1. Introduction and Geographical Background

1. The Scope of the Study

Museums are places in which artefacts and other objects are gathered together, studied and presented to the public. But they, their records and their collections are also, in a sense, living historical documents that can be used to trace and interpret the development of a discipline. The present work sets out to exemplify all of these matters by establishing a catalogue raisonnée of the southern African Stone Age collections in the British Museum. The intention is to provide not only a gazetteer and catalogue of the British Museum holdings in this field, but also to present sufficient additional information to place them within their historical and contemporary archaeological context. It is hoped that the Catalogue will thus not only alert students, professional archaeologists and museums to the research potential of the collections, but also be of use to those involved in the management of such collections at other museums.

The British Museum, as the foremost archaeological and anthropological institution of its kind in the United Kingdom, was well-placed to accumulate such material in the 19th and earlier 20th centuries, not least because of the vast part of the southern African sub-continent that had passed under British rule by 1914. London and its museums were natural magnets for the accumulation of prehistoric and ethnographic artefacts, acquired by presentation from a range of travellers, surveyors, academics, missionaries and others, by exchange from developing museum institutions within the sub-continent, or by purchase from antiquities dealers. Coombes (1994) has explored the reasons for the development of ethnographic collections in 19th-century Britain and the rôle played by changing conceptions of ‘Africa’ and ‘Empire’ in this process. How far similar reasons were at work in the acquisition of prehistoric artefacts from southern Africa is difficult to say, but documentation of the universality of the broad developmental stages of palaeolithic archaeology first established by Anglo-French workers from the 1850s onward was certainly one factor (Trigger 1989). The close links apparent between many of those contributing to the British Museum southern African collections and leading archaeologists and anthropologists of the second half of the 19th-century, only some of which are touched on in Chapter 3, suggest that this is an area where much further work could profitably be undertaken.

Having introduced the scope of the present study in this Chapter, Chapter 2 considers the changing relationship between southern African archaeology and archaeological individuals and institutions in Britain. This offers a historical perspective on the southern African Stone Age collections within British museums and provides a starting point for the more detailed assessment of the history and contemporary significance of the collections of the British Museum itself (Chapter 3). Before proceeding to the Gazetteer itself, Chapter 4 then discusses the development of the cultural taxonomies used in the study of the southern African Stone Age and provides a guide to current terminological practice, as well as a typological glossary and background on the lithic raw materials available to prehistoric stone-knappers. Chapter 5, the Gazetteer, constitutes the main body of the work, presenting the British Museum Stone Age collections from southern Africa on a geographical basis. The choice of the mode of presentation is defended at the end of this Chapter and explained further in the introduction to the Gazetteer. In addition to providing an extensive bibliography to the material covered, the Catalogue concludes with four appendices. Appendix 1 gives brief descriptions of the southern African Stone Age holdings of the British Museum’s Department of Ethnography. Appendix 2 lists the British Museum Stone Age holdings from other regions of Africa, with the exception of Egypt, an exception dictated by the size of its Egyptian collections and their historical placement within a separate Department of Ancient Egypt and Sudan Antiquities. Appendix 3 lists the southern African Stone Age collections of all other museums that could be contacted within the United Kingdom; though not exhaustive, it is comprehensive and collates this information for the first time. Finally, Appendix 4 provides biographical information on the individuals who contributed to the British Museum collections and, in many cases, to those of other institutions as well. The appendices are cross-referenced with the Gazetteer.

Before bringing these introductory remarks to a close it is necessary to make some comment on my use of the term ‘Stone Age archaeological collections’. This is employed as a shorthand reference to the fact that the collections on which I have worked are those belonging to the Quaternary Section of the British Museum’s Department of Prehistory and Early Europe. It is clear that, with virtually no exceptions, the southern African artefacts housed in this Department of the Museum are the material remains of those stone-using hunter-gatherer or pastoralists populations conventionally referred to by archaeologists as Later Stone Age or of their Pleistocene (Early and Middle Stone Age) predecessors. Stone artefacts, such as grindstones, large hammerstones used in mining operations, or figurines (as from Zimbabwe), associated with Iron Age agropastoralist sites belong to the British Museum’s Department of Ethnography and are excluded.
from this Catalogue. The comparatively few stone artefacts of Later, Middle or Early Stone Age origin in the British Museum ethnographic collections and housed in the Department of Ethnography are, as indicated above, included in Appendix 1.

2. Physical Geography of Southern Africa

Southern Africa may be defined as that portion of the African continent south of the Cunene and Zambezi Rivers. This includes the entirety of the modern states of Botswana, Lesotho, Namibia, South Africa, Swaziland and Zimbabwe, though only the southern half of Mozambique. Since the British Museum has such little Stone Age material from the northern part of Mozambique or from Angola, these areas have also been included in the Gazetteer. As well as a high degree of correspondence with modern political boundaries, southern Africa also has an archaeological integrity of its own. This can be seen, for example, in the distribution of various Middle and Later Stone Age industrial traditions (Sampson 1974; J. Deacon 1984b). To some extent the discreteness of some of these entities may reflect varying intensities of research – Barham’s (1995) recent work at Mumbwa Cave in Zambia, for example, raises the possibility there of a Middle Stone Age assemblage with segments and other backed microliths comparable to the better-known Howieson’s Poort assemblages of South Africa, Lesotho and southwestern Zimbabwe (Volman 1984; Walker 1995). The suitability of the Zambezi as a boundary is also queried by the similarities that some have noted between Later Stone Age assemblages in Mashonaland on the one hand and the Nachikufan tradition of Zambia on the other, with the Matopo Hills sequence in southwestern Zimbabwe more strongly similar to industries otherwise represented south of the Limpopo. On the other hand, there is a real sense in which, certainly for the last 100,000 years or so, the cultural trajectories of those parts of Africa lying to the north and south of the Zambezi have diverged, a divergence that some (H. J. Deacon & Thackeray 1984) have invoked as contributing to the evolution of a specifically Khoisan genotype and phenotype. This divergence is perhaps most elegantly shown by a study of the differential spatial distributions of scrapers and backed microliths, artefacts interpreted from ethnographic analogy, experiment and use wear studies, as skin-working tools and arrow armatures respectively (H. J. Deacon & J. Deacon 1980); but see also Wadley & Binneman (1994) on the microwear analysis of segments. Later Stone Age assemblages in which scrapers are the most common formally retouched tool type are common to the south of the Zambezi and again in much of East Africa. Between them, covering much of Zambia, Malawi and Tanzania, are assemblages in which backed microliths are dominant. It seems likely that differences in the materials used to make clothing (skins in southern and East Africa, bark-cloth in south-central Africa) are largely responsible for this patterning (H. J. Deacon & J. Deacon 1980). This is a conclusion that, quite subtly, points up the value of considering the physical geography of Africa as a backdrop for discussion of its archaeological record.

A second reason for discussing briefly the physical and historical geography of southern Africa is that topography and climate have, either directly, or through their influences on recent patterns of population distribution, urbanization and infrastructural development, led to some regions being comparatively favoured, or neglected, from the standpoint of archaeological research. Not until the 1980s, for example, did the western lowlands of Lesotho see their first professional archaeological excavation (Mitchell 1992), while much late 19th-century collecting, as this Catalogue indicates, concentrated around the Cape Town metropolitan area and along the diamantiferous gravels of the Vaal River (Chapter 3).

Physiography

Fundamental to an understanding of the physical geography of southern Africa (Fig. 1) is the recognition that this is a very old landscape. Over almost the whole sub-continent the most recent volcanic activity of any significance was the extrusion of the lavas of the Lesotho Formation some 170 million years ago (Moon & Dardis 1988). Since that time the pre-eminent processes that have moulded southern Africa into the shape in which we see it today have been processes of erosion. The consequence is that the sub-continent can basically be divided into three physiographic zones.

The first of these zones is the Great Escarpment that runs, in attenuated form, from the highlands of Namibia and thence south through the Cape Fold Mountain Belt up into the Drakensberg and Maluti Mountains of the northeastern Eastern Cape Province, Lesotho and the latter’s border with KwaZulu-Natal. Continuing north the Drakensberg escarpment runs through western Swaziland and up through South Africa’s Mpumalanga province parallel to Kruger National Park. Skipping the Limpopo Valley, it re-emerges as the Chimanimani Mountains and Inyanga Highlands that form the border between Zimbabwe and Mozambique.

The regions coastward of the Escarpment form the second of the zones that I define, but nowhere, except in Mozambique and KwaZulu-Natal, does this extend into a particularly lowland area. Indeed, because of the comparative shallowness of the continental shelf around most of southern Africa, even at the maximum depression of global sea-level during the Pleistocene an extensive coastal plain developed only in the restricted area south of the present shoreline between the Cape of Good Hope and Cape St. Francis (Van Andel 1989).

Inland of the Great Escarpment southern Africa consists of an extensive plateau, dipping slightly towards the north and west. Because the uplift that created the Great Escarpment was greatest in the east, the Gariep/Vaal river system flows into the Atlantic, rather than the Indian Ocean. In the central part of the sub-continent’s interior uplift was interrupted by downward movement, producing the Kalahari Basin, now blanketed in sands. The Okavango Delta, lying in the extreme north of this basin, is the only part of southern Africa to experience tectonic activity of any significance today with seismic events in this area being implicated in changes in regional drainage patterns (Moon
Fig. 1 Southern Africa: principal geographical features.
& Dardis 1988: 129). One further topographical feature deserves mention: the numerous volcanic dykes of the Karoo and Free State regions of the interior plateau. Responsible for the formation of the kopjes or small, isolated hills or mesas, that dot the landscape here and often served as foci for prehistoric activity (Sampson 1985), these dykes were also an important source of hornfels for prehistoric stone-knappers.

The sub-continent is drained by three major river systems, four if one includes the Cunene River that defines the modern boundary between Angola and Namibia. East of this frontier and rising in the highlands of eastern Angola is the Zambezi, one of Africa’s longest rivers, which flows into the Indian Ocean about halfway along the Mozambican coastline. Most of the Zambezi’s water comes from rain falling into Angola and Zambia, but several of the rivers draining the Zimbabwean plateau also flow north into it. The Victoria Falls lie on the Zambezi, shortly after its entrance into Zimbabwe. They form a locality well represented in the British Museum Stone Age collections because of their location close to the Livingstone Museum in Zambia and the potential for relative dating afforded by the sequential upstream movement of the Falls themselves (Clark 1950, 1959).

Southern Africa is often divided into two, with greater South Africa (the modern states of South Africa, Lesotho and Swaziland) sometimes spoken of as Africa south of the Limpopo. This river, the headwaters of which derive from plateau watersheds well behind the Great Escarpment (Wellington 1955: 428), drains a substantial part of the extreme north of South Africa, as well as parts of Botswana and southern Zimbabwe, before entering Mozambique to enter the Indian Ocean at about 25° S of the Equator. Unlike the Zambezi, however, the Limpopo is not a substantial impediment to the movement of people: in drought years, such as 1993-94, it may cease to flow continuously above ground, forming numerous pools for much of its length.

The third of southern Africa’s major river systems is that of the Gariep (formerly Orange) and Vaal Rivers. This river system differs from both the Zambezi and the Limpopo in that it flows west, reaching the Atlantic along the border between Namibia and South Africa. Of its two main branches, the Gariep has an origin in the highlands of Lesotho, where it is known locally as the Senqu, while the Vaal rises close to the border between KwaZulu-Natal and the Free State in a northward extension of the Drakensberg Escarpment. A smaller river, the Caledon, drains the western edges of the Lesotho highlands and adds significantly to the flow of the Gariep, which it joins some 85 km downstream of Aliwal North. The Gariep then flows in a northwesterly direction before reaching its confluence with the Vaal, after which it turns west towards the Atlantic. Although the Caledon may cease to flow in exceptionally dry winters, the Gariep and Vaal are both perennial rivers. Associations of stone artefacts with the gravel terraces of the Vaal River in localities such as Vereeniging and Christiana at one time played an important part in the construction of the chronostratigraphic framework of the southern African Stone Age (Clark 1959).

The area between the coast and the Great Escarpment is split into several, much smaller drainage basins throughout South Africa, Swaziland and Mozambique. Those of the Thukela River in KwaZulu-Natal, the Great Kei and Great Fish Rivers in the Eastern Cape Province and the Olifants and Berg Rivers in the Western Cape Province are among the most important. Free-standing surface water, however, in the form of lakes is a rare phenomenon in southern Africa. With the exception of coastal lakes or estuaries (known locally as vleis) and of seasonally filled depressions (pans), such bodies of water are missing, save in the Okavango Delta of northwestern Botswana. Furthermore, over much of the Kalahari, the western third of South Africa’s interior (the Gariep River excepted) and all of Namibia there are no permanently flowing rivers at all. Although palaeoenvironmental data indicate that this situation ameliorated in the Interplenioglacial and after the Last Glacial Maximum (J. Deacon & Lancaster 1988), the availability of water must be considered to have been a significant factor in the adaptations of most past human inhabitants of the sub-continent.

Climate
Precipitation, rather than temperature, is thus the more important climatic factor across most of the sub-continent. Two patterns stand out. Firstly, some 90% of southern Africa experiences comparatively wet summers and dry winters. This summer rainfall pattern is produced mostly by oceanic air-streams entering the interior from areas of high pressure off the east coast (Wellington 1955: 247). Only the west coast of South Africa lies within a winter rainfall zone in which this seasonal pattern is reversed. Here the dominant factor in producing precipitation are eastward-moving cyclones from the South Atlantic. The area between these two belts, running from approximately Gans Baai to Port Alfred, and inland to the Escarpment, receives rainfall on a year round basis, with most of it falling on the coastal side of the Cape Fold Mountains. The second pattern derives from the fact that precipitation in the summer rainfall area declines markedly from east to west on moving away from the coast and the orographic potential of the Great Escarpment. Along the Namibian and Namaqualand coasts, which lie within the winter rainfall area, markedly arid conditions are produced by the cold water upwelling associated with the Benguela Current: the name ‘Skeleton Coast’, reflecting the numbers of shipwrecked sailors who died here from thirst, adequately describes the lack of water in this part of the Namib Desert. Rainfall reliability shows similar trends, with the Karoo, Namaqualand and the Kalahari/Namib areas as those most susceptible to drought (Wellington 1955: 262-269).

Temperatures across most of southern Africa can, in very general terms, be described as mild to warm. Mean annual temperatures are, for example, 16.7°C in Cape Town and 18.9°C in Bulawayo. Nevertheless, temperature does create problems of adaptation for human populations. High summer temperatures, particularly in the Karoo, the Kalahari and Namibia pose the danger of heatstroke, while
winters, again in these arid areas, but also in the highlands of Lesotho, the Drakensberg Mountains and eastern Zimbabwe, can be bitterly cold at night: temperatures of -10°C are not uncommon, for example, along the Senqu (Orange) River Valley in Lesotho during July and August. In the winter rainfall area of the Western Cape cold conditions are made more miserable by the heavy rain that can persist, unrelentingly, for several days at a time.

Ecological zones

In combination climatic and topographic factors such as those just outlined provide a basis on which to divide southern Africa into a number of ecological zones. Such zones also take into account variation in the distribution of plant and animal communities across the sub-continent. A classification of southern African ecological zones that has enjoyed some favour among archaeologists interested in the structured links between human adaptations and environmental variables (e.g. H. J. Deacon & Thackeray 1984; Wadley 1993) is that of Devred, as presented by De Vos (1975). Six such ecological zones occur within the southern African sub-continent (Fig. 2), the following account being taken largely from Klein (1984a: 108-120):

1. The Zambezian Ecozone consists largely of wooded savanna in which trees such as Brachystegia in the north and Colophospