper and iron artefacts was tightly controlled during both the K2 and Mapungubwe periods. Over time, some shifts in access in the middle ranges of the hierarchy seem to have occurred, perhaps as the result of general shifts in the total amount of metal available. Overall, however, a fairly stable diachronic pattern obtained, marked by the concentration of non-utilitarian metal goods at the upper end of the hierarchy, dramatically less at the next tier down and none to very nearly none at the lowest levels of society. Of course, these conclusions may need to be modified as more sites in the region are excavated and data from them published.

These data would also seem to indicate that there was a differential distribution apparent between Leokwe and Leopard's Kopje and Leopard's Kopje affiliated sites. The site K2, the principal Leopard's Kopje settlement in the region between the 11^{th} and 13^{th} centuries AD, had 85% more metal in terms of density than its contemporary, Castle Rock, and 78% more in terms of abundance. Castle Rock, it will be remembered was a Leokwe site with strong indications that its residents were attempting to emulate Leopard's Kopje ceramics. The Leokwe site Baobab was even further removed from the distribution pattern, as its residents had no access to non-utilitarian metals. It may thus be inferred that the residents of Castle Rock were successful in their attempts at emulation, given their access to metals

relative to that of Baobab.

Similarly, in respect to the hierarchy of metal distribution during terminal K2/early Mapungubwe times, Leopard's Kopje sites appear to dominate the hierarchy. Mapungubwe Hill, the Leopard's Kopje capital after around AD 1220, had a greater density and abundance of metal than did the Leopard's Kopje site on the Western Summit of Leokwe Hill. The Leopard's Kopje residents of the Western Summit, in turn, had far greater access to metals than did the late Leokwe residents of the Northern Terrace at Leokwe Hill. The Western Summit had slightly more than four times more metal in terms of density than did the Northern Terrace and two and a quarter times more in terms of abundance. The presence of non-utilitarian metals at the Northern Terrace may be attributed to its proximity to the Western Summit.

Utilitarian Metal Items

I need to address the role that utilitarian metal items, such as iron hoes used in agricultural production and other tools, played in the distribution system. Only one utilitarian metal tool was positively identified at any of the sites I excavated. This single item was a probable iron hoe fragment from Edmondsburg weighing 128 g. In addition, two large fragments of iron, weighing a total of 255 g, were recovered from the Western Summit at Leokwe Hill. No other items that could be interpreted as fragments of iron tools were recovered from any of the other sites I excavated. Interestingly, however, relatively many more utilitarian items fashioned from iron were found at Schroda, K2, and Mapungubwe.

At Schroda iron tools recovered by Hanisch (1980) included a single hoe, arrowheads (n=2), spearheads (n=1), scrapers (n=2), an adze/chisel, and awls (n=5) (Hanisch 1981). At K2 a similar pattern obtained, with a difference being that much larger volumes of these types of items were recovered by Jones (1937) and Gardner (1963). Given the early excavation techniques and recovery methods at K2 and Mapungubwe, these items cannot be quantified accurately, except to note the relative observable differences regarding presence, absence and relative abundance compared to other sites. Iron tools at K2 included hoes (n=2), an arrowhead, spearheads (n=2), a drill, and chisels (n=7). Readily identifiable utilitarian iron tools at Mapungubwe consisted of a single hoe, arrowheads (n=4), spearheads (n=19), awls (n=4), punches (n=2) and chisels (n=9). The possible craft production activities represented by these tools will be addressed separately in a later section.

These data are important as they reinforce the larger hierarchical picture of non-utilitarian metal distribution, with the vast majority of iron tools concentrated at the regional centres and drastically less down the hierarchy. The presence of the single hoe at Edmondsburg is thus significant, as it indicates that the sites' residents were articulated to some degree within larger regional exchange network, as will be described below. Also of

general interest is the lack of iron hoes at the rest of the sites I excavated. As agro-pastoralists, it would be expected that a larger quantity of these items would have been recovered. The explanation to this conundrum may be the general lack of metals within the region. Other items may therefore have been used as hoes. Voigt (1983:110), importantly, suggests that a cattle scapula from K2 shows wear suggestive of its use a mattock. Voigt also states that this tool shows evidence of attachments for sinews, suggesting its use as a composite tool. Thus it may be that the residents of the Shashi-Limpopo used bone mattocks or hoes for agriculture, owing perhaps to the general dearth of iron available for tools.

Glass Trade Beads

Information on access to glass trade beads will be presented in a similar fashion to the data on finished, non-utilitarian metals, with the exception being that density, or grams/m^3, will not be measured. The bead data presented here (Table 12.2) were gathered from my excavations reported on in earlier chapters as well as from excavations conducted at K2 and Mapungubwe by the University of Pretoria (Meyer 1998). The same sites and site contexts just analysed for metals will also be used for glass trade beads. Wood (2005, personal communication 2004) provided access to bead data from units B3, B4, and B5 on Mapungubwe Hill. Employing Wood's typological system and its intersections with Saitowitz's, in particular their use of Munsell colour designations, I extrapolated from Saitowitz's (1996) bead data from TS5 and TS6 (A2) at K2 to arrive at the data contained in Table 12.2.

I excluded Garden Roller bead fragments from the K2 data, as it was unclear as to how many individual beads each fragment represented. In order to standardise the data, I also excluded these fragments from the data shown in Table 12.2 for Castle Rock. Employing the data previously presented in my discussion of Castle Rock, I took the average weight of the blue-green beads present at the site (0.03 g) and determined that the two garden roller halves present, weighing a total 3.14 g, accounted for an additional 105 beads. At K2, two whole garden roller beads were present in the analysed assemblages. Based on previous measurements taken on the garden roller collection at the University of the Witwatersrand, the average weight of an individual garden roller bead is approximately 2.5 g. Thus I added 166 beads to the abundance data to account for the two garden roller beads present in the units under consideration at K2.

The results of the bead analysis (Figures 12.7 and 12.8) were similar to the results of non-utilitarian metals analysis. They indicated that, during the earlier Leokwe/K2 period glass trade beads were concentrated at the site K2. Further down the distribution hierarchy was the Leokwe site Castle Rock. At the bottom of the hierarchy was the Leokwe site Baobab.

	K2 TS5 & TS6 (A2)		Baobab		Castle Rock		Mapungubwe B3, B4 (Level 9 to base)		Leokwe Hill, Western Summit		Leokwe Hill, Northern Terrace		Edmondsburg	
Volume excavated (m^3)	22.17		7.36		9.25		14.22		18.15		19.21		6.68	
	#	%	#	%	#	%	#	%	#	%	#	%	#	%
Bead Series and Colour														
Mapungubwe Black	-	-	-	-	-	-	84	30.43	1	1.47	1	20.00	-	-
Mapungubwe Blue	-	-	-	-	1	2.22	6	2.17	-	-	-	-	-	-
Mapungubwe Blue Green	-	-	-	-	-		2	0.72	-	-	-	-	-	-
Mapungubwe Yellow	-	-	-	-	-		1	0.36	-	-	-	-	-	-
Mapungubwe Green	-	-	-	-	-		-	-	1	1.47	-	-	-	-
Mapungubwe Orange	-	-	-	-	-		-	-	2	2.94	-	-	-	-
Indo-Pacific Brownish Red	70	22.15	-	-	1	2.22	151	54.71	22	32.35	-	-	-	-
Indo-Pacific Green	4	1.26	-	-	2	4.44	3	1.09	-	-	-	-	-	-
Indo-Pacific Orange	-	-	-	-	-	-	1	0.36	-	-	-	-	-	-
Indo-Pacific Yellow	15	4.75	-	-	1	2.22	-	-	-	-	-	-	-	-
Indo-Pacific Black	4	1.26	-	-	-	-	-	-	3	4.41	2	40.00	-	-
K2 Blue Green	210	66.46	-	-	36	80.00	22	7.97	34	50.00			-	-
K2 Green	11	3.48	-	-	-	-	-	-	2	2.94			-	-
Zhizo Blue	-	-	-	-	2	4.44	-	-	3	4.41	2	40.00	-	-
Unknown	-	-	-	-	-	-	5	1.81	-	-	-	-	-	-
Garden Roller Blue Green	2 (166)	0.63	-	-	2 (105)	4.44	1 (83)	0.36	-	-	-	-	-	-
	316(480)	100	-	-	45(148)	100	276(358)	100	68	100	5	100	-	-

Table 12.2. Glass trade beads, by site, colour group/type, number, and percentage.

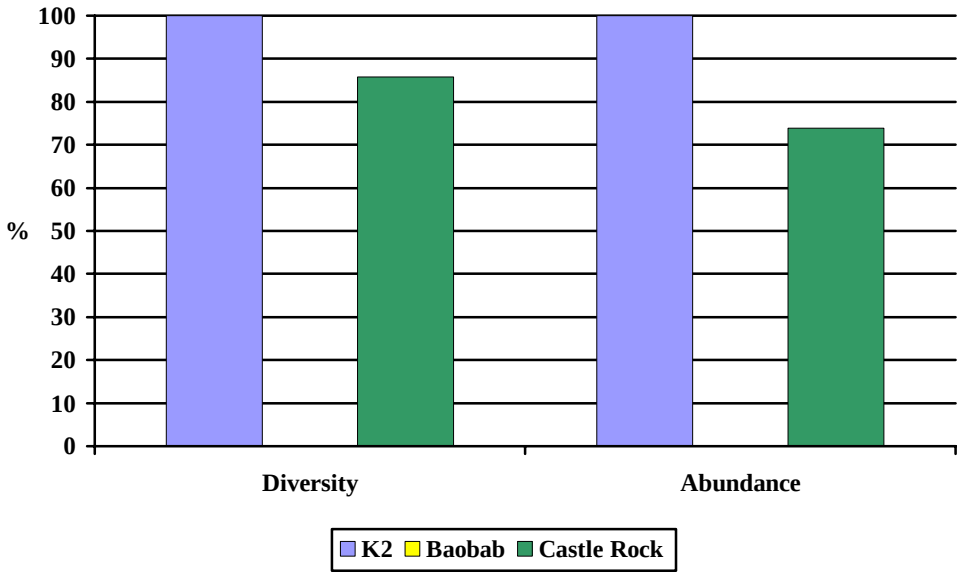


Figure 12.7 Leokwe/K2 period, standardised percentage frequencies of glass bead diversity and abundance, by site.

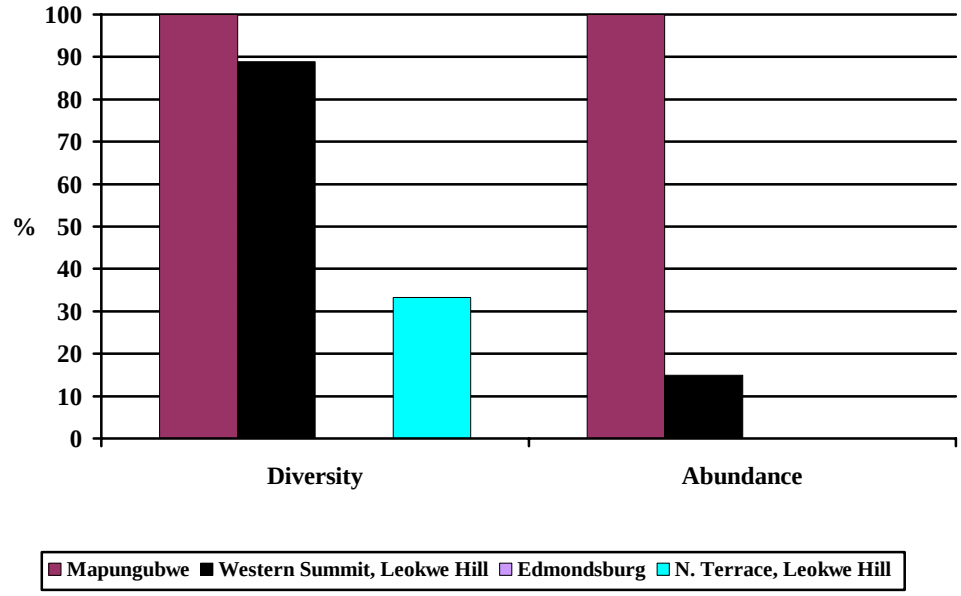


Figure 12.8 Leokwe/Terminal K2/Mapungubwe period, standardised percentage frequencies of glass bead diversity and abundance, by site.

However, unlike their apparent limited access to metals, the residents of Castle Rock had access to relatively large quantities of glass trade beads. Castle Rock had only approximately 26% less access to glass trade beads than the residents of K2, and had nearly as wide a range of bead types available to them. The broken garden roller bead moulds, and the fragments of garden roller beads recovered but not included in this analysis, found at the site further reinforce the position that the Leokwe residents of Castle Rock had ready access to glass beads. Further down the glass bead distribution hierarchy is the Leokwe site Baobab. As was also the case with non-utilitarian metals, the Leokwe residents of Baobab had no access to glass beads.

The distribution of glass beads in the late K2/early Mapungubwe period appears to be remarkably different than in the K2 period, at least in the middle ranges of the hierarchy. The lower levels at Mapungubwe Hill produced the highest scores for both glass bead diversity and abundance. The Western Summit of Leokwe Hill, a terminal K2/early Mapungubwe site, while enjoying access to nearly as broad a range of beads as the residents of Mapungubwe Hill, had approximately 85% less access to glass beads in terms of abundance. The late Leokwe site at the Northern Terrace at Leokwe Hill was even further down the hierarchy with 67% less access to the range of glass beads available to the contemporary residents of Mapungubwe Hill, and nearly 100% less access in terms of abundance. Similarly, the slightly later Leopard's Kopje residents of Edmondsburg enjoyed no access to glass beads whatsoever.

When considered alongside the data from Castle Rock, it appears as if either Castle Rock, a Leokwe site, based on its relatively much greater access to glass beads, was of relatively higher status than the Western Summit at Leokwe Hill; alternatively, these data could be interpreted as indicating that a general shift in the overall availability of glass beads had occurred and/or that the distribution of glass beads was being more tightly restricted in late K2 times in relation to earlier K2 times. Either interpretation is possibly valid. However, if I were to accept the notion that Castle Rock was of relatively higher status than the Western Summit, then it would be necessary to assume that the supply and distribution patterns of exotic goods remained constant from the early to terminal K2 periods. It would also assume that Leokwe people were able to hold relatively high-status positions within the region after the decline of Schroda and the rise of K2.

Wood (2005, personal communication 2004) has indicated that the diachronic data on glass trade beads from the K2 to Mapungubwe periods may indicate that the overall availability of glass beads declined around the turn of the 12th century, the time period under consideration for the Western Summit assemblage. It is thus possible to account for the lesser abundance at the Western Summit in relation to the assemblage at Castle Rock as a function of an overall relative decrease in total volume from the early to late periods. If a decrease in

overall volume of glass trade beads did occur from the early to late periods, the fact that a modicum of glass trade beads were recovered from the Leokwe site at the Northern Terrace of Leokwe Hill is notable.

Metals, Glass Beads, and Status: Redistribution, Debt, and Power

The data on metals and glass beads as indicators of the relative status of Leopard's Kopje and Leokwe peoples were, as were the ceramic data, somewhat equivocal. There are indications that Leokwe groups were both given and denied access to both non-utilitarian metals and glass beads throughout the K2 time period. Importantly, it appears that glass bead distribution tapered off considerably in terms of overall volume from early to late K2 times, while metal distribution generally increased in volume over the same period. It is not possible to posit what the causes were for the relative increase in the volume of non-utilitarian metal items available from earlier to later K2 times. There are possible indications, however, that the overall volume of glass trade beads present in the region declined around the time of the first substantial settlement of Mapungubwe Hill (Wood, in progress; personal communication 2004), accounting for the overall decline in volume noted at sites from this period. I hypothesize that this pattern of increasing and decreasing relative volume of glass beads and non-utilitarian metal items may be related: the increase in metal production and distribution may have occurred in order to offset the loss of volume in trade beads.

Clearly, much more data are needed on this topic from many more sites in order to state with more precision what the actual diachronic patterns of distribution were of these items. However, based on the data at hand it can be stated confidently that Leokwe groups were not universally denied access to non-utilitarian metal items or glass trade beads and that, at least in the case of the earlier Leokwe settlement at Castle Rock, they had ready access to relatively large quantities of glass trade beads. The Leokwe site Baobab had no access to these goods, while the Northern Terrace at Leokwe Hill enjoyed limited access. Based on the data from Edmondsburg, it is evident that some Leopard's Kopje sites were, like Baobab, denied access to these items altogether. It is therefore evident that both Leokwe and Leopard's Kopje peoples had varying degrees of access to these items, with access to them decreasing down the hierarchy through time.

It is only in the terminal K2 period that I have data available from a Leopard's Kopje site outside the main centres: the Western Summit at Leokwe Hill. The data from the Western Summit indicate that at this time Leopard's Kopje groups had greater relative access to both sets of items than did the Leokwe group at the Northern Terrace. Interestingly, both the Leopard's Kopje residents of the Western Summit and the Leokwe residents of the Northern Terrace had more access to these items than did the slightly later Leopard's Kopje residents of Edmondsburg.

Based on the data at hand, it is probable that early on in the Leopard's Kopje occupation of the region the general pattern was one of a relatively loosely controlled distribution and access to glass trade beads and non-utilitarian metal items. This was followed by a tightening of access to these items. These increasingly differential levels of access were accompanied by an overall increase in the relative volume of metal items and a concomitant, and possibly related, decrease in the overall volume of glass trade beads. Differential access to both these items in relation to ethnicity appears to have occurred towards the end of the K2 period.

I therefore propose that, based on the differential redistribution patterns of metal and glass trade beads, when considered alongside the ceramic stylistic data, a nascent class system that crosscut with ethnicity, was in place by the end of the K2 period. Leopard's Kopje peoples sat at the apex of the hierarchy. However, it also evident that the development of this class-based system involved a complicated process of ethnic interaction and exchange within which Leokwe groups played an important role. Some Leokwe groups apparently held a privileged place within the regional hierarchy, as seen in the ready access to glass trade beads documented at Castle Rock, especially when considered against distributions noted at the high-status Leopard's Kopje occupation at the Western Summit of Leokwe Hill.

Glass Beads, Metals, and the Exchange System

It should be remembered that the society in question was both pre-market and pre-currency; therefore the social and political purposes to which prestige goods such as glass trade beads were put do not in any measure approximate modern, Western notions of exchange and value (e.g. Mauss 1950; Polanyi 1957; Friedman and Rowlands 1977), notwithstanding prior interpretations of these items as "wealth" (e.g. M. Hall 1990:89). It is more likely than not that when patterns of differential distribution of these goods are examined at archaeological sites that what is being discerned are the very relict traces of a system of exchange that was not used to compensate individuals or groups for services rendered or goods supplied. As I (2000a:204) stated previously in relation to the purposes of participation in the Indian Ocean trade network by these societies:

> …exchanges of these goods both within and between these societies may be interpreted as aiding in the formation and maintenance of socio-political relations of dominance and subordination. For example, the "gift" of trade items from those who had ready access to them to subordinates, could not readily (if ever), be reciprocated, thereby creating a structural imbalance in power relations.

I propose here to extend this statement to non-utilitarian metal items in addition to exotic trade goods such as glass beads, given the ideological significance of these metal items and their great paucity away from the dominant regional centres as just documented. This type of exchange system is best termed a "prestige-goods system" as described by Friedman and

Rowlands (1977:224-232). An idealized representation of this system is shown in Figure 12.9.

When exotic trade goods or non-utilitarian metal items are recovered at sites that were not directly articulated with the trade network or at which quantities of metal items were not smithed, then what is being measured, in a sense, is not a site's wealth but rather its debt.

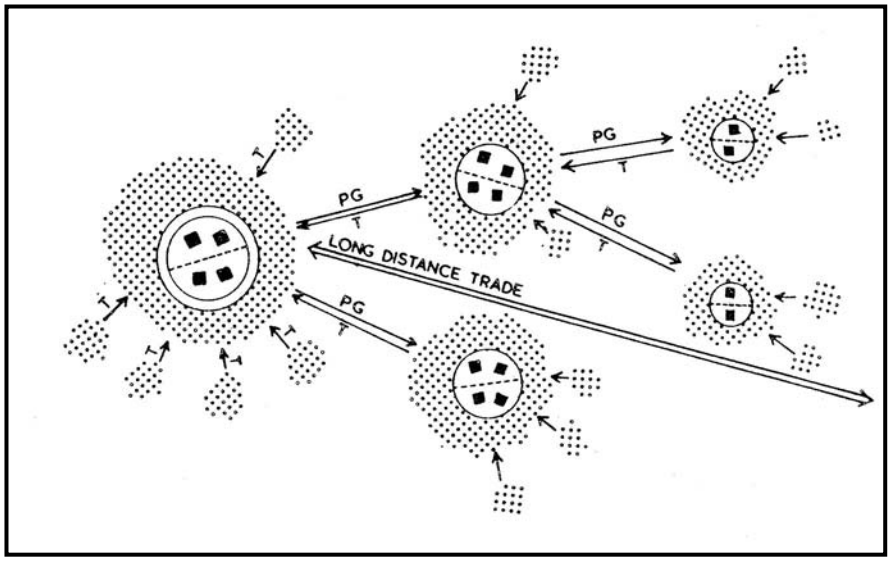


Figure 12.9. Idealized schematic representation of a prestige-goods system (adapted from Friedman and Rowlands 1977:245). PG=prestige goods; T=tribute.

Such gifts could have been partially reciprocated through other forms of exchange, for example, those involving cattle, women, beer, or labour (cf. Kuper 1982b); however, the gift that can not be reciprocated in kind (or bettered with even more outlandish exotica) is a ruthless gift indeed. I propose that such a system of aggressive prestation was employed to create structural imbalances in power relations that created bonds of fealty (and indeed a degree of resentment) between the givers of these items and those that received them. These bonds of loyalty ensured that the tribute necessary to maintain the system continued to flow upwards into it.

This is not to say that the recovery of these items does not provide indications of a site's relative status. It in all likelihood does, given that from the perspective of nascent elites, those individuals or groups it was most desirable to incorporate or otherwise integrate within the web of exchange are those who already sat at the apex of local hierarchies; they would have had active webs of loyalties and alliances already in place. Thus relatively few, if any, items of non-utilitarian metals or glass trade beads are found at the lowest levels of society. These sites were also integrated into a web of exchange and reciprocity, but rights and responsibilities within this more traditional system were carried out employing the traditional media of exchange, such as cattle and women. The implications of this dual

system of exchange and reciprocity for the social and political system will be discussed in greater detail below, once the salient details of the prestige-goods system have been presented and discussed.

Elaboration of the Prestige-Goods System: Concentrations of Exotic Goods, Metal Production, and Intensification of Production

The maintenance of this system of redistribution and reciprocity established within the Shashi-Limpopo region that involved Leokwe and Leopard's Kopje groups would have required that status goods in the form of metal and glass beads continued to be manufactured or imported, and that a sustained flow of tribute in the form of material intended for international trade moved upwards for insertion into the international network. Evidence for the manufacture or importation of metal items in the system I have proposed would thus be found on elite sites, as would the vast majority of trade goods.

It has already been established that vastly greater amounts of trade goods in the form of glass beads have been recovered from the regional centres Schroda, K2, and Mapungubwe relative to other sites in the region by Saitowitz (1996) and by the distributions of these items already documented in this thesis. In a previous study, I (2000b) documented that the production of iron and copper items was dominated by the regional centres K2 and Mapungubwe. Metal production outside these centres appeared limited to relatively minimal smithing activities. Based on the evidence from my fieldwork and the results of previous research, I postulated that metal production at these sites may have included secondary casting of copper into ingots. This presence of copper casting was confirmed by Miller (2001), who also indicated that smithing of iron and copper occurred at K2, and that smithing of iron, copper and gold took place at Mapungubwe.

A summary of the evidence for metal production at the sites discussed in this thesis is presented in Table 12.3 (cf. Calabrese 2000b). These data indicate that the archaeological correlates of metal production, in particular those indicative of smithing and secondary re-casting of copper, were overwhelmingly concentrated at K2 and Mapungubwe. Some smithing activities, involving the regular maintenance of the edges of tools or perhaps weapons, probably took place at Castle Rock. The data from the Zhizo centre Schroda also appear to indicate that metals may have been produced there in the earlier Zhizo period or perhaps in the early portion of the Leokwe/K2 period. However, the equivocal context of these items, although they were numerous, was such that they could be interpreted either as ritual items used in initiation ceremonies or as evidence of metal production.

Tribute, Craft Production, and Intensification of Production

Tribute from the lower-status Shashi-Limpopo sites to the regional centres would

have consisted of items intended for internal or external trade. Items intended for external (i.e., international) trade would have included, among others, animal skins, unworked elephant ivory, rhinoceros horn and, possibly, gold. Other tribute items could have taken the form of goods intended for local redistribution, such as foodstuffs, to support directly trade-related personnel (hunters, ivory procurers, etc.). Tribute would also have consisted of the

Table 12.3. Evidence for metal production or processing, by site and artefact type.

	SCH*	**K2**	**CR**	**B**	**MH**	**LH WS‡**	**LH NT**	**E**
Artefact Type								
Slag	447	180(+)†	11	1	271(+)†	2	2	1
Slag skimmers or crucible fragments	1	9	-	-	105	-	-	-
Furnace bottom slag	62	1	-	-	33	-	-	-
Tuyère fragments	128	6(+)†	-	-	36	-	-	-
Bloomery slag, Fe	-	1	-	-	-	-	-	-
Ore, Fe	-	-	-	-	1	-	-	-
Ore, Cu	-	-	-	-	16	-	-	-
Crucible sherds	1	-	-	-	5	-	-	-
Stone furnace or smithy wall fragments	-	3	-	-	13	-	-	-
Possible daub furnace or smithy wall fragment	1	-	-	-	-	-	-	-
Tuyère flow	-	-	-	-	2	-	-	-
Furnace ingot, Cu	-	-	-	-	1	-	-	-
Matte, Cu	-	-	-	-	1	-	-	-
Pouring splash, Cu	-	1	-	-	-	2	-	-
Ingot, Cu	-	-	-	-	9	-	-	-
Bloom, Fe	-	1	-	-	2	2	-	-

*SCH=Schroda; CR=Castle Rock; B=Baobab; MH=Mapungubwe Hill; LH, WS=Leokwe Hill, Western Summit; LH, NT=Leokwe Hill, Northern Terrace; E=Edmondsburg.
†Additional material was recovered by Jones (1937), but was not quantified or described in detail, and was not found in the University of Pretoria collections.
‡Due to vertical disturbance, it is not clear if the metallurgical material was from the terminal Leopard's Kopje A component, or the Venda occupation.

production and movement into the system of other items to be used for exchange in the local economy; these would then be used to acquire the raw materials needed for the international trade. These locally produced items would have included shell beads, garden roller beads,

cotton cloth, worked ivory bangles and bone tools, carved wooden items, as well as animal hides intended for local use. Evidence of supra-household production of these other items is significant as it would indicate, albeit indirectly, that intensification of production was occurring. The surplus generated by this intensification was used to marshal the resources and labour necessary to participate in the international trade.

It is not possible to quantify precisely the volume, scale, or increased intensification of production over time of these types of items or activities. All that can be done at this point is to note the presence or absence of evidence for them at the archaeological sites discussed here. The presence or absence of these activities at individual sites, considered alongside evidence for their integration into the distribution system of glass beads and metal items as previously discussed, may demonstrate the degree to which the effects of the international trade were being felt throughout varying levels of society.

There is no direct evidence that any of those raw materials just described as necessary for the international trade, and which were locally available (unworked ivory tusks, animal hides, rhinoceros horn), were in fact being exported from the region. Evidence of their desirability for the trade, however, is found in contemporary Arab and Chinese documentary sources (Trimingham 1975; Wheatley 1975; cf. Freeman-Grenville 1962). The fact of the great volume of imported glass trade beads and lesser amounts of other exotic items found at the regional centres, such as fragments of Chinese celadon recovered from Mapungubwe Hill, provides indirect evidence that raw materials were being traded out from the region and into the network. Only indirect evidence of ivory and animal hide processing is, however, available.

Ivory was a much sought-after commodity in the Near East, Far East and India at this time for its use in the decorative arts and as emblems of office (e.g. al-Masudi 1962 [915]). It should be noted, however, that any ivory goods at these sites, such as bangles or the "wristguards" noted by Gardner (1963), were in all likelihood not intended for insertion into the Indian Ocean network. Artisans in India, China, and the Near East would have in all likelihood preferred unworked tusks.

Evidence of ivory working, was found at Schroda and Pont Drift (Hanisch 1980; Voigt 1981; Plug 2000) and at K2 (Voigt 1983; Plug 2000). Evidence of this processing occurred in the form of ivory chips. Tips of tusks were also recovered at K2 (Gardner 1963). The presence of this working debris at these sites indicates that their residents had ready access to some quantity of elephant tusk and may therefore have been involved in supplying tusks to the international trade network. The bangles and other finished items produced locally were probably intended for local or regional exchange.

Al-Masudi (1962 [915]), indicates that leopard skins in particular were much sought after items at another end of the trade network, as they were used to make saddles in Muslim

countries. Evidence of animal skin processing, although indirect, has been found at Schroda (Hanisch 1980; Voigt 1981; Plug 2000), at K2 (Voigt 1981; Plug 2000), and at Edmondsburg (Plug 2000). Evidence for potential skin production from Schroda consisted of remains of at least one each of lion, leopard, and genet, and one indeterminate cat, as well as multiple (n=31) unidentified carnivores (Plug 2000). The evidence for skin processing at K2 was less preponderant, with the remains of one serval present, along with one indeterminate cat, and three unidentified carnivores (Ibid). The remains of a single leopard were recovered from Edmondsburg, as were the remains of a single unidentified carnivore.

Unfortunately, the faunal remains from the other sites that I excavated have not been analyzed, so I can not state whether or not animal hide processing may have occurred at those settlements. Also it is possible that the animals represented above were used as food, although Voigt (1981) indicates that this is unlikely and that they were probably used for skin procurement. Also, even if they were used for skin production, it is uncertain that they were intended for local or regional use or as items to be traded into the Indian Ocean network.

Other evidence for possible hide processing consists of iron tools interpreted as punches and awls. As discussed previously, such items were recovered at Schroda (Hanisch 1980), K2 (Gardner 1963) and Mapungubwe (Jones 1937; Gardner 1963). In addition to these iron hide processing tools it is instructive that Gardner (1963) noted that bone awls and scrapers had been recovered from both K2 and Mapungubwe. Eight bone awls and one bone scraper were recorded by Gardner at K2, while he recorded 22 bone awls and two scrapers from Mapungubwe Hill. Voigt's (1983:109-110, Table 10.1) analysis of the faunal material from earlier excavations and the more recent work by the University of Pretoria indicates that, while many of the tools initially noted by Gardner were not present in the collections, there was considerable evidence of bone tools that were, according to her, used for hide processing. Voigt identified 12 bone awls, 30 non-formal but well-worked rib fragments, and 21 flaked bone tools from K2 that she identified indicating probable hide processing. She also identified two awls, five worn ribs, and 12 flaked bone tools from the Southern Terrace. Finally, she identified 21 awls, six worn ribs and two flaked bone tools from Mapungubwe Hill. As Voigt indicated, these tools were probably used to process hides in preparation for their insertion into the trade network. Alternatively, of course, these tools may have been used to process leather items for local use or regional exchange.

Evidence for Craft Production

Evidence of garden roller bead manufacture was recovered at the site K2 (Gardner 1963; Wood 2000) and at Castle Rock in the form of garden roller bead moulds. The data from Castle Rock are especially interesting as they indicate that the site was not only a producer of standard garden rollers, but also that the residents of the site may have been

engaged in innovative manufacturing techniques. The fluted garden roller bead found there may be evidence of such innovation. Garden roller bead moulds were also recovered from Schroda, as was discussed previously. Since it is unclear when the site Schroda was eventually abandoned, its period of occupation may have overlapped with the settlement at K2. Thus it is likely that this evidence for garden roller manufacturing dates to either the Zhizo period or to the early Leokwe/K2 period. Again, these items may have been produced for use on site or could have been intended for exchange into the wider region for the raw materials used in the prosecution of the international trade.

Possible spindle whorls, or weights used in the spinning of thread, have been found at two sites, Mapungubwe (Meyer 1980) and the Northern Terrace of Leokwe Hill. The presence of these items indicates that thread, and thus perhaps cloth, was being produced at these sites.

Bone tools interpreted by Gardner (1963) as eyed and eyeless needles were recovered from both K2 and Mapungubwe. Eleven needles were recovered at K2 and ten at Mapungubwe. Voigt's (1983) analysis identified four needles from K2 and two from Mapungubwe Hill; these were from both the early excavations and from more recent work by the University of Pretoria. While it is improbable that cloth was being produced for external trade, as we know that high quality textiles, including silks, coloured satins, taffetas, and white cotton, were already being traded into the sub-continent at this time (Wheatley 1975), it is possible that such imported cloth was being re-worked at these sites into more locally desirable colours or patterns.

Bone linkshafts and points were identified by Voigt (1983) from the earlier and later excavations at K2, the Southern Terrace at Mapungubwe, and from Mapungubwe Hill. At least 92 of these items were recovered from K2; nine from Mapungubwe Southern Terrace; and 343 from Mapungubwe Hill. Gardner (1963) reported many more of these but Voigt (Ibid:101-109; Table 10.1) was only able to document them as noted above. It is uncertain if these items were manufactured at these sites or were traded in. Voigt (1981, 1983) indicates that the sheer volume of these at K2 and Mapungubwe would indicate they were manufactured in excess of local needs. These may thus represent trade items supplied to forager groups who in turn provided the raw materials (e.g. hides, ivory, and rhino horn) for the international trade.

Evidence of both ostrich eggshell and *Achatina* sp. bead production has been recovered from many sites throughout the region from the time period under question. I have no access to information as to whether these activities also occurred at either K2 or Mapungubwe. Evidence for ostrich eggshell bead production in the form of blanks and/or rough-outs has been recovered at Schroda, Castle Rock, the Western Summit of Leokwe Hill, the Northern Terrace of Leokwe Hill, and at Edmondsburg. Evidence of *Achatina* sp. bead

manufacture in the form of blanks and rough-outs has been found at Castle Rock. Probable bead-grinding stones, used in the smoothing of strung blanks or rough-outs, have been recovered from Schroda, the Western Summit of Leokwe Hill, and the Northern Terrace of Leokwe Hill. Evidence of the greatest scale of shell bead production recovered thus far was from Schroda (Hanisch 1980). There, literally thousands of ostrich eggshell bead rough-outs were found on the grooves of a large bead-grinding stone, drilled, strung, and ready for final rounding (Hanisch 1980; S. Hall and B. Smith 2000:36).

Iron tools interpreted as having been used for woodworking were recovered at Schroda, K2, and Mapungubwe. These items consisted of iron chisels. I hypothesize that these tools were used to manufacture wooden items, perhaps bowls, used in the local or regional exchange network. The presence of relatively large numbers of these items at K2 (n=7) and at Mapungubwe Hill (n=9) is further suggestive of a relatively intensive level of production of these items.

The evidence for the production of items intended for local use or for local or regional exchange in the Shashi-Limpopo region is summarised in Table 12.4. Considered together, these data indicate that such activities were widely practised throughout all levels of society, although they are concentrated at the regional centres. It is important to note, however, that some changes in the distribution of these activities seem to be taking place over time. Given the very limited chronological control we have over the data available from K2 and Mapungubwe, it is only possible to talk about these patterns in the grossest of scales. That having been said, it does appear that early on in the sequence, craft production activities are concentrated first at Schroda and then at K2, with relatively fewer of these activities, and at a much smaller scale, being practiced at other sites. The early lower-status, or commoner, Leokwe site Baobab, for example, has no readily demonstrable evidence of craft production activities; the relatively higher status Leokwe site Castle Rock, on the other hand, has evidence of garden roller bead production and shell bead manufacture, in addition to the possible evidence for metal tool maintenance previously discussed. K2, on the other hand, has evidence of relatively large-scale bone and ivory working, a substantial garden roller industry (Wood 2000), as well as leather, woodworking, and possible cloth manipulation activities. These activities are in addition to the metal production (smithing and secondary casting of copper into ingots) activities that were also taking place there.

Evidence of craft production in the later period, however, seems to indicate that, in addition to the metal production (smithing and the secondary casting of copper into ingots) that was taking place at Mapungubwe, the production of other craft items at the site seems to have been slightly reduced in the range of production activities in relation to the K2 period. For example, no evidence for garden roller production has been recovered from the hill thus far, nor has any evidence of ivory working. Thread manufacture, however, appears as a new

technology during this later period. Bone tools, including bone arrows and linkshafts continue to be manufactured in quantity. Woodworking, hide processing, and possible cloth manipulation also appear to have continued at Mapungubwe. Slightly more craft production appears to have been occurring on lower-status sites than in the previous period, however,

Table 12.4. Presence/absence of evidence for craft production.

	SCH	**K2**	**B**	**CR**	**MH**	**LH WS**	**LH NT**	**E**
Craft Production								
Possible Evidence of Production for Export and/or for Local/Regional Exchange								
Ivory Processing	X	X						
Hide Processing								
Awls, Punches, Bone Tools	X	X			X			
Faunal Remains	X	X	?	?	X	?	?	X
Probable Evidence of Production for Local or Regional Use or Exchange								
Garden Roller Manufacture	X	X		X				
Thread Manufacture					X		X	
Cloth Processing		X			X			
Bone Tool Production		X			X			
Bead-Making								
OEB blanks/rough-outs	X	?		X	?	X	X	X
Achatina sp. blanks/rough-outs		?		X	?			
Bead-grinding stones	X	?			?	X	X	
Woodworking								
Chisels	X	X			X			

*Site names abbreviated as in Table 12.3.

with each site excavated retaining evidence of at least one or more craft production activities having taken place.

The regional political centres of Schroda, K2, and Mapungubwe were thus busy centres of craft production with a wide range of items being produced, rather than isolated residences of aloof royalty. I postulate that the main focus of these activities was centred upon producing items both for circulation into the local and regional web of distribution, as well as for insertion into the international network. It would appear that finished metal items, as well as copper and iron ingots and rods, glass trade beads, reworked glass trade beads, wooden items, ivory items, bone tools, and in all likelihood cloth, were obtained or manufactured by the leaders of the regional centres and then possibly reworked and redistributed to lower tiers of society. Tribute in the form of raw materials, primarily elephant ivory and animal hides, then would have made its way into these sites, processed for export, and then traded out. As this system grew in scale and complexity a continuous cycle of production, redistribution, tribute, and external exchange would have been required for its

maintenance and reproduction. The evidence for production or procurement of items for probable insertion into the local, regional, or international exchange system at the lower levels of the hierarchy is especially interesting when one considers the apparent lesser intensity of craft production activities at higher status sites like Castle Rock and the Western Summit of Leokwe Hill relative to the activities documented at K2 and Mapungubwe. Based on the overwhelming evidence of craft production at these regional centres, and evidence for such activities away from these centres dropping off precipitously, I propose that the residents of the regional centres had a much greater interest, and had a much more active role, in promoting and perpetuating the external exchange system than did other relatively high-status members of society.

This pattern is amplified further down the hierarchy and is reflected in the pattern of craft production activities at much smaller, lower-status, sites like Baobab, the Northern Terrace at Leokwe Hill and Edmondsburg. These sites were not directly articulated within the prestige goods system, as is evidenced by either the great dearth or utter lack of glass trade beads and finished non-utilitarian metals at these sites. I propose here that their participation in the system was a result of the obligations imposed upon them by their local political authorities (e.g. the leaders in residence at sites like Castle Rock and the Western Summit of Leokwe Hill) who in all likelihood were directly articulated within the prestige goods system. Relations between the residents of lower status sites and their immediate political superiors would have been undertaken in the context of the traditional exchange system, as was illustrated in Chapter III.

Exchange: Wives for Cattle or Wives for Beads?

Huffman (1982, 1986a, 1986b, 1996, 2000, 2002) and M. Hall (1990:89-90) have proposed that the exotic trade goods that entered the Shashi-Limpopo region during the 11th through 13th centuries AD functioned as a kind of wealth that augmented the traditional exchange system. Drawing upon relatively recent Venda ethnographies (e.g. Van Warmelo 1949; cf. Stayt 1931) that indicated that goods other than cattle could be used for bridewealth payments in Venda society, Huffman has suggested that such items may have been used in the same manner in the Shashi-Limpopo region by the nascent elites at K2 and Mapungubwe. Similarly, Hall (1990:89) states that exotic trade goods were actively sought out by nascent in the Limpopo because such goods were "a form of wealth qualitatively different from livestock, and would provide them with a means of breaking out of the chiefly cycle of fusion and fission."

Huffman's (2000:25) central hypothesis regarding the role of long-distance trade goods and their role in the development of social differentiation and political power in the Shashi-Limpopo region is cited here at length:

> The initial concentration of trade in the Shashe-Limpopo area provided both Zhizo and Leopard's Kopje people with new opportunities. The change in trade patterns at AD 1000, however, shows that K2 people seized the initiative and exploited the situation to their own advantage. Perhaps they created new principles of accumulation, distribution and consumption. Whatever the case, the coastal trade generated considerably more wealth than was possible through cattle. According to later documents, Zimbabwe people used the trade wealth for traditional transactions; and so, the early trade goods must have augmented the traditional wealth in cattle. Since political power among people with the Central Cattle Pattern is based on unequal distribution of wealth, the local control of long-distance trade resulted in an unprecedented inequality. Evidently, so much wealth accumulated that normal redistributive channels were inadequate, and ruling families became an upper class.

Importantly Huffman, unlike Hall, has only suggested that trade goods augmented the traditional wealth in cattle, not that they supplanted it, although his formulation is suggestive of such. Huffman's use of the relatively recent Shona and Venda ethnography to postulate that trade items were used as items within traditional exchanges like *lobola* is potentially problematic and bears further discussion.

Instructive in interpreting the meaning behind historical references to bridewealth being given in items other than cattle is the work of Kuper (1982b: 21-25). Kuper notes that these references almost always represent an inversion in which hot or female items (grain, hoes, copper items, etc.) are used as a substitute for cool, male cattle:

> Reports of bridewealth being paid in hoes and grain and copper rings should probably not be read too literally. They suggest rather what people believed would happen in conditions which represented the antithesis of normality. The archetypical conditions were drought (equivalent of to the failure of the ruler) and defeat in battle. In such a topsy-turvy world, men would pay bridewealth in female instruments or products.

These allusions to non-traditional items being used as bridewealth among the Venda do, however, despite Kuper's indications to the contrary, appear to have a firm basis in fact for at least the early historic period.

Stayt (1931:37-38; cf. Voigt 1983:135), for example, explains that early travellers' accounts indicating that hoes were used as *lobola*, or bridewealth, were accurate and had as their basis the historical tsetse fly and rinderpest epidemics which, one coming in the wake of the other, had the effect of devastating the cattle population over the whole of the African subcontinent. Thus during the colonial, and perhaps earlier, periods cattle were simply not available for use as bridewealth and substitutes had to be used. What is most salient about Stayt's discussion is that he states that as soon as the cattle herds were re-established after the turn of the 19th century, the traditional exchange pattern of wives for cattle returned. As he (Ibid:38) states regarding the time period after the recovery of the Venda herds, "Cattle once more became the insignia of wealth and the medium of *lobola*." This exchange system is considered here to be so resilient, widespread, and central to southern African Bantu-speaking societies to provide, as near as can be approached, a unifying principle for understanding these societies. I therefore have deep reservations, on purely ethnohistoric grounds, in accepting that exotic trade goods immediately supplanted traditional wealth in cattle in the

Shashi-Limpopo region, regardless of the theoretical stance taken here which, as it happens, is also opposed to this notion.

Also, as has been noted previously, these goods have not been documented as occurring on lower status sites in quantities or contexts suggestive of their use as bridewealth.[1] It is possible, of course, that cloth or some other perishable imported commodity may have been used as a substitute for *lobola* in lieu of glass trade beads or metals. However given the combined archaeological and ethnohistoric data, I maintain that in all likelihood such a substitution of trade goods for cattle as bridewealth would not have occurred in the Shashi-Limpopo region during the time period under study, except under an unusual and specific set of circumstances. I will discuss the possibility for such a change in the value system and the conditions under which it may have occurred in the next section.

Despite these concerns with the interpretation of the role that trade goods played within society and the uses to which they were put, I propose that the trade goods, as well as the other items used in the prestige goods system, were instrumental in promoting social differentiation and ultimately aided in the creation of new social classes within the Shashi-Limpopo region. The documented distribution of these goods within these societies, in addition to the other indicators of elite status already discussed, lead me to suggest that the elites at K2 and Mapungubwe used trade goods, as well as other items such as metals, to create a system of debt, exchange, and obligation that was imposed outside, above, and mainly apart from, the traditional system of exchange, including the bridewealth system.

As I stated previously, the ultimate purpose of the prestige-goods system was, following the work of Polanyi (1957), Mauss (1950), and Friedman and Rowlands (1977), to attempt to create permanent, structural imbalances in power relations. The creation of these imbalances had the effect of subjugating the local leaders of Leokwe and Leopard's Kopje society to the leaders at K2 and Mapungubwe. Owing to the traditional webs of reciprocity and alliances already in place between these local leaders and their adherents, who were in all likelihood also their kinsmen, the creation of these imbalances had the effect of putting the mass of people under the same general set of obligations to the leaders at the regional centres. The obligations of the lower level adherents to their local leaders were thus expressed in the traditional idiom of kinship, while the local leaders' obligations to the rulers at K2 and Mapungubwe were being expressed in a wholly novel idiom.

This system of prestige-goods exchange clearly had consequences to the traditional

[1]It should be noted that relatively large quantities of glass trade beads were recovered from another Mapungubwe period site, Skutwater; it is unclear where Skutwater sat in the political hierarchy (headman's residence, favoured retainer, petty noble, etc.) in relation to Mapungubwe. Since the focus of my work has been limited substantively to the Zhizo, K2/Leokwe, and terminal K2/early Mapungubwe periods, I am unable to place the Skutwater assemblage into an appropriate explanatory context.

exchange system. As those imbalances in power relations created by the prestige-goods system placed obligations and debts upon the members of the upper tiers of society, they in turn placed heavier and heavier burdens upon those lower status groups who probably provided much of the tribute in the form of agricultural produce or perhaps more directly in the form of labour, required to maintain the craft production at the regional centres; in all likelihood they also provided some of the raw materials for insertion into the international system. These increasing demands probably were couched in the terms of traditional exchange between kinsmen. It is likely that some of the items produced at the regional centres intended for local or regional exchange were redistributed down the hierarchy to these types of sites, and in turn tribute was sent back up the system.

The new social system and its novel exchange network in all likelihood were reflected and reinforced by the political system. As society grew more complex and the web of alliances, exchange, debt, and tribute became expanded, sections of both Leokwe and Leopard's Kopje society, while clearly spatially segregated to a great degree throughout their co-existence, came to encompass nascent commoner and elite classes. Membership within these new social classes was not restricted by ethnicity, and thus it could be said that a truly complex system of social stratification that crosscut with the political system had developed. It is difficult to put a date on when this transformation occurred, but it became evident sometime around the emergence of Castle Rock as a ritual centre (i.e., sometime during the main occupation at K2). The emergence of Castle Rock as an important node in the prestige goods system, and its probable associated role as a local political/redistributive centre for lower status Leokwe groups, coupled with its role as an initiation centre, indicate that Leokwe groups, while probably subordinate to the Leopard's Kopje regional centres, maintained a degree of social, political and ritual autonomy during at least a portion of the K2 period. The multiplicity of important roles played by the residents of this Leokwe site underlines the complex social, political, and ethnic character of the system in place in the Shashi-Limpopo during K2 times.

The emergence of this system of social stratification that crosscut with ethnicity and with the political system was, in some limited respects, consistent with certain traditional hierarchical principles of southern Bantu society within which, for example, age, sex, and rank grades determined political leadership and favoured certain groups (i.e., the male gerontocracy) over others for access to resources like wives. However, it stood in direct opposition to many other principles of the traditional African society as it served to deny permanently access to political power to entire sections of society. While it may have been possible previously, at least in theory, for any male through a combination of long life and skilful marriage alliances to become pre-eminent, this was no longer a possibility in the new system. Thus this new system can be said to have created ideal conditions for the generation

of frontiersman (*sensu* Kopytoff 1987), eager to strike out on their own and found their own polity.

The emergence of this system of class stratification that crosscut with ethnicity had the potential to create the conditions for a situation wherein lower status members of the dominant Leopard's Kopje ethnicity could be potentially viewed as lower status not only in relation to higher status members of their own ethnicity, but also in relation to higher status members of the subjugated Leokwe ethnicity. Such a potentially discordant situation could have led to serious consequences for Leopard's Kopje leadership in the form of rebellion and the potential for further social fissioning.

It is important to reiterate the continued role that some segments of Leokwe society played as ritual specialists that allowed them to maintain, to some degree, a level of autonomy from, or perhaps even to exercise power within, the larger political system. This continued ritual function played by Leokwe peoples, it will be recalled, was hypothesised as owing to the status of their ancestors, perhaps conceived of as territorial spirits, as the "owners of the land". It is likely that this need on the part of Leopard's Kopje elites to legitimate their rule through the Leokwe ancestors caused some degree of consternation within Leopard's Kopje society; it would probably have posed something of an uncomfortable contradiction for a burgeoning state like K2/Mapungubwe to derive its political legitimacy from the ancestral spirits of an occupied people. The resolution of this contradiction, as well as to some of the others mentioned above, can be found in part in the series of spatial transformations that are in evidence at K2, Leokwe Hill, and at Mapungubwe Hill.

Ideological and Political Change and Cattle: Resolving Contradictions

Huffman (2000) has proposed a model of social, political and, in part, ideological changes that occurred at the sites K2 and Mapungubwe as they underwent the process of transformation into a state. These changes are reflected in the internal structure and layout of the sites K2 and Mapungubwe. Huffman's central argument (2000:20-21) regarding these transformations is a follows:

> Leopard's Kopje peoples, like most other groups in southern Africa, organised their settlements according to the principles of the Central Cattle Pattern. In this pattern, the magnitude of the court midden is related to the political following of the leader. Between about AD 1060 and 1080, this court midden had become so large that it engulfed the byre, and cattle were no longer kept in the centre. By AD 1220, this midden had grown to a height of about six metres…
>
> An abrupt abandonment of K2 at this time coincides with an immediate increase of K2 people around Mapungubwe Hill, less than a kilometre away…A natural amphitheatre at the bottom of Mapungubwe Hill probably sheltered the new court because this is the only area of the new town relatively free of residential debris. The absence of cattle dung anywhere in the vicinity indicates that a byre was not re-established next to the court. The previous shift of cattle away from the centre at K2 was therefore a real spatial transformation and not the result of some temporary expediency. This shift was probably due to a new restricted ownership of cattle and a change in the function of the court from a place for all men to a place for

commoners.

Huffman further argues (Ibid:26) that the first transformation involving the movement of the central cattle byre away from the court at K2 "indicates that cattle no longer served as a medium to bind ordinary people together with their leaders." This statement is critical to understanding the nature of the changes from K2 to Mapungubwe as it underlines the vital and indeed central social, political, and ideological role of cattle within the societies under question. Considered as a whole, Huffman's formulation demonstrates the great utility of applying spatial interpretations to larger questions of social and political transformation.

I interpret Huffman's statement regarding the shifting role of cattle to indicate that he sees the movement of the cattle byre away from the court at K2 and its later absence from Mapungubwe as representing a cessation in the use of cattle in maintaining social and political relations with society. This formulation, while explaining the structural shift at one level, may need to be elaborated upon and its implications recast and broadened. Rather than viewing the movement of cattle away from the centre, and eventually out of, these regional centres as indicating a change in the way that relationships between the newly emergent social classes were mediated, I suggest that these transformations represent a profound and fundamental transformation in the expression of Leopard's Kopje social, political, and religious identity.

I (1996) previously concurred with the general principles in Huffman's (1982, 1986a, 1986b, 1996) characterisations of the shift in the location of the cattle byre at K2 and its absence at Mapungubwe Hill as representing the physical manifestation of "divine kingship" (Huffman 1986b:318) and the "evolution of a bureaucratic class" (Ibid:316). However, I (1996) emended Huffman's proposition to indicate that this spatial transformation represented a fundamental ideological shift within Leopard's Kopje society that was tantamount to "cutting out the middle cow" from the traditional ideological system; I stated that the changes noted in the settlement layout represented the spatial manifestation of an attempt to seize social, political and ritual power by undermining the importance of the system of ancestor worship. Although somewhat colloquial, I maintain that this metaphor is eminently serviceable in the present context.

I would also emphasize that the spatial shifts noted from K2 to Mapungubwe were not limited to those sites. After the initial architectonic expression of this ideological shift at K2, the next documented occurrence of such a spatial representation found expression at the site Leokwe Hill. Leokwe Hill, it will be remembered, is a large settlement with an elite late K2/early Mapungubwe domestic hilltop occupation that dates to the middle to late 12th or very early 13th century AD. Like Mapungubwe Hill, the Western Summit is a domestic residential settlement with no evidence of a cattle byre. The hilltop was originally interpreted

by Huffman (1986b:291) as "royal hilltop settlement" that served as the residence of "petty chief" on the basis of surface inspection and its general resemblance to the settlement at Mapungubwe Hill (personal communication 1996). The Western Summit overlooks a roughly contemporary lower status Leokwe site to the east (the Northern Terrace) and lower-status Leopard's Kopje settlements further to the north and east.

Based upon the apparent contemporaneity of the higher status Western Summit and the lower-status Northern Terrace Leokwe site and clear evidence of status differences between the sites as discussed both here and previously (Calabrese 2000a), I propose that the settlement layout at Leokwe Hill provides the first credible evidence of not only the ideological shift within Leopard's Kopje society that sought to undermine the traditional exchange system, but it represents the first documented architectural expression of ethnic stratification in the region. Until this time there is no demonstrable evidence of the subjugation of Leokwe groups in relation to Leopard's Kopje peoples. As has been previously discussed, some Leokwe peoples apparently were relatively high-status such as those at Castle Rock. Thus, if we accept contemporary settlement for the Leokwe and Leopard's Kopje components at Leokwe Hill, evidence for ethnic stratification appears for the first time sometime toward the end mid-11th to the 12th AD at Leokwe Hill. Again, this ethnic stratification also appears to coincide in time with the spatial transformation seen at K2 and which was expressed later at Mapungubwe.

Secularisation: Class, Values, and Ideology

The centrality of cattle in the social, political, and religious life of Southern Bantu societies (e.g. Kuper 1980, 1982b; Stayt 1931; Krige 1936; Krige & Krige 1943) is well established. I am here, however, particularly concerned with stressing the identification of cattle with the ancestors, and with underlining the importance of the ancestors as the ultimate source of human, agricultural, and animal fertility. The national ancestors were also, it will be recalled, the owners of the land and the ultimate font from which political legitimacy flowed (Kuper 1982b; cf. Kopytoff 1987). The ancestors, and the cattle with which they were identified, were thus responsible for ensuring the biological, cultural, and political integrity and continuity of society. Based on the primacy of these associations and functions, I propose that the removal of the cattle from the centre of the settlement at K2 and their absence from Mapungubwe represented the distillation and reification of tendencies toward increasing secularisation[2] (*sensu* Wheatley 1975) already extant within Leopard's Kopje society. I posit

[2] It is critical to note that Wheatley's term "secularisation" as used here is in no way meant to denote the lack of religious belief or conviction on the part of Leopard's Kopje leaders; rather, it simply indicates the process by which these nascent elites came to manipulate the traditional ideological and ritual systems to their own political advantage. Sacred leadership and divine kingship are by no means precluded as products of secularization; they are, in fact, logical outcomes of it.

that these tendencies toward secularisation had been current since at least the end of the K2 period, if not earlier. How secularisation is defined here, and how this process of secularisation proceeded, and how it intersected with the regional exchange, social, and political system will now be elaborated upon.

The emergence of class-based society within the Shashi-Limpopo region during the 10th through 13th centuries was accompanied by a series of economic, social and political transformations. For example, I have described, albeit in preliminary terms, the operation of a prestige-goods system employing aggressive prestation that in all likelihood created structural social, economic, and political dependencies outside the traditional exchange system. The distribution of prestige goods was limited to certain segments of society and to a large extent the limits of these distributions served to mark the new social and political boundaries of higher and lower status groups. The establishment of this class-based system undermined some traditional structures of African society to no small degree by permanently denying access to social and political power to large sections of society who formerly, at least in theory, had "equal potentiality" (*sensu* Kopytoff 1987:18). The willingness on the part of these new elite groups to pursue novel goals that were antithetical to traditional values of reciprocity and equal potentiality thus marks the beginnings of the secularisation (*sensu* Wheatley 1975) of the leadership of southern African society. Wheatley (1975:315), in a discussion of such transformations from kin-based to class-based society from a world historical perspective, describes the relationship between secularisation, religion, and the pursuit of political goals. Wheatley states that new social classes or elite groups

> …tended to pursue aims not subsumed under, and indeed alien to, the values of kin-structured society. Whatever their precise relationship to the deity, they were prone to using religious authority not only as a means for consolidating their own social position, but also as a primary instrument for the achievement of autonomous political goals beyond the ethical conceptions of an ascriptively organized society, and for the validation of a concentration of power beyond that sanctioned by the moral order of a folk community. As such the importance of these groups lies not in a professed lesser intensity of religious conviction but in their willingness to extend the secular sphere of government operations, and to use their [religious] power in the prosecution of wholly secular aims.

Thus, within Wheatley's conception, secularisation consists, in part, of the pursuit by elites of secular or non-traditional goals employing their religious authority as an instrument of political power. Primary among these goals are the expansion and concentration of political power.

I contend that Wheatley's framework for understanding the relationship between religious authority and political power in the context of the movement from kin- to class-based society has the potential to provide a powerful explanatory framework for the changes already noted within the Shashi-Limpopo region. For example, the establishment of the prestige goods system can be seen as an attempt to transform and subvert the traditional

exchange system through creating a web of rights and responsibilities outside of it. Importantly, however, the new system was demonstrated not to extend very deeply into the social fabric, as previously discussed. Whether this shallow penetration was due to unwillingness on the part of elites to allow a wider distribution of prestige goods or if these goods were rejected as legitimate media of exchange by lower status groups is not clear. It is, of course, possible that both of these factors served as a brake on the expansion of the system. It is instructive to note that Hall (1990:89) stated that the introduction of these new exchange items would have not been in the interests of commoners, as the acceptance of such new exchange media would have been tantamount to accepting labour without reward, given the onus that came attached with the receipt of such items.

Given the truly radical nature of the ideological shift that preceded the physical projection of that shift as seen in the changes noted from K2 to Leokwe Hill to Mapungubwe Hill, and the fact that the penetration of the prestige goods system was limited to the higher levels of the local political leadership, it might be postulated that after the ideological shift noted in the settlement architecture it was more likely that these prestige goods could have, to an extent, been commoditised and thus might be seen as wealth. It was after this time, or slightly before it, that the traditional exchange system, with its central focus on the role of ancestors and cattle within the overlapping social, political, and economic spheres, appears to have been rejected at least in part by the leaders of Leopard's Kopje society. After that it is only a small step to seeing cattle commoditised by the leaders of society and perhaps seeing trade goods functioning as a kind of wealth or currency that substituted for cattle in bridewealth and other traditional transactions. Much more data on the distribution of these prestige goods are necessary before any definitive statement can be made on this topic. I will remark that it is unlikely, though not impossible, that these prestige goods were seen as wealth items outside of the upper levels of society, owing to their known distribution patterns and the persistence of the CCP and, presumably, the values it embodied.

Similarly, although inversely, the settlement shift noted from K2 to Mapungubwe can be interpreted as an attempt on the part of Leopard's Kopje elites to commoditise or otherwise diminish the religious value of cattle. The achievement of this goal would have served to undermine the traditional exchange and allied systems, thereby enhancing the power and authority of the leaders at K2 and Mapungubwe for whom cattle (and perhaps ancestors other than those of the Leopard's Kopje elite) were apparently no longer necessary to legitimate their political authority. Potential archaeological evidence of this diminution in the ritual status of cattle may possibly be seen in the settlement pattern at the Northern Terrace of Leokwe Hill.

Three animal byres were recorded at the Northern Terrace and if they were indeed used contemporaneously, (which has yet to be established) then this arrangement may provide

evidence of a movement away from the CCP and towards the secularisation or commoditisation of cattle at this Leokwe commoner site. This interpretation is given some support by the association which the Northern Terrace has with the Western Summit, the first site at which evidence of the settlement pattern later seen at Mapungubwe has been recorded. This Leokwe settlement is located very near the Western Summit and is interpreted here as having been directly subordinate to it; thus it would not be unreasonable to extend the shift in ideology evident in the settlement layout at the Western Summit to the Northern Terrace. The Northern Terrace was also, it should be recalled, the lower status site at which the highest proportion of prestige goods were recovered, relative to other lower status sites.

The interpretation presented here provides some support for Denbow's (1999) position that cattle had been devalued during this period. More direct evidence of the potential commoditisation of cattle at such sites might be seen in the absence of burials from the animal byres. If the relationship between cattle and ancestors had in fact been sundered, then the practice of burying the dead in the animal byre may also have been decreased or discontinued. Again, much more data need to be gathered before any definitive statement on this topic can be made.

Finally, I propose that the rejection of the previous exchange system and the values that it embodied as seen in the settlement pattern shift at K2 and Mapungubwe, provide an example of the willingness of Leopard's Kopje leadership to undermine and subvert the local ideological system and the place of Leokwe peoples within it. The rejection of the ancestor worship complex as embodied by the centrality of cattle within the settlement system served Leopard's Kopje leaders by dealing in a very forceful way with the challenge to their own status posed by their Leokwe neighbours. If we accept Kopytoff's (1987) notion that firstcomers' ritual authority was needed to legitimate the newcomers' rule owing to the status of firstcomers' ancestors as the owners of the land (cf. Rennie 1978; Bourdillon 1978), then the rejection of traditional exchange system also attempted to eliminate the ritual authority held by the Leokwe people. The apparent submergence of the Leokwe ceramic style after this time may thus be accounted for because, as their basis for status within the region ended, so did the need of Leopard's Kopje people to interact with them. Thus after the shift to the elite hilltop settlement pattern, I propose that Leokwe peoples declined, diminished, or were otherwise subdued by the Leopard's Kopje groups as a result of the end of their status as ritual providers of political legitimacy.

Resistance to Secularization: Persistence of the CCP

It has already been well-established in the literature of southern African anthropology and archaeology that a dual settlement pattern obtained, with an elite Zimbabwe Pattern and a lower status or, more accurately, traditional, Central Cattle Pattern (e.g. Kuper 1980, 1982b;

Loubser 1981; Huffman 1982, 1996). It will be recalled that Leopard's Kopje sites organised in accordance with the principles of the Central Cattle Pattern continue in the region well after the series of social, political, and economic transformations just discussed occurred. The persistence of the CCP settlement organisation and the deeply held belief system underlying it is exemplified well at the small and politically insignificant Mapungubwe period site Edmondsburg.

The Edmondsburg site was very low-status, and its residents had no access to prestige goods. Despite the fact that the site was occupied well after the ideological and spatial transformations noted from K2 to Leokwe Hill to Mapungubwe Hill, its residents placed their animal byre in the centre of the settlement, despite the fact that it was large enough only to hold one or two beasts. Alternatively, it may have been used for the penning of small stock. Whatever its actual use, the placement of the byre in the centre of the site may indicate the persistence of the values associated with the CCP well after the assault upon it by the secularising, transformative forces at work in the regional centres.

Chapter Summary: Discussion and Conclusions

During the course of this Chapter I have established that important social and political transformations occurred in the Shashi-Limpopo region between around AD 1000 and 1200. These transformations were spurred by a combination of factors, including the institution of a system of prestige-goods exchange, involving aggressive prestation, by which class-based social identities were formed. Importantly, these class-based identities did not appear initially to limit their membership on the basis of ethnicity. Evidence from the site Castle Rock indicates that the residents of this Leokwe site had ready access to quantities of prestige goods, and in all likelihood conducted initiation rituals, activities usually associated with chiefly status. Thus, rather than holding a degraded or minority status in relation to Leopard's Kopje peoples, at least some Leokwe groups held relatively high status. I postulate that the Leokwe people, or at least the relatively higher-status corporate kin groups within the Leokwe ethnic group, were able to maintain a degree of relatively high status as a result of their distance to their ancestors who as "owners of the land" were the ultimate font of political authority (cf. Kopytoff 1987).

This retention of high status by some or all Leokwe groups was probably not simply a function of their ritual status, as if they were able to have been ousted or otherwise removed by Leopard's Kopje peoples through military force or through sheer force of numbers, it is likely that such an outcome would have occurred. It is, of course, possible that Leopard's Kopje newcomers needed followers or adherents and thus allowed some or all of the Leokwe peoples to stay. This second scenario is much more problematic, given the steadfast persistence of both ceramic styles in the region for nearly two full centuries of ethnic

interaction. If the Leopard's Kopje groups had been able to dominate the Leokwe groups either militarily or otherwise, my expectation would be that their ceramic style, as a concrete boundary and expression of their ethnic identity, would have been subsumed far more rapidly. Rather, I propose that the initial Leopard's Kopje intrusion into the Shashi-Limpopo region was not numerically or militarily sufficient to oust the Leokwe people; they were thus obliged to enter into an accommodation. The need for accommodation was apparently great, as some Zhizo and later Leokwe peoples were incorporated into the prestige goods system and thus in all likelihood also participated in the political system.

I postulate that this system of relatively stable ethnic interaction persisted from approximately AD 1000 until around the middle of the 12th century AD. I noted that there were probably secularising forces at work within society during this period. These secularising forces, deriving in great part from the prestige goods system, sought to undermine the traditional exchange system through a shift in values through which trade goods could be used in lieu of cattle for traditional exchanges, such as bridewealth. This shift in values would have caused a concomitant commoditisation, or at least a ritual devaluation, of cattle. Importantly, the penetration of these secularising tendencies appears to have been limited primarily to the upper tiers of society.

This secularising tendency is best seen and embodied in the spatial transformation noted from K2 to Leokwe Hill to Mapungubwe Hill in which cattle, formerly identified with the ancestors and thus with the source of all fertility, are removed from the centre of the settlement layout, and eventually are ousted entirely from it. The first documented physical expression of the removal of cattle from the settlement layout is from the Western Summit of Leokwe Hill, a high-status Leopard's Kopje site which overlooks roughly contemporaneous lower-status Leokwe and Leopard's Kopje settlements. That the Western Summit appears to dominate both lower status Leokwe and Leopard's Kopje groups, who remain physically segregated at different areas of the larger site complex, underlines both the continuing relevance of ethnicity during this period, and the growing importance of the class system. While the Leokwe ethnic group is seen, in this instance, to be directly subordinated to Leopard's Kopje peoples, it should be stressed that Leopard's Kopje elites seem to be equally intent at subordinating lower status members of their own ethnic group at the Leokwe Hill site. More work, particularly the dating of the lower-status, Leopard's Kopje settlement at Area C, would be necessary to confirm or refute this situation at Leokwe Hill.

Finally, I return to the questions posed at the end of Chapter XI regarding the role of ceramics as indicators of when, whether, and to what extent, emblemic or heterochrestic style systems were in place in the Shashi-Limpopo region between AD 1000 and 1300. Based upon the fact that Leokwe groups were part of the prestige goods system from around the turn of the 11th century AD through the middle of the 12th century AD, and that the two ceramic

styles co-existed in the region throughout this period, I would argue that two, concurrent, emblemic stylistic systems were in place in the region during this period. It is only after the spatial transformations in the settlement layout occurred, which marked both a rejection of the traditional exchange system and a denial of the ritual and political importance of the Leokwe people, that a heterochrestic style system, with Leopard's Kopje wares as the dominant style and Leokwe as the subordinate style, can be said to have occurred.

This proposed developmental trajectory is somewhat facile, as other style systems that signalled social identity were also active in the region. The most important of these style systems to the trajectory of social and political development were the emblems of status circulated within the prestige goods system. Based on the lack of a clear correspondence between ceramic style and participation in the prestige goods system, I propose that ceramic style played little, if any, role, in marking the development of class-based identity. It was only after the secularising forces in the regional centres were able to undermine the ritual authority of Leokwe peoples that they could be said to be truly lower status, and their ceramic wares viewed as such. Ethnic stratification of Leokwe under Leopard's Kopje can thus be seen as a result of the larger secularisation that was under way in the region. Importantly, however, the mass of the Leopard's Kopje population was also subordinated to the elites at the regional centres in much the same manner.

The growth and development of this complex system was due, in large part, to the nature of the relations extant between Leokwe and Leopard's Kopje peoples. The respective ethnic identities of these groups were not, in fact, barriers to interaction; rather, they served as the basis for the interaction between them. The ritual identity of Leokwe people proposed here is perhaps the most salient aspect of their relationship. It apparently served as the basis for Leokwe political standing. The undermining and denial of Leokwe ritual identity by Leopard's Kopje elites aided the process of secularisation that was already in place and became a stimulus to the development of more complex social and political formations in southern African society.

CHAPTER XIII
CONCLUSIONS

As has been demonstrated in Chapters XI and XII, I have answered the substantive research questions set forth at the end of Chapter II. These research questions related to the nature, relationship, and timing of the Zhizo and Leopard's Kopje styles in the Shashi-Limpopo region of southern Africa between AD 1000 and 1300. Based on the cumulative ceramic stylistic and radiocarbon evidence from the sites excavated and discussed here I have demonstrated that Zhizo and Leopard's Kopje ceramics co-occur in the Shashi-Limpopo region between around AD 1000 and 1200. I have proposed that these two ceramic styles were the ceramic expressions of two separate, interacting, ethnic groups. I have further hypothesised that Leopard's Kopje groups were unable or unwilling to oust the Zhizo residents of the Shashi-Limpopo region upon their entry into the region. If Leopard's Kopje groups were unable to oust the Zhizo/Leokwe groups such an inability was due either to a deficiency in numbers or military prowess. Conversely, if Leopard's Kopje groups were unwilling to remove the Zhizo/Leokwe groups such sentiments were due to the need for followers and adherents. Whatever the reason for their co-occupation of the region, it is clear that both groups participated in a complex system of ethnic interaction that led, in part, to the development of even more complex social and political institutions.

I further posited that Zhizo ceramics after around AD 1000 changed in reaction to this interaction; after AD 1000 I propose that Zhizo ceramics change into a newly identified phase and facies of the Nkope Branch of the Urewe Tradition. I have named this new ceramic style "Leokwe" after Leokwe Hill, the site at which it was first identified.

I have also demonstrated that a class-based social system, intimately linked with the political system, was in place in the Shashi-Limpopo region. This class-based system was a product of a prestige goods system. I have hypothesised that this prestige goods system involved aggressive prestation by which new social, economic, and political dependencies were created outside the traditional exchange system. I have proposed that one of the potential effects of this new exchange system, and perhaps one of its goals, was to undermine the traditional exchange system and thereby to encourage a process of secularisation by which trade goods could eventually come to be seen as wealth items that could supplant other, more traditional forms of exchange, such as women and cattle.

The prestige goods system, as seen in the distribution of glass trade beads and finished non-utilitarian metal items, was seen to penetrate only to the upper tiers of society. Lower status groups did not directly participate in the prestige goods economy, except perhaps as providers of raw materials and labour needed in the international trade upon which

the prestige goods system relied. Whether the limited distribution of prestige goods is a reflection of certain elements of society refusing to accept them as legitimate media of exchange, or if their suppliers were simply unwilling to distribute them more widely, or both, is uncertain. Importantly, inclusion within this prestige goods system was not limited by ethnicity, and segments of both the Leokwe and Leopard's Kopje ethnic groups participated within it.

I have also proposed that, following Kopytoff (1987), Rennie (1978), and Bourdillon (1978) that the Leokwe peoples' social and political standing derived in large measure from their identification with their ancestors "owners of the land". This continuing status of Leokwe peoples after the Leopard's Kopje entry into the region, and its ritual foundation, seen at the site Castle Rock. Castle Rock was a relatively high-status site at which figurines consistent with the performance of *domba* or *domba*-like rituals were performed. Importantly, no other such assemblage has been recorded from any other site in the region from this time period, with the exception of similar assemblages recorded from the regional centres Schroda, K2, and Mapungubwe.

Based on shifts within the settlement pattern at the sites K2, Leokwe, and Mapungubwe Hill, I have proposed that the secularising tendencies (*sensu* Wheatley 1975) already seen in the sphere of exchange began to express themselves in the settlement layout. I have interpreted the removal of the cattle byre from the centre of K2 and its eventual removal from the Western Summit of Leokwe Hill and eventually at Mapungubwe Hill as a rejection by Leopard's Kopje elites of the traditional exchange system and its allied social, political, and religious underpinnings. This removal reflected a rejection of Leokwe peoples' source of political standing and ritual authority that derived from their relationship with their ancestors and paved the way for the ultimate submergence of the Leokwe style and the end of their ethnic identity in the Shashi-Limpopo region. I submit that a system of ethnic stratification by which Leokwe peoples were subordinate to Leopard's Kopje elites was in place around the time of the architectural expression of the secularising ideology at Leokwe Hill.

The conclusions drawn and hypotheses set forth above are, of course, subject to confirmation, refutation, or emendations pending the results of future work in the region. Based on the available data, I contend that the conclusions I have drawn and the hypotheses I have proposed are eminently tenable and will provide a fruitful foundation for future research in the area.

Contributions of the Present Work to African Archaeology

The value of this thesis to southern African archaeology lies in both the data I have collected and interpreted and in its implications for other similar work on the sub-continent generally. I have demonstrated that two ethnic groups co-existed in the Shashi-Limpopo

region between AD 1000 and 1200, and that the interactions that obtained between them led, in part, to the development of more complex social and political entities.

When this work was started this outcome was not expected and in fact stands in sharp contrast to the previous models put forth regarding the relationships between Zhizo and Leopard's Kopje. The fact of the co-existence in time and space of these two styles may give pause to other researchers when faced with questions of large-scale population movements and ethnic interaction. It might also be useful to researchers developing local or regional archaeological sequences in the sub-continent in which the temporal relationships between ceramic styles have not been subjected to absolute dating, or at best have been inferred from the results of excavations at a single site or from surface collections.

More pointedly, I submit that the data from the Shashi-Limpopo region between AD 1000 and 1200 should not be viewed as either anomalous or exceptional. Ethnic co-existence and interaction, potentially leading to ethnic stratification, should be viewed as normal and predictable outcomes of the processes of movement, settlement, social fissioning and migration begun when Bantu-speaking peoples first started their movement southwards.

Directions for Future Research

I contend that the students of social and political complexity in the Shashi-Limpopo region have made a creditable start in our attempts to explain the nature, trajectories, and processes involved in the formation of complex societies in the region. There are, of course, wide gaps in our knowledge base. Three important gaps that require attention have to do with settlement pattern data, the elucidation of the extent and penetration of the prestige goods system, and the effects that the system had upon foraging peoples.

Now that I have determined that Leokwe ceramics persisted in the Shashi-Limpopo region until around AD 1200, it is necessary to reconsider the previously collected settlement pattern data and perhaps the methods by such data are collected in future. These data, housed in part at the University of the Witwatersrand, were collected primarily employing data collected from the surface; such surveys were based on stratified non-random sampling. Many of the sites previously identified in these surveys as Zhizo may in fact be Zhizo sites, but they may also be later Leokwe sites, since Leokwe was not recognised as existing until recently (Calabrese 2000a).

It is difficult to determine whether or not a site is Zhizo or Leokwe based solely upon relatively small collections of surface-collected ceramics. The difference between the two styles, as I demonstrated in Chapter XI, is a function of differing percentages of shared traits rather than by reference to definitive, identifying characteristics; thus their designation must remain ambiguous until such sites are excavated with the aim of gathering a relatively large ceramic collection for comparative purposes and radiocarbon dating this material. Some

general direction in discriminating between the two styles can be taken from the descriptions of Zhizo and Leokwe contained in Chapter XI, but these must still be subjected to detailed study and confirmation, refutation, or emendation. Only after a much more detailed study of the nature of Leokwe ceramics and its differences with Zhizo is accomplished could surface-collected materials confidently be substituted for the results of stratigraphic excavations and absolute dating.

The determination of the actual settlement pattern of Zhizo, Leokwe, K2, and Mapungubwe styles at a regional level is, however, a necessary first step in determining more precisely than I have done here the nature of prehistoric patterns of ethnic interaction both before and after the entry of the Leopard's Kopje ethnic group into the region. I therefore submit that a complete settlement pattern survey of the region, perhaps modelled on the work of Sanders et al. (1979) in the Basin of Mexico, should be undertaken. A great deal of excellent work has already been accomplished in this direction (e.g. Huffman, Murimbika, and Schoeman 2004), but these efforts need to be redoubled.

Also, many more sites in the region need to be excavated and data from them analysed in order to determine the timing and extent of the penetration of the prestige goods system into levels of society outside of the regional centres. This investigation would aid in confirming or refuting the distribution patterns I noted in Chapter XII, and help determine when and to what extent the process of secularisation I proposed occurred. Such an effort would require that researchers in the area standardise their data collection techniques and explicitly include in their research design the methods by which representative samples of physically small, but highly significant items, like glass trade beads will be recovered. Data collection procedures are at present highly variable and thus the comparative data are variably useful.

Finally, the role of foraging peoples in the prehistoric political economy of the region needs further study. Simon Hall and Benjamin Smith (2000) have made an excellent contribution in this direction but much more research is needed if we are to understand with more specificity the effects that the system of prestige goods exchange had upon foraging peoples.

These are only a few among many more potentially fruitful research topics that could be undertaken in the Shashi-Limpopo region. As a discipline we have made many advances over the years, but clearly there is still much more work to be done.

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Appendix A

Ceramic Drawings

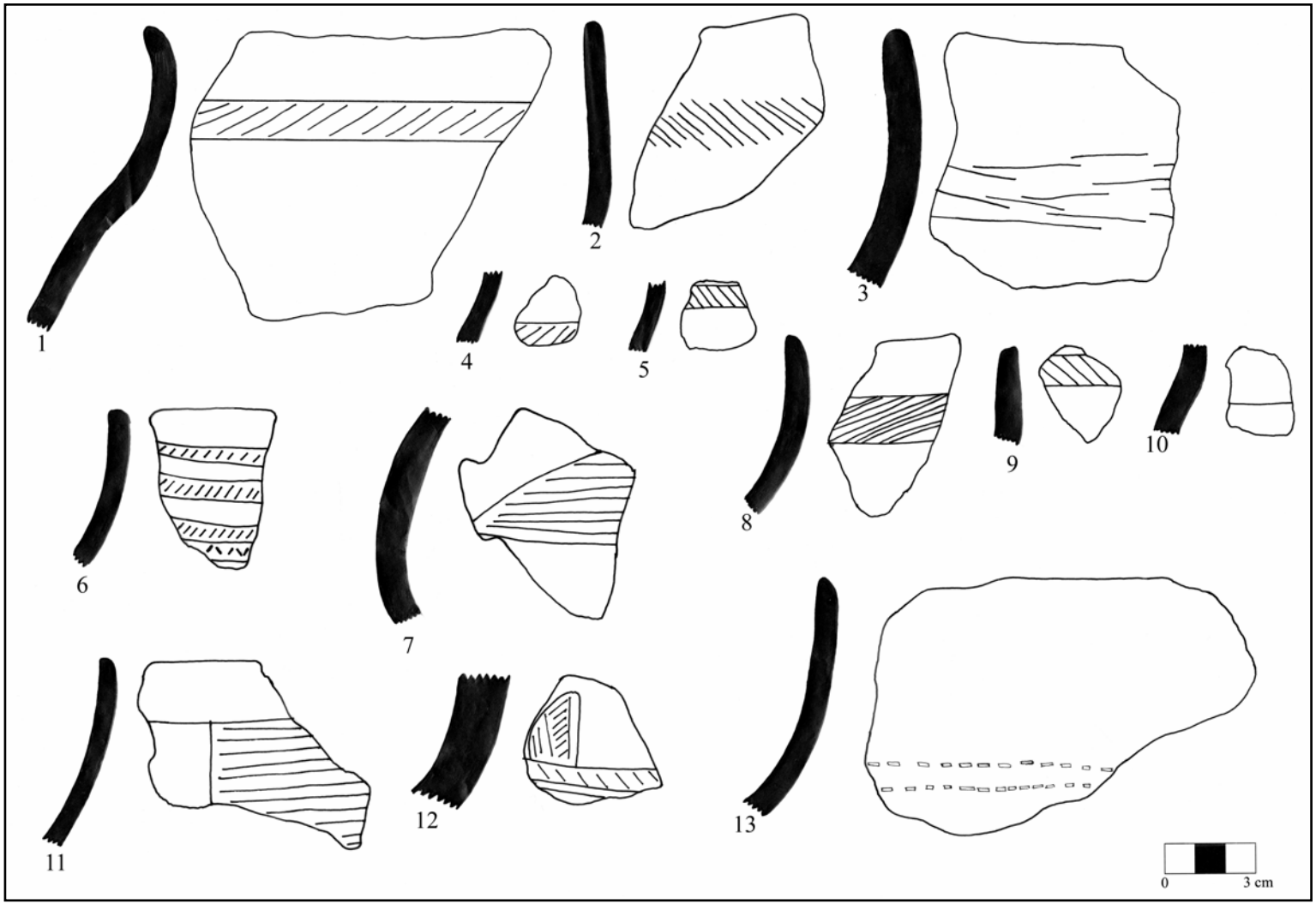


Plate 1. Baobab ceramics.

Plate 1. Descriptions

1. Recurved jar. Smoke-clouded red and smoothed exterior and interior. Design Set I2. Motif 2.22. Central Neck. Test Unit 4, Stratum I, Level 2. Cat. No. B6.

2. Recurved jar. Black partially burnished exterior and interior. Design Set I2. Motif 2.14. Central Neck. Test Unit 7, Stratum I, Level 1. Cat. No. B4.

3. Recurved jar. Brown partially burnished exterior, red partially burnished interior. Design Set I1. Motif 2.36. Lower Neck. Hut Floor 1, Test Unit 2, Stratum I, Level 1. Cat. No. B8.

4. Recurved jar. Brown smoothed exterior, red smoothed interior. Design Set I2. Motif 2.22. Lower Neck. Test Unit 7, Stratum I, Level 1. Cat. No. B56.

5. Recurved jar. Red burnished exterior, red coarse interior. Design Set I2. Motif 2.22. Test Unit 12, Stratum I, Level 1. Cat. No. B53.

6. Recurved jar. Brown partially burnished exterior, red partially burnished interior. Design Set I2. Motif 2.60. Central Neck to Lower Neck. Test Unit 5, Stratum I, Level 1. Cat. No. B34. Klingbeil style (?).

7. Recurved jar. Brown burnished exterior, brown coarse interior. Design Set I5. Motif 2.38. Shoulder. Test Unit 6, Stratum I, Level 1. Cat. No. B36. Leopard's Kopje A.

8. Recurved jar. Red partially burnished exterior, red coarse interior. Design Set I2. Motif 2.22. Central Neck. Cat. No. B52.

9. Recurved jar. Smoke-clouded red partially burnished exterior, red coarse interior. Design Set I2. Motif 2.22. Rim. Test Unit 1, Stratum I, Level 1. Cat. No. B51.

10. Recurved jar. Red smoothed exterior, red coarse interior. Design Set I1. Motif 2.12. Shoulder. Test Unit 5, Stratum I, Level 1. Cat. No. B54.

11. Recurved jar. Brown matte design area and brown burnished undecorated area exterior, brown partially burnished interior. Central Neck to Lower Neck. Test Unit 7, Stratum I, Level 2. Cat. No. B32.

12. Recurved jar. Red smoothed exterior, red coarse interior. Central Neck to Lower Neck. Design Set I10. Motif 2.61. Central Neck to Lower Neck. Test Unit 4, Stratum I, Level 2. Cat. No. B35. Leopard's Kopje A.

13. Recurved jar. Red partially burnished exterior, brown coarse interior. Design Set CS1. Motif 3.2. Lower Neck. Test Unit 1, Stratum I, Level 1. Cat. No. B7.

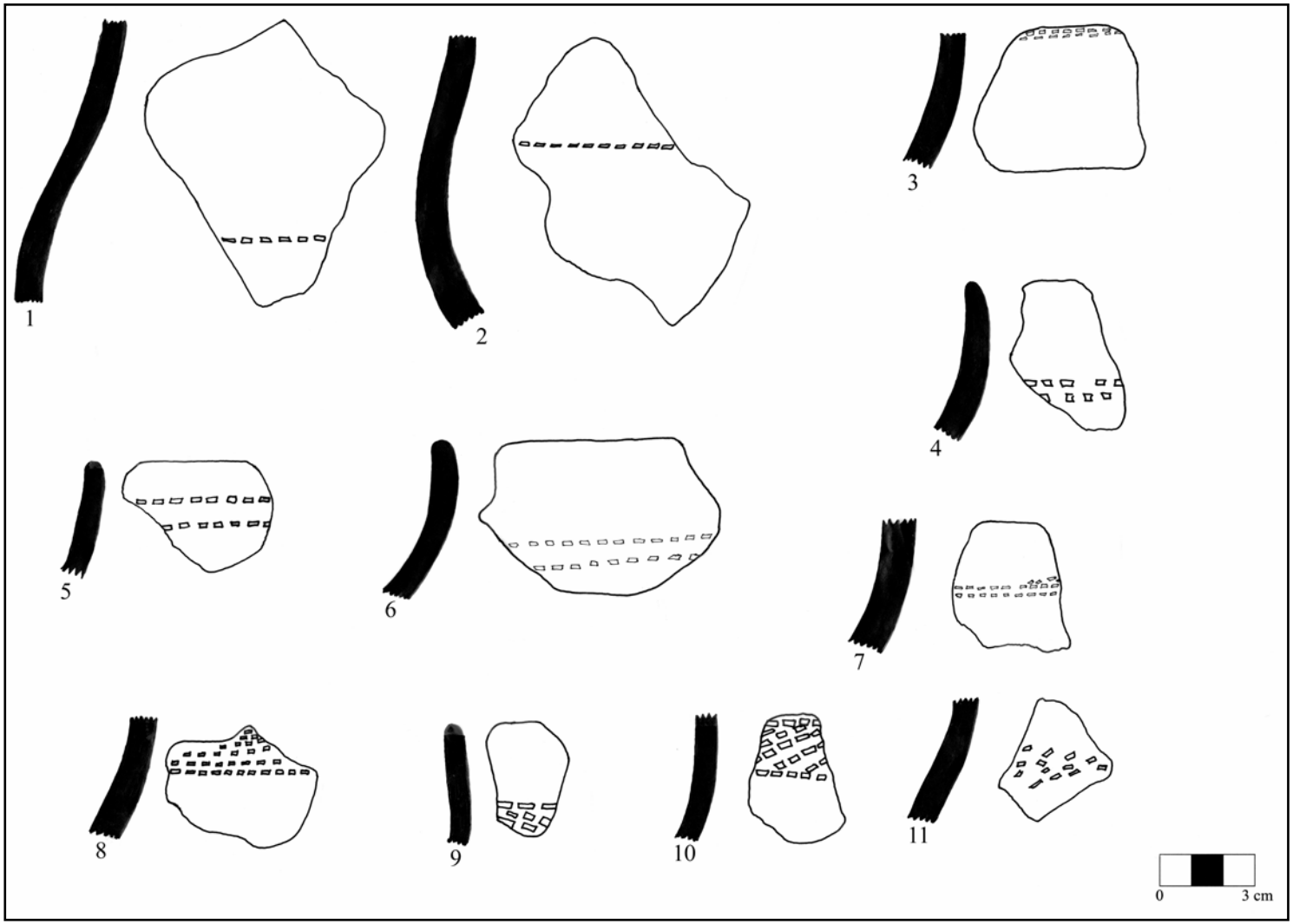


Plate 2. Baobab ceramics.

Plate 2. Descriptions

1. Recurved jar. Brown burnished exterior, brown smoothed interior. Design Set CS1. Motif 3.1. Shoulder. Test Unit 7, Stratum I, Level 3. Cat. No. B9.

2. Recurved jar. Smoke-clouded red smoothed exterior, red coarse interior. Design Set CS1. Motif 3.1. Shoulder. Test Unit 1, Stratum I, Level 2. Cat. No. B10.

3. Recurved jar. Black partially burnished exterior, red partially burnished interior. Design Set CS1. Motif 3.2. Central Neck. Test Unit 7, Stratum I, Level 2. Cat. No. B14.

4. Recurved jar. Brown smoothed exterior, red coarse interior. Design Set CS1. Motif 3.2. Lower Neck. Test Unit 7, Stratum I, Level 2. Cat. No. B11.

5. Recurved jar. Smoke-clouded red smoothed exterior, brown smoothed interior. Design Set CS2. Motif 3.2. Central Neck. Test Unit 4, Stratum I, Level 2. Cat. No. B12.

6. Recurved jar. Brown smoothed exterior, red coarse interior. Design Set CS1. Motif 3.2. Lower Neck. Test Unit 7, Stratum I, Level 2. Cat. No. B11. Same vessel as 4 above; note difference in wall thickness and lip shape as seen in two fragments from the same vessel.

7. Recurved jar. Brown smoothed exterior, red coarse interior. Design Set CS1. Motif 3.2. Central Neck. Test Unit 1, Stratum I, Level 1. Cat. No. B22.

8. Recurved jar. Brown partially burnished exterior, red smoothed interior. Design Set CS1. Motif 3.2. Central Neck. Test Unit 6, Stratum I, Level 2. Cat. No. B15.

9. Recurved jar. Brown smoothed exterior, red smoothed interior. Design Set CS2. Motif 3.5. Central Neck. Test Unit 7, Stratum I, Level 3. Cat. No. B17.

10. Recurved jar. Brown partially burnished, brown smoothed interior. Design Set CS2. Motif 3.5. Central Neck. Test Unit 7, Stratum I, Level 1. Cat. No. B21.

11. Recurved jar. Red burnished exterior, brown partially burnished interior. Design Set CS1. Motif 3.13. Central Neck. Test Unit 3, Stratum I, Level 2. Cat. No. B20.

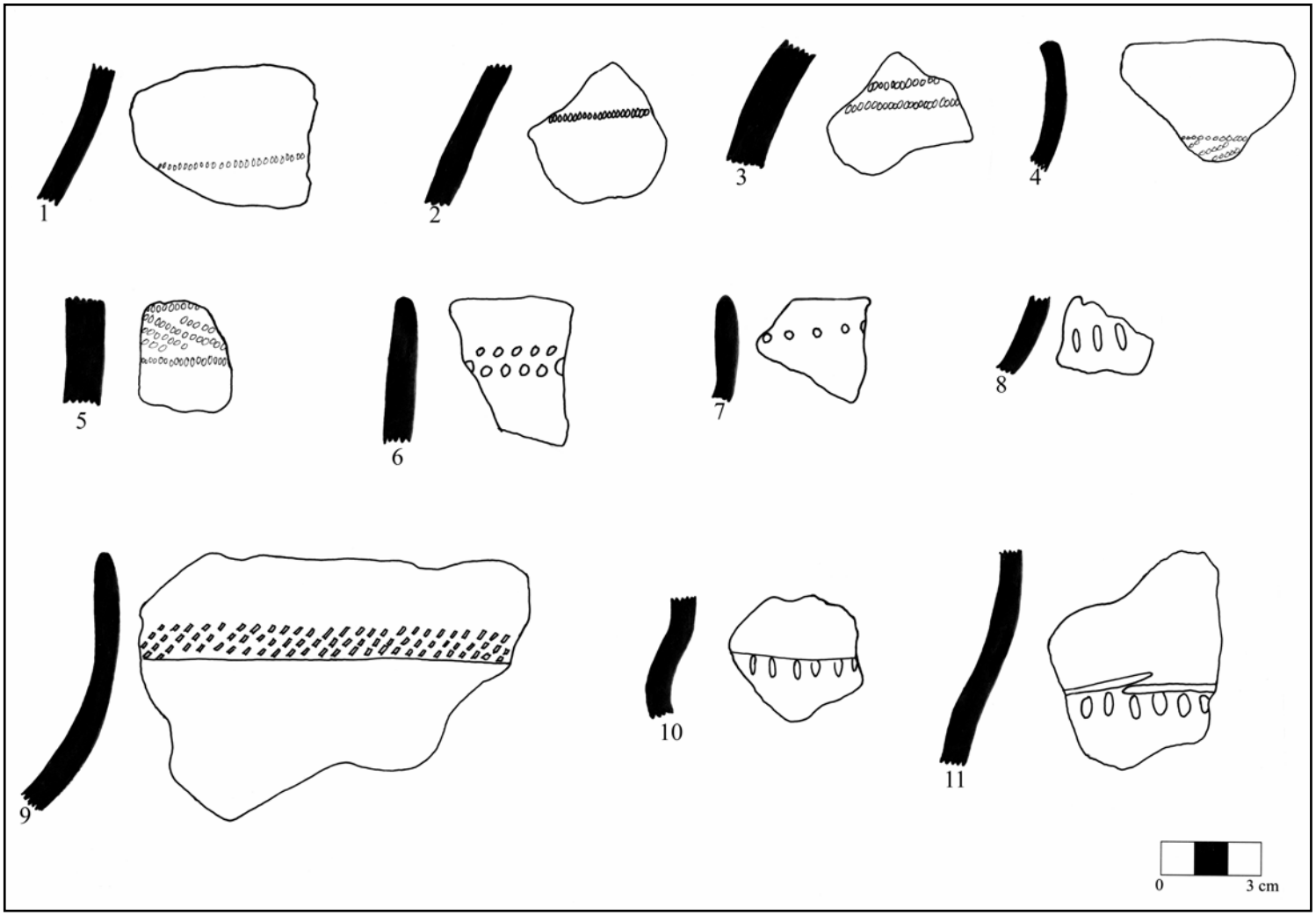


Plate 3. Baobab ceramics.

Plate 3. Descriptions

1. Recurved jar. Brown partially burnished exterior, red coarse interior. Design Set BB1. Motif 4.2. Shoulder. Test Unit 4, Stratum I, Level 2. Cat. No. B39.

2. Recurved jar. Red smoothed exterior, red spalled interior. Design Set BB1. Motif 4.2. Shoulder. Test Unit 4, Stratum I, Level 1. Cat. No. B37.

3. Recurved jar. Brown smoothed exterior, brown coarse interior. Design Set BB1. Motif 4.3. Test Unit 7, Stratum I, Level 1. Cat. No. B41.

4. Recurved jar. Red smoke-clouded partially burnished exterior, black partially burnished interior. Design Set BB2. Motif 4.1. Test Unit 1, Stratum I, Level 2. Cat. No. B38.

5. Recurved jar. Black partially burnished exterior, brown smoothed interior. Design Set BB2. Motif 4.1. Central Neck. Test Unit 4, Stratum I, Level 1.

6. Bag-shaped jar. Brown partially burnished exterior, red coarse interior. Design Set P1. Motif 5.1. Central Neck. Test Unit 6, Stratum I, Level 3. Cat. No. B29.

7. Bag-shaped jar. Red partially burnished exterior and interior. Design Set P1. Motif 5.2. Rim. Test Unit 1, Stratum I, Level 2. Cat. No. B28.

8. Recurved jar. Brown partially burnished exterior, red coarse interior. Design Set ST1. Motif 9.1. Lower Neck. Test Unit 4, Stratum I, Level 1.

9. Recurved jar. Brown partially burnished burnished exterior, black partially burnished interior. Design Set I/CS2. Motif 12.3. Central Neck. Hut Floor 1. Test Unit 2, Stratum I, Level 1. Cat. No. B1.

10. Recurved jar. Brown partially burnished exterior, red smoothed interior. Design Set I/ST3. Motif 16.3. Shoulder. Test Unit 7, Stratum I, Level 2. Cat. No. B50.

11. Recurved jar. Red partially burnished exterior, red coarse interior. Design Set I/ST3. Motif 16.3. Test Unit 6, Stratum I, Level 1.

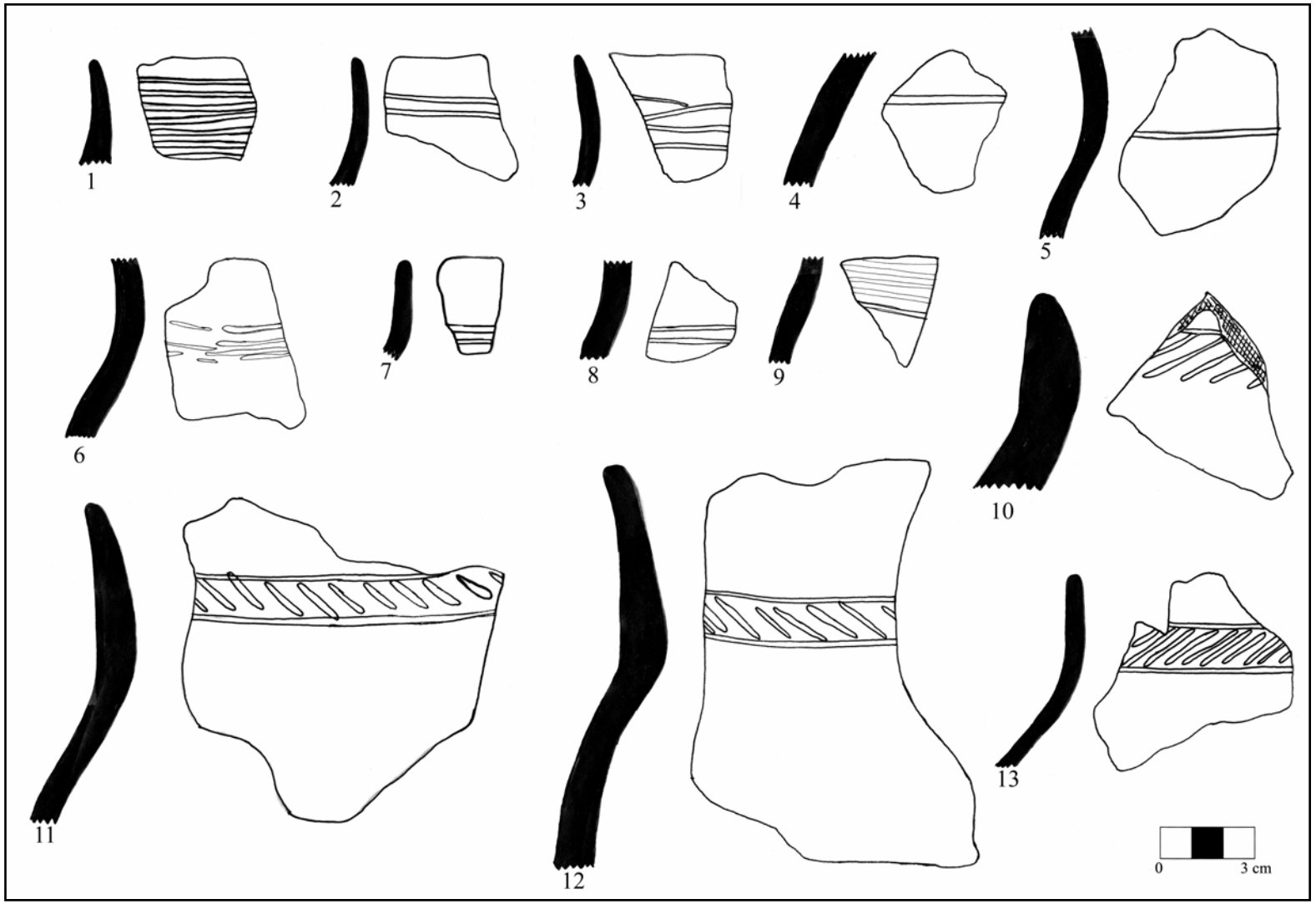


Plate 4. Castle Rock ceramics.

Plate 4. Descriptions

1. Recurved jar. Brown burnished exterior, brown partially burnished interior. Design Set I1. Motif 2.20. Central Neck. Test Unit 14 Stratum II, Level 2. Cat. No. CR184.

2. Recurved jar. Brown spalled exterior, brow coarse interior. Design Set I1. Motif 2.21. Central Neck. Test Unit 30, Stratum II, Level 3. Cat. No. CR73.

3. Recurved jar. Red partially burnished exterior and interior. Design Set I1. Motif 2.36. Central Neck. Test Unit 25, Stratum II, Level 3. Cat. No. CR189.

4. Recurved jar. Red partially burnished exterior and interior. Design Set I1. Motif 2.12. Shoulder. Test Unit 22, Stratum I, Level 1. Cat. No. CR102.

5. Recurved jar. Red partially burnished exterior, brown partially burnished interior. Design Set I1. Motif 2.12. Lower Neck. Test Unit 28, Stratum II, Level 2. Cat. No. CR101.

6. Recurved jar. Red smoothed exterior, black smoothed interior. Design Set I1. Motif 2.36. Lower Neck. Test Unit 29, Stratum II, Level 2. Cat. No. CR190.

7. Recurved jar. Brown burnished exterior, brown smoothed interior. Design Set I1. Motif 2.21. Lower Neck. Test Unit 4, Stratum II, Level 2. Cat. No. CR202.

8. Recurved jar. Brown smoothed exterior, brown spalled interior. Design Set I1. Motif 2.20. Lower Neck. Test Unit 4, Stratum I, Level 1. Cat. No. CR200.

9. Recurved jar. Brown smoothed exterior and interior. Design Set I1. Motif 2.20. Lower Neck. Test Unit 10, Stratum II, Level 2. Cat. No. CR185.

10. Short-necked jar. Brown partially burnished exterior and interior. Design Set I2. Motif 2.55. Central Neck. Test Unit 10, Stratum I, Level 1. Cat. No. CR86.

11. Recurved jar. Red smoothed exterior, brown coarse interior. Design Set I2. Motif 2.22. Central Neck. Test Unit 9, Stratum II, Level 2. Cat. No. CR1.

12. Recurved jar. Brown smoothed exterior, red coarse interior. Design Set I2. Motif 2.22. Lower Neck. Test Unit 10, Stratum II, Level 2. Cat. No. CR3.

13. Recurved jar. Brown smoothed exterior, brown coarse interior. Design Set I2. Motif 2.22. Central Neck. Test Unit 28, Stratum II, Level 2. Cat. No. CR17.

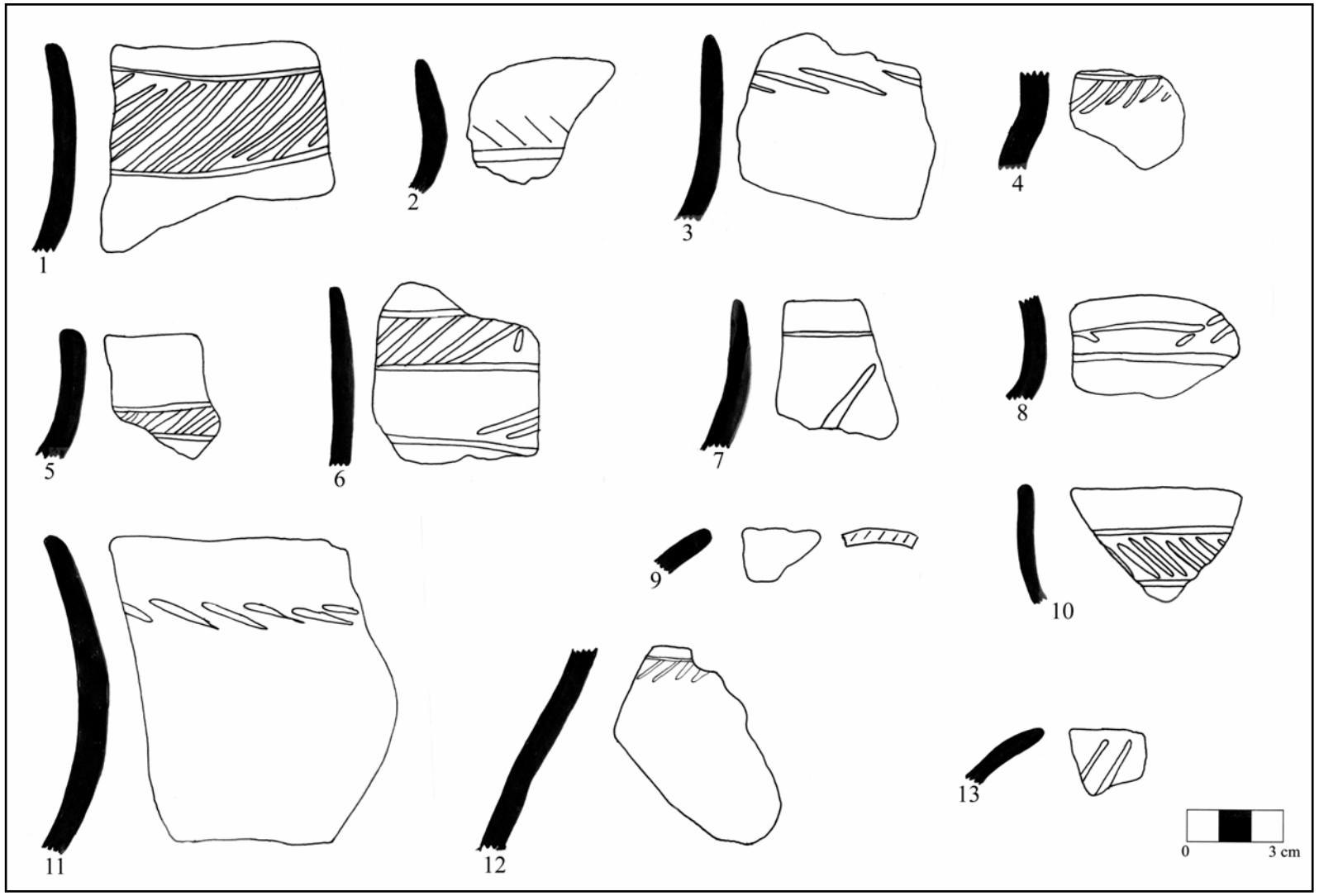


Plate 5. Castle Rock ceramics.

Plate 5. Descriptions

1. Recurved jar. Brown partially burnished exterior, brown coarse interior. Design Set I2. Motif 2.22. Rim to Central Neck. Test Unit 19, Stratum II, Level 2. Cat. No. CR2.

2. Recurved jar. Brown smoothed exterior, red smoothed interior. Design Set I2. Motif 2.55. Test Unit 25, Stratum I, Level 1. Cat. No. CR88.

3. Recurved jar. Brown partially burnished exterior, brown coarse interior. Design Set I2. Motif. 2.14. Rim. Test Unit 14, Stratum II, Level 2. Cat. No. CR51.

4. Recurved jar. Brown smoothed exterior and interior. Design Set I2. Motif 2.72. Lower Neck. Test Unit 18, Stratum II, Level 2. Cat. No. CR97.

5. Recurved jar. Brown partially burnished exterior, brown smoothed interior. Design Set I2. Motif 2.22. Lower Neck. Test Unit 15, Stratum II, Level 3. Cat. No. CR20.

6. Recurved jar. Brown smoothed exterior, brown coarse interior. Design Set I2. Motif 2.16. Central Neck to Lower Neck. Test Unit 23, Stratum I, Level 1. Cat. No. CR60.

7. Recurved jar. Brown smoothed exterior, black smoothed interior. Design Set I2. Motif 2.55. Central Neck to Lower Neck. Test Unit 18, Stratum II, Level 2. Cat. No. 87.

8. Recurved jar. Red burnished exterior, brown burnished interior. Design Set I2. Motif 2.3. Lower Neck. Test Unit 10, Stratum II, Level 2. Cat. No. CR201.

9. Incurvate bowl. Brown partially burnished exterior, brown smoothed interior. Design Set I2. Motif 2.14. Lip. Test Unit 9, Stratum II, Level 4. Cat. No. CR188.

10. Simple shallow bowl. Brown partially burnished exterior and interior. Design Set I2. Motif 2.22. Body. Test Unit 10, Stratum II, Level 2. Cat. No. CR48.

11. Recurved jar. Red smoothed exterior and interior. Design Set I2. Motif 2.14. Central Neck. Test Unit 17, Stratum II, Level 2. Cat. No. CR49.

12. Recurved jar. Brown smoothed exterior, brown spalled interior. Design Set I2. Motif 2.55. Lower Neck. Test Unit 11, Stratum I, Level 1. Cat. No. CR85.

13. Incurvate bowl. Brown smoothed exterior and interior. Design Set I2. Motif 2.4. Rim. Test Unit 25, Stratum I, Level 1. Cat. No. CR53.

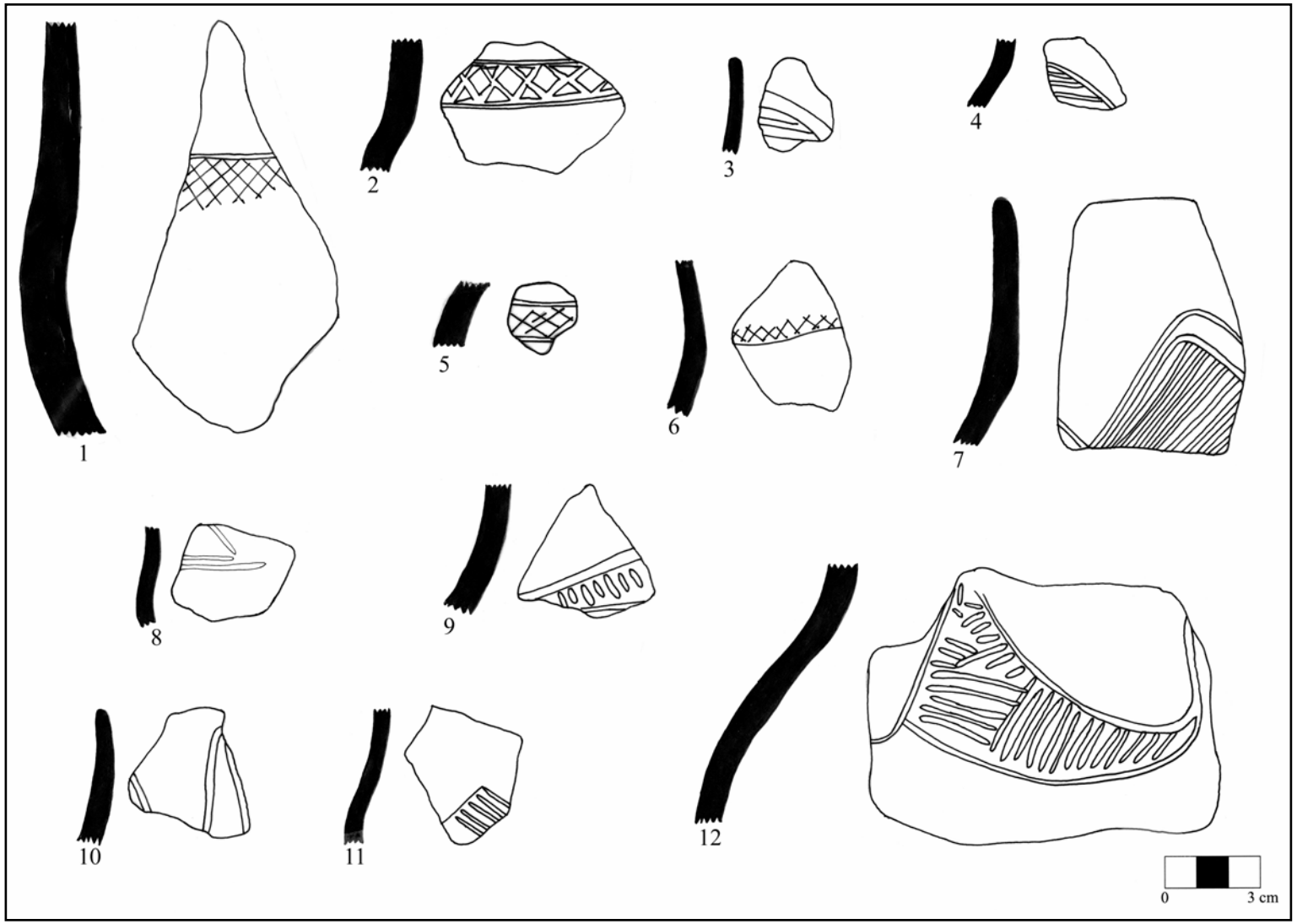


Plate 6. Castle Rock ceramics.

Plate 6. Descriptions

1. Recurved jar. Red vitrified exterior and interior. Design Set I3. Motif 2.71. Lower Neck. Test Unit 24, Stratum II, Level 2. Cat. No. CR84.

2. Recurved jar. Brown partially burnished exterior and interior. Design Set I3. Motif 2.9. Lower Neck. Test Unit 25, Stratum II, Level 4. Cat. No. CR78.

3. Recurved jar. Brown burnished exterior, brown spalled interior. Design Set I5. Motif 2.67. Central Neck. Test Unit 15, Stratum II, Level 4. Cat. No. CR72.

4. Recurved jar. Brown smoothed exterior and interior. Design Set I5. Motif 2.38. Lower Neck. Test Unit 16, Stratum I, Level 1. Cat. No. CR69.

5. Recurved jar. Brown partially burnished exterior, brown coarse interior. Design Set I3. Motif 2.9. Shoulder. Test Unit 20, Stratum I, Level 1. Cat. No. CR79.

6. Recurved jar. Brown burnished exterior, red coarse interior. Design Set I3. Motif 2.70. Central Neck. Test Unit 22, Stratum I, Level 1. Cat. No. CR80.

7. Recurved jar. Brown burnished exterior and interior. Design Set I6. Motif 2.63. Central Neck to Lower Neck. Test Unit 24, Stratum II, Level 3. Cat. No. CR64.

8. Recurved jar. Brown burnished exterior, brown coarse interior. Design Set I6. Motif 2.66. Lower Neck. Test Unit 20, Stratum I, Level 1. Cat. No. CR70.

9. Recurved jar. Red partially burnished exterior, red coarse interior. Design Set I10. Motif 2.73. Lower Neck. Test Unit 10, Stratum I, Level 1. Cat. No. CR 98.

10. Recurved jar. Brown partially burnished exterior and interior. Design Set I6. Motif 2.64. Central Neck to Lower Neck. Test Unit 4, Stratum I, Level 1. Cat. No. CR65.

11. Recurved jar. Brown spalled exterior and interior. Design Set I6. Motif 2.26. Shoulder. Test Unit 30, Stratum II, Level 2. Cat. No. CR68.

12. Recurved jar. Red partially burnished exterior, smoke-clouded red coarse interior. Design Set I10. Motif 2.17. Lower Neck to Shoulder. Cat. No. CR61.

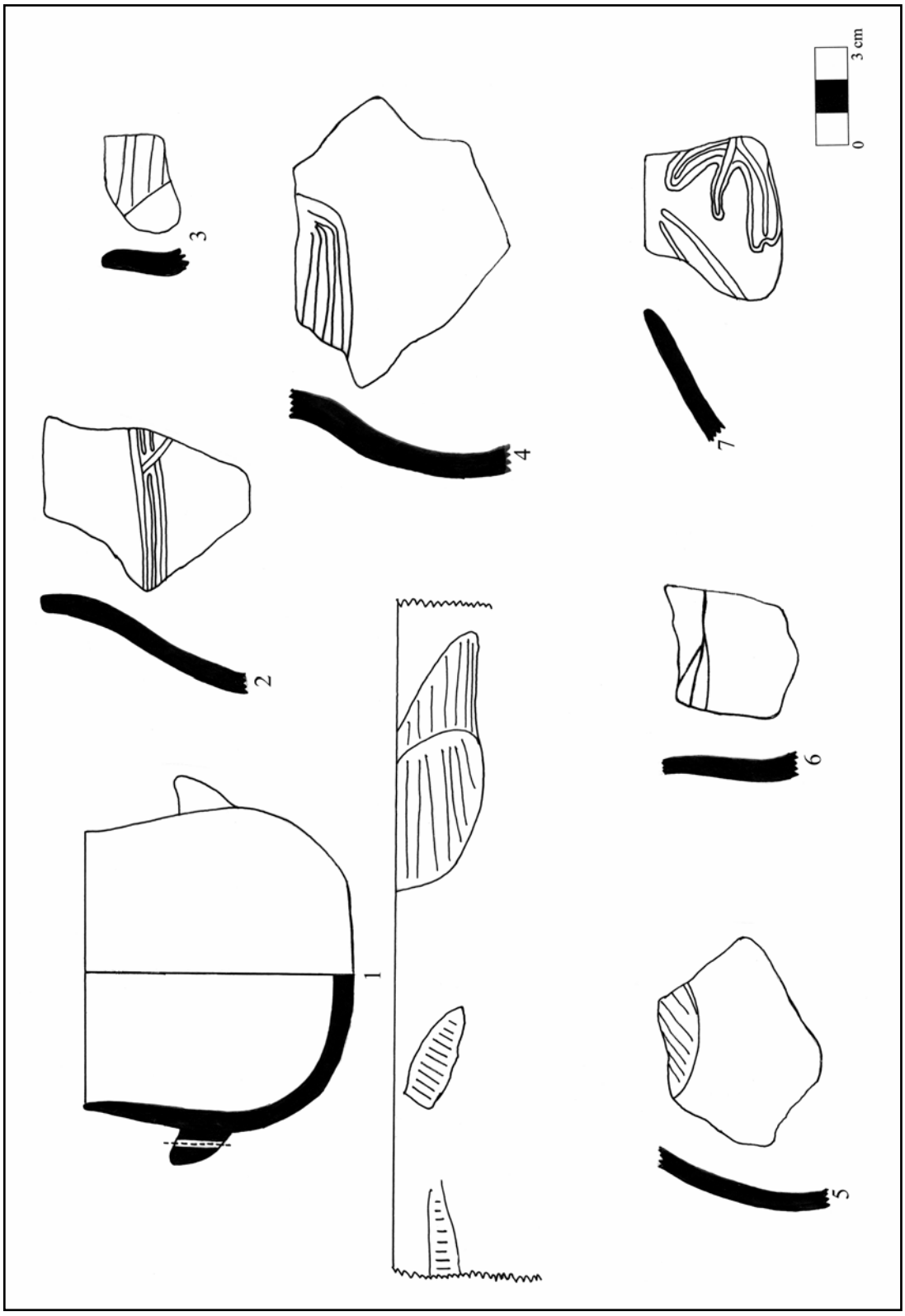


Plate 7. Castle Rock ceramics.

Plate 7. Descriptions

1. Lugged recurved jar. Brown burnished exterior and interior. Design Set I10. Motif 2.74. Rim to Central Neck. Test Unit 29, Stratum I, Level 1. Cat. No. CR597.

2. Recurved jar. Brown partially burnished exterior and interior. Design Set I11. Motif 2.65. Shoulder. Test Unit 28, Stratum II, Level 2. Cat. No. CR66.

3. Very shallow bowl. Brown burnished exterior and interior. Design Set I11. Motif 2.18. Rim to Body. Test Unit 11, Stratum I, Level 1. Cat. No. CR67.

4. Recurved jar. Brown burnished exterior, brown coarse interior. Design Set I11. Motif 2.27. Test Unit 23, Stratum II, Level 2. Cat. No. CR63.

5. Recurved jar. Black burnished exterior, brown spalled interior. Design Set I12. Motif 2.30. Shoulder. Test Unit 25, Stratum II, Level 3. Cat. No. CR71.

6. Recurved jar. Red smoothed exterior, black spalled interior. Design Set I13. Motif 2.68. Lower Neck. Test Unit 30, Stratum II, Level 2. Cat. No. CR75.

7. Incurvate bowl. Brown partially burnished exterior, Smoke-clouded brown interior. Design Set I16. Motif 2.62. Rim. Test Unit 14, Stratum II, Level 3. Cat. No. CR62.

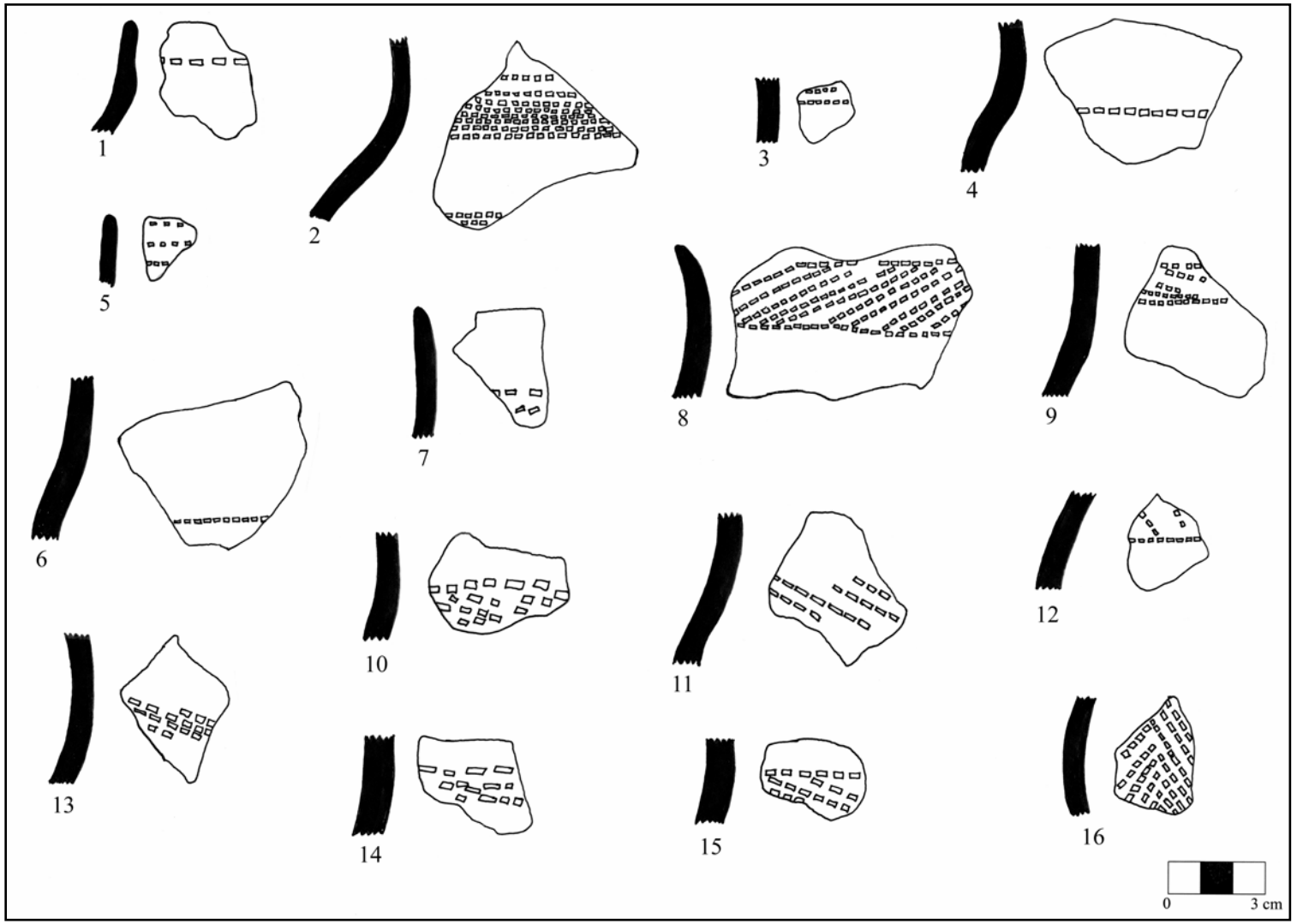


Plate 8. Castle Rock ceramics.

Plate 8. Descriptions

1. Recurved jar. Red smoothed exterior, brown smoothed interior. Design Set CS1. Motif 3.1. Central Neck. Test Unit 20, Stratum II, Level 2. Cat. No. CR214.

2. Recurved jar. Brown polished exterior, brown smoothed interior. Design Set CS1. Motif 3.25. Lower Neck and Shoulder. Test Unit 29, Stratum II, Level 3. Cat. No. CR106. Toutswe.

3. Recurved jar. Brown smoothed exterior, red coarse exterior. Design Set CS1. Motif 3.3. Central Neck. Test Unit 20, Stratum II, Level 4. Cat. No. CR122. Toutswe.

4. Recurved jar. Brown smoothed exterior, red coarse interior. Design Set. CS1. Motif 3.1. Shoulder. Test Unit 28, Stratum II, Level 2. Cat. No. CR110.

5. Recurved jar. Brown smoothed exterior and interior. Design Set CS1. Motif 3.2. Rim to Central Neck. Test Unit 25, Stratum I, Level 1. Cat. No. CR175.

6. Recurved jar. Black smoothed exterior, brown coarse interior. Design Set CS1. Motif 3.26. Shoulder. Test Unit 23, Stratum II, Level 3. Cat. No. CR109. Toutswe.

7. Recurved jar. Brown burnished exterior, brown smoothed interior. Design Set CS2. Motif 3.5. Lower Neck. Test Unit 28, Stratum I, Level 1. Cat. No. CR105.

8. Recurved jar. Brown burnished exterior, brown smoothed interior. Design Set CS. Motif 3.18. Rim to Central Neck. Test Unit 20, Stratum I, Level 1. Cat. No. CR111. Toutswe.

9. Recurved jar. Brown smoothed exterior, brown coarse interior. Design Set CS2. Motif 3.18. Central Neck. Test Unit 9, Stratum II, Level 4. Cat. No. CR107. Toutswe.

10. Recurved jar. Brown smoothed exterior, brown coarse interior. Design Set CS2. Motif 3.15. Central Neck. Test Unit 23, Stratum II, Level 2. Cat. No. CR115.

11. Recurved jar. Brown smoothed exterior, black coarse interior. Design Set CS2. Motif 3.4. Lower Neck. Test Unit 9, Stratum II, Level 4. Cat. No. CR113.

12. Recurved jar. Black smoothed exterior and interior. Design Set CS2. Motif 3.18. Shoulder. Test Unit 22, Stratum II, Level 2. Cat. No. CR108. Toutswe.

13. Recurved jar. Red smoothed exterior, red spalled interior. Design Set CS2. Motif 3.2. Central Neck. Test Unit 25, Stratum II, Level 3. Cat. No. CR117.

14. Recurved jar. Brown burnished exterior, smoke-clouded red partially burnished interior. Design Set CS2. Motif 3.5. Central Neck. Test Unit 20, Stratum II, Level 2. Cat. No. CR116.

15. Recurved jar. Brown burnished exterior, black smoothed interior. Design Set CS3. Motif 3.7. Shoulder. Test Unit 23. Stratum II, Level 3. Cat. No. CR119.

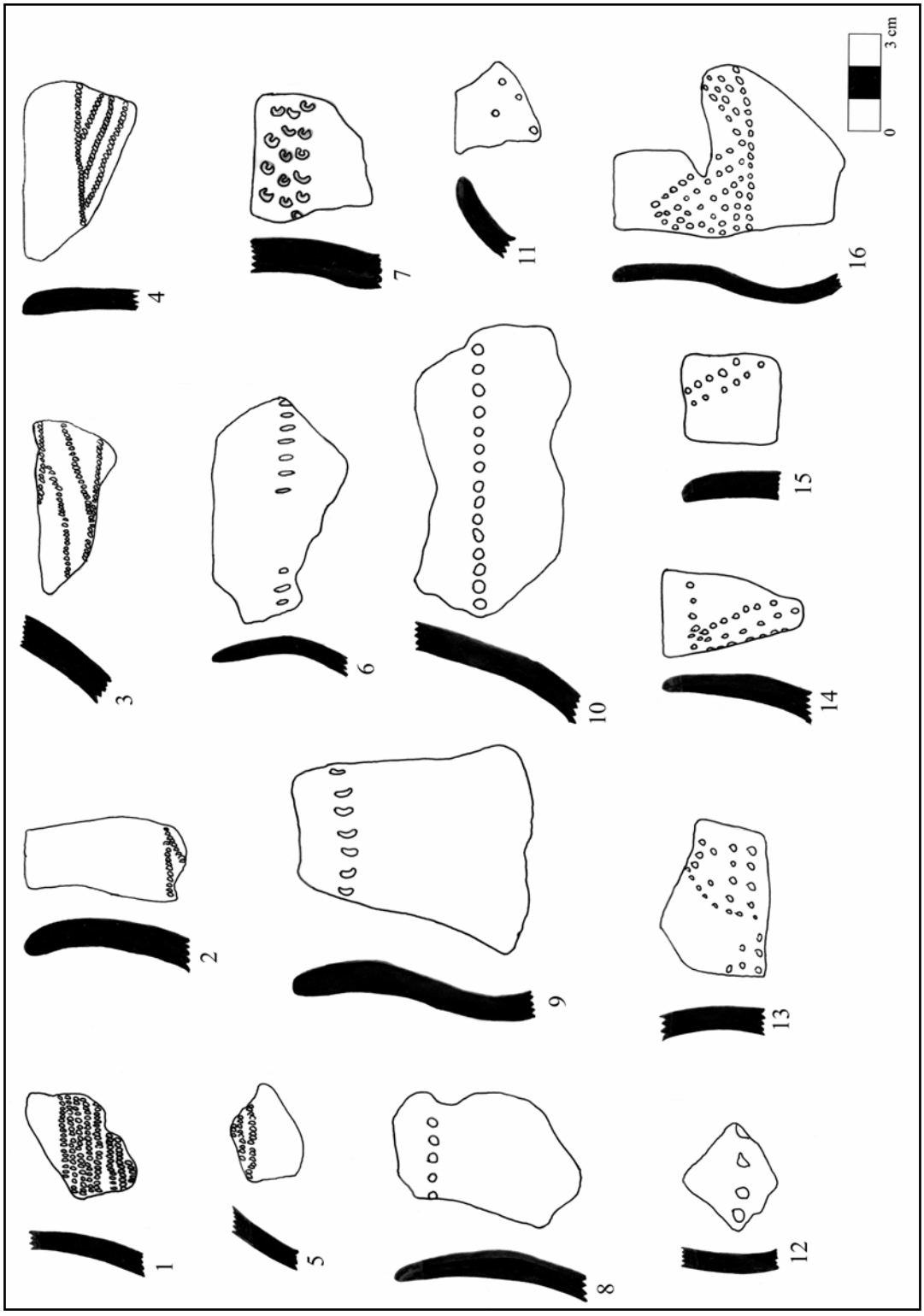


Plate 9. Castle Rock ceramics.

Plate 9. Descriptions

1. Recurved jar. Brown partially burnished exterior, red partially burnished interior. Design Set BB1. Motif 4.3. Lower Neck. Test Unit 19, Stratum I, Level 1. Cat. No. CR144.

2. Recurved jar. Brown partially burnished exterior and interior. Design Set BB2. Motif 4.1. Lower Neck. Test Unit 24, Stratum I, Level 1. Cat. No. CR143.

3. Same as 2 above, showing more of the design motif.

4. Recurved jar. Red smoothed exterior, smoke-clouded red smoothed interior. Design Set BB2. Motif 4.1. Central Neck. Test Unit 20, Stratum II, Level 3. Cat. No. CR142.

5. Recurved jar. Red smoothed exterior, red coarse interior. Design Set BB2. Motif 4.1. Shoulder. Test Unit 15, Stratum II, Level 3. Cat. No. CR147.

6. Recurved jar. Brown partially burnished exterior and interior. Design Set P1. Motif 5.2. Central Neck. Test Unit 18, Stratum II, Level 2. Cat. No. CR166.

7. Recurved jar. Red partially burnished exterior and interior. Design Set P1. Motif 5.1. Central Neck. Test Unit 24, Stratum I, Level 1. Cat. No. CR161.

8. Recurved jar. Red partially burnished exterior and interior. Design Set P1. Motif 5.2. Rim. Test Unit 14, Stratum II, Level 4. Cat. No. CR157.

9. Recurved jar. Brown smoothed exterior, red coarse interior. Design Set P1. Motif 5.8. Central Neck. Test Unit 22, Stratum I, Level 1. Cat. No. CR159.

10. Recurved jar. Smoke-clouded red and brown partially burnished exterior, red coarse interior. Design Set P1. Motif 5.2. Central Neck. Test Unit 16, Stratum I, Level 1. Cat. No. CR158.

11. Incurvate bowl. Red partially burnished exterior, red smoothed interior. Design Set P2. Motif 5.3. Body. Test Unit 19, Stratum II, Level 3. Cat. No. CR168.

12. Recurved jar. Red partially burnished exterior, red coarse interior. Design Set P1. Motif 5.2. Shoulder. Test Unit 29, Stratum II, Level 2. Cat. No. CR170.

13. Recurved jar. Brown partially burnished exterior, red partially burnished interior. Design Set P3. Motif 5.5. Central Neck. Test Unit 8, Stratum II, Level 2. Cat. No. CR154.

14. Recurved jar. Red burnished exterior, red partially burnished interior. Design Set P4. Motif 5.6. Central Neck to Lower Neck. Test Unit 14, Stratum II, Level 2. Cat. No. CR155.

15. Recurved jar. Brown smoothed exterior and interior. Design Set P4. Motif 5.9. Rim to Central Neck. Test Unit 3, Stratum I, Level 1. Cat. No. CR176.

16. Recurved jar. Black burnished exterior, brown partially burnished interior. Design Set P4. Motif 5.7. Central Neck to Lower Neck. Test Unit 24, Stratum II, Level 2. Cat. No. CR156.

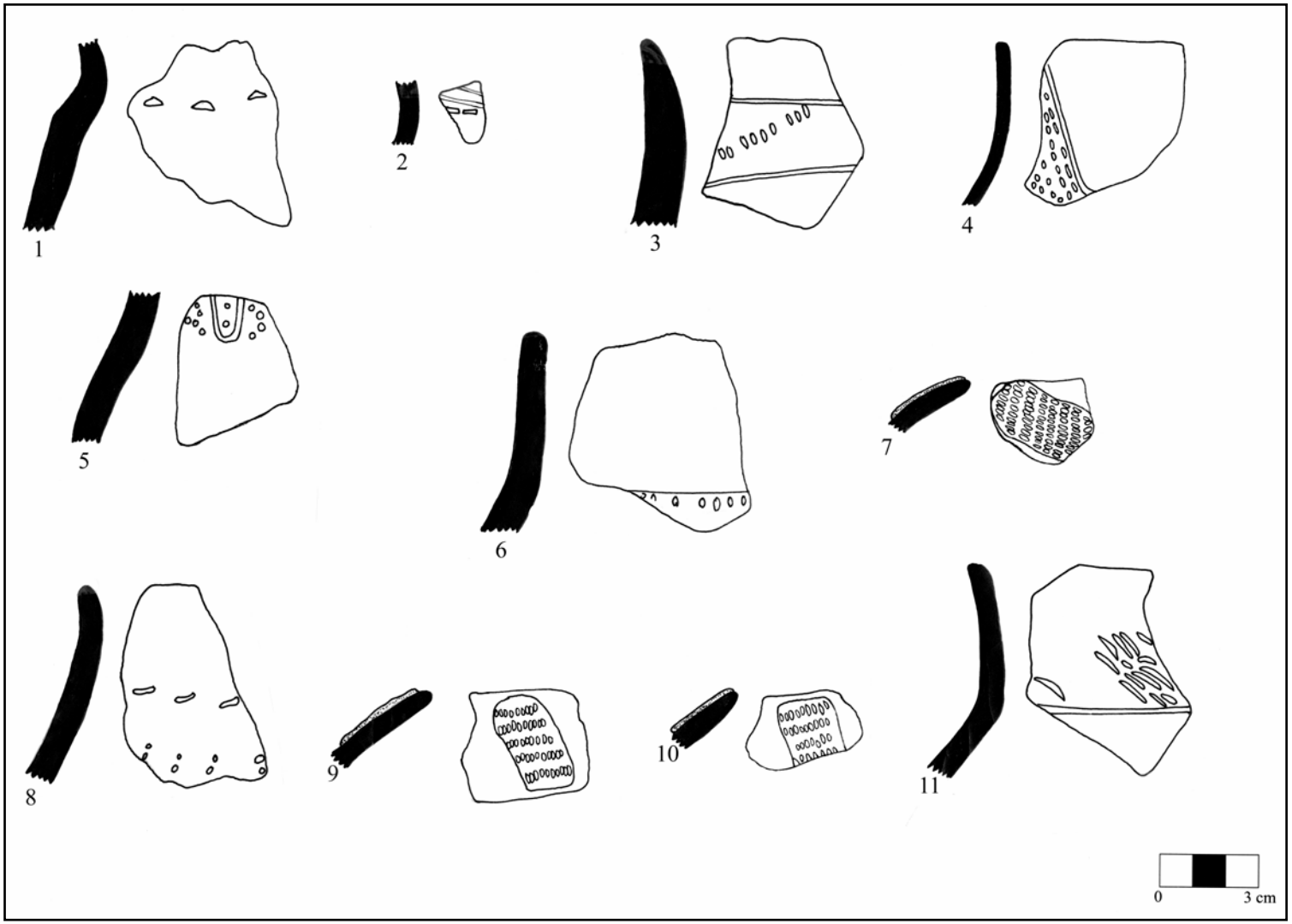


Plate 10. Castle Rock ceramics.

