THE RECOGNITION OF GROUPS IN THE IRON AGE OF SOUTHERN AFRICA

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A thesis submitted to the Faculty of Arts, University of the Witwatersrand, Johannesburg, in fulfilment of the requirements for the degree of Doctor of Philosophy.

ABSTRACT

The belief that archaeological cultures are merely arbitrary divisions of a gradually changing continuum arises from a behaviourist approach. A cognitive approach, however, views culture as a system of values and beliefs shared by a group of people. This meaning system communicates information about such things as social status and cosmology through repetitively encoded symbols in settlement organisation, ritual and decorative art style. While symbols primarily communicate information within the cultural group their differing structures permit their use for group recognition.

In the beginning ceramic style is shown to be representative of the decorative art style of Bantu-speakers in an Iron Age context. Thereafter, the nature of cultural change through space and time is examined using ceramics from the twelfth-thirteenth century, as well as Early Iron Age and early Doloko sites. These studies show that culture is discontinuously distributed through space with small, random change within style areas but with abrupt, major change at boundaries. The statistical differences between styles distinguish traditions and facies within traditions. Change through time is also discontinous, and statistical differences also distinguish traditions and phases within traditions. Some changes

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through time are local developments involving the gradual loss of several classes and the addition of new classes derived from earlier ones. By contrast, Moloko ceramic style totally replaces earlier styles, so local development can be ruled out in favour of migration.

While traditions and facies are equivalent to culture at different levels of analysis, the relationship of phase to culture is more complex. Gradual changes through time probably do not reflect changes in the meaning system, and so are convenient temporal divisions of one culture. However, the relatively sudden appearance of new classes within a tradition probably heralds changes in the symbolic code.

The cognitive approach is thus seen to be more powerful than the behaviourist one both in the recognition of cultural groups and in spheres such as the social interpretation of settlement and art.

DECLARATION

I declare that this dissertation is [illegible] work. It is being submitted for the degree of Doctor of Philosophy in the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in any other University.

_____

this _____ day of _____ 1988.

for my family

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ACKNOWLEDGEMENTS

While some of the ceramics I have studied for this thesis have come from my own excavations, material from Botswana, Natal and the northern and western Transvaal came from excavations of other archaeologists. I am greatly indebted to R. Mason, E. Hanisch, J. van Ewyk, J. Loubser, J. Denbow, T. Maggs, V. Ward, J. Dreyer, A. Meyer, S. Hall, G. Whitelaw, N. van der Merwe, M. Klapwijk and T. Huffman for permission to study collections they have made or that are in their care, some of which are as yet unpublished.

Nearly all the ethnographic material was collected by others and I thank K. Mack, A. Wanless, J. van Schalkwyk, J. Aukema, T. Huffman and the Head of the Anthropology Department, UNISA, for allowing me to study material in their care.

I have greatly benefitted from discussions with J. Loubser, A. Meyer, D. Hammond-Tooke, T. Maggs, J. Lewis-Williams, M. Taylor, L. Wadley, D. Sapire and especially D. Whitley, all of whom helped to hone my ideas and pointed me to relevant literature.

I am deeply indebted to B. Ward for all the work she did in preparing the final drawings from my originals and for all the labelling. M. Raath, R. Rayner and M. Ramsay helped with word processing problems. My father and my

wife, Ann, and L. Wadley helped with proof reading of the text.

I am particularly grateful to T. Huffman, my supervisor, for his advice on problems of classification. He read successive drafts of this thesis helping me to sort out specific issues and to remove redundant sections and wordiness. I am grateful too for permission to refer to concepts that he has yet to publish, and for his encouragement.

My family, especially my parents and Ann gave me great encouragement and support.

Finally I thank the Human Sciences Research Council and the University of the Witwatersrand for financial assistance for my excavations and for studying material in other institutions.

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CHAPTER I

CULTURE, TRADITION AND THE SYNTAX OF STYLE

Serious substantive problems have arisen in archaeology concerning the nature and reality of cultural groups. These problems have their basis in theoretical misconceptions that show that archaeological theory and practice has not kept pace with an anthropological understanding of the term.

Modern anthropologists (D'Andrade 1984; LeVine 1984; Shweder 1984; Geertz 1973; Reminick 1983; Leach 1976) describe culture as an historically transmitted system of ideas and values, embodied in verbal and non-verbal symbols. Human beings use this cultural meaning system to communicate, conserve and develop knowledge about and attitudes towards communal life. Some writers (e.g. Leach 1976; LeVine 1984) emphasise that culture is a meaning system about which there is a consensus of understanding. The consensus concerning symbolic meaning is akin to the consensus governing the understanding of spoken or written language. This approach to culture may be termed cognitive.

LeVine (1984) contrasts this cognitive

understanding of culture with one used by anthropologists earlier this century when cultures were regarded as aggregates of *independent customs or traits*. For modern anthropologists culture is holistic and customs are comprehensible only as parts of a larger organization.

D'Andrade (1984) makes two other contrasts with previous anthropological views on culture. First, he points out that there was a paradigm change in the social sciences during the 1950s. Prior to 1955 behaviourism was dominant and concepts such as culture or personality were assumed to be complexes of stimulus and response connections. Culture under these circumstances was a pattern of behaviour rather than a system of beliefs and values.

Second, D'Andrade notes that not all human phenomena fall into the category of meaning systems. There is also a class of phenomena he calls 'material flows' that includes such things as the movement of goods, *services, people and other potentially countable objects* in space and time. These are the kinds of entities that are the focus of study of cultural evolutionists and cultural ecologists. Their viewpoint, according to D'Andrade, has remained largely behaviourist; that is, for them culture is a cluster of socially transmitted behaviours through which communities adapt to their ecological setting. Instead of seeing material flow and cultural meaning systems as essentially opposed, as

cultural ecologists and evolutionists have done (e.g. Binford 1987), D'Andrade shows that they have a dialectical relationship within an overarching organisation he refers to as a 'sociocultural system'.

In addition to the use of culture as an abstract notion, the term may also be used in a classificatory way to refer to the particular system of beliefs and values which a specified group of people shares. Here empirical content is added to the abstract notion to be able to describe, for example, Balinese culture in contrast to Yanomamo culture.

In archaeology culture has been used in both the abstract and classificatory senses. Where general discussion of the notion of culture is given (e.g. Binford 1972; Hole and Heizer 1973) it is clear that archaeologists are usually interested only in the observable patterns of behaviour in so far as these may be reconstructed from the archaeological record. Archaeological concepts of culture are thus largely within the outmoded behaviourist paradigm.

One feature of this paradigm is that items of behaviour, though known to be connected, are usually treated as independent variables. This results in the notion that numerous items of knowledge have to be passed on, and culture cannot strictly be shared because no one person knows everything (D'Andrade 1984). This treatment of variables as independent also affects archaeological

classificatory concepts of culture. The "traditional" archaeological culture comprises assemblages of associated traits, including types of houses, implements, ornaments, burials, pottery, artistic styles and dress (Childe 1947; Hole and Heizer 1973; Clarke 1978; McNairn 1980). Although there is an insistence on association of traits in a proven primary context, the traits remain discrete and are often treated as independent and equal. The use of very detailed lists of pottery elements, like Plog's (1976) 183 categories for double line breaks on a particular class of bowl, illustrates both the independent nature of traits and the huge number of them in behaviourist studies. In practice, therefore, an archaeological culture is the same as the outdated anthropological notion of culture as an aggregation of independent customs.

Furthermore, artefact types, when treated as independent variables, do not have co-terminous distributions (Ford 1954; Hodder and Orton 1976; Renfrew 1977; and Clarke 1978). As a result many archaeologists believe archaeological and anthropological cultures to be wholly arbitrary divisions of the cultural continuum, and that in reality cultures change continously and systematically over space.

It is in fact possible to demonstrate with archaeological data the articulation of cultural traits according to a cultural meaning system. For example, the features of southern African Iron Age settlements such as

cattle byres, houses, grain storage pits and bins, and burials, are arranged according to the relationship between men, women, cattle, ancestors and high and low status among other things (Kuper 1980, 1982). Two basic patterns, the Central (previously Bantu) Cattle Pattern and the Zimbabwe Pattern, have been recognised, both of which incorporate the same categories but in quite different ways (Huffman 1980, 1982, 1984, 1986; Huffman and Hanisch 1987; Evers 1984; Loubser 1985). It is, therefore, not necessary to treat such variables as independent or archaeological cultures as arbitrary divisions of a continuum. Cultures are basically discrete.

One way archaeologists have attempted to bypass the problem of the arbitrariness of archaeological cultures is to look for indications of social interaction (e.g. Whallon 1968; Binford 1972b; Plog 1976, 1980). Two assumptions underlie these studies: first, patterned behaviour indicates organisation of, or membership in a society; and second, similarity in patterned behaviour is directly related to the degree of intensity of social interaction, thought to be in inverse proportion to the geographical distance between the points being compared. There is some justification for this 'gravity model' from ethnographic and geographical sources, and it appears to be useful as a heuristic model to define interaction spheres. For example, in central and north America, sites that are closer to one another have higher similarity

scores with each other than with sites more distant (Whallon 1968; Engelbrecht 1974, 1976; Plog 1976).

However, distance is not the only parameter controlling intensity of social interaction. Mayer (1971) showed that two Xhosa-speaking groups living in the same East London township, the Redmen and the Schoolmen, have only limited contact with one another. At home social interaction is minimal even though members of the two groups may live in the same streets. They mainly interact at work in the white commercial world which is a neutral zone. The reason for the limitation on interaction is cultural. Schoolmen have adopted many western cultural values. Redmen strive to maintain rural Xhosa culture in an urban environment. This example shows that culture, not just distance, controls the nature and degree of social interaction. This because cultural values help determine, among other things, what category of people have power and how that power may be obtained or maintained. The exact relationship between two groups can depend on economic and political considerations, so that in a situation where there is conflict or competition over resources, for example, culture may be used as a rallying force to maintain differences (e.g. Glazer and Moynihan 1975; Keyes 1981; Royce 1982). It follows that the gravity model of social interaction on its own is insufficient to explain similarities or differences in style between areas.

Wobst (1977) added a further dimension to the

gravity model by pointing out that style in cultural items communicates information. Information theory always involves a transmitter and a *receiver*. *The high cost, in* terms of investment of energy and matter, of varying a message contained in the style of an artefact results in a limited number of messages being sent. Wobst links these messages to integration and differentiation processes. In the forme, people who do not normally know one another have some expectation of proper behaviour patterns from the visual messages transmitted by style in material forms before they need to interact. For the latter, these visual stylistic messages can point to the strangeness of the person or community. Wobst also says the major target of messages transmitted is neither the people with whom one interacts daily nor those who are so far away that interaction is not even sporadic. The targeted receivers are those who are at an intermediate distance, strangers who live sufficiently close for social interaction to be possible at least on a *small* scale. *These visual stylistic* messages are therefore mainly concerned with social identity, allowing mutual bona fides to be established at a distance. Stylistic messages are thus also usually found on artefacts that are highly visible.

Hodder (1982) partly agrees with Wobst in his ethnoarchaeological study of identity among the Pokot, Tugen and Njemps 'tribes' in the Baringo basin in northern Kenya. He points to a number of artefacts including

shields, earflap types, and other items of dress that are used to differentiate between the various groups. However, he notes that distinctions can also be made between these 'tribes' using features not normally seen by strangers, such as the internal arrangement of houses. This last kind of distinction is a direct contrast to Wobst's position.

Hodder points out that there is continual interplay between all aspects of material culture. From this statement one could expect him to move to the link between what he observed and the notion of culture as a meaning system. But he merely goes on to point out that ethnic differences are visible in ordinary as well as in decorated things.

Hodder's (1986) more recent examination of gourd and house decoration among the Njemps shows that this type of stylistic artefact can also mirror strategies within a group, for example, women's strategies vis-a-vis men. This last point again contrasts with Wobst's ideas, for the target population include the men and the other women of the household as well as those further away. Hodder has also noted that some artefacts can also be used cross-culturally by subsections of societies in strategies aimed at other subsections. For example the same type of spear is used by Pokot and Tugen (Kalenjin-speakers) and Njemps (Maasai-speakers) young men in strategies of behaviour towards older, married men and young marriageable, women. Not all style, therefore, is used to communicate cultural

or ethnic identity.

The definition of style itself is difficult. In some recent works dealing specifically with stylistic variation no definition is attempted (Plog 1980, 1983), though style is considered to be multi-dimensional. Writing about art, Silver (1979) states that style refers to formal features that characterise individual works of art. Stylistic trends are clusters of features that co-occur repeatedly. These features and clusters of features are remarkably similar in concept to the archaeological culture as repeated assemblages of associated traits. Each feature appears to be seen as independent. But if styles communicate messages, the relationships between features must be understood. An author's style is not just expressed by characteristic vocabulary but also by the way he uses that vocabulary in characteristic sentence construction and the way he puts together sentences in the construction of an argument or plot.

In the same way as culture can be seen as a comprehensive interlinked set of rules, akin to a grammar, that governs behaviour, so it is useful to view style as an organisation of features about which there is a consensus of understanding, rather than a cluster of independent traits. Leach (1976) explicates this theme from a social anthropological and specifically Levi-Straussian viewpoint. He believes that non-verbal aspects of culture are organized into structures which incorporate

information in a manner analogous to the phonological and syntactical structures of a language. He says that verbal messages are easily understood because they are discursive in form and, therefore, the arranget of different words in the right syntax remains intelligible. Non-verbal symbols are more difficult to understand because they are not discursive and the meaning is not intrinsic in the symbol. Therefore, the understanding of non-verbal symbols relies on familiarity with a set of symbols and their context. Non-verbal symbols are frequently polysemic and are therefore particularly powerful means of communication (Turner 1967). Because symbols are arbitrary in form, and because they have to be familiar to transmitter and to receiver to be understood, they must have a syntax of their own. I argue that style as a repetitive code of non-verbal symbols exhibits such a syntax.

Sackett (1985) captures the essence of this notion in his discussion of style as isochrestic variation. He points out that there are, in artefacts, highly specific patterns of isochrestic variation which are socially bound. Isochrestic variation, a neologism coined from Greek words meaning 'equivalent in use', is closer to the syntactical basis for style discussed above than Weissner's (1985) view that an artefact only has style when it has acquired social meaning, usually to enhance reciprocal relations.

I shall apply the notions of culture as a meaning

system and style as a repetitive code of non-verbal cultural symbols to determine whether cultural groups can be recognised in the southern African Iron Age. I shall be concerned particularly, first, with the question whether style gradually and continuously changes over space or is discontinuously distributed. Secondly, I shall examine the way style changes through time.

In African Iron Age studies stylistic analysis has concentrated on pottery because it is usually the most common and stylistically variable item on Iron Age sites. Furthermore, nearly all archaeologists were trained in milieux where pottery has been regarded as a diagnostic chronological and spatial identifier. It has long been known that pottery decoration style is structured (e.g. Shepard 1940, 1948). Recently ethnoarchaeologists have paid more attention to pottery decoration structure. For example, in her study of Tarascan pottery manufacture, Hardin (1983) shows not only that pots are divided into *fields for decoration but some fields are more important* than others, and the decorations found in them are composed of particular design elements which are put together in a limited set of ways. There is, therefore, a syntax or structure to the style of Tarascan pottery decoration. Hole (1984) has used this notion of the structure of pottery decoration successfully in a Near Eastern archaeological study.

In studies of pottery style two dimensions have

been particularly important in determining types: vessel form and motifs. These motifs form a stylistic category that I will refer to generally as decorative art.

Decorative art, while a convenient label, is in one sense a misnomer. Art, outside a modern western context, is neither purely decorative nor aesthetic but has a symbolic content which is only comprehensible within its cultural context (Leach 1968; Lewis-Williams 1983).

Decorative art is found on a multitude of artefact categories apart from pottery. In order to assess how representative pottery decoration is of a society's decorative art as a whole, I now turn to an examination of the decorative art on different artefact categories from three societies of Bantu- speakers.

CHAPTER 2

DECORATIVE ART STYLE AND POTTERY IN BANTU SOCIETY

Choice of societies

Three societies were chosen for study: Pedi, Zulu, and Gwembe Tonga (Fig. 2.1). The primary factor in choosing them was the availability of material for study. There had to be both variety in the artefact categories to which decorative art was applied and several specimens of each category to enable a valid comparison. In the sample for each society there was a variety of artefact categories such as beadwork, pottery, wooden drums, headrests, stools, bowls, milking pails, and mural art and basketry. No society had exactly the same list as another.

It was also important that the societies should be widely distributed in space (Fig. 2.1). The reason for this was to show that the characteristic of a single decorative art style was not restricted to a group of contiguous, closely related societies within a small geographical area.

A third important feature was that the societies themselves should exhibit significant differences between

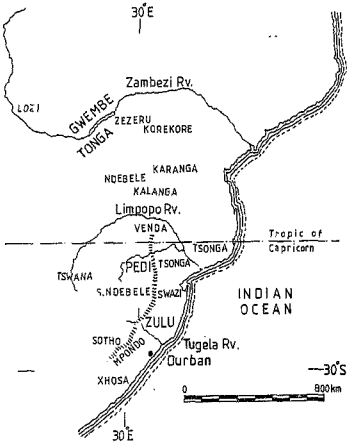


Figure 2.1 Location of Pedi, Zulu and Gwembe Tonga

them. Linguistically, the Gwembe Tonga language belongs to Guthrie's group M, a central African cluster, whereas the Pedi and Zulu languages belong to different branches of southern Bantu (Guthrie 1967). Zulu and Pedi are cattlekeepers, which is reflected in the organisation of their homesteads according to the Central Cattle Pattern (Kuper 1980, 1982; Huffman 1982; Evers 1984). Gwembe Tonga have few cattle and their settlements are organised according to different principles (Colson 1960). Zulu and Pedi are patrilineal, whereas Gwembe Tonga are matrilineal; Zulu and Pedi land ownership is vested in the 'tribe', whereas Gwembe Tonga own land privately; Zulu and Tonga homesteads are scattered, Pedi homesteads are grouped in large agglomerations (Krige 1950; Colson 1960; Monnig 1967).

Methods

It is not easy to determine which attributes are equivalent stylistically in different artefact categories. This is because different artefact categories impose their own kinds of special restrictions on motifs and size and shape of decoration fields by their materials, methods of manufacture and overall shape. This means that some stylistic features are given different emphasis in different artefact categories and may take variant forms. Consequently, an analysis of motifs alone rather than their combinations will form the focus of the analysis

Table 2.1 Pedi decorative art: artefact categories and their sources

Artefact Categories	Vogel	Lawton	NasM	AfrM	UNISA	Naskom	N
households with mural art	61						61
decorated walls	333						333
Pottery	33	15	5		24	41	118
drums	2						2
porridge dishes	5		2	2			9
beadwork	46						46
decorated floors	3						2
front skirts	7						7

Vogel = Vogel 1984; Lawton = Lawton 1967; NasM = National Museum, Bloemfontein; AfrM = Africana Museum, Johannesburg; UNISA = Department of Anthropology, University of South Africa, Pretoria; Naskom = National Cultural History and Open Air Museum, Pretoria.

Table 2.2 Pedi Motifs

Artefact category	Motifs A 123	B 123	C 12	D 1234567	E 12	F 1234567	G 12345	H 12	I 1234567	N	Unique
pottery	xx	x	x	x x xx	xx	x xxx	x	x	x x x	19	1
walls	xxx	xxx		xxxxx	x	xx xxxxx	x xxxx	xx	xxxxxx	32	14
beads	x	x	xx	x x x	xx			x		10	1
skirts			x	x	x	x xx		x	x	3	0
dishes	x			x		x x		x	x	6	1
floors				x					x	2	0
drums	x			x						2	0

Table 2.3 Pedi motif groups

artefact category	motif groups A	B	C	D	E	F	G	H	I	N
pottery	x	x	x	x	x	x	x		x	9
walls	x	x		x	x	x	x	x	x	9
beads	x	x	x	x	x			x		6
skirts			x	x	x	x		x	x	6
dishes	x			x	x	x		x	x	6
floors				x					x	2
drums	x			x						2

Table 2.4 Pedi decorative art indices

artefact category	% of total motifs	% of total motif groups	% motifs shared w/ pottery	% motif groups shared w/ pottery
pottery	47,3	88,9	100,0	100,0
walls	84,2	88,9	43,8	87,5
beads	26,3	55,5	70,0	90,0
skirts	21,1	66,7	62,5	83,3
dishes	15,8	66,7	50,0	83,3
floors	5,3	22,2	0,0	100,0
drums	5,3	22,2	50,0	100,0

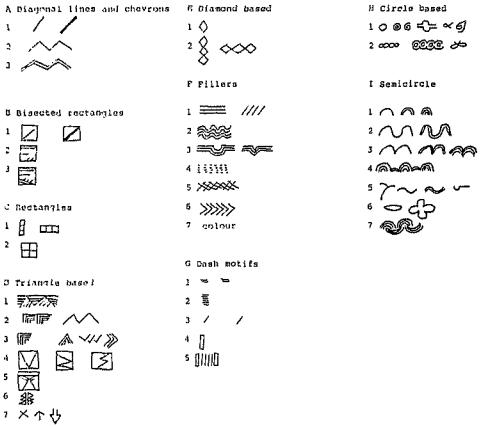


Figure 2.2 Podi motifs and motif groups

although I discuss combinations of motifs where the size and shape of decoration fields makes this feasible.

Designs found on different artefact categories were classified by their dominant components which were called motifs. Motifs with similar constituents, for example, triangles or chevrons, were clustered into motif groups (Figs 2.2-2.4). The presence or absence of each motif and motif group was then recorded for each artefact category. I used presence and absence only because the size of the samples for each category was disparate. Analysis of the distributions was done to answer two questions:

1. are different artefact categories decorated with motifs of the same style?

2. if so, how representative is pottery of that general style?

For the first I calculated the percentage that each category has of the total range of motifs and motif groups; for the second, the tables show the percentage that each category shares with pottery.

Finally, in order to establish whether the use of decorative motifs was restricted by gender to specific artefact categories I noted which categories were both made and used by men or women.

Pali decorative art

The primary source for Pali art style is material collected and presented in a Masters dissertation by

Catherine Vogel (1984). Vogel focussed on mural art but extended the study to include women's dress and beadwork, pottery, wooden porridge dishes, drums, and floor decoration. For this study all the information on mural art, dress, drums and beadwork comes from her thesis. The pottery sample was greatly extended by study of collections at the National Museum in Bloemfontein, The Cultural History and Open Air Museum in Pretoria, the Department of Archaeology at the University of South Africa, my own collection and Lawton's (1967) study of Bantu pottery. Porridge dishes were also studied at the Africana Museum in Johannesburg and the National Museum in Bloemfontein. The nature and size of the samples are given in Table 2.1, and in Appendix 1.

Categories of use and manufacture of items which could lead to the restriction of some motifs to particular media include items made by women for their own use (beadwork) and items made and used by men (porridge dishes). Other items such as pottery, mural art and floor decorations were made by women for use by either sex, some items were made by men for use by women (drums and married women's leather foreskirts). Mural art and floors were not so much 'used' as found in contexts where men and women meet. Some of the mural art is interpreted in terms of pollution concepts and is part, therefore, of the cosmology and particularly that part which mediates between men and women in Pedi society (Vogel 1984). There is a strong

sexual symbolism in the manufacture of drums (Vogel 1984).

Pedi motifs and motif groups are illustrated in Figure 2.2 and their presence/absence is recorded in Tables 2.2 and 2.3 and the indices in Table 2.4. It is clear from the tables that there is no motif common to all the artefact categories and that there is only one common motif group. Thus both the motif and motif group analyses conform to Clarke's (1978) concept of polythetic sets. In this study some of the inter-category variation must be ascribed to sample size disparity (e.g. floors and drums compared to mural art in Table 2.2).

Furthermore, there is a high proportion of unique motifs, particularly in mural art where the fields are large and where maximum variety is possible in combining motifs. Even so, some of the combinations of motifs are shared among media. For example, in both pottery and mural art there is a strong tendency for a single band to occupy the upper register and for the main pattern below it to be composed of repetitive motifs such as chevrons/arcades, bisected rectangles or triangle-based designs in different combinations.

It is also clear from inspection of the tables and from the indices that all the artefact categories were decorated with motifs from a common fund. There was no unique set of motifs associated with either beadwork or porridge dishes which might have been expected because the use and manufacture of each was restricted by gender.

This clear use of motifs of the same style across artefact categories is underlined by Vogel's study on the names given by informants to the motifs they used. These names came from various sources. In the mural art diamond based motifs (Fig. 2.2:E, particularly E2), were called ditokolo, which also refers to the bead pendant with an E2 design on it. Some bisected rectangle motifs (Fig. 2.2:B) on beadwork and on the mural art were called lerumo (*assegai*) or selepe (axe) or makobe of the ntepa (points of the rear skirt). Pendant triangle designs or the V-shape of the chevron or the points of arcades were usually refered to as ntepana or ntepa or makobe of the ntepa, all recalling the pendant triangular shape of the rear skirt worn by girls or women. Lerumo motifs were pointed out on mural art, beadwork and pottery; ntepa and cognate motifs on pottery and mural art. Many circular, spiral and multiple arcade motifs were referred to as ngopa, the snail, on mural art and the thetho, married woman's foreskirt (Vogel 1984). It is, therefore, quite clear that motifs on one artefact category have the same visual and symbolic connotations on others and a motif may even be derived from an artefact category. The reliability of Vogel's information is demonstrated by her use of about 60 different informants from different villages.

Indices were calculated which demonstrated what proportion of the motifs and motif groups in each category was shared with pottery. The low scores for mural art are

explicable in terms of the number of unique motifs, those for floors, drums and dishes by the disparity in sample sizes and in the case of porridge dishes in the preference for circular and interlace patterns (H1 and I7). The indices for motif groups, by contrast, are all high. Here it should be emphasised that motif groups are groups of like motifs and reflect, therefore, that the same fund of designs may be drawn upon for each category, even though *the specific form* of the motif may vary within strongly delimited bounds.

From this analysis I conclude that among the Pedi, decorative art style does cross cut different artefact categories and that pottery may be taken as representative of the style in a polythetic manner.

Zulu decorative art

Both museum and University collections of material and illustrations from a variety of works have been used for Zulu art style (Mayr 1906; Muller 1906, 1917-18; Bryant 1967; Lawton 1967; Mertens and Schoeman 1975; Levinsohn 1979; Grossert n.d.) (Table 2.5; Appendix 2). The variety of items includes beadwork, basketry, mats, pottery, milk pails, meat dishes, headrests, earlobe discs and spoons. Where among the Pedi the category with the greatest variety is mural art, among the Zulu it is beadwork which plays a prominent role in courtship and the designation of status among women.

Table 2.5 Zulu decorative art: artefact categories and their sources

artefact categories	Publ	WITS	NatM	UNISA	AfrM	NasM	Total
beadwork	30			30			30
basketry	55			6			61
mats	6			16			22
pottery	73	8	14	13	16	6	130
milk pails	4				7	4	15
meat dishes	1		2		5		8
headrests	4		10		8	2	24
earlobe discs	4				14		18
spoons	25					1	26

Publ = Grossert n.d.; Lawton 1967; Mayr 1906, Muller 1906, 1917-18; Hartens and Schoeman 1975. WITS = Department of Archaeology, University of the Witwatersrand, Johannesburg. NatM = Natal Museum, Pietermaritzburg. UNISA = Department of Anthropology, University of South Africa, Pretoria. AfrM = Africana Museum, Johannesburg. NasM = National Museum, Bloemfontein.

Table 2.6 Zulu motifs

artefact categories	motifs A	B	C	D	E	F	G	H	I	J	K	N	Unique
	123	123456	12345	1234	12	12	123456	123456	1	123	123	41	
pottery	x	x xxxxxx	xxxxx	xxx			xxxx	xxxxx	x	xxx	xx	31	7
beads	x	xxxxx	xxxxx	x	xx	xx	xx	xxxxxx	x		x	26	3
mats	x	x	xxx	x	xx		x x					11	0
baskets	x	x x	xx xx	xx		x	x x				x	13	1
head rests	x	x xxx	xxx x	xx	xx		x	x	x		x x	19	0
milk pails		x	x	x			x		x	x	x	7	0
meat dishes	x	x	x	x						x		6	0
spoons	x	xx	xx v	x								5	0
earlobe discs	x	x xx	x xxx	x			x xx	x		x		14	0

Table 2.7 Zulu Motif Groups

artefact	motif groups										
category	A	B	C	D	E	F	G	H	I	J	K	N
pottery	x	x	x	x			x	x	x	x	x	9
beads	x	x	x	x	x	x	x	x				8
mats	x	x	x	x	x		x				x	7
baskets	x	x	x	x	x		x				x	7
head rest	x	x	x	x	x		x	x		x	x	9
milk pail	x	x		x			x	x		x	x	7
lishes	x	x	x	x					x			5
spoons	x	x	x	x							x	5
ear disc	x	x	x	x			x	x	x			7

Table 2.8 Zulu decorative art indices

artefact category	% of total motifs	% of total motif grps	% motifs shared w/ pottery	% motif grps shared w/ pottery
pottery	75,6	31,8	100,0	100,0
beads	63,4	72,7	69,2	75,0
mats	26,8	63,6	81,8	85,7
baskets	31,7	63,6	76,9	85,7
head rests	43,9	72,7	83,3	88,8
milk pails	17,1	63,6	100,0	100,0
lishes	14,6	45,5	100,0	100,0
spoons	19,5	45,5	100,0	100,0
ear discs	34,1	63,6	92,9	100,0

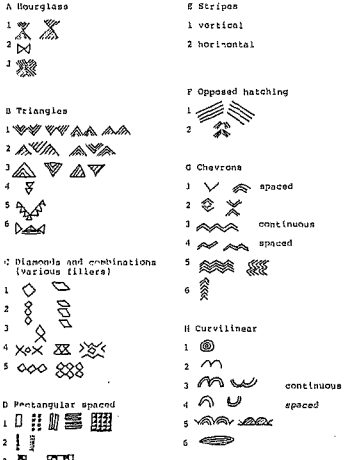


Figure 2.3 Zulu motifs and motif groups

Only milk pails could exhibit a special gender style because they were made and used by men. All other artefacts were made by men or women for use by either sex.

