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MAPUNGUBWE AND THE ORIGINS OF THE ZIMBABWE CULTURE*

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ABSTRACT

Class distinction and sacred leadership characterised the Zimbabwe culture, the most complex society in precolonial southern Africa. This complex society evolved between AD 1000 and 1300 at the sites of K2 and Mapungubwe in the Shashe-Limpopo Valley. Tremendous wealth from long distance trade and an increased population stimulated a series of internal transformations involving economy, social organisation, ideology, religion and settlement patterns. The abandonment of Mapungubwe for climatic reasons led to the rise of Great Zimbabwe 250 km to the north-east.

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Mapungubwe is the most important precolonial farming site in South Africa. Located in the Shashe-Limpopo area, Mapungubwe’s architecture and spatial arrangement provide the earliest evidence for class distinction and sacred leadership in southern Africa. This stratification and associated ideology are the essence of the Zimbabwe culture.

Although its origins are not fully understood, the Zimbabwe culture has well-known archaeological and architectural sequences and can be used as a case study for the rise of sociopolitical complexity. Until recently, explanations have focussed on Great Zimbabwe, but the main points apply equally well to Mapungubwe. Credible hypotheses have emphasised either peer-polity interaction or wealth in cattle, long-distance trade or ideology and religion as catalysts. Cattle bones and trade items can be recovered but, until recently, archaeologists often neglected, or presumed, the role of ideology and religion because they lacked relevant data. Fortunately, the Zimbabwe culture provides rich evidence because it evolved in the relatively recent past and continued in one form or another until early in the twentieth century. A broad understanding of Zimbabwe ideology and religion is therefore possible. I begin with a few background comments and a brief description of the culture.

The Zimbabwe Culture

The Zimbabwe culture has been known to the Western world since the 16th century, but Mapungubwe was first known to archaeologists only a little more than 60 years ago. Over this brief time, archaeologists have established a detailed chronology of Zimbabwe culture settlements.

Advances in the calibration of radiocarbon dates (Vogel et al. 1993) in particular have resolved critical chronological issues. The Zimbabwe culture sequence can now be divided into three periods, each named after important capitals: Mapungubwe (AD 1220 to 1290), Great Zimbabwe (AD 1290 to 1450) and Khami (AD 1450 to 1820).

Portuguese eyewitness accounts written during the Khami period make it clear that the Zimbabwe culture was the product of a Shona-speaking society. These Portuguese accounts begin a 500-year long ethnographic record that allows us to understand the Khami period in some historical and cultural detail. (The models I apply to the earlier data are derived from this ethnographic record. For full details see Huffman 1996b; and for a review see the South African Archaeological Bulletin 52:125–138 December 1997.)

We know from these ethnographic and archaeological sources that Zimbabwe society was stratified into two socio-economic classes: nobles and commoners. By a noble class, I mean a high-status group, with well-recognised rights, duties and behaviour. Senior families of different lineages across the culture area formed a single bureaucratic upper class, restricting wealth, prestige and political power to themselves. Commoners, in contrast, lacked the same access to wealth, prestige and power. Secondly, the two classes perpetuated themselves biologically through special marriage patterns. Nobles formed symmetrical, or equal, marriage alliances by giving and receiving daughters from the same families. Commoners, on the other hand, entered asymmetrical alliances: one family was father-in-law to one group and son-in-law to another (see Preston-White 1974). This marriage system restructured kinship so that elites formed their own group unrelated to the commoners. Because the upper class controlled political power, this restructuring created a kin/civil dichotomy (McGuire 1992). Finally, this class distinction was manifested through a dual settlement pattern: most commoners lived in small homesteads near the agricultural lands, whereas nobles lived in special areas of district, provincial and national capitals.

Class distinction was legitimated by the ideology of ‘sacred leadership’. By ideology, I mean those aspects of culture that serve to maintain (and sometimes to challenge) the political status quo. Besides this function, ideology encompasses the integrated assertions, theories, aims and symbols that constitute a socio-political programme (Webster’s Ninth New Collegiate Dictionary 1983). By the ideology of sacred leadership, I mean first a mystical
association between the leader and the land. Dos Santos’s 17th century reference (in Theal 1898–1903:194) to ritual suicide when a Zimbabwe leader became infirm or disfigured shows this association: his infirmity would negatively affect the land.

In the case of the Zimbabwe culture, the ideology of sacred leadership was intertwined with a new theological position that elaborated the concept of God. To Zimbabwe people, God made it rain, and it is to God one must turn through the spirits of dead leaders. This process and conceptualisation differs from rainmaking among other Bantu speakers in southern Africa, such as the Nguni. There, rainmakers are special herbalists, not chiefs, who try to influence supernatural forces through the manipulation of rain medicines and ritual (Berglund 1976).

Apparent exceptions to this characterisation, such as the rain queen of the Lovedu, in fact prove the rule. The Lovedu, according to their oral traditions (Krige & Krige 1943), came from the Zimbabwe culture area.

Denbow (1997) criticised this theological distinction, but in doing so misses the important analytical difference between manipulating an impersonal supernatural force and supplanting a supreme intelligence. According to Hammond-Tooke’s (1974, 1975, 1981, 1986, 1994) extensive research, mediation with God for rainmaking through the ancestors was probably not part of traditional thought in South Africa, and it was probably not common until the introduction of Christianity. In the Zimbabwe culture, however, sacred leadership specifically involved a link between the leader, his ancestors and God. Thus, a noble leader’s power was based in part on the claim that his ancestors could intercede directly with God to insure the fertility of the land and his people. As a result of this claim, Zimbabwe leaders were said to be appointed, or at least approved, by the ancestors. They were therefore not hereditary leaders in the strict sense.

Although other precolonial societies in southern Africa maintained social ranking, the two Zimbabwe classes represented markedly greater differentiation. Indeed, no other society in the region had this combination of ancestral links to God for rain and leadership, symmetrical marriage arrangements, a single biologically reproducible high-status group and different settlement patterns for nobles and commoners. For this reason, the correlation of class distinction and sacred leadership appears to have been limited to Zimbabwe society. With the notable exception of Van Warming (e.g. 1971), scholars have been largely unaware of the limited distribution and definitive importance of these two features. A successful hypothesis for the origins of the Zimbabwe culture must explain their development.

I now consider how such social features are expressed in material culture.

Settlement Patterns and Social Relationships

To understand the social complexities of past cultures, relationships between artefacts and features become significant rather than the things themselves. Models of settlement organisation are useful for this purpose because they provide a framework for investigating social relationships. It is possible to develop spatial models because of two well-attested premises of human behaviour. First, to create order, human societies divide their physical environment into discrete locations where only limited ranges of activities are permitted. Secondly, these spatial locations have social significance and consequences: they provide physical backdrops for social behaviour and in some cases help to shape it. Furthermore, a spatial pattern is closely allied to a specific social organisation and worldview. Although one worldview could hypothetically generate more than one pattern, the reverse is highly improbable. This is a crucial point. As a rule, different worldviews do not generate the same spatial pattern. Empirical evidence indicates instead that the complex internal organisation of a settlement is most likely to be the specific product of a specific worldview. (One society, of course, may adopt the settlement pattern of another.)

At this point, it is important to distinguish between ethnic and national identities on the one hand and culture, or worldview on the other. By culture and worldview, I mean an aggregate of symbols that give meaning to social organisation, a system of rules to govern behaviour and a set of values to decide choice. Identity groups, in contrast, consist of people who consider themselves to be members of limited social and historical entities distinct from other similar entities.

The spatial models used here are primarily not concerned with ethnic or national variations because they are generalised, normative models. They present frameworks, or a set of guidelines for normal behaviour, emphasizing the underlying principles that give order to society. Indeed, as normative models, they have to subsume national, ethnic and idiosyncratic differences in order to extract common principles.