Plate 10. Descriptions

1. Recurved jar. Brown smoothed exterior and interior. Design Set F1. Motif 6.3. Shoulder. Test Unit 21, Stratum II, Level 2. Cat. No. CR133.

2. Recurved jar. Brown burnished exterior, brown partially burnished interior. Design Set I/CS2. Motif 12.1. Lower Neck. Test Unit 10, Stratum I, Level 1. Cat. No. CR126.

3. Recurved jar. Brown burnished interior, red partially burnished interior. Design Set I/BB1. Motif 11.3. Central Neck. Test Unit 18, Stratum I, Level 1. Cat. No. CR150.

4. Recurved jar. Brown partially burnished exterior, brown smoothed interior. Design Set I/P3. Motif 14.5. Central Neck to Lower Neck. Test Unit 5, Stratum II, Level 2. Cat. No. CR136.

5. Recurved jar. Black burnished exterior, black smoothed interior. Design Set I/P3. Motif 14.7. Shoulder. Test Unit 20, Stratum II, Level 2. Cat. No. CR138.

6. Recurved jar. Brown smoothed exterior and interior. Design Set I/P5. Motif 14.8. Lower Neck. Test Unit 12, Stratum I, Level 1. Cat. No. CR141.

7. Incurvate Bowl. Red Burnished exterior, brown burnished interior. Design Set A/CS2. Motif 19.2. Rim to Body. Test Unit 23, Stratum II, Level 2. Cat. No. CR153.

8. Recurved jar. Red smoothed exterior, red coarse interior. Design Set CS/F1. Motif 20.1. Lower Neck to Shoulder. Test Unit 18, Stratum II, Level 2. Cat. No. CR131.

9. Incurvate bowl. Brown burnished exterior, black partially burnished interior. Design Set A/BB1. Motif 22.1. Rim to Body. Test Unit 5, Stratum II, Level 2. Cat. No. CR151.

10. Incurvate bowl. Brown burnished exterior, red burnished interior. Design Set A/BB1. Motif 22.1. Rim to Body. Test Unit 29, Stratum I, Level 1. Cat. No. CR152.

11. Recurved jar. Brown burnished exterior, brown coarse interior. Design Set I/F1. Motif 21.1. Central Neck. Test Unit 17, Stratum I, Level 1. Cat. No. CR132.

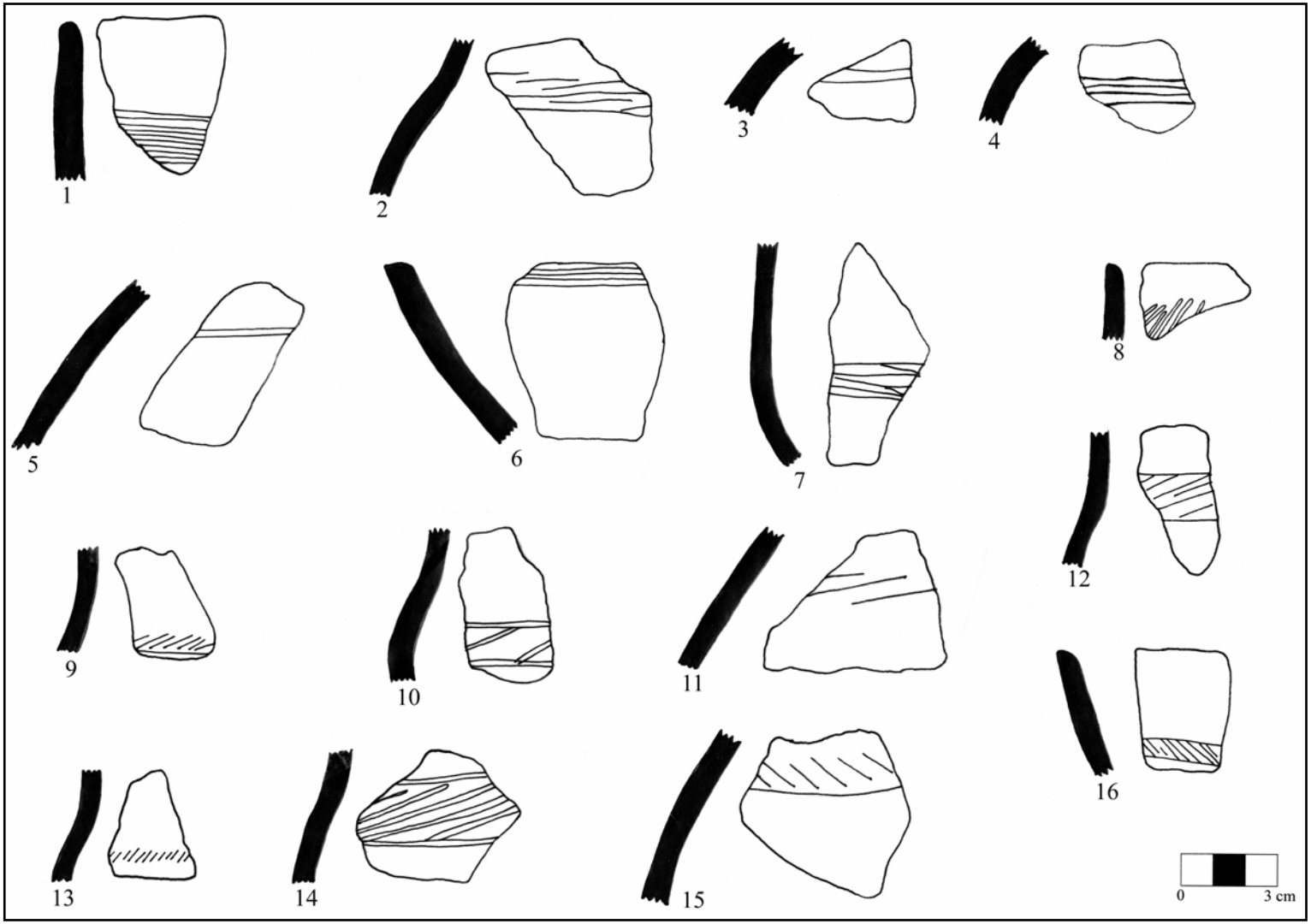


Plate 11. Leokwe Hill, Western Summit ceramics.

Plate 11. Descriptions

1. Bag-shaped jar. Red partially burnished exterior and interior. Design Set I1. Motif 2.2. Body. Test Unit 9, Stratum II, Level 4. Cat. No. LHA49.

2. Recurved jar. Brown coarse exterior, brown spalled interior. Design Set I1. Motif 2.36. Shoulder. Test Unit 10, Stratum II, Level 2. Cat. No. LHA51.

3. Recurved jar. Black partially burnished exterior, red coarse interior. Design Set I1. Motif 2.21. Shoulder. Test Unit 10, Stratum I, Level 1. Cat. No. LHA81.

4. Recurved jar. Smoke-clouded brown partially burnished exterior, brown coarse interior. Design Set I1. Motif 2.20. Shoulder. Test Unit 13, Stratum II, Level 3. Cat. No. LHA77.

5. Recurved jar. Brown burnished exterior, red coarse interior. Design Set I1. Motif 2.12. Shoulder. Test Unit 4, Stratum I, Level 1. Cat. No. LHA53.

6. Simple shallow bowl. Black burnished exterior and interior. Design Set I1. Motif 2.21. Rim. Test Unit 17, Stratum II, Level 4. Cat. No. LHA44.

7. Recurved jar. Brown burnished exterior, brown coarse interior. Design Set I1. Motif 2.36. Shoulder. Test Unit 50, Stratum II, Level 3. Cat. No. LHA250.

8. Recurved jar. Red burnished exterior, brown smoothed interior. Design Set I2. Motif 2.14. Central Neck. Test Unit 1, Stratum II, Level 4. Cat. No. LHA567.

9. Recurved jar. Red smoothed exterior, red coarse interior. Design Set I2. Motif 2.55. Lower Neck. Test Unit 29, Stratum II, Level 3. Cat. No. LHA266.

10. Recurved jar. Brown smoothed exterior, brown coarse interior. Design Set I2. Motif 2.22. Shoulder. Test Unit 35, Stratum II, Level 3. Cat. No. LHA256.

11. Recurved jar. Red smoothed exterior, brown coarse interior. Design Set I2. Motif 2.14. Shoulder. Test Unit 57, Stratum II, Level 4. Cat. No. LHA562.

12. Recurved jar. Red burnished exterior, brown burnished interior. Design Set I2. Motif 2.22. Lower Neck. Test Unit 40, Stratum II, Level 3. Cat. No. LHA282.

13. Recurved jar. Brown smoothed exterior, brown coarse interior. Design Set I2. Motif 2.22. Shoulder. Test Unit 56, Stratum II, Level 2. Cat. No. LHA560.

14. Recurved jar. Brown smoothed exterior, red coarse interior. Design Set I2. Motif 2.22. Lower Neck. Test Unit 3, Stratum II, Level 4. Cat. No. LHA48.

15. Recurved jar. Brown smoothed exterior, brown coarse interior. Design Set I2. Motif 2.55. Shoulder. Test Unit 34, Stratum I, Level 1. Cat. No. LHA267.

16. Simple shallow bowl. Brown burnished exterior and interior. Design Set I2. Motif 2.22. Body. Surface. Cat. No. LHA718.

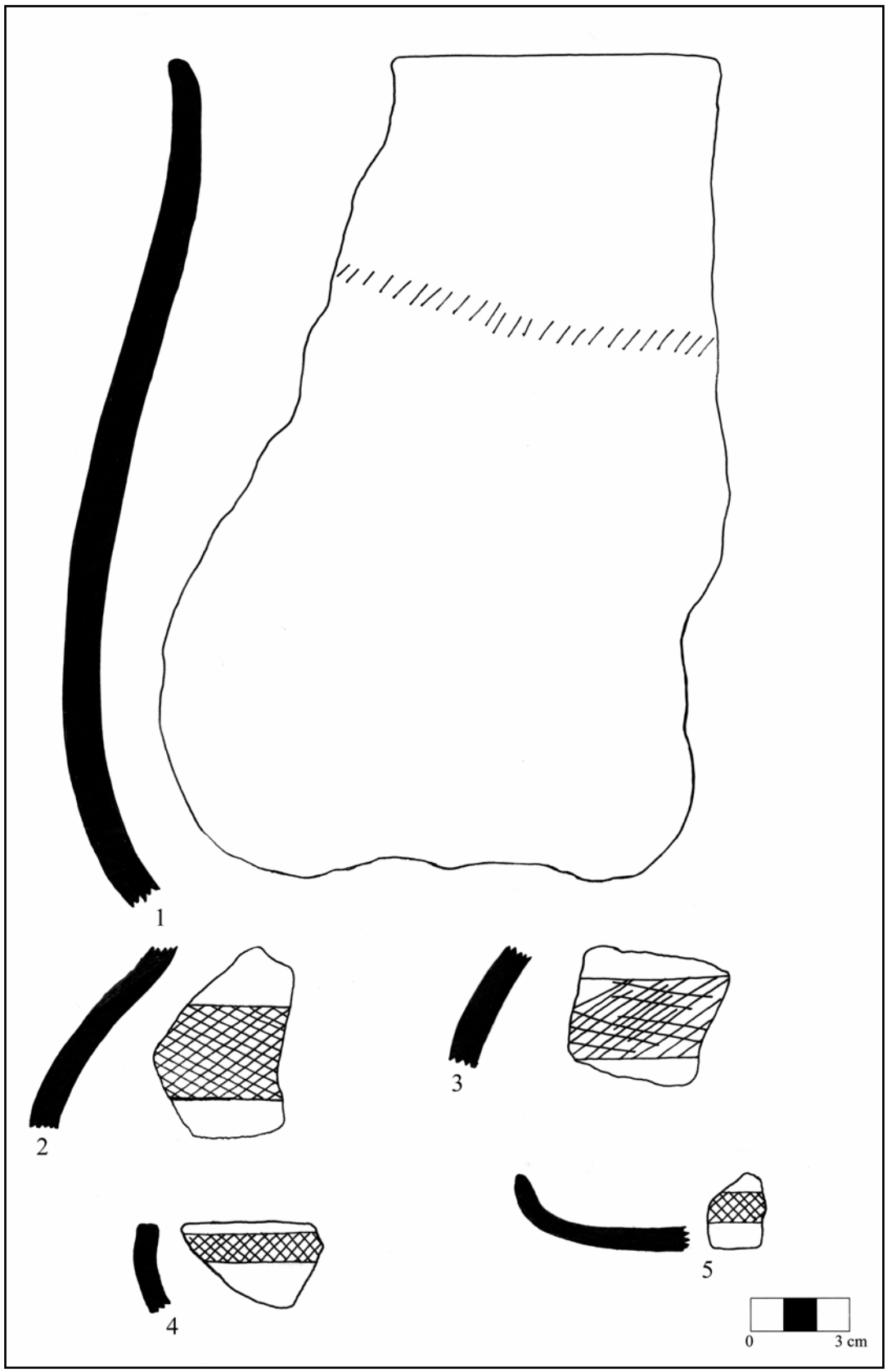


Plate 12. Leokwe Hill, Western Summit ceramics.

Plate 12. Descriptions

1. Portion of complete recurved jar. Brown smoothed exterior, brown coarse interior. Soot and carbon deposits at base of vessel indicate it was used for cooking. Design Set I2. Motif 2.14. Lower Neck. Test Unit 12, Feature 1, Stratum II, Level 3. Cat. No. LHA61.

2. Recurved jar. Brown burnished exterior, smoke-clouded brown smoothed interior. Exterior design area is matte, undecorated area burnished. Design Set I3. Motif 2.9. Shoulder. Test Unit 35, Stratum II, Level 4. Cat. No. LHA249.

3. Recurved jar. Black burnished exterior, brown smoothed interior. Exterior design area is matte, undecorated area burnished. Design Set I3. Motif 2.9. Shoulder. Surface. Cat. No. LHA249.

4. Plate. Black burnished exterior and interior. Exterior design area is matte, undecorated area burnished. Design Set I3. Motif 2.9. Body. Test Unit 46, Stratum II, Level 2. Cat. No. LHA358.

5. Plate. Black burnished exterior and interior. Design Set I3. Motif 2.9. Body. Surface. Cat. No. LHA721.

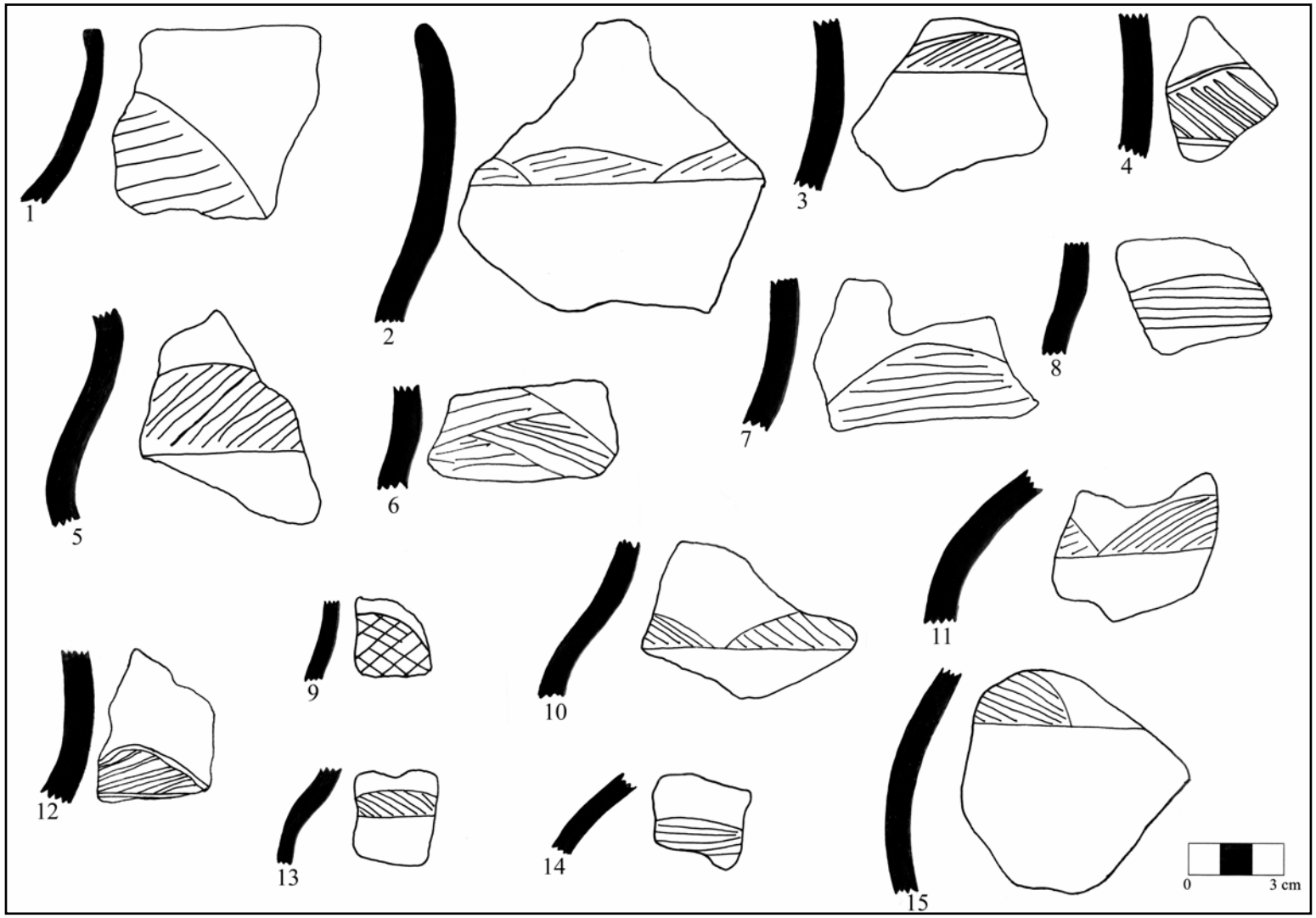


Plate 13. Leokwe Hill, Western Summit ceramics.

Plate 13. Descriptions

1. Recurved jar. Red smoothed exterior and interior. Design Set I5. Motif 2.38. Central Neck to Lower Neck. Test Unit 52, Stratum II, Level 3. Cat. No. LHA287.

2. Recurved jar. Brown smoothed exterior, brown coarse interior. Design Set I5. Motif 2.38. Lower Neck. Test Unit 62, Stratum II, Level 3. Cat. No. LHA529.

3. Recurved jar. Black partially burnished exterior, red spalled interior. Design Set I5. Motif 2.29. Central Neck. Test Unit 12, Stratum II, Level 4. Cat. No. LHA47.

4. Recurved jar. Brown burnished exterior, black coarse interior. Design Set I5. Motif 2.29. Lower Neck. Test Unit 30, Stratum II, Level 4. Cat. No. LHA289.

5. Recurved jar. Black burnished exterior, brown burnished interior. Design Set I5. Motif 2.29. Lower Neck to Shoulder. Test Unit 30, Stratum II, Level 3. Cat. No. LHA293.

6. Recurved jar. Brown smoothed exterior, brown coarse interior. Design Set I5. Motif 2.26. Lower Neck to Shoulder. Test Unit 52, Stratum II, Level 3. Cat. No. LHA326.

7. Recurved jar. Brown burnished exterior, brown coarse interior. Exterior design area is matte, undecorated area burnished. Design Set I5. Motif 2.38. Lower Neck to Shoulder. Test Unit 9, Stratum I, Level 1. Cat. No. LHA6.

8. Recurved jar. Brown smoothed exterior, brown coarse interior. Design Set I5. Motif 2.38. Lower Neck to Shoulder. Test Unit 29, Stratum II, Level 3. Cat. No. LHA297.

9. Recurved jar. Black burnished exterior, brown smoothed interior. Design Set I5. Motif 2.34. Lower Neck to Shoulder. Test Unit 22, Stratum I, Level 1. Cat. No. LHA25.

10. Recurved jar. Brown smoothed exterior, smoke-clouded red interior. Design Set I5. Motif 2.29. Shoulder. Test Unit 9, Stratum II, Level 3. Cat. No. LHA10.

11. Recurved jar. Brown burnished exterior, brown coarse interior. Design Set I5. Motif 2.29. Shoulder. Test Unit 61, Stratum II, Level 2. Cat. No. LHA530.

12. Recurved jar. Smoke-clouded red smoothed exterior, red coarse interior. Design Set I5. Motif 2.29. Shoulder. Test Unit 59, Stratum II, Level 3. Cat. No. LHA535.

13. Recurved jar. Brown burnished exterior, brown smoothed interior. Exterior design area is matte, undecorated area burnished. Design Set I5. Motif 2.29. Shoulder. Test Unit 17, Stratum II, Level 2. Cat. No. LHA19.

14. Recurved jar. Smoke-clouded red burnished exterior, brown smoothed interior. Exterior design area is matte, undecorated area burnished. Design Set I5. Motif 2.38. Shoulder. Test Unit 29, Stratum II, Level 3. Cat. No. LHA299.

15. Recurved jar. Brown burnished exterior, brown partially burnished interior. Design Set I5. Motif 2.38. Shoulder. Test Unit 4, Stratum II, Level 2. Cat. No. LHA651.

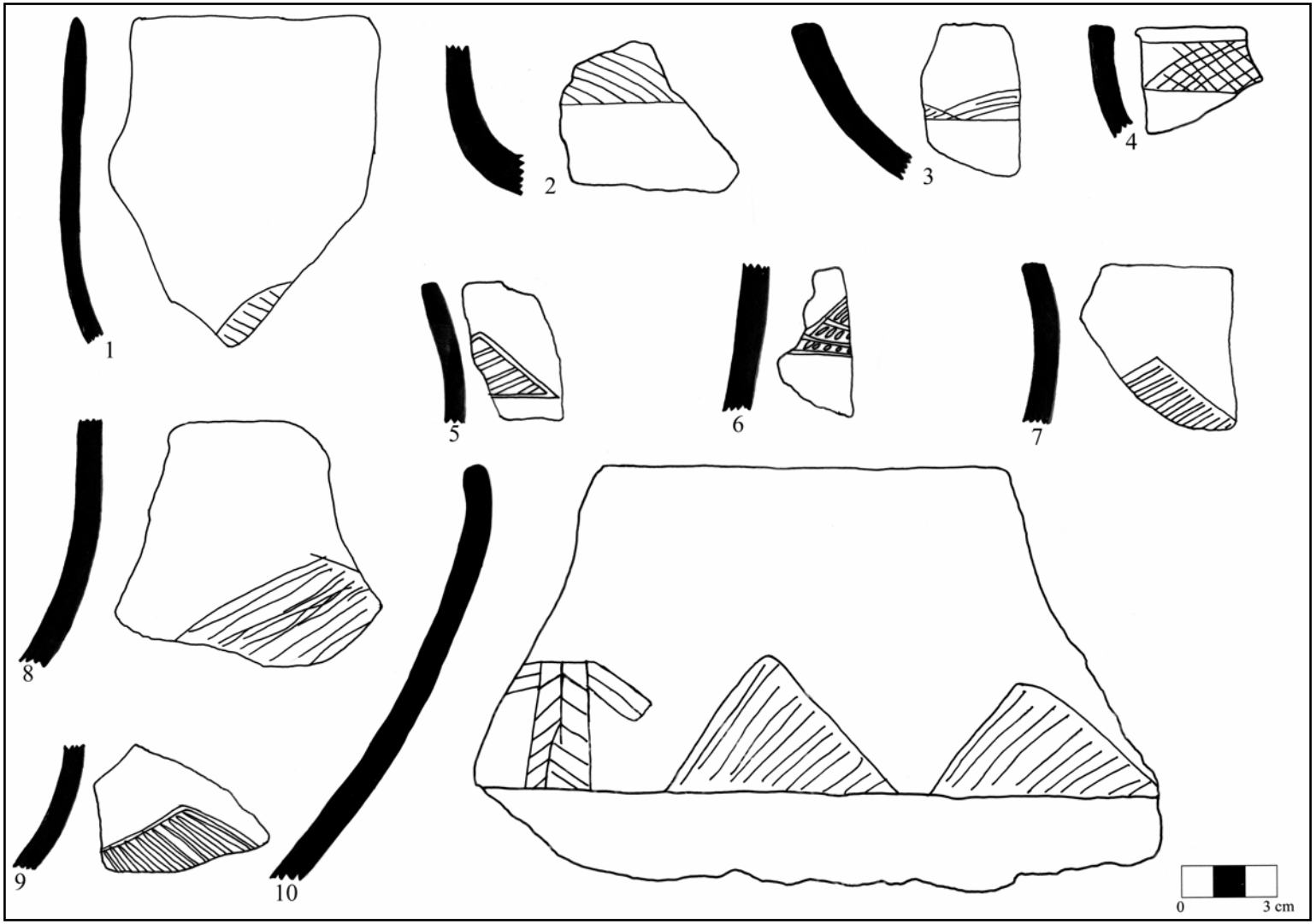


Plate 14. Leokwe Hill, Western Summit ceramics.

Plate 14. Descriptions

1. Beaker. Black burnished exterior and interior. Design Set I5. Motif 2.38. Body. Test Unit 29, Stratum II, Level 4. Cat. No. LHA286.

2. Beaker. Brown burnished exterior, brown smoothed interior. Exterior design area is matte, undecorated area burnished. Design Set I5. Motif 2.38. Body. Test Unit 34, Stratum II, Level 3. Cat. No. LHA288.

3. Simple shallow bowl. Brown burnished exterior, black burnished interior. Design Set I5. Motif 2.29. Body. Surface. Cat. No. LHA715.

4. Plate. Black burnished exterior and interior. Design Set I5. Motif 2.34. Body. Test Unit 65, Stratum II, Level 3. Cat. No. LHA555.

5. Recurved jar. Black smoothed exterior, red coarse interior. Design Set I6. Motif 2.26. Central Neck. Test Unit 21, Stratum II, Level 4. Cat. No. LHA8.

6. Recurved jar. Brown partially burnished exterior, brown spalled interior. Design Set I6. Motif 2.41. Lower Neck. Test Unit 53, Stratum II, Level 2. Cat. No. LHA330.

7. Recurved jar. Brown smoothed exterior and interior. Design Set I6. Motif 2.26. Lower Neck. Test Unit 38, Stratum II, Level 4. Cat. No. LHA329.

8. Recurved jar. Smoke-clouded red exterior smoothed, red smoothed interior. Design Set I6. Motif 2.26. Lower Neck to Shoulder. Test Unit 10, Stratum II, Level 3. Cat. No. LHA3.

9. Recurved jar. Black burnished exterior and interior. Design Set I6. Motif 2.26. Lower Neck to Shoulder. Test Unit 2, Stratum II, Level 3. Cat. No. LHA645.

10. Bag-shaped jar. Shoulder. Brown partially burnished exterior and interior. Design Set I6. Motif 2.10. Shoulder. Test Unit 48, Stratum II, Level 3. Cat. No. LHA301.

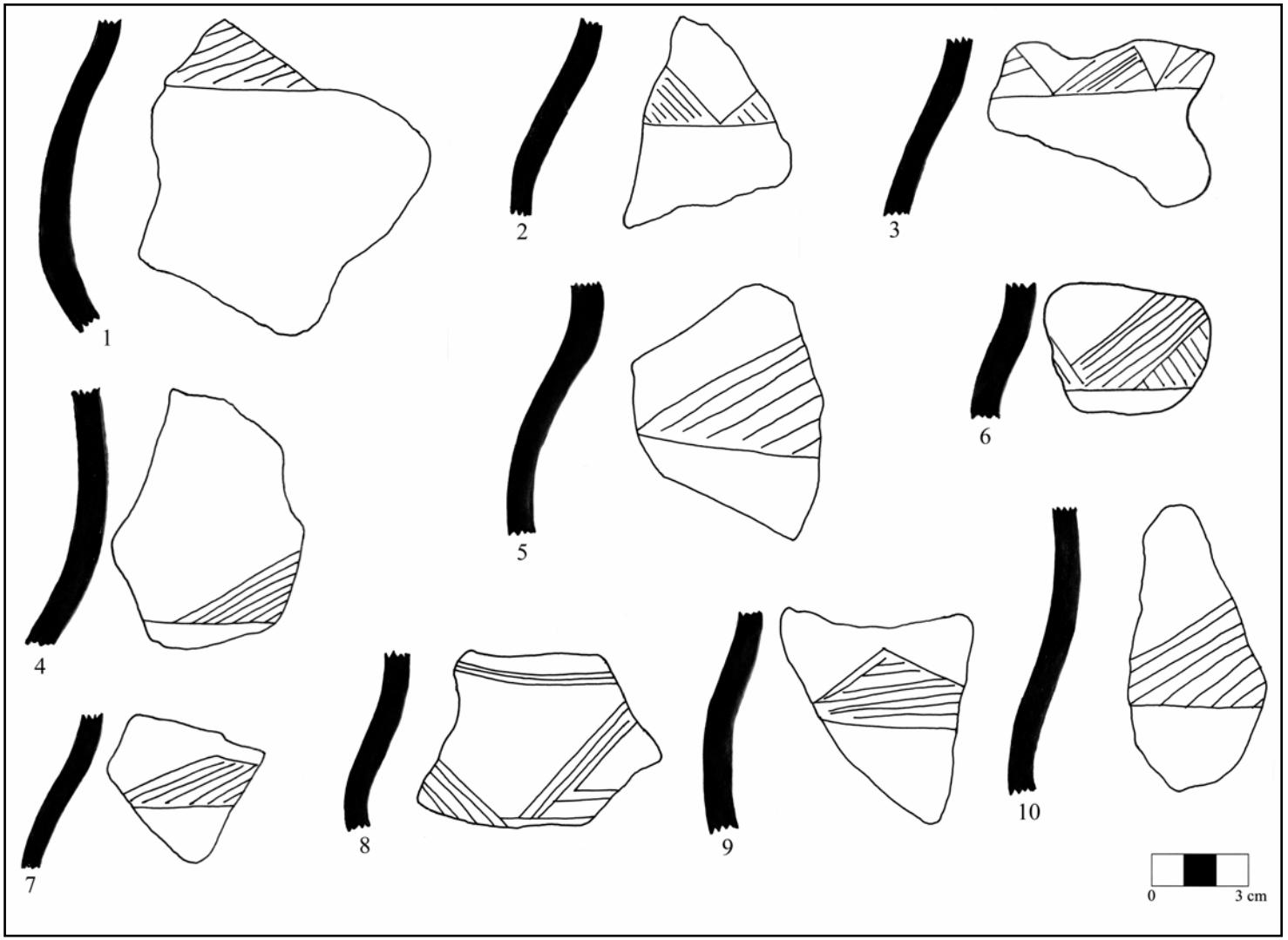


Plate 15. Leokwe Hill, Western Summit ceramics.

Plate 15. Descriptions

1. Recurved jar. Brown smoothed exterior, brown coarse interior. Design Set I6. Motif 2.26. Shoulder. Test Unit 4, Stratum II, Level 3. Cat. No. LHA9.

2. Recurved jar. Brown smoothed exterior, grey coarse interior. Design Set I6. Motif 2.26. Lower Neck to Shoulder. Surface. Cat. No. LHA712.

3. Recurved jar. Red smoothed exterior, red coarse interior. Design Set I6. Motif 2.26. Lower Neck. Test Unit 1, Stratum II, Level 4. Cat. No. LHA531.

4. Recurved jar. Smoke-clouded brown partially burnished exterior, brown smoothed interior. Design Set I6. Motif 2.26. Shoulder. Test Unit 35, Stratum II, Level 3. Cat. No. LHA317.

5. Recurved jar. Smoke-clouded brown smoothed exterior, brown coarse interior. Design Set I6. Motif 2.26. Lower Neck to Shoulder. Test Unit 29, Stratum II, Level 3. Cat. No. LHA315.

6. Recurved jar. Black burnished exterior, brown smoothed interior. Design Set I6. Motif 2.26. Lower Neck to Shoulder. Test Unit 49, Stratum II, Level 3. Cat. No. LHA314.

7. Recurved jar. Black partially burnished exterior, black coarse interior. Design Set I6. Motif 2.26. Lower Neck to Shoulder. Test Unit 2, Stratum II, Level 3. Cat. No. LHA648.

8. Recurved jar. Black partially burnished exterior, black smoothed interior. Design Set I6. Motif 2.52. Lower Neck to Shoulder. Test Unit 16, Stratum II, Level 2. Cat. No. LHA46.

9. Recurved jar. Brown partially burnished interior and exterior. Design Set I6. Motif 2.19. Lower Neck to Shoulder. Test Unit 40, Stratum II, Level 3. Cat. No. LHA313.

10. Recurved jar. Brown smoothed exterior, brown coarse interior. Design Set I6. Motif 2.26. Lower Neck to Shoulder. Test Unit 9, Stratum II, Level 3. Cat. No. LHA2.

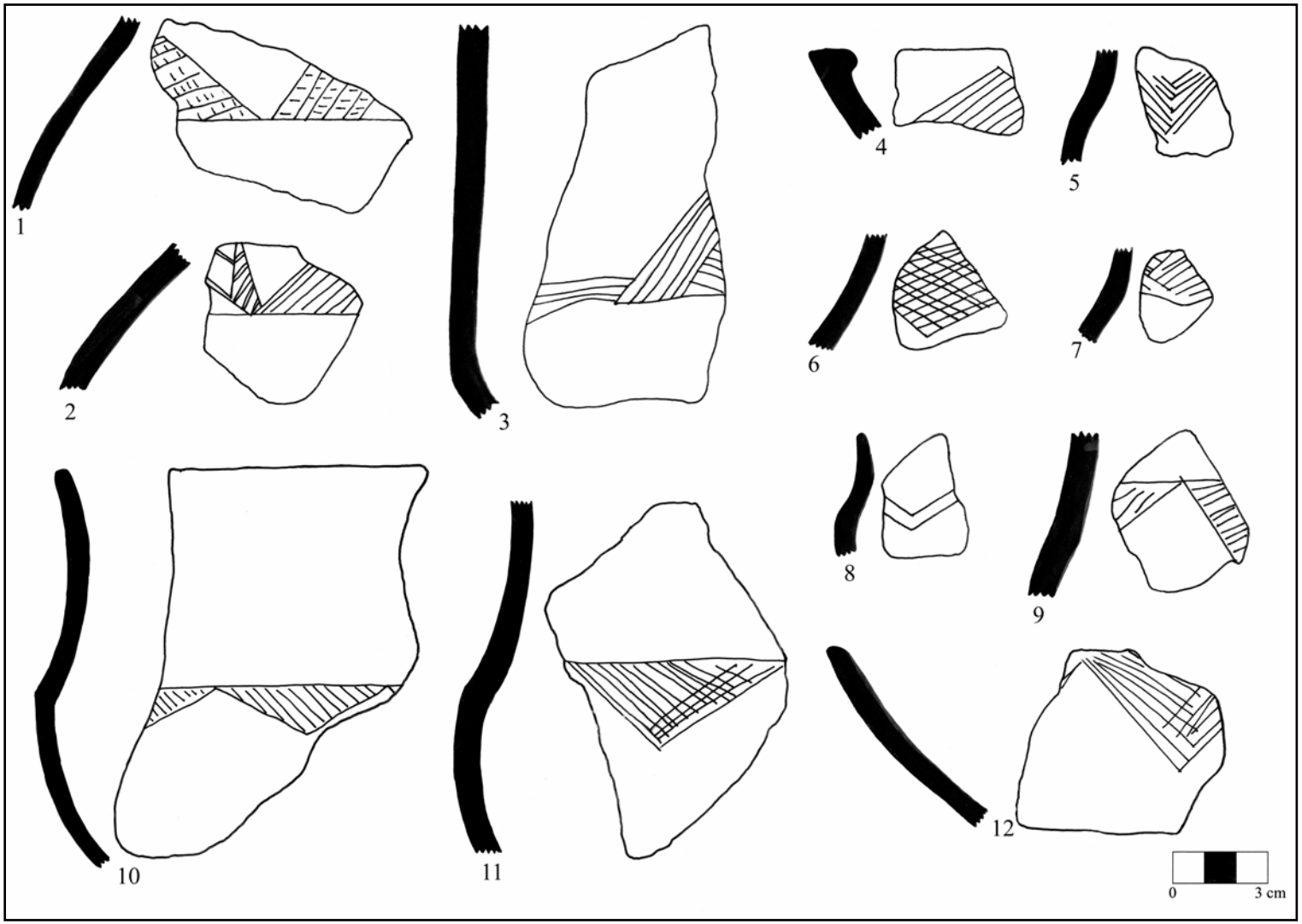


Plate 16. Leokwe Hill, Western Summit ceramics.

Plate 16. Descriptions

1. Recurved jar. Brown burnished exterior, brown smoothed interior. Design Set I6. Motif 2.41. Shoulder. Test Unit 34 Stratum II, Level 2. Cat. No. LHA318.

2. Recurved jar. Smoke-clouded brown burnished exterior, brown coarse interior. Exterior design area is matte, undecorated area burnished. Design Set I6. Motif 2.32. Shoulder. Test Unit 9, Stratum I, Level 1. Cat. No. LHA22.

3. Beaker. Black burnished exterior, black partially burnished interior. Design Set I6. Motif 2.78. Body. Test Unit 48, Stratum II, Level 3. Cat. No. LHA311.

4. Plate. Brown burnished exterior and interior. Design Set. I6. Motif 2.26. Body. Test Unit 39, Stratum II, Level 3. Cat. No. LHA354.

5. Recurved jar. Black burnished exterior, black coarse interior. Design Set I11. Motif 2.27. Lower Neck to Shoulder. Test Unit 28, Stratum II, Level 3. Cat. No. LHA349.

6. Recurved jar. Black smoothed exterior, black coarse interior. Design Set I11. Motif 2.42. Lower Neck to Shoulder. Test Unit 58, Stratum II, Level 4. Cat. No. LHA540.

7. Recurved jar. Brown burnished exterior, brown partially burnished interior. Design Set I11. Motif 2.79. Test Unit 1, Stratum II, Level 4. Cat. No. LHA547.

8. Coarse recurved jar. Black smoothed exterior, black coarse interior. Design Set I6. Motif 2.57. Test Unit 10, Stratum I, Level 1. Cat. No. LHA93. Probable muti or child's vessels.

9. Recurved jar. Brown smoothed exterior, brown coarse interior. Design Set I11. Motif 2.27. Lower Neck to Shoulder. Test Unit 15, Stratum I, Level 1. Cat. No. LHA13.

10. Recurved jar. Red burnished exterior, red coarse interior. Exterior design area is matte, undecorated area burnished. Design Set I11. Motif 2.27. Shoulder. Test Unit 4, Stratum II, Level 2. Cat. No. LHA656.

11. Recurved jar. Smoke-clouded red burnished exterior, smoke-clouded red smoothed interior. Design Set I11. Motif 2.79. Shoulder. Test Unit 64, Stratum I, Level 1. Cat. No. LHA526.

12. Simple shallow bowl. Black burnished exterior, black partially burnished interior. Design Set I11. Motif 2.79. Rim to Body. Test Unit 31, Stratum II, Level 3. Cat. No. LHA351.

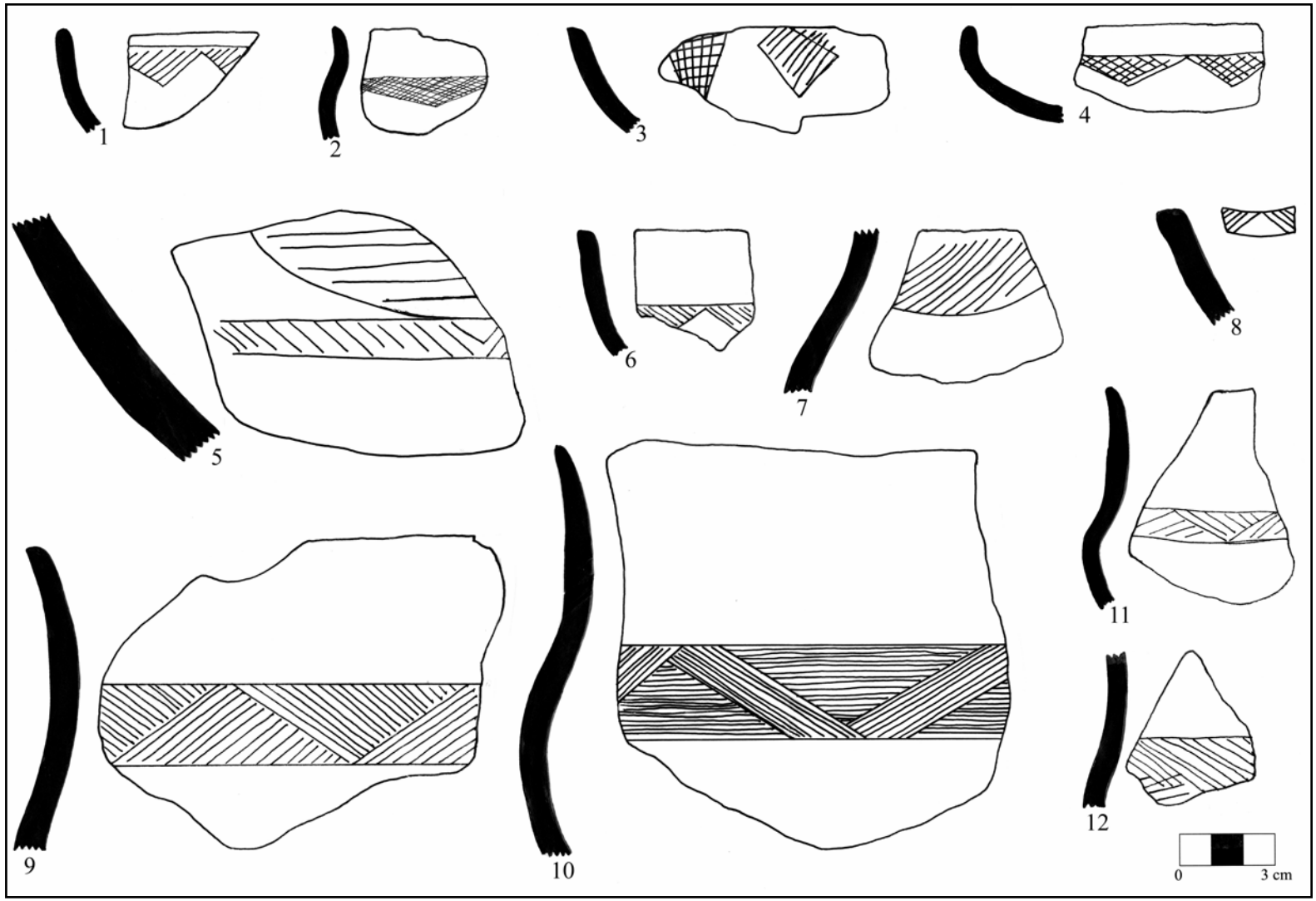


Plate 17. Leokwe Hill, Western Summit ceramics.

Plate 17. Descriptions

1. Very shallow bowl. Black burnished exterior and interior. Exterior design area is matte, undecorated area burnished. Design Set I11. Motif 2.27. Body. Surface. Cat. No. LHA722.

2. Necked bowl. Black partially burnished exterior, brown partially burnished interior. Design Set I11. Body. Test Unit 52, Stratum II, Level 2. Cat. No. LHA350.

3. Plate. Black burnished exterior and interior. Design Sets I11 and I15. Motifs 2.42 and 2.51. Rim to Body. Test Unit 11, Stratum II, Level 3. Cat. No. LHA42.

4. Plate. Smoke-clouded brown burnished exterior, brown smoothed interior. Design Set I11. Motif 2.42. Body. Test Unit 57, Stratum I, Level 1. Cat. No. LHA556.

5. Simple deep bowl. Brown smoothed exterior, smoke-clouded red smoothed interior. Design Set I12. Motif 2.53. Body. Test Unit 12, Stratum II, Level 3. Cat. No. LHA62. Recovered from inside of whole vessel shown in Plate 12.1.

6. Plate. Smoke-clouded red burnished exterior, black burnished interior. Design Set I11. Motif 2.27. Body. Test Unit 2, Stratum II, Level 3. Cat. No. LHA643.

7. Recurved jar. Brown smoothed exterior, brown coarse interior. Design Set I12. Motif 2.39. Lower Neck to Shoulder. Test Unit 38, Stratum II, Level 4. Cat. No. LHA298.

8. Very shallow bowl. Black burnished exterior and interior. Design Set I11. Motif 2.27. Lip. Test Unit 35, Stratum II, Level 3. Cat. No. LHA359.

9. Recurved jar. Brown smoothed exterior, red coarse interior. Design Set I14. Motif 2.50. Lower Neck. Test Unit 57, Stratum II, Level 3. Cat. No. LHA528.

10. Recurved jar. Red and brown smoke-clouded burnished exterior, brown coarse interior. Design Set I14. Motif 2.50. Shoulder. Test Unit 52, Stratum II, Level 2. Cat. No. LHA233.

11. Recurved jar. Black burnished exterior, black coarse interior. Design Set I14. Motif 2.50. Shoulder. Test Unit 53, Stratum II, Level 5. Cat. No. LHA231.

12. Recurved jar. Black burnished exterior, black smoothed interior. Design Set I14. Motif 2.50. Shoulder. Test Unit 3, Stratum II, Level 3. Cat. No. LHA40.

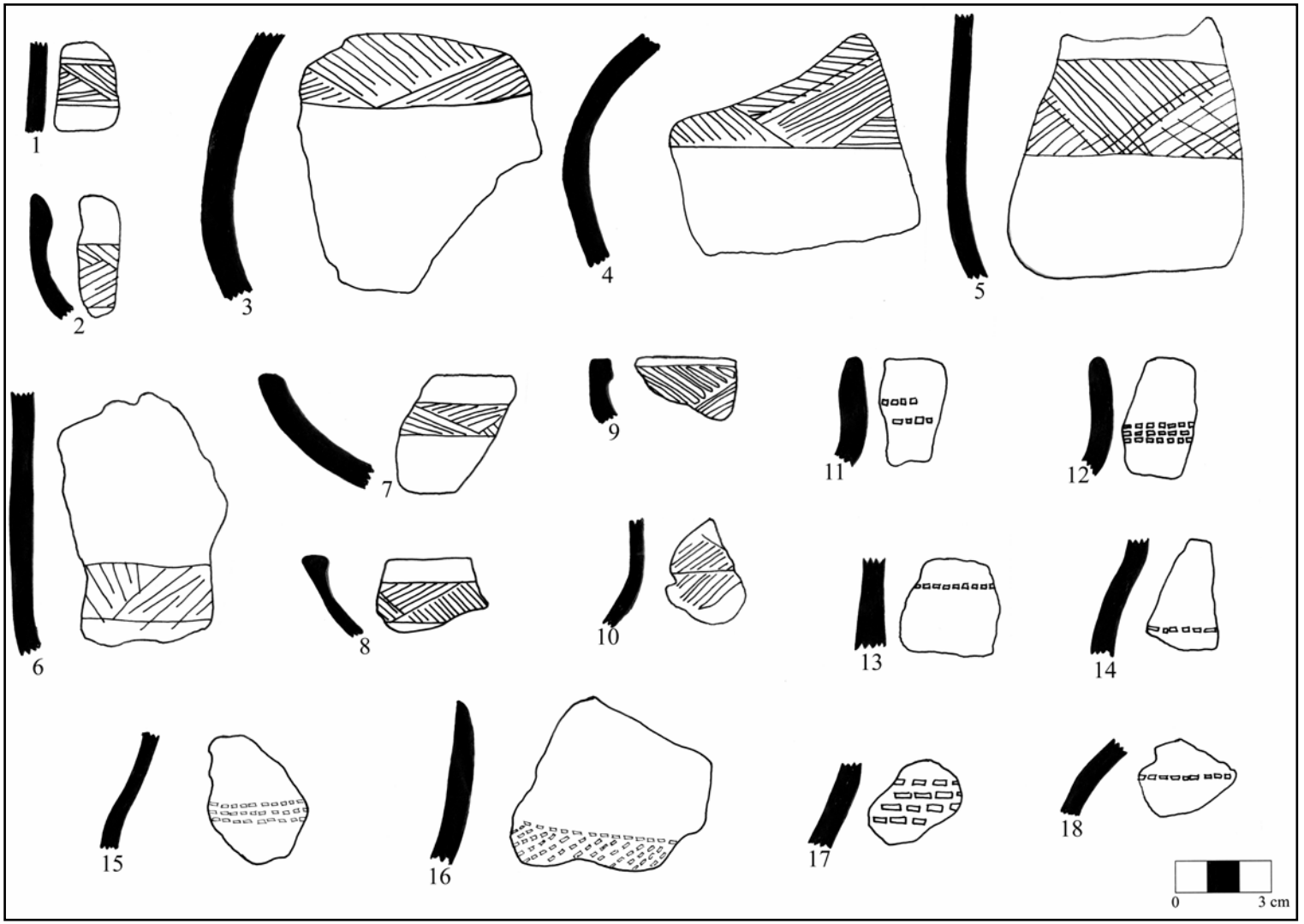


Plate 18. Leokwe Hill, Western Summit ceramics.

Plate 18. Descriptions

1. Recurved jar. Brown smoothed exterior, brown spalled interior. Design Set I14. Motif 2.50. Lower Neck. Test Unit 14, Stratum II, Level 4. Cat. No. LHA39.

2. Very shallow bowl. Brown burnished exterior and interior. Design Set I14. Motif 2.50. Body. Test Unit 26, Stratum I, Level 1. Cat. No. LHA36.

3. Recurved jar. Red burnished exterior, brown coarse interior. Exterior design area is matte, undecorated area burnished. Design Set I14. Motif 2.50. Shoulder. Surface. Cat. No. LHA710.

4. Another fragment of vessel shown in Plate 18.10.

5. Beaker. Black burnished exterior and interior. Design Set I14. Motif 2.50. Body. Test nit 33, Stratum II, Level 2. Cat. No. LHA236.

6. Beaker. Brown burnished exterior and interior. Design Set I14. Motif 2.50. Body. Test Unit 58, Stratum II, Level 2. Cat. No. LHA554.

7. Very shallow bowl. Brown burnished exterior and interior. Exterior design area is matte, undecorated area burnished. Design Set I14. Motif 2.50. Body. Test Unit 50, Stratum II, Level 3. Cat. No. LHA557.

8. Very shallow bowl. Brown burnished exterior and interior. Exterior design area is matte, undecorated area burnished. Design Set I14. Motif 2.50. Body. Surface. Cat. No. LHA723.

9. Very shallow bowl. Brown burnished exterior and interior. Exterior design area is matte, undecorated area burnished. Design Set I14. Motif 2.50. Body. Surface. Cat. No. LHA724.

10. Recurved jar. Brown burnished exterior, brown smoothed interior. Exterior design area is matte, undecorated area burnished. Design Set I15. Motif 2.51. Lower Neck to Shoulder. Test Unit 11, Stratum II, Level 4. Cat. No. LHA45.

11. Recurved jar. Red smoothed exterior and interior. Design Set CS1. Motif 3.2. Central Neck. Test Unit 2, Stratum II, Level 2. Cat. No. LHA661.

12. Recurved jar. Brown burnished exterior, brown smoothed interior. Design Set CS1. Motif 3.2. Lower Neck. Test Unit 7, Stratum II, Level 4. Cat. No. LHA30.

13. Recurved jar. Brown smoothed exterior, red burnished interior. Design Set CS1. Motif 3.1. Central Neck. Test Unit 2, Stratum II, Level 3. Cat. No. LHA662.

14. Recurved jar. Brown smothed exterior and interior. Design Set CS1. Motif 3.1. Shoulder. Test Unit 21, Stratum II, Level 3. Cat. No. LHA31.

15. Recurved jar. Red burnished exterior, red smoothed interior. Design Set CS1. Motif 3.2. Lower Neck. Test Unit 12, Stratum II, Level 4. Cat. No. LHA29.

16. Recurved jar. Brown smoothed exterior, brown coarse interior. Design Set CS2. Motif 3.5. Lower neck. Test Unit 2, Stratum II, Level 2. Cat. No. LHA659.

17. Recurved jar. Brown smoothed exterior, brown coarse interior. Design Set CS1. Motif 3.2. Lower neck. Test Unit 35, Stratum II, Level 2. Cat. No. LHA281.

18. Recurved jar. Red smoothed exterior, red coarse interior. Design Set CS2. Motif 3.1. Shoulder. Test Unit 2, Stratum II, Level 3. Cat. No. LHA 660.

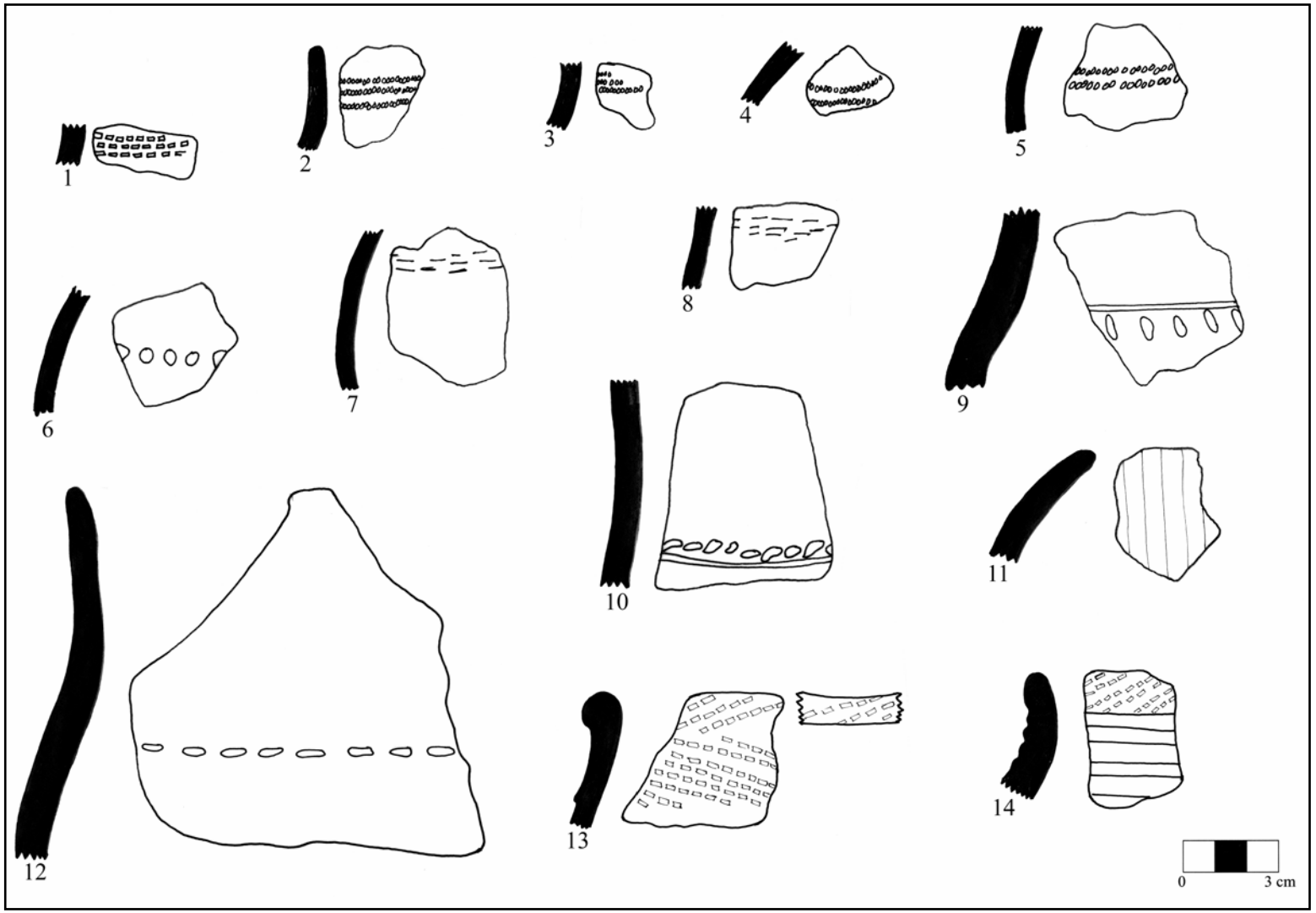


Plate 19. Leokwe Hill, Western Summit ceramics.

Plate 19. Descriptions

1. Recurved jar. Brown burnished exterior, brown coarse interior. Design Set CS1. Motif 3.2. Lower Neck. Test Unit 1, Stratum II, Level 3. Cat. No. LHA559.

2. Recurved jar. Red partially burnished exterior, red smoothed interior. Design Set BB1. Motif 4.3. Central Neck. Test Unit 9, Stratum II Level 4. Cat. No. LHA33.

3. Recurved jar. Red partially burnished exterior, brown smoothed interior. Design set CS1. Motif 3.2. Central Neck. Test Unit 10, Stratum II, Level 4. Cat. No. LHA32.

4. Recurved jar. Red partially burnished exterior, red smoothed interior. Design Set BB1. Motif 4.3. Shoulder. Test Unit 15, Stratum II, Level 3. Cat. No. LHA34.

5. Recurved jar. Brown burnished exterior, brown coarse interior. Design Set BB1. Motif 4.3. Lower Neck. Test Unit 15, Stratum II, Level 4. Cat. No. LHA35.

6. Recurved jar. Black smoothed exterior, red coarse interior. Design Set P1. Motif 5.2. Shoulder. Test Unit 15, Stratum II, Level 4. Cat. No. LHA90.

7. Recurved jar. Smoke-clouded brown smoothed exterior, smoke-clouded brown coarse interior. Design Set F1. Motif 6.1. Shoulder. Test Unit 58, Stratum II, Level 4. Cat. No. LHA570.

8. Recurved jar. Smoke-clouded brown smoothed exterior, brown coarse interior. Design Set F1. Motif 6.1. Lower Neck. Test Unit 8, Stratum I, Level 1. Cat. No. LHA87.

9. Recurved jar. Red smoothed exterior, red coarse interior. Design Set I/ST3. Motif 16.3. Shoulder. Surface. Cat. No. LHA719.

10. Recurved jar. Brown smoothed exterior, brown coarse interior. Design Set I/ST3. Motif 16.3. Lower Neck. Test Unit 15, Stratum II, Level 4. Cat. No. LHA73.

11. Incurvate Bowl. Brown burnished exterior, brown smoothed interior. Design Set FL1. Motif 18.1. Rim to Body. Test Unit 16, Stratum II, Level 4. Cat. No. LHA220.

12. Bag-shaped jar. Red smoothed exterior, red coarse interior. Design Set ST3. Motif 9.3. Shoulder. Test Unit 2, Stratum II, Level 2. Cat. No. LHA655.

13. Recurved jar. Red smoothed exterior and interior. Comb-stamped decoration motif. Lip to Central Neck. Test Unit 35, Stratum II, Level 4. Matakoma/Happy Rest vessel.

14. Recurved jar. Red smoothed exterior, black coarse interior. Comb-stamped and horizontal fluting motif. Rim to Lower Neck. Test Unit 33, Stratum II, Level 4. Matakoma/Happy Rest vessel.

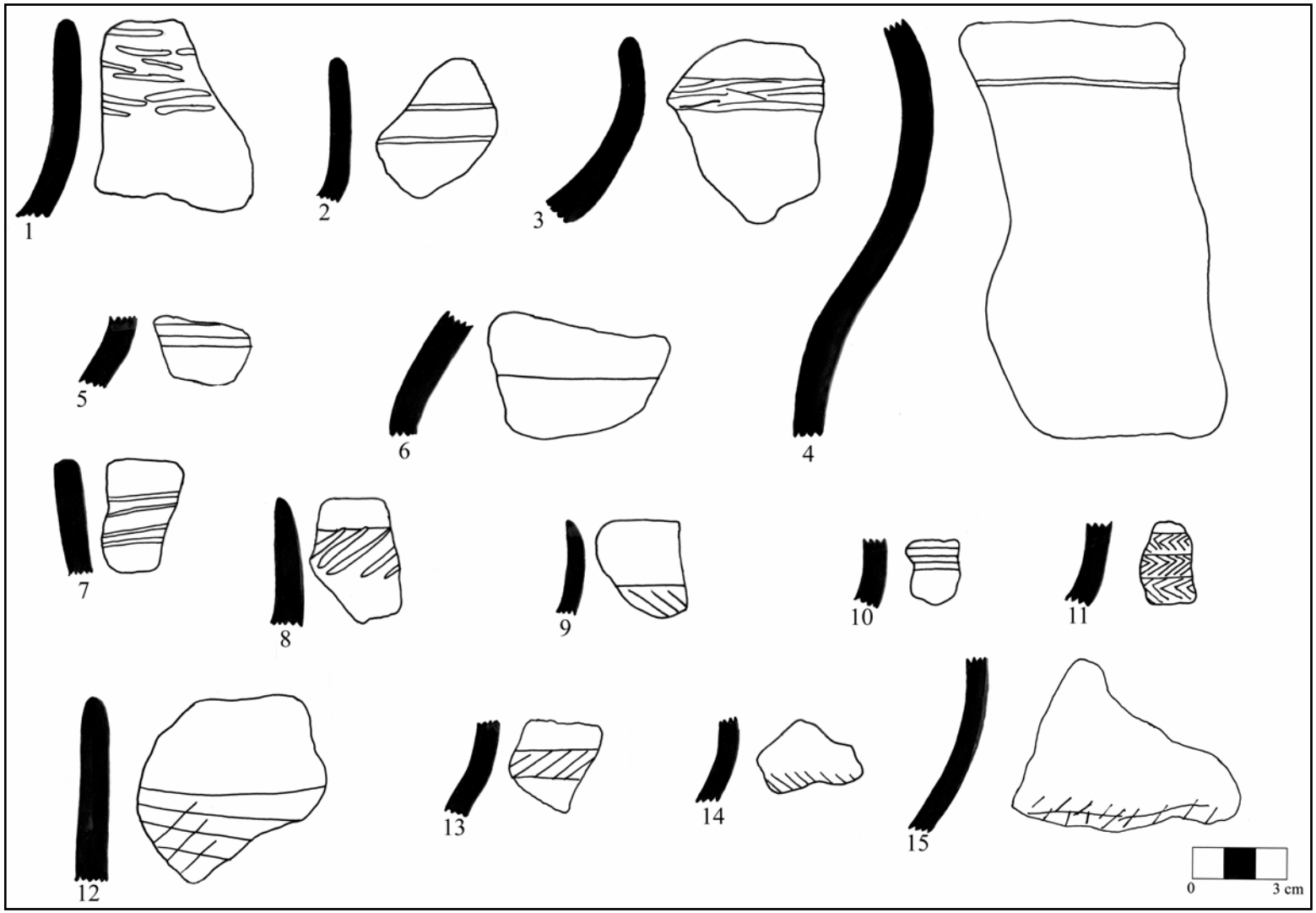


Plate 20. Leokwe Hill, Northern Terrace ceramics.

Plate 20. Descriptions

1. Recurved jar. Smoke-clouded red smoothed exterior, smoke-clouded red coarse interior. Design Set I1. Motif 2.36. Rim to Central Neck. Test Unit 17, Stratum I, Level 2. Cat. No. LHB30.

2. Recurved jar. Brown slipped and burnished exterior, brown burnished interior. Design Set I1. Motif 2.21. Central Neck. Test Unit 7, Stratum V, Level 7. Cat. No. LHB34.

3. Recurved jar. Red smoothed exterior, red coarse interior. Design Set I1. Motif 2.36. Central Neck. Test Unit 2, Stratum V, Level 7. Cat. No. LHB48.

4. Recurved jar. Brown burnished exterior, brown smoothed interior. Design Set I1. Motif 2.12. Central Neck. Test Unit 9, Stratum IV, Level 5. Cat. No. LHB18.

5. Recurved jar. Brown smoothed exterior, brown coarse interior. Design Set I1. Motif 2.20. Lower Neck. Test Unit 14, Stratum II, Level 3. Cat. No. LHB42.

6. Recurved jar. Brown partially burnished exterior, red coarse interior. Design Set I1. Motif 2.12. Shoulder. Test Unit 12, Stratum V, Level 8. Cat. No. LHB23.

7. Simple deep bowl. Brown partially burnished exterior and interior. Design Set I1. Motif 2.20. Body. Test Unit 12, Stratum II, Level 3. Cat. No. LHB37.

8. Recurved jar. Brown partially burnished exterior, brown smoothed interior. Design Set I2. Motif 2.22. Central Neck. Test Unit 3, Stratum III, Level 4. Cat. No. LHB24.

9. Recurved jar. Brown burnished exterior and interior. Design Set I2. Motif 2.22. Lower Neck. Test Unit 9, Stratum V, Level 7. Cat. No. LHB75.

10. Recurved jar. Brown smoothed exterior and interior. Design Set I1. Motif 2.20. Central Neck. Test Unit 13, Stratum I, Level 2. Cat. No. LHB5.

11. Recurved jar. Brown smoothed exterior, grey spalled interior. Design Set I8. Motif 2.11. Central Neck to Lower Neck. Test Unit 3, Stratum I, Level 1. Cat. No. LHB16. Eiland.

12. Simple deep bowl. Brown smoothed exterior and interior. Design Set I2. Motif 2.3. Body. Test Unit 11, Stratum II, Level 3. Cat. No. LHB15.

13. Recurved jar. Brown smoothed exterior, red coarse interior. Design Set I2. Motif 2.22. Lower Neck. Test Unit 17, Stratum II, Level 3. Cat. No. LHB56.

14. Recurved jar. Brown burnished exterior, brown smoothed interior. Design Set I2. Lower Neck. Test Unit 2, Stratum V, Level 8. Cat. No. LHB31.

15. Recurved jar. Brown burnished exterior, red coarse interior. Design Set I2. Lower Neck. Test Unit 17, Stratum IV, Level 9. Cat. No. LHB12.

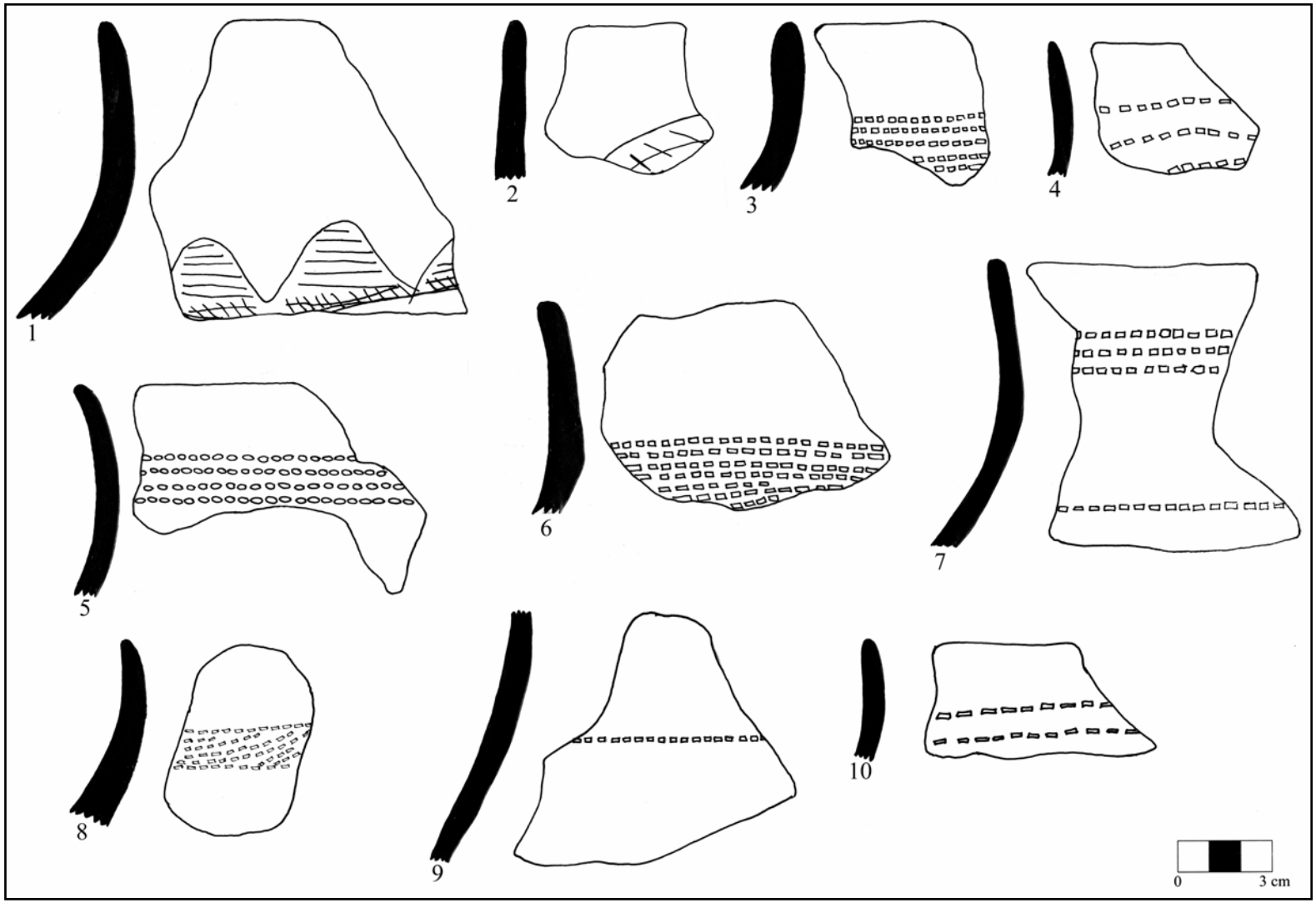


Plate 21. Leokwe Hill, Northern Terrace ceramics.

Plate 21. Descriptions

1. Recurved jar. Red partially burnished exterior, brown smoothed interior. Design Set I5. Motif 2.6. Lower Neck to Shoulder. Test Unit 16, Stratum III, Level 6. Cat. No. LHB11.

2. Simple deep bowl. Red smoothed exterior and interior. Design Set I5. Motif 2.5. Body. Test Unit 1, Stratum IV, Level 6. Cat. No. LHB10.

3. Recurved jar. Red burnished exterior, brown burnished interior. Design Set CS1. Motif 3.2. Lower Neck. Test Unit 8, Stratum IV, Level 5. Cat. No. LHB291.

4. Recurved jar. Smoke-clouded red burnished exterior, red burnished interior. Design Set CS1. Motif 3.2. Central Neck. Test Unit 6, Stratum V, Level 7. Cat. No. LHB264.

5. Recurved jar. Brown burnished exterior and interior. Design Set CS1. Motif 3.2. Central Neck. Test Unit 1, Stratum IV, Level 6. Cat. No. LHB278.

6. Recurved jar. Brown smoothed exterior, brown smoke-clouded smoothed interior. Design Set CS1. Motif 3.2. Lower Neck. Test Unit 24, Stratum III, Level 2. Cat. No. LHB684.

7. Recurved jar. Smoke-clouded brown burnished exterior and interior. Design Set CS1. Central Neck and Shoulder. Test Unit 12, Stratum IV, Level 5. Cat. No. LHB230.

8. Recurved jar. Vitrified burnished exterior and interior. Design Set CS2. Lower Neck. Test Unit 25, Stratum V, Level 4. Hut Rubble. Cat. No. LHB687.

9. Recurved jar. Brown burnished exterior, brown smoothed interior. Design Set CS1. Lower Neck. Test Unit 15, Stratum V, Level 8. Cat. No. LHB266.

10. Fragment from Plate 21.7 above.

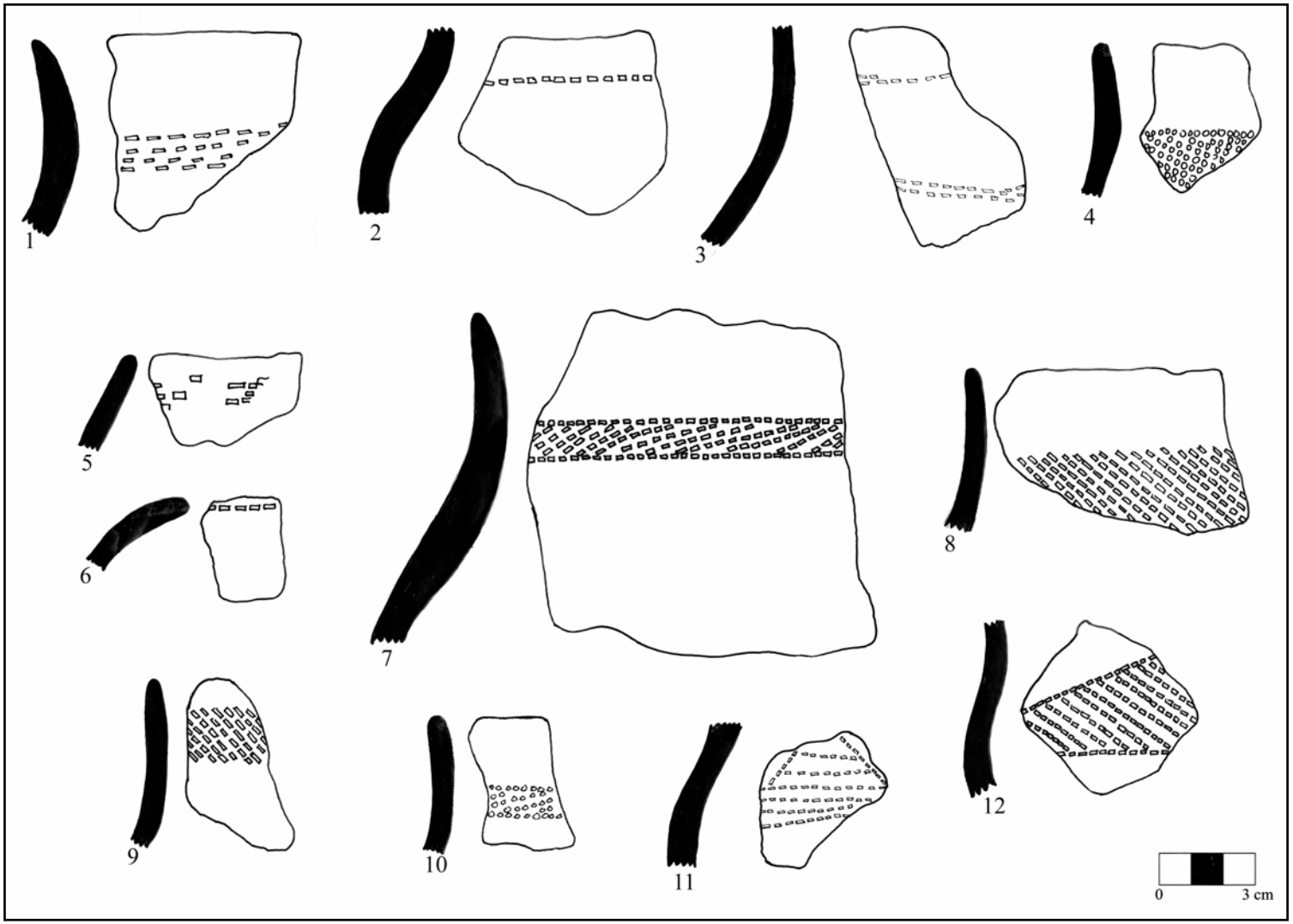


Plate 22. Leokwe Hill, Northern Terrace ceramics.

Plate 22. Descriptions

1. Recurved jar. Vitrified burnished exterior and interior. Design Set CS1. Motif 3.2. Lower Neck. Test Unit 24, Stratum V, Level 4. Hut Rubble. Cat. No. LHB716.

2. Recurved jar. Smoke-clouded brown burnished exterior, brown smoothed interior. Design Set CS1. Motif 3.1. Shoulder. Test unit 7, Stratum V, Level 8. Cat. No. LHB223.

3. Recurved jar. Red smoothed exterior, red coarse interior. Design Set CS1. Motif 3.11. Central Neck and Shoulder. Test Unit 12, Stratum IV, Level 5. Cat. No. LHB265.

4. Recurved jar. Brown burnished exterior and interior. Design Set CS2. Lower Neck. Test Unit 12, Stratum II, Level 3. Cat. No. LHB287.

5. Incurvate bowl. Brown smoothed exterior, brown coarse interior. Design Set CS1. Body. Test Unit 5, Stratum I, Level 2. Cat. No. LHB310.

6. Incurvate bowl. Red burnished exterior, red smoothed interior. Design Set CS1. Motif 3.1. Rim. Test Unit 24, Stratum IV, Level 3. Cat. No. LHB689.

7. Recurved jar. Vitrified burnished exterior, vitrified smoothed interior. Design Set CS2. Motif 3.5. Lower Neck. Test Unit 24, Stratum IV, Level 5. Hut Rubble. Cat. No. LHB687.

8. Recurved jar. Vitrified burnished exterior and interior. Design Set CS2. Motif 3.4. Lower Neck. Test Unit 25, Stratum II, Level 3. Cat. No. LHB686.

9. Recurved jar. Red smoothed exterior, red coarse interior. Design Set CS2. Motif 3.4. Central Neck. Test Unit 14, Stratum II, Level 3. Cat. No. LHB253.

10. Recurved jar. Black burnished exterior, smoke-clouded brown smoothed interior. Design Set CS2. Motif 3.5. Central Neck. Test Unit 16, Stratum V, Level 8. Cat. No. LHB286.

11. Recurved jar. Brown burnished exterior, brown coarse interior. Design Set CS3. Motif 3.7. Shoulder. Test Unit 16, Stratum II, Level 5. Cat. No. LHB263.

12. Recurved jar. Red smoothed exterior, red coarse interior. Design Set CS3. Motif 3.7. Shoulder. Test Unit 8, Stratum IV, Level 5. Cat. No. LHB261.

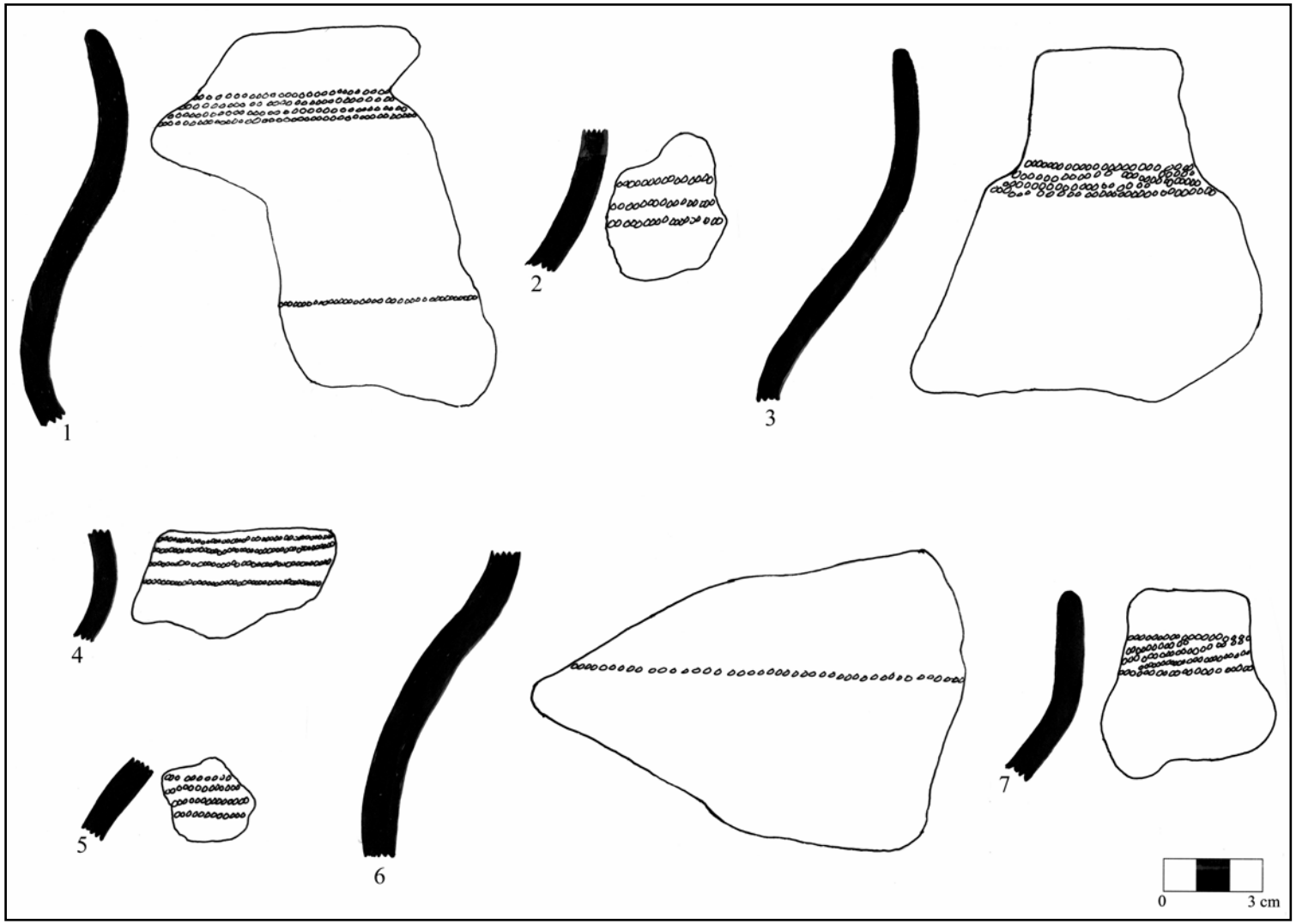


Plate 23. Leokwe Hill, Northern Terrace ceramics.

Plate 23. Descriptions

1. Recurved jar. Brown burnished exterior, brown smoothed interior. Design Set BB1. Motif 4.2. Shoulder. Test Unit 12, Stratum II, Level 3. Cat. No. LHB163.

2. Recurved jar. Red smoothed exterior, brown partially burnished interior. Design Set BB1. Motif 4.3. Lower Neck. Test Unit 17, Stratum I, Level 2. Cat. No. LHB167.

3. Recurved jar. Vitrified exterior and interior. Design Set BB1. Motif 4.12. Lower Neck. Test Unit 24, Stratum V, Level 4. Hut Rubble. Cat. No. LHB720.

4. Recurved jar. Brown smoothed exterior and interior. Design Set BB1. Central Neck. Test Unit 1, Stratum V, Level 7. Cat. No. LHB166.

5. Recurved jar. Brown smoothed exterior, brown coarse interior. Design Set BB1. Shoulder. Test Unit 7, Stratum IV, Level 5. Cat. No. LHB186.

6. Recurved jar. Brown burnished exterior, brown smoothed interior. Design Set BB1. Motif 4.2. Shoulder. Test Unit 12, Stratum II, Level 3. Cat. No. LHB163.

7. Recurved jar. Bown partially burnished exterior, brown smoothed interior. Design Set BB2. Motif 4.1. Central Neck. Test Unit 7, Stratum V, Level 7. Cat. No. LHB165.

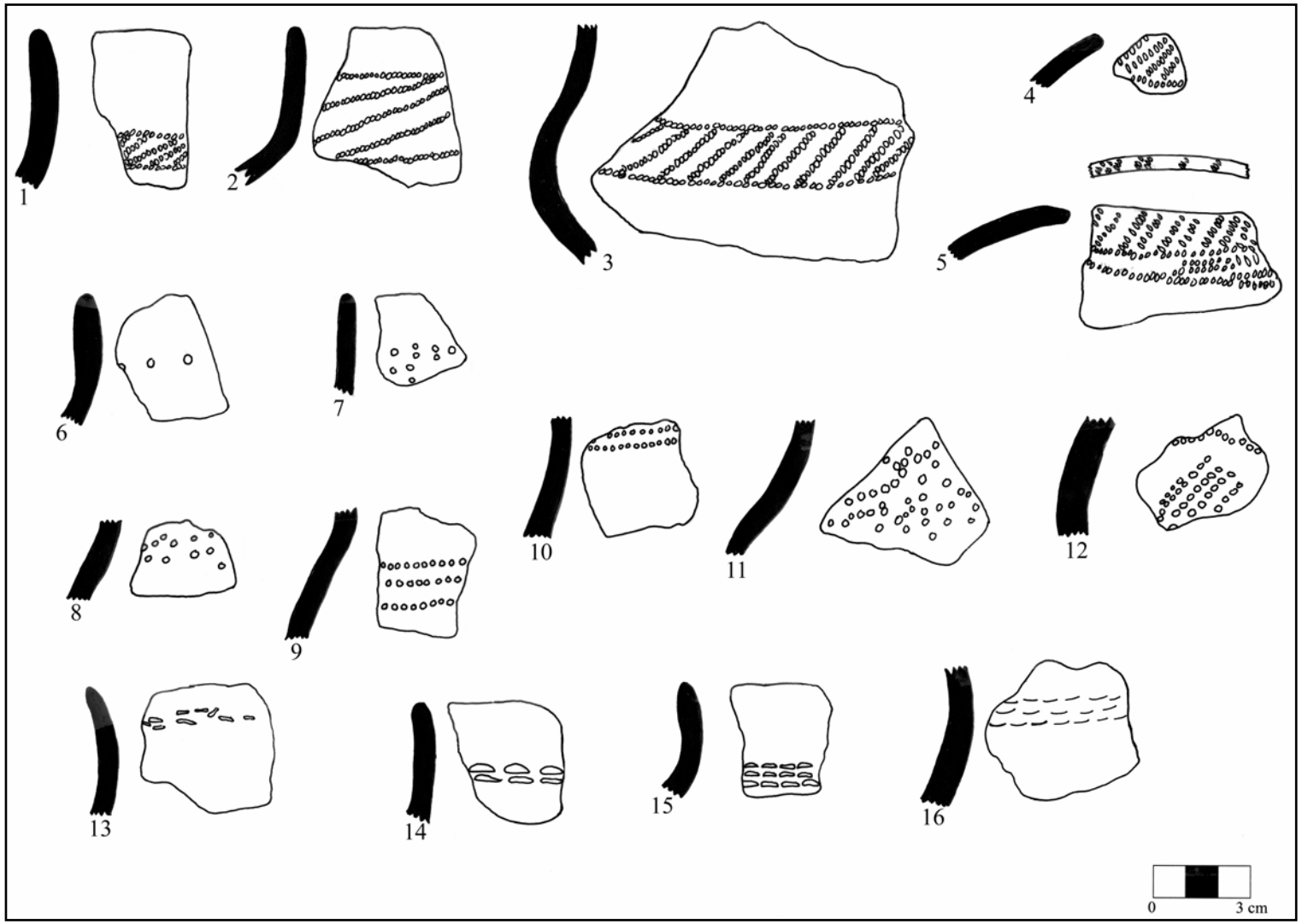


Plate 24. Leokwe Hill, Northern Terrace ceramics.

Plate 24. Descriptions

1. Recurved jar. Brown burnished exterior, red smoothed interior. Design Set BB2. Motif 4.1. Lower Neck. Test Unit 24, Stratum IV, Level 3. Cat. No. LHB713.

2. Recurved jar. Red partially burnished exterior, red smoke-clouded coarse interior. Design Set BB1. Motif 4.1. Central Neck to Lower Neck. Cat. No. LHB119.

3. Recurved jar. Red smoke-clouded smoothed exterior, red partially burnished interior. Design Set BB2. Motif 4.1. Shoulder. Test Unit 13, Stratum II, Level 3. Cat. No. LHB115.

4. Incurvate bowl. Red burnished exterior and interior. Design Set BB2. Motif 4.9. Rim. Test Unit 26, Stratum I, Level 1. Cat. No. LHB692.

5. Incurvate bowl. Red burnished exterior and interior. Design Set BB2. Motif 4.4. Lip to Rim to Shoulder. Test Unit 3, Stratum V, Level 8. Cat. No. LHB190.

6. Recurved jar. Brown partially burnished exterior, red coarse interior. Design Set P1. Motif 5.2. Central Neck. Test Unit 14, Stratum V, Level 8. Cat. No. LHB326.

7. Recurved jar. Red slipped and smoothed exterior and interior. Design Set P2. Motif 5.3. Central Neck. Test Unit 16, Stratum II, Level 4. Cat. No. LHB331.

8. Recurved jar. Red smoothed exterior, red coarse interior. Design Set P2. Motif 5.3. Lower Neck. Test Unit 14, Stratum IV, Level 5. Cat. No. LHB340.

9. Recurved jar. Grey smoothed exterior, brown smoothed interior. Design Set P1. Motif 5.1. Shoulder. Test Unit 10, Stratum V. Level 8. Cat. No. LHB280.

10. Recurved jar. Brown burnished exterior and interior. Design Set P1. Motif 5.1. Central Neck. Test Unit 5, Stratum I, Level 1. Cat. No. LHB359.

11. Recurved jar. Brown smoothed exterior and interior. Design Set P2. Motif 5.3. Central Neck to Lower Neck. Test Unit 12, Stratum V, Level 7. Cat. No. LHB350.

12. Recurved jar. Brown burnished exterior, brown smoothed interior. Design Set P4. Motif 5.7. Shoulder. Test Unit 11, Stratum II, Level 3. Cat. No. LHB332.

13. Recurved jar. Red burnished exterior, brown coarse interior. Design Set F1. Motif 6.1. Rim. Test Unit 2, Stratum IV, Level 6. Cat. No. LHB349.

14. Recurved jar. Brown partially burnished exterior, red coarse interior. Design Set F1. Motif 6.1. Central Neck. Test Unit 10, Stratum II, Level 3. Cat. No. LHB80.

15. Recurved jar. Grey smoothed exterior, brown smoothed interior. Design Set F1. Motif 6.1. Lower Neck. Test Unit 9, Stratum II, Level 3. Cat. No. LHB356.

16. Recurved jar. Brown partially burnished exterior, red coarse interior. Design Set F1. Motif 6.1. Lower Neck. Test Unit 8, Stratum II, Level 3. Cat. No. LHB352.