Zulu motifs and motif groups are displayed in Fig. 2.3, their presence/absence is recorded in Tables 2.6 and 2.7 and the indices derived from these in Table 2.8. The number of motifs unique to one artefact category is low. Inspection of the tables and the indices reveals a clear cut picture of how motifs and motif groups cross-cut artefact categories. The polythetic nature of this sharing is evident. Beads and pottery together account for more than ninety per cent of the total variation. Analysis of how representative pottery is of the art style as a whole shows that pottery has seventy-six per cent of the total variety of motifs seen in the study and eighty-two per cent of the motif groups. The indices for each artefact category vis-a-vis pottery are even higher.

Motifs found on the only exclusive maker-user category, milk pails, belong to the same common fund of designs used on other artefact categories.

While some records have been made of motif names these have been eclectic. Bryant (1967:197,401) listed some pottery motifs but it is difficult to relate his brief descriptions to actual designs and he made no attempt to see whether the same names were used on other media, though he does describe similiar designs on other objects. Schofield (1943:257) drew attention to the fact that the

block/mammae decorative technique on pots derives from woodwork. Mayr (1906:462), however, noted that: "the lines or squares of beads or warts on these pots are ornaments and are called by the same name, izinhlanga, as the slits made in the skin with a knife and generally made in rows with several slits in one row to relieve pain, insert medicine, or by a girl as an ornamentation of the body chiefly on the belly, upper arm and shoulders."

Schoeman (*Mertens and Schoeman* 1975; Schoeman 1983) documented the interpretation of specific designs - pendant triangles, diamonds, upright triangles and hourglass motifs - as referring respectively to unmarried and married women, and unmarried and married men. These interpretations were given for beadwork and pottery. In the latter case pendant triangles on a well finished pot indicate that the vessel was for the use of men. A motif comprising a triangle with an arch was interpreted as "the fence between the two private gateways of the village" and the motif as a whole "showed that the pot belonged to the great hut (indlunkulu) and was intended for the use of men" (Mertens and Schoeman 1975: no pagination). It is salutary to note, however, that the *designs are not* normally emblematic as one might expect. An unmarried girl wishing to marry a man already married, for example, might *use the* married man design on her beadwork (Evers and Huffman in press). Schoeman went on to speculate on other possible associations between diamonds and women but

concluded that not all motifs have such neat symbolic significance. However, designs on isithebe mats, especially ceremonial ones given as wedding presents, could also be interpreted symbolically using the same triangle and diamond motifs.

There is therefore some indication of the presence of the concept that designs have similiar or the same connotations to the viewer on whatever artefact category the design may be found. I conclude, therefore, that the decorative art style does cross-cut different media and that pottery is justly a true representative of that style.

Gwembe Tonga decorative art

The variety of Gwembe Tonga decorated artefact categories and the sources are summarised in Table 2.9 and illustrated in Appendix 3. All the material from private and museum collections comes from the Zimbabwe side of the Zambezi in Upper Valley context as defined by Colson (1960). The other material comes from the Zambian side of the river. They have been combined because cross river ties were high whereas along the valley travel was comparatively difficult and ties were not so strong (Colson 1960).

Categories of manufacture and use which could lead to the restriction of motifs to particular media include items made by women for their own use (beaded skirts and

baskets), and *items made and used by men* (drums, axes, chairs, milk pails). Other items were made by men or women for use by either sex. Drums were used in ritual situations. Many crafts were produced by specialists who were selected for the craft by ancestor spirits. These include specialists who make pottery, drums, doors, axes, stools and chairs, and wooden bowls.

Gwembe Tonga motifs and motif groups are illustrated in *Figure 2.4*, their *presence* and absence in the artefact categories in Tables 2.10 and 2.11 and the indices in Table 2.12. Nearly all of these show a one hundred per cent sharing in the motif group analysis. The two exceptions are drums, where one of the eight motif groups found on drums is not found on pottery, and beadwork, where two of the three motif groups found on beads are not found on pottery. In terms of motifs the percentage shared by pottery of the total ve .ation is lower but in all cases at least fifty per cent of each category's decoration is also found on pottery. Pottery has twenty (sixty per cent) of the thirty-three possible motifs. Of the thirteen not shared by pottery, no fewer than nine are found on only one category each, while pottery has four motifs which are peculiar to it. If one disregards these, sixty-seven per cent of all motifs are shared between pottery and other items.

Motif groups, and to a lesser extent the motifs themselves, are shared by all artefact categories. The

Table 2.9 Gwembe Tonga decorative art: artefact categories and their sources

artefact categories	Reynolds	ThingsGal	T.N.H.	AfrM	Total
pottery	24			2	26
drums	3			1	4
axes	1				1
round stools	7			5	12
ellipt. stool ped.	4			1	5
ellipt. stool top	5			1	6
baskets	4				4
milk pails	1				1
wooden bowl	1				1
bottle granary	1				1
pipe bowls	12				12
doors		1	1	1	3
beadwork on dress	1		2	5	8
chair				1	1

Reynolds = Reynolds 1968. ThingsGal = Things Gallery catalogue n.d., Johannesburg. T.N.H. = T.N. Huffman private collection. AfrM = Africana Museum.

Table 2.10 Gwembe Tonga motifs

artefact category	A 12345	B 123456	C 123	D 12345	E 1234	F 12	G 1	H 1	I 123	J 1	K 12	N	unique
pottery	xx x	xxxxx	x	xxx	xx	xx	x	x	xx			20	4
drums	xx	xx xx	xx	xx x	x	x		x	x		x	16	5
axes		x x x		x	x							5	0
round stool		x		xx xx	xx							7	0
ellip.stool	x	x	xx			x		x	x			7	1
pipes	xxx		xx	x	xx							8	0
doors	x	x	x	xx				x				6	1
boals	x	x								x	x	4	2
chair	x											1	0
baskets				x				x				2	0
bot. gran.						x						1	0
milk pail	x											1	0
wood bowl	x											1	0

Table 2.11 Gwembe Tonga Motif Groups

Artefact categories	motif groups										
	A	B	C	D	E	F	G	H	I	J	K	N
pottery	x	x	x	x	x	x	x	x	x			9
drums	x	x	x	x	x		x		x		x	8
axes		x		x	x							3
round stools		x		x	x							3
ellipt stools	x	x					x		x			4
pipes	x	x		x	x							4
hoes	x	x		x					x			4
beads	x									x	x	3
chair	x											1
baskets			x									1
bott. granary							x					1
milk calls	x											1
wood bowl	x											1

Table 2.12 Gwembe Tonga decorative art indices

artefact category	% of total motifs	% of total motif groups	% motifs shared w/ pottery	% motif grps shared w/ pottery
pottery	60,6	81,3	100,0	100,0
drums	48,5	72,7	62,5	87,5
axes	15,2	27,3	100,0	100,0
rnd stools	21,2	27,3	57,1	100,0
ellpt stools	21,2	36,4	71,4	100,0
pipes	24,2	36,4	62,5	100,0
hoes	18,2	36,4	33,3	100,0
beads	12,1	27,3	50,0	33,1
chair	3,0	9,1	100,0	100,0
baskets	6,1	9,1	100,0	100,0
bot.granary	3,0	9,1	100,0	100,0
milk calls	3,0	9,1	100,0	100,0
wood bowl	3,0	9,1	100,0	100,0

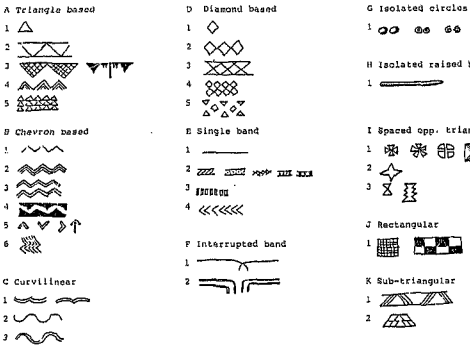


Figure 2.4 Gwembe Tonga motifs and motif groups

extent of sharing suggests that the makers decorated the *items from a common fund of designs* which together make up a Tonga style of decorative art. It is particularly noteworthy that neither specialisation nor the gender based user-maker categories had any effect in creating styles associated with particular artefact categories. In addition some combinations of motifs form schema which are found on different artefact categories, such as the single band separating *two chevrons on pottery, axes and* pedestals of round stools. The fact that pottery accounts for at least sixty per cent of the total variation shows one can use pottery to characterise Tonga art style with confidence that there is no serious misrepresentation of the decorative art style. Unfortunately there is no information about the names and connotations of motifs (Reynolds 1968; Colson pers. comm. 1985).

Discussion and conclusions

In all three studies it was possible to show that decorative art style was apportioned among different artefact categories in the form of a polythetic set; no artefact category accounted for all the motifs available but there was considerable overlap between categories in their use of motifs. While some motifs were peculiar to *one or other artefact category it was very* clear that there was no apportionment of motifs to constitute a 'pottery style' as opposed to a 'mural art style' or a

'beadwork style'. The study also showed that there were no distinctive styles associated with either gender or specialist craftsmen. The unity of the styles was emphasised by the fact that where information was available, the names and connotations of the designs were the same on different artefact categories. This unity in names and connotations underlines that decorative art expresses some of the total meaning system of a group.

That this is likely to be true for Bantu-speaking Africa as a whole is evident in art styles elsewhere. Levinsohn (1979: fig. 50) showed that Bayei basketry designs echoed beadwork designs. An examination of Shona decorative art by Nettleton (1984) demonstrated that the same patterns were found on pottery, bone or ivory divining dice and wooden headrests. Baumann's (1935) work in central Angola illustrated a wide range of artefact categories, including pottery, which are decorated from a common fund of designs.

What is true for the twentieth century is also true for earlier periods. Wall decoration patterns in the Khami culture were also found on divining dice and pottery dating to the sixteenth century (*Robinson 1959*). *The same* motifs have been found on ceramic masks and pottery at Lydenburg dating to the seventh century (Inskeep and Maggs 1975; *Evers* 1982). The applicability of the principles derived from these studies is thereby assured. Pottery may be used to represent decorative art style in a

southern African Iron Age context.

Among the Pedi and the Zulu and among non-Bantu-speaking peoples such as the Endo (Welbourn 1984) and the Azande (Braithwaite 1982) decoration serves to mediate relations between men and women. The messages transmitted by the decoration are meant to be received within the group rather than representing identity signals to potential strangers. However, because these messages are conveyed using arbitrary, often geometric, symbols, they must be restric[illegible] form. It [illegible] striction and the associated sy[illegible] encoding of symbols in a style which allows [illegible] recognition of decorative art style as different from [illegible] and thus use style as an identity marker. It [illegible] for the same reason that archaeologists may [illegible] orative art as a group identifier in the southern African Iron Age.

Having established that decorative art style crosscuts different artefact categories, that pottery decoration is representative of that style and that decorative art style may be used as a cultural group identifier, I now turn to the identification of groups in the southern African Iron Age.

CHAPTER 3

METHODS AND TERMINOLOGY

Methods

It follows from the discussion on culture and the syntactical nature of style in Chapter One that a classification for identity purposes should take into account the interrelationships and syntax of elements. There are several techniques for this which have been used successfully. One of these is symmetry analysis (Shepard 1948; Arnold 1983; Washburn 1983b). In this technique motifs comprise various rotations, reflections or repetitions of design elements, and the ways the designs are combined form the points of comparison between styles. Washburn (1983b) used symmetry analysis in a study of Greek Neolithic pottery and demonstrated style areas in a region where study of the distribution of individual design elements had indicated a single, gradually changing cultural continuum. Symmetry analysis is not popular because it is quite difficult to master and because it lies at a high level of abstraction.

A second technique is the technique taxonomy utilised

by many archaeologists in Africa (e.g. Phillipson 1976; Fagan 1974; Robinson 1973). The technique taxonomy involves successive divisions of the pottery sample where each division, such as decoration technique, controls all subsequent classes. This procedure has been criticised by Huffman (1980) who showed that it was unreliable because it concentrated on single motifs rather than combinations and therefore could not characterize the structure of style.

Other classifications use the way motifs, decoration fields and vessel shape are combined syntactically. Hole's (1984) classification of Iranian beakers is one such technique. Another has been developed by Huffman (1980) for the southern African Iron Age. *Huffman's* classification combines in a structured manner vessel profile, which parts of a profile are decorated and with what combinations of motifs. Huffman forms both modal and affiliate set classes. Modal classes start with the most complex type, and then all other classes have fewer design areas. Affiliate set classes are subdivisions of modal classes based on important alternative profiles or dominant motifs (Huffman 1980).

I use *Huffman's technique because it has been* widely used by others in southern Africa (e.g. Evers 1977, 1982; Taylor 1979; Loubser 1981; Moore 1981; Evers and Van der Merwe 1987) and because his tests on modern ceramics (Huffman 1980) showed its reliability. I retain his way of

defining modal classes but use only alternative dominant motifs in constructing the affiliate set classes. I do this because the analysis concentrates on the designs themselves, and because the incorporation of vessel profile details would greatly multiply the number of classes. I also use affiliate set classes as the definitive set of classes because each study incorporates ceramics from several groups, potentially from both facies and tradition levels. Huffman (1980) uses modal classes to define traditions and affiliate classes to distinguish facies within traditions. I use affiliate set classes because they may be used to distinguish facies and traditions in a single analysis (Huffman 1980) and because they allow each group's particular designs to be considered in detail.

For intersite comparisons I use Huffman's (1980) presence/absence index, his scale index and, for more detailed points of comparison of attributes, a chi-square score (Siegel 1956; Conover 1971).

Terminology

Two major sets of terms are currently in use. The first derive from the 1965 Burg-Wartenstein conference (Bishop and Clark 1967). At the conference it was agreed that technological terms (Industrial complex, Industry, Phase and Horizon) should be used by archaeologists throughout Africa. Although these terms are used

extensively (e.g. Cooke, Summers and Robinson 1966; Maggs 1976; Phillipson 1977, 1985), the rigour needed to establish new industries has not always been met (e.g. Deacon 1976). The terms were introduced to replace cultural terms, which, it was felt, were inappropriate in principally Stone Age contexts.

A second set of terms (Tradition, Facies, Phase) has been introduced into Iron Age studies in southern Africa by archaeologists trained in America (Huffman 1971, 1980; Vogel 1971; Denbow 1982, 1983, 1984), and has become more widely used in southern Africa (e.g. Evers 1981; Mason 1986; Hall 1987). The terms have inherent historical and cultural connotations which originally were limited to the lists of characteristic co-occurring traits (e.g. Willey and Phillips 1958) criticised in Chapter One. I use Tradition, Facies and Phase because they retain their cultural historical relevance if they are used explicitly with the concept of culture as a meaning system adopted in this thesis.

I turn now to the first archaeological example.

CHAPTER 4

GROUPS AND BOUNDARIES IN THE EARLY SECOND MILLENNIUM A.D.

Introduction

In the northern Transvaal and eastern Botswana four regional ceramic styles have been recognised in the past: southern Leopard's Kopje (K2/Mapungubwe; Fouche 1937; Gardner 1963; Meyer 1980; Eloff and Meyer 1981; Hanisch 1980; Huffman 1974, 1984a); Toutswe (Lepionka 1979; Huffman 1978; Denbow 1982, 1983, 1984); Eiland (Evers 1981; Loubser 1981; Hall, S. 1981; Denbow 1981; Klapwijk and Evers 1987); and Kgopolwe (Evers and van der Merwe 1987). The distributions of the ceramic styles may be seen in Figure 4.1 where sites ascribed to each are shown and those included in this analysis are named. The spatial distributions suggest that they also shared common boundaries. This makes these entities especially amenable to analysis that will determine the nature of cultural change across space. I intend to study the following aspects:

1. Is the difference between regional styles at tradition or facies/phase level?
2. Are boundaries between these styles sharp or diffuse?

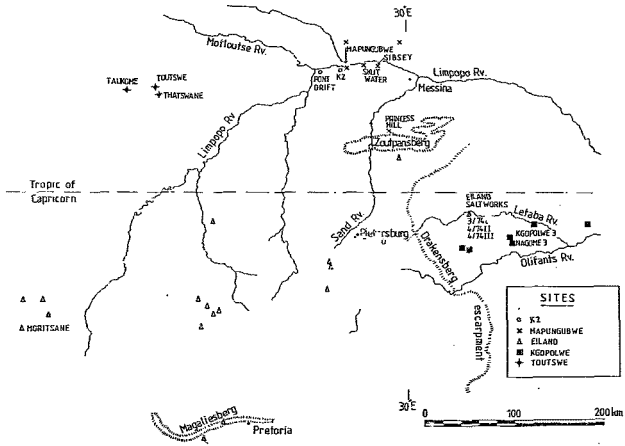


Figure 4.1 Distribution of K2, Mapungubwe, Toutswe, Eiland and Kgopolwe stone artefact sites.

3. Is the nature of stylistic variation within clusters random or systematic?

These questions will allow us to assess the nature of cultural change in an Iron Age context and are important to answer because they also give us indirect information on the nature of interaction between groups.

The Analysis

Sites were chosen because they had samples which were sufficiently large, all, except Sibsey, derived from excavations. Most sites were also radiocarbon dated (Table 4.1, Figure 4.2) and one can see that the styles were more-or-less contemporary.

The ceramic sample from Toutswemogala (abbreviated to Toutswe) is derived entirely from Denbow's excavation. Lepionka's (1979) work is excluded because some of his stratigraphic control was imprecise and the site has a mixed upper layer. Thatswane, five kilometres from Toutswe, is at present unpublished and has the same stratigraphy and dates as Toutswe (Denbow 1983, pers. comm. 1986). The top three layers at Taukome form one stratigraphic event dating to the same time as Toutswe and Thatswane (Denbow 1983).

The Mapungubwe sample comprises whole vessels housed at the University of Pretoria and the illustrated material from previous excavations (Fouche 1937; Gardiner 1963). Most recently excavated pieces are housed at the military base at Greefswald and are inaccessible. However, information on some of this last material is retrievable

Table 4.1 Radiocarbon dates for Toutswe, Eiland, Kgopolwe, K2/Mapungubwe

Site	Lab.No.	Date	Calibrated midpoint
TOUTSWE			
Toutswemogala	I-11,412	1195+-75	1270
Toutswemogala	I-11,413	960+-75	1020
Thatswane	I-11,414	925+-80	1020
Thatswane	I-11,415	1110+-75	1240
Maiphatwane	Pta-2526	990+-50	1030, 1110, 1140, 1150
Taukome	I-11,409	995+-75	1030, 1110, 1140, 1150
EILAND			
Eiland 4/74III	Pta-1532	1100+-50	1230
Eiland 4/74III	Pta-1668	980+-50	1030
Eiland 3/7486	Pta-1715	1125+-40	1260
Silver Leaves	Pta-911	1100+-50	1230
Silver Leaves	Pta-2090	1090+-50	1230
Harrismans	I-11,823	1095+-75	1230
Broodhurst	Wits-837	1360+-50	1400
Ficus	Wits-791	870+-50	1050
Ficus	Wits-877	835+-50	970
KGOPOLWE			
Kgopolwe 3	Y-1637	1040+-60	1170
Kgopolwe 3	Y-1638	960+-80	1030
Kgopolwe 3	Y-1639	1100+-60	1230
Kgopolwe 3	Y-1663	1130+-80	1260
Kgopolwe 3	Pta-338	1230+-45	1270
Kgopolwe 3	Pta-556	1270+-45	1290
Nagome 3	Pta-367	1165+-36	1270
Nagome 3	Pta-560	1270+-45	1290
Masaingir	Pta-1640	920+-40	1020
MAPUNGUBWE			
Mapungubwe S.T.	Pta-1209	1130+-50	1270
Mapungubwe S.T.	Pta-752	1160+-50	1270
Mapungubwe S.T.	Pta-766	1100+-40	1230
Mapungubwe S.T.	Pta-437	1150+-45	1270
Mapungubwe S.T.	Pta-438	1130+-60	1260
Mapungubwe S.T.	Pta-439	1110+-50	1240
Mapungubwe S.T.	Pta-1156	1090+-40	1220
Mapela Hill	SR-122	1160+-95	1270
Mapela Hill	SR-115	1290+-95	1300
Ntanye	Pta-944	1250+-40	1290
Venza Kopje	SR-136	1070+-90	1220
Skutwater	Pta-3734	1150+-40	1270
Skutwater	Pta-3715	1130+-45	1260
K2			
Mapungubwe H.	Pta-372	1070+-45	1220
Mapungubwe S.T.	Pta-2023	1040+-40	1170
Mapungubwe S.T.	Pta-2024	930+-50	1030
Mapungubwe S.T.	Pta-768	920+-50	1020
K2	Pta-306	1190+-50	1230
K2	Pta-304	1070+-70	1220
K2	Pta-305	1060+-50	1180
K2	Pta-307	1030+-45	1160
K2	Pta-1226	1000+-50	1050, 1090,
K2	Pta-1157	1000+-40	1120, 1140
K2	Pta-2051	1000+-40	1150
K2	Pta-1215	980+-50	1040
K2	Pta-1214	970+-40	1040
Commando Kop	Pta-1957	970+-40	1040
Pont Drift	Pta-1818	1100+-50	1230

Sources: Denbow 1981, 1983; Duarte 1976; Evers 1981; Evers and van der Merwe 1977; Fleisch 1980; Huffman 1974; Klapwijk and Evers 1987; Meyer 1980; Moore and Van Zwyk pers. comm. 1987.

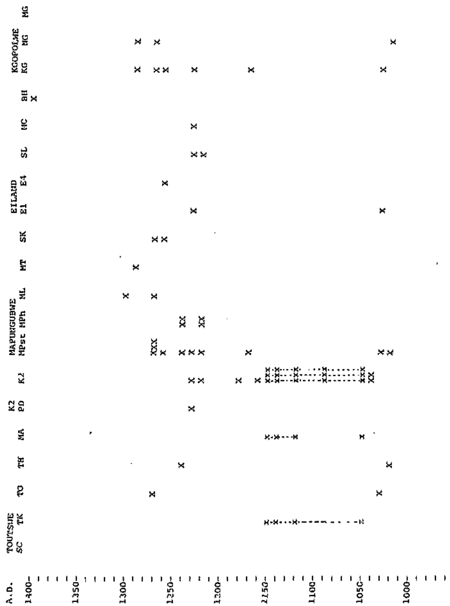


Figure 4.2 Mid points of radiocarbon dates from Toutswe, K2, Mapungubwe, Eiland and *Kgopolwe sites calibrated* according to Stuiver and Pearson's (1986) curve

from tables and drawings in Meyer's (1980) dissertation. All these pots come from Meyer's phase 4 the hill, contemporaneous with the gold burials. Mapungubwe vessels from earlier excavations are omitted where stratigraphic information is equivocal.

The K2 sample includes all Gardiner's (1963) drawings, the material housed at the University of Pretoria, and classes retrievable from tables and drawings in Meyer's (1980) study of Greefswald ceramics. For Pontdrift (Hanisch 1980) I used the ceramic sample from units 1 and 2 (levels 1-8) which were above the mixed Zhizo-K2 levels.

I include in the Eiland samples the three larger excavated samples from the Eiland salt works, sites 2329CD9A/B at Bambo Hill excluding the material from the Hilltop Rock at Bambo because the sample is mixed. I omit Ficus (Moore 1981) because there is no adequate means of separating Eiland ceramics from Early Iron Age ones and the Ficus dates are problematic (Klapwijk and Evers 1987).

Kgopolwe sites, Kgopolwe 3 and Nagome 3, were excavated by N.J. van der Merwe (van der Merwe and Scully 1971; Evers and van der Merwe 1987). While Kgopolwe 3 has a single component, Nagome 3 has two, Kgopolwe and Moloko (Evers and van der Merwe 1987). I omit the latter in this analysis.

The samples from Moritsane and Bambo Hill are very fragmentary and consequently only the presence or absence of classes is tabulated for all sites and clusterings are made using presence/absence scores for the following

affiliate set classes:

C1.1 recurved jar decorated in one zone on neck with single line or band.
C1.2 recurved jar decorated in one zone on neck with row of triangles.
C1.3 recurved jar decorated in one zone on neck with row of arcades.
C1.4 recurved jar decorated in one zone on neck with row of chevrons.
C1.5 recurved jar decorated in one zone on neck with multiple bands.
C1.6 recurved jar decorated in one zone on neck with separated multiple bands.
C1.7 recurved jar decorated in one zone on neck with multiple horizontal lines.
C1.8 recurved jar decorated in one zone on neck with isolated motifs.
C1.9 recurved jar with single bands high and low on neck.
C1.10 recurved jar with single or multiple band high and an arcade low on neck.
C1.11 recurved jar with single band high and chevron low on neck.
C1.12 recurved jar with multiple bands high and low on neck.
C1.13 recurved jar with multiple band high and single band low on neck.
C1.14 recurved jar with single band high and row of triangles low on neck.
C1.15 recurved jar with single bands central and low on neck.
C1.16 recurved jar with chevron above single band central and low on neck.
C1.17 recurved jar with single band just below rim.
C1.18 recurved jar with single band on neck and row of triangles on shoulder.
C1.19 recurved jar with row of triangles on shoulder.
C1.20 recurved jar with row of arcades on shoulder.
C1.21 recurved jar with single band on shoulder.
C1.22 recurved jar with single band or row of triangles and pendant motif on shoulder.
C1.23 beaker or beaker/bowl with chevron design covering central body.
C1.24 beaker or beaker bowl with separated single bands high and low on body.
C1.25 beaker or beaker/bowl with single band low on body.
C1.26 beaker or beaker/bowl with row of triangles low on body.
C1.27 beaker or beaker/bowl with multiple bands low on body.
C1.28 beaker or beaker/bowl with row of arcades low on body
C1.29 beaker or beaker/bowl with single band just below rim.
C1.30 beaker or beaker/bowl with row of chevrons

just below rim.

C1.31 beaker or beaker/bowl with row of triangles just below rim.

C1.32 beaker or beaker/bowl with a row arcades just below rim.

C1.33 beaker or beaker bowl with multiple rows of triangles on lower part of vessel.

C1.34 necked shallow bowl decorated on belly with single band

C1.35 necked shallow bowl decorated on belly with row of triangles

C1.36 necked shallow bowl decorated on belly with isolated motifs

C1.37 necked shallow bowl decorated on belly with row of arcades

C1.38 open bowl with hatching on top of rim.

C1.39 open bowl with row of chevrons on top of rim.

C1.40 open bowl with row of triangles on top of rim.

C1.41 open bowl with multiple bands of hatching on top of rim.

C1.42 open bowl with single bands on top of rim and just below rim.

C1.43 open bowl with single band on rim and single band above row of triangles below rim.

C1.44 constricted bowl with decoration on top of rim and separated single bands on body.

C1.45 open bowl with single band just below rim.

C1.46 open bowl with row of triangles just below rim

C1.47 open bowl with single band on body.

C1.48 open bowl with row of triangles on body

C1.49 open bowl with isolated motifs on body

C1.50 open bowl with arcades on body.

C1.51 open bowl with multiple bands on body.

C1.52 open bowl with chevrons on body.

C1.53 open bowl with single band above chevron on body.

C1.54 open bowl with single band above multiple band on body

C1.55 open bowl with two separated single bands on body.

C1.56 constricted bowl decorated just below rim with single band

C1.57 constricted bowl decorated just below rim with row of triangles.

C1.58 constricted bowl decorated just below rim with multiple bands.

C1.59 constricted bowl decorated on upper portion away from rim with isolated motifs.

C1.60 constricted bowl decorated on upper portion away from rim with multiple bands.

C1.61 constricted bowl decorated on upper portion away from rim with single band.

C1.62 constricted bowl decorated on upper portion away

from rim with chevrons.

Cl.63 constricted bowl decorated on upper portion away from rim with row of triangles.

Cl.64 constricted bowl decorated on upper portion away from rim with row of triangles above chevron.

Cl.65 constricted bowl with single band just below rim and row of triangles on upper body.

Cl.66 constricted bowl with multiple bands all over.

Cl.67 constricted bowl with two separated single bands or multiple bands above single band on upper portion away from rim.

Cl.68 constricted bowl with two separated rows of chevrons on upper portion away from rim.

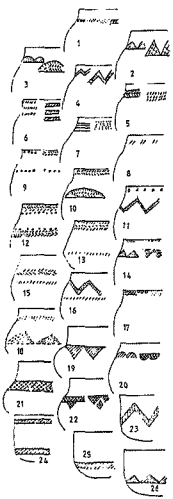
Cl.69 beaker/beaker bowl with decoration comprising single band below isolated motif covering greater part of vessel.

Cl.70 beaker/beaker bowl with single band half way down vessel.

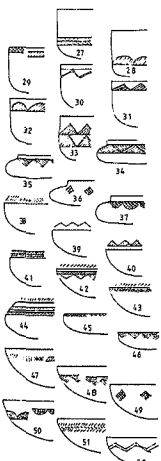
Presence/absence of these classes is documented in Table 4.2 and the scores obtained are presented in Table 4.3. The scores fall within three size ranges (Table 4.3). The first set of scores, ranging between sixty-five and ninety per cent, serve to group sites in a way that is consistent with their original assignment to a particular *ceramic style*; all Mapungubwe sites, for example, are in one cluster with no additional sites. Where these scores are lower in Eiland, for example the Bambo scores, the *reasons* lie in the relatively small size of that sample and the fact that it emphasises multiple band decoration more strongly than arcades.