There are two normative spatial patterns relevant to the origins of the Zimbabwe culture: the Zimbabwe Pattern and the Central Cattle Pattern. We know from a study of the ethnographic record (Huffman 1996b) that each capital of the Zimbabwe culture, regardless of its size, had to have five components to function: (1) a palace, (2) court, (3) royal wives’ area, (4) place for followers and (5) places for guards. Sacred leaders had to remain aloof, and so the palace was private and sacred. Ideally, it should be placed above, behind and east of the public and secular area for followers. The court, on the other hand, was predominantly a male area to the side of the palace on a separate axis opposed to the royal wives’ compound. These wives were an indispensable part of political alliances and lived together in one area. Lastly, the palace, and then town, should be protected from physical and supernatural danger by concentric rings of guards and medicine. Zimbabwe people therefore arranged these five components according to dimensions of life forces, status and security (Fig. 1).

Fig. 1. The structural arrangement of the elite Zimbabwe Pattern.
This pattern is the spatial expression of a noble class and sacred leadership. In fact, stone-walled palaces that provide ritual seclusion are not found among any other society in southern Africa. They are therefore diagnostic of the Zimbabwe Pattern.

The second system of organisation, the Central Cattle Pattern, also represents relationships in terms of concepts about life forces, status and security, but the components are arranged differently (Fig. 2). As a rule, the centre of the settlement, the domain of men, encompasses cattle byres where men and other important people were buried and an assembly area where men resolved disputes and made political decisions. This male area also could include sunken grain pits or raised grain bins for long term storage and a public smithing area. The outer residential zone, the domain of married women, incorporated the households of individual wives with their private sleeping houses, kitchens, grain bins and graves.

Fig. 2. The structural arrangement of the Central Cattle Pattern.

The ethnographic record indicates that the Central Cattle Pattern is restricted to Eastern Bantu speakers who share, among other things, (1) a patrilineal ideology about procreation, (2) a preference for bridewealth in cattle, (3) male hereditary leadership and (4) beliefs about the role of ancestors in daily life (Kuper 1982). It is important to note that this pattern represents a cultural package: Eastern Bantu beliefs about procreation, bridewealth, leadership and ancestors are all interconnected. I do not claim that all aspects of a culture, or all cultures, are bounded packages, only that these four features of Eastern Bantu culture are inter-related and that the Central Cattle Pattern is necessarily associated with them.

The Central Cattle Pattern continued among commoners in the Zimbabwe culture and one notable example comes from the Khami period (Van Waarden 1989). The existence of both patterns in the Zimbabwe culture is incontrovertible evidence for class distinction. Since no other precolonial society in southern Africa maintained two settlement patterns, the evolution of this dual organisation is a critical issue. Indeed, this evolution clarifies the roles of cattle, trade, ideology and religion in the rise of Mapungubwe. An outline of the archaeological sequence in the Shashe-Limpopo area provides the relevant empirical evidence.

Events and Processes in the Limpopo Valley

The first Bantu-speaking farmers moved into the Mapungubwe region between about AD 350 and 450. They belonged to the Happy Rest ceramic facies of the Kalundu Tradition (also called Western Stream). Happy Rest pottery has been found at the base and on the top of Mapungubwe Hill and on top of at least three other local hills in what appear to be rainmaking contexts. Generally speaking, rainmaking hills have steep sides, their access is difficult and their available space too restricted for cattle and people. Yet, the hilltop is covered in decorated pottery, sometimes of different periods. The distribution of Happy Rest pottery on hilltops, then, suggests early farmers lived in the area.

Independent climatic data (Tyson & Lindesay 1992; Holmgren et al. 1999) indicate that it was warm and wet at this time, and it was possible to cultivate sorghum and millets. From about AD 600 to 900, however, the climate became colder and drier, and no farming communities have been dated to this period in the area. At about AD 900 the climate improved once again, and Zhizo farmers moved into the area (Fig. 3).

The Zhizo ceramic facies is characterised by pots with bands of oblique incision and combstamping on the lower rim, stamped triangles on the upper shoulder, followed by a horizontal line of stamping (Huffman 1974). This ceramic style was spread over south-west Zimbabwe and adjacent parts of Botswana as well as the Limpopo Valley (Robinson 1960, 1966; Garlake 1966, 1967; Huffman 1973, 1984; Hanisch 1980; Denbow 1982; Kiyaga-Mulindwa 1992; Campbell et al. 1996). Most sites with this pottery in the valley and wider region have been dated to between about AD 790 and 1020 (Table 1) using the Pretoria calibration curve of Vogel et al. 1993.

The largest and most important Zhizo settlement (Fig. 4) in the area was Schroda (Hanisch 1980). Fortunately, Schroda’s political and social role can be ascertained by its size. Throughout southern Africa in the recent past, settlement size was related to political power because of the unequal distribution of wealth (Huffman 1986a). As a rule the senior leader was the wealthiest person in his

Table 1: Radiocarbon dates from Zhizo sites in the Shashe-Limpopo Valley and wider region.

<table>
<thead>
<tr>
<th>Site</th>
<th>Lab. No.</th>
<th>Age BP</th>
<th>Cal. AD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baoab</td>
<td>Pta–7450</td>
<td>1040±40</td>
<td>1000–1035</td>
</tr>
<tr>
<td>Doddidburn</td>
<td>Wits–1210</td>
<td>1110±70</td>
<td>970–1020</td>
</tr>
<tr>
<td>Glennel</td>
<td>Pta–1817</td>
<td>1120±60</td>
<td>895–1015</td>
</tr>
<tr>
<td>Letsibogo 109</td>
<td>Beta–80984(AMS)</td>
<td>1220±60</td>
<td>790–950</td>
</tr>
<tr>
<td>Letsibogo 30A</td>
<td>Beta–81196</td>
<td>1220±50</td>
<td>790–950</td>
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<td>Beta–29951</td>
<td>1300±50</td>
<td>970–1020</td>
</tr>
<tr>
<td>Makodu</td>
<td>Beta–18639,</td>
<td>660±60</td>
<td>690–875</td>
</tr>
<tr>
<td></td>
<td>Beta–18641</td>
<td></td>
<td>to</td>
</tr>
<tr>
<td></td>
<td>114727, Beta–18640</td>
<td>to to</td>
<td></td>
</tr>
<tr>
<td></td>
<td>114726, Beta–18638</td>
<td>920±70</td>
<td>995–1065</td>
</tr>
<tr>
<td></td>
<td>114725, Beta–18642</td>
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</tr>
<tr>
<td></td>
<td>114728, Beta–18637</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phatayasebilo</td>
<td>Pta–7240</td>
<td>1010±40</td>
<td>1020–1050</td>
</tr>
<tr>
<td>Pont Drift 1</td>
<td>Pta–1961</td>
<td>1110±50</td>
<td>960–1015</td>
</tr>
<tr>
<td>Pont Drift 2</td>
<td>Pta–1959</td>
<td>1140±50</td>
<td>890–1000</td>
</tr>
<tr>
<td>Taulkeme</td>
<td>1–11407</td>
<td>1265±80</td>
<td>690–895</td>
</tr>
<tr>
<td></td>
<td>1–11410</td>
<td>1240±80</td>
<td>715–960</td>
</tr>
</tbody>
</table>

NB. Vertical lines indicate linked dates, i.e. different estimates of the same occupation. Calibrated results have been rounded up to the nearest 5 years.
nation, accumulating more cattle than anyone else through death dues, court fines, forfeits, tributes, raids and the high brideprice of his daughters (e.g. Schapera 1943; Hammond-Tooke 1974). Because of this wealth, the senior leader had more wives, more fields, more followers and more court officials and therefore the largest settlement: in metaphor, 'big men' lived in big settlements. Further, political stratification was a function of the number of courts in a polity, and noticeably large settlements were limited to the upper levels of a hierarchy. The settlements became larger, and the size categories more numerous, as the number of court levels increased. Thus, two size categories (petty chief and all others) characterised three-level hierarchies, three categories (senior chief, petty chief and all others) characterised four-level hierarchies, and five-level hierarchies yielded national, provincial and district categories separate from the ward and family categories at the base. These levels, it should be noted, reflect political rather than social stratification. Several historically known groups such as the Zulu maintained well-defined hierarchies and yet lacked formalised class structures: political and social stratification are separate phenomena. Based on its size, Schroda was most likely a level-3 capital and the only one in the region at the time (Fig. 3).

Excavations at Schroda (Hanisch 1980) uncovered a large cache of unusual clay figurines that included animals, humans and creatures of fantasy. An unusual cache such as this is often associated with female initiation ceremonies (e.g. Mönnig 1967:126-7; Richards 1945). Since chiefs usually controlled such rites of passage, this cache is further evidence of Schroda's chiefly status.

According to the archaeological record, the people at Schroda maintained political control for about one hundred years. At about AD 1000 ± 25 Schroda was abandoned, and its characteristic ceramic style largely disappeared from south-west Zimbabwe and northern South Africa. At the same time, a new capital was established at K2, and K2 pottery spread over a large part of the Shashe-Limpopo region (Fig. 5). This pottery belongs to the Leopard's Kopje cluster characterised by pots with incised triangles, arcades and chevrons in the neck. Sites with this pottery date to between about AD 1010 and 1250 (Table 2).

I have argued that Leopard's Kopje belongs to a large stylistic cluster, which was brought into Zimbabwe by a large-scale movement of Shona-speaking people because no disjunctions of a similar kind or magnitude exist in the archaeological record of the area until the 19th century (Huffman 1978). Some archaeologists challenge this replacement hypothesis, however, and argue that Leopard's Kopje grew out of Zhizo. This alternative interpretation appears to be based on Hanisch's (1980) excavations at Pont Drift where Zhizo attributes were thought to have continued into Leopard's Kopje. But if data are presented in

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Fig. 3. The location of Zhizo sites in the Shashe-Limpopo Valley.
Fig. 4. Schroda, the Zhizo capital from AD 900 to 1000.
Fig. 5. The location of K2 sites in the Shashe-Limpopo Valley.

Fig. 6. The vertical distribution of Zhizo and Leopard's Kopje (K2) motifs at Pont Drift. Data from Hanisch (1980).

Table 2: Radiocarbon dates from K2 sites in the Shashe-Limpopo Valley and wider region.

<table>
<thead>
<tr>
<th>Site</th>
<th>Lab. No.</th>
<th>Age BP</th>
<th>Cal. AD</th>
</tr>
</thead>
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<tr>
<td>Glennel</td>
<td>Pta–1957</td>
<td>1010±40</td>
<td>1020–1150</td>
</tr>
<tr>
<td>K2</td>
<td>Pta–6576, Pta–1214</td>
<td>1010±50</td>
<td>1025–1160</td>
</tr>
<tr>
<td></td>
<td>Pta–2051, Pta–1215</td>
<td>1010±50</td>
<td>1025–1160</td>
</tr>
<tr>
<td></td>
<td>Pta–1157, Pta–1226</td>
<td>to</td>
<td>to</td>
</tr>
<tr>
<td></td>
<td>Pta–6080, Pta–307</td>
<td>760±50</td>
<td>1205–1275</td>
</tr>
<tr>
<td></td>
<td>Pta–6073, Pta–305</td>
<td>to</td>
<td>to</td>
</tr>
<tr>
<td></td>
<td>Pta–304, Pta–6064</td>
<td>to</td>
<td>to</td>
</tr>
<tr>
<td></td>
<td>Pta–306</td>
<td>to</td>
<td>to</td>
</tr>
<tr>
<td>Mapungubwe</td>
<td>Pta–2024, Pta–768</td>
<td>1030±40</td>
<td>1010–1040</td>
</tr>
<tr>
<td></td>
<td>Pta–2023</td>
<td>930±40</td>
<td>1150–1215</td>
</tr>
<tr>
<td>Pont Drift</td>
<td>Pta–1818</td>
<td>840±50</td>
<td>1215–1275</td>
</tr>
<tr>
<td>Schrada (L5)</td>
<td>Pta–7659</td>
<td>1030±45</td>
<td>1010–1045</td>
</tr>
<tr>
<td>Venzo Kopje</td>
<td>SR–136</td>
<td>880±90</td>
<td>1050–1250</td>
</tr>
<tr>
<td>Zhizo Hill</td>
<td>Tx 228</td>
<td>910±130</td>
<td>1020–1280</td>
</tr>
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</table>

NB: Vertical lines indicate linked dates, i.e. different estimates of the same occupation. Calibrated results have been rounded up to the nearest 5 years.

a standard format, they demonstrate a discontinuity parallel the stratigraphic evidence for Leopard's Kopje above Zhizo (Fig. 6). They do not demonstrate continuity.

To interpret stylistic continuities, other kinds of analyses, such as seriations, are more appropriate. Two such analyses yielded conclusive results. A qualitative seriation for the area north of the Matopos (Huffman 1974) and a quantitative comparison of multidimensional types for the southern region (Huffman 1984) demonstrate that Zhizo and Leopard's Kopje were not related. Zhizo grew out of Gokomere (a sub branch of Nkope, or the Central Stream) and Leopard's Kopje out of a branch of Kalundu. At the level of Traditions, Zhizo and Leopard's Kopje had quite separate origins (Fig. 7).

The later development of Zhizo provides a framework for understanding the nature of interaction in the wider region. As Denbow (1982, 1983) has shown, Zhizo grew into Toutswe in eastern Botswana, whereas Calabrese's (1998, 2000a, 2000b) new work shows that Zhizo grew into Leokwe in the Shashe-Limpopo area. Because Denbow
found a major increase in Toutswe settlement at AD 1000, and there is so far only one known Leokwe settlement, it is reasonable to conclude that the increase resulted from the movement of the Schroda chiefdom out of the area. Leokwe would therefore represent those who stayed behind.

Although separate in origin, there is, nevertheless, evidence for contact between Toutswe and K2. Archaeologists recovered a few Toutswe vessels at K2 (see Fouche 1937: plate xxxi, 9) and some K2 vessels in the Toutswe area (Denbow 1982). These vessels may well indicate marriage transactions (see for e.g. Denbow 1983; Evers & Hammond-Tooke 1986). On the other hand, whereas numerous K2-like beakers with Toutswe designs in the Toutswe area reflect the influence of K2, there is no comparable evidence for Toutswe influence on K2 shapes or design. This one-way emulation shows that K2 dominated the region.

The ceramic data deserve further comment. In southern Africa, people normally have access to resources through their chiefdoms (e.g. Sansom 1974) whose territorial boundaries are often marked by rivers and other natural features. According to empirical studies in East Africa (Hodder 1982), economic cooperation contributes to fluid borders, whereas strong competition leads to definitive boundaries. In the 11th century, the Motloutse River in Botswana formed a distinct boundary between the Toutswe and Leopard’s Kopje ceramic groups. Furthermore, the larger Toutswe settlements were sited on hilltops in defensive positions. Although we do not know how many chiefdoms were involved, these data show that the two groups represented by Toutswe and Leopard’s Kopje ceramics were competitors. This competition involved the east coast trade.