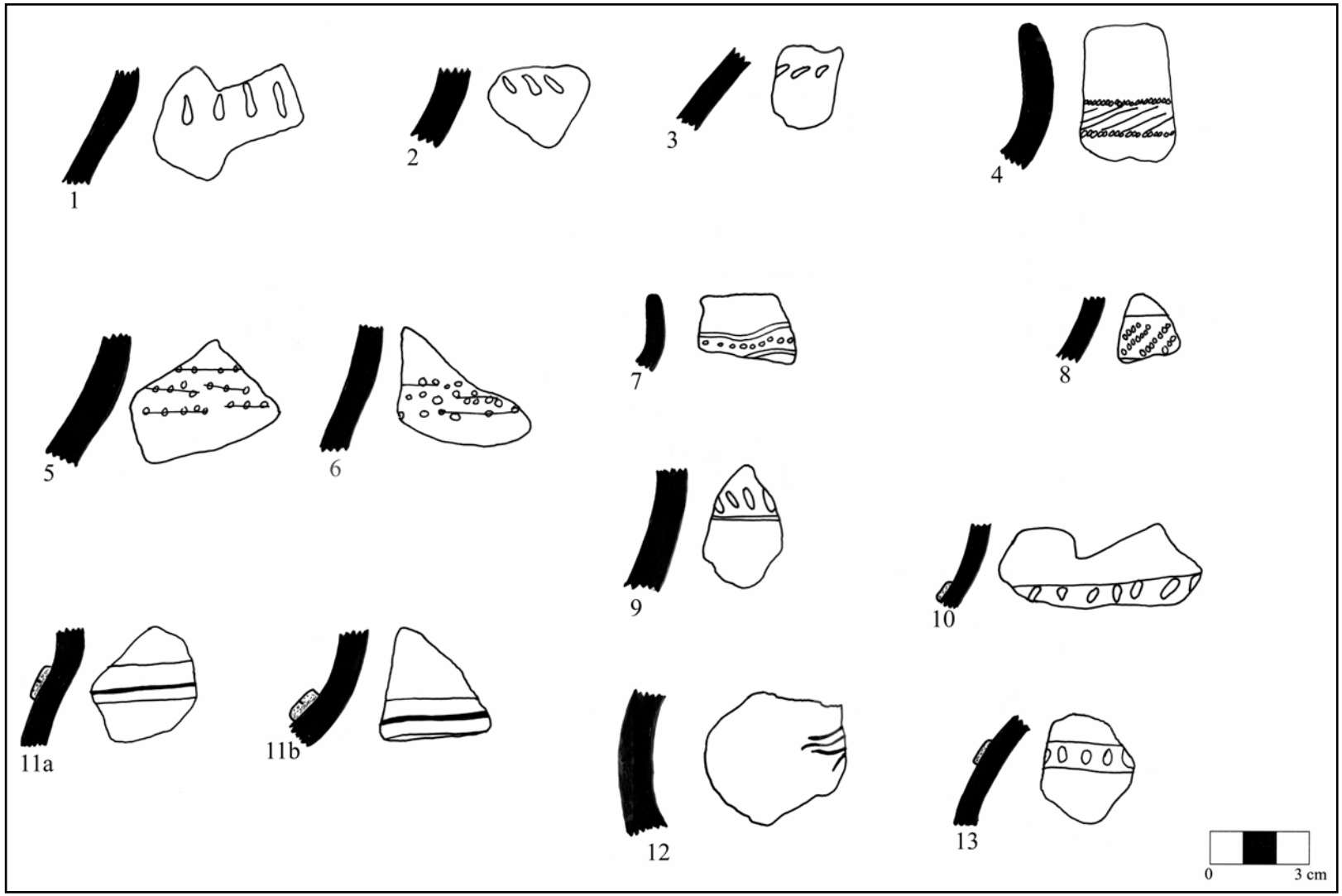


Plate 25. Leokwe Hill, Northern Terrace ceramics.

Plate 25. Descriptions

1. Recurved jar. Brown burnished exterior, brown partially burnished interior. Design Set ST2. Motif 9.2. Lower Neck. Test Unit 17, Stratum I, Level 1. Cat. No. LHB362.

2. Recurved jar. Brown burnished exterior, brown partially burnished interior. Design Set ST1. Motif 9.1. Lower Neck. Test Unit 8, Stratum II, Level 3. Cat. No. LHB360.

3. Recurved jar. Brown smoothed exterior and interior. Design Set ST1. Motif 9.1. Shoulder. Test Unit 20, Stratum II, Level 2. Cat. No. LHB717.

4. Recurved jar. Black burnished exterior and interior. Design Set I/BB1. Motif 11.1. Lower Neck. Test Unit 3, Stratum V, Level 7. Cat. No. LHB221.

5. Recurved jar. Red smoothed exterior, red coarse interior. Design Set I/P1. Motif 14.1. Central Neck. Test Unit 14, Stratum I, Level 1. Cat. No. LHB335.

6. Recurved jar. Red burnished exterior, smoke-clouded brown smoothed interior. Design Set I/P1. Motif 14.1. Lower Neck. Test Unit 6, Stratum V, Level 7. Cat. No. LHB336.

7. Recurved jar. Black smoothed exterior, brown coarse interior. Design Set I/P5. Motif 14.3. Central Neck. Test Unit 15, Stratum III, Level 4. Cat. No. LHB368.

8. Recurved jar. Smoke-clouded brown smoothed exterior, black coarse interior. Design Set I/P2. Motif 14.2. Lower Neck. Test Unit 5, Stratum I, Level 1. Cat. No. LHB339.

9. Recurved jar. Red partially burnished exterior, red coarse interior. Design Set I/ST1. Motif 16.1. Central Neck. Test Unit 14, Stratum II, Level 3. Cat. No. LHB364.

10. Recurved jar. Brown smoothed exterior, red coarse interior. Design Set A/ST2. Motif 17.1. Lower Neck. Test Unit 14, Stratum II, Level 3. Cat. No. LHB363.

11. (a & b) Recurved jar. Brown burnished exterior, brown smoothed interior. Design Set I/A1. Motif 13.1. Lower Neck. Test Unit 16, Stratum IV, Level 9. Cat. No. LHB29.

12. Recurved jar. Black smoothed exterior, black coarse interior. Design Set Unknown. Motif Unknown. Shoulder. Test Unit 26, Stratum I, Level 1. Cat. No. LHB722.

13. Recurved jar. Black partially burnished exterior, black smoothed interior. Design Set A/ST1. Motif 17.2. Shoulder. Test Unit 12, Stratum II, Level 3. Cat. No. LHB365.

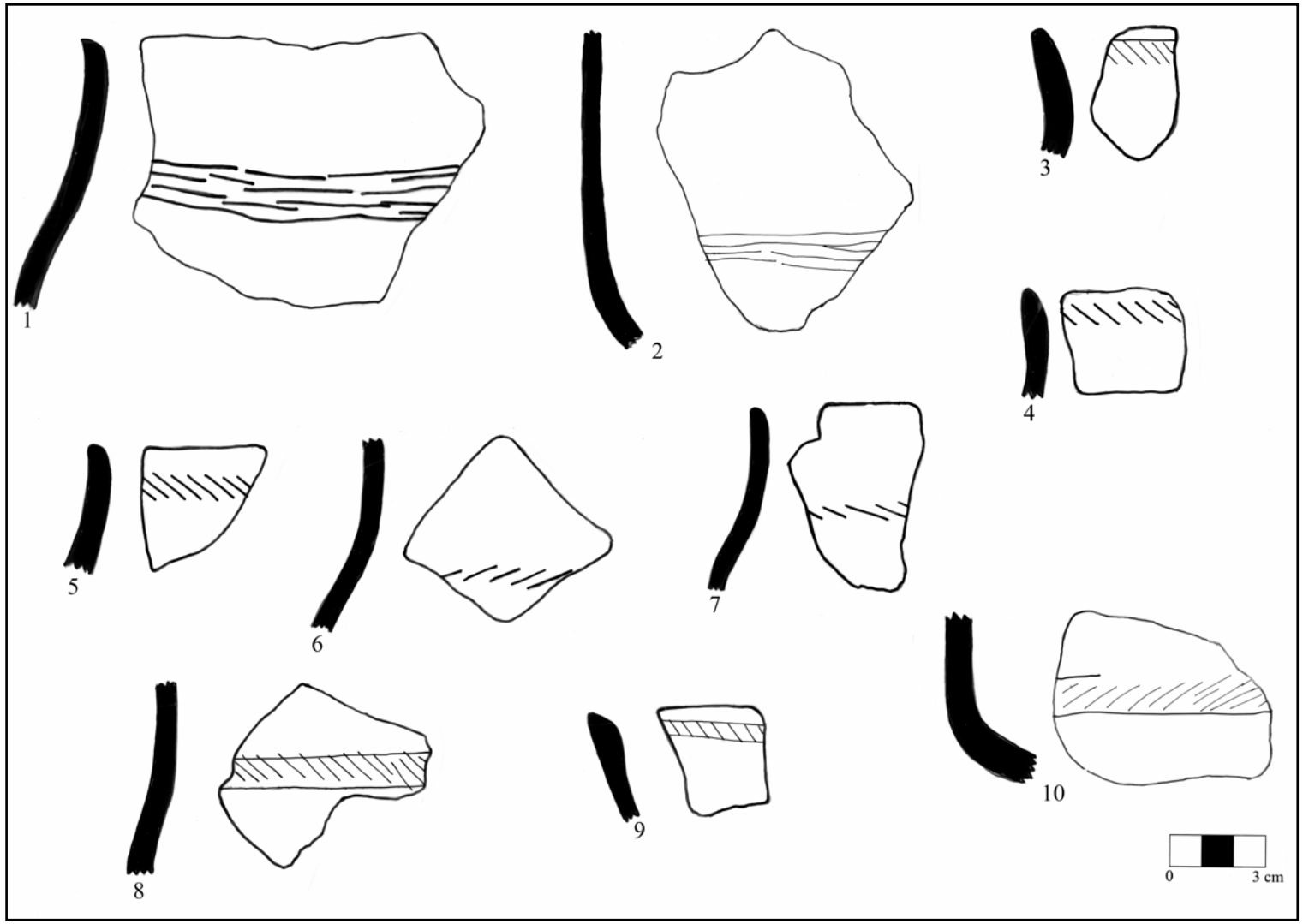


Plate 26. Mapungubwe Hill, ceramics from 1930s spoil heaps

Plate 26. Descriptions

1. Recurved jar. Brown smoothed exterior and interior. Design Set I1. Motif 2.36. Lower Neck. Cat. No. MD263.

2. Beaker. Smoke-clouded red burnished exterior, brown burnished interior. Design Set I1. Motif 2.20. Body. Cat. No. MD42.

3. Recurved jar. Brown burnished exterior and interior. Exterior design area is matte, undecorated area burnished. Design Set I2. Motif 2.55. Rim. Cat. No. MD237.

4. Recurved jar. Red smoothed exterior and interior. Design Set I2. Motif 2.14. Rim. Cat. No. MD373.

5. Recurved jar. Brown burnished exterior, black burnished interior. Design Set I2. Motif 2.14. Central Neck. Cat. No. MD273.

6. Recurved jar. Smoke-clouded red smoothed exterior, brown coarse interior. Design Set I2. Motif 2.14. Shoulder. Cat. No. MD244.

7. Recurved jar. Smoke-clouded red burnished exterior, black smoothed interior. Design Set I2. Motif 2.14. Shoulder. Cat. No. MD243.

8. Recurved jar. Brown smoothed exterior, brown coarse interior. Design Set I2. Motif 2.22. Lower Neck. Cat. No. MD249.

9. Very shallow bowl. Black burnished exterior and interior. Design Set I2. Motif 2.91. Body. Cat. No. MD394.

10. Beaker. Brown smoothed exterior and interior. Design Set I2. Motif 2.22. Body. Cat. No. MD7.

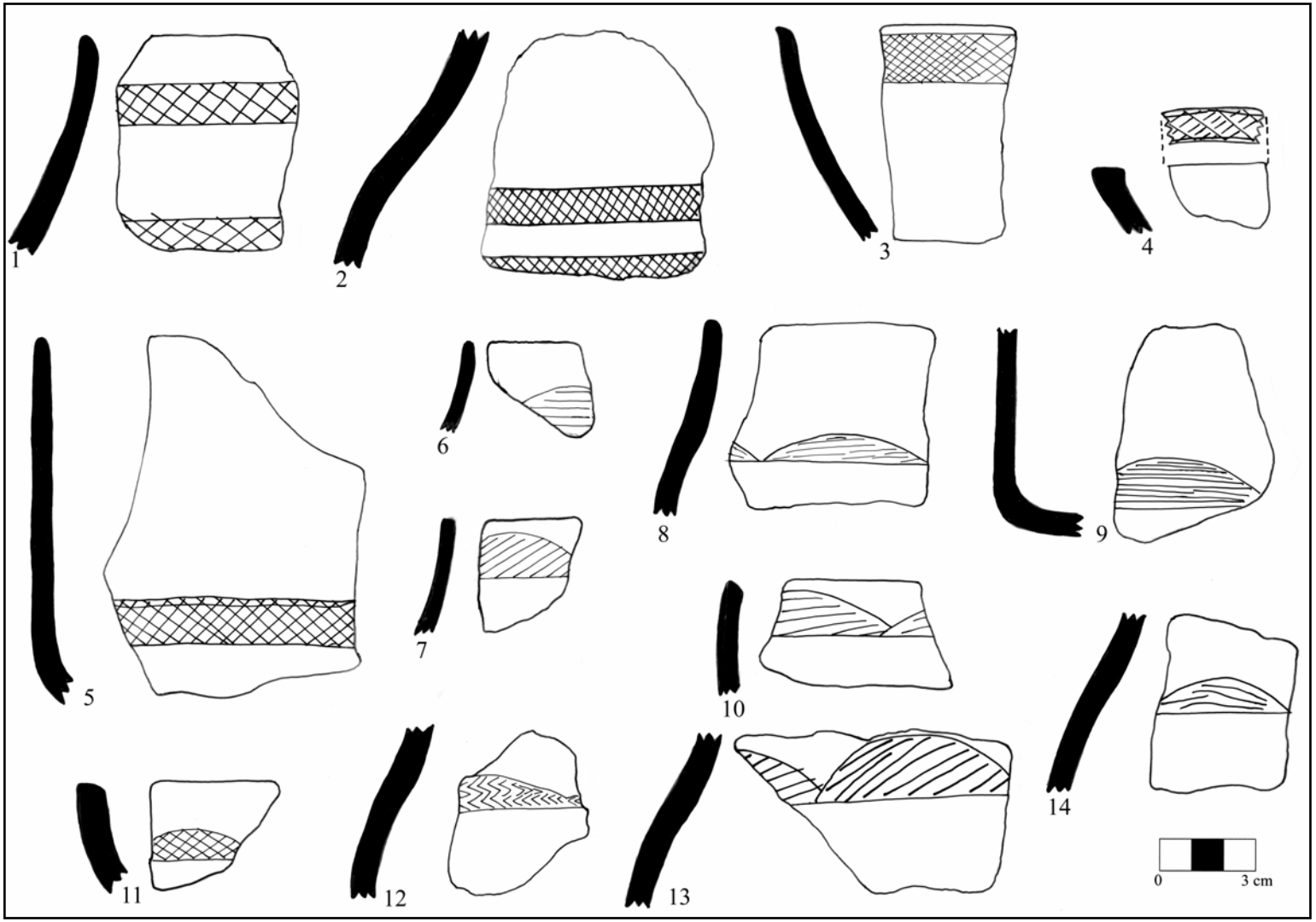


Plate 27. Mapungubwe Hill, ceramics from 1930s spoil heaps

Plate 27. Descriptions

1. Recurved jar. Red smoothed exterior and interior. Design Set I3. Motif 2.87. Central Neck and Shoulder. Cat. No. MD235.

2. Recurved jar. Brown burnished exterior, black coarse interior. Exterior design area is matte, undecorated area burnished. Design Set I3. Motif 2.88. Shoulder. Cat. No. MD236.

3. Simple shallow bowl. Black burnished exterior and interior. Design Set I3. Motif 2.9. Rim. Cat. No. MD34.

4. Very shallow bowl. Black burnished exterior and interior. Exterior design area is matte, undecorated area burnished. Design Set I3. Motif 2.9. Lip. Cat. No. MD402.

5. Beaker. Smoke-clouded black burnished exterior and interior. Exterior design area is matte, undecorated area burnished. Design Set I3. Motif 2.9. Body. Cat. No. MD2.

6. Recurved jar. Brown burnished exterior, smoke-clouded brown burnished interior. Design Set I5. Motif 2.38. Central Neck. Cat. No. MD185.

7. Recurved jar. Smoke-clouded red polished exterior, black burnished interior. Design Set I5. Motif 2.29. Central Neck. Cat. No. MD184.

8. Recurved jar. Black burnished exterior, black partially burnished interior. Design Set I5. Motif 2.83. Shoulder. Cat. No. MD173.

9. Beaker. Smoke-clouded red burnished exterior, black burnished interior. Design Set I5. Motif 2.29. Body. Cat. No. MD11.

10. Simple shallow bowl. Black burnished exterior and interior. Design Set I5. Motif 2.29. Rim to Body. Cat. No. MD371.

11. Very shallow bowl. Black burnished exterior and interior. Design Set I5. Motif 2.34. Body. Cat. No. MD391.

12. Recurved jar. Red burnished exterior, red coarse interior. Design Set I5. Motif 2.86. Lower Neck to Shoulder. Cat. No. MD212.

13. Recurved jar. Brown smoothed exterior, red smoothed interior. Design Set I5. Motif 2.29. Lower Neck. Cat. No. MD195.

14. Recurved jar. Black partially burnished exterior and interior. Design Set I5. Motif 2.83. Lower Neck to Shoulder. Cat. No. MD170.

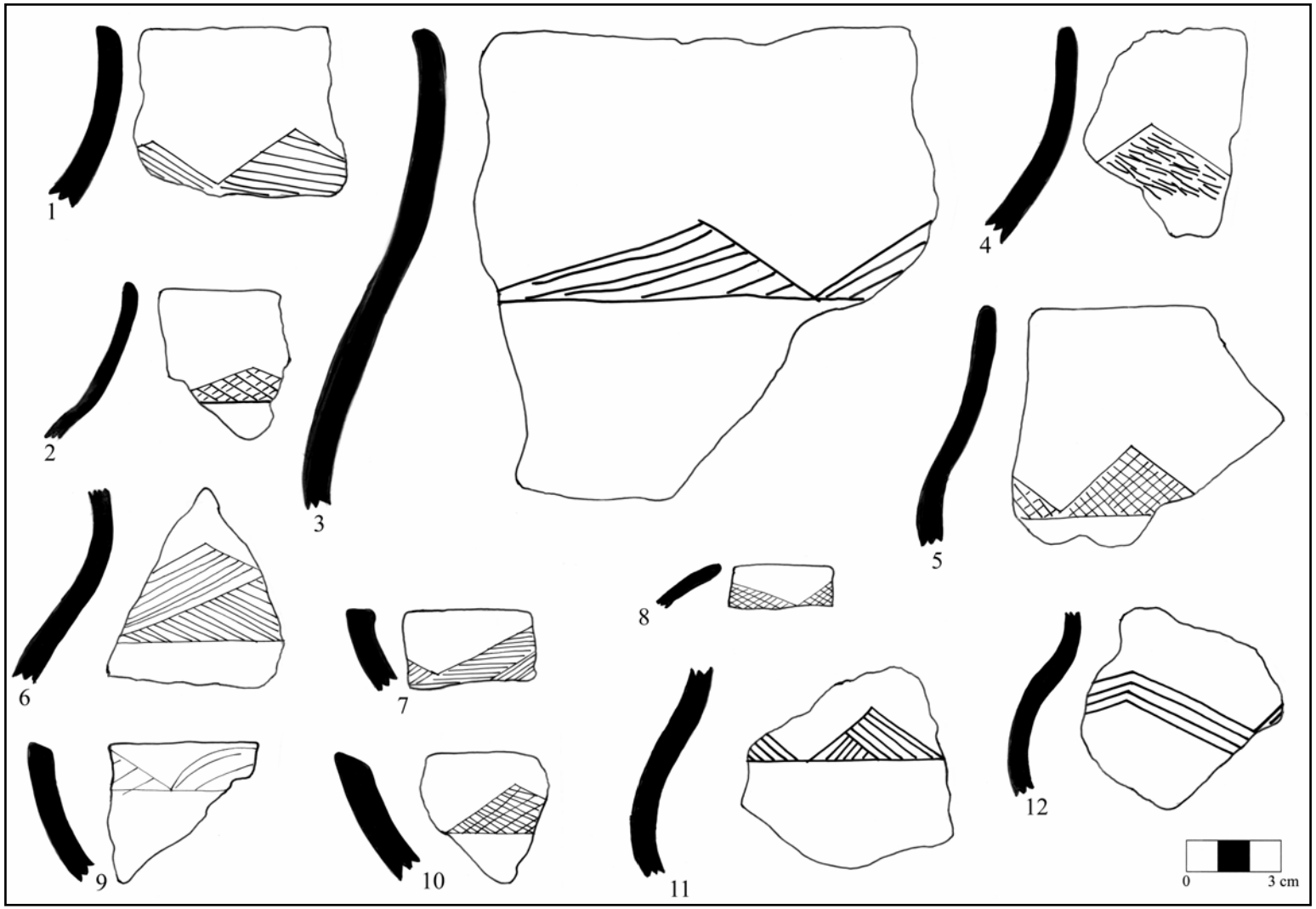


Plate 28. Mapungubwe Hill, ceramics from 1930s spoil heaps

Plate 28. Descriptions

1. Recurved jar. Brown smoothed exterior, brown partially burnished interior. Design Set I6. Motif 2.26. Lower Neck. Cat. No. MD43.

2. Recurved jar. Brown burnished exterior, brown partially burnished interior. Exterior design area is matte, undecorated area burnished. Design Set I6. Motif 2.41. Lower Neck. Cat. No. MD78.

3. Recurved jar. Red smoothed exterior, red coarse interior. Design Set I6. Motif 2.26. Lower Neck to Shoulder. Cat. No. MD52.

4. Recurved jar. Smoke-clouded brown burnished exterior, brown burnished interior. Design Set I6. Motif 2.82. Lower Neck to Shoulder. Cat. No. MD150.

5. Recurved jar. Brown smoothed exterior. Black coarse interior. Design Set I6. Motif 2.41. Lower Neck to Shoulder. Cat. No. MD62.

6. Recurved jar. Red burnished exterior, brown partially burnished interior. Design Set I6. Motif 2.78. Lower Neck to Shoulder. Cat. No. MD155.

7. Very shallow bowl. Black burnished exterior and interior. Design Set I6. Motif 2.26. Body. Cat. No. MD389.

8. Incurvate bowl. Black burnished exterior, black partially burnished interior. Design Set I6. Motif 2.41. Body. Cat. No. MD293.

9. Simple shallow bowl. Black burnished exterior, black polished interior. Design Set I6. Motif 2.29. Rim to Body. Cat. No. MD373.

10. Very shallow bowl. Black burnished exterior and interior. Design Set I6. Motif 2.41. Body. Cat. No. MD393.

11. Recurved jar. Brown smoothed exterior, brown coarse interior. Design Set I6. Motif 2.78. Lower Neck to Shoulder. Cat. No. MD153.

12. Recurved jar. Smoke-clouded red partially burnished exterior, brown coarse interior. Design Set I6. Motif 2.57. Shoulder. Cat. No. 707.

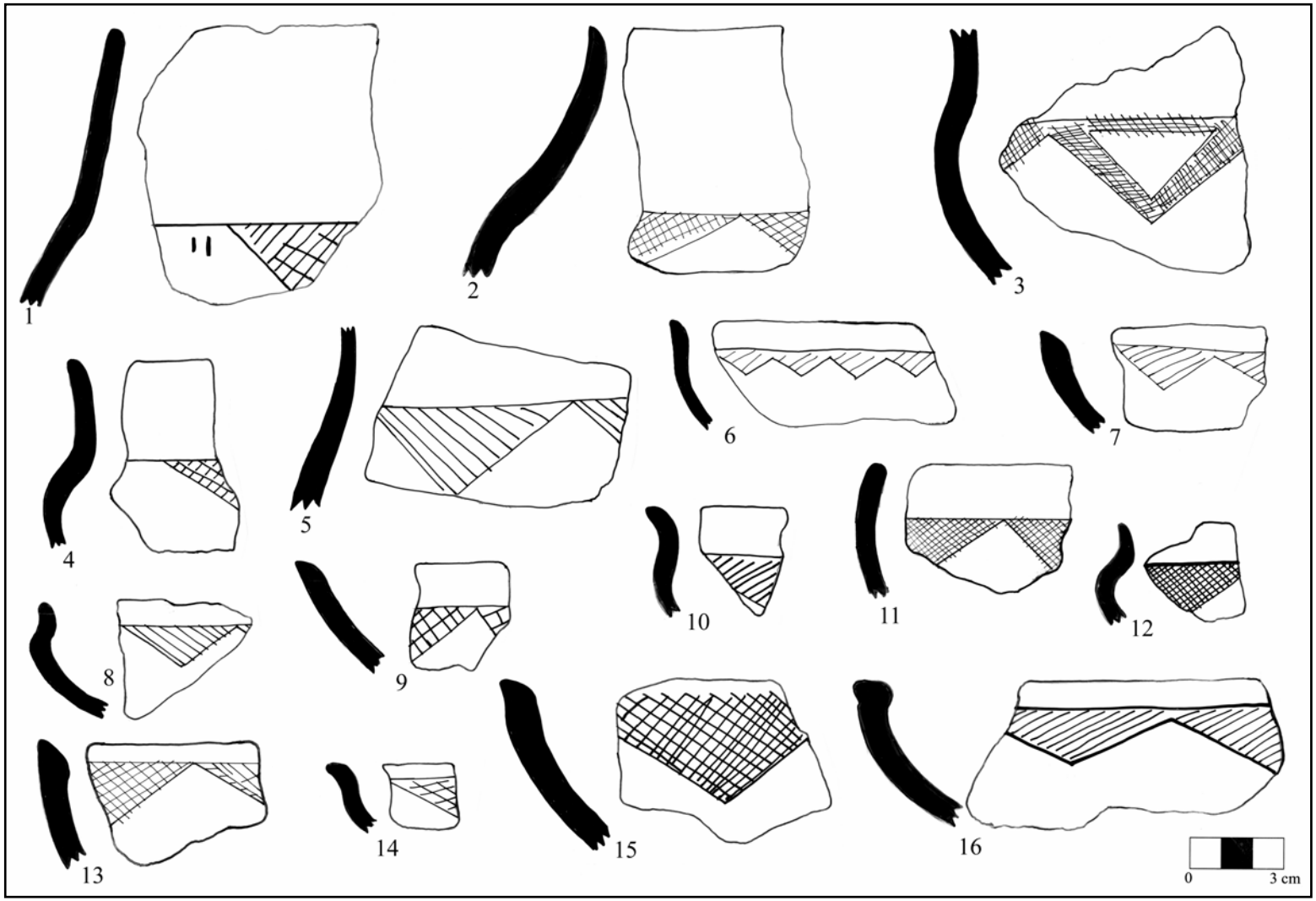


Plate 29. Mapungubwe Hill, ceramics from 1930s spoil heaps

Plate 29. Descriptions

1. Recurved jar. Smoke-clouded brown partially burnished exterior, black smoothed interior. Design Set III. Motif 2.42. Shoulder. Cat. No. MD60.

2. Recurved jar. Red burnished exterior and interior. Design Set I11. Motif 2.42. Shoulder. Cat. No. MD48.

3. Recurved jar. Black burnished exterior, black coarse interior. Exterior design area is matte, undecorated area burnished. Design Set I11. Shoulder. Cat. No. MD151.

4. Recurved jar. Brown burnished exterior, red burnished interior. Exterior design area is matte, undecorated area burnished. Design Set I11. Motif 2.42. Shoulder. Cat. No. MD100.

5. Recurved jar. Black burnished exterior, brown coarse interior. Exterior design area is matte, undecorated area burnished. Design Set I11. Motif 2.27. Shoulder. Cat. No. MD53.

6. Very shallow bowl. Smoke-clouded brown burnished exterior, black burnished interior. Design Set I11. Motif 2.27. Body. Cat. No. MD388.

7. Very shallow bowl. Smoke-clouded brown burnished exterior, black burnished interior. Design Set I11. Motif 2.27. Body. Cat. No. MD386.

8. Necked bowl. Black burnished exterior, brown partially burnished interior. Design Set I11. Motif 2.27. Shoulder to body. Cat. No. MD411.

9. Very shallow bowl. Brown burnished exterior, black burnished interior. Design Set I11. Motif 2.42. Body. Cat. No. MD384.

10. Necked bowl. Brown burnished exterior, black polished interior. Exterior design area is matte, undecorated area burnished. Design Set I11. Motif 2.27. Shoulder to body. Cat. No. MD412.

11. Simple shallow bowl. Black partially burnished exterior, brown partially burnished interior. Design Set I11. Motif 2.42. Body. Cat. No. MD367.

12. Necked bowl. Black polished exterior, black burnished interior. Design Set I11. Motif 2.42. Shoulder to body. Cat. No. MD413.

13. Very shallow bowl. Black burnished exterior and interior. Design Set I11. Motif 2.42. Body. Cat. No. MD382.

14. Very shallow bowl. Black burnished exterior and interior. Exterior design area is matte, undecorated area burnished. Design Set 2.42. Body. Cat. No. MD406.

15. Simple shallow bowl. Smoke-clouded brown partially burnished exterior, black partially burnished interior. Design Set I11. Motif 2.42. Rim to body. Cat. No. MD368.

16. Simple shallow bowl. Black burnished exterior and interior. Design Set I11. Motif 2.27. Body. Cat. No. MD366.

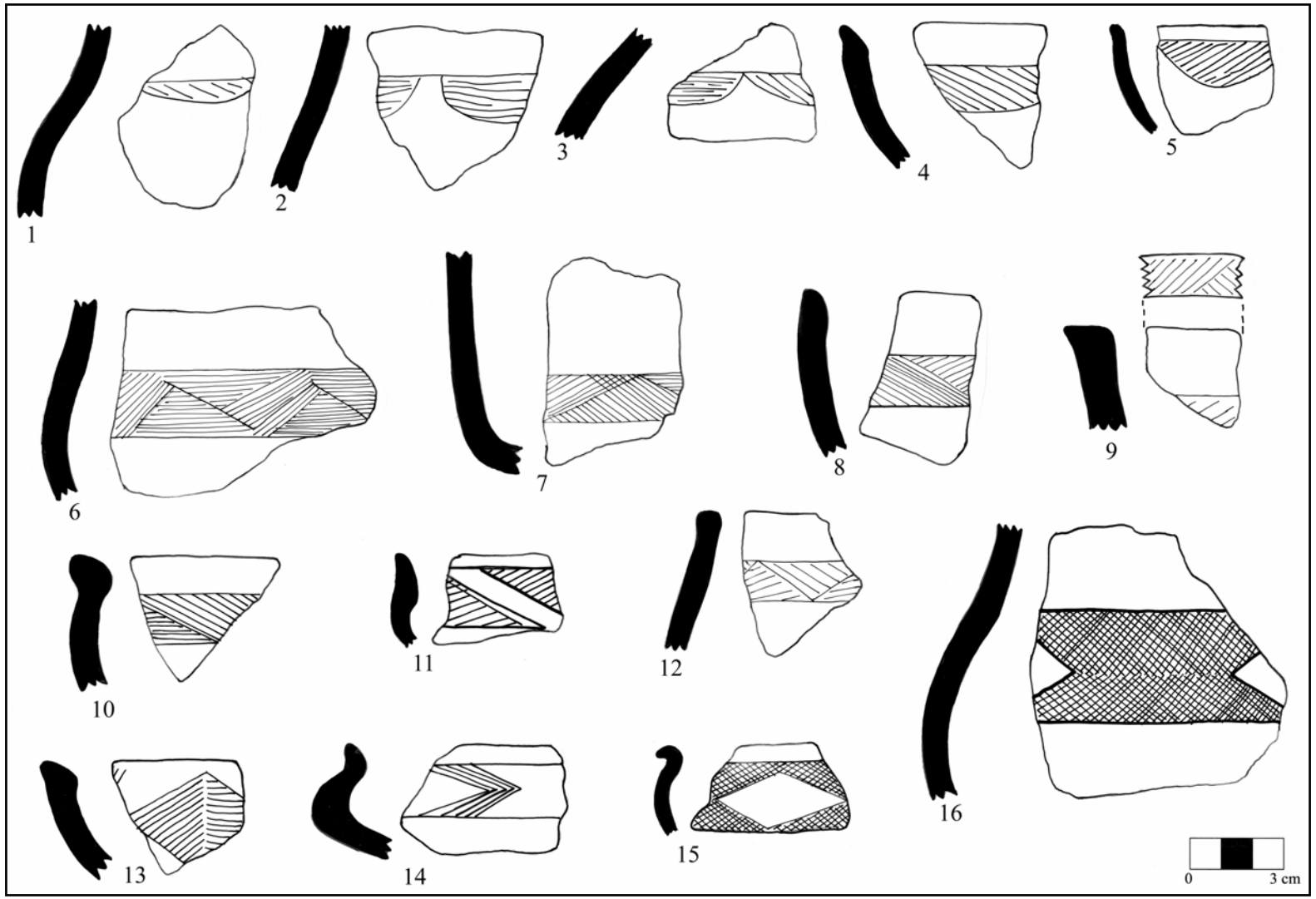


Plate 30. Mapungubwe Hill, ceramics from 1930s spoil heaps

Plate 30. Descriptions

1. Recurved jar. Brown burnished exterior, brown partially burnished interior. Design Set I12. Motif 2.30. Shoulder. Cat. No. MD183.

2. Recurved jar. Black smoothed exterior, red smoothed interior. Design Set I12. Motif 2.39. Lower Neck to Shoulder. Cat. No. MD167.

3. Recurved jar. Black burnished exterior, smoke-clouded red partially burnished interior. Design Set I12. Motif 2.38. Shoulder. Cat. No. MD202.

4. Simple shallow bowl. Black burnished exterior and interior. Design Set I12. Motif 2.30. Body. Cat. No. MD313.

5. Very shallow bowl. Black burnished exterior and interior. Design Set I12. Motif 2.30. Body. Cat. No. MD385.

6. Recurved jar. Brown burnished exterior, black burnished interior. Design Set I14. Motif 2.50. Shoulder. Cat. No. MD214.

7. Beaker. Black burnished exterior and interior. Design Set I14. Motif 2.50. Body. Cat. No. MD9.

8. Simple shallow bowl. Brown burnished exterior and interior. Design Set I14. Motif 2.50. Body. Cat. No. MD36.

9. Simple shallow bowl. Black burnished exterior, brown burnished interior. Design Set I14. Motif 2.50. Lip. Cat. No. 369.

10. Necked bowl. Black burnished exterior and interior. Exterior design area is matte, undecorated area burnished. Design Set. I14. Motif 2.50. Body. Cat. No. MD381.

11. Necked bowl. Black burnished exterior and interior. Exterior design area is matte, undecorated area burnished. Design Set I3. Motif 2.98. Body. Cat. No. 410.

12. Recurved jar. Red burnished exterior, brown smoothed interior. Exterior design area is matte, undecorated area burnished. Design Set I14. Motif 2.50. Lower Neck to Shoulder. Cat. No. MD230.

13. Very shallow bowl. Black burnished exterior and interior. Design Set I15. Motif 2.97. Rim to Body. Cat. No. MD409.

14. Necked bowl. Brown burnished exterior and interior. Design Set I15. Motif 2.99. Shoulder to Body. Cat. No. MD419.

15. Necked bowl. Brown burnished exterior and interior. Exterior design area is matte, undecorated area burnished. Design Set I15. Motif 2.95. Shoulder to Body. Cat. No. MD417.

16. Recurved jar. Brown burnished exterior, brown smoothed interior. Design Set I15. Motif 2.94. Shoulder. Cat. No. MD270.

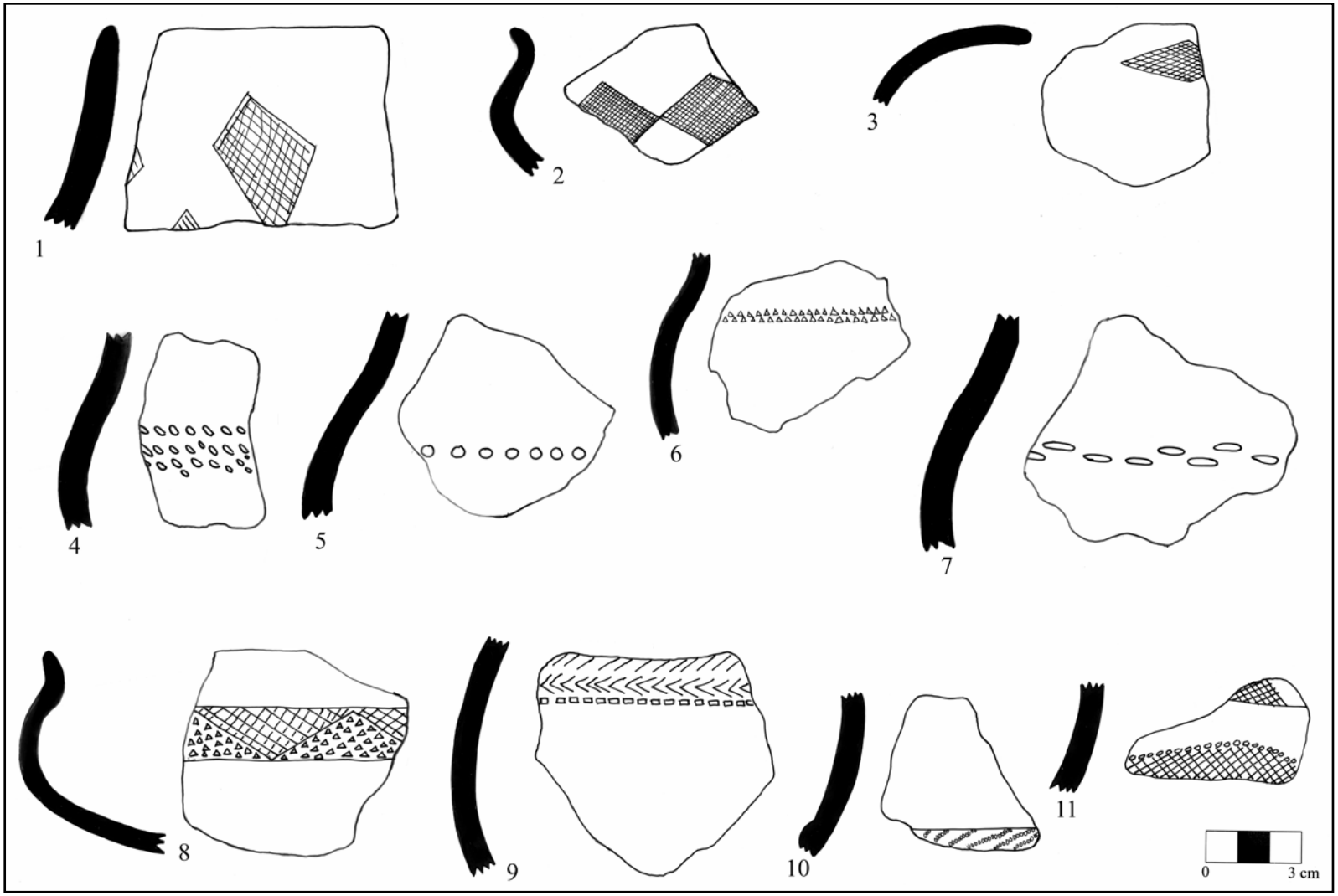


Plate 31. Mapungubwe Hill, ceramics from 1930s spoil heaps

Plate 31. Descriptions

1. Recurved jar. Smoke-clouded brown burnished exterior, brown partially burnished interior. Design Set I15. Motif 2.92. Central Neck. Cat. No. MD267.

2. Necked bowl. Black polished exterior, black burnished interior. Design et I15. Motif 2.92. Shoulder to Body. Cat. No. MD414.

3. Incurvate bowl. Black burnished exterior, brown smoothed interior. Design Set I15. Motif 2.92. Shoulder. Cat. No. MD294.

4. Recurved jar. Brown smoothed exterior, brown coarse interior. Design Set P1. Motif 5.11. Shoulder. Cat. No. MD281.

5. Recurved jar. Brown smoothed exterior, brown coarse interior. Design Set P1. Motif 5.2. Shoulder. Cat. No. MD279.

6. Recurved jar. Black partially burnished exterior, brown coarse interior. Design Set P5. Motif 5.12. Shoulder. Cat. No. MD377.

7. Recurved jar. Smoke-clouded brown smoothed exterior, red smoothed interior. Design Set ST3. Motif 9.3. Shoulder. Cat. No. MD286.

8. Necked bowl. Black burnished exterior and interior. Exterior design area is matte, undecorated area burnished. Design Motif I/P9. Motif 14.14. Shoulder to Body. Cat. No. MD416.

9. Recurved bowl. Brown smoothed exterior, brown coarse interior. Not typed. Incised and comb-stamped. Incised herringbone band bordered by one horizontal line of stamping on shoulder. Eiland. Cat. No/ MD701.

10. Recurved jar. Brown burnished exterior, brown smoothed interior. Design Set I/A/CS1. Motif 23.1. Lower Neck. Toutswe. Cat. No. MD703.

11. Recurved jar. Red ochre and black graphite burnished exterior, brown coarse interior. Not formally typed. Design Set P/I/P1. Zoned Incised Crosshatching bordered by a single line of round punctates, with alternating areas of red ochre and black graphite Moloko. Cat. No. MD706.

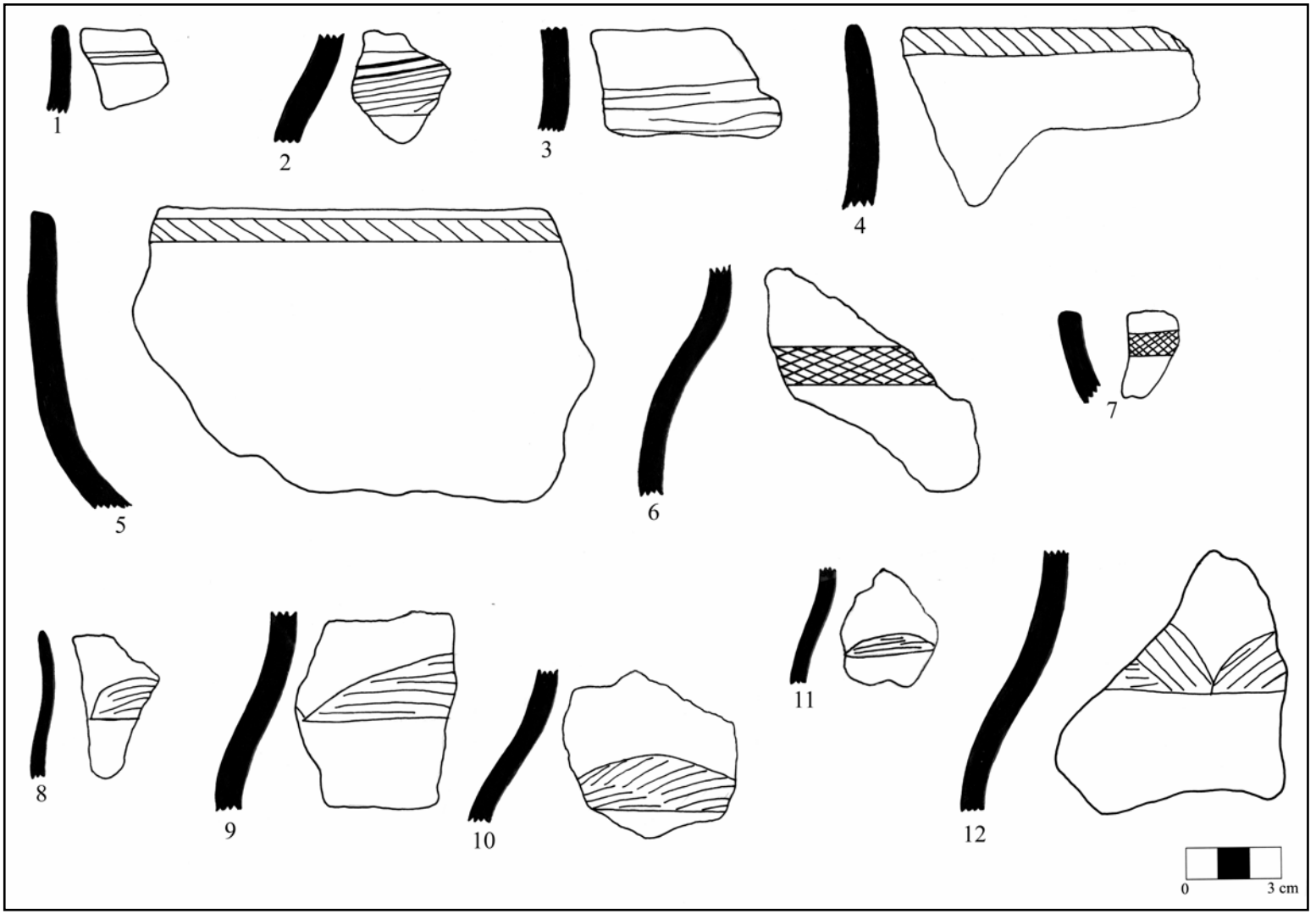


Plate 32. Edmondsburg ceramics.

Plate 32. Descriptions

1. Recurved jar. Brown smoothed exterior, brown coarse interior. Design Set I1. Motif 2.21. Central Neck. Test Unit 8, Stratum II, Level 2. Cat. No. E73.

2. Recurved jar. Brown burnished exterior, brown coarse interior. Exterior design area is matte, undecorated area burnished. Design Set I1. Motif 2.22. Lower Neck to Shoulder. Test unit 9, Stratum II, Level 2. Cat. No. E68.

3. Recurved jar. Black smoothed exterior, brown coarse interior. Design Set I1. Motif 2.36. Central Neck. Test unit 14, Stratum II, Level 2. Cat. No. E75.

4. Recurved jar. Brown smoothed exterior and interior. Design Set I2. Motif 2.55. Rim. Test Unit 9, Stratum II, Level 2. Cat. No. E52.

5. Simple deep bowl. Black burnished exterior, brown coarse interior. Exterior design area is matte, undecorated area burnished. Design Set I2. Motif 2.22. Rim. Test unit 10, Stratum II, Level 2. Cat. No. E2.

6. Recurved jar. Smoke-clouded red burnished exterior, black coarse interior. Exterior design area is matte, undecorated area burnished. Design Set I3. Motif 2.9. Shoulder. Test Unit 11, Stratum II, Level 2. Cat. No. E11.

7. Very shallow bowl. Brown burnished exterior and interior. Design Set I3. Motif 2.9. Body. Test Unit 8, Stratum I, Level 1. Cat. No. E53.

8. Recurved jar. Black burnished exterior, black partially burnished interior. Design Set I5. Motif 2.83. Central Neck. Test Unit 11, Stratum II, Level 2. Cat. No. E47.

9. Recurved jar. Brown smoothed exterior, brown coarse interior. Design Set I5. Motif 2.19. Lower Neck to Shoulder. Test Unit 11, Stratum II, Level 2. Cat. No. E32.

10. Recurved jar. Red burnished exterior, black burnished interior. Exterior design area is matte, undecorated area burnished. Design Set I5. Motif 2.84. Shoulder. Test Unit 12, Stratum I, Level 1. Cat. No. E87.

11. Recurved jar. Black burnished exterior, black partially burnished interior. Exterior design area is matte, undecorated area burnished. Design Set I5. Motif 2.83. Shoulder. Cat. No. E50.

12. Recurved jar. Red smoothed exterior, red coarse interior. Design Set I5. Motif 2.84. Lower Neck. Test Unit 9, Stratum II, Level 2. Cat. No. E3.

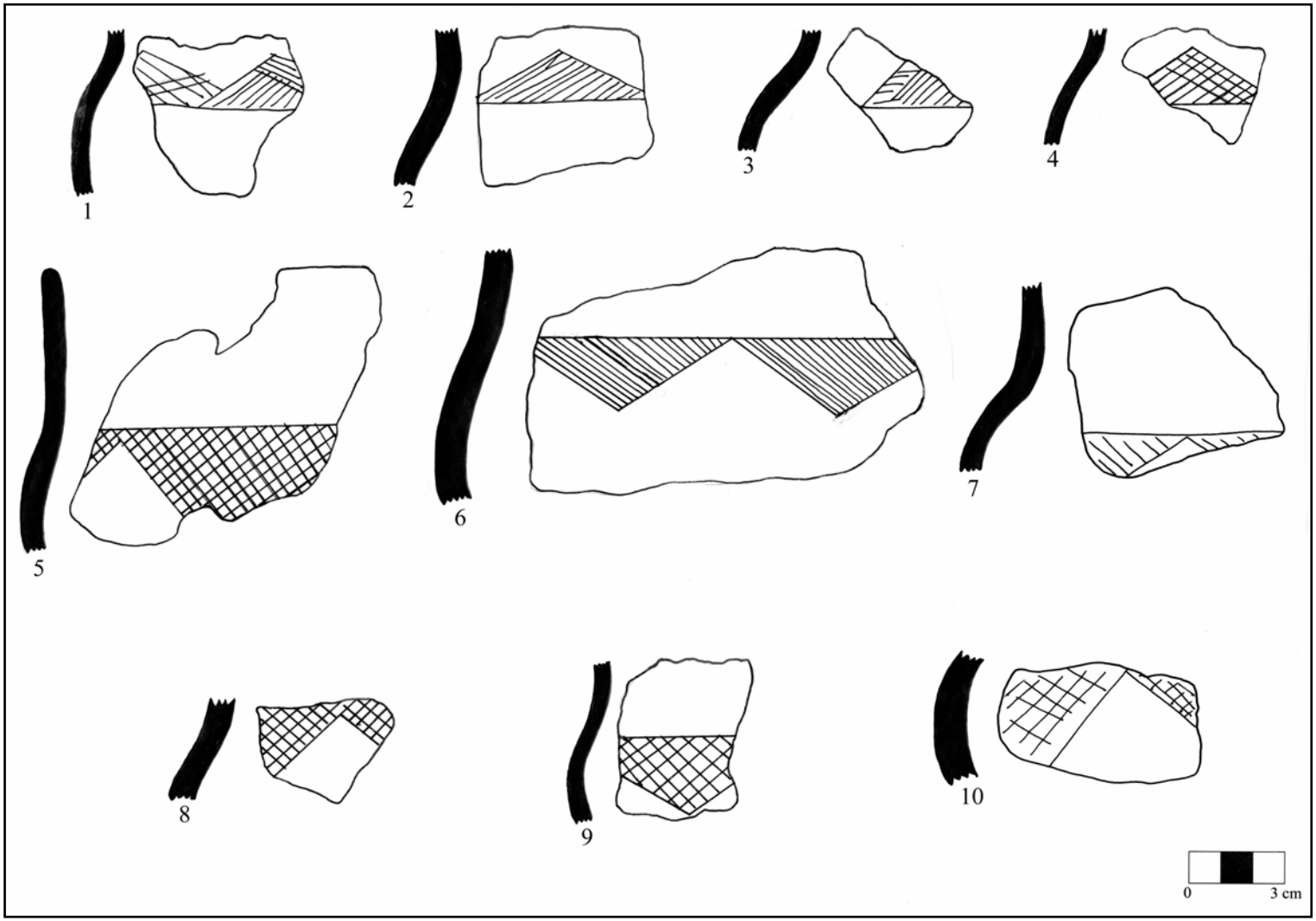


Plate 33. Edmondsburg ceramics.

Plate 33. Descriptions

1. Recurved jar. Black burnished exterior, black coarse interior. Design Set I6. Motif 2.78. Lower Neck to Shoulder. Test Unit 8, Stratum II, Level 2. Cat. No. E14.

2. Recurved jar. Black burnished exterior, black coarse interior. Exterior design area is matte, undecorated area burnished. Design Set I6. Motif 2.26. Lower Neck to Shoulder. Test Unit 9, Stratum I, Level 1. Cat. No. E8.

3. Recurved jar. Brown burnished exterior, black partially burnished interior. Exterior design area is matte, undecorated area burnished. Design Set I6. Motif 2.78. Lower Neck to Shoulder. Test Unit 10, Stratum I, Level 1. Cat. No. E21.

4. Recurved jar. Black burnished exterior, black coarse interior. Design Set I6. Motif 2.41. Lower Neck to Shoulder. Test Unit 8, Stratum II, Level 2. Cat. No. E12.

5. Recurved jar. Black burnished exterior, black partially burnished interior. Exterior design area is matte, undecorated area burnished. Design Set I11. Motif 2.42. Shoulder. Test Unit 7, Stratum II, Level 2. Cat. No. E77.

6. Recurved jar. Brown burnished exterior, brown coarse interior. Exterior design area is matte, undecorated area burnished. Design Set I11. Motif 2.27. Shoulder. Test Unit 9, Stratum II, Level 2. Cat. No. E1.

7. Recurved jar. Black burnished exterior, black coarse interior. Exterior design area is matte, undecorated area burnished. Design Set I11. Motif 2.27. Shoulder. Test Unit 11, Stratum II, Level 2. Cat. No. E9.

8. Recurved jar. Black burnished exterior and interior. Exterior design area is matte, undecorated area burnished. Design Set I11. Motif 2.42. Lower Neck to Shoulder. Test Unit 10, Stratum II, Level 2. Cat. No. E42.

9. Recurved jar. Black burnished exterior, black coarse interior. Exterior design area is matte, undecorated area burnished. Design Set I11. Motif 2.42. Shoulder. Test Unit 11, Stratum II, Level 2. Cat. No. E7.

10. Recurved jar. Black burnished exterior, black smoothed interior. Exterior design area is matte, undecorated area burnished. Design Set I11. Motif 2.42. Shoulder. Test Unit 7, Stratum II Level 3. Cat. No. E78.

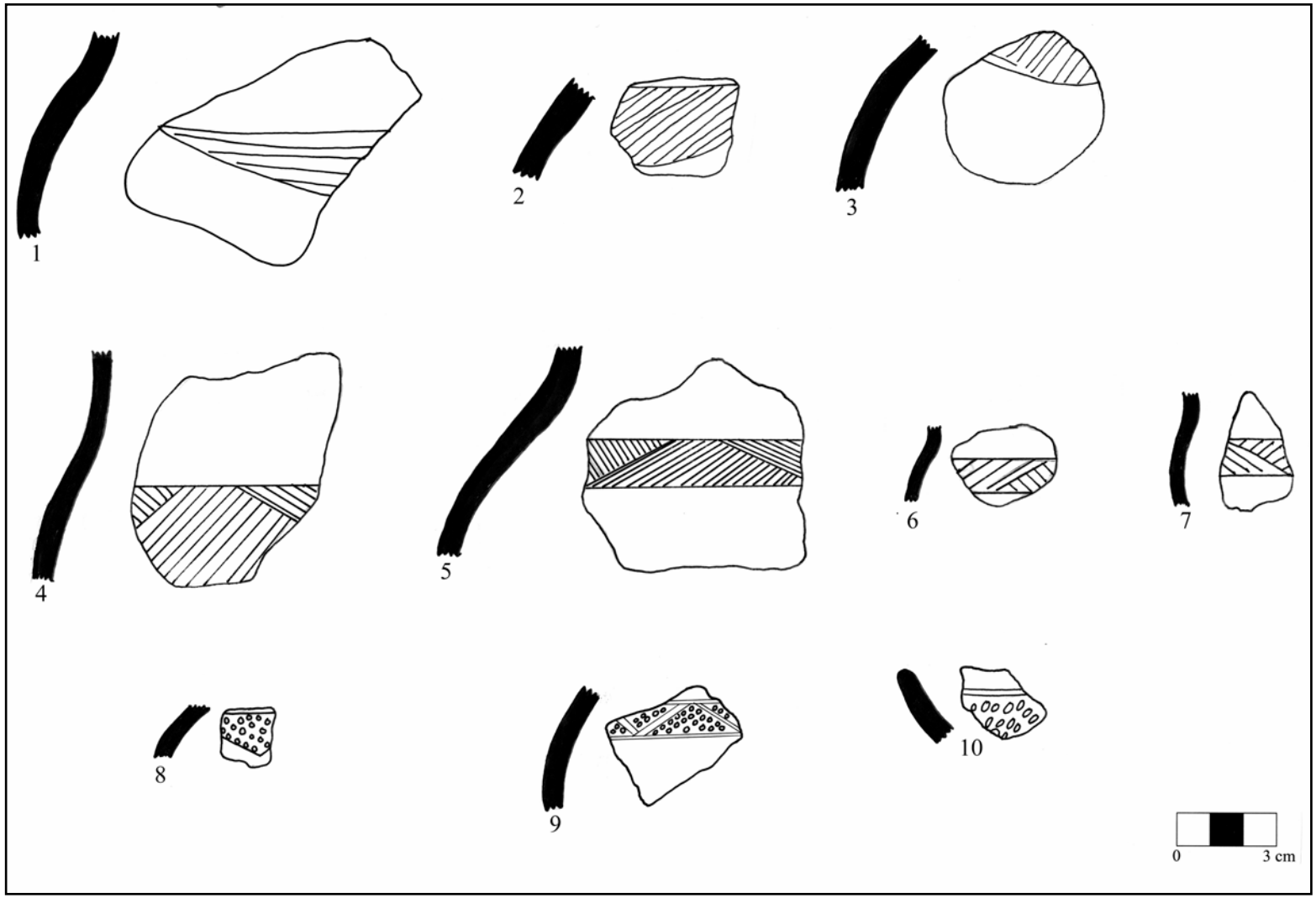


Plate 34. Edmondsburg ceramics.

Plate 34. Descriptions

1. Recurved jar. Smoke-clouded red smoothed exterior, smoke-clouded red coarse interior. Design Set I12. Motif 2.26. Shoulder. Test Unit 10, Stratum II, Level 2. Cat. No. E33.

2. Recurved jar. Black burnished exterior, brown coarse interior. Exterior design area is matte, undecorated area burnished. Design Set I12. Motif 2.30. Shoulder. Test Unit 10, Stratum II, Level 2. Cat. No. E31.

3. Recurved jar. Black burnished exterior, black coarse interior. Exterior design area is matte, undecorated area burnished. Design Set I12. Motif 2.30. Shoulder. Cat. No. E43.

4. Recurved jar. Black burnished exterior, black coarse interior. Exterior design area is matte, undecorated area burnished. Design Set I14. Motif 2.50. Shoulder. Test Unit 10, Stratum II, Level 2. Cat. No. E5.

5. Recurved jar. Black burnished exterior, black coarse interior. Exterior design area is matte, undecorated area burnished. Design Set I14. Motif 2.50. Shoulder. Test Unit 9, Stratum I, Level 1. Cat. No. E10.

6. Recurved jar. Black burnished exterior, black coarse interior. Exterior design area is matte, undecorated area burnished. Design Set I14. Motif 2.50. Shoulder. Test Unit 10, Stratum II, Level 2. Cat. No. E23.

7. Recurved jar. Black burnished exterior, black coarse interior. Exterior design area is matte, undecorated area burnished. Design Set I14. Motif 2.50. Shoulder. Test Unit 10, Stratum I, Level 1. Cat. No. E16.

8. Recurved jar. Black burnished exterior, black coarse interior. Exterior design area is matte, undecorated area burnished. Design Set I/P6. Motif 14.4. Shoulder. Test Unit 11, Stratum I, Level 1. Cat. No. E66.

9. Recurved jar. Black smoothed exterior, brown coarse interior. Design Set I/P6. Motif 14.4. Body. Test Unit 14, Stratum I, Level 1. Cat. No. E71.

10. Very shallow bowl. Black smoothed exterior, brown coarse interior. Design Set I/P6. Motif 14.4(?). Body. Test Unit 9, Stratum I, Level 1. Cat No. E70.

Appendix B

Schroda Ceramic Types

Schroda
Area 5
Limpopo Incised
Recurved Jars

Table B1. Schroda, Design Set I1, Horizontal Line; ceramics by Placement, Motif and Depositional Unit.

Placement	**Design Motifs**				**Totals**
	2.12	**2.21**	**2.20**	**2.36**	
Rim					
DU I			1		1
DU II			1	1	2
DU III			1	3	4
Central Neck					
DU I	2	1	12	3	18
DU II		1	5	5	11
DU III	1		10	6	17
Lower Neck					
DU I	2				2
DU II			1		1
DU III	1			1	2
Central Neck to Lower Neck					
DU I					
DU II			1		1
DU III					
Shoulder					
DU I	5	1			6
DU II	6	2		2	10
DU III	1				1
Totals	18	5	32	21	76

Table B2. Schroda, Design Set I2, Diagonal Line; ceramics by Placement, Motif and Depositional Unit.

Placement	**Design Motifs**				**Totals**
	2.14	**2.7**	**2.43**	**2.22**	
Rim					
DU I	3	2		2	7
DU II	1			1	2
DU III	1				1
Central Neck					
DU I	7		1	36	44
DU II	1			18	19
DU III	1			11	12
Central Neck and Shoulder					
DU I		1			1
DU II					
DU III					
Lower Neck					
DU I	3			1	4
DU II				2	2
DU III					
Shoulder					
DU I	1	3		1	5
DU II					
DU III				1	1
Totals	18	6	1	73	98

Table B3. Schroda, Design Set I3, Crosshatching; ceramics by Placement, Motif and Depositional Unit.

Placement	**Design Motifs**			**Totals**
	2.44	**2.45**	**2.1**	
Rim				
DU I		1	1	2
DU II	1		1	2
DU III			1	1
Central Neck				
DU I	1			1
DU II				
DU III				
Shoulder				
DU I		1		1
DU II				
DU III				
Totals	2	2	3	7

Table B4. Schroda, Design Set I4, Unzoned Curvilinear; ceramics by Placement, Motif and Depositional Unit.

Placement	Design Motifs		Totals
	2.10	**2.13**	
Rim			
DU I			
DU II		1	1
DU III			
Central Neck			
DU I			
DU II		1	1
DU III	2		2
Shoulder			
DU I	2		2
DU II			
DU III			
Totals	4	2	6

Table B5. Schroda, Design Set I5, Upturned Arcade; ceramics by Placement, Motif and Depositional Unit.

Placement	Design Motifs		Totals
	2.46	**2.29**	
Central Neck			
DU I		3	3
DU II			
DU III			
Lower Neck			
DU I			
DU II			
DU III	1		1
Shoulder			
DU I			
DU II			
DU III	2		2
Totals	3	3	6

Table B6. Schroda, Design Set I6, Upturned Triangle; ceramics by Placement, Motif and Depositional Unit.

Placement	Design Motifs		Totals
	2.26	**2.49**	
Central Neck			
DU I	1		1
DU II			
DU III			
Lower Neck to Shoulder			
DU I			
DU II			
DU III		1	1
Totals	1	1	2

Table B7. Schroda, Design Set I7, Unzoned Curvilinear; ceramics by Placement, Motif and Depositional Unit.

Placement	Design Motif	Totals
	2.47	
Rim		
DU I		
DU II		
DU III	1	1
Totals	1	1

Table B8. Schroda, Design Set I8, Herringbone; ceramics by Placement, Motif and Depositional Unit.

Placement	Design Motif	Totals
	2.11	
Central Neck		
DU I		
DU II		
DU III	1	1
Totals	1	1

Schroda
Area 5
Limpopo Incised
Short-Necked Jars

Table B9. Schroda, Design Set I1, Horizontal Line; ceramics by Placement, Motif and Depositional Unit.

Placement	Design Motifs			Totals
	2.2	**2.20**	**2.36**	
Rim				
DU I				
DU II				
DU III	1			1
Central Neck				
DU I				
DU II			3	3
DU III		2	2	4
Lower Neck				
DU I				
DU II				
DU III			1	1
Totals	1	2	6	9

Table B10. Schroda, Design Set I2, Diagonal Line; ceramics by Placement, Motif and Depositional Unit.

Placement	Design Motifs		Totals
	2.14	**2.22**	
Rim			
DU I			
DU II			
DU III		3	3
Central Neck			
DU I			
DU II		1	1
DU III	1		1
Totals	1	4	5

Table B11. Schroda, Design Set I3, Crosshatching; ceramics by Placement, Motif and Depositional Unit.

Placement	Design Motifs		Totals
	2.1	**2.9**	
Lip			
DU I	1		1
DU II	1		1
DU III			
Lower Neck			
DU I		1	1
DU II			
DU III			
Totals	2	1	3

Schroda
Area 5
Limpopo Incised
Bag-Shaped Jars

Table B12. Schroda, Design Set I2, Diagonal Line; ceramics by Placement, Motif and Depositional Unit.

Placement	Design Motif	Totals
	2.14	
Rim		
DU I	2	2
DU II		
DU III		
Totals	2	2

Schroda
Area 5
Limpopo Incised
Very Shallow Bowls

Table B13. Schroda, Design Set I11, Downturned Triangle; ceramics by Placement, Motif and Depositional Unit.

Placement	Design Motif	Totals
	2.27	
Body		
DU I		
DU II		
DU III	1	1
Totals	1	1

Schroda
Area 5
Limpopo Incised
Simple Shallow Bowls

Table B14. Schroda, Design Set I1, Horizontal Line; ceramics by Placement, Motif and Depositional Unit.

Placement	Design Motif	Totals
	2.20	
Body		
DU I		
DU II	1	1
DU III		
Totals	1	1

Table B15. Schroda, Design Set I2, Diagonal Line; ceramics by Placement, Motif and Depositional Unit.

Placement	Design Motifs		Totals
	2.14	**2.22**	
Lip			
DU I	1		1
DU II			
DU III			
Rim			
DU I		1	1
DU II			
DU III			
Totals	1	1	2

Schroda
Area 5
Limpopo Incised
Incurvate Bowls

Table B16. Schroda, Design Set I1, Horizontal Line; ceramics by Placement, Motif and Depositional Unit.

Placement	Design Motif	Totals
	2.20	
Rim		
DU I	1	1
DU II		
DU III		
Totals	1	1

Schroda
Area 5
Limpopo Comb-Stamped
Recurved Jars

Table B17. Schroda, Design Set CS1, Horizontal Line; ceramics by Placement, Motif and Depositional Unit.

Placement	Design Motifs								Totals
	3.1	**3.2**	**3.3**	**3.8**	**3.13**	**3.16**	**3.17**	**3.22**	
Rim									
DU I	1	2							3
DU II		7							7
DU III		19							19
Central Neck									
DU I	2	62							64
DU II	2	94							96
DU III		128	1		1	1		1	132
Lower Neck									
DU I		2							2
DU II	1	3							4
DU III		6							6
Central Neck and Shoulder									
DU I									
DU II							2		2
DU III							3		3
Shoulder									
DU I	17	3							20
DU II	20	7							27
DU III	26	2		1					29
Central Neck to Lower Neck									
DU I									
DU II		1							1
DU III									
Totals	69	336	1	1	1	1	5	1	415

Table B18. Schroda, Design Set CS2, Diagonal Line; ceramics by Placement, Motif and Depositional Unit.

Placement	**Design Motifs**						**Totals**
	3.4	**3.5**	**3.15**	**3.18**	**3.21**	**3.23**	
Rim							
DU I	1	1					2
DU II		1			1		2
DU III	1	3					4
Central Neck							
DU I	6	27	4	1			38
DU II	2	32	2	2			38
DU III	2	42	2				46
Lower Neck							
DU I	1	4					5
DU II		2					2
DU III		4					4
Central Neck and Shoulder							
DU I						1	1
DU II							
DU III							
Shoulder							
DU I							
DU II		2					
DU III		1					
Totals	13	119	8	3	1	1	145

Table B19. Schroda, Design Set CS3, Upturned Triangle; ceramics by Placement, Motif and Depositional Unit.

Placement	**Design Motifs**			**Totals**
	3.7	**3.10**	**3.19**	
Shoulder				
DU I	1			1
DU II		1	1	2
DU III	1		1	2
Totals	2	1	2	5

Schroda
Area 5
Limpopo Comb-Stamped
Short-Necked Jars

Table B20. Schroda, Design Set CS1, Horizontal Line; ceramics by Placement, Motif and Depositional Unit.

Placement	**Design Motifs**				**Totals**
	3.1	**3.2**	**3.8**	**3.17**	
Rim					
DU I	1				1
DU II					
DU III					
Central Neck					
DU I					
DU II		4			4
DU III		12			12
Lower Neck					
DU I					
DU II		2			2
DU III		3			3
Rim and Shoulder					
DU I					
DU II					
DU III				1	1
Central Neck and Shoulder					
DU I					
DU II				1	1
DU III			1	1	2
Totals	1	21	1	3	26

Table B21. Schroda, Design Set CS2, Diagonal Line; ceramics by Placement, Motif and Depositional Unit.

Placement	**Design Motifs**				**Totals**
	3.5	**3.15**	**3.18**	**3.20**	
Central Neck					
DU I					
DU II	3				3
DU III	3	1	1		5
Lower Neck					
DU I					
DU II					
DU III	1				1
Central Neck and Shoulder					
DU I					
DU II					
DU III				1	1
Totals	7	1	1	1	10

Schroda
Area 5
Limpopo Comb-Stamped
Simple Deep Bowls

Table B22. Schroda, Design Set CS2, Diagonal Line; ceramics by Placement, Motif and Depositional Unit.

Placement	Design Motif	Totals
	3.5	
Body		
DU I		
DU II		
DU III	1	1
Totals	1	1

Schroda
Area 5
Limpopo Comb-Stamped
Incurvate Bowls

Table B23. Schroda, Design Set CS1, Horizontal Line; ceramics by Placement, Motif and Depositional Unit.

Placement	Design Motif	Totals
	3.2	
Rim		
DU I		
DU II		
DU III	2	2
Totals	2	2

Schroda
Area 5
Limpopo Bead/Bangle-Impressed
Recurved Jars

Table B24. Schroda, Design Set BB1, Horizontal Line; ceramics by Placement, Motif and Depositional Unit.

Placement	Design Motifs					Totals
	4.2	4.3	4.14	4.5	4.12	
Rim						
DU I	1	1				2
DU II		1				1
DU III	1	2				3
Central Neck						
DU I	1	11			1	13
DU II		9				9
DU III	1	20				21
Central Neck and Shoulder						
DU I						
DU II						
DU III			1			1
Shoulder						
DU I	2	3				5
DU II	1			1		2
DU III	7	1				8
Totals	14	48	1	1	1	65

Table B25. Schroda, Design Set BB2, Diagonal Line; ceramics by Placement, Motif and Depositional Unit.

Placement	Design Motifs			Totals
	4.1	4.6	4.13	
Rim				
DU I	1	1		2
DU II	1			1
DU III				
Central Neck				
DU I	6			6
DU II	2			2
DU III	1	1	1	3
Lower Neck				
DU I			1	1
DU II	1			1
DU III		1		1
Shoulder				
DU I	7		1	8
DU II	1			1
DU III	1			1
Totals	21	3	3	27

Schroda
Area 5
Limpopo Bead/Bangle-Impressed
Short-Necked Jars

Table B26. Schroda, Design Set BB1, Horizontal Line; ceramics by Placement, Motif and Depositional Unit.

Placement	Design Motifs		Totals
	4.2	**4.3**	
Central Neck			
DU I			
DU II			
DU III		3	3
Lower Neck			
DU I			
DU II			
DU III	1		1
Totals	1	3	4

Schroda
Area 5
Limpopo Bead/Bangle-Impressed
Incurvate Bowls

Table B27. Schroda, Design Set BB1, Horizontal Line; ceramics by Placement, Motif and Depositional Unit.

Placement	Design Motif	Totals
	4.3	
Rim		
DU I		
DU II		
DU III	1	1
Totals	1	1

Schroda
Area 5
Limpopo Punctated
Recurved Jars

Table B28. Schroda, Design Set P1, Rounded Impression, Horizontal Line; ceramics by Placement, Motif and Depositional Unit.

Placement	Design Motif	Totals
	5.1	
Central Neck		
DU I	1	1
DU II	2	2
DU III		
Lower Neck		
DU I		
DU II		
DU III	1	1
Shoulder		
DU I		
DU II		
DU III	1	1
Totals	5	5

Table B29. Schroda, Design Set P2, Unzoned Round Impression; ceramics by Placement, Motif and Depositional Unit.

Placement	Design Motif	Totals
	5.3	
Central Neck		
DU I		
DU II	1	1
DU III		
Totals	1	1

Schroda
Area 5
Limpopo Punctated
Short-Necked Jars

Table B30. Schroda, Design Set P1, Horizontal Line; ceramics by Placement, Motif and Depositional Unit.

Placement	Design Motif	Totals
	5.1	
Central Neck		
DU I		
DU II	1	1
DU III		
Totals	1	1

Schroda
Area 5
Limpopo Fingernail-Impressed
Recurved Jars

Table B31. Schroda, Design Set F1, Horizontal Line; ceramics by Placement, Motif and Depositional Unit.

Placement	Design Motifs		Totals
	6.1	**6.3**	
Central Neck			
DU I	1		1
DU II	1		1
DU III			
Lower Neck			
DU I		1	1
DU II			
DU III			
Shoulder			
DU I		1	1
DU II			
DU III			
Totals	2	2	4

Schroda
Area 5
Limpopo Stabbed
Recurved Jars

Table B32. Schroda, Design Set ST1, Diagonal Teardrop, Horizontal Line; ceramics by Placement, Motif and Depositional Unit.

Placement	Design Motif	Totals
	9.1	
Central Neck		
DU I	3	3
DU II		
DU III		
Lower Neck		
DU I	1	1
DU II		
DU III		
Shoulder		
DU I	1	1
DU II		
DU III		
Totals	5	5

Table B33. Schroda, Design Set ST2, Vertical Teardrop, Horizontal Line; ceramics by Placement, Motif and Depositional Unit.

Placement	Design Motif	Totals
	9.2	
Lower Neck		
DU I		
DU II	1	1
DU III		
Shoulder		
DU I	3	3
DU II		
DU III	1	1
Totals	5	5

Schroda
Area 5
Limpopo Incised and Comb-Stamped
Recurved Jars

Table B34. Schroda, Design Set I/CS1, Zoned Horizontal; ceramics by Placement, Motif and Depositional Unit.

Placement	Design Motifs		Totals
	12.2	**12.4**	
Rim			
DU I			
DU II			
DU III	1		1
Central Neck			
DU I	1	1	2
DU II	5	1	6
DU III	6	2	8
Lower Neck			
DU I	1		1
DU II			
DU III			
Totals	14	4	18

Table B35. Schroda, Design Set I/CS2, Zoned Diagonal; ceramics by Placement, Motif and Depositional Unit.

Placement	Design Motifs		Totals
	12.2	**12.4**	
Rim			
DU I	2		2
DU II	5		5
DU III	6		6
Central Neck			
DU I	8	4	12
DU II	8	3	11
DU III	12	3	15
Lower Neck			
DU I			
DU II	1		1
DU III			
Shoulder			
DU I		1	1
DU II			
DU III			
Totals	42	11	53

Schroda
Area 5
Limpopo Incised and Comb-Stamped
Short-Necked Jars

Table B36. Schroda, Design Set I/CS1, Zoned Horizontal; ceramics by Placement, Motif and Depositional Unit.

Placement	Design Motif	Totals
	12.2	
Central Neck		
DU I		
DU II		
DU III	1	1
Totals	1	1

Table B37 Schroda, Design Set I/CS2, Zoned Diagonal; ceramics by Placement, Motif and Depositional Unit.

Placement	Design Motif	Totals
	12.1	
Rim		
DU I		
DU II		
DU III	1	1
Central Neck		
DU I		
DU II	1	1
DU III	1	1
Totals	3	3

Schroda
Area 5
Limpopo Incised and Bead/Bangle-Impressed
Recurved Jars

Table B38. Schroda, Design Set I/BB1, Zoned Diagonal; ceramics by Placement, Motif and Depositional Unit.

Placement	Design Motifs		Totals
	11.1	**11.2**	
Rim			
DU I		1	1
DU II			
DU III	1		1
Central Neck			
DU I			
DU II	2		2
DU III	1	3	4
Lower Neck			
DU I		1	
DU II			
DU III			
Totals	4	5	9

Schroda
Area 5
Limpopo Incised and Punctated
Recurved Jars

Table B39. Schroda, Design Set I/P1, Connected Round, Horizontal Line; ceramics by Placement, Motif and Depositional Unit.

Placement	Design Motif	Totals
	14.1	
Rim		
DU I		
DU II		
DU III	1	1
Central Neck		
DU I		
DU II	1	1
DU III		
Shoulder		
DU I	1	1
DU II		
DU III		
Totals	3	3

Table B40. Schroda, Design Set I/P2, Round Impression, Zoned Diagonal; ceramics by Placement, Motif and Depositional Unit.

Placement	Design Motif	Totals
	14.2	
Shoulder		
DU I	1	1
DU II		
DU III		
Totals	1	1

Schroda
Area 5
Limpopo Incised and Stabbed
Recurved Jars

Table B41. Schroda, Design Set I/ST1, Zoned Vertical Stabbing; ceramics by Placement, Motif and Depositional Unit.

Placement	Design Motif	Totals
	16.1	
Central Neck		
DU I		
DU II	1	1
DU III	3	3
Lower Neck		
DU I	2	2
DU II		
DU III		
Shoulder		
DU I		
DU II		
DU III	1	1
Totals	7	7

Table B42. Schroda, Design Set I/ST2, Connected Round, Horizontal Line; ceramics by Placement, Motif and Depositional Unit.

Placement	Design Motif	Totals
	16.2	
Central Neck		
DU I		
DU II	1	1
DU III		
Totals	1	1

Schroda
Area 5
Limpopo Applied and Comb-Stamped
Short-Necked Jars

Table B43. Schroda, Design Set A/CS1, Connected Round, Horizontal Line; ceramics by Placement, Motif and Depositional Unit.

Placement	Design Motif	Totals
	19.1	
Central Neck		
DU I		
DU II		
DU III	1	1
Totals	1	1

Schroda
Area 5
Limpopo Polychrome
Simple Shallow Bowls

Table B44. Schroda, Design Set PC1, Red and Black; ceramics by Placement, Motif and Depositional Unit.

Placement	Design Motif	Totals
	24.1	
Body		
DU I		
DU II		
DU III	1	1
Totals	1	1

Appendix C

Baobab Ceramic Types

Baobab
Southern Hilltop Midden
Limpopo Incised
Recurved Jars

Table C1. Baobab, Design Set I1, Horizontal Line; ceramics by Placement, Motif and Level.

Placement	Design Motifs		Totals
	2.12	2.36	
Lower Neck			
Level 1		2	2
Level 2			
Level 3			
Shoulder			
Level 1	1		1
Level 2			
Level 3			
Totals	1	2	3

Table C2. Baobab, Design Set I2, Diagonal Line; ceramics by Placement, Motif and Level.

Placement	Design Motifs			Totals
	2.14	2.22	2.60	
Rim				
Level 1		1		1
Level 2				
Level 3				
Central Neck	2			2
Level 1		1		1
Level 2		1		1
Level 3				
Central Neck to Lower Neck				
Level 1			1	1
Level 2				
Level 3				
Lower Neck				
Level 1		4		4
Level 2				
Level 3				
Totals	2	7	1	10

Table C3. Baobab, Design Set I5, Upturned Arcade; ceramics by Placement, Motif and Level.

Placement	Design Motif	Totals
	2.38	
Shoulder		
Level 1	1	1
Level 2		
Level 3		
Totals	1	1

Table C4. Baobab, Design Set I9, Panelled; ceramics by Placement, Motif and Level.

Placement	Design Motif	Totals
	2.59	
Central Neck to Lower Neck		
Level 1	1	1
Level 2	1	1
Level 3		
Totals	2	2

Table C5. Baobab, Design Set I10, Curvilinear Geometric; ceramics by Placement, Motif and Level.

Placement	Design Motif	Totals
	2.61	
Central Neck to Lower Neck		
Level 1		
Level 2	1	1
Level 3		
Totals	1	1

Baobab
Southern Hilltop Midden and Hut Floor 1
Limpopo Comb-Stamped
Recurved Jars

Table C6. Baobab, Design Set CS1, Horizontal Line; ceramics by Placement, Motif and Level.

Placement	Design Motifs		Totals
	3.1	**3.2**	
Central Neck			
Level 1		6	6
Level 2		5	5
Level 3			
Hut Floor 1		1	1
Lower Neck			
Level 1		2	2
Level 2		1	1
Level 3			
Shoulder			
Level 1			
Level 2	2		2
Level 3	1		1
Totals	3	15	18

Table C7. Baobab, Design Set CS2, Diagonal Line; ceramics by Placement, Motif and Level.

Placement	Design Motif	Totals
	3.5	
Central Neck		
Level 1	2	2
Level 2		
Level 3	1	1
Lower Neck		
Level 1	1	1
Level 2		
Level 3	1	1
Totals	5	5

Baobab
Southern Hilltop Midden
Limpopo Bead/Bangle-Impressed
Recurved Jars

Table C8. Baobab, Design Set BB1, Horizontal Line; ceramics by Placement, Motif and Level.

Placement	Design Motifs		Totals
	4.2	**4.3**	
Shoulder			
Level 1	1	1	2
Level 2	1		1
Level 3			
Totals	2	1	3

Table C9. Baobab, Design Set BB2, Diagonal Line; ceramics by Placement, Motif and Level.

Placement	Design Motif	Totals
	4.1	
Central Neck		
Level 1	5	5
Level 2		
Level 3		
Lower Neck		
Level 1		
Level 2	1	1
Level 3		
Totals	6	6

Baobab
Southern Hilltop Midden
Limpopo Punctated
Bag-Shaped Jars

Table C10. Baobab, Design Set P1, Horizontal Line; ceramics by Placement, Motif and Level.

Placement	Design Motifs		Totals
	5.1	5.2	
Rim			
Level 1			
Level 2		1	1
Level 3			
Central Neck			
Level 1			
Level 2			
Level 3	1		1
Totals	1	1	2

Baobab
Southern Hilltop Midden
Limpopo Stabbed
Recurved Jars

Table C11. Baobab, Design Set ST1, Diagonal Line of Stabbing; ceramics by Placement, Motif and Level.

Placement	Design Motif	Totals
	9.1	
Lower Neck		
Level 1	1	1
Level 2		
Level 3		
Totals	1	1

Baobab
Hut Floor 1
Limpopo Incised and Comb-Stamped
Recurved Jars

Table C12. Baobab, Design Set I/CS2, Zoned Diagonal; ceramics by Placement, Motif and Level.

Placement	Design Motif	Totals
	12.3	
Central Neck		
Hut Floor 1	1	1
Totals	1	1

Baobab
Southern Hilltop Midden
Limpopo Incised and Stabbed
Recurved Jars

Table C11. Baobab, Design Set I/ST3, Zoned Diagonal; ceramics by Placement, Motif and Level.

Placement	Design Motif	Totals
	16.3	
Shoulder		
Level 1	1	1
Level 2	2	2
Level 3		
Totals	3	3

Appendix D

Castle Rock Ceramic Types

Castle Rock
Midden
Limpopo Incised
Recurved Jars

Table D1. Castle Rock, Design Set I1, Horizontal Line; ceramics by Placement, Motif and Level.

Placement	**Design Motifs**				**Totals**
	2.12	**2.20**	**2.21**	**2.36**	
Central Neck					
Level 1		2	1	3	6
Level 2		3		2	5
Level 3		1	1	1	3
Level 4					
Lower Neck					
Level 1	1	1		2	4
Level 2	1	1	2	2	6
Level 3				1	1
Level 4		1			1
Shoulder					
Level 1	1				1
Level 2					
Level 3					
Level 4					
Totals	3	9	4	11	27

Table D2. Castle Rock, Design Set I2, Diagonal Line; ceramics by Placement, Motif and Level.

Placement	**Design Motifs**						**Totals**
	2.3	**2.14**	**2.16**	**2.22**	**2.55**	**2.72**	
Rim							
Level 1							
Level 2		1					1
Level 3							
Level 4							
Rim to Central Neck							
Level 1							
Level 2				1			1
Level 3							
Level 4							
Central Neck							
Level 1		3		10	2		15
Level 2		3		11			14
Level 3				5	2		7
Level 4		2		4			6
Central Neck to Lower Neck							
Level 1			1				1
Level 2					1		1
Level 3							
Level 4							
Lower Neck							
Level 1				7	2	1	10
Level 2	1			6	1	1	9
Level 3				3			3
Level 4					1		1
Shoulder							
Level 1				1			1
Level 2							
Level 3							
Level 4							
Totals	1	9	1	48	9	2	70

Table D3. Castle Rock, Design Set I3, Crosshatching; ceramics by Placement, Motif and Level.

Placement	Design Motifs			Totals
	2.9	2.70	2.71	
Central Neck				
Level 1		1		1
Level 2				
Level 3				
Level 4				
Lower Neck				
Level 1	1			1
Level 2			1	1
Level 3				
Level 4	1			1
Shoulder				
Level 1	2			2
Level 2	1			1
Level 3				
Level 4				
Totals	5	1	1	7

Table D4. Castle Rock, Design Set I5, Upturned Arcade; ceramics by Placement, Motif and Level.

Placement	Design Motifs		Totals
	2.38	2.67	
Central Neck			
Level 1			
Level 2			
Level 3			
Level 4		1	1
Lower Neck			
Level 1	1		1
Level 2			
Level 3			
Level 4			
Totals	1	1	2

Table D5. Castle Rock, Design Set I6, Upturned Triangle; ceramics by Placement, Motif and Level.

Placement	Design Motifs				Totals
	2.26	2.63	2.64	2.66	
Rim to Central Neck					
Level 1			1		1
Level 2					
Level 3		1			1
Level 4					
Lower Neck					
Level 1				1	1
Level 2					
Level 3					
Level 4					
Shoulder					
Level 1					
Level 2	1				1
Level 3					
Level 4					
Totals	1	1	1	1	4

Table D6. Castle Rock, Design Set I10, Curvilinear Geometric; ceramics by Placement, Motif and Level.

Placement	Design Motifs			Totals
	2.17	2.73	2.74	
Rim to Central Neck				
Level 1			1	1
Level 2				
Level 3				
Level 4				
Lower Neck				
Level 1		1		1
Level 2				
Level 3				
Level 4				
Lower Neck to Shoulder				
Level 1				
Level 2	1			1
Level 3				
Level 4				
Totals	1	1	1	3

Table D7. Castle Rock, Design Set I11, Downturned Triangle; ceramics by Placement, Motif and Level.

Placement	Design Motifs		Totals
	2.27	**2.65**	
Lower Neck to Shoulder			
Level 1			
Level 2	1		1
Level 3			
Level 4			
Shoulder			
Level 1			
Level 2		1	1
Level 3			
Level 4			
Totals	1	1	2

Table D8. Castle Rock, Design Set I12, Downturned Arcade; ceramics by Placement, Motif and Level.

Placement	Design Motif	Totals
	2.30	
Shoulder		
Level 1		
Level 2		
Level 3	1	1
Level 4		
Totals	1	1

Table D9. Castle Rock, Design Set I13, Bisected Oval; ceramics by Placement, Motif and Level.

Placement	Design Motif	Totals
	2.68	
Lower Neck		
Level 1		
Level 2	1	1
Level 3		
Level 4		
Totals	1	1

Castle Rock
Midden
Limpopo Incised
Short-Necked Jars

Table D10. Castle Rock, Design Set I2, Diagonal Line; ceramics by Placement, Motif and Level.

Placement	Design Motifs		Totals
	2.22	**2.55**	
Central Neck			
Level 1		2	2
Level 2	1		1
Level 3			
Level 4			
Totals	1	2	3

Castle Rock
Midden
Limpopo Incised
Simple Shallow Bowls

Table D11. Castle Rock, Design Set I2, Diagonal Line; ceramics by Placement, Motif and Level.

Placement	Design Motif	Totals
	2.22	
Body		
Level 1		
Level 2	1	1
Level 3		
Level 4		
Totals	1	1

Castle Rock
Midden
Limpopo Incised
Very Shallow Bowls

Table D12. Castle Rock, Design Set I11, Downturned Triangles; ceramics by Placement, Motif and Level.

Placement	Design Motif	Totals
	2.18	
Rim to Body		
Level 1	1	1
Level 2		
Level 3		
Level 4		
Totals	1	1

Castle Rock
Midden
Limpopo Incised
Incurvate Bowls

Table D13. Castle Rock, Design Set I2, Diagonal Line; ceramics by Placement, Motif and Level.

Placement	Design Motifs		Totals
	2.14	**2.15**	
Lip			
Level 1			
Level 2			
Level 3			
Level 4	1		1
Rim			
Level 1	1	1	2
Level 2			
Level 3			
Level 4			
Totals	2	1	3

Table D14. Castle Rock, Design Set I16, Zoomorphic Avian; ceramics by Placement, Motif and Level.

Placement	Design Motif	Totals
	2.62	
Rim		
Level 1		
Level 2		
Level 3	1	1
Level 4		
Totals	1	1

Castle Rock
Midden
Limpopo Comb-Stamped
Recurved Jars

Table D15. Castle Rock, Design Set CS1, Horizontal Line; ceramics by Placement, Motif and Level.

Placement	**Design Motifs**					**Totals**
	3.1	**3.2**	**3.3**	**3.25**	**3.26**	
Rim to Central Neck						
Level 1		1				1
Level 2						
Level 3						
Level 4						
Central Neck						
Level 1		1				1
Level 2	1	1				2
Level 3		3				3
Level 4			1			1
Lower Neck						
Level 1		1				1
Level 2						
Level 3		2				2
Level 4	1					1
Lower Neck to Shoulder						
Level 1						
Level 2						
Level 3				1		1
Level 4						
Shoulder						
Level 1						
Level 2	2					2
Level 3					1	1
Level 4						
Totals	4	9	1	1	1	16

Table D16. Castle Rock, Design Set CS2, Diagonal Line; ceramics by Placement, Motif and Level.

Placement	Design Motifs				Totals
	3.4	3.5	3.15	3.18	
Rim to Central Neck					
Level 1				1	1
Level 2					
Level 3					
Level 4					
Central Neck					
Level 1			1		1
Level 2	1	1			2
Level 3					
Level 4		1		1	2
Lower Neck					
Level 1		3			3
Level 2					
Level 3		1			1
Level 4	1				1
Shoulder					
Level 1					
Level 2				1	1
Level 3					
Level 4					
Totals	2	6	1	3	12

Table D17. Castle Rock, Design Set CS3, Upturned Triangle; ceramics by Placement, Motif and Level.

Placement	Design Motif	Totals
	3.7	
Shoulder		
Level 1		
Level 2		
Level 3	1	1
Level 4		
Totals	1	1

Castle Rock
Midden
Limpopo Bead/Bangle-Impressed
Recurved Jars

Table D18. Castle Rock, Design Set BB1, Horizontal Line; ceramics by Placement, Motif and Level.

Placement	Design Motif	Totals
	4.3	
Lower Neck		
Level 1	2	2
Level 2		
Level 3		
Level 4		
Totals	2	2

Table D19. Castle Rock, Design Set BB2, Diagonal Line; ceramics by Placement, Motif and Level.