The second group has scores that rarely reach twenty per cent and these serve to distinguish Toutswe sites from all others. The one point of similarity is a vessel type common to *all groups*, a *jar* with a single band in the neck, and it is common because it is so simple. However, most Toutswe examples could be separated from those of other groups by *details in the profile and* in preferences

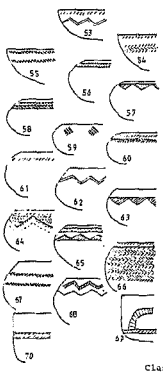
TABLE 4.2 Distribution of classes



CLASS	TK	TO	TH	HP	HH	SB	S.	KO	NO	HO	BH	B1	B2	B3	K2	PD
1	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
2	-	-	-	x	x	x	x	x	x	x	x	x	x	x	x	x
3	-	-	-	x	-	-	x	-	x	x	x	x	x	x	x	x
4	-	-	-	-	-	-	-	x	x	x	x	x	x	x	x	x
5	-	-	-	-	-	-	-	x	x	x	x	x	x	x	x	x
6	-	-	-	-	-	-	-	-	-	-	x	-	-	-	-	-
7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	x
8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	x
9	-	-	-	-	-	-	-	x	x	x	x	x	-	x	-	-
10	-	-	-	-	-	-	-	-	-	x	-	x	x	x	-	-
11	-	-	-	-	-	-	-	-	-	x	x	x	-	x	-	-
12	-	-	-	-	-	-	-	-	-	-	-	-	-	x	-	-
13	-	-	-	-	-	-	-	-	-	-	x	x	-	x	-	-
14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	x
15	-	-	-	-	-	-	-	x	x	-	-	-	x	-	-	-
16	-	-	-	-	-	-	-	-	-	x	-	x	x	x	-	-
17	-	-	-	-	-	-	-	x	-	-	x	-	-	-	-	-
18	x	x	x	-	-	-	-	-	-	-	-	-	-	-	-	-
19	-	-	-	x	x	x	x	-	-	-	-	-	-	-	x	x
20	-	-	-	x	x	-	x	-	-	-	-	-	-	-	x	x
21	-	-	-	x	x	x	x	-	-	-	-	-	-	-	x	-
22	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-
23	x	x	x	-	-	-	-	-	-	-	-	-	-	-	-	-
24	-	-	-	x	x	-	-	-	-	-	-	-	-	-	-	-
25	-	-	-	x	-	x	x	-	-	-	-	-	-	-	x	x
26	-	-	-	x	x	-	x	-	-	-	-	-	-	-	x	x



CLASS	TK	TO	TH	HP	PH	SO	SK	KG	NG	HO	BM	E1	E2	E3	K2	AD
27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-
28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
29	-	-	-	-	-	-	-	X	-	-	-	-	-	-	X	-
30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
33	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-
34	-	-	-	X	X	X	X	-	-	-	-	-	-	-	-	-
35	-	-	-	X	X	X	X	-	-	-	-	-	-	-	-	-
36	-	-	-	X	-	-	X	-	-	-	-	-	-	-	-	-
37	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-
38	X	X	X	-	-	-	-	-	-	-	-	-	-	-	-	-
39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-
40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-
41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-
42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-
43	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-
44	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-
45	-	-	-	X	-	-	X	X	X	X	-	-	-	-	-	-
46	-	-	-	X	-	X	X	-	-	-	-	-	-	-	-	X
47	X	-	-	X	X	X	X	X	X	X	-	X	X	X	X	X
48	-	-	-	X	X	X	X	X	X	-	-	-	-	-	X	X
49	-	-	-	X	-	-	X	-	-	-	-	-	-	-	X	X
50	-	-	-	-	-	-	-	-	-	X	-	-	-	X	X	X
51	-	-	-	-	-	-	-	-	-	X	X	X	X	X	X	-
52	X	X	-	-	-	-	-	-	-	-	-	-	X	-	-	-



CLASS	TK	TO	TH	HP	PH	SB	SK	KG	NG	HO	BH	E1	E2	E3	K2	PD
53	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-
54	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-
55	-	-	-	-	-	-	X	-	X	-	-	-	-	-	-	-
56	-	-	-	X	-	-	-	X	X	X	-	-	-	-	X	X
57	-	-	-	X	-	-	X	-	X	-	-	-	-	-	X	-
58	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-
59	-	-	-	X	X	X	X	-	-	-	-	-	-	-	-	-
60	-	-	-	-	-	-	-	-	-	X	X	X	X	X	-	-
61	-	-	-	-	-	-	-	-	-	X	X	X	X	X	X	-
62	-	X	X	-	-	-	-	-	-	-	-	-	X	-	-	X
63	-	-	-	-	-	-	-	X	X	X	-	-	X	-	-	-
64	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-
65	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-
66	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-
67	-	-	-	-	-	-	-	-	-	-	X	X	-	X	-	-
68	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-
69	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-
70	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	X
Classes N	6	6	5	22	12	11	19	16	13	22	15	15	16	17	31	24

TABLE 4.3 Presence/absence scores

	TOUTSWE			MAPUNGUBWE			SK	K2	KGOPOLWE		EILAND			
	TK	TO	TH	MP	PH	SB		K2	PD	KG	NG	BM	E1	E2	E3
TK	-														
TO	31	-													
TH	73	91	-												
MP	14	7	7	-											
PH	29	11	12	71	-										
SB	21	13	13	67	79	-									
SK	17	9	9	88	71	71	-								
K2	12	6	6	53	33	33	48	-							
PD	15	13	13	48	39	40	51	62	-						
KG	18	9	10	32	29	30	29	30	35	-					
NG	22	11	12	46	32	33	44	36	43	76	-				
BM	13	7	7	27	23	13	24	31	35	53	57	-			
E1	10	10	11	16	15	15	17	26	26	39	43	54	-		
E2	18	9	10	22	23	24	24	30	31	39	50	70	80	-	
E3	20	10	11	21	22	23	23	30	36	44	55	63	52	71	-
K2	17	9	9	21	21	22	22	33	29	36	47	77	75	93	67	-

KEY TO SITE NAMES FOR TABLES 4.1-4.3

TK = Taukome
MP = Mapungubwe
SK = Skutwater
MO = Moritsane
TO = Toutsw·
PH = Princess Hill
KG = Kgopolwe 3
BM = Bambo Hill
TH = Thatswane
SB = Sibiey
NG = Nejome 3
E1 = Eiland saltworks 3/74BI
E2 = Eiland saltworks 4/74II
K2 = K2
E3 = Eiland saltworks 4/74III
PD = Pont Drift

for particular single band motifs. For example, nearly all Toutswe examples are hatched and many are combstamped, whereas in Kgopolwe most designs are crosshatched and there is no combstamping. *Toutswe vessels* have shorter, more upright necks and better defined shoulders than Kgopolwe jars.

The third group has scores ranging between forty and fifty-five per cent and occur between Kgopolwe, Eiland and K2. In the initial separation of Kgopolwe from Letaba (Evers and van der Merwe 1987) I commented that Kgopolwe and Eiland were closely related but could be separated. That was an intuitive assessment which is born out by this analysis. The scale of the difference is unlike that shown by Toutswe to the other four. That difference is at the tradition level. Toutswe has its origin in Zhizo (Denbow 1983; *Huffman* 1984a), a second phase of the Gokomere Tradition. Huffman (1978a) has argued that Leopard's Kopje derives from Klingbeil, a late Lydenburg Early Iron Age site in the eastern Transvaal. Both Eiland and Kgopolwe are probably derived from the local variants of the western stream Early Iron Age on the Transvaal plateau and the northeastern Transvaal lowveld. As such they have a common origin but represent developing local styles demonstrated by scores intermediate between those at a tradition level and scores internal to each group. Thus K2, Eiland and Kgopolwe are different facies of the same tradition that Huffman (1978a) called Kitama.

Where the differences between K2, Kgopolwe and Eiland are synchronic, those between K2 and Mapungubwe are

diachronic. K2 and Mapungubwe have long been seen as two phases of the southern facies of Leopard's Kopje (Huffman 1974; Hanisch 1980; Meyer 1980). Eloff and Meyer (1981; Meyer 1980) continue to believe that a new people introduced the Mapungubwe style. However, the stylistic change between these two phases was accompanied by major developments in the socio-political order that start at K2 and culminate at Mapungubwe (Huffman 1982, 1986a,b). A large proportion of the K2 style is found in Mapungubwe. The major change is in the jar profile, the downward movement of some decoration placements and in some motif details. Meyer (1980) has also shown that the change from K2 to Mapungubwe was gradual. Mapungubwe is equally different from Eiland and Kgopolwe, with scores between about twenty and forty per cent. There are more common types than there were with Toutswe, which may reflect the common ancestry which Huffman (1978a) postulated. The scores are quite low because Mapungubwe represents a second phase of Leopard's Kopje and is associated with substantial social change. Classes 6 and 12, particularly, are associated with these changes and substantially add to the differences between Mapungubwe and Eiland and Kgopolwe. This differentiation is intermediate between the facies and phase differences noted between Kgopolwe and Eiland and K2 and Mapungubwe respectively, and the tradition differences seen between Toutswe and the other groups. This shows that the differentiation in style had progressed further and that Mapungubwe was an emerging new tradition.

Thus far we can see five styles existed and the differences between them are on the levels of tradition and of facies/phase within the same tradition. The answer to the second question about the boundaries between the entities must now be addressed. This question is also strongly related to the third, which considers whether variation within a cluster is systematic or random. Systematic change with distance and evidence for style merger, either with elements from two styles on the same vessels or with approximately equal representation of classes from the two styles on a site, will result in continuous change over space. If variation is random and no strong evidence for merger is evident at boundaries then cultural variation will be random within groups and strongly discontinuous between styles. These two possibilities have important ramifications for the ways people interact. Figure 4.3 details some scores from Table 4.3 associated with distance and in relation to boundaries.

As may be seen, the variation expressed within the Mapungubwe cluster does not exhibit systematic change with distance from any point. Princess Hill is in the southern part of the Mapungubwe style zone and is a mere thirty kilometres from Ben Lavin which contains the most northerly Eiland site known (Loubser pers. comm. 1986). The number of Eiland vessels at Mapungubwe sites is always low (a few vessels at most) and does not decrease significantly away from the Eiland-Mapungubwe boundary. At this level of analysis the two distributions show

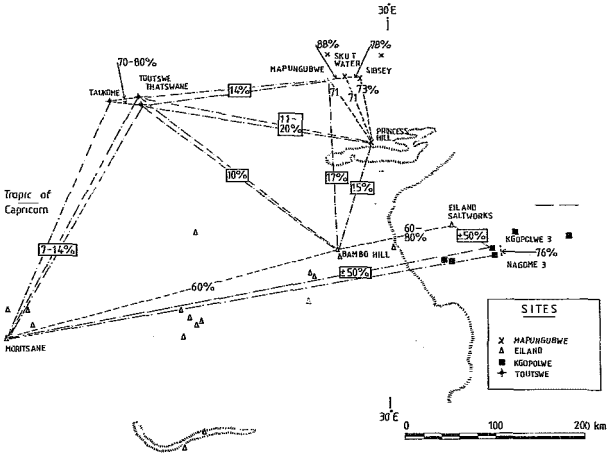


Figure 4-3 Presence/absence scores within circles, in relation to distance and boundaries between

discontinuous change. The same is true concerning the *presence* or absence of vessels manifesting elements of both Mapungubwe and Eiland styles. There is no evidence for such a merger.

Similar distinctions can be made between Toutswe and Eiland. Some Eiland vessels are found on Toutswe sites. Denbow (1983) has said that there is a slight increase in these vessels at Toutswe sites close to the southern distribution of the Toutswe cluster. However, this increase in no way approaches the kind of frequency that *should be associated with continuous change across space.* No Eiland sites, so far reported, have either Mapungubwe or Toutswe sherds on them. *No vessels show elements of* Toutswe and Eiland together. Discontinuous change, therefore, is manifested by these distributions.

The boundary between Eiland and Kgopolwe must also be seen as sharp. The differences that may be seen across Eiland are neither systematic nor great as far as the affiliate set classes analysis is concerned (Fig. 4.3). *There are some differences* between western and eastern Eiland however. Some of these are reflected in the classes present only at Moritsane, *others include very detailed* differences in the kinds and frequencies of borders to designs, the relative number of slightly raised rim bands and the use of combstamping. These differences of detail have not been examined further because the samples are inadequate. Also plotted onto Figure 4.3 are sites which may, despite the relatively small number of vessels, be *assigned to either Kgopolwe* or Eiland. The distribution

shows that the base of the Escarpment forms the approximate boundary between Eiland and Kgopolwe. This is not hard and fast because it appears that the Eiland salt works should lie within the Kgopolwe area but has undoubted Eiland assemblages present. This may be because the saltworks were open to anyone. One assemblage from the saltworks, 3/74 S6, looks more like Kgopolwe than Eiland but the sample is small and may be mixed. Only a tiny area of the saltworking complex was excavated and the ceramic sequence and radiocarbon dates show several gaps (Evers *in prep.*). *It is usually easy* to distinguish vessels made in the Kgopolwe style from those in Eiland style. Silver Leaves in the foothills of the Escarpment is *clearly an* Eiland site with no sherds that could confidently be assigned to Kgopolwe (Klapwijk and Evers 1987). Similarly surface samples from sites in the Murchison range (Sessions 1981) have only Kgopolwe sherds in them.

To summarise, the analysis presented here demonstrates that in about the twelfth century we may confidently *distinguish four regional ceramic styles*. The differences between Toutswe and the others are at the tradition level, and between K2/Mapungubwe, Eiland and Kgopolwe at the facies level. The nature of stylistic variation within the groups is random, not systematic, and there is no evidence for continuous change between them. Boundaries are in fact relatively sharp. Contact across boundaries is present but the nature of that contact does not blur the

differences by merging of styles. That the differences between the groups are not just statistical is shown in Appendices 4-8 where examples of the classes from each group are shown. The differences are immediate and visual. The differences at the tradition level demonstrate a different symbolic coding system which was probably incomprehensible to people from another tradition. Kgopolwe and Eiland and K2 people may have used the same kinds of concepts but expressed them in different ways. These non-verbal symbolic codings probably were accompanied by some linguistic differences too.

The ceramics described in this chapter all belong to societies with long histories in southern Africa. I come now to examine the Early Iron Age.

CHAPTER 5

CERAMIC STYLE IN THE EARLY IRON AGE

Introduction

In this chapter I examine Early Iron Age (EIA) ceramic style to establish whether the same kinds of divisions and boundary maintenance were present at the beginning of the Iron Age as were found in the thirteenth century. The major part of the analysis focusses on ceramics from sites in the Tugela Valley and the eastern Transvaal (Fig.5.1). My reasons for choosing these areas include, first, the availability of excavated and dated collections. Secondly, several Iron Age archaeologists in South Africa have drawn attention to the similarity between ceramics from EIA sites in Natal and the eastern Transvaal. Huffman (1978a, 1979) put the two areas into a group he called the 'Bambata-NC3 continuum' and drew particular attention to the close relationship between sites near Lydenburg and surface collections from Natal. Using excavated material Maggs and Hall concurred with this conclusion referring to both sets of sites collectively as the 'Lydenburg complex' (Maggs 1980b; Hall and Vogel 1980), and more recently Hall (1987) has put them into a 'Lydenburg Tradition'. Huffman (in prep.) has restudied the evidence for the origins of the Early Iron Age. All the material he originally placed

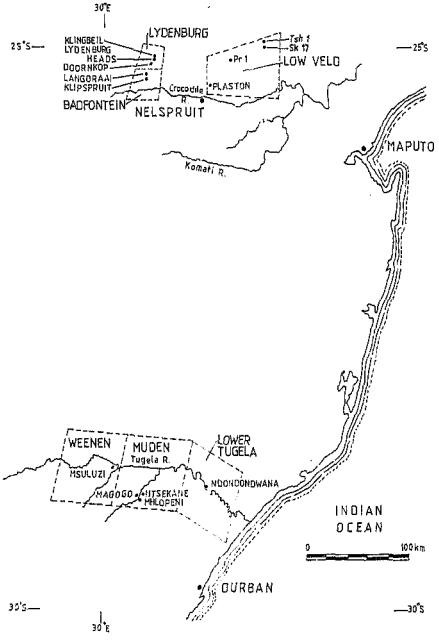


Figure 5.1 Early Iron Age sites in the Tugela Valley and the eastern Transvaal

Table 5.1 Radiocarbon dates for Early Iron Age sites in the Tugela valley and the Eastern Transvaal.

Tugela Valley

Sites	Lab.No.	Date (A.D.)	Calibrated midpoint
Msuluzi	Pta-2195	640+-40	690
Msuluzi	Pta-2197	580+-30	670
Mhlopeni	Pta-2878	550+-50	660
Magogo	Pta-2874	590+-50	670
Magogo	Pta-3716	630+-50	690
Magogo	Pta-2875	760+-50	800
Ndondondwane	Pta-2388	730+-50	870
Ndondondwane	Pta-2389	760+-50	890
Ntshekane	Pta-1057	850+-50	980
Ntshekane	Pta-1058	800+-50	900

Eastern Transvaal

Lydenburg head	Pta-328	490+-50	640
Lydenburg head	Pta-1634	540+-50	650
Plaston	Pta-1635	635+-50	690
Klipspruit	Wits-1219	570+-70	670
Langdraai	Wits-1218	760+-70	890
Langdraai	Wits-1237	720+-70	810, 850
Doornkop	Wits- n/a	680+-50	780
Doornkop	Pta-2535	740+-50	880
Doornkop	Pta-2536	810+-50	900, 960
Klingbeil	Pta-1633	790+-50	900
Klingbeil	Pta-2160	830+-50	970
Klingbeil	Pta-1747	980+-50	1040
Tsh 1	Pta-3835	510+-50	650
Sk 17	Pta-3507	740+-50	890

Information from: Evers (1977, 1980, 1982), Maggs (1980b, 1984a), Maggs and Michael (1976), Maggs and Ward (1984), Meyer (1986).

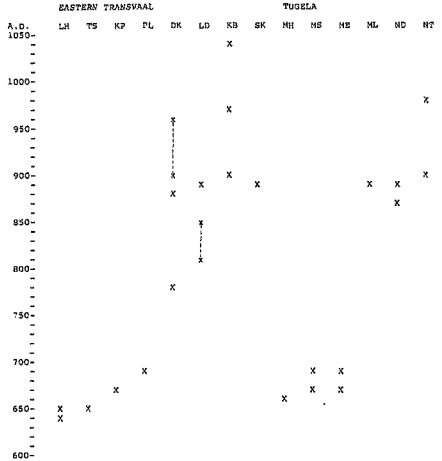


Figure 5.2 Mid points of EIA radiocarbon dates for the Tugela Valley and the eastern Transvaal calibrated according to Stuiver and Pearson's (1986) curve

in the Bambata-NC3 continuum or Western Stream is now referred to as the 'Benfica Tradition'. The Eastern stream has been renamed the Urewe Tradition.

The available radiocarbon dates for the sites are documented and calibrated according to the most recent curve (Stuiver and Pearson 1987; Table 5.1 and Figure 5.2). In the Tugela Valley the dates cluster in the late seventh century and late ninth century. Maggs (1984a) noted ceramic differences between the two groups and separated them into two phases, Msuluzi and Ndondondwane. The radiocarbon dates for the eastern Transvaal also appear to fall into two groups, but less clearly so. One group, comprising the Lydenburg heads site (LH), Klipspruit (KP), Tshidi (TS), and Plaston (PL), falls into the mid to late seventh century, and a later group, consisting of Doornkop (DK), Langdraai (LD) and Klingbeil (KB), in the late ninth century. However, Doornkop has a wider range of dates, including some as late as the tenth century, contemporaneous with Klingbeil. The only recognised stylistic differences that might distinguish phases occur at Klingbeil, late in that second group of dates (Evers 1980, 1981). Broadly speaking, the Tugela Valley and eastern Transvaal sites are contemporaneous.

To clarify the issues about the nature of ceramic style areas and boundary maintenance the following hypotheses were constructed:

1. The nature of discontinuity between Tugela and eastern Transvaal sites is the same as that demonstrated between Toutswe sites and other twelfth-

thirteenth century sites, that is, at the level of the tradition.

2. The nature of the discontinuity between Tugela and eastern Transvaal *sites* is that of different facies or different branches of the same tradition. The nature of the difference should, therefore, be similar to that between Eiland and Kgopolwe.

3. The differences between the two regions are insufficient to separate them at either the tradition or the facies level. There should be equal or overlapping scores between sites of the two regions.

Analysis

I examined the Msuluzi, Mhlopeni, Magogo and Ndondondwane collections excavated by Maggs (1980b, 1984a; Maggs and Ward 1984) and kept in the Natal Museum. Excavations at Ndondondwane were extended by Loubser (pers.comm. 1985) and this material is stored in KwaZulu. I restricted the analysis to the ceramics from Maggs's *excavations* to avoid counting some vessels twice. Maggs divided Magogo into three phases (Maggs and Ward 1984). The early phase was contemporaneous with Msuluzi, the late phase with Ndondondwane. Using Maggs's criteria I re-assigned the three pits, 15, 6 and 13A, associated with the middle phase to the other two components. A date from pit 15 fits the early phase (Table 5.1) and the ceramics included the complex forms characteristic of Msuluzi (Maggs 1980b). I, therefore, placed pit 15 into the early phase at Magogo. The other two pits, 6 and 13B, looked

like typical Ndondondwane (Maggs 1984a), so I lumped the contents of pits 6 and 13A with the later phase at Magogo.

The Lydenburg heads site sample included the excavated material (Evers 1982) and the surface collection stored at the University of Cape Town. *Doornkop (Berrington, Fordyce* and Moore 1981), Klingbeil (Evers 1980), Plaston (Evers 1977) Klipspruit and Langdraai ceramics come from excavations and surface collections. Doornkop was the only site where there were two phases of occupation, as is hinted in the dates. However, it was not possible to separate the ceramics into these phases so all the pottery *was analysed* together. Ceramics from Pr 1 came from an extensive surface collection while those from Sk 17 and Tsh 1 came from small excavations (Meyer 1986).

I analysed the pottery samples from the surface collections and from the excavations together since each site with the exception of Magogo had a single component. At Magogo I analysed only surface material that could be related to features assigned to one or other component.

The following affiliate set classes were recognised (Table 5.2)

Cl.1. recurved jar with single band just below rim.
Cl.2. recurved jar with single band just below rim and different single band on neck.
Cl.3. recurved jar with *single* band just *below* rim and multiple bands on neck.
Cl.4. recurved jar with single band just below rim and multiple horizontal lines in neck.

C1.5. recurved jar with single band just below rim and multiple horizontal lines on neck and single band or row of triangles/chevrons on shoulder.
C1.6. recurved jar with single band just below rim, multiple bands on neck and single band or row of triangles or isolated motifs on shoulder.
C1.7. recurved jar with single band just below rim, single band on neck and row of triangles or spaced motifs on shoulder.
C1.8. recurved jar with single band just below rim and isolated spaced motif above single band on shoulder.
C1.9. recurved jar with single band just below rim and two separated single bands on shoulder.
C1.10. recurved jar with single band just below rim and single band on shoulder.
C1.11. recurved jar with single band just below rim and spaced motif on shoulder.
C1.12. recurved jar with single band on neck and spaced isolated motif on shoulder.
C1.13. recurved jar with multiple horizontal lines on neck and isolated motifs or row of chevrons/triangles on shoulder.
C1.14. recurved jar with multiple bands on neck and isolated motifs or single band on shoulder.
C1.15. recurved jar with single band on neck.
C1.16. recurved jar with continuous multiple horizontal lines on neck.
C1.17. recurved jar with interrupted multiple horizontal lines on neck.
C1.18. recurved jar with continuous multiple bands on neck.
C1.19. recurved jar with interrupted multiple bands on neck.
C1.20. recurved jar with row of triangles on neck.
C1.21. recurved jar with row of chevrons on neck.
C1.22. recurved jar with spaced isolated motifs on shoulder.
C1.23. double recurved jar with single band just above neck
C1.24. constricted bowl with single band on or just below carination or vertical tangency.
C1.25. constricted bowl with multiple bands on upper portion.
C1.26. constricted bowl with single band on upper portion.
C1.27. constricted bowl with single band on or just below carination or vertical tangency and spaced motif on upper portion.
C1.28. constricted bowl with row of triangles on upper portion.
C1.29. constricted bowl with single band on carination or vertical tangency and single band on upper portion.

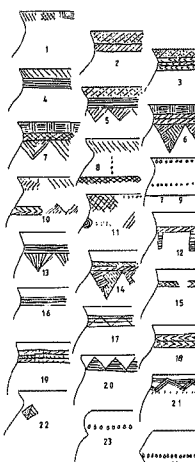
Cl.30. constricted bowl with single band on carination or vertical tangency and row of triangles on upper portion.
Cl.31. constricted bowl with multiple horizontal lines on upper portion.
Cl.32. constricted bowl with multiple horizontal lines well below carination or vertical tangency.
Cl.33. constricted bowl with multiple horizontal lines well below carination or vertical tangency and single band and spaced motif on upper portion.
Cl.34. constricted bowl with multiple horizontal lines well below carination or vertical tangency and spaced horizontal single bands on upper portion.
Cl.35. open bowl with rim nicking.
Cl.36. open bowl with single band on body.
Cl.37. open bowl with interrupted multiple horizontal lines on body.
Cl.38. open bowl decorated on interior with single band.
Cl.39. open bowl with isolated motif on body.
Cl.40. recurved jar with isolated motif on neck and single band on shoulder.
Cl.41. a recurved jar with single band on vertical tangency.

Comparisons between sites were made using both presence/absence and scale scores.

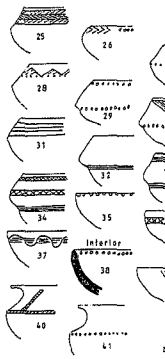
I assess first the nature of the relationship between Tugela and eastern Transvaal sites (hypotheses 1-3). Tables 5.2 - 5.7 show the frequencies and the presence/absence indices scored between sites of each area according to time periods.

Using both jar and bowl classes the seventh century Tugela sites cluster with P/A scores in the sixty and seventy percentiles in contrast to scores in the twenties to forties with eastern Transvaal sites (Tables 5.2, 5.3). The two sites from near Lydenburg, Lydenburg heads site (LH) and Klipspruit (KP), and Pr 1 from the lowveld have scores of about seventy per cent and low scores with Tugela sites. The other sites from the lowveld, Plaston (PL) and Tsh 1, have lower scores compared to each other

TABLE 5.2. Frequencies of jar and bow. sizes



CLASS	TUGELA						EASTERN TRANSVAAL							
	MS	HE	MH	ML	ND		LH	KP	PR	TS	PL	LD	DK	KB	SK
1	13	14	8	4	4		31	5	3	5	6	10	4	-	14
2	8	9	1	2	4		-	-	2	2	-	-	-	-	-
3	6	2	-	-	1		-	-	-	-	-	-	-	-	-
4	1	2	1	-	-		-	-	-	-	-	-	-	-	-
5	2	8	1	-	-		-	-	-	-	2	-	-	-	-
6	5	6	1	-	-		-	-	-	1	-	-	-	-	-
7	2	8	-	-	-		-	-	-	-	-	-	-	-	-
8	-	-	-	-	-		4	-	-	-	1	-	-	-	1
9	-	-	-	-	-		-	-	-	-	1	-	-	-	-
10	-	-	-	-	-		6	4	6	1	6	1	3	1	1
11	1	1	-	-	-		16	5	8	4	3	2	-	-	3
12	-	-	-	3	-		3	-	-	-	-	1	1	-	-
13	-	1	1	-	-		-	-	-	-	-	1	-	-	-
14	1	6	-	5	1		1	1	1	-	-	2	-	-	-
15	2	6	2	12	23		19	4	2	1	-	35	7	2	4
16	-	3	-	2	1		6	1	8	-	1	5	1	-	1
17	-	-	-	-	-		4	1	-	-	-	4	1	1	-
18	1	2	3	8	9		9	8	14	-	-	34	18	3	3
19	-	-	-	-	-		6	1	1	-	-	1	3	6	1
20	-	-	-	-	-		-	1	1	-	-	2	1	2	-
21	-	-	-	-	-		-	1	-	-	-	1	-	1	1
22	-	-	-	-	-		1	1	-	-	-	1	-	-	-
23	-	-	-	-	-		-	-	-	-	-	-	1	-	-
24	-	-	-	-	1		3	1	2	5	1	1	1	1	2



CLASS	MS	ME	MH	ML	ND	LH	KP	PR	TS	PL	LD	DK	KB	SK
25	-	-	-	-	-	1	-	-	-	-	-	-	1	1
26	-	-	-	-	-	1	-	3	-	-	3	-	1	5
27	-	-	-	-	-	-	-	-	-	-	1	-	-	-
28	-	-	-	-	-	-	3	-	5	-	-	-	2	-
29	1	-	-	-	-	1	1	1	-	-	-	-	-	1
30	-	-	-	-	-	-	-	-	2	-	-	-	-	-
31	-	-	-	-	-	-	-	2	-	-	-	-	-	-
32	-	-	1	-	-	-	-	-	-	-	-	-	-	-
33	1	1	-	-	-	-	-	-	-	-	-	-	-	-
34	1	-	-	-	-	-	-	-	-	-	-	-	-	-
35	1	-	1	-	-	2	-	-	-	-	6	-	-	-
36	1	-	-	-	-	4	2	3	4	2	-	1	-	-
37	-	-	-	-	-	1	-	-	-	-	-	-	-	-
38	-	-	-	1	-	-	-	-	-	-	-	-	-	-
39	1	-	-	-	-	-	-	-	-	-	-	-	-	-
40	-	-	-	-	-	-	-	-	-	-	1	-	-	-
41	-	-	-	-	-	1	-	-	-	1	-	-	-	-
N Classes	17	14	10	8	8	20	16	15	10	10	19	12	11	13

Table 5.3. Presence/Absence (P/A) scores for jar and bowl classes between regions, 7th century

	MS	ME	MH	LH	KP	PL	TS	PR
MS	--							
ME	77	--						
MH	64	67	--					
LH	42	35	35	--				
KP	27	30	26	70	--			
PL	30	33	20	53	48	--		
TS	46	42	40	41	58	50	--	
PR	50	48	32	69	77	48	56	--

(about fifty per cent), similar scores to the Lydenburg heads site and Klipspruit, and generally only slightly lower scores with the three Tugela sites. The major cause of these low scores is the near absence of classes 15-19 (Table 5.2) which are prominent at the other eastern Transvaal and Tugela sites. That this is not a microregional difference, however, is shown by Pr 1, which is undated but has higher scores with the earlier period, and site Sk 17, which is later. These sites are located between Plaston and Tsh 1 and have the elements missing from the latter sites. Small sample size and the fact that not all classes are necessarily found at all sites (cf. Huffman 1980) may have contributed to the low scores.

Bowl classes are relatively rare (Table 5.2), particularly at Tugela sites. In Table 5.4 these are therefore excluded and some jar classes (8+9, 16+17, 18+19, 20+21) are combined. This has little effect on the results except to raise some scores (Table 5.5).

Scores for ninth century sites (Tables 5.6, 5.7) reflect the same order of similarity within and between regions as the earlier period. Internal scores from eastern Transvaal sites, however, are slightly lower and more consistent. Furthermore, apart from scores between Klingbeil (KB) and the Tugela sites, the external scores are higher. The reason for this (Table 5.6) is the absence of the complex jar classes (4-7) from the Tugela samples while frequencies increase in classes 15, 16 and 18, common to both regions. From this information the slight convergence is probably coincidental rather than the

Table 5.4a *Frequencies of jar classes*

CLASS	TUGELA VALLEY					EASTERN TRANSVAAL							
	MS	ME	MH	ML	ND	LH	KP	PR	TS	PL	LD	DK	KB	SK
1	12	14	8	4	4	31	5	3	5	6	10	4	-	14
2	8	9	1	2	4	-	-	2	2	-	-	-	-	-
3	6	1	-	-	1	-	-	-	-	-	-	-	-	-
4	1	2	1	-	-	-	-	-	-	-	-	-	-	-
5	2	8	1	-	-	-	-	-	-	2	-	-	-	-
6	5	6	1	-	-	-	-	-	1	-	-	-	-	-
7	2	3	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	4	-	-	-	1	-	-	-	1
9	-	-	-	-	-	-	-	-	-	1	-	-	-	-
10	-	-	-	-	-	6	4	6	1	3	1	3	1	1
11	1	1	-	-	-	16	5	8	4	3	2	-	-	3
12	-	-	-	3	-	3	-	-	-	-	1	1	-	-
13	-	1	1	-	-	-	-	-	-	-	1	-	-	-
14	1	6	-	5	1	1	1	1	-	-	2	-	-	-
15	2	6	2	12	23	19	4	2	1	-	35	7	2	4
16	-	3	-	2	1	6	1	8	-	1	5	1	-	1
17	-	-	-	-	-	1	1	-	-	-	4	1	1	-
18	1	2	3	8	9	9	8	14	-	-	34	18	3	1
19	-	-	-	-	-	6	1	1	-	-	1	3	6	1
20	-	-	-	-	-	-	1	1	-	-	3	1	2	-
21	-	-	-	-	-	-	1	-	-	-	1	-	1	1
22	-	-	-	-	-	1	1	-	-	-	1	-	-	-
23	-	-	-	-	-	-	-	-	-	-	-	1	-	-
40	-	-	-	-	-	-	-	-	-	-	1	-	-	-
41	-	-	-	-	-	1	-	-	-	1	-	-	-	-
N class	11	13	8	7	7	13	12	10	6	8	15	10	7	9

Table 5.4b Scale frequency of jar classes.

CLASS	TUGELA VALLEY						EASTERN TRANSVAAL								
	MS	ME	MH	ML	ND		LH	KP	PR	TS	PL	LD	DK	KB	SK
1	5	5	10	1	1		5	1	1	5	5	1	1	-	10
2	5	1	1	1	1		-	-	1	1	-	-	-	-	-
3	1	1	-	-	1		-	-	-	-	-	-	-	-	-
4	1	1	1	-	-		-	-	-	-	-	-	-	-	-
5	1	1	1	-	-		-	-	-	-	1	-	-	-	-
6	1	1	1	-	-		-	-	-	1	-	-	-	-	-
7	1	1	-	-	-		-	-	-	-	-	-	-	-	-
8	-	-	-	-	-		1	-	-	-	1	-	-	-	1
9	-	-	-	-	-		-	-	-	-	1	-	-	-	-
10	-	-	-	-	-		1	1	1	1	5	1	1	1	1
11	1	1	-	-	-		1	1	1	5	1	1	-	-	1
12	-	-	-	1	-		1	-	-	-	-	1	1	-	-
13	-	1	1	-	-		-	-	-	-	-	1	-	-	-
14	1	1	-	5	1		1	1	1	-	-	1	-	-	-
15	1	1	1	10	10		1	1	1	1	-	5	1	1	1
16	-	1	-	1	1		1	1	1	-	-	1	1	-	1
17	-	-	-	-	-		-	1	1	-	-	1	1	1	-
18	1	1	1	5	5		1	5	5	-	-	5	10	5	1
19	-	-	-	-	-		1	1	1	-	-	1	1	10	1
20	-	-	-	-	-		-	1	1	-	-	1	1	1	-
21	-	-	-	-	-		-	1	-	-	-	1	-	1	1
22	-	-	-	-	-		1	1	-	-	-	1	-	-	-
23	-	-	-	-	-		-	-	-	-	-	-	1	-	-
40	-	-	-	-	-		-	-	-	-	-	1	-	-	-
41	-	-	-	-	-		1	-	-	-	1	-	-	-	-
N	19	17	17	24	20		16	16	15	14	15	23	19	20	18

Table 5.5 P/A scores for jar classes between regions 7th century. Some jar classes have been combined (see text).

	MS	ME	MH	LH	KP	PL	TS	PR
MS	-							
ME	92	-						
MH	78	76	-					
LH	45	50	32	-				
KP	50	54	35	80	-			
PL	33	40	27	56	50	-		
TS	56	60	53	56	63	57	-	
PR	67	64	47	70	89	57	75	-

TABLE 5.6. *Frequencies of jar and bowl classes*

CLASS	TUGELA					EASTERN TRANSVAAL								
	MS	ME	MH	ML	ND	LH	KP	PR	TS	PL	LD	DK	KB	SK
1	13	14	8	4	4	31	5	3	5	6	10	4	-	14
2	8	9	1	2	4	-	-	2	2	-	-	-	-	-
3	6	2	-	-	1	-	-	-	-	-	-	-	-	-
4	1	2	1	-	-	-	-	-	-	-	-	-	-	-
5	2	9	1	-	-	-	-	-	-	2	-	-	-	-
6	5	6	1	-	-	-	-	-	1	-	-	-	-	-
7	2	8	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	4	-	-	-	1	-	-	-	1
9	-	-	-	-	-	-	-	-	-	1	-	-	-	-
10	-	-	-	-	-	6	4	6	1	6	1	3	1	1
11	1	1	-	-	-	16	5	8	4	3	2	-	-	3
12	-	-	-	3	-	3	-	-	-	-	1	1	-	-
13	-	1	1	-	-	-	-	-	-	-	1	-	-	-
14	1	6	-	5	1	1	1	1	-	-	2	-	-	-
15	2	6	2	12	23	19	4	2	1	-	35	7	2	4
16	-	3	-	2	1	6	1	8	-	1	5	1	-	1
17	-	-	-	-	-	4	1	-	-	-	4	1	1	-
18	1	2	3	8	9	9	8	14	-	-	34	18	3	3
19	-	-	-	-	-	6	1	1	-	-	1	3	6	1
20	-	-	-	-	-	-	1	1	-	-	2	1	2	-
21	-	-	-	-	-	-	1	-	-	-	1	-	1	1
22	-	-	-	-	-	1	1	-	-	-	1	-	-	-
23	-	-	-	-	-	-	-	-	-	-	-	1	-	-
24	-	-	-	-	1	3	1	2	5	1	1	1	1	2
25	-	-	-	-	-	1	-	-	-	-	-	-	1	1
26	-	-	-	-	-	1	-	3	-	-	3	-	1	5
27	-	-	-	-	-	-	-	-	-	-	1	-	-	-
28	-	-	-	-	-	-	3	-	5	-	-	-	2	-
29	1	-	-	-	-	1	1	1	-	-	-	-	-	1
30	-	-	-	-	-	-	-	-	2	-	-	-	-	-
31	-	-	-	-	-	-	-	2	-	-	-	-	-	-
32	-	-	1	-	-	-	-	-	-	-	-	-	-	-
33	1	1	-	-	-	-	-	-	-	-	-	-	-	-
34	1	-	-	-	-	-	-	-	-	-	-	-	-	-
35	1	-	1	-	-	2	-	-	-	6	-	-	-	-
36	1	-	-	-	-	4	2	3	4	2	-	1	-	-
37	-	-	-	-	-	1	-	-	-	-	-	-	-	-
38	-	-	-	1	-	-	-	-	-	-	-	-	-	-
39	1	-	-	-	-	-	-	-	-	-	-	-	-	-
40	-	-	-	-	-	-	-	-	-	-	1	-	-	-
41	-	-	-	-	-	1	-	-	-	1	-	-	-	-
N Cl	17	14	10	8	8	20	16	15	10	10	19	12	11	13

TABLE 5.6. Frequencies of jar and bowl classes

CLASS	TUGELA						EASTERN TRANSVAAL								
	MS	ME	MH	ML	ND		LH	KP	PR	TS	PL	LD	DK	KD	SK
1	13	14	8	4	4		31	5	3	5	6	10	4	-	14
2	8	9	1	2	4		-	-	2	2	-	-	-	-	-
3	6	2	-	-	1		-	-	-	-	-	-	-	-	-
4	1	2	1	-	-		-	-	-	-	-	-	-	-	-
5	2	8	1	-	-		-	-	-	-	2	-	-	-	-
6	5	6	1	-	-		-	-	-	1	-	-	-	-	-
7	2	8	-	-	-		-	-	-	-	-	-	-	-	-
8	-	-	-	-	-		4	-	-	-	1	-	-	-	1
9	-	-	-	-	-		-	-	-	-	1	-	-	-	-
10	-	-	-	-	-		6	4	6	1	6	1	3	1	1
11	1	1	-	-	-		16	5	8	4	3	2	-	-	3
12	-	-	-	3	-		3	-	-	-	-	1	1	-	-
13	-	1	1	-	-		-	-	-	-	-	1	-	-	-
14	1	6	-	5	1		1	1	1	-	-	2	-	-	-
15	2	6	2	12	23		19	4	2	1	-	35	7	2	4
16	-	3	-	2	1		6	1	8	-	1	5	1	-	1
17	-	-	-	-	-		4	1	-	-	-	4	1	1	-
18	1	2	3	8	9		9	8	14	-	-	34	18	3	3
19	-	-	-	-	-		6	1	1	-	-	1	3	6	1
20	-	-	-	-	-		-	1	1	-	-	2	1	2	-
21	-	-	-	-	-		-	1	-	-	-	1	-	1	1
22	-	-	-	-	-		1	1	-	-	-	1	-	-	-
23	-	-	-	-	-		-	-	-	-	-	-	1	-	-
24	-	-	-	-	1		3	1	2	5	1	1	1	1	2
25	-	-	-	-	-		1	-	-	-	-	-	-	1	1
26	-	-	-	-	-		1	-	3	-	-	3	-	1	5
27	-	-	-	-	-		-	-	-	-	-	1	-	-	-
28	-	-	-	-	-		-	3	-	5	-	-	-	2	-
29	1	-	-	-	-		1	1	1	-	-	-	-	-	1
30	-	-	-	-	-		-	-	-	2	-	-	-	-	-
31	-	-	-	-	-		-	-	2	-	-	-	-	-	-
32	-	-	1	-	-		-	-	-	-	-	-	-	-	-
33	1	1	-	-	-		-	-	-	-	-	-	-	-	-
34	1	-	-	-	-		-	-	-	-	-	-	-	-	-
35	1	-	1	-	-		2	-	-	-	-	6	-	-	-
36	1	-	-	-	-		4	2	3	4	2	-	1	-	-
37	-	-	-	-	-		1	-	-	-	-	-	-	-	-
38	-	-	-	1	-		-	-	-	-	-	-	-	-	-
39	1	-	-	-	-		-	-	-	-	-	-	-	-	-
40	-	-	-	-	-		-	-	-	-	-	1	-	-	-
41	-	-	-	-	-		1	-	-	-	1	-	-	-	-
N Cl	17	14	10	8	8		20	16	15	10	10	19	12	11	13

Table 5.7. P/A scores for jar and bowl classes between regions, 9th century

	ML	ND	LD	DK	KB	SK	PR
ML	--						
ND	75	--					
LD	41	44	--				
DK	43	48	63	--			
KB	21	32	59	69	--		
SK	40	50	65	58	61	--	
PR	52	61	65	67	56	74	--

Table 5.8 Seventh century sites, comparison of class *frequencies*

	Tugela			Eastern Transvaal					
CLASS	MS	ME	MH	LH	KP	PL	TS	PR	
3	6	2	-	-	-	-	-	-	
4	1	2	1	-	-	-	-	-	
7	2	8	-	-	-	-	-	-	
32	-	-	1	-	-	-	-	-	
33	1	1	-	-	-	-	-	-	
34	1	-	-	-	-	-	-	-	
39	1	-	-	-	-	-	-	-	
13	-	1	1	-	-	-	-	-	
2	8	9	1	-	-	-	2	2	
5	2	8	1	-	-	2	-	-	
6	5	6	1	-	-	-	1	-	
14	1	6	-	1	1	-	-	1	
1	13	14	8	31	5	6	5	3	
15	2	6	2	19	4	-	1	2	
16	-	3	-	6	1	1	-	8	
18	1	2	3	2	8	-	-	14	
11	1	1	-	16	5	3	4	8	
29	1	-	-	1	1	-	-	1	
35	1	-	1	2	-	-	-	-	
36	1	-	-	4	2	2	4	3	
12	-	-	-	3	-	-	-	-	
24	-	-	-	3	1	1	5	2	
8	-	-	-	4	-	1	-	-	
9	-	-	-	-	-	1	-	-	
10	-	-	-	6	4	6	1	6	
17	-	-	-	4	1	-	-	-	
19	-	-	-	6	1	-	-	1	
20	-	-	-	-	1	-	-	1	
21	-	-	-	-	1	-	-	-	
22	-	-	-	1	1	-	-	-	
37	-	-	-	1	-	-	-	-	
25	-	-	-	1	-	-	-	-	
26	-	-	-	1	-	-	-	1	
41	-	-	-	1	-	1	-	-	
23	-	-	-	-	3	-	5	-	
30	-	-	-	-	-	-	2	-	
31	-	-	-	-	-	-	-	3	
37	-	-	-	1	-	-	-	-	

result of any interaction.

These differences noted between and within regions are closer to those between K2, Eiland and Kgopolwe than those between *Mapungubwe and Kgopolwe* (Table 4.3). These three thirteenth century groups are all thought to derive from Transvaal variants of the Kalundu Tradition and have been interpreted as separate branches of a new tradition (Huffman 1978). I interpreted the differences between Eiland and K olwe as at facies level within the same tradition (Chapter 4). The scale of differences between the seventh century sites in the Tugela valley and the eastern Transvaal are of the same order and, therefore, *indicate that Early Iron Age* ceramic styles found at Tugela and Lydenburg were facies of the same tradition. This is consistent with Huffman's (1978a, 1979), *Maggs's* (1980b) and Hall's (1987) classification of these Early Iron Age sites in one tradition, but gives a finer resolution of the relationship between them. I call these facies 'Msuluzi' for the Tugela valley, following Maggs (1980a,b, 1984b,c), and 'Lydenburg' for the eastern Transvaal.

Features which distinguish the two facies in the seventh century are shown in Table 5.8. These include complex jars that are nearly mutually exclusive to the Tugela (Classes 2-7) or to the eastern Transvaal (Classes 8-11) and bowls. Simpler recurved jars are common to both. Classes 17 and 19 are variants of the jars with multiple horizontal lines or multiple bands in the neck and are found only in the eastern Transvaal, as are classes which

are less common, such as 20, 21, 23, 40 and 41 (Appendices 9 and 11). There is hardly any overlap in bowl classes between the two regions though bowl forms are very similar.

The level of difference between the Tugela valley and eastern Transvaal sites remains at the facies level in the ninth century. Features which serve to distinguish the two facies in the ninth century are shown in Table 5.9. Though the complex jar classes are not so common, some still serve to separate the two regions as do some variants of simpler jars and the bowls.

Having shown that the nature of the discontinuity between Tugela and eastern Transvaal sites is that of different facies in the same tradition, I now turn to the nature of micro-scale variation within each region. This is possible to examine in more detail than the thirteenth century material (Chapter 4) because the samples are less fragmentary.

Micro-scale variation within each region

I divided the two regions into smaller areas (Fig. 5.1). The eastern Transvaal was divided into the Lydenburg basin, the Badfontein basin and the lowveld. I divided the upper Tugela valley into Moenen and Muden because of the steep topography which separates them. The lower Tugela area is separated from them by 60 km.

To clarify the nature of variation within regions I constructed the following further hypotheses:

Table 5.9 Ninth century sites, comparison of class frequencies

CLASS	TUGELA		E. TRANSVAAL			
	ML	ND	LD	DK	KB	SK
2	2	4	-	-	-	-
3	-	1	-	-	-	-
3B	1	-	-	-	-	-
14	5	1	2	-	-	-
1	1	1	10	4	-	14
15	12	23	35	18	3	3
16	2	1	5	1	-	1
18	8	9	34	18	3	3
12	3	-	1	1	-	-
24	-	1	1	1	1	2
13	-	-	1	-	-	-
11	-	-	2	-	-	3
29	-	-	-	-	-	1
15	-	-	6	-	-	-
8	-	-	-	-	-	1
36	-	-	-	1	-	-
40	-	-	1	-	-	-
10	-	-	1	3	1	1
17	-	-	4	1	1	-
19	-	-	1	3	6	1
20	-	-	2	1	2	-
21	-	-	1	-	1	1
22	-	-	1	-	-	-
23	-	-	-	1	-	-
25	-	-	-	1	1	-
26	-	-	3	-	1	5
27	-	-	1	-	-	-
28	-	-	-	-	2	-

4. All differences between sites within either of the two larger regions are due to chance and the ceramic sample shows a high degree of homogeneity within each region.

5. Differences between the six subregions demonstrate distinct Early Iron Age groups.

6. The ceramic styles undergo change through time and so sites of different time periods differ but no significant differences exist between contemporary sites within each larger region.

7. Differences between sites are controlled by individual potter's preference and therefore all sites show significant differences from one another.

I first checked the P/A scores to establish whether there were any trends which differentiated between subareas or time periods for each region. Presence/absence scores for the Tugela valley sites indicate differences between the ninth and seventh century sites (Table 5.10), but the higher scores of Ndondondwane and the late period at Magogo with the early component at Magogo are anomalous. Using jar classes only, a scale index, which takes frequency into account, shows marked differences between sites of the two periods (Table 5.11). Some variation in ceramic style in the Tugela valley can, therefore, be ascribed to temporal differences between the sites. However, since the main difference is in relative frequencies and the loss of a few classes I believe that the differences only indicate trends within one facies. I therefore refer to the seventh century material as early

Table 5.10. P/A scores for jar and bowl classes in the Tugela valley

	MS	ME	MH	ML	ND
MS	--				
ME	77	--			
MH	64	67	--		
ML	43	57	44	--	
ND	48	61	44	75	--

Table 5.11. Scale scores for jar classes in the Tugela valley

	MS	ME	MH	ML	ND
MS	--				
ME	83	--			
MH	61	71	--		
ML	23	29	20	--	
ND	31	38	22	86	--

Msuluzi and to the ninth century material as late Msuluzi.

There is no such clear difference between sites of the two time periods in the eastern Transvaal, even if one removes the lowveld sites or uses P/A or scale scores (Tables 5.12, 5.13).

Neither region shows consistent micro-regional differences or major differences between sites using either P/A or scale scores (Tables 5.14 - 5.17), negating, at this level of analysis, hypotheses 4 and 6.

Table 5.12. P/A scores for jar classes in the eastern Transvaal

	LH	KP	PL	TS	PR	DK	LD	KB	SK
LH	--								
KP	70	--							
PL	53	48	--						
TS	41	56	50	--					
PR	69	77	43	56	--				
DK	69	69	43	45	67	--			
LD	74	79	34	33	65	63	--		
KB	52	67	20	38	56	67	59	--	
SK	69	74	55	48	74	58	65	61	--

Table 5.13. Scale scores for jar classes in the eastern Transvaal

	LH	KP	PL	TS	PR	DK	LD	KB	SK
LH	--								
KP	61	--							
PL	53	26	--						
TS	52	27	48	--					
PR	52	87	28	28	--				
DK	44	69	18	18	67	--			
LD	55	92	21	22	70	62	--		
KB	27	61	6	12	53	51	51	--	
SK	69	47	55	50	44	32	39	26	--

Table 5.14 P/A scores for jar classes in the Tugela valley, subregions

	MS	ME	MH	ML	ND
MS	--				
ME	77	--			
MH	64	67	--		
ML	43	57	44	--	
ND	18	64	44	75	--

Table 5.15. Scale scores for jar classes in the Tugela valley, subregions

	MS	ME	MH	ML	ND
MS	--				
ME	33	--			
MH	61	71	--		
ML	23	29	20	--	
ND	31	38	22	86	--

Table 5.16 P/A scores for subregions in the eastern Transvaal.

	LH	DK	KB	KP	LD	PR	PL	TS	SK
LH	-								
DK	69	-							
KB	52	67	-						
KP	70	59	67	-					
LD	74	63	59	79	-				
PR	69	67	56	77	55	-			
PL	53	43	20	48	34	49	-		
TS	41	45	38	56	33	56	50	-	
SK	69	58	61	74	65	74	55	48	-

Table 5.17 Scale scores for subregions in the eastern Transvaal, jars only.

	LH	DK	KB	KP	LD	PR	PL	TS	SK
LH	-								
DK	44	-							
KB	27	51	-						
KP	61	69	61	-					
LD	55	62	51	82	-				
PR	52	67	53	87	70	-			
PL	63	18	6	26	21	23	-		
TS	52	18	12	27	22	36	43	-	
SK	69	32	26	47	39	44	55	50	-

Because the nature of similarities and differences using affiliate sets was fairly gross, I now compare the *relative frequencies of particular attributes or attribute pairs* between pairs of sites using a chi-square statistic.

Eastern Transvaal

Chi-square scores for pairs of sites were calculated for the following attributes:

1. motifs on the rim bands of recurved jars
2. relative use of isolated versus continuous motifs on the bodies of recurved jars
3. types of multiple band decoration in . necks of recurved jars
4. the number of bands in multiple band decor.
5. ratios of continuous to interrupted multiple bands
6. the ratio of a rim or rim-shoulder layout on everted rim jars (cf. classes 8-11) to upright neck jars with multiple bands in the neck (cf. classes 18,19)

Attributes such as particular isolated or continuous motifs on the shoulder, the types of interruptions on multiple band motifs or any attributes of bowls, have frequencies that are too small for statistical analysis. Other attributes, such as single band motifs on the neck, yield scores that are not significant between any of the sites, probably owing to their inherent simplicity.

In Tables 5.18 - 5.30 NS means that the chi-square score is not significantly different between that pair of sites. The other scores give the probability of the null

hypothesis being correct. The highest probability at which I was prepared to reject the null hypothesis was 0,1.

Two attributes show consistent significant relationships to time periods. The first is the number of bands on jars (Table 5.18). Significantly different scores occur between all sites and Klingbeil (KB) with the only source of difference being the greater number of jars with four or more bands on them at Klingbeil. This feature is not easily recognised and cannot, therefore, be used diagnostically.

The second significant difference is the ratio of everted rim jars with rim/rim-shoulder layouts to upright jars with multiple band decoration (Table 5.19). In this case there are significant differences between seventh and ninth century sites but not within periods. The differences are marked by a strong decrease in the number of everted rim jars (classes 8-11) with time. Klingbeil, which may be slightly later that the other sites, has no everted rim jars but does have an upright jar with a rim shoulder layout which is a transformation of the original type. The original assessment that Klingbeil represents a second phase of the Early Iron Age at Lydenburg (Evers 1980) was made because everted rim jars were no longer present. This jar type died out gradually at about the end of the ninth century and a Klingbeil type of assemblage is the culmination of that trend. The gradual nature of this trend and the lack of clear cut differences in P/A or scale scores between Klingbeil and the other sites suggest that the phase distinction is arbitrary. The distinction

Table 5.18 Types of multiple band decoration, eastern Transvaal.

A. Frequencies

	LH	DK	LD	KP	KB	PR
	22	50	129	35	9	46
	21	55	78	29	3	16
	7	40	94	20	10	11
or	5	2	17	2	2	5
	55	147	318	86	24	78

B. Chi-square scores

	LH	DK	LD	KP	KB	PR
LH	-					
DK	10,90	-				
LD	9,32	11,05	-			
KP	5,22	1,49	4,48	-		
KB	10,15	9,63	2,85	7,63	-	
PR	6,24	30,10	12,13	9,78	10,08	-

C. Probability for the null hypothesis (three degrees of freedom).

	LH	DK	LD	KP	KB	PR
LH	-					
DK	,02	-				
LD	,05	,02	-			
KP	NS	NS	NS	-		
KB	,02	,05	NS	NS	-	
PR	,1	,001	,01	,05	,02	-

Table 5.19 Jars with rim/rim-shoulder decoration : jars with multiple bands in the neck

A. Frequencies.

	LH	KP	LD	DK	PR
Rim/rim-shoulder	140	115	159	91	223
Multiple bands	74	78	313	148	87
	214	193	477	239	310

B. Chi-square scores

	LH	KP	PR	LD	DK
LH	-				
KP	1,52	-			
PR	2,55	8,23	-		
LD	60,37	39,03	119,63	-	
DK	34,06	19,96	63,21	1,77	-

C. Probability (one degree of freedom)

	LH	KP	PR	LD	DK
LH	-				
KP	NS	-			
PR	NS	,01	-		
LD	,001	,001	,001	-	
DK	,001	,001	,001	NS	-

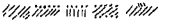
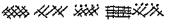
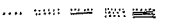
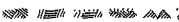
is useful as a horizon marker but does not represent a radical break in ceramic style. The difference between Klingbeil and earlier sites is more like that between early and late Msuluzi than between K2 and Mapungubwe where new forms were introduced. I propose, therefore, to refer to the original 'Klingbeil' phase as late Lydenburg and to the other sites as early Lydenburg.

The other four attributes (Tables 5.20 - 5.23) produce mixed results when viewed from either a time or spatial perspective. Some sites are not significantly different, while others are very different. The same is true of scores between sites from separate areas or time periods. It appears, therefore, that these attributes show no systematic changes over time or space. One possible exception is the kind of single band decoration found on jar rims (Table 5.? a). Lowveld sites were dominated by hatching and complex hatched designs (interlocking parallelograms or triangles), while both Lydenburg and Badfontein sites were dominated by hatching and cross hatching. The equivocal scores may have been influenced by fragmentation of pieces but the scale of the difference is so small as to be negligible on its own.

It is possible that some of the variation noted in these four attributes reflects individual potters' choices. The ratios of pieces with interrupted multiple bands to those with continuous bands may also have been affected by the fragmentation of samples since the interruptions occupy a small portion of the decorated surface.

Table 5.20 Motifs on jar rimbands, eastern Transvaal.

A Frequencies.

	LH	DK	LD	KP	PL	TS	PR	SK
	54	33	94	61	20	39	151	13
	49	36	41	26	7	3	11	5
	4	7	11	10	2	3	9	1
	28	10	20	13	6	4	6	6
	5	5	3	5	6	69	30	8
	140	91	159	114	41	118	207	36

B. Chi-square scores.

	LH	DK	LD	KP	PL	TS	PR	SK
LH	-							
DK	5,3	-						
LD	11,17	10,07	-					
KP	12,5	8,19	2,20	-				
PL	9,84	8,95	14,01	6,08	-			
TS	118,45	25,39	115,01	37,74	35,14	-		
PR	94,54	79,15	61,33	39,27	19,19	70,26	-	
SK	22,12	13,30	25,98	12,22	2,45	26,10	25,12	-

C. Probability (four degrees of freedom).

	LH	DK	LD	KP	PL	TS	PR	SK
LH	-							
DK	NS	-						
LD	,05	,02	-					
KP	,02	NS	NS	-				
PL	,05	NS	,01	NS	-			
TS	,001	,001	,001	,001	,001	-		
PR	,001	,001	,001	,001	,001	,001	-	
SK	,001	,01	,001	,02	NS	,001	,001	-

Table 5.21 Proportions of continuous to isolated motifs on the bodies of jars, eastern Transvaal

A. Frequencies

	LH	DK	LD	KP	PL	TS	PR	SK
Continuous	21	5	20	14	20	11	42	3
Isolated	41	2	14	24	15	20	26	8
	62	7	34	38	35	31	68	11

B. Chi-square scores

	LH	DK	LD	KP	PL	TS	PR	SK
LH	-							
DK	2,36	-						
LD	5,59	0,39	-					
KP	0,92	2,90	3,47	-				
PL	4,97	0,49	0,02	3,02	-			
TS	0,23	3,02	3,53	0,01	3,10	-		
PR	10,11	0,25	0,83	6,09	0,21	5,92	-	
SK	0,19	3,38	3,31	0,35	2,99	0,25	4,61	-

C. Probability (one degree of freedom)

	LH	DK	LD	KP	PL	TS	PR	SK
LH	-							
DK	NS	-						
LD	,02	NS	-					
KP	NS	NS	NS	-				
PL	,02	NS	NS	NS	-			
TS	NS	,1	,1	NS	,01	-		
PR	,01	NS	NS	,02	NS	,02	-	
SK	NS	,1	,1	NS	,01	NS	,05	-

Table 5.22 Number of bands in multiple band decoration, eastern Transvaal

A. Frequencies

N bands	LH	DK	LD	KP	PR	KB
2	7	11	34	9	14	2
3	5	5	13	4	7	4
4+	8	5	7	2	12	10
	20	21	59	15	33	16

B. Chi-square scores

	LH	DK	LD	KP	PR	KB
LH	-					
DK	3,36	-				
LD	3,27	2,10	-			
KP	2,63	0,79	0,06	-		
PR	2,93	0,96	7,70	2,33	-	
KB	2,70	12,95	20,59	11,20	4,66	-

C. Probability (one degree of freedom)

	LH	DK	LD	KP	PR	KB
LH	-					
DK	NS	-				
LD	,05	NS	-			
KP	NS	NS	NS	-		
PR	NS	NS	,05	NS	-	
KB	,1	,01	,001	,01	,1	-

Table 5.23 Interrupted vs continuous multiple bands, eastern Transvaal

A. Frequencies

	LH	DK	LD	KP	KB	PR
Interrupted	15	11	19	3	14	5
Continuous	59	134	299	75	17	78
	74	145	318	78	31	83

B. Chi-square scores

	LH	DK	LD	KP	KB	PR
LH	-					
DK	1,38	-				
LD	15,49	2,53	-			
KP	9,07	2,13	0,54	-		
KB	5,63	23,49	50,69	27,30	-	
PR	7,15	0,83	0,00	0,41	34,68	-

C. Probability (one degree of freedom)

	LH	DK	LD	KP	KB	PR
LH	-					
DK	,05	-				
LD	,01	NS	-			
KP	,01	NS	NS	-		
KB	,02	,001	,001	,001	-	
PR	,01	NS	NS	NS	,001	-

Tugela valley

Chi-square scores for pairs of sites were calculated from contingency tables for the following attributes:

1. *motifs on rim bands of recurved jars*
2. relative use of continuous to isolated motifs on the bodies of recurved jars
3. types of multiple band decoration in the neck of *recurved jars*
4. ratios of pots with a rim/rim-neck/rim-neck-body decoration (classes 1-7) to those with decoration in the neck only (classes 15-18)
5. relative use of single bands, multiple bands and multiple horizontal lines in the necks of all recurved jars
6. proportions of single bands to multiple bands in the neck of all recurved jars
7. types of single band in the neck of all recurved jars

Frequencies from Mhlopeni were too low for certain attributes and the site was excluded on those occasions.

There are four sets of results. The differences between sites for types of single and multiple bands in jar necks (Tables 5.24, 5.25) are not significant and may be ascribed to chance. This implies high homogeneity between sites for these attributes. Secondly, two attributes, jars with rim decoration combinations versus those decorated on the neck only (Table 5.26), and relative use of multiple bands to single bands to multiple

Table 5.24 Single band types in the neck, Tugela valley

A. Frequencies

	MS	ME	ML	ND
	4	13	12	10
	8	11	7	7
	13	30	23	11
	25	54	42	28

B. Chi-square scores

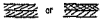
	MS	ME	ML	ND
MS	-			
ME	1,62	-		
ML	3,13	7,13	-	
ND	5,16	7,27	1,30	-

C. Probability (two degrees of freedom)

	MS	ME	ML	ND
MS	-			
ME	NS	-		
ML	NS	NS	-	
ND	NS	,05	NS	-

Table 5.25 Multiple band types in the neck, Tugela valley

A. Frequencies

	MS	ME	ML	ND
	20	22	17	13
	6	6	11	5
	11	11	15	14
 or	9	5	5	4
	46	44	48	36

B. Chi-square scores

	MS	ME	ML	ND
MS	-			
ME	1,19	-		
ML	,13	2,55	-	
ND	2,68	2,10	1,24	-

C. Probability (three degrees of freedom)

	MS	ME	ML	ND
MS	-			
ME	NS	-		
ML	NS	NS	-	
ND	NS	NS	NS	-

Table 5.26 Rim/rim-neck/rim-neck-body vs neck-body placements, Tugela valley

A. Frequencies

	MS	ME	MH	ML	ND
Rim/rim-neck/rim-neck-body	38	50	11	7	9
neck-body	4	17	7	30	36
	42	67	13	37	45

B. Chi-square scores

	MS	ME	MH	ML	ND
MS	-				
ME	4,71	-			
MH	7,26	1,28	-		
ML	41,11	28,87	9,79	-	
ND	43,44	32,25	10,05	0,02	-

C. Probability (one degree of freedom)

	MS	ME	MH	ML	ND
MS	-				
ME	,05	-			
MH	,01	NS	-		
ML	,001	,001	,005	-	
ND	,001	,001	,005	NS	-

horizontal lines in the neck (Table 5.27), have scores which are nearly all highly significantly different from one another. In the latter case the greatest variation occurs in the use of multiple horizontal lines. This variation is shown in the frequencies (Table 5.27a) and another source of variation is shown in the results for the proportion of single to multiple bands (Table 5.28). This last and the use of single bands on the rim (Table 5.29) show mixed results. The remaining score, the proportion of continuous to isolated motifs on the body (Table 5.30), indicates a possible time trend. All scores between the early sites are extremely low, whereas the later period at Magogo is significantly different from all early sites. The later period at Magogo has a greater proportion of isolated motifs. Ndondondwane also has this characteristic but unfortunately the sample is too small for reliable use of a chi-square statistic.

Discussion

The nature of the difference between the ceramics of the Early Iron Age in the two regions indicates that they belong to separate facies of the same tradition. The distance that separates the two regions, approximately 400 km, makes it difficult to assess the nature of boundaries directly, but two factors from this analysis may be taken into account. The first is that the detailed analysis of attributes helps to assess the nature of change in ceramic style over the smaller distances within each group. Of great importance here is that the evidence for change is

Table 5.27 Multiple horizontal lines vs single bands vs multiple bands in the neck, Tugela valley

A. Frequencies

	MS	ME	MH	ML	ND
	15	43	21	5	6
	40	40	13	47	37
	25	52	4	49	52
	80	135	38	101	95

B. Chi-square scores

	MS	ME	MH	ML	ND
MS	-				
ME	9,53	-			
MH	20,34	11,77	-		
ML	11,06	26,60	48,77	-	
ND	12,24	21,02	47,63	1,99	-

C. Probability (two degrees of freedom)

	MS	ME	MH	ML	ND
MS	-				
ME	,01	-			
MH	,001	,005	-		
ML	,005	,001	,001	-	
ND	,005	,001	,001	NS	-

Table 5.28 Multiple bands vs single bands in the neck, Tugela valley

A. Frequencies

	MS	ME	MH	ML	ND
Multiple bands	40	40	13	47	37
single bands	25	52	4	49	52
	65	92	17	96	89

B. Chi-square scores

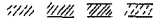
	MS	ME	MH	ML	ND
MS	-				
ME	1,97	-			
MH	1,31	6,24	-		
ML	2,47	0,49	4,38	-	
ND	5,99	0,07	6,97	1,02	-

C. Probability (one degree of freedom)

	MS	ME	MH	ML	ND
MS	-				
ME	,05	-			
MH	NS	,025	-		
ML	NS	NS	,05	-	
ND	,025	NS	,025	NS	-

Table 5.29 Single bands on the rim, Tugela valley

A. Frequencies

	MS	ME	MH	ML	ND
	12	24	10	4	7
	65	81	21	14	5
	14	13	2	5	0
	91	118	33	23	12

B. Chi-square scores

	MS	ME	MH	ML	ND
MS	-				
ME	2,33	-			
MH	5,84	1,36	-		
ML	0,97	1,93	3,60	-	
ND	1',98	9,12	3,29	7,34	-

C. Probability (two degrees of freedom)

	MS	ME	MH	ML	ND
MS	-				
ME	NS	-			
MH	,05	NS	-		
ML	NS	NS	NS	-	
ND	,001	,025	NS	,05	-

Table 5.30 Continuous vs isolated motifs on the body, Tugela valley

A. Frequencies

	MS	ME	MH	ML	ND
Continuous	12	26	11	2	1
Isolated	9	19	5	17	4
	21	45	16	19	5

B. Chi-square scores

	MS	ME	MH	ML
MS	-			
ME	0,00	-		
MH	0,52	1,06	-	
ML	9,53	12,11	12,68	-

C. Probability (one degree of freedom)

	MS	ME	MH	ML
MS	-			
ME	NS	-		
MH	NS	NS	-	
ML	,005	,001	,001	-

not systematic as one would expect it to be if change were continuous through space (cf. Renfrew 1977).

Secondly, the recurrence of particular complex combinations of motifs at different sites shows that decorative art style in the Early Iron Age was not just at the whim of individual potters but that there were combinations that were socially acceptable and others that were not. In previous analyses (Evers 1977, 1982) I have shown that only a small proportion of the permutations were ever used. This is strong evidence that there was a clearly structured art style to which potters conformed. Furthermore, this structure is probably linked to the style's involvement in the communication of cultural information as we saw in Chapter Two. Social connotations in the Pedi and Zulu examples, appear to have been concerned with protection from ritual pollution and the proper relations between the sexes. While it may be true that most people would not consciously read those meanings each time they saw a decorated item, the presence of items that did not conform to the conventions of the style would arouse immediate suspicion and probable counteraction (cf. Huffman 1972; Washburn 1983a).

On these grounds I would expect to find boundaries that are fairly well defined. If one includes smaller *samples from surface collections the size of ceramic* style areas is greatly increased. Figure 5.3 shows the distributions of sites belonging to the Lydenburg and Nsuluzi facies. Lydenburg sites are distributed over an area of at least 150 x 160 km, approximately 24 000 square

kilometres. Msuluzi sites are found in a strip between the coast and the Natal highlands about 300 km long and up to 150 km wide, about 30-45 000 square kilometres. North of the Lydenburg sites there is a gap of about 100 km of unknown territory before one encounters concentrated distributions of sites with ceramics like those from Happy Rest (Matakoma) (Meyer 1984, 1986; Prinsloo 1974). These in turn are as much as 300 km from Happy Rest itself. These figures suggest that during the Early Iron Age there were large areas with very little change in decorative art style over space and comparatively small distances with substantial change between them. Because there are changes in communication in non-verbal contexts one may expect similar changes in linguistic ones as well. These may become more pronounced over time.

Several workers (Huffman 1979; Evers 1981, 1983; Maggs 1984c) have suggested that Matakoma and Broederstroom are part of the same tradition as the EIA ceramics from Natal and the eastern Transvaal. To these I now briefly turn.

To assess these statements I rely on published material and the small samples of Matakoma material excavated by Meyer (1986) in the Kruger National Park. There is sufficient material to permit correlations to be made with Msuluzi and Lydenburg classes.

Ceramics from Broederstroom (Mason 1986: figs 62, 69, 76-85, 311-320) include many of the classes found at Msuluzi and Lydenburg sites including some of the more complex forms (Appendix 14) from both facies. Single band motifs are the same at all the sites but isolated motifs

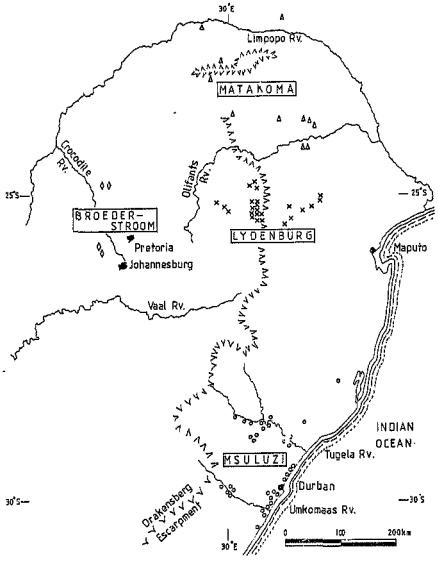


Figure 5.3 Distribution of Msuluzi, Lydenburg, Broederstroom and Matakoma sites

are not exactly the same. I believe therefore that Broederstroom belongs to the Kalundu Tradition but to a separate facies.

Illustrated material from Happy Rest (de Vaal 1963; Voigt and Plug 1984), Klein Afrika (Prinsloo 1974), Le 6, Le 7 and Ol 20 (Meyer 1986) include many of the same classes as Broederstroom, Lydenburg and Msuluzi (Appendix 15), and there are several new classes. The former include many of the more complex jar classes and bowls. Rim decoration is the same as in the facies described earlier in this chapter. Some isolated motifs are different from those at Lydenburg sites and isolated motifs are much less common at Matakoma sites. The clear links with Lydenburg and Msuluzi suggest that Matakoma should also be placed in the Benfica Tradition as a fourth facies.

The demonstration that Broederstroom, Matakoma, Lydenburg and Msuluzi are four facies of the same tradition argues for a common origin for them all. The nature of this origin is crucial but disputed. Briefly summarised, the three hypotheses for the advent of the Iron Age are: first, an hypothesis in which migrations from the northeast and the northwest entered southern Africa more-or-less simultaneously. The migrants brought with them a fully fledged Iron Age society and culture (Phillipson 1977, 1985; Huffman 1979, in prep.; Evers 1981; Denbow 1986). Secondly, there was a single migration along the eastern seaboard followed by a movement inland after the ceramic style had changed (Maggs 1980a,b). Thirdly, there was a small initial migration along the

eastern seaboard followed by a movement inland after the ceramic style had changed (Maggs 1980a,b). Thirdly, there was a small initial migration along the eastern seaboard involving people with agriculture and metallurgy. The rest of the Iron Age technology was acquired through trade and over a period of time a new social formation came into being. Exchange in this new social formation was dominated by cattle rather than the earlier trade in pots containing grain.

The evidence which enables us to decide between these hypotheses comprises the contents of the earliest sites, the dates for the EIA as a whole and the nature of the ceramic style.

Two early Iron Age traditions have been recognised south of the Limpopo. One, represented by Matola, has been found along the eastern seaboard (da Cruz e Silva 1976; Hall 1980; Maggs 1980a), in the interior in the eastern Transvaal lowveld (Klapwijk 1974; Evers 1979, 1981; Plug 1984, in prep.; Meyer 1986), in the Buhwa district of Zimbabwe (Huffman 1978b), and at Castle Cavern in Swaziland (Beaumont and Vogel 1972). Elements that are present at Matola sites include agriculture, metallurgy, saltmaking, living in villages, pottery manufacture, exploitation of marine resources, hunting and cattle herding. The amount of livestock is very low but this is due to a number of factors, including poor preservation of bone (Klapwijk 1974, Maggs 1980), the specialised nature of some sites such as Matola, Enkwazini and Eiland salt works (da Cruz e Silva 1976; Evers 1981; Hall 1980)

and perhaps tsetse fly (Plug 1984). Livestock may have been uncommon. Dates for Matola sites range from the second to the sixth centuries (Table 5.31; Fig. 5.4).

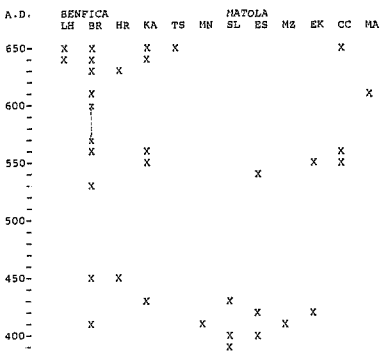
The second Early Iron Age Tradition, Benfica, has been described in this chapter. Apart from the Natal coastal strip and the eastern Transvaal lowveld where there is an overlap in the distributions of Matola and Lydenburg, nearly all Benfica sites lie to the west and north of Matola. Maggs used this distribution, particularly in its Natal context, to suggest that Msuluzi and Lydenburg developed out of Matola and moved inland. This is refuted by the radiocarbon dates (Table 5.31; Fig. 5.4) which show that, while the Msuluzi and Lydenburg dates are generally younger than the earliest Matola dates, Matakoma and Broederstroom, in the far interior, are largely contemporaneous with Matola. The chrono-spatial distribution of dates is reversed from what one might expect if Maggs's hypothesis was correct. Maggs (1980a) also suggested that that the early dates and Matola-like sherds from Klein Afrika and Happy Rest may indicate an earlier occupation by Matola people. However, the Matola-like pieces were found with Matakoma sherds in the same features (Maggs 1984c) and must therefore be contemporaneous. Furthermore, an earlier Matola occupation cannot *be postulated for either Broederstroom* (Mason 1986) or Maunatlala (Denbow 1986). The contemporeinity of the two traditions and the chrono-spatial distribution of dates argues for separate origins.

The nature of the ceramic styles also argues for an

Table 5.31 Radiocarbon dates for the earliest Iron Age occupation of southern Africa

SITE	LAB.NO.	DATE A.D.	*CALIBRATED MIDPOINT*
A. Kalundu			
Lydenburg heads site	*Pta-328*	490+-50	640
Lydenburg heads site	Pta-1631	540+-50	650
Plaston	Pta-1635	535+-50	690
Klipspruit	Wits-1219	570+-70	670
Broederstroom	UCLA-1791A	490+-50	630
Broederstroom	UCLA-1791B	460+-50	610
Broederstroom	RL-351	430+-110	570, 590
Broederstroom	KN-2643	350+-50	450
Broederstroom	*Pta-82*	500+-100	640
Broederstroom	WITS-871	420+-50	560
Broederstroom	KN-2644	390+-65	410
Broederstroom	Pta-85	590+-100	680
Broederstroom	Pta-1375	410+-40	550
Broederstroom	Pta-1384	730+-40	870
Broederstroom	Pta-1343	750+-40	880
Broederstroom	Wits-870	510+-50	650
Happy Rest (Matakoma)	Pta-2421	350+-50	450
Happy Rest	Pta-2414	470+-50	630
Klein Afrika	Pta-1168	330+-50	430
Klein Afrika	Pta 2415	415+-50	560
Klein Afrika	Pta-1321	500+-40	640
Klein Afrika	Pta-1230	530+-40	650
Klein Afrika	*Pta-2420*	540+-50	660
Tsh 1	Pta-3825	510+-50	650
Maunatlala	n/a	380+-140	410
Mpame	Pta-2019	640+-60	690
Mpame	Pta-2045	720+-40	810, 850
Mauluzi	Pta-2195	610+-40	690
Maulusi	Pta-2197	580+-30	670
Mhlopeni	Pta-2878	550+-50	660
Nagogo	Pta-2874	590+-50	670
Nagogo	Pta-1716	630+-50	690
Ndumu	Pta-002	630+-40	690
B. Matola			
Silver Leaves	Pta-2360	250+-50	390
Silver Leaves	Pta-2159	250+-30	390
Silver Leaves	Pta-901	270+-55	400
Silver Leaves	Pta-914	330+-50	430
Eiland saltworks	Pta-1524	270+-50	400
Eiland saltworks	Pta-1608	320+-50	420
Eiland saltworks	Pta-1607	300+-50	540
Nsongani	Pta-1909	280+-50	410
Enkwazini	Pta-1847	300+-50	*420*
Enkwazini	Pta-1997	410+-60	550
Castle Cavern	Grd-5315	400 +-30	550
Castle Cavern	Y-1713	400+-60	550
Castle Cavern	*GrN-5022*	415+-30	560
Castle Cavern	Y-1395	520+-100	670
Ha.38.1	Pta-3725	470+-50	610
Matola	R-1327	70+-50	

Sources: Beaumont and Vogel 1972; Denbow 1986; Evers 1981; Hall 1980; Hall and Vogel 1980; Maggs 1980a,b, pers. comm. 1988; Mason 1986; Meyer 1986.



LH = Lydenburg heads site; BR = Broederstroom;
HR = Happy Rest; KA = Klein Afrika; TS = Tsh.1;
MN = Maunatlala; SL = Silver Leaves; ES = Eiland
saltworks; MZ = Mzonjani; EK = Enkwazini;
CC = Castle Cavern; MA = Ma.38.

Figure 5.4 Midpoints of Matola and early Kalundu radiocarbon dates calibrated according to Stuiver and Pearson's (1986) curve

origin of Kalundu different from Matola. The discussion of the structure of style in Chapter One implies that continuity in ceramic style must be expressed in the total style theme - the combinations of shapes, design layouts and motifs - not just in individual traits. The discontinuity between Matola and Msuluzi is great. The more complex Matola design layouts and associated motifs are not found in Msuluzi. Similarly, the characteristic complex layouts and motifs of Msuluzi cannot be derived from Matola. Two centuries separate the latest Matola from the earliest known Msuluzi. The kinds of local development seen in the three centuries from Msuluzi to Ndondondwane, and thence to Ntshekane a century later, show strong continuities in the whole style theme. Even where major socio-political change triggers substantial changes in ceramic style, such as between K2 and Mapungubwe, the continuities in design layout and use of motifs remains obvious. There are more points of similarity between Matola and Lydenburg styles. Both styles contain vessels with single lines or bands on the rim and isolated motifs on the shoulder. However, the range of motifs used in this layout is more varied in Lydenburg, and Lydenburg has a number of layouts and motifs which are not derivable from Matola. This rim-shoulder layout and associated motifs may indicate some merging of styles between Matola and *Lydenburg but no local development may be postulated.*

The dates and ceramic styles argue for separate origins for the Early Iron Age traditions in southern Africa. It is also clear that if the Kalundu sites, particularly the early ones, contain the full package of traits then Hall's hypothesis is untenable too. Elements present at the earliest sites (Klein Afrika, Happy Rest,

Naunatlala and Broederstroom) include houses in villages, metallurgy, agriculture, herding of cattle, sheep and goats, some hunting, skeletons with negroid features (compared to the Khoisanoid features of all LSA burials south of the Zambezi; Prinsloo 1974; Mason 1981, 1986; Voigt and Plug 1984; Denbow 1986). This comprises the full package of EIA traits. This assemblage and the evidence for two stylistic traditions argue that migration rather than gradual acquisition of individual traits explains how an EIA way of life was introduced into southern Africa.

These arguments have enormous importance for the origins of Iron Age ceramic style. If Hall's hypothesis had been upheld we would have documented a fascinating sequence of change in ceramics which accompanied major technological and social change. However, the evidence suggests a different scenario, one in which EIA peoples introduced a fully working social organisation which Huffman and others have suggested belonged to the Central Cattle Pattern from the beginning (Huffman 1982; Evers and Hammond-Tooke 1986; Denbow 1986). While changes in the detailed way this structural pattern operates must have taken place no transformation of this structure into another one is visible until the development of the Zimbabwe pattern at Mapungubwe in the thirteenth century (Huffman 1982, 1986a,b). That transformation was accompanied by a ceramic change which was documented in Chapter Four.

To summarise, the nature of the differences between the facies of the Lydenburg tradition parallel those

between Kgopolwe, Eiland and K2. The appearance of the same motifs on the ceramics and the Lydenburg heads which are undoubtedly ritual objects argues that the Lydenburg decorative style had symbolic connotations. Symbolic connotations recorded today serve to mediate male-female relations and to guard against pollution and therefore to mediate a sense of rightness and wholeness in the society. Though expressed in different ways and with different emphases it is likely that the same kinds of connotations concerning the safety of the society and its reproduction were present in EIA decorative art as represented archaeologically by the ceramics.

The temporal dynamics of change do not involve changes in the way that designs are structured so much as the emphasis given to particular concepts. Changes are therefore in frequency rather than in kind. By contrast, the changes between K2 and Mapungubwe involve some changes in kind associated with a socio-political transformation. These two examples illustrate different forms of local indigenous stylistic change. I turn now to examine the nature of the differences between the Mapungubwe/Eiland/-Kgopolwe set of styles in the thirteenth century and the succeeding Moloko.

CHAPTER 6

MOLOKO OR OORI : INTRUSION OR LOCAL DEVELOPMENT.

Introduction

The distinction between local developments and intrusions is an important issue in southern African Iron Age studies. In the 1950s and 1960s most changes in material culture, even quite small ones, were explained by migrations (e.g. Robinson, Summers and Whitty 1961; Gardner 1963). More recently the pendulum has swung the other way and nearly all changes, even very major ones, are being explained as local developments (e.g. Maggs 1980a,b; Mason 1983, 1985, 1986; Hall 1987).

One example of these opposing explanations, the subject of this chapter, arose from my claim that a new tradition, Moloko, replaced Eiland and other groups during the thirteenth century (Evers 1981:98). Subsequently, Mason (1983) denied the need for a separate tradition and asserted that his evidence showed the 'new' ceramic style was a local development from Broederstroom within the 'Oori Tradition' in the southwestern Transvaal. In my reply (Evers 1983) I demonstrated that on a wider front the best explanation for the differences between Moloko and preceding groups was its introduction by a migration.

The debate was severely limited by the lack of published data. However, Mason (1986) has now published the results of his excavations and the topic can be treated more adequately.

In essence the debate hinges on the criteria that distinguish between local development and migration. Criteria for local development were mentioned in the discussions of diachronic change in Chapter Four (K2 to Mapungubwe) and in Chapter Five (Lydenburg and Mauluzi). In each case trends through time involved the gradual loss of a few classes and the increased frequencies of existing classes (Lydenburg and Mauluzi) or the addition of new classes that were generated from the existing inventory (K2 and Mapungubwe). The size of the scores between phases were the same as those between facies of one tradition. Furthermore, the ceramic styles could be traced without major breaks through the sequence. Even when gaps of over a century occurred, as between early and late Mauluzi, the continuity in a very wide range of classes (Table 5.2; Appendices 9 and 10) clearly indicated that only minor modifications had taken place in the same ceramic style.

By contrast, to illustrate intrusion of a new tradition the ceramic style change should be abrupt and involve major discontinuities from the structure of the earlier style. Differences of this sort include not just the addition of new motifs but the way these are combined in layouts on particular profiles. Statistical differences should be great, for example, about the same as those separating Toutswe from other contemporary styles. An

intrusion is confirmed when an earlier source is found elsewhere.

I proceed by comparing the eleventh-thirteenth century ceramics to those which replaced them in order to determine the nature of their differences.

Analysis

The earliest Moloko sites are Nagome 3 (Evers and Van der Merwe 1987), Tavhatshena (Loubser 1988), Icon (Hanisch 1979), Rooiberg unit 3 sites (Hall 1981), Mason's (1986) 'Middle Iron Age' (MIA) sites, and Maggs's (1976) Type N sites (Fig. 6.1). With the exception of the last, none of these sites has stone walls and all appear to predate A.D.1600 on the calibrated scale (Table 6.3). To these I add two undated sites, Tafelkop (Mason 1952) which has a surface collection associated with only a very short section of walling, and Afsaal (Whitelaw 1986) which has no stone walls. I follow Mason in his division of the MIA into Olifantspoort and Roberts Farm 'phases' (*facies* ?) and lump all the material from the sites belonging to each phase to increase the sample size. I do the same for the Rooiberg Unit 3 sites for the same reasons. I omit Nagome 3 and the Bruma and Melville 7/63 furnace sites because the ceramic samples were too small. Tavhatshena ceramics were not available for analysis.

Because I need to compare the early Moloko sites with those that preceded them I use the same classes as those described in Chapter Four to analyse Nkwe, K2, Eiland, Kgopolwe and Toutswe ceramics. To these I add the

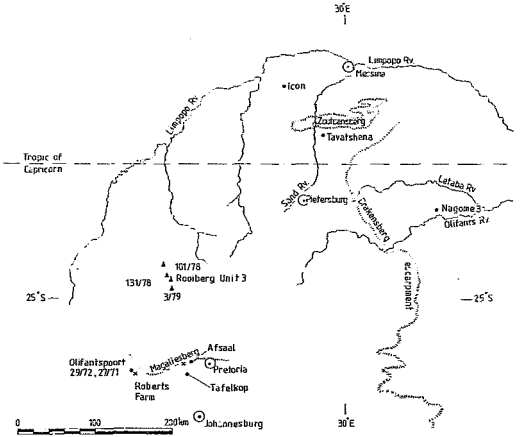


Figure 6.1 Distribution of nearby Rooiberg sites

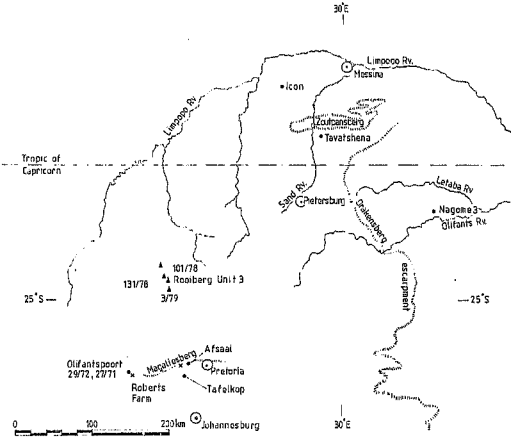


Figure 6.1 Distribution of early Iodado sites

the following classes to accommodate the early Moloko:

C1.71 recurved jar decorated in one zone on neck with interrupted multiple horizontal lines.

C1.72 recurved jar decorated in one zone on neck with multiple arcs or multiple separated rows of arcs with colour.

C1.73 recurved jar decorated in one zone on neck with interrupted multiple arcs.

C1.74 recurved jar decorated in one zone on the neck with multiple chevrons.

C1.75 recurved jar with single band high on neck and multiple rows of arcs with colour between low on neck to neck/shoulder junction.

C1.76 recurved jar with single band high on neck above multiple horizontal lines.

C1.77 recurved jar with single band high on neck above interrupted horizontal lines.

C1.78 recurved jar with single band high on neck above above multiple separated single bands.

C1.79 open bowl with single band on or adjacent to rim and multiple separated single bands with or without colour on body.

C1.80 open bowl with row of triangles on or adjacent to rim and multiple separated single bands on body.

C1.81 open bowl with a single band on or adjacent to the rim and multiple horizontal lines on body.

C1.82 open bowl with multiple horizontal lines adjacent to rim and row of triangles on body.

C1.83 open bowl with multiple horizontal lines adjacent to rim and multiple arcs on body.

C1.84 open bowl with multiple horizontal lines plus/minus colour on body.

C1.85 open bowl with multiple rows of chevrons with colour in between on body.

C1.86 open bowl with multiple separated single bands, plus/minus colour on body.

C1.87 recurved jar with single band on or adjacent to rim, row of triangles on neck and row of multiple arcs on shoulder.

C1.88 recurved jar with single band on or adjacent to rim, row of triangles on neck and row of multiple chevrons on shoulder.

C1.89 recurved jar with single band on or adjacent to rim, multiple separated bands on neck and complex coloured triangular motifs on shoulder.

C1.90 recurved jar with single band on or adjacent to rim, multiple horizontal lines on neck and single band on shoulder.

C1.91 recurved jar with multiple separated single bands on neck and multiple separated rows of arcs with colour on shoulder.

C1.92 open bowl with single band on or adjacent to rim and multiple separated single bands above

row of triangles on body.

Cl.93 open bowl with multiple separated single bands above row of triangles on body.

Cl.94 open bowl with multiple separated single bands above row of chevrons on body.

Cl.95 open bowl with multiple separated single bands above row of arcs on body.

Cl.96 open bowl with single band on or adjacent to rim and row of triangles above multiple chevrons on body.

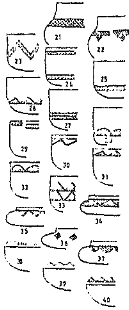
Distribution of classes at each site from each group is given in Table 6.1 and the presence/absence scores in Table 6.2.

The figures in Table 6.2 show that early Moloko sites have very low scores with sites from all the other groups; indeed, the majority of scores are zero. These scores demonstrate the lack of continuity in ceramic style between Moloko and K2, Mapungubwe, Eiland, Kgopolwe and Toutswe. The size of the scores between Moloko and the other groups are even more different than those between Toutswe and contemporary groups (Chapter 4), and must therefore, reflect differences at the tradition level. The only classes shared between Moloko and preceding groups are simple bowls with a single zone of decoration and Class 7 at K2, a jar with multiple horizontal lines on the neck. The latter does not show continuity, however, since it does not occur in the later Mapungubwe phase which Moloko replaces.

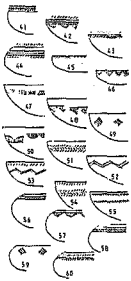
This change in ceramic style is abrupt and implies, as my theoretical model suggests, a completely different coding of non-verbal symbols from those that preceded it. For this reason local development may be excluded for the origins of the Moloko. The argument is further

TABLE 6.1 Distribution of classes

CLASS	TX	TO	TH	HP	PH	SB	SK	KG	HG	HO	SM	E1	E2	E3	K2	PD	IC	B3	RF	CL	AF	T
1	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	-
2	-	-	-	X	X	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	-
3	-	-	-	X	-	-	X	-	X	X	X	X	X	X	X	X	X	-	-	-	-	-
4	-	-	-	-	-	-	-	X	X	X	X	X	X	X	X	X	X	-	-	-	-	-
5	-	-	-	-	-	-	-	X	X	X	X	X	X	X	X	-	X	-	-	X	-	-
6	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	X	X	-	X	-
7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	X	-	X	-	X	X	-
8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	X	-	-	-	-	-	-
9	-	-	-	-	-	-	-	X	X	X	X	X	-	X	-	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-	-	-	-	X	-	X	X	X	-	-	-	-	-	-	-
11	-	-	-	-	-	-	-	-	-	-	X	X	X	-	X	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-	-	-	X	X	-	X	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	X	-	-	-	X	-	-
15	-	-	-	-	-	-	X	X	-	-	-	X	-	-	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-	X	-	X	X	X	-	-	-	-	-	-	-	-
17	-	-	-	-	-	-	-	X	-	-	X	-	-	-	-	-	-	X	X	-	-	X
18	X	X	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
19	-	-	-	X	X	X	X	-	-	-	-	-	-	-	X	X	-	-	-	-	-	-
10	-	-	-	X	X	-	X	-	-	-	-	-	-	-	X	X	-	-	-	-	-	-

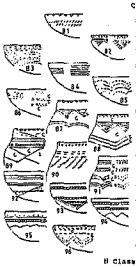


CLASS	TK	TO	TH	HP	PH	SB	SK	KG	HO	MO	SH	E1	E2	E3	KZ	PD	IC	RJ	RF	OL	AF	T
21	-	-	-	x	x	x	x	-	-	-	-	-	-	-	x	-	-	-	-	-	-	-
22	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	x	x	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
24	-	-	-	x	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25	-	-	-	x	-	x	x	-	-	-	-	-	-	-	x	x	-	-	-	-	-	-
26	-	-	-	x	x	-	x	-	-	-	-	-	-	-	x	x	-	-	-	-	-	-
27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	-	-	-	-	-	-	-
28	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	-	-	-	-	-	-
29	-	-	-	-	-	-	-	x	-	-	-	-	-	-	x	-	-	-	-	-	-	-
30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	-	-	-	-	-	-
31	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	-	-	-	-	-	-
32	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	-	-	-	-	-	-
33	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
34	-	-	-	x	x	x	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35	-	-	-	x	x	x	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
36	-	-	-	x	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
37	-	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
38	x	x	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	-	-	-	-	-	-	-
40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	-	-	-	-	-	-	-



CLASS	TK	TO	TR	HP	PH	SB	SK	RG	HG	HO	SH	E1	E2	E3	K2	PD	IC	R3	RF	OL	AP	T
41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	-	-	-	-	-	-	-
42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	-	-	-	-	-	-	-
43	-	-	-	-	-	-	-	-	x	-	-	-	-	-	-	x	-	-	-	-	-	-
44	-	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
45	-	-	-	x	-	-	x	x	x	x	-	-	-	-	-	-	x	-	-	-	-	-
46	-	-	-	x	-	x	x	-	-	-	-	-	-	-	-	x	-	-	-	x	-	-
47	x	-	-	x	x	x	x	x	x	x	-	x	x	x	x	x	-	-	-	-	-	x
48	-	-	-	x	x	x	x	x	x	-	-	-	-	-	x	x	-	-	-	-	-	-
49	-	-	-	x	-	-	x	-	-	-	-	-	-	-	x	x	-	-	-	-	-	-
50	-	-	-	-	-	-	-	-	-	x	-	-	-	x	x	x	-	-	-	-	-	-
51	-	-	-	-	-	-	-	-	-	x	x	x	x	x	x	-	-	-	-	-	-	-
52	x	x	-	-	-	-	-	-	-	-	-	-	-	x	-	-	-	-	-	-	-	-
53	-	-	-	-	-	-	-	-	-	x	-	-	-	-	-	-	-	x	-	x	-	-
54	-	-	-	-	-	-	-	-	-	x	-	-	-	-	-	-	-	-	-	-	-	-
55	-	-	-	-	-	-	-	x	-	x	-	-	-	-	-	-	-	-	-	-	-	-
56	-	-	-	-	-	-	-	x	x	x	-	-	-	-	x	x	-	-	-	-	-	-
57	-	-	-	x	-	-	x	-	x	-	-	-	-	-	x	-	-	-	-	-	-	-
58	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	-	-	-	-	-	-	-
59	-	-	-	x	x	x	x	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
60	-	-	-	-	-	-	-	-	-	x	x	x	x	x	-	-	-	-	-	-	-	-

CLASS	TK	TO	TH	HP	PH	SB	SK	KG	NG	MO	BK	E1	E2	E3	K2	FO	FC	RO	RF	OL	AP	T
61	-	-	-	-	-	-	-	-	-	X	X	X	X	X	-	-	-	-	-	-	-	-
62	-	X	X	-	-	-	-	-	-	-	-	X	-	-	X	-	-	-	-	-	-	-
63	-	-	-	-	-	-	X	X	X	-	-	X	-	-	-	-	-	-	-	-	-	-
64	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-
65	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-
66	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
67	-	-	-	-	-	-	-	-	-	X	X	-	X	-	-	-	-	-	-	-	-	-
68	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-
69	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	-	-
70	-	-	-	-	-	-	-	-	-	-	-	-	-	X	X	-	-	-	-	-	-	-
71	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	X	X
72	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X
73	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
74	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
76	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	X	-	X		
77	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	
78	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	X	-	X	
79	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	X	X	X	X		
80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	X	-	-	-	-	-	



CLASS	TK	TO	TH	HP	PH	SB	SK	KS	HG	HO	SM	S1	S2	S3	K2	PD	IC	R3	RF	OL	AF	T
81	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	-	-	-
82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	-	-	-	-	-
83	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x
84	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	-	-	x
85	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	-	-	-	-	-
86	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	x	-	x	x	-	-
87	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x
88	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	-	-
89	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	-	-	-	-	-	x
90	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	-	-	-	-	-	-
91	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	-	x	-	-
92	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	-	-	-	-	-	-
93	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	-	-
94	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	-	-
95	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	-	-
96	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	x	-	-	-
N Classes	6	6	5	23	12	11	19	16	13	22	15	15	16	17	31	24	11	9	7	11	9	1

KEY TO SITE NAMES FOR TABLES 6.1-6.2

TK = Taukome
HP = Hapungubwe
SK = Skutswker
HO = Moritsane
S1 = Eiland saltworks 1/74(1
K2 = K2
R3 = Rooiberg Unit 3
AF = Atsel

TO = Toutswe
PH = Princess Hill
HG = Kgopolwe 3
SM = Sambo Hill
S2 = Eiland saltworks 2/74111
PD = Pont Drift
RF = Roberts Farm Phase
TF = Tafelkop

TH = Thatswane
SB = Silbery
HG = Mapome 3
S1 = Eiland saltworks 3
S3 = Eiland saltworks 3/74111
IC = Icon
OL = Olifantspoort phase

TABLE 6.2 Presence/absence scores

	TOUTSWE			MAPUNGUBWE				K2		KGOPOLWE		EILAND					MOLOKO				
	TK	TO	TH	MP	PH	SB	SK	K2	PD	KG	NG	MO	BM	E1	E2	E3	IC	R3	RF	OL	AF	TF
TK	–																		TOUTSWE			
TO	83	–																				
TH	73	91	–																			
MP	14	7	7	–															MAPUNGUBWE			
PH	22	11	12	71	–																	
SB	24	12	13	67	78	–																
SK	17	9	9	88	71	71	..															
K2	12	6	6	53	33	33	48	–											K2			
PD	15	13	13	48	39	40	51	62	–													
KG	18	9	10	32	29	30	29	30	35	–									KGOPOLWE			
NG	32	11	12	46	32	33	44	36	43	76	–											
MO	13	7	7	27	28	18	24	34	35	53	57	–							EILAND			
BM	10	10	11	16	15	15	17	26	26	39	43	54	–									
E1	18	9	10	22	23	24	24	30	31	32	50	70	80	–								
E2	20	10	11	21	22	23	23	30	36	44	55	63	52	71	–							
E3	17	9	9	21	21	22	22	33	29	36	47	72	75	93	67	–						
IC	0	0	0	6	0	0	7	0	0	15	3	12	8	0	0	0	–		MOLOKO			
R3	0	0	0	0	0	0	0	5	6	8	0	0	15	0	0	0	20	–				
RF	0	0	0	0	0	0	0	0	7	9	10	7	17	9	9	8	25	38	–			
OL	0	0	0	6	0	9	7	10	11	0	0	6	0	0	0	0	9	30	22	–		
AF	0	0	0	0	0	0	0	5	6	8	0	0	17	0	0	0	20	55	63	30	–	
TF	10	0	0	5	7	8	6	13	13	6	7	5	7	7	7	6	31	25	17	31	42	–

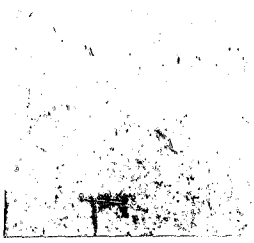


TABLE 6.2 Presence/absence scores

	TOUTSWE			MAPUNGUBWE				K2		KGOPOLWE		EILAND				MOLOKO					
	TK	TO	TH	MP	PH	SB	SK	K2	PD	KG	NG	MO	BM	E1	E2	E3	IC	R3	RF	OL	AF	TF
TK	-																		TOUTSWE			
TO	83	-																				
TH	73	91	-																			
MP	14	7	7	-															MAPUNGUBWE			
PH	22	11	12	71	-																	
SB	24	12	13	67	78	-																
SK	17	9	9	88	71	71	-															
K2	12	6	6	53	33	33	48	-											K2			
PD	15	13	13	48	39	40	51	62	-													
KG	18	9	10	32	29	30	29	30	35	-									KGOPOLWE			
NG	22	11	12	46	32	33	44	36	43	76	-											
MO	11	7	7	27	28	18	24	34	35	53	57	-							EILAND			
BM	10	10	11	16	15	15	17	26	26	39	43	54	-									
E1	18	9	10	22	23	24	24	30	31	39	50	70	80	-								
E2	20	10	11	21	22	23	23	30	36	44	55	63	52	71	-							
E3	17	9	9	21	21	22	22	33	29	36	47	72	75	93	67	-						
IC	0	0	0	6	0	0	7	0	0	15	8	12	8	0	0	0	-		MOLOKO			
R3	0	0	0	0	0	0	0	5	6	2	0	0	15	0	0	0	20	-				
RF	0	0	0	0	0	0	0	0	7	5	10	7	17	9	9	8	25	38	-			
OL	0	0	0	6	0	0	9	7	10	11	0	6	0	0	0	0	9	30	22	-		
AF	0	0	0	0	0	0	0	5	6	8	0	0	17	0	0	0	20	55	63	30	-	
TF	10	0	0	5	7	8	6	13	13	6	7	5	7	7	7	6	31	23	17	31	42	-

strengthened by the distribution of dates, to which I now turn.

Early Moloko dates

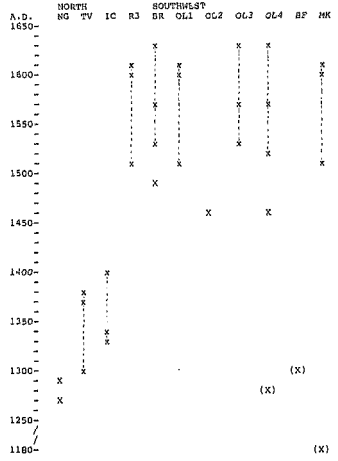
Some early Moloko dates (Table 6.3; Fig. 6.2) are problematic. First, at Olifantspoort 29/72, Hut A has two dates from charcoal found on the same hut floor in sealed contexts, one in the thirteenth century, the other in the sixteenth century. Hut S has a date at the end of the sixteenth century. The Hut A dates are too different to be taken as two estimates of the same event. Given the date for Hut S, the later date for Hut A is more likely and the thirteenth century date should be discarded. Secondly, the Melville furnace, originally dated to the eleventh century, now has a date in the late sixteenth century. The early date may reflect charcoal derived from heartwood and like all other furnace dates may be too old because the charcoal is derived from whole trees. Similarly, the thirteenth century date from the Bruma furnace is probably too old too.

Table 6.3 also documents dates associated with stone wall settlements. The earliest of these are associated with Type N sites on the southern Highveld. These sites are earlier stratigraphically than Type V sites which replace them in the seventeenth century (Maggs 1976), but the difference between the two may not be as great as the dates imply. Other stone wall sites have dates from the base of ash heaps which are contemporary with early Moloko, Olifantspoort: 20/71, 61/71, 62/71 and Matluassi.

Table 6.3 Early Moloko radiocarbon dates

SITES	LAB.NO.	DATE A.D.	CALIBRATED MIDPOINT
A. Pre-stone walls			
Melville Koppies 7/63	Y-13388	1060+-50	1100
Melville Koppies 7/63	RU-3249	1580+-n/a	1510, 1600, 1610
Bruma Furnace 30/81	Wits-1315	1280+-100	1300
Olifantspoort 27/71	RL-197	1580+-90	1510, 1600, 1610
Olifantspoort 38/71	RL-198	1510+-95	1460
Olifantspoort 64/71	RL-196	1610+-90	1520, 1570, 1630
Olifantspoort 25/72	RL-213	1510+-90	1460
Olifantspoort 29/72	RL-199	1240+-120	1280
Olifantspoort 39/72	RL-244	1600+-90	1520, 1570,1630
Icon	Pta-1652	1330+-50	1330, 1340, 1400
Nkgome 3	Pta-560	1270+-45	1290
Nkgome 1	Pta-267	1165+-35	1270
Thwhatshena	Wits-1453	1200+-80	1200, 1370, 1380
Broederstroom 3/84	RU-2943	1620+-80	1530, 1570,1630
Broederstroom 3/84	Pta-94	1580+-100	1490
Honiberg 7/78 (RU3)	Pta-2849	1580+-30	1510, 1600, 1610
B. Early dates for stone wall sites			
Winkelfield 1/78	Gx-816	1420+-100	1420
Mathiasai 24/60 *	Wits-1140	1453+-80	1440
Olifantspoort 61/71 *	RL-203	1470+-100	1450
Olifantspoort 63/71 *	RL-202	1540+-90	1520, 1580, 1630
Olifantspoort 20/71 *	RL-201	1440+-90	1420
Olifantspoort 20/71 *	RL-186	1550+-110	1480
ZW2 settlement unit 1	Gx-1015	1489+-110	1450
ZW1	Gx-1014	1445+-95	1440

Sources: Evers and van der Merwe 1987; Hall 1981; Hanisch 1979; Lombard 1988; Mason 1986.
* dates from the base of ash-heaps



(X) dubious dates, see text.
NG = Nagome 3; TV = Tavhatshena; Ic = Icon; R3 = Rooiberg 7/78
BR = Broederstroom 3/84; OL3 = Olifantspoort 27/71;
OL2 = Olifantspoort 28/71; OL3 = Olifantspoort 64/71;
OL4 = Olifantspoort 29/72; BF = Bruma Furnace;
HK = Melville Koppies.

Figure 6.2 Mid points of radiocarbon dates for early Moloko sites calibrated according to Stuiver and Pearson's (1986) curve

These dates may be too old, first, since the distribution of dates otherwise shows a clear beginning for stone wall building in the mid-seventeenth century. Secondly, there appears to be no distinction in the ceramics from bottom to top of the ash heaps and they, like those from other walled sites, differ from early Moloko . Consequently, the radiocarbon assays for these ash heap bases may not date the human occupation and should also be disregarded.

With these provisos, we can now see that three sites have dates earlier than the fifteenth century. Nagome 3 has dates in the thirteenth century, while Icon and Tavhatshena have fourteenth century dates approximately contemporary with the late Eiland pottery from Broadhurst in southeastern Botswana (Denbow 1981). Thus, a date about 1300, possibly a few decades earlier, appears to mark the onset of Moloko in the northeastern Transvaal. Further to the south and west the earliest Moloko dates, apart from those Klaarkoi, range from the fifteenth to the early seventeenth centuries. A clear trend is visible, implying a movement from northeast to southwest. This trend strengthens the case for migration.

The spatial and chronological trend points away from the north and west as possible source areas for Moloko. In fact on stylistic grounds one would have to exclude these areas anyway because the ceramic styles there were derived either from Gokomere or from the Kalundu Tradition. Moloko must be derived instead from an Eastern Stream facies to the northeast. Huffman (1998) has suggested southern Tanzania as a possible source area.

I have shown in this chapter that abrupt changes in style, on the level of tradition, occur between early Moloko and any of Mapungubwe, K2, Kgopolwe, Eiland and Toutswe. The spatial distribution of dates indicates a movement from northeast to southwest. This evidence conforms with the criteria necessary to demonstrate a migration and differs sharply with criteria for local development. On these grounds Mason's hypothesis for the uninterrupted locally developing ceramic sequence from Broederstroom to modern Sotho-Tswana must be rejected.

CHAPTER 7

TRADITION, CULTURE AND IDENTITY

Introduction

At the beginning of this study I suggested that the problems experienced with archaeological cultures stemmed from a misunderstanding of the nature of culture. Using a behaviourist paradigm, archaeologists had come to believe that an archaeological culture was an arbitrary division of a cultural continuum that gradually changed through time and space. A major factor contributing to this belief was the way they treated traits as independent and equal, even if they accepted the traits were organised systemically.

Using the anthropological concept of culture as a system of values and beliefs, I showed that such traits as settlement features, so far from being independent, are integrated by the way their arrangement symbolises perceptions of social relationships and status. Conceptions of social relationships and cosmology are sometimes symbolised in decorative art too, as the ethnographic examples discussed in Chapter Two showed. The cultural symbols portrayed in the decorative art could be understood by members of the culture because the art style is composed of motifs and other features repetitively structured in the same way. I showed that

different sorts of artefacts are decorated with motifs from the same style, that these motifs have the same social connotations different sorts of artefacts, and that decoration on pottery is representative of the art style as a whole, and because messages are encoded using arbitary and often geometric symbols with restricted combinations to facilitate understanding style can be used as an identity marker.

I used a classification technique for identifying groups which took into account this structured nature of style to examine whether culture changes gradually over space and time or is discontinuously distributed.

The spatial and chronological distribution of culture

Chapters *Four* and *Five* showed that culture is discontinuously distributed in space. Dislocations between styles are found on two levels. The first is that of tradition, such as between Toutswe and all contemporaneous groups. Similarity scores rarely reach twenty per cent which means that the ceramic styles lacked any real continuity between them. Such continuity that did occur took the *form of very simple concepts* (e.g. single band on jar neck) but even here the details were different. The second form of discontinuity is at the facies level, as shown between K2, Bambandyanalo and Mgopolwe in Chapter Four, and Mapungubwe and Lydenburg in Chapter Five. The scores are intermediate between those separating traditions and those forming the group. A number of stylistic concepts are common to *facies of the same* tradition though details tend

to differ, and there are also concepts peculiar to one or other facies. Furthermore, the spatial discontinuity between facies and traditions is abrupt with no evidence for grading in frequencies of classes, or for merging of styles, at or close to the boundary. Variation within each facies is random with no evidence at the assemblage level of systematic or continuous change over space. Thus people inhabiting large areas utilised a single ceramic style.

The diachronic studies showed comparable evidence for discontinuous change through time. On the one hand, the differences between Moloko and preceding styles are comparable to those between Toutswe and contemporaneous groups, and are, therefore, at the tradition level. On the other hand, the phase differences between early and late Mauluzi and between K2 and Mapungubwe reflect stylistic developments within a single historical culture, and are comparable in scale to facies differences. The changes between phases of the same tradition are of two kinds. In the first, one or more classes decrease in frequency and are replaced by increased frequencies of already existing classes (e.g. early to late Mauluzi). In the second, new classes, generated out of previously existing ones, replace part of the inventory (e.g. K2 to Mapungubwe). The differences between Mapungubwe and each of Kgopolwe and Kiland are intermediate between those separating traditions and facies and probably mark the evolution of a new tradition.

Culture, tradition, facies and phase

The notion of decorative art style as a repetitive encoding of symbols serves as the link between the cultural historical terms tradition, facies and phase and the anthropological concept of culture as a meaning system. In that separate traditions have totally different styles, they must reflect different symbolic codes. The symbolic codes are mutually unintelligible, even though they may have the same geometric signs, in the same way as Italian and English are mutually unintelligible, even though they are written with the same alphabet.

Facies can be viewed from two levels. At one level they are sub-cultures, that is regional subdivisions of a single culture. As such they share many of the ways symbols are encoded throughout the tradition. The codes of related facies are probably mutually intelligible at a general level even if they differ physically and connotatively in detail. At another level, the differences between facies are marked by codes which are unfamiliar to other facies. These unique codes may reflect some differences in the meaning system, and from this point of view facies may also be equated with different cultures. The point of view depends on the level of analysis, that is to say on whether the stress is laid on similarities or differences in a particular project.

Willey and Phillips (1958) regarded spatial and temporal subdivisions of tradition as equivalent and called both a 'phase'. In that the separations between phases appear to be at the same degree as those between

facies their equivalency is valid. The equivalence is further enhanced by the nature of the origins of EIA facies. The radiocarbon dates for Kalundu show a clear chrono-spatial trend from northwest to southeast. The Matakoma facies has the earliest dates while Lydenburg and Msuluzi have progressively later starting points and share only part of the Matakoma ceramic style. This implies that both Lydenburg and Msuluzi are offshoots from Matakoma, separating som. generations after the Matakoma area was settled (see Fig. 7.1). The differences between 'mother' and 'daughter' facies arise, according to Huffman's (1980) model, because not every village (or site) contains the full range of ceramic style and because their frequencies of classes are not identical. The differences between EIA facies thus result from the random emphasis of particular expressions of the style. Where this expression becomes isolated and repeated, as when members of a village move out to settle in new areas, the loss of some classes and increased frequencies of others appear as facies differences. However, several more generations may elapse before the regional expression has become recognisably different. Because these differences appear, in the archaeological record, to be developments in time and space, phases and facies appear to be similar. Within the notion of culture as a meaning system these changes in style in terms of frequency should be seen as incidental; the underlying system of values and beliefs probably has not changed. Even where phases are distinguished by the introduction of new symbolic codes into the old repertoire

the differences in degree between phases remain the same as between facies. The statistical nature of facies or phase, therefore, is not different. However, the explanations for how or why either arose may differ and it is this explanation which allows one to distinguish those entities that reflect changes in the meaning system from those that are only archaeologically convenient divisions of time and space.

Facies and traditions as defined here are not single social entities such as a 'tribe'. Each of the facies studied in this thesis, with the possible exception of Mapungubwe, would have been subdivided into a number of socio-political units. Ceramic style may not be suitable for distinguishing such units as Hall and Mack (1983) have noted. Facies and traditions are also not equivalent to ethnic groups in the normal sense. Ethnicity is linked to culture through the manipulation of 'primordial ties' (e.g. kinship, values and beliefs and historical tradition). It involves a conscious understanding of self identity vis-a-vis the identity of another group that is competing for economic or political rights. Furthermore, ethnicity is usually associated with minority groups in plural societies (e.g. Bell 1975; Glazer and Moynihan 1975; Cohen 1981; Keyes 1981; Royce 1982; Reminick 1983). In the Iron Age, ethnic-like inter-group relations are particularly difficult to demonstrate. The recognition that another group of people has a different symbolic code involves ideas of group identity but it is another thing to say that people are using these senses of identity

affectively. Even though sharp boundaries exist between facies and traditions it is difficult to demonstrate whether these group differences are the result of ethnic concepts. The discovery of a minority style within an area dominated by another style could also have ethnicity as a cause, but such a situation has yet to be demonstrated in the Iron Age. The finding of one or two vessels of a different facies at a site or group of sites, as discussed in Chapter Four, is insufficient indication of relationships based on ethnicity. The issue is too complex to be pursued further here and needs more research.

Explanations for style maintenance and change

We have seen that the symbolic system of a culture is encoded in its material culture, that the stylistic code has to be repetitive for the symbolic messages to be understood, and that the messages are directed at persons or sub-groups within the society, even within a household. This need for mutual intelligibility and the protection afforded by the symbolic messages both help to maintain styles with minimal or random variation over wide areas. Moreover, the size of the area is not limited by the need for face-to-face interaction as in the gravity model for social interaction. In that model people have the same style because they copy what they see others do. In the cultural meaning systems model consensus of understanding controls the symbolic code and so direct personal interaction between persons sharing the same style is neither required nor a limiting factor.

Change in a particular expression of a culture can be incidental, as seen in the origins of the EIA facies. Or it can reflect transformations of the meaning system arising out of social developments, such as those changes that started at K2 and culminated at Mapungubwe. Social transformations of this magnitude must be accompanied by transformations in values and beliefs if only to provide a mystification of the new social order. Transformations of ideology require new symbols, which at Mapungubwe included the new spatial arrangements and the innovations in the ceramic style.

As we have seen, not all changes in ceramic sequences are the result of local developments. The replacement of Eiland and other facies by Moloko at the end of the thirteenth century involved the introduction of a new culture with different symbolic codes. The introduction of Moloko must also reflect a complete change in socio-political dominance. Since the newcomer's style lacked any pre-Moloko symbols, the original inhabitants must either have been displaced or incorporated 1975): rather than amalgamated, (following Horowitz) because the two styles did not merge into a a new and different style.

Behaviourist versus cognitive archaeology

The approach adopted in this thesis falls under the general heading of cognitive archaeology, the study of past value and belief systems. Results derived from this approach directly contradict those derived from behaviourist theory. Under behaviourist theory culture

appears to change gradually over space and time and most subdivisions are completely arbitrary. Results derived from the cognitive view instead show that culture is discontinuously distributed over the landscape and through time. Part of this contradiction arises from differences in the premises concerning the relationships between traits, and these different premises lead to different kinds of classifications.

The main problem which we now face concerns why one theory is preferred to another. The reason for preferring one *should* lie in its appropriateness to the study. White's (1949) original definition of culture, adopted by 'new' archaeologists following Binford (1972a,b), *states* that culture is all extra- somatic means of adaptation. It was designed primarily to separate kinds of behaviour, specifically genetically programmed behaviour from that which is learned through symbols and is thus cultural. In *making* that distinction between behaviours, specific stimulus-response connections may be listed under one or other heading. For *White* and *his followers* a culture is a cluster of learned elements organised into a system. The relationship between elements is in the form of action and reaction and the overriding organisational principle appears to be economic. Thus White (1949:215) writes, "...a culture may be organised around the hunting of seal, reindeer breeding, the cultivation of rice or manufacturing and trade." This *definition of culture* is designed to produce economic or technological units. As such these units can and do encompass people with

different value and belief systems (cf. Masai and Nguni have cattle economies but different cultures). The focus of this behaviourist paradigm is unsuited to identifying units which are based on differing value and belief systems. The fact that scholars operating with behavioural theory have failed to define this kind of unit adequately is not surprising. The wrong tool was used for the job.

By contrast, the notion of culture as a meaning system has the appropriate focus and accompanying premises as I have shown in this study. A cognitive approach has not only helped here but has proved to be a useful tool in understanding settlement patterns (e.g. Huffman 1981, 1982, 1986a,b), rock art (e.g. Lewis-Williams 1981, 1983; Lewis-Williams and Loubser 1986; Whitley 1987), and stone age social formations (e.g. Wadley 1987). While cognitive archaeology has been closely linked with ethnographic studies its applicability to situations lacking direct ethnographic information has recently been demonstrated (Lewis-Williams and Dowson 1988). Criticisms in this regard by Earle and Preucel (1987) are thus invalid.

The demonstration in Chapter Two that a single decorative art style is characteristic of Bantu-speaking Africa and that pottery is representative of that style means that the recognition of groups is immediately possible within Iron Age contexts elsewhere in East, Central and Southern Africa. Beyond Bantu-speaking Africa empirical studies, such as that in Chapter Two, are necessary to establish which artefact categories are most suitable. However, the principles derived from the

description of culture as a meaning system should be universally applicable.

The utility of the *cognitive approach* is also shown in the way it permits several levels of culture. Huffman and others (Huffman 1981, 1982, 1984a, 1986a,b, 1988; Evers 1984; Taylor 1984; Loubser 1985) have shown that the settlement organisation of different ceramic groups followed the same basic set of principles: for example, Toutswe, Siland, Lydenburg and Moloko sites were organised according to the Central Cattle Pattern. The expression of this pattern varies in detail between groups, as Kuper (1980, 1982) and Evers (1984) have shown, and these details might distinguish groups at the level of tradition or facies. At another level, Huffman (1968) has shown that different spatial arrangements also distinguish matrilineal (Eastern Bantu) peoples from *matrilineal (Western* Bantu) peoples. These mega-groups are detected in the past by a settlement rather than a ceramic classification and show that archaeologists may construct units for study of varying sizes and kinds within the same theoretical paradigm, depending on the questions. All these units and the classifications consider culture in a way which behavioural studies have not. In behavioural studies culture is often ignored, as the emphasis on material flows illustrates. The cognitive approach, on the other hand, permits the study of material flows within the *overarching socio-cultural system.* It is therefore more powerful.

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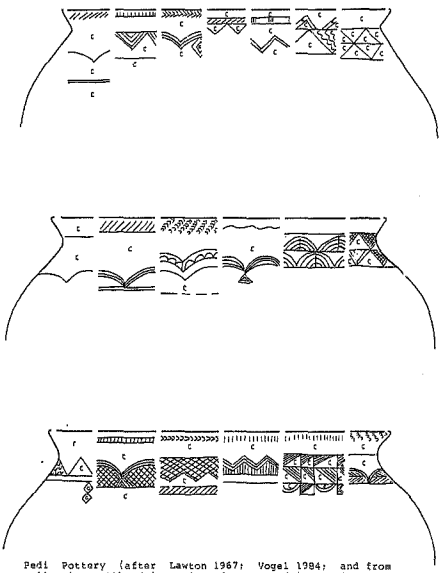
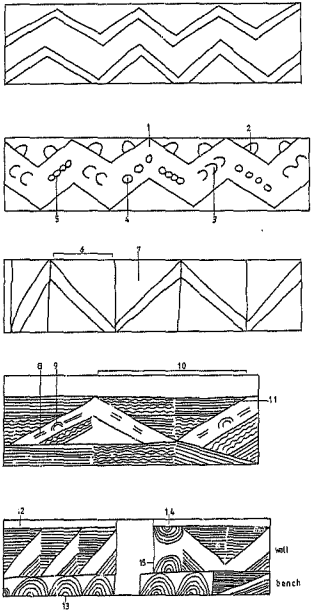
APPENDIX I

Examples of Pedi decorative art



Pedi Pottery (after Lawton 1967; Vogel 1984; and from collections atthe University of South Africa, University of the Witwatersrand and the National Cultural History and Open Air Museum, Pretoria).

Pedi wall decorations (after Vogel 1984). Informants' interpretations of designs include:
1. ntepa pattern, refers to double chevron.
2. half-moon.
3. new moon.
4. full moon.
5. chain.
6. lekobe (point) of the ntepa.
7. selepe (small axe), refers to diagonals.
8. strings used to tie a reed fence.
9. new moon.
10. the inverted triangle of the ntepa.
11. reed fence.
12. mosoko, slanting pattern.
13. ribs of a cow.
14. tortoise shell.
15. melon.
16. lekala (branches).
17. mohlare (tree), refers to double chevron.
18. thetho patterns.
19. small tree.
20. points of the ntepa, refers to the triangle above the chevron.
21. mohlare (tree), triangle.
22. leaves.
23. new moon.
24. patterns on the rear skirt, refers to crosshatching.
25. full moon.
26. ditolo (beaded neckband).
27. small road going to chief's house.
28. millipede.
29. eggs.
30. ntepana pattern, refers to triangle above chevron.
31. mohlare (tree), refers to double chevron.
32. lekala (branches).
33. chain.
34. beads on ntepana waistband.
35. thetho patterns.
36. beads hung from the ntepana in red, blue and white.
37. beads at the points of the ntepana.
38. mohlare (tree).
39. marking on belt.
40. decoration on the thetho.
41. ntepana, refers to the upper pendant triangle.
42. beads on the ntepana.
43. marking on the ntepana.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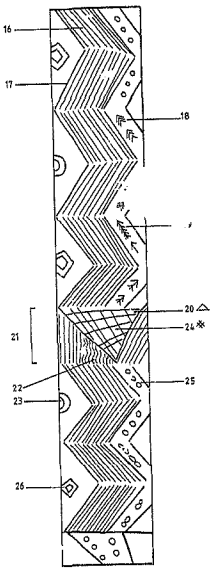
wall
bench



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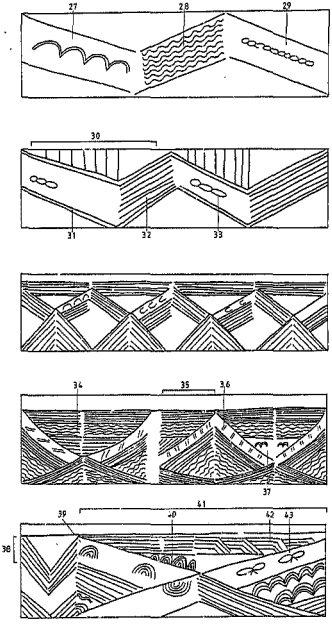

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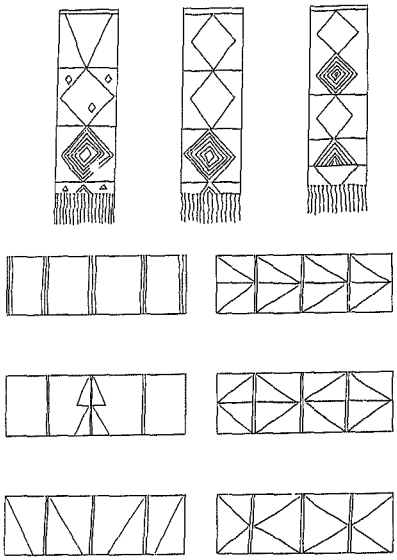
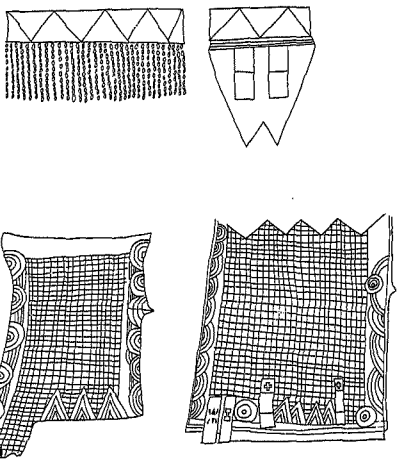
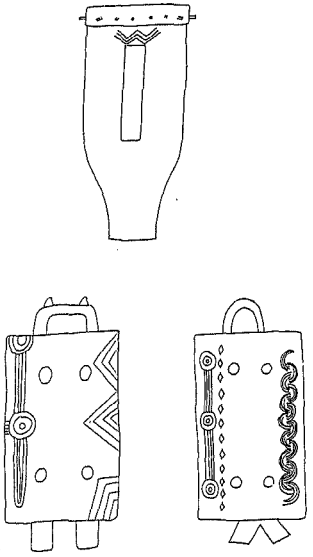


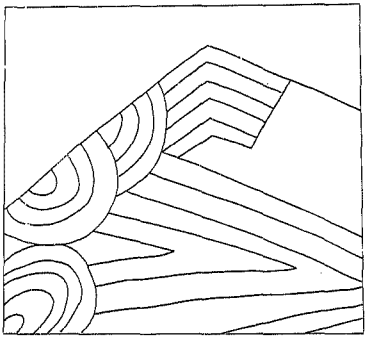
Pe[illegible] headwork (after V[illegible]gel 1984). Top row: *ditolo*, beaded nec[illegible]ds; remainder: armbands. Colours alternate to form the designs.



Pedi women's clothing (after Vogel 1984). Top row: Uninitiated girl's foreskirt, lerebe, and rear skirt, ntapana. An ntepa is a large version of the ntepana and is worn by initiated women. Bottom row: married woman's foreskirt, thetho.



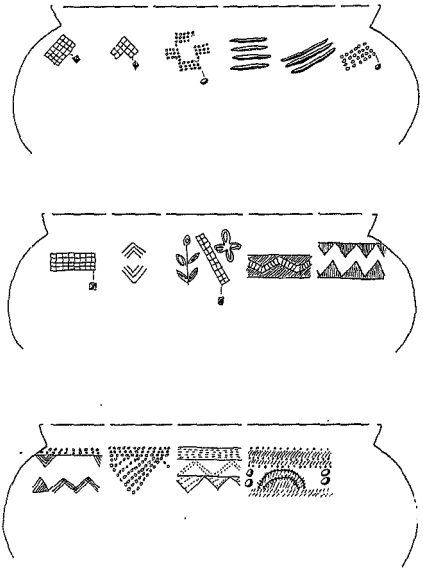
Pedi drum and porridge dishes (after Vogel 1984 and from the Africana Museum, Johannesburg).



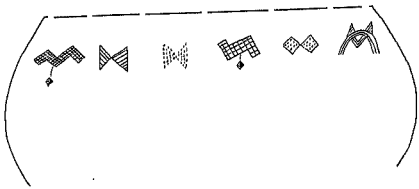
Padi floor patterns (after Vogel 1984).

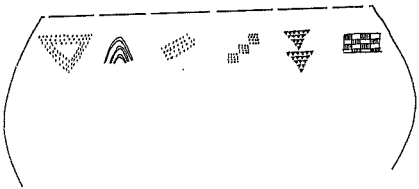
APPENDIX 2

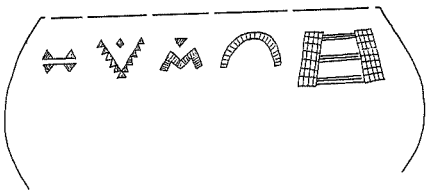
Examples of Zulu decorative art

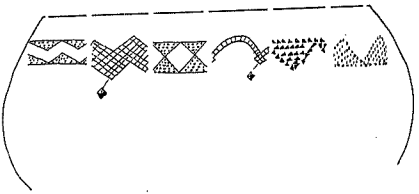


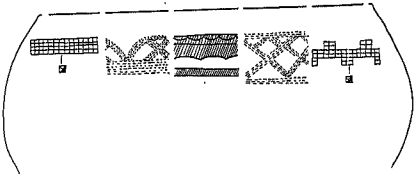
Zulu pottery (after Grossert n.d.; Lawton 1967; Mertens and Schoeman 1975; and from collections at the University of South Africa, University of the Witwatersrand, Natal Museum and the Africana Museum).

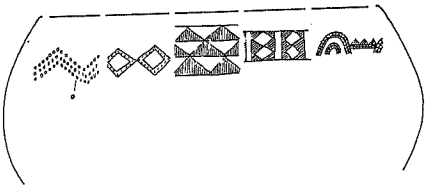


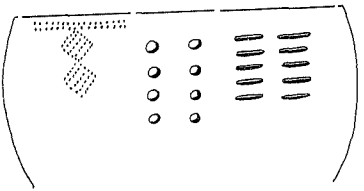


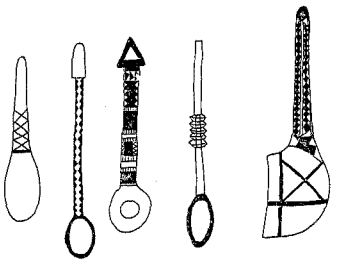




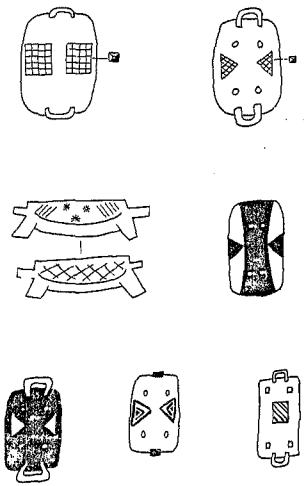




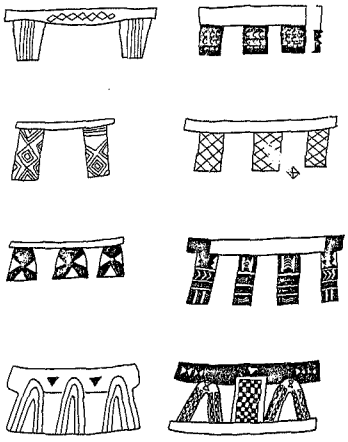




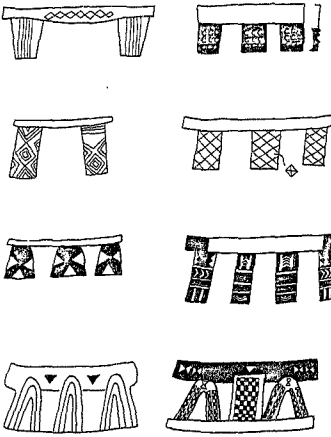
Zulu spoons (after Mayr 1906; Grossert n.d.)



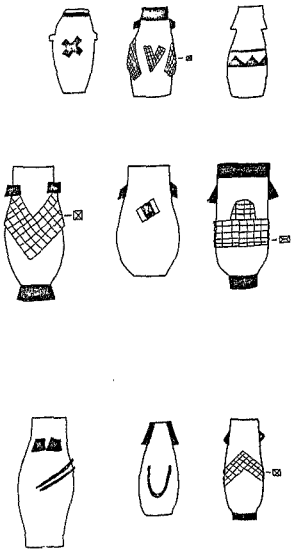
Zulu meat dishes (after Grossert n.d.; and from the Natal Museum and the Africana Museum).



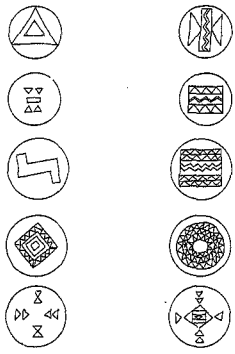
Zulu head rests (after Grossert n.d.; and from the Natal and Africana Museums)



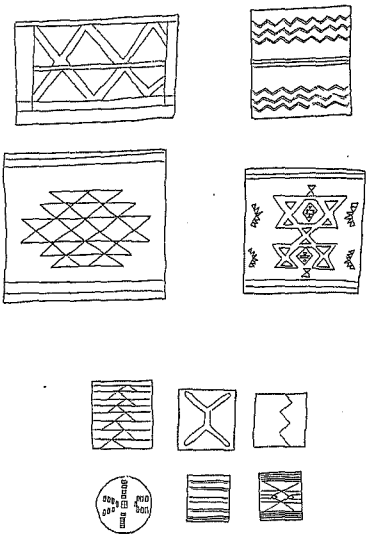
Zulu head rests (after Grossert n.d.; and from the Natal and Africana Museums)



Zulu milk pails (after Curson, Thomas and Neitz 1932; Grossert n.d.; and from the Africana Museum).



Zulu earlobe discs (from the Africana Museum).

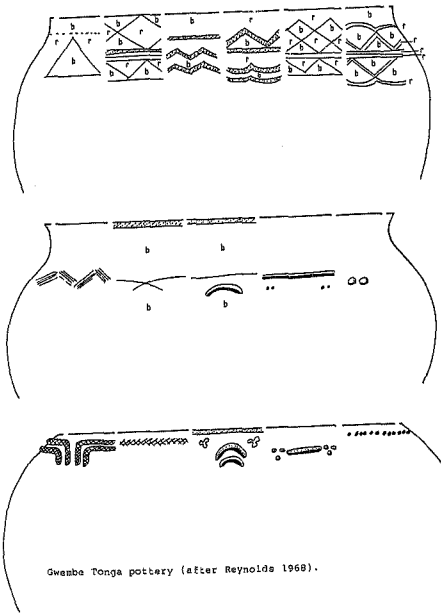


Zulu mats (top four; after Grossert n.d.; and from the Africana Museum) and pot covers (bottom six; from the Africana Museum).

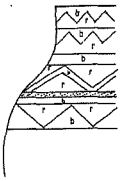
Zulu beadwork (from the Africana Museum).

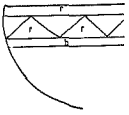
APPENDIX 3

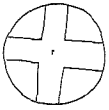
Examples of Gwembe Tonga decorative art



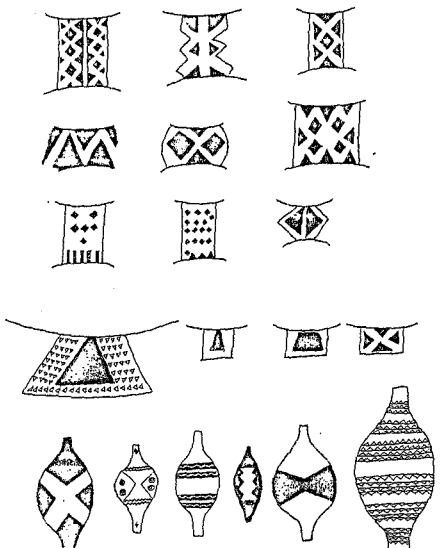
Gwembe Tonga pottery (after Reynolds 1968).


b
b
r
b
r
r
r
r
r
b

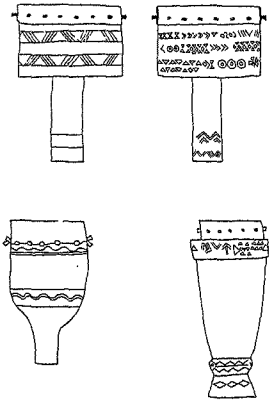

r
r
r
b


r

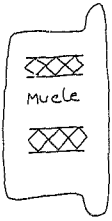

r
r
r
b
r
r
r

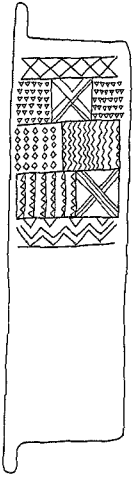


Gwembe Tonga stool decoration. Top three rows: pedestals of round stools, black areas are cut out. Bottom two rows: pedestals and tops of elliptical stools, black areas on pedestals are cut out, on tops these indicate blackening through charring. (After Reynolds 1968; and from the Africana Museum).

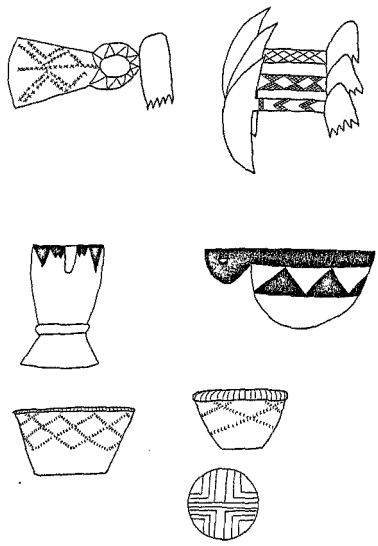


Gwumbo Tonga drums (after Reynolds 1968; and from the Africana Museum).

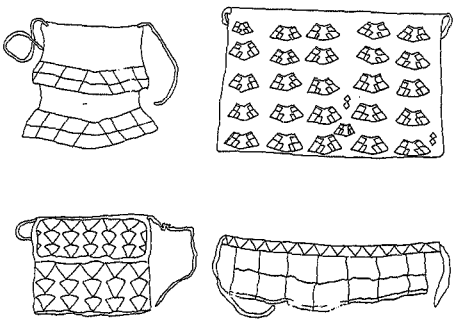




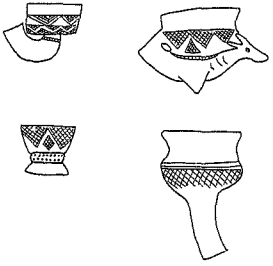
Gwembe Tonga doors (from the Africana Museum: Things Gallery catalogue n.d.).



Top row: Gwembe Tonga axes; middle row: milk pail and wooden cup; bottom: baskets (after Reynolds 1968).



Gwambe Tonga beadwork (from the Africana Museum).



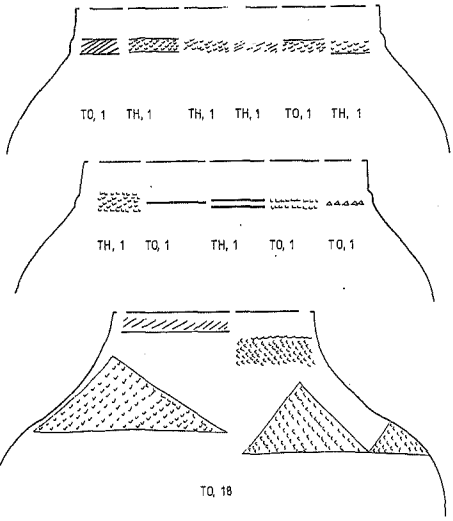
Gwembe Tonga smoking pipes (after Reynolds 1968).

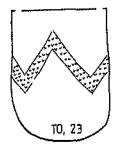
APPENDIX 4

Toutswe affiliate set classes

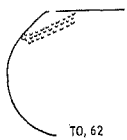
TO = Toutswe TH = Thatawane TK = Taukome

Numbers after the comma refer to classes in Table 4.2.

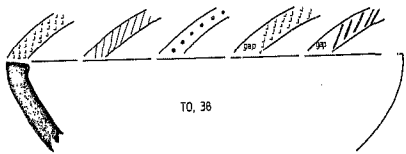

TO, 1 TH, 1 TH, 1 TH, 1 TO, 1 TH, 1
TH, 1 TO, 1 TH, 1 TO, 1 TO, 1
TO, 18



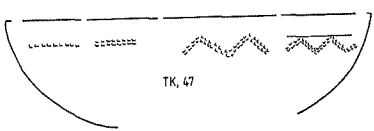
ТО, 23



ТО, 62



ТО, 38



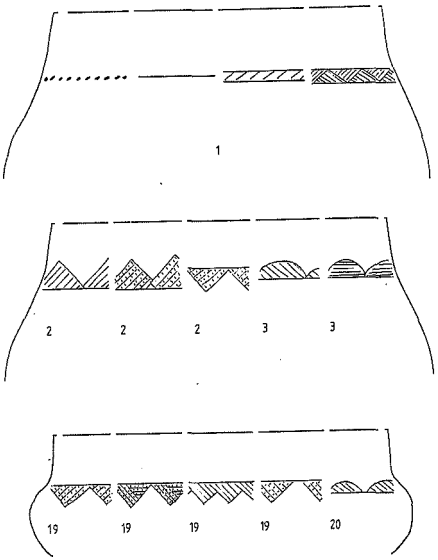
ТК, 47

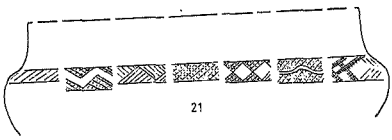
APPENDIX 5

Mapungubwe affiliate set classes

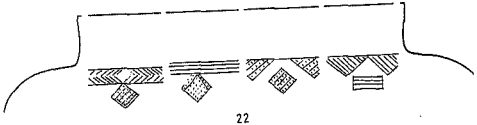
All examples are from Mapungubwe (after Fouche 1937; Gardner 1963; Meyer 1980; and *my own* drawings).

Numbers *after* the comma refer to classes in Table 4.2.

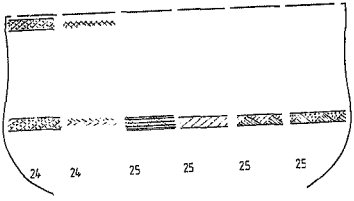

1
2 2 2 3 3
19 19 19 19 20



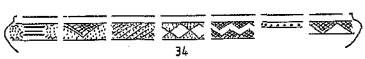
21



22



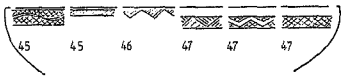
130

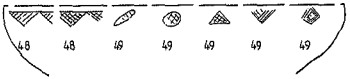


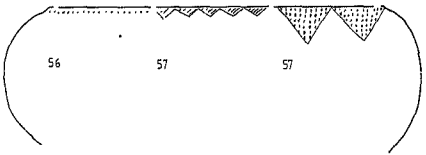
34

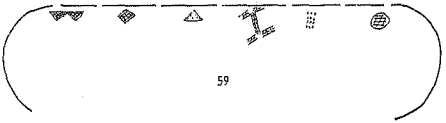
35

36


45
45
46
47
47
47


48
48
48
49
49
49
49


56
57
57

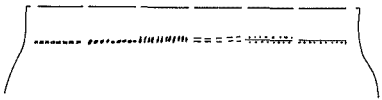

59

APPENDIX G

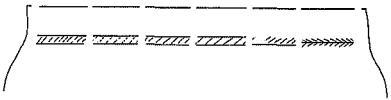
K2 affiliate set *classes*

All examples are from K2 (after Fouche 1937; Gardner 1963; Meyer 1980; and from my own drawings).

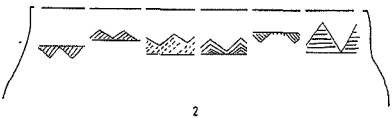
Numbers after the comma refer to classes in Table 4.2.



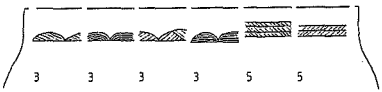
1

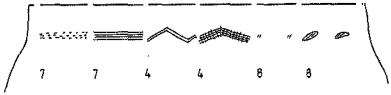


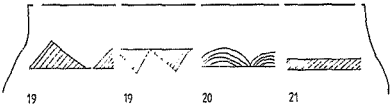
1

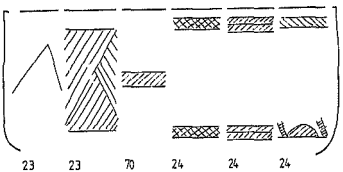


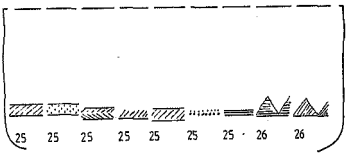
2

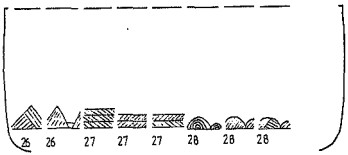

3 3 3 3 5 5

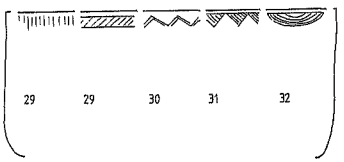

7 7 4 4 8 8

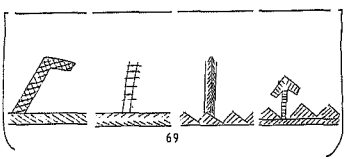

19 19 20 21

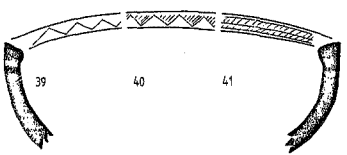

23 23 70 24 24 24


25 25 25 25 25 25 25 26 26


26 26 27 27 27 28 28 28


29
29
30
31
32


69

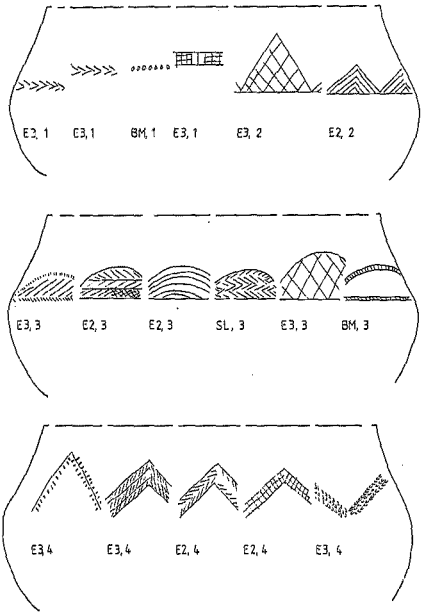

39
40
41

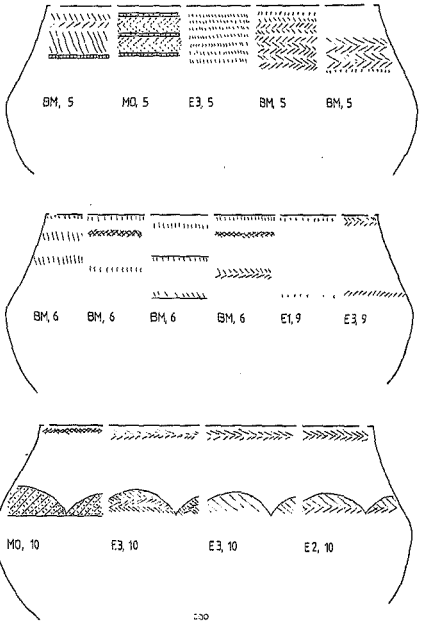
APPENDIX 7

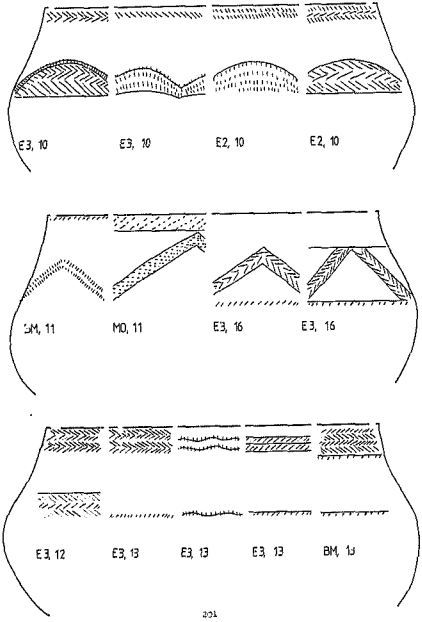
Eiland affiliate set classes

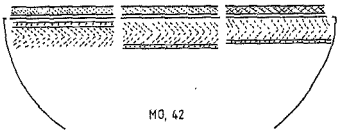
E1 = Eiland saltworks 3/74B1
E2 = Eiland saltworks 4/74II
E3 = Eiland saltworks 4/74III
SL = Silver Leaves
BM = Bambo Hill
MO = Moritsane

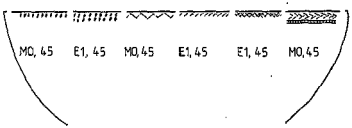
Numbers after the comma refer to classes in Table 4.2

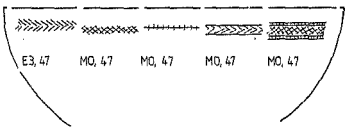

E2, 1
E3, 1
BM, 1
E3, 1
E3, 2
E2, 2
E3, 3
E2, 3
E2, 3
SL, 3
E3, 3
BM, 3
E3, 4
E3, 4
E2, 4
E2, 4
E3, 4

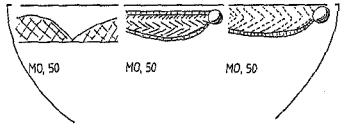

BM, 5
MO, 5
E3, 5
BM, 5
BM, 5
BM, 6
BM, 6
BM, 6
BM, 6
E1, 9
E3, 9
MO, 10
E3, 10
E3, 10
E2, 10

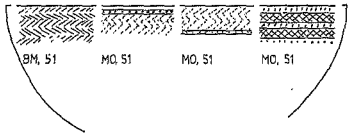

E3, 10
E3, 10
E2, 10
E2, 10
SM, 11
M0, 11
E3, 16
E3, 16
E3, 12
E3, 13
E3, 13
E3, 13
BM, 13

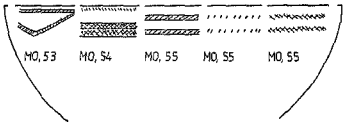

M0, 42

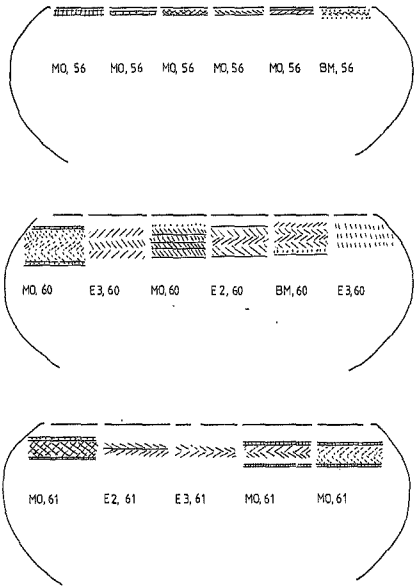

M0, 45
E1, 45
M0,45
E1, 45
E1, 45
M0,45

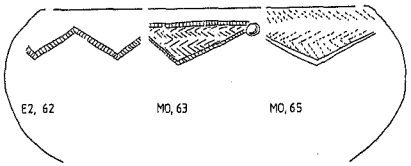

E3, 47
M0, 47
M0, 47
M0, 47
M0, 47

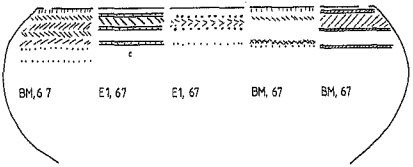

MO, 50
MO, 50
MO, 50

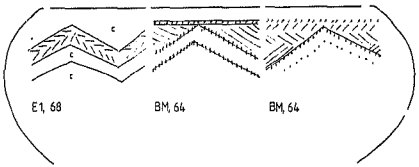

BM, 51
MO, 51
MO, 51
MO, 51


MO, 53
MO, 54
MO, 55
MO, 55
MO, 55


MO, 56
MO, 56
MO, 56
MO, 56
MO, 56
BM, 56
MO, 60
E 3, 60
MO, 60
E 2, 60
BM, 60
E 3, 60
MO, 61
E 2, 61
E 3, 61
MO, 61
MO, 61


E2, 62
MO, 63
MO, 65


BM, 6 7
E1, 67
E1, 67
BM, 67
BM, 67

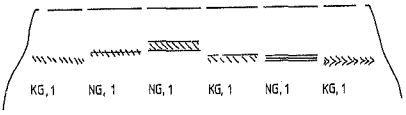

E1, 68
BM, 64
BM, 64

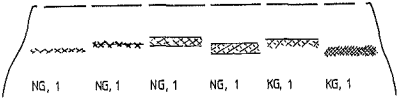
APPENDIX 8

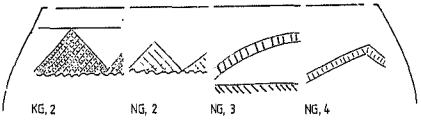
Kgopolwe affiliate classes

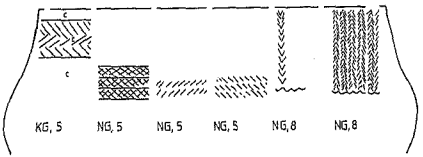
NG = Ngome 3 KG = Kgopolwe 3

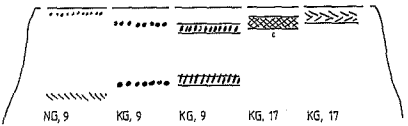
Numbers after the comma refer to classes in Table 4.2.

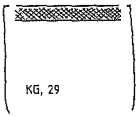

KG, 1
NG, 1
NG, 1
KG, 1
NG, 1
KG, 1

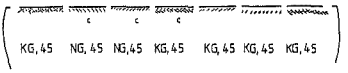

NG, 1
NG, 1
NG, 1
NG, 1
KG, 1
KG, 1

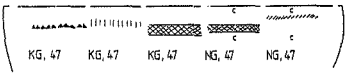

KG, 2
NG, 2
NG, 3
NG, 4

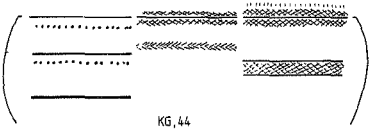

KG, 5
NG, 5
NG, 5
NG, 5
NG, 8
NG, 8

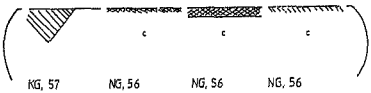

NG, 9
KG, 9
KG, 9
KG, 17
KG, 17


KG, 29


KG, 45
NG, 45
NG, 45
KG, 45
KG, 45
KG, 45
KG, 45

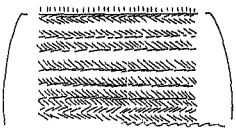

KG, 47
KG, 47
KG, 47
NG, 47
NG, 47


KG, 44



KG, 57 NG, 56 NG, 56 NG, 56

NG, 63



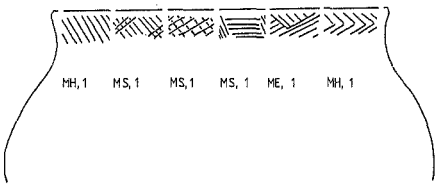
KG, 66

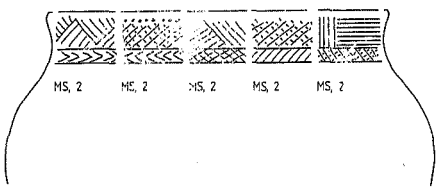
APPENDIX 9

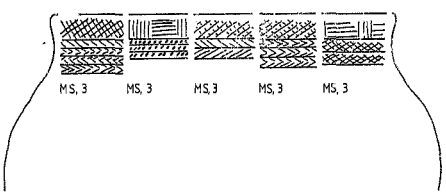
Early Msuluzi affiliate classes

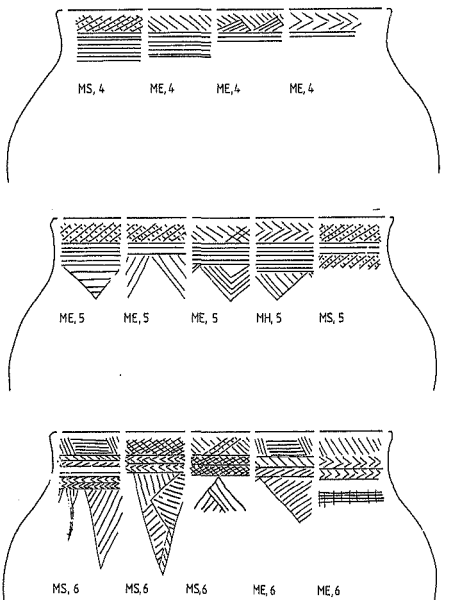
MH = Mhlopeni MS = Msuluzi
ME = Magogo early

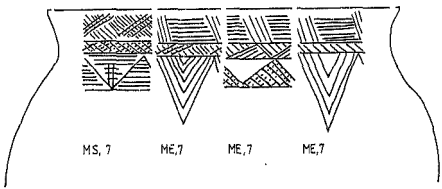
Numbers after the comma refer to classes in Table 5.2.

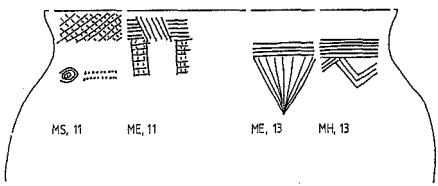

MH, 1
MS, 1
MS, 1
MS, 1
ME, 1
MH, 1

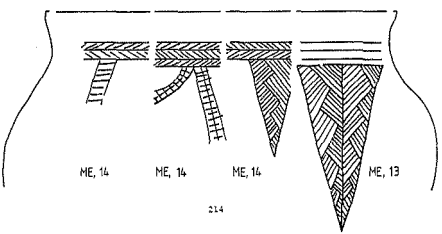

MS, 2
ME, 2
MS, 2
MS, 2
MS, 2

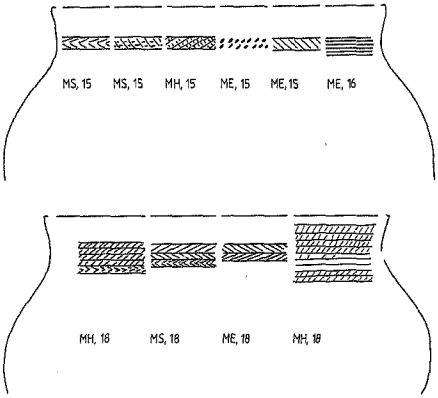

MS, 3
MS, 3
MS, 3
MS, 3
MS, 3

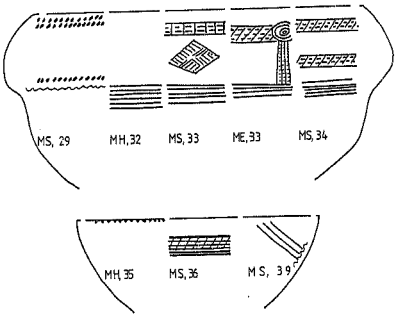

MS, 4
ME, 4
ME, 4
ME, 4
ME, 5
ME, 5
ME, 5
MH, 5
MS, 5
MS, 6
MS, 6
MS, 6
ME, 6
ME, 6


MS, 7
ME,7
ME,7
ME,7


MS, 11
ME, 11
ME, 13
MH, 13


ME, 14
ME, 14
ME, 14
ME, 13


MS, 15
MS, 15
MH, 15
ME, 15
ME,15
ME, 16
MH, 18
MS, 18
ME, 18
MH, 18

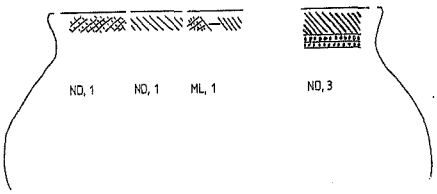

MS, 29
MH, 32
MS, 33
ME, 33
MS, 34
MH, 35
MS, 36
MS, 39

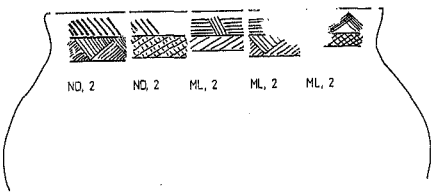
APPENDIX 10

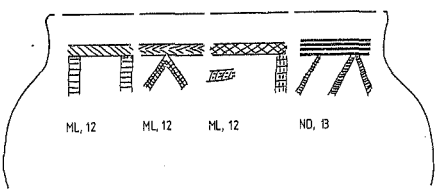
Late Msuluzi affiliate classes

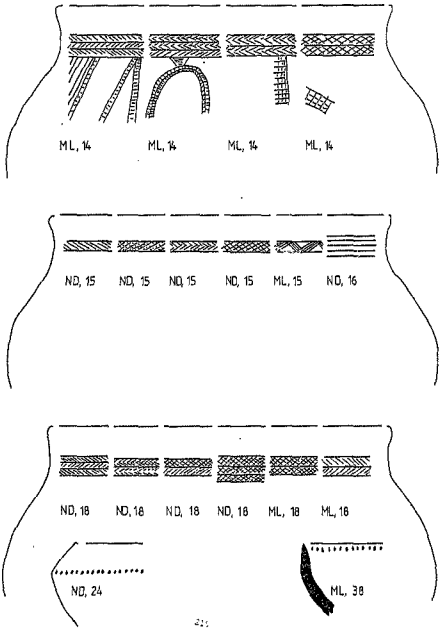
ML = Magogo late ND = Ndondonwane

Numbers after the comma refer to classes in Table 5.2.


ND, 1
ND, 1
ML, 1
ND, 3


ND, 2
ND, 2
ML, 2
ML, 2
ML, 2


ML, 12
ML, 12
ML, 12
ND, 13

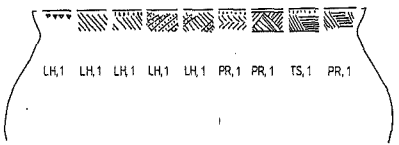

ML, 14
ML, 14
ML, 14
ML, 14
ND, 15
ND, 15
ND, 15
ND, 15
ML, 15
ND, 16
ND, 18
ND, 18
ND, 18
ND, 18
ML, 18
ML, 18
ND, 24
ML, 38

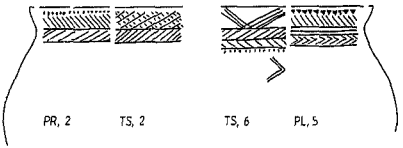
APPENDIX 11

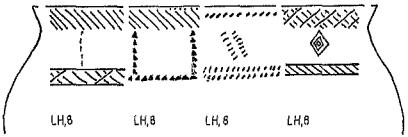
Early Lydenburg affiliate classes for the 7th century

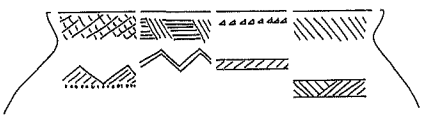
LH = Lydenburg heads site PR = Pr.1 TS = Tsh.1
PL = Plaston KP = Klipspruit

Numbers after the comma refer to classes in Table 5.2.

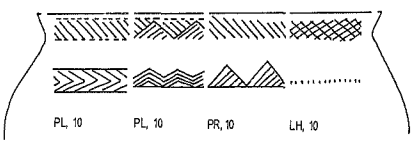

LH,1 LH,1 LH,1 LH,1 LH,1 PR,1 PR,1 TS,1 PR,1


PR, 2
TS, 2
TS, 6
PL, 5

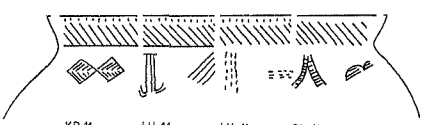

LH,8
LH,8
LH, 8
LH,8



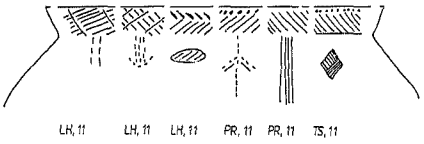
LH, 10 KP, 10 KP, 10 KP, 10

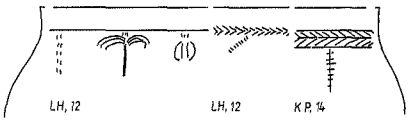


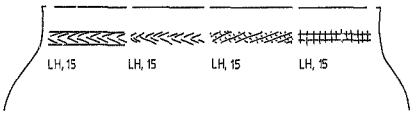
PL, 10 PL, 10 PR, 10 LH, 10

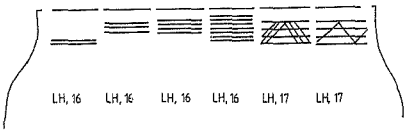


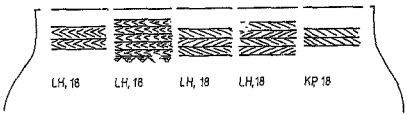
KP, 11 LH, 11 LH, 11 PL, 11

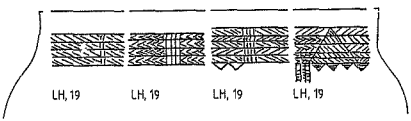

LH, 11
LH, 11
LH, 11
PR, 11
PR, 11
TS, 11


LH, 12
LH, 12
K P, 14

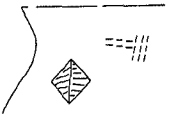

LH, 15
LH, 15
LH, 15
LH, 15

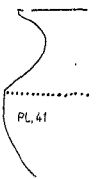

LH, 16
LH, 16
LH, 16
LH, 16
LH, 17
LH, 17

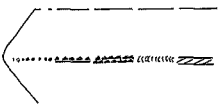

LH, 18
LH, 18
LH, 18
LH, 18
KP 18

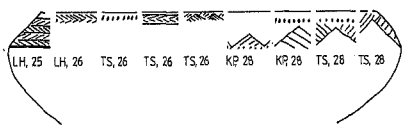

LH, 19
LH, 19
LH, 19
LH, 19

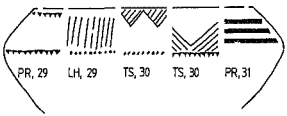

KP, 20
KP, 21

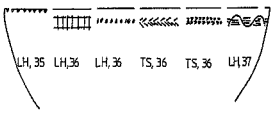

KP, 22
LH, 22


PL, 41


LH, 24
LH, 24
PR, 24
PL, 24
KP, 24


LH, 25
LH, 26
TS, 26
TS, 26
TS, 26
KP, 28
KP, 28
TS, 28
TS, 28


PR, 29
LH, 29
TS, 30
TS, 30
PR, 31

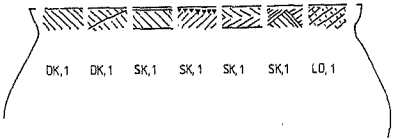

LH, 35
LH,36
LH, 36
TS, 36
TS, 36
LH,37

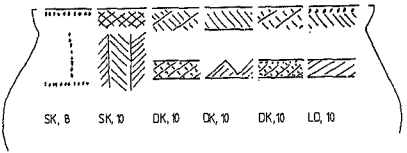
APPENDIX 12

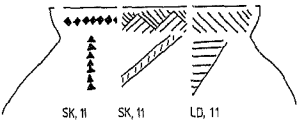
Early Lydenburg affiliate set classes for the 9th century

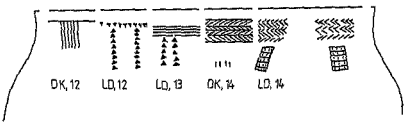
DK = Doornkop LD = Langdraai SK = Sk.17

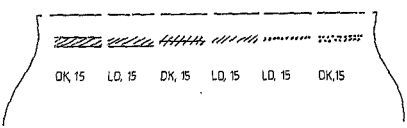
Numbers after the comma refer to classes in Table 5.2.

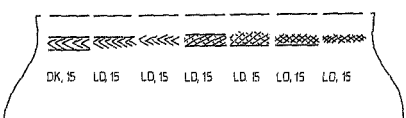

DK, 1
DK, 1
SK, 1
SK, 1
SK, 1
SK, 1
LD, 1

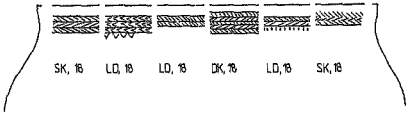

SK, 8
SK, 10
DK, 10
DK, 10
DK, 10
LD, 10

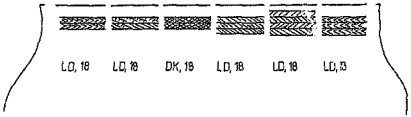

SK, 11
SK, 11
LD, 11

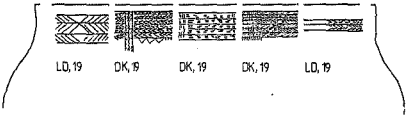

OK, 12
LO, 12
LO, 13
OK, 14
LO, 14

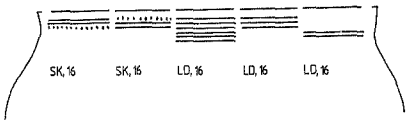

OK, 15
LO, 15
OK, 15
LO, 15
LO, 15
OK, 15

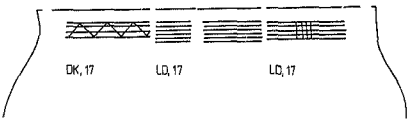

OK, 15
LO, 15
LO, 15
LO, 15
LO, 15
LO, 15
LO, 15

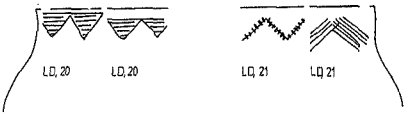

SK, 18
LD, 18
LD, 18
DK, 18
LD, 18
SK, 18

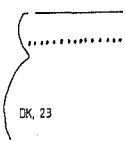

LD, 18
LD, 18
DK, 18
LD, 18
LD, 18
LD, 13


LD, 19
DK, 19
DK, 19
DK, 19
LD, 19

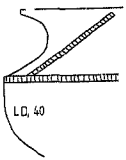

SK, 16
SK, 16
LO, 16
LO, 16
LO, 16


DK, 17
LO, 17
LO, 17

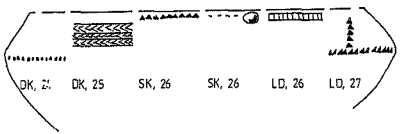

LO, 20
LO, 20
LO, 21
LO, 21



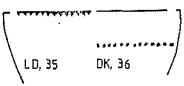
DK, 23



LD, 40



DK, 24 DK, 25 SK, 26 SK, 26 LD, 26 LD, 27



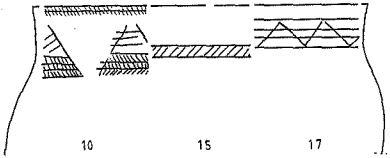
LD, 35 DK, 36

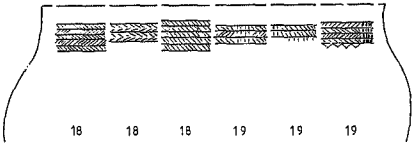
APPENDIX 13

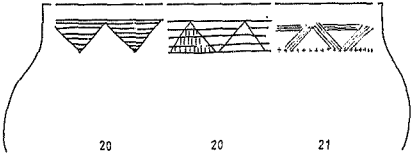
Late Lydenburg affiliate set classes

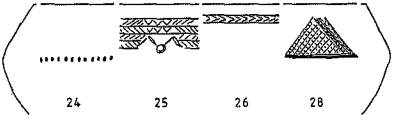
All examples from Klingbeil.

Numbers refer to classes in Table 5.2.


10
15
17


18
18
18
19
19
19


20
20
21

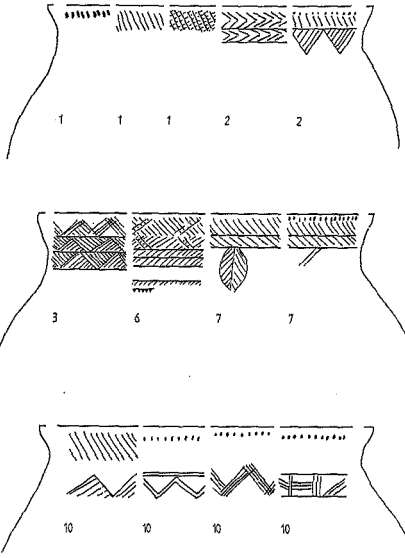

24
25
26
28

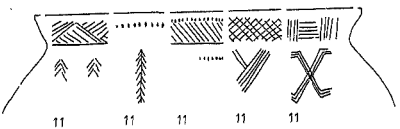
APPENDIX 14

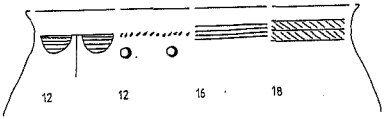
Broederstroom affiliate set classes

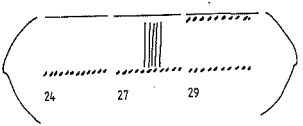
All examples from Broederstroom (after Mason 1986).

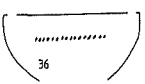
Numbers refer to the classes in Table 5.2.


1 1 1 2 2
3 6 7 7
10 10 10 10


11
11
11
11
11


12
12
15
18


24
27
29

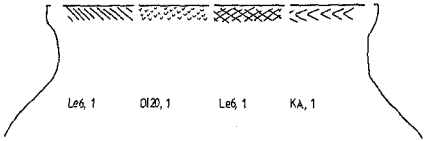

36

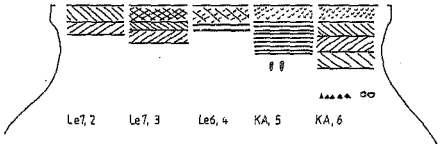
APPENDIX 15

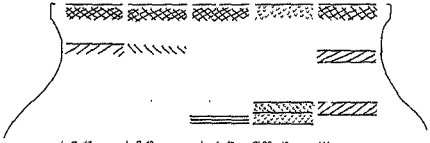
Matakoma affiliate set classes

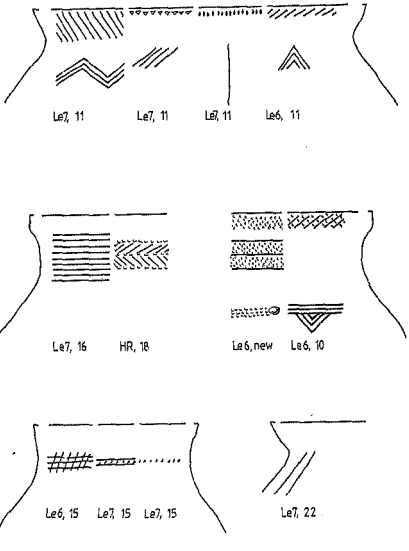
Le.6, Le.7 and O1.2(are sites in the Kruger National Park excavated by Meyer (1986). KA = Klein Afrika (after Prinsloo 1974). HR = Happy Rest (after de Vaal 1943; Voigt and Plug 1984).

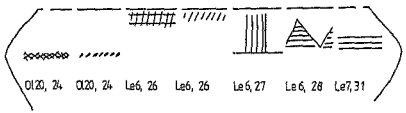
Numbers after the comma refer to classes in Table 5.2. 'New' refers to classes additional to those in Table 5.2.

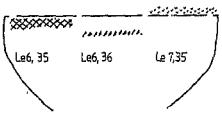

Le6, 1
Ol20, 1
Le6, 1
KA, 1


Le7, 2
Le7, 3
Le6, 4
KA, 5
KA, 6


Le7, 10
Le7, 10
Le 6, 10
Ol 20, 10
KA, new


Le7, 11
Le7, 11
Le7, 11
Le6, 11
Le7, 16
HR, 18
Le6, new
Le6, 10
Le6, 15
Le7, 15
Le7, 15
Le7, 22


Ol 20, 24
Ol 20, 24
Le 6, 26
Le 6, 26
Le 6, 27
Le 6, 28
Le 7, 31


Le 6, 35
Le 6, 36
Le 7,35

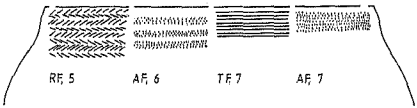
APPENDIX 16

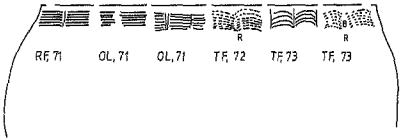
Early Moloko affiliate set classes

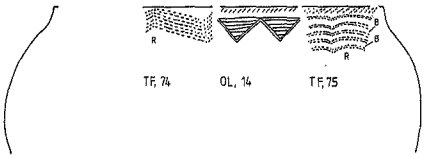
RF = Roberts Farm Phase sites
OL = Olifantspoort Phase sites
R3 = Rooiberg Unit 3 sites
(RF and OL after Mason 1986; TF after Mason 1952)

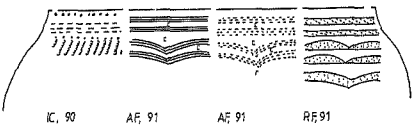
TF = Tafelkop
AF = Afsaal
IC = Icon

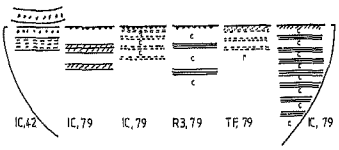
Numbers refer to classes in Table 6.1.

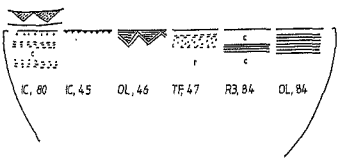

RF, 5
AF, 6
TF, 7
AF, 7

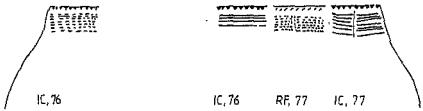

R
R
RF, 71
OL, 71
OL, 71
TF, 72
TF, 73
TF, 73

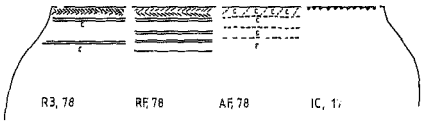

R
R
R
TF, 74
OL, 14
TF, 75

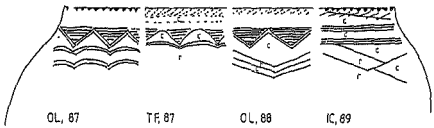

IC, 90
AF, 91
AF, 91
RF, 91

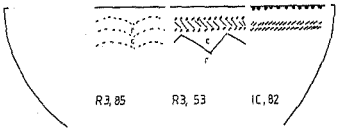

IC,42
IC, 79
IC, 79
R3, 79
TF, 79
IC, 79

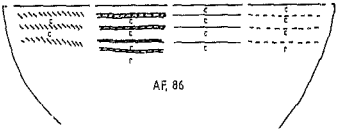

IC, 80
IC, 45
OL, 46
TF, 47
R3, 84
OL, 84

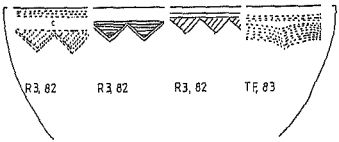

IC, 76
IC, 76
RF, 77
IC, 77

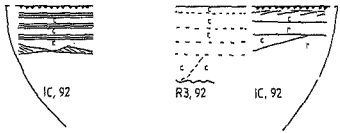

R3, 78
RF, 78
AF, 78
IC, 1

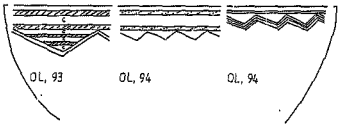

OL, 87
TF, 87
OL, 88
IC, 89

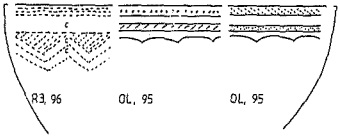

R3, 85
R3, 53
IC, 82


AF, 86


R3, 82
R3, 82
R3, 82
TF, 83


IC, 92
R3, 92
IC, 92


OL, 93
OL, 94
OL, 94


R3, 96
OL, 95
OL, 95