During Zhizo times, Schroda (Hanisch 1980) was the first settlement in the interior to yield a large number of ivory objects and exotic glass beads. Although earlier Zhizo settlements elsewhere received imported beads, the Shashe-Limpopo Valley was probably the first area in the interior to be articulated directly with the Indian Ocean commercial network. By the 9th century, according to Arab documents (e.g. Burke 1962; Freeman-Grenville 1975), Swahili traders had found new ivory sources in the Sofala area of present-day Mozambique. Archaeologists in Mozambique have located some of these early coastal trading stations. Sinclair (1982) found sites in the Bazaruto Archipelago with Persian pottery, Islamic glass and beads, as well as glazed and unglazed pottery like that from the early periods at Kilwa and Manda, up the east coast. On present evidence, then, the Bazaruto area was the first Sofala. (A second Sofala was established further to the north at the time of Great Zimbabwe, see Fig. 8). Swahili traders did not sail farther south because of the limited extent of the trade winds and because dangerous conditions in the Mozambique channel put a practical limit on navigation.

The early documents mention a trade for gold, but on geological grounds, the gold could not have come from the Sofala area. Because of the likely links with the Shashe-Limpopo area, the gold probably came from the greenstone belt in the present-day Gwanda-West Nicholson area of Zimbabwe. Various rivers that drain this gold belt flow south into the Shashe and Limpopo rivers, and it is possible to pan for alluvial gold near Schroda (e.g. Trevor & Mellor 1908).
The early documents also mention a trade in iron for consumption in India. The sandstones and basalt in the area are devoid of iron ore, however, and even for domestic use iron had to be imported to Schroda. Some iron may have come from the Tswapong Hills in Botswana, 200 km south-west of Schroda. The hills were a source of iron ore in historic times, and over 300 furnaces have so far been recorded (Kiyaga-Mulindwa 1992; Main 1996 and pers. comm.). Some of these furnaces date to the Zhizo period, and the remains of Zhizo settlements are also there. Furthermore, sites with Diamant pottery, the second phase after Happy Rest, have also been recorded with evidence for metal production (Campbell, Steyn, Huffman & Main field notes 1996). The Diamant name-site on the western side of the Waterberg also contains iron-working debris (Aukema pers. comm.), and all three types of sites have yielded glass beads like those at Schroda. Indeed, Schroda is the only likely source for all these beads.

During Zhizo times, many communities had easy access to trade goods, as glass beads were also found at Doddiburn (Huffman 1972) in south-west Zimbabwe, Taukome (Denbow 1983) in eastern Botswana, and Pont Drift (Hanisch 1980) near the confluence of the Shashe and Limpopo.

This general distribution changed when Leopard's Kopje people moved into the area. When early Shona people took over this region, they must also have taken over the coastal trade, for K2 has produced considerably more ivory objects and glass beads than any other contemporaneous settlement (Voigt 1983). K2 craftsmen even produced their own glass beads out of the imports (Van Riet Lowe 1955; Davison 1973). These 'garden rollers' have been found at sites surprisingly far away from K2, such as Tsaitshitsa 350 km north-west on the southern edge of Sowa Pan (Main, Campbell & Huffman—field notes 1996) and at Moritsane (Denbow 1981), 450 km to the south-west (see Wood 2000, i.e. this volume).

What is more, these garden rollers are virtually the only glass beads found at Toutswemogala, the senior Toutswe-period capital near Palapye, and there are few of them. In fact, excavations by Denbow (1983) and Lepionka (1977) yielded less than a dozen glass beads. On the other hand, a pot full of exotic beads was uncovered in a hut at Kgaswe (Denbow 1986), an ordinary Toutswe-period homestead. Since the nearby capital yielded so few, this hoard may have been inherited or the result of an illicit trade. Whatever the case, the distribution of trade goods changed after AD 1000, and Toutswe was not a major centre for the east coast network, as some have presumed.

Instead, the widespread distribution of garden roller beads, along with the limited distribution of exotic imports and concentration of ivory and glass beads at K2 show that the Leopard's Kopje capital controlled the interior portion of the coastal trade. The evidence suggests they outcompeted Toutswe.

Less competitive relationships may have existed between K2 and contemporaneous Eiland communities to the south. Characteristic Eiland herringbone designs occur at K2 and Mapungubwe (and Toutswe for that matter), whereas garden rollers and other glass beads were found at Moritsane (Denbow 1981) and in the Lephalaala drainage in the Waterberg (Aukema 1989 and pers. comm.; Van der Ryst, pers. comm.). Eiland ceramics form a third phase of the coastal trade, for K2 has produced considerably more ivory objects and glass beads than any other contemporaneous settlement. The evidence suggests they out-competeted Toutswe.

Whatever the case, people to the south appear to have maintained contacts with the area throughout its development.

Most of the beads and ivory at K2 (Fig. 9) were found in an enormous midden next to the central byre and court (Gardner 1963; Meyer 1980, 1998; Eloff & Meyer 1981). A brief outline of the changes in spatial organisation, beginning with this midden, provides a framework for understanding changes in society.

Leopard's Kopje people, like most other groups in southern Africa, organised their settlements according to the principles of the Central Cattle Pattern. In this pattern, the magnitude of the court midden is related to the political following of the leader. Between about AD 1060 and 1080, this court midden had become so large that it engulfed the byre, and cattle were no longer kept in the centre. By AD 1220, this midden had grown to a height of about six metres. By now, K2 was the size of a level-4 capital.

An abrupt abandonment of K2 at this time coincides with an immediate increase of K2 people around Mapungubwe Hill, less than a kilometre away (Fig. 10). A natural amphitheatre at the bottom of Mapungubwe Hill probably sheltered the new court because this is the only sizeable area inside the new town free of residential debris. The absence of cattle dung anywhere in the vicinity indicates that a byre was not re-established next to the court.
The previous shift of cattle away from the centre at K2 was therefore a real spatial transformation and not the result of some temporary expediency. This shift was probably due to a new restricted ownership of cattle and a change in the function of the court from a place for all men to a place for commoners.

After the capital was relocated to Mapungubwe, most people lived in front of the court, but a few moved on to the hilltop above (Fig. 11). Since only the leader and his family live upslope behind the court in the Central Cattle Pattern, it is reasonable to presume that the K2 leader moved uphill at Mapungubwe. It is important to note that this move uphill was the first time in the prehistory of southern Africa that a senior leader was so physically separated from his followers.

The new calibration curve indicates that Mapungubwe was inhabited for only some seventy to eighty years, from about AD 1220 to 1290/1300. In this short time, the spatial organisation continued to evolve into a distinct and new elite pattern. A stone-walled palace on the hilltop separated the leader from his family and followers, whereas other stone walling demarcated entrances to elite areas, noble housing and boundaries of the town centre. These and other similarities with Great Zimbabwe (Fig. 12) demonstrate that the elite Zimbabwe Pattern originated at K2 and Mapungubwe, rather than at Great Zimbabwe itself. This new elite pattern had probably crystallised by AD 1250 (cf. Meyer 1997, 1998).

Glass beads (Schofield 1938; Van Riet Lowe 1955) and other artifacts indicate continued contact with coastal traders. Spindle-whorls, for example, appear at Mapungubwe for the first time (Meyer 1980). These flat circular discs with central perforations were used as weights for spinning cotton thread. Since cotton weaving was a well-established craft in Swahili towns by this time (Huffman 1971; Davison & Harries 1980), the spindle-whorls at Mapungubwe mark the introduction of weaving by coastal traders and perhaps the start of a craft speciality.

At the beginning of the trade, gold was probably more of a means to wealth than wealth itself, but by about AD 1250 gold objects had been locally manufactured. Unique items such as the rhino and 'sceptre' were made from thin sheets tacked onto wooden cores (Fouché 1937: plates A, B and C; Oddy 1984). These gold items distinguished the graves of three elite people who were buried on top of the hill (Fig. 12), rather than in a cattle byre. They were part of a cemetery that contained 20 other people (Gardner 1963), and two have been radiocarbon dated to the second half of Mapungubwe's occupation (Vogel 1998). Thus, all the people in the cemetery were probably royalty.

The cemetery was not well recorded, but there is some interesting detail known about the three gold burials. The first, No. 14, was probably a woman buried in a sitting position facing west: she wore at least a hundred gold wire bangles around her ankles, and there were over twelve thousand gold beads in the grave. Burial No.10 was a tall (nearly two metres) middle-aged man also sitting up facing west; he wore a necklace of gold beads and cowrie shells, and he was buried with some objects covered in gold foil, one resembled a crocodile's head. The third, known as the original gold burial, was also male, but the burial position is not known; he was buried with a headdress and three objects made of gold foil tacked on to a wooden core—a bowl, sceptre and rhino. At least two more rhino were in the sample, but their association with a specific grave is unknown.

In the Central Cattle Pattern today, as well as in the past, a flexed burial position was standard, whereas high-status people were often buried sitting up. Thus the posture and gold ornaments indicate that the three people buried on Mapungubwe Hill were rulers, perhaps a king, his ritual sister and brother, or two kings. Whatever the exact status of the people, the burial goods reflect the great wealth controlled by the upper class.

Shortly after the rise of Mapungubwe, the K2 ceramic style began to change. Some have argued that this change signalled the appearance of a new people (e.g. Gardner 1959; Meyer 1980), but the ceramic differences are not stylistically or numerically abrupt. Instead, the surface finish was merely enhanced, the earlier K2 designs became more complex, and the new types only gradually replaced the others. Rather than a new population, these changes...
were more likely due to the emergence of full-time specialists who were a consequence of the growing population and developing class structure. This new pottery style had probably evolved at Mapungubwe itself by AD 1250. It lasted for only 50 to 100 years, and so it is a particularly good chronological indicator.

Small settlements with Mapungubwe pottery in the area occupy open situations rather than hills, and they lack prestige walling. Those that have been investigated, such as Skutwater (Van Ewyk 1987), Edmondsberg and Little Muck D (Calabrese 1997, 1998, 2000b) were organised according to the principles of the earlier Central Cattle Pattern. These small settlements were therefore inhabited by commoners and show that major spatial alterations were limited to the upper echelons of society. Because senior leadership was now concentrated in the noble class, the preference for hereditary leadership among the commoners was probably limited to headmen and court officials. Whatever the case, the dual settlement system is diagnostic evidence for the development of a class-based society.

The spread of this new culture can be traced by the distribution of commoner homesteads and district centres with Mapungubwe pottery (Fig. 13). In addition to the Mapungubwe area, this diagnostic pottery has been found throughout the wider region associated with a relatively narrow range of radiocarbon dates (Table 3).

Many Mapungubwe phase sites are known and it is possible to recognise five administrative levels within 100 km of Mapungubwe: the first two are represented by the small commoner settlements of Bobonong Road (Kinahan & Kinahan 1998), Met tengwe (Robinson 1958), Skutwater and Edmondsberg; the third level is formed by small elite hilltop settlements such as Little Muck A and Mmamagwa in Botswana (Tamplin 1977); and the large elite settlement on Mapela Hill in Zimbabwe (Garlake 1966, 1968) forms a fourth level. A more thorough record of sites is needed to confirm this hierarchy, but since Mapungubwe was several times larger than Mapela Hill, it is reasonable to infer that all of this area was under Mapungubwe’s sovereignty.

Table 3. Radiocarbon dates from commoner sites with Mapungubwe pottery

<table>
<thead>
<tr>
<th>Site</th>
<th>Lab. No.</th>
<th>Age BP</th>
<th>Cal. AD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bobonong Road</td>
<td>Pta–7279</td>
<td>850±50</td>
<td>1205–1275</td>
</tr>
<tr>
<td>Edmondsberg</td>
<td>Pta–779</td>
<td>850±50</td>
<td>1205–1275</td>
</tr>
<tr>
<td>Mapela</td>
<td>Pta–944</td>
<td>720±40</td>
<td>1290–1390</td>
</tr>
<tr>
<td>Mtnye</td>
<td>Pta–1159</td>
<td>840±40</td>
<td>1220–1275</td>
</tr>
<tr>
<td>Princess Hill</td>
<td>Wits–1590</td>
<td>770±80</td>
<td>1245–1305</td>
</tr>
<tr>
<td>Skutwater</td>
<td>Pta–3734</td>
<td>830±40</td>
<td>1250–1285</td>
</tr>
<tr>
<td></td>
<td>Pta–3715</td>
<td>820±45</td>
<td>1225–1280</td>
</tr>
</tbody>
</table>

Mapungubwe (Beginning)

<table>
<thead>
<tr>
<th>Site</th>
<th>Lab. No.</th>
<th>Age BP</th>
<th>Cal. AD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hill</td>
<td>Pta–372, Pta–1158</td>
<td>880±45</td>
<td>1175–1250</td>
</tr>
<tr>
<td></td>
<td>Pta–1159</td>
<td>840±40</td>
<td>1220–1275</td>
</tr>
</tbody>
</table>

(Middle)

<table>
<thead>
<tr>
<th>Site</th>
<th>Lab. No.</th>
<th>Age BP</th>
<th>Cal. AD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hill Burial A621</td>
<td>Pta–3489</td>
<td>850±40</td>
<td>1215–1270</td>
</tr>
<tr>
<td>Burial A622</td>
<td>Pta–3480</td>
<td>770±40</td>
<td>1270–1295</td>
</tr>
<tr>
<td>Southern Terrace</td>
<td>Pta–1156, Pta–439</td>
<td>860±40</td>
<td>1205–1265</td>
</tr>
<tr>
<td></td>
<td>Pta–438, Pta–437</td>
<td>810±45</td>
<td>1235–1285</td>
</tr>
</tbody>
</table>

(End)

<table>
<thead>
<tr>
<th>Site</th>
<th>Lab. No.</th>
<th>Age BP</th>
<th>Cal. AD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hill</td>
<td>Pta–1145</td>
<td>880±40</td>
<td>1180–1250</td>
</tr>
<tr>
<td></td>
<td>Pta–6692</td>
<td>720±40</td>
<td>1285–1310</td>
</tr>
<tr>
<td>Southern Terrace</td>
<td>Pta–766, Pta–752</td>
<td>860±40</td>
<td>1205–1265</td>
</tr>
<tr>
<td></td>
<td>Pta–1209</td>
<td>770±50</td>
<td>1265–1295</td>
</tr>
</tbody>
</table>

NB. Vertical lines indicate linked-dates, i.e. different estimates of the same occupation. Calibrated results have been rounded up to the nearest 5 years.

By the time Mapungubwe pottery had evolved, Mapungubwe itself had grown to a level-5 capital. Because of a correlation between settlement hierarchies, settlement size, overall population and territory, Mapungubwe probably controlled about 30 000 sq km—the same as historically known level-5 polities such as the Zulu (Huffman 1986b).

Fig. 13. The location of Mapungubwe sites in the Shashe-Limpopo Valley.
The available settlement data point to a population increase through time. First are the capitals (Fig. 14). As a level-3 capital, Schroda would have housed 300 to 500 people. At level-4, K2 had 1,000 to 2,000 and Mapungubwe up to 5,000. Next are the commoner settlements. Excluding the Mulindwa 1990; Denbow 1991; Loubser 1991) suggests a well-occupied hinterland. Some of the increase must have therefore been local, and this local population growth is an important aspect of the archaeological sequence in the area.

The archaeological sequence shows that Leopard’s Kopje people abandoned Mapungubwe at about AD 1290. A recent interpretation of the stratigraphy (Meyer 1997) suggests that Mapungubwe began to decline at about AD 1250, before this abandonment. This interpretation is based on a change in hut floors, the apparent disuse of stone terrace walls and the presence of many San-type link-shafts and arrowheads (Meyer 1997:37). Although this interpretation is plausible, a strong counter argument can be made. First, let us consider the floors. There is no evidence that the yellow dolerite floors dating from AD 1250 are inferior to the earlier mudstone gravel floors. A greater distinction can be made between both these types and the red daga ‘cement’ floors that were cast out by early excavators. This red ‘cement’ is similar to elite huts at Great Zimbabwe, and it may have been an important status marker. The original locations of these floors need to be established. Secondly, the stratigraphy of the terrace walls is not clear: some lie on top of dolerite floors, as Meyer notes. More importantly, the palace area has not been re-examined. The stratigraphy and type of hut inside the palace is critical to the sequence and type of hut inside the palace is critical to the sequence because the shift of the leader’s area from the west end of the hill to the centre suggests that the different floor types may have served different functions. One must remember that the excavations were sited to determine the stratigraphic sequence, not activity areas, and large areas inside and in front of the palace need to be examined. The leader’s area has a bearing on the third point.

The link-shafts and arrowheads, although perhaps concentrated after AD 1250, occur in lower levels and at K2. Another class of object at K2 clarifies the purpose of the arrows. Excavations in the large midden yielded several ivory ‘half-bracelets’ (see Voigt 1983: plate 10.26) that during the Zhizo period. The K2 period, however, also lasted two and half times longer, and the length of each period needs to be considered to make the numbers more comparable. If people occupied each homestead for about 25 years before they shifted to a new location, we can calculate the number of groups needed to account for the total by dividing the number of sites by the number of years in each period by 25. Thus, for the Zhizo period:

\[
28 \text{ sites} \div (100 \text{ years over} 25) = 7.00 \text{ groups}
\]

Following this procedure, 8.5 groups will account for the K2 totals, but we need 40 Mapungubwe groups. If the Mapungubwe period lasted for 100 years, rather than 50, the results would still represent an almost three-fold increase. When viewed as a function of time, then, more people than ever before lived in the Shashe-Limpopo Valley during the Mapungubwe period.

These simple calculations demonstrate a population increase, but they do not establish the tempo of growth. For this purpose, all three periods need to be divided into smaller, equal units. Appropriate data are not available, but nevertheless the large Mapungubwe population was clearly the result of a process that began during K2 times, rather than the abrupt result of a specific event.

The calculations serve another purpose. Although Mapungubwe would have attracted many by its prominence, the numbers show that its large size was not due to a wholesale influx of local commoners off the land. Similarly, the wide distribution of distant homesteads and district centres (e.g. Robinson 1958; Garlake 1968; Kiyaga-Mulindwa 1990; Denbow 1991; Loubser 1991) suggests a well-occupied hinterland. Some of the increase must have therefore been local, and this local population growth is an important aspect of the archaeological sequence in the area.

Fig. 14. Change from K2 to Mapungubwe in size and organisation.

From the perspective of territory and social complexity, Mapungubwe was southern Africa’s first state.

Systematic surveys of the area are not yet complete, but the available settlement data point to a population increase through time. First are the capitals (Fig. 14). As a level-3 capital, Schroda would have housed 300 to 500 people. At level-4, K2 had 1,000 to 2,000 and Mapungubwe up to 5,000. Next are the commoner settlements. Excluding the Khami and Venda periods, some 182 homesteads (some sites have more than one) are on record within 40 km of Mapungubwe: 28 with Zhizo, 76 with K2 and 80 with Mapungubwe pottery. If 50 people lived in each homestead, the figures in Table 4 would apply.

Based on these rough figures, there were almost two and a half times as many K2 homesteads as there had been Mapungubwe: 28 with Zhizo, 76 with K2 and 80 with Mapungubwe pottery. If 50 people lived in each homestead, the figures in Table 4 would apply.

### Table 4. Estimated population in the Shashe-Limpopo Valley based on 50 people per homestead

<table>
<thead>
<tr>
<th>Homestead</th>
<th>Capital</th>
<th>Total</th>
<th>AD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zhizo</td>
<td>1400</td>
<td>500</td>
<td>1900</td>
</tr>
<tr>
<td>K2</td>
<td>3800</td>
<td>1500</td>
<td>5300</td>
</tr>
<tr>
<td>Mapungubwe</td>
<td>4000</td>
<td>5000</td>
<td>9000</td>
</tr>
</tbody>
</table>
may have served as wrist guards for archers (Gardner 1963:31). The ivory medium suggests that the archers were part of an elite guard. Certainly, later Zimbabwe leaders, and their palaces, were well guarded by an entourage that included archers. Rather than a decline in the dominance of the elite, then, the arrows could represent the opposite.

Furthermore, the elite graveyard with the gold burials most likely dates to AD 1250 and afterwards, rather than before, and two gold beads were found in the upper levels (Meyer 1998:139). Finally, no other nearby settlement gained prominence after AD 1250, and yet the population in the area continued to grow. The population growth in itself suggests Mapungubwe remained the capital until the area was abandoned. All these factors—population growth, elite cemetery, royal guard and palace—together suggest that Mapungubwe continued to flourish until it was abruptly abandoned.

Independent climatic data suggests that this abandonment was related to the initial impact of the Little Ice Age (Tyson & Lindesay 1992; Huffman 1996a). Cold dry conditions appear to have forced people away from the entire Shashe-Limpopo area, and many Mapungubwe people moved south-east into the mountainous region of present-day Venda (Loubser 1991) where there may have been earlier district centres in more favourable environments.

The successor to Mapungubwe, of course, was Great Zimbabwe. Mapungubwe people, however, did not move en masse to the new capital. Perhaps some royals from Mapungubwe participated in Great Zimbabwe’s growth, but the ceramic evidence shows that the population was different (see Robinson 1961).

This outline of relevant data is critical to the debate over the origins of the Zimbabwe culture. In particular, an adequate explanation must cover the sequence and changes in settlement patterns.

**Alternative Interpretations**

**Peer-polity interaction**

Some colleagues may wish to challenge the priority of Mapungubwe over Great Zimbabwe because of the long chronology used in Chipunza’s (1994) study of the walling sequence on the Acropolis at Great Zimbabwe. This long chronology implies that, for an extended time, the two capitals may have been competing peer-polities. Peer-polities refers to contemporaneous political units that are more or less equal (Renfrew & Cherry 1986). An examination of the relevant ceramics, stratigraphy and radiocarbon dates clarify this question (Huffman & Vogel 1991). First, Period III at Great Zimbabwe was contemporaneous with Mapungubwe (Table 5).

Secondly, the sparse decoration on the associated Class 3 ceramics parallels Mapungubwe designs and layout. Since this was not the case during Period II, Zimbabwe Class 3 emulated Mapungubwe. Thirdly, there is no evidence whatsoever of any stone walling at Great Zimbabwe during Period III, nor is there any evidence of a large population or dual settlement pattern. Walling and a large population did not begin until Period IV. The beginning of Period IV was marked by the first construction of P-coursing and by a short transitional ceramic phase (Robinson’s Class 3 influenced by Class 4) known as Class 4b pottery (Robinson’s Class 3). This rare pottery occurred on the Hill Ruin in levels 10 and 11, Test 1. Fully developed Class 4b pottery appeared higher up in levels 7, 8 and 9 in Test 1. The overlap of relevant radiocarbon measurements from these dates is of great significance for determining the initial Stage IV of Great Zimbabwe (Robinson 1973).

<table>
<thead>
<tr>
<th>Hill Ruin</th>
<th>Lab. No.</th>
<th>Age BP</th>
<th>Cal. AD</th>
</tr>
</thead>
<tbody>
<tr>
<td>T1, L12</td>
<td>Pta-1984</td>
<td>850±40</td>
<td>1215–1270</td>
</tr>
<tr>
<td>T5</td>
<td>Pta-2705</td>
<td>760±50</td>
<td>1270–1300</td>
</tr>
</tbody>
</table>

These dates, associated stratigraphy and walling show that Period IV was the time when Great Zimbabwe developed into a town. On this evidence, Great Zimbabwe did not become important until about AD 1290 or 1300, that is, at the end of Mapungubwe’s florescence. This short chronology for Great Zimbabwe is not a matter of opinion: it instead sets the parameters for considering the nature of interaction between Great Zimbabwe and the wider region.