Placement	Design Motif	Totals
	4.1	
Central Neck		
Level 1	1	1
Level 2	3	3
Level 3	1	1
Level 4		
Lower Neck		
Level 1	1	1
Level 2		
Level 3		
Level 4		
Shoulder		
Level 1	1	1
Level 2		
Level 3	1	1
Level 4		
Totals	8	8

Castle Rock
Midden
Limpopo Punctated
Recurved Jars

Table D20. Castle Rock, Design Set P1, Rounded Impression, Horizontal Line; ceramics by Placement, Motif and Level.

Placement	Design Motifs		Totals
	5.1	**5.2**	
Rim			
Level 1			
Level 2			
Level 3			
Level 4		1	1
Central Neck			
Level 1	1		1
Level 2		1	1
Level 3	1		1
Level 4	1		1
Shoulder			
Level 1		2	2
Level 2		2	2
Level 3			
Level 4			
Totals	3	6	9

Table D21. Castle Rock, Design Set P3, Rounded Impression, Upturned Arcade; ceramics by Placement, Motif and Level.

Placement	Design Motif	Totals
	5.5	
Central Neck		
Level 1		
Level 2	1	1
Level 3		
Level 4		
Totals	1	1

Table D22. Castle Rock, Design Set P4, Upturned Triangles, Round Impression; ceramics by Placement, Motif and Level.

Placement	Design Motifs			Totals
	5.6	5.7	5.9	
Rim to Central Neck				
Level 1			1	1
Level 2				
Level 3				
Level 4			1	1
Central Neck to Lower Neck				
Level 1				
Level 2	1	1		2
Level 3		1		1
Level 4				
Totals	1			5

Castle Rock
Midden
Limpopo Punctated
Bag-Shaped Jars

Table D23. Castle Rock, Design Set P1, Rounded Impression, Horizontal Line; ceramics by Placement, Motif and Level.

Placement	Design Motifs		Totals
	5.2	5.8	
Central Neck			
Level 1	1	1	2
Level 2			
Level 3			
Level 4			
Totals	1	1	2

Castle Rock
Midden
Limpopo Punctated
Incurvate Bowls

Table D24. Castle Rock, Design Set P1, Rounded Impression, Horizontal Line; ceramics by Placement, Motif and Level.

Placement	Design Motif	Totals
	5.3	
Body		
Level 1	1	1
Level 2	1	1
Level 3	1	1
Level 4		
Totals	3	3

Castle Rock
Midden
Limpopo Fingernail Impressed
Recurved Jars

Table D25. Castle Rock, Design Set F1, Horizontal Line; ceramics by Placement, Motif and Level.

Placement	Design Motif	Totals
	6.3	
Shoulder		
Level 1		
Level 2	2	2
Level 3		
Level 4		
Totals	2	2

Castle Rock
Midden
Limpopo Incised and Comb-Stamped
Recurved Jars

Table D26. Castle Rock, Design Set I/CS2, Zoned Diagonal; ceramics by Placement, Motif and Level.

Placement	Design Motif	Totals
	12.1	
Lower Neck		
Level 1	1	1
Level 2		
Level 3		
Level 4		
Totals	1	1

Castle Rock
Midden
Limpopo Incised and Bead/Bangle-Impressed
Recurved Jars

Table D27. Castle Rock, Design Set I/BB1, Zoned Diagonal; ceramics by Placement, Motif and Level.

Placement	Design Motif	Totals
	11.3	
Central Neck		
Level 1	1	1
Level 2		
Level 3		
Level 4		
Totals	1	1

Castle Rock
Midden
Limpopo Incised and Punctated
Recurved Jars

Table D28. Castle Rock, Design Set IP3, Upturned Zoned Arcades; ceramics by Placement, Motif and Level.

Placement	Design Motifs		Totals
	14.5	**14.7**	
Central Neck to Lower Neck			
Level 1			
Level 2	1		1
Level 3			
Level 4			
Shoulder			
Level 1			
Level 2		1	1
Level 3			
Level 4			
Totals	1	1	2

Table D29. Castle Rock, Design Set IP4, Zoned Crosshatching; ceramics by Placement, Motif and Level.

Placement	Design Motif	Totals
	14.6	
Central Neck		
Level 1		
Level 2	1	1
Level 3		
Level 4		
Totals	1	1

Table D30. Castle Rock, Design Set IP5, Zoned Horizontal Lines; ceramics by Placement, Motif and Level.

Placement	Design Motif	Totals
	14.8	
Lower Neck		
Level 1	1	1
Level 2		
Level 3		
Level 4		
Totals	1	1

Castle Rock
Midden
Limpopo Applied and Comb-Stamped
Incurvate Bowls

Table D31. Castle Rock, Design Set IP5, Zoned Horizontal Lines; ceramics by Placement, Motif and Level.

Placement	Design Motif	Totals
	19.2	
Rim to Body		
Level 1		
Level 2	1	1
Level 3		
Level 4		
Totals	1	1

Castle Rock
Midden
Limpopo Applied
Recurved Jars

Table D32. Castle Rock, Design Set A1, Plain Raised; ceramics by Placement, Motif and Level.

Placement	Design Motif	Totals
	10.2	
Shoulder		
Level 1	1	1
Level 2		
Level 3		
Level 4		
Totals	1	1

Castle Rock
Midden
Limpopo Applied and Bead/Bangle-Impressed
Incurvate Bowls

Table D33. Castle Rock, Design Set A/BB1, Raised Horizontal; ceramics by Placement, Motif and Level.

Placement	Design Motif	Totals
	10.2	
Shoulder		
Level 1	1	1
Level 2	1	1
Level 3		
Level 4		
Totals	2	2

Castle Rock
Midden
Limpopo Comb-Stamped and Fingernail-Impressed
Recurved Jars

Table D34. Castle Rock, Design Set CS/F1, Diagonal; ceramics by Placement, Motif and Level.

Placement	Design Motif	Totals
	20.1	
Lower Neck to Shoulder		
Level 1		
Level 2	1	1
Level 3		
Level 4		
Totals	1	1

Castle Rock
Midden
Limpopo Incised and Fingernail-Impressed
Recurved Jars

Table D35. Castle Rock, Design Set I/F1, Zoned Diagonal; ceramics by Placement, Motif and Level.

Placement	Design Motif	Totals
	21.1	
Central Neck		
Level 1	1	1
Level 2		
Level 3		
Level 4		
Totals	1	1

Castle Rock
Midden
Limpopo Polychrome
Simple Shallow Bowls

Table D36. Castle Rock, Design Set PC2, Black and Brown; ceramics by Placement, Motif and Level.

Placement	Design Motif	Totals
	24.2	
Rim to Body		
Level 1	1	1
Level 2		
Level 3	1	1
Level 4	1	1
Totals	3	3

Castle Rock
Midden
Limpopo Polychrome
Simple Deep Bowls

Table D37. Castle Rock, Design Set PC1, Black and Red; ceramics by Placement, Motif and Level.

Placement	Design Motif	Totals
	24.1	
Rim to Body		
Level 1	1	1
Level 2		
Level 3		
Level 4		
Totals	1	1

Table D38. Castle Rock, Design Set PC2, Black and Brown; ceramics by Placement, Motif and Level.

Placement	Design Motif	Totals
	24.1	
Rim to Body		
Level 1		
Level 2	1	1
Level 3		
Level 4		
Totals	1	1

Castle Rock
Midden
Limpopo Polychrome
Very Shallow Bowls

Table D39. Castle Rock, Design Set PC1, Black and Red; ceramics by Placement, Motif and Level.

Placement	Design Motif	Totals
	24.1	
Rim to Body		
Level 1		
Level 2		
Level 3		
Level 4	1	1
Totals	1	1

Table D40. Castle Rock, Design Set PC2, Black and Brown; ceramics by Placement, Motif and Level.

Placement	Design Motif	Totals
	24.1	
Rim to Body		
Level 1	1	1
Level 2		
Level 3		
Level 4		
Totals	1	1

Castle Rock
Midden
Limpopo Polychrome
Plates

Table D41. Castle Rock, Design Set PC2, Black and Brown; ceramics by Placement, Motif and Level.

Placement	Design Motif	Totals
	24.1	
Rim to Body		
Level 1		
Level 2		
Level 3	1	1
Level 4		
Totals	1	1

Appendix E

Leokwe Hill
Western Summit
Ceramic Types

Western Summit
Limpopo Incised
Recurved Jars

Table E1. Western Summit, Design Set I1, Horizontal Line; ceramics by Placement and Motif.

Placement	Design Motifs				Totals
	2.12	2.20	2.21	2.36	
Lower Neck	1				1
Shoulder	1	2	1	2	6
Totals	2	2	1	2	7

Table E2. Western Summit, Design Set I2, Diagonal Line; ceramics by Placement and Motif.

Placement	Design Motifs					Totals
	2.14	2.22	2.8	2.54	2.55	
Central Neck	2	2			1	5
Lower Neck	3	2			1	6
Shoulder	6	12	1	1	5	25
Totals	11	16	1	1	7	36

Table E3. Western Summit, Design Set I3, Crosshatching; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	2.9	
Lower Neck	1	1
Shoulder	3	3
Totals	4	4

Table E4. Western Summit, Design Set I5, Upturned Arcade; ceramics by Placement and Motif.

Placement	Design Motifs				Totals
	2.29	2.35	2.34	2.38	
Central Neck				1	1
Central Neck to Lower Neck				1	1
Lower Neck	2	1		6	9
Lower Neck to Shoulder	8		1	3	12
Shoulder	16		2	9	27
Totals	26	1	3	20	50

Table E5. Western Summit, Design Set I6, Upturned Triangle; ceramics by Placement and Motif.

Placement	Design Motifs						Totals
	2.19	2.26	2.31	2.32	2.41	2.52	
Central Neck	1						1
Lower Neck	1	13			1		15
Lower Neck to Shoulder	2	25	1		3	1	32
Shoulder	1	24		1	3		29
Totals	5	62	1	1	7	1	77

Table E6. Western Summit, Design Set I11, Downturned Triangle; ceramics by Placement and Motif.

Placement	Design Motifs			Totals
	2.18	2.27	2.42	
Central Neck		1		1
Lower Neck	1	1		2
Lower Neck to Shoulder		2	1	3
Shoulder		3	2	5
Totals	1	7	3	11

Table E7. Western Summit, Design Set I12, Downturned Arcades; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	2.39	
Lower Neck to Shoulder	2	2
Shoulder	2	2
Totals	4	4

Table E8. Western Summit, Design Set I14, Interlocked Triangles; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	2.50	
Lower Neck	5	5
Shoulder	21	21
Totals	26	26

Table E9. Western Summit, Design Set I15, Diamonds; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	2.51	
Lower Neck to Shoulder	1	1
Totals	1	1

Western Summit
Limpopo Incised
Bag-Shaped Jars

Table E10. Western Summit, Design Set I1, Horizontal Lines; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	2.2	
Body	1	1
Totals	1	1

Table E11. Western Summit, Design Set I2, Diagonal Lines; ceramics by Placement and Motif.

Placement	Design Motifs		Totals
	2.4	**2.8**	
Central Neck	1		1
Shoulder		1	1
Totals	1	1	2

Table E12. Western Summit, Design Set I5, Upturned Arcades; ceramics by Placement and Motif.

Placement	Design Motifs		Totals
	2.29	**2.38**	
Lower Neck		1	1
Shoulder	1		1
Totals	1	1	2

Table E13. Western Summit, Design Set I6, Upturned Triangles; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	2.100	
Shoulder	1	1
Totals	1	1

Western Summit
Limpopo Incised
Beakers

Table E14. Western Summit, Design Set I5, Upturned Arcades; ceramics by Placement and Motif.

Placement	Design Motifs		Totals
	2.29	**2.38**	
Body	1	2	3
Totals	1	2	3

Table E15. Western Summit, Design Set I6, Upturned Triangles; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	2.26	
Body	3	3
Totals	3	3

Table E16. Western Summit, Design Set I14, Interlocked Triangles; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	2.50	
Body	2	2
Totals	2	2

Western Summit
Limpopo Incised
Simple Deep Bowls

Table E17. Western Summit, Design Set I12, Geometric Downturned Arcades and Diagonal Line; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	2.53	
Body	1	1
Totals	1	1

Western Summit
Limpopo Incised
Simple Shallow Bowls

Table E18. Western Summit, Design Set I1, Horizontal Line; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	2.21	
Rim	1	1
Totals	1	1

Table E19. Western Summit, Design Set I2, Diagonal Line; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	2.22	
Body	1	1
Totals	1	1

Table E20. Western Summit, Design Set I5, Upturned Arcades; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	2.29	
Body	1	1
Totals	1	1

Table E21. Western Summit, Design Set I11, Downturned Triangles; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	2.79	
Rim to Body	1	1
Totals	1	1

Western Summit
Limpopo Incised
Very Shallow Bowls

Table E22. Western Summit, Design Set I3, Crosshatching; ceramics by Placement and Motif..

Placement	Design Motif	Totals
	2.9	
Body	3	3
Totals	3	3

Table E23. Western Summit, Design Set I6, Upturned Triangles; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	2.26	
Body	3	3
Totals	3	3

Table E24. Western Summit, Design Set I11, Downturned Triangles; ceramics by Placement and Motif.

Placement	Design Motifs		Totals
	2.27	**2.42**	
Lip	1		1
Rim to Body	2	1	3
Totals	3	1	4

Table E25. Western Summit, Design Set I14, Interlocked Triangles; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	2.50	
Body	5	5
Totals	5	5

Western Summit
Limpopo Incised
Plates

Table E26. Western Summit, Design Set I3, Crosshatching; ceramics by Placement and Motif..

Placement	Design Motif	Totals
	2.9	
Body	1	1
Totals	1	1

Table E27. Western Summit, Design Set I5, Upturned Arcades; ceramics by Placement and Motif.

Placement	Design Motif		Totals
	2.29	**2.34**	
Body	1	1	2
Totals	1	1	2

Table E28. Western Summit, Design Set I6, Upturned Triangles; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	2.26	
Body	4	4
Totals	4	4

Table E29. Western Summit, Design Set I11, Downturned Triangles; ceramics by Placement and Motif.

Placement	Design Motif		Totals
	2.42	**2.27**	
Rim to Body	1		1
Body	2	2	4
Totals	3	2	5

Western Summit
Limpopo Incised
Necked Bowls

Table E30. Western Summit, Design Set I11, Downturned Triangles; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	2.42	
Body	1	1
Totals	1	1

Western Summit
Limpopo Comb-Stamped
Recurved Jars

Table E31. Western Summit, Design Set CS1, Horizontal Line; ceramics by Placement and Motif.

Placement	Design Motifs		Totals
	3.1	**3.2**	
Central Neck		3	3
Lower Neck		4	4
Shoulder	2		2
Totals	2	7	9

Table E32. Western Summit, Design Set CS2, Diagonal Lines; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	3.5	
Lower Neck	1	1
Totals	1	1

Western Summit
Limpopo Bead/Bangle-Impressed
Recurved Jars

Table E33. Western Summit, Design Set BB1, Horizontal Line; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	4.3	
Central Neck	1	1
Lower Neck	1	1
Shoulder	1	1
Totals	3	3

Western Summit
Limpopo Punctated
Recurved Jars

Table E34. Western Summit, Design Set P1, Horizontal Line, Round Impression; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	4.3	
Shoulder	1	1
Totals	1	1

Western Summit
Limpopo Fingernail-Impressed
Recurved Jars

Table E35. Western Summit, Design Set F1, Horizontal Line; ceramics by Placement and Motif.

Placement	Design Motifs		Totals
	6.1	**6.3**	
Lower Neck	1		1
Shoulder	1	1	2
Totals	2	1	3

Western Summit
Limpopo Stabbed
Recurved Jars

Table E36. Western Summit, Design Set ST1, Diagonal Stab, Horizontal Line; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	9.1	
Shoulder	2	2
Totals	2	2

Table E37. Western Summit, Design Set ST2, Vertical Stab, Horizontal Line; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	9.2	
Shoulder	1	1
Totals	1	1

Western Summit
Limpopo Stabbed
Bag-Shaped Jars

Table E38. Western Summit, Design Set ST3, Horizontal Stab, Horizontal Line; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	9.3	
Shoulder	1	1
Totals	1	1

Western Summit
Limpopo Incised and Comb-Stamped
Recurved Jars

Table E39. Western Summit, Design Set I/CS2, Zoned Diagonal; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	12.1	
Lower Neck	1	1
Totals	1	1

Western Summit
Limpopo Incised and Stabbed
Recurved Jars

Table E40. Western Summit, Design Set I/ST3, Zoned Diagonal; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	12.1	
Lower Neck	2	2
Shoulder	5	5
Totals	7	7

Western Summit
Limpopo Fluted
Incurvate Bowls

Table E41. Western Summit, Design Set FL1, Vertical; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	12.1	
Lower Neck	2	2
Shoulder	5	5
Totals	7	7

Appendix F

Leokwe Hill
Northern Terrace
Ceramic Types
by Excavation Area

Northern Terrace Midden
Limpopo Incised
Recurved Jars

Table F1. Northern Terrace Midden, Design Set I1, Horizontal Line; ceramics by Placement, Motif and Depositional unit (DU).

Placement	**Design Motifs**				**Totals**
	2.12	**2.20**	**2.21**	**2.36**	
Rim to Central Neck					
DU I				1	1
DU II					
DU III					
Central Neck					
DU I		2		1	3
DU II	1			2	3
DU III			1	3	4
Lower Neck					
DU I		3			3
DU II		2			2
DU III		1			1
Shoulder					
DU I	1				1
DU II	1				1
DU III	2				2
Totals	5	8	1	7	21

Table F2. Northern Terrace Midden, Design Set I1, Diagonal Line; ceramics by Placement, Motif and DU.

Placement	**Design Motifs**			**Totals**
	2.14	**2.22**	**2.7**	
Central Neck				
DU I		9		9
DU II		2		2
DU III		2		2
Lower Neck				
DU I	1	6		7
DU II		4		4
DU III	1	3		4
Shoulder				
DU I				
DU II			1	1
DU III				
Totals	2	26	1	29

Table F3. Northern Terrace Midden, Design Set I5, Upturned Arcades; ceramics by Placement, Motif and DU.

Placement	Design Motif	Totals
	2.6	
Lower Neck to Shoulder		
DU I		
DU II	1	1
DU III		
Totals	1	1

Table F4. Northern Terrace Midden, Design Set I8, Herringbone; ceramics by Placement, Motif and DU.

Placement	Design Motif	Totals
	2.11	
Central Neck to Lower Neck		
DU I	1	1
DU II		
DU III		
Totals	1	1

Northern Terrace Midden
Limpopo Incised
Simple Deep Bowls

Table F5. Northern Terrace Midden, Design Set I1, Horizontal Line; ceramics by Placement, Motif and DU.

Placement	Design Motif	Totals
	2.20	
Body		
DU I	1	1
DU II		
DU III		
Totals	1	1

Table F6. Northern Terrace Midden, Design Set I2, Diagonal Line; ceramics by Placement, Motif and DU.

Placement	Design Motif	Totals
	2.3	
Body		
DU I	1	1
DU II		
DU III		
Totals	1	1

Table F7. Northern Terrace Midden, Design Set I5, Diagonal Line; ceramics by Placement, Motif and DU.

Placement	Design Motif	Totals
	2.5	
Body		
DU I		
DU II	1	1
DU III		
Totals	1	1

Northern Terrace Midden
Limpopo Comb-Stamped
Recurved Jars

Table F8. Northern Terrace Midden, Design Set CS1, Horizontal Line; ceramics by Placement, Motif, and DU.

Placement	Design Motifs				Totals
	3.1	**3.2**	**3.8**	**3.11**	
Central Neck					
DU I		22			22
DU II		8			8
DU III		18			18
Central Neck and Shoulder					
DU I					
DU II			1	1	2
DU III			1		1
Lower Neck					
DU I		8			8
DU II		1			1
DU III	1	3			4
Shoulder					
DU I	3				3
DU II	2				2
DU III	3				3
Totals	9	60	2	1	72

Table F9. Northern Terrace Midden, Design Set CS2, Diagonal Line; ceramics by Placement, Motif, and DU.

Placement	Design Motifs		Totals
	3.4	**3.5**	
Central Neck			
DU I	2	3	5
DU II		1	1
DU III	1	3	4
Lower Neck			
DU I		2	2
DU II			
DU III	1	2	3
Totals	4	11	15

Table F10. Northern Terrace Midden, Design Set CS3, Upturned Triangle; ceramics by by Placement, Motif, and DU.

Placement	Design Motif	Totals
	3.7	
Shoulder		
DU I	2	2
DU II	1	1
DU III		
Totals	3	3

Northern Terrace Midden
Limpopo Comb-Stamped
Incurvate Bowls

Table F11. Northern Terrace Midden, Design Set CS1, Horizontal Line; ceramics by by Placement, Motif, and DU.

Placement	Design Motif	Totals
	3.13	
Body		
DU I	1	1
DU II		
DU III		
Totals	1	1

Northern Terrace Midden
Limpopo Bead/Bangle-Impressed
Recurved Jars

Table F12. Northern Terrace Midden, Design Set BB1, Horizontal Line; ceramics by Placement, Motif and DU.

Placement	Design Motifs			Totals
	4.8	4.2	4.3	
Central Neck				
DU I			2	2
DU II				
DU III			2	2
Central Neck and Shoulder				
DU I				
DU II				
DU III	1			1
Lower Neck				
DU I			5	5
DU II			2	2
DU III			3	3
Shoulder				
DU I		1		1
DU II			1	1
DU III		1		1
Totals	1	2	15	18

Table F13. Northern Terrace Midden, Design Set BB2, Diagonal Line; ceramics by Placement, Motif and DU.

Placement	Design Motif	Totals
	4.1	
Central Neck		
DU I	6	6
DU II	1	1
DU III	1	1
Central Neck to Lower Neck		
DU I	1	1
DU II		
DU III	1	1
Lower Neck		
DU I	7	7
DU II	1	1
DU III	1	1
Shoulder		
DU I	20	20
DU II	2	2
DU III	3	3
Totals	44	44

Northern Terrace Midden
Limpopo Bead/Bangle-Impressed
Incurvate Bowls

Table F14. Northern Terrace Midden, Design Set BB2, Diagonal Line; ceramics by Placement, Motif, and DU.

Placement	Design Motif	Totals
Body		
DU I		
DU II		
DU III	1	1
Totals	1	1

Northern Terrace Midden
Limpopo Punctated
Recurved Jars

Table F15. Northern Terrace Midden, Design Set P1, Horizontal Line, Round Impression; ceramics by Placement, Motif, and DU.

Placement	Design Motifs		Totals
	5.1	**5.2**	
Central Neck			
DU I	1		1
DU II			
DU III		2	2
Shoulder			
DU I	2		2
DU II			
DU III	2		2
Totals	5	2	7

Table F16. Northern Terrace Midden, Design Set P2, Unzoned Round; ceramics by Placement, Motif and DU.

Placement	Design Motif	Totals
	5.3	
Central Neck		
DU I	1	1
DU II		
DU III		
Central Neck to Lower Neck		
DU I		
DU II		
DU III	2	2
Lower Neck		
DU I		
DU II	1	1
DU III		
Totals	4	4

Northern Terrace Midden
Limpopo Fingernail-Impressed
Recurved Jars

Table F17. Northern Terrace Midden, Design Set F1, Unzoned Round; ceramics by Placement, Motif and DU.

Placement	Design Motif	Totals
	5.3	
Rim		
DU I		
DU II	1	1
DU III		
Central Neck		
DU I	3	3
DU II		
DU III	2	2
Lower Neck		
DU I	3	3
DU II		
DU III		
Totals	9	9

Northern Terrace Midden
Limpopo Stabbed
Recurved Jars

Table F18. Northern Terrace Midden, Design Set ST1, Horizontal Row of Diagonal Teardrops; ceramics by Placement, Motif, and DU.

Placement	Design Motif	Totals
	9.1	
Lower Neck		
DU I	1	1
DU II		
DU III		
Shoulder		
DU I		
DU II		
DU III	1	1
Totals	2	2

Table F19. Northern Terrace Midden, Design Set ST2, Horizontal Row of Vertical Teardrops; ceramics by Placement, Motif, and DU.

Placement	Design Motif	Totals
	9.2	
Lower Neck		
DU I	1	1
DU II		
DU III		
Totals	1	1

Table F20. Northern Terrace Midden, Design Set ST4, Indeterminate Stabbing; ceramics by Placement, Motif, and DU.

Placement	Design Motif	Totals
	9.4	
Central Neck		
DU I	1	1
DU II		
DU III		
Totals	1	1

Northern Terrace Midden
Limpopo Incised and Bead/Bangle-Impressed
Recurved Jars

Table F21. Northern Terrace Midden, Design Set I/BB1, Zoned Diagonal; ceramics by Placement, Motif, and DU.

Placement	Design Motif	Totals
	11.1	
Lower Neck		
DU I		
DU II		
DU III	1	1
Totals	1	1

Northern Terrace Midden
Limpopo Incised and Punctated
Recurved Jars

Table F22. Northern Terrace Midden, Design Set I/P1, Connected Round, Horizontal Line; ceramics by Placement, Motif, and DU.

Placement	Design Motif	Totals
	14.1	
Central Neck		
DU I	1	1
DU II		
DU III	1	1
Lower Neck		
DU I		
DU II		
DU III	1	1
Totals	3	3

Table F23. Northern Terrace Midden, Design Set I/P2, Round Impression, Zoned Diagonal; ceramics by Placement, Motif, and DU.

Placement	Design Motif	Totals
	14.2	
Lower Neck		
DU I	1	1
DU II		
DU III		
Totals	1	1

Table F24. Northern Terrace Midden, Design Set I/P5, Zoned Horizontal Lines; ceramics by Placement, Motif, and DU.

Placement	Design Motif	Totals
	14.3	
Central Neck		
DU I		
DU II	1	1
DU III		
Totals	1	1

Northern Terrace Midden
Limpopo Incised and Stabbed
Recurved Jars

Table F25. Northern Terrace Midden, Design Set I/ST1, Zoned Stabbing; ceramics by Placement, Motif, and DU.

Placement	Design Motif	Totals
	16.1	
Central Neck		
DU I	1	1
DU II		
DU III		
Totals	1	1

Northern Terrace Midden
Limpopo Applied and Stabbed
Recurved Jars

Table F26. Northern Terrace Midden, Design Set A/ST1, Raised horizontal appliqué with Horizontal Stabbing; ceramics by Placement, Motif, and DU.

Placement	Design Motif	Totals
	17.1	
Lower Neck		
DU I	1	1
DU II		
DU III		
Totals	1	1

Table F27. Northern Terrace Midden, Design Set A/ST2, Raised horizontal appliqué with Horizontal Stabbing; ceramics by Placement, Motif, and DU.

Placement	Design Motif	Totals
	17.2	
Shoulder		
DU I	1	1
DU II		
DU III		
Totals	1	1

Northern Terrace Midden
Limpopo Incised and Applied
Recurved Jars

Table F28. Northern Terrace Midden, Design Set I/A1, Raised Horizontal Appliqué with a Single Line of Horizontal Incision; ceramics by Placement, Motif, and DU.

Placement	Design Motif	Totals
	13.1	
Lower Neck		
DU I		
DU II	1	1
DU III	1	1
Totals	2	2

Northern Terrace Midden
Limpopo Polychrome
Incurvate Bowls

Table F29. Northern Terrace Midden, Design Set PC1, Red and Black Smoke-Clouding; ceramics by Placement, Motif, and DU.

Placement	Design Motif	Totals
	13.1	
Lower Neck		
DU I	1	1
DU II	3	3
DU III		
Totals	4	4

Northern Terrace, Block C, Hut Area
Limpopo Incised
Recurved Jars

Table F30. Northern Terrace, Block C, Hut Area, Design Set I1, Horizontal Line; ceramics by Placement, Motif, and Stratum.

Placement	Design Motif	Totals
	2.36	
Shoulder		
I: Alluvium & Colluvium	1	1
II: Dung		
III: Ash & Dung		
IV: Hut Rubble		
Totals	1	1

Northern Terrace, Block C, Hut Area
Limpopo Comb-Stamped
Recurved Jars

Table F31. Northern Terrace, Block C, Hut Area, Design Set CS1, Horizontal Line; ceramics by Placement, Motif, and Stratum.

Placement	Design Motif	Totals
	3.2	
Central Neck		
I: Alluvium & Colluvium		
II: Dung		
III: Ash & Dung	1	1
IV: Hut Rubble	1	1
Lower Neck		
I: Alluvium & Colluvium	3	3
II: Dung	1	1
III: Ash & Dung	2	2
IV: Hut Rubble		
Totals	8	8

Table F32. Northern Terrace, Block C, Hut Area, Design Set CS2, Diagonal Line; ceramics by Placement, Motif, and Stratum.

Placement	Design Motif	Totals
	3.5	
Lower Neck		
I: Alluvium & Colluvium		
II: Dung		
III: Ash & Dung		
IV: Hut Rubble	2	2
Totals	2	2

Northern Terrace, Block C, Hut Area
Limpopo Comb-Stamped
Incurvate Bowls

Table F33. Northern Terrace, Block C, Hut Area, Design Set CS1, Horizontal Line; ceramics by Placement, Motif, and Stratum.

Placement	Design Motif	Totals
	3.1	
Rim		
I: Alluvium & Colluvium		
II: Dung		
III: Ash & Dung	1	1
IV: Hut Rubble		
Totals	1	1

Northern Terrace, Block C, Hut Area
Limpopo Bead/Bangle-Impressed
Recurved Jars

Table F34. Northern Terrace Midden, Design Set BB1, Horizontal Line; ceramics by Placement, Motif, and DU.

Placement	Design Motif	Totals
	4.10	
Lower Neck		
I: Alluvium & Colluvium		
II: Dung		
III: Ash & Dung		
IV: Hut Rubble	1	1
Totals	1	1

Table F35. Northern Terrace Midden, Design Set BB2, Diagonal Line; ceramics by Placement, Motif, and DU.

Placement	Design Motif	Totals
	4.1	
Lower Neck		
I: Alluvium & Colluvium	1	1
II: Dung		
III: Ash & Dung	1	1
IV: Hut Rubble		
Shoulder		
I: Alluvium & Colluvium	2	2
II: Dung		
III: Ash & Dung		
IV: Hut Rubble		
Totals	4	4

Northern Terrace, Block C, Hut Area
Limpopo Bead/Bangle-Impressed
Incurvate Bowls

Table F36. Northern Terrace, Block C, Hut Area, Design Set BB2, Diagonal Line; ceramics by Placement, Motif, and Stratum.

Placement	Design Motif	Totals
	4.9	
Rim		
I: Alluvium & Colluvium	1	1
II: Dung		
III: Ash & Dung		
IV: Hut Rubble		
Totals	1	1

Appendix G

Mapungubwe Hill
Spoil Heaps
Ceramic Types

Mapungubwe
Limpopo Incised
Recurved Jars

Table G1. Mapungubwe, Design Set I1, Horizontal Line; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	2.36	
Central Neck	5	5
Totals	5	5

Table G1. Mapungubwe, Design Set I2, Diagonal Line; ceramics by Placement and Motif.

Placement	Design Motifs						Totals
	2.14	**2.22**	**2.55**	**2.90**	**2.91**	**2.89**	
Rim	1		1				2
Central Neck	1						1
Lower Neck		2	2				4
Shoulder	5	2	5	1	1	1	15
Totals	7	4	8	1	1	1	22

Table G3. Mapungubwe, Design Set I3, Crosshatching; ceramics by Placement and Motif.

Placement	Design Motifs			Totals
	2.9	**2.87**	**2.88**	
Rim	1			1
Central Neck to Shoulder		1		1
Shoulder	5		1	6
Totals	6	1	1	8

Table G4. Mapungubwe, Design Set I5, Upturned Arcade; ceramics by Placement and Motif.

Placement	Design Motifs						Totals
	2.29	**2.34**	**2.38**	**2.83**	**2.84**	**2.86**	
Central Neck	2		1				3
Lower Neck	6		2				8
Lower Neck to Shoulder	13	1	4	3	2	1	24
Shoulder	2	1	2	1	1		7
Totals	23	2	9	4	3	1	42

Table G5. Mapungubwe, Design Set I6, Upturned Triangle; ceramics by Placement and Motif.

Placement	Design Motifs						Totals
	2.19	**2.26**	**2.41**	**2.78**	**2.81**	**2.82**	
Central Neck to Lower Neck		1					1
Lower Neck		12	4				16
Lower Neck to Shoulder	1	24	7	3	1	1	37
Shoulder		5	1	2			8
Totals	1	42	12	5	1	1	62

Table G6. Mapungubwe, Design Set I11, Downturned Triangle; ceramics by Placement and Motif.

Placement	Design Motifs			Totals
	2.101	**2.27**	**2.42**	
Lower Neck to Shoulder		4	2	6
Shoulder	1	17	18	36
Totals	1	21	20	42

Table G7. Mapungubwe, Design Set I12, Downturned Arcade; ceramics by Placement and Motif.

Placement	Design Motifs			Totals
	2.30	**2.39**	**2.85**	
Central Neck	1			1
Lower Neck to Shoulder		1	1	2
Shoulder	3			3
Totals	4	1	1	6

Table G8. Mapungubwe, Design Set I14, Interlocked Triangles; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	2.50	
Lower Neck	1	1
Lower Neck to Shoulder	9	9
Shoulder	11	11
Totals	21	21

Table G9. Mapungubwe, Design Set I15, Diamonds; ceramics by Placement and Motif.

Placement	Design Motifs			Totals
	2.92	**2.93**	**2.94**	
Central Neck	1			1
Lower Neck to Shoulder		1		1
Shoulder			1	1
Totals	1	1	1	3

Mapungubwe
Limpopo Incised
Bellied Jars

Table G10. Mapungubwe, Design Set I3, Crosshatching; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	2.9	
Shoulder	3	3
Totals	3	3

Table G11. Mapungubwe, Design Set I6, Upturned Triangle; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	2.41	
Lower Neck	1	1
Totals	1	1

Table G12 Mapungubwe, Design Set I111, Upturned Triangle; ceramics by Placement and Motif.

Placement	Design Motifs			Totals
	2.27	**2.42**	**2.80**	
Shoulder	5	10	1	16
Totals	5	10	1	16

Table G13. Mapungubwe, Design Set I5, Diamonds; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	2.95	
Shoulder	3	3
Totals	3	3

Mapungubwe
Limpopo Incised
Beakers

Table G14. Mapungubwe, Design Set I1, Horizontal Line; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	2.20	
Body	1	1
Totals	1	1

Table G15. Mapungubwe, Design Set I2, Diagonal Line; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	2.22	
Body	3	3
Totals	3	3

Table G16. Mapungubwe, Design Set I3, Diagonal Line; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	2.9	
Body	1	1
Totals	1	1

Table G17. Mapungubwe, Design Set I5, Upturned Arcades; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	2.29	
Body	3	3
Totals	3	3

Table G18. Mapungubwe, Design Set I6, Upturned Triangles; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	2.19	
Body	1	1
Totals	1	1

Table G19. Mapungubwe, Design Set I14, Interlocked Triangles; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	2.50	
Body	9	9
Totals	9	9

Mapungubwe
Limpopo Incised
Simple Shallow Bowls

Table G20. Mapungubwe, Design Set I3, Crosshatched; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	2.9	
Rim	1	1
Totals	1	1

Table G21. Mapungubwe, Design Set I5, Upturned Arcades; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	2.29	
Rim to Body	3	3
Totals	3	3

Table G22 Mapungubwe, Design Set I6, Upturned Triangles; ceramics by Placement and Motif.

Placement	Design Motif		Totals
	2.26	**2.41**	
Rim to Body	1		1
Body		1	1
Totals	1	1	2

Table G23 Mapungubwe, Design Set I11, Downturned Triangles; ceramics by Placement and Motif.

Placement	Design Motif		Totals
	2.27	**2.41**	
Rim to Body	1	1	2
Body	1	2	3
Totals	2	3	5

Table G24. Mapungubwe, Design Set I12, Downturned Arcades; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	2.30	
Body	1	1
Totals	1	1

Table G25. Mapungubwe, Design Set I14, Interlocked Triangles; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	2.50	
Lip	1	1
Body	1	1
Totals	2	2

Mapungubwe
Limpopo Incised
Very Shallow Bowls

Table G26. Mapungubwe, Design Set I2, Diagonal Line; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	2.22	
Body	1	1
Totals	1	1

Table G27. Mapungubwe, Design Set I3, Diagonal Line; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	2.9	
Lip	1	1
Totals	1	1

Table G28. Mapungubwe, Design Set I5, Upturned Arcades; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	2.34	
Body	1	1
Totals	1	1

Table G29 Mapungubwe, Design Set I6, Upturned Triangles; ceramics by Placement and Motif.

Placement	Design Motif		Totals
	2.26	2.41	
Body	1	1	2
Totals	1	1	2

Table G30. Mapungubwe, Design Set I11, Downturned Triangles; ceramics by Placement and Motif.

Placement	Design Motifs			Totals
	2.27	2.42	2.79	
Body	3	6	1	10
Totals	3	6	1	10

Table G31. Mapungubwe, Design Set I12, Downturned Arcades; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	2.30	
Body	1	1
Totals	1	1

Mapungubwe
Limpopo Incised
Necked Bowls

Table G32. Mapungubwe, Design Set I3, Diagonal Line; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	2.98	
Body	1	1
Totals	1	1

Table G33 Mapungubwe, Design Set I11, Downturned Triangles; ceramics by Placement and Motif.

Placement	Design Motif		Totals
	2.27	2.42	
Shoulder to Body	2	2	4
Totals	2	2	4

Table G34. Mapungubwe, Design Set I14, Interlocked Triangles; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	2.50	
Shoulder to Body	2	2
Body	1	1
Totals	3	3

Table G35. Mapungubwe, Design Set I15, Diamonds; ceramics by Placement and Motif.

Placement					Totals
	2.92	2.94	2.95	2.99	
Shoulder to Body	1	1	1	1	4
Totals	1	1	1	1	4

Mapungubwe
Limpopo Incised
Incurvate Bowls

Table G36. Mapungubwe, Design Set I6, Upturned Triangles; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	2.41	
Body	1	1
Totals	1	1

Table G37. Mapungubwe, Design Set I15, Diamonds; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	2.92	
Shoulder	1	1
Totals	1	1

Mapungubwe
Limpopo Incised
Plates

Table G38. Mapungubwe, Design Set I6, Upturned Triangles; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	2.78	
Body	1	1
Totals	1	1

Table G39 Mapungubwe, Design Set I11, Downturned Triangles; ceramics by Placement and Motif.

Placement	Design Motif		Totals
	2.27	2.42	
Body	6	2	8
Totals	6	2	8

Table G40. Mapungubwe, Design Set I14, Interlocked Triangles; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	2.50	
Body	1	1
Totals	1	1

Table G41. Mapungubwe, Design Set I15, Diamonds; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	2.97	
Body	1	1
Totals	1	1

Mapungubwe
Limpopo Punctated
Recurved Jars

Table G42 Mapungubwe, Design Set P1, Horizontal Line, Round Impression; ceramics by Placement and Motif.

Placement	Design Motif		Totals
	5.2	**5.11**	
Shoulder	1	3	4
Totals	1	3	4

Table G43. Mapungubwe, Design Set P5, Horizontal Line, Triangular Punctation; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	5.12	
Shoulder	1	1
Totals	1	1

Mapungubwe
Limpopo Punctated
Necked Bowls

Table G44. Mapungubwe, Design Set P1, Horizontal Line, Round Impression; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	5.13	
Shoulder	1	1
Totals	1	1

Mapungubwe
Limpopo Stabbed
Recurved Jars

Table G45. Mapungubwe, Design Set ST3, Horizontal Line, Horizontal Stabbing; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	9.3	
Shoulder	5	5
Totals	5	5

Mapungubwe
Limpopo Incised and Comb-Stamped
Recurved Jars

Table G46. Mapungubwe, Design Set I/CS3: Zoned Incised Herringbone (Eiland); ceramics by Placement and Motif.

Placement	Design Motif	Totals
	12.6	
Shoulder	1	1
Totals	1	1

Mapungubwe
Limpopo Incised and Punctated
Recurved Jars

Table G47. Mapungubwe, Design Set I/P2: Diagonally Oriented Round Punctates; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	14.13	
Shoulder	1	1
Totals	1	1

Table G48. Mapungubwe, Design Set I/P5: Horizontal Line, Round Punctates; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	14.15	
Central Neck	1	1
Totals	1	1

Table G49. Mapungubwe, Design Set I/P6: Incised Downturned Triangles Infilled with Random Round Punctates; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	14.11	
Shoulder	1	1
Totals	1	1

Table G50. Mapungubwe, Design Set I/P7: Incised Diamond Infilled with Random Round Small Punctates; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	14.12	
Lower Neck to Shoulder	1	1
Totals	1	1

Mapungubwe
Limpopo Incised and Punctated
Necked Bowls

Table G51. Mapungubwe, Design Set I/P9: Interlocked Triangles, Downturned Incised Crosshatched Triangles Alternating with Upturned Triangular Punctates, Zoned; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	14.14	
Shoulder to Body	1	1
Totals	1	1

Mapungubwe
Limpopo Incised and Punctated
Plates

Table G52. Mapungubwe, Design Set I/P6: Incised Downturned Triangles Infilled with Round Punctates; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	14.4	
Body	1	1
Totals	1	1

Mapungubwe
Limpopo Applied
Beakers

Table G53. Mapungubwe, Design Set A2: Plain Lugged; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	10.1	
Body	1	1
Totals	1	1

Mapungubwe
Limpopo Incised, Applied, and Comb-Stamped
Recurved Jars

Table G54. Mapungubwe, Design Set I/A/CS1: Raised Horizontal Appliqué Zoned by Incision, Infilled with Small Diagonal Lines of Comb-Stamping (Toutswe); ceramics by Placement and Motif.

Placement	Design Motif	Totals
	23.1	
Lower Neck	1	1
Totals	1	1

Mapungubwe
Limpopo Polychrome Incised and Punctated
Recurved Jars

Table G54. Mapungubwe, Design Set PIP1: Zoned Incised Crosshatching Bordered by a single line of Round Punctates, with Alternating Areas of Red Ochre and Black Graphite (Moloko?); ceramics by Placement and Motif.

Placement	Design Motif	Totals
	n/a	
Rim to Central Neck	2	2
Totals	2	2

Appendix H

Edmondsburg
Ceramic Types

Edmondsburg
Limpopo Incised
Recurved Jars

Table H1. Edmondsburg, Design Set I1, Horizontal Line; ceramics by Placement and Motif.

Placement	Design Motifs		Totals
	2.21	**2.36**	
Central Neck	1	1	1
Totals	1	1	2

Table H2. Edmondsburg, Design Set I2, Diagonal Line; ceramics by Placement and Motif.

Placement	Design Motifs		Totals
	2.22	**2.55**	
Rim		1	1
Lower Neck to Shoulder	1		
Totals	1	1	2

Table H3. Edmondsburg, Design Set I3, Crosshatching; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	2.9	
Shoulder	3	3
Totals	3	3

Table H4. Edmondsburg, Design Set I5, Upturned Arcade; ceramics by Placement and Motif.

Placement	Design Motifs			Totals
	2.29	**2.83**	**2.84**	
Central Neck		1		1
Lower Neck			1	1
Lower Neck to Shoulder	1			1
Shoulder		3	1	4
Totals	1	4	2	7

Table H5. Edmondsburg, Design Set I6, Upturned Triangle; ceramics by Placement and Motif.

Placement	Design Motifs				Totals
	2.19	**2.26**	**2.41**	**2.78**	
Lower Neck to Shoulder	2	10	1	2	15
Shoulder		4			4
Totals	2	14	1	2	19

Table H6. Edmondsburg, Design Set I11, Downturned Triangle; ceramics by Placement and Motif.

Placement	Design Motifs			Totals
	2.27	**2.42**	**2.79**	
Lower Neck to Shoulder		3		3
Shoulder	16	6	3	25
Totals	16	9	3	28

Table H7. Edmondsburg, Design Set I12, Downturned Arcades; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	2.30	
Shoulder	3	3
Totals	3	3

Table H8. Edmondsburg, Design Set I14, Interlocked Triangles; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	2.50	
Shoulder	8	8
Totals	8	8

Edmondsburg
Limpopo Incised
Bellied Jars

Table H9. Edmondsburg, Design Set I11, Downturned Triangle; ceramics by Placement and Motif.

Placement	Design Motifs		Totals
	2.27	**2.42**	
Shoulder	3	1	4
Totals	3	1	4

Table H10. Edmondsburg, Design Set I14, Interlocked Triangles; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	2.50	
Shoulder	3	3
Totals	3	3

Edmondsburg
Limpopo Incised
Simple Deep Bowls

Table H11. Edmondsburg, Design Set I2, Diagonal Lines; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	2.22	
Rim	1	1
Totals	1	1

Edmondsburg
Limpopo Incised
Very Shallow Bowls

Table H12. Edmondsburg, Design Set I3, Crosshatching; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	2.9	
Body	1	1
Totals	1	1

Edmondsburg
Limpopo Incised and Punctated
Recurved Jars

Table H13. Edmondsburg, Design Set I/P8, Round Impression, Interlocked Triangles; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	14.16	
Shoulder	1	1
Totals	1	1

Edmondsburg
Limpopo Incised and Punctated
Bellied Jars

Table H13. Edmondsburg, Design Set I/P6, Round Impression, Downturned Triangles; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	14.4	
Shoulder	1	1
Totals	1	1

Edmondsburg
Limpopo Incised and Punctated
Very Shallow Bowls

Table H14. Edmondsburg, Design Set I/P6, Round Impression, Downturned Triangles; ceramics by Placement and Motif.

Placement	Design Motif	Totals
	14.4	
Body	1	1
Totals	1	1