In addition to the Great Zimbabwe area, some archaeologists have applied peer-polity interpretations to the initial K2 and Toutswe interactions. Denbow (1983) thought both groups had chosen similar semi-arid environments because of the extensive grass cover and few animal diseases. As herds naturally increased, emerging elites became disproportionately wealthy through competition for resources, within and between areas, and centralised chiefdoms evolved. Only later did the coastal trade make a difference.

Although attractive, this hypothesis will not explain important aspects of the regional sequence. Whereas Zihzo communities may have moved to the edge of the Kalahari for the welfare of their herds, the high rainfall after AD 900 changed the environment so that grazing and surface water were probably not particularly scarce. Furthermore, centralisation began first in the Shashe-Limpopo area at Schroda and developed only 100 years later in the Toutswe region, after the Schroda chiefdom moved there. Indeed, considering (1) the Leopard’s Kopje takeover of the Shashe-Limpopo area, (2) the marked spatial boundary between K2 and Toutswe ceramic areas, (3) K2’s tight control over the east coast trade, (4) K2’s concomitant expansion, and (5) Toutswe’s emulation of K2 ceramic features, it is more likely that political centralisation in the Toutswe area was at least in part a response to the rise of K2. In this sense developments in the K2 and Toutswe areas were interrelated.
Furthermore, it is worth remembering that the striking settlement hierarchies around Toutswemogala, Bosutswe and Shoshong reflect political rather than social stratification. At these centres the majority of people—chief and followers—lived on the hilltops with their cattle, and the settlement organisations conformed to the Central Cattle Pattern (Denbow 1983). The Toutswe area did not have a dual settlement pattern.

The Toutswe–K2–Great Zimbabwe area formed an interaction sphere, as the ceramic data show, but peer-poltiy interaction in the strict sense occurred only at the beginning of the Leopard’s Kopje occupation of the area. Only then were Toutswe, K2 and Zimbabwe Period II more or less equal, and competing for the coastal trade wealth. As the K2 chieftdom expanded and changed, the interaction became decidedly unequal. By Mapungubwe times, emulation was limited to ceramic style. It is not apparent in the wide range of features such as architecture, settlement organisation and religious systems usually encompassed in peer-polity interpretations (e.g. Renfrew & Cherry 1986).

This interaction sphere, however, probably remained important. Elements of the new Zimbabwe culture may have been adopted, particularly at Great Zimbabwe where Period III people probably spoke a related dialect. Certainly, the antiquity of the interaction sphere probably played a role in the adoption of class distinction and sacred leadership at Great Zimbabwe in Period IV, after Mapungubwe was abandoned.

**Cattle wealth and pastoral nodes**

Other archaeologists believe that pastoralism was a catalyst (Barker 1978; Garlake 1978) because many elite Zimbabwe-phase settlements appear to have been sited in the middleveld between summer and winter grasslands. The stone-walled buildings, they believe, were coupled with insubstantial pastoral camps to form temporary nodes in a transhumance cycle, whereas the control of the far-flung pastures caused the Zimbabwe state to develop. When Garlake formulated this hypothesis, he thought that the stone-walled palaces were the relatively isolated homesteads of elite ruling families (Garlake 1973). Now we know that these stone walls demarcated the political and ritual centres of larger settlements. Further, these centres were located in districts populated by commoners. Usually, these commoner homesteads were sited near water and cultivable soil, and they contained numerous grain bins (e.g. Van Waarden 1989). This pattern of district centres in the midst of dispersed agricultural communities characterises all three phases of the Zimbabwe culture. Thus, although Zimbabwe people may well have shifted their cattle herds on a seasonal basis, the commoner settlements themselves were first located in response to farming requirements.

Farming requirements, coupled with the new climatic data, provide an alternative interpretation for the distribution of Zimbabwe-phase palaces. Located in the high rainfall zone along Zimbabwe’s south-east escarpment, Great Zimbabwe had an ecological advantage during the drier onset of the Little Ice Age. If rain fell anywhere, it fell on the escarpment. This is where agriculturists could survive, and therefore this is where Great Zimbabwe and most other Zimbabwe-phase centres were located.

What is more, when Garlake formulated the cattle hypothesis, it was commonly thought that cattle herds had grown to sizable numbers only at about AD 1000. With this growth, Garlake thought, came a change in concept from communal property to private ownership. Now, however, we know that cattle were an important source of wealth from the beginning of the Early Iron Age (Denbow 1982; Huffman 1990, 1998; Whitelaw 1994). Economic power, prestige and social dominance based on cattle was a long-standing feature of precolonial farming communities.

Some archaeologists accept the cattle hypothesis without considering this contradictory empirical evidence. They also ignore an important logical problem. Cause must precede effect; and so, data from the Zimbabwe phase cannot be logically relevant. Relevant data must precede or date to the time of change.

At K2, cattle were unquestionably important, as the presence of the Central Cattle Pattern shows, but many cattle-based polities in southern Africa became powerful, such as the Zulu, without developing stratified classes. To support separate classes, a society must have access to considerable wealth, and cattle were evidently not sufficient. An explanation must be found elsewhere.

**Trade wealth and social complexity**

The only other major source of wealth at the transition to the Zimbabwe Pattern was the east coast gold and ivory trade. It is worth repeating the point that, initially, imported glass beads were mostly limited to Zhizo and Leopard’s Kopje people and their allies. Indeed, only three glass beads have been found in Early Iron Age sites in the whole of KwaZulu-Natal (Whitelaw 1994/95).

The initial concentration of trade in the Shashe-Limpopo area provided both Zhizo and Leopard’s Kopje people with new opportunities. The change in trade patterns at AD 1000, however, shows that K2 people seized the initiative and exploited the situation to their own advantage. Perhaps they created new principles of accumulation, distribution and consumption. Whatever the case, the coastal trade generated considerably more wealth than was possible through cattle. According to later documents, Zimbabwe people used the trade wealth for traditional transactions; and so, the early trade goods must have augmented the traditional wealth in cattle. Since political power among people with the Central Cattle Pattern is based on the unequal distribution of wealth, the local control of this long-distance trade resulted in an unprecedented inequality. Evidently, so much wealth accumulated that normal redistributive channels were inadequate, and ruling families became an upper class.

Trade wealth also contributed to the increase in political power. This increase, as we have seen, was accompanied by a growth in population. We must therefore consider a new aspect, the role of agriculture in the rise of Mapungubwe.

**Floodplain agriculture and population growth**

The demographic evidence shows there was a need to increase productivity. The increasing sizes of the capitals alone would have had an impact on agricultural production. Typically, leaders placed their capitals near second-choice farming land and reserved the best for the ordinary people. Schrada, K2 and Mapungubwe conform to this pattern. For various reasons, however, ordinary farmers usually had little incentive to produce a large surplus for themselves. It may have been somewhat different near the capital of a powerful state, but even so, the produce that supported a capital came from specially designated fields. Known as *zunde* in Shona (Bullock 1927) and *dzunde* in Venda (Stayt 1931), everyone helped to cultivate these fields as a form of tribute, including residents of the capital. Town residents, furthermore, needed access to other agricultural land to
support their own families. More fields would therefore have been needed as the capitals grew.

Land use and environmental reconstructions are topics of J. Smith’s doctoral research (Smith & Hall 1999), and only a few comments are needed here. Hydrological data (AquaTech Consultants pers. comm.) indicate that the Limpopo would be permanent even now if it were not for the numerous dams and boreholes throughout the catchment. The Shashe, on the other hand, is a river of sand with water underneath. When the Shashe floods (Fig. 15), it deposits silts, and there are fairly extensive flood plains below the confluence. Furthermore, the Shashe would have acted as a dam wall against the Limpopo, forcing it to back up and inundate its tributaries. The remains of farming settlements in the area are sited on natural terraces above the floodplains, for example on Sentinel Ranch in Zimbabwe (Robinson 1960), and similar situations occur alongside the tributaries leading into the Limpopo.

Floodplains are able to hold more water and for longer periods than colluvial soils, and in some cases it may be possible to produce a cereal crop from floodwater alone. Multiple yields would also have been possible, especially because different varieties of sorghum and millet are adapted to different soils and moisture conditions (Simmonds 1976:91–93, 112–117). Furthermore, if the high rainfall from AD 900 to 1300 extended the rainy season, then the warm temperatures in the area may also have extended the growing season.

Had floodplain agriculture not been possible, more fields would nevertheless have been created to accommodate growth. With the higher rainfall, more use of the same fields was also possible. Ultimately, however, the land would have been exhausted. Indeed, the soils in the valley could probably not have sustained extensive or intensive agriculture continuously for 400 years without nutrient replacement through flooding. Thus, population growth permitted by periodic flooding was probably another important factor in the evolution of the Zimbabwe culture. Floodplains are able to hold more water and for longer periods than colluvial soils, and in some cases it may be possible to produce a cereal crop from floodwater alone. Multiple yields would also have been possible, especially because different varieties of sorghum and millet are adapted to different soils and moisture conditions (Simmonds 1976:91–93, 112–117). Furthermore, if the high rainfall from AD 900 to 1300 extended the rainy season, then the warm temperatures in the area may also have extended the growing season.

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Leopard’s Kopje society, as the Central Cattle Pattern shows, had social ranking based on the unequal distribution of cattle and other wealth. A growing population together with increasing wealth through trade would have helped to intensify existing social differentiation. Perhaps, in the development of social complexity, populations need to reach a certain threshold as well as accumulate sufficient wealth. Whatever the case, in the Shashe-Limpopo Valley the combination of substantial trade wealth and a relatively high population in a circumscribed zone contributed to the formalisation of class structures.

Ideology and religion

We now have enough evidence to assess the roles of ideology and religion in the rise of Mapungubwe. Some scholars think ideology and religion were the prime movers (or that they changed first) because of their importance in the Zimbabwe culture. Thirty years ago, it was commonly believed that sacred leadership was brought from East Africa by a small group of people, such as the Rozwi (Abraham 1962; Fagan 1965). Others thought it developed internally (Garlake 1973). In both variations, groups such as the Rozwi were said to have used religious power to establish political hegemony before the coastal trade. The settlement sequence, however, eliminates this hypothesis: evidence for trade appeared well before evidence for sacred leadership.

The sequence from K2 to Mapungubwe reveals another important point: there was a chronological lag between changes in, first, aspects of economy and social organisation, then worldview and settlement pattern. Further, the settlement changes reflect a step-wise change in worldview. The first spatial shift involved moving the central cattle byre away from the central court at K2. In the later Zimbabwe culture, cattle were more or less royal property, and there were two courts, one for commoners and one for nobles; the commoner court was not associated with byres. The first spatial shift therefore probably indicates that cattle no longer served as a medium to bind ordinary people together with the leaders, and that the central court had become a place for the common people. Social ranking was becoming more distinct.

Because the first spatial shift occurred at K2, class distinction probably evolved there out of an intensification of social ranking. Considering that K2 was inhabited for some two hundred years and Mapungubwe for only eighty, this conclusion is reasonable.

When K2 was first established, its spatial layout would have reflected current social relations, but later, because of the fundamental socio-political changes, the layout was out of step, and the spatial pattern had to be adjusted. Initially, K2 people probably believed they were following the old social rules when in fact they were formulating new principles. At this time, the old dominant ideology probably masked the internal transformations. Ultimately, the old spatial pattern became too awkward for the new social rules, and a novel pattern evolved to accommodate the changes. Topographically, the K2 area itself was not suitably shaped for the elite pattern. Since the next court was deliberately sited at the bottom of Mapungubwe Hill and the leader lived on top from the beginning, Mapungubwe was probably established so that the new socio-political order could be spatially expressed.

During these internal transformations, some individuals must have been aware, at an early stage, of the new direction their society was taking. Perhaps these individuals were instrumental in challenging the status quo and creating sacred leadership. Their role remains a topic for future consideration.

Fig. 15. Shashe-Limpopo confluence, February 2000.
To understand more about fundamental changes in ideology and religion, we must turn from the individual to questions of theology. According to Horton (1967, 1975), religious systems in Africa that hold vague concepts of a Supreme Being, emphasizing instead ancestors and spirits, are associated with small scale social structures with limited trade and limited multicultural interaction. In these societies, vision and interests concentrate on parochial matters of descent group and neighbourhood (Hammond-Tooke 1986). As interaction spheres widen to embrace different cultural systems, the theological universe must also expand.

Certainly, the international trade gradually widened the range of interaction and introduced new social issues in the Shashe-Limpopo area. As social ranking intensified into class divisions, the concept of God developed to embrace sacred leadership.

This elaboration of a Supreme Being caused the change in rainmaking noted earlier. Perhaps this change proceeded in steps. At first, K2 leaders would have followed the traditional pattern and commissioned rainmakers. The distribution of Early Iron Age pottery suggests that rainmaking often took place on top of certain types of hills. Throughout southern Africa, straight-sided hills with difficult access, such as Mapungubwe, are thought of as ‘male’ and rain-making is associated with men. Now, in ranked societies with the Central Cattle Pattern, earlier inhabitants of an area—the autochthones—are thought to have a special relationship with spirits of the region, and chiefs may employ them as rainmakers. San shamans sometimes served this purpose, and the late Zhizo presence at Leokwe Hill may have a similar explanation. Later, during the transition to sacred leadership, rainmaking rites became the responsibility of the leader through his royal ancestors. Once the change was complete, sacred leaders built their palaces on top of old rainmaking sites to appropriate the power of the place and thus to strengthen and to legitimate their new role. Whatever the exact sequence, the transformation from a ranked to class-based society involved a change in practice and theology.

Conclusions

This discussion highlights the interconnected role of cattle, trade, farming, religion and ideology in the origins of the Zimbabwe culture at Mapungubwe. From an archaeological perspective, the evolution of the associated settlement pattern represents the development and crystallisation of the system. The sequence of spatial changes at K2 and Mapungubwe shows that cattle were politically and ideologically important, but this importance does not explain the evolution of class distinction and sacred leadership. Although wealth in cattle existed beforehand, cattle wealth was simply not sufficient to support a separate noble class. Trade wealth, instead, served this function. Population growth in conjunction with the new and extra wealth intensified social ranking and helped to form a new type of society. In terms of ideology and religion, as trade contacts widened the physical world, the concept of a Supreme Being enlarged to provide a basis for sacred leadership.

This sequence highlights the uniqueness, at first, of sacred leadership and class distinction in southern Africa. Formalised class structures, as I have defined them here, have not been demonstrated for any other contemporaneous society in the region. It is therefore significant that no other precolonial society participated to the same extent and duration in the east coast trade, nor experienced such a rapid population growth in such a small area. Even centralisation in the Toutswe area and the rise of Great Zimbabwe were related to events and processes in the Shashe-Limpopo Valley. The importance of this area to the archaeology of precolonial farming societies can not be overestimated.

The settlement sequence in the Shashe-Limpopo Valley provides an example of how to recognise the adoption of new social systems in the past. Indeed, it is through case studies such as Mapungubwe, positioned in the recent past, that we shall be better able to understand the rise of social complexity in antiquity. In this case, the combination of wealth and population growth in a circumscribed zone makes the Mapungubwe sequence similar to other centres of complex society. The possibility of intensive agriculture on rich floodplains in particular suggests that the Shashe-Limpopo may have been the Nile of South Africa.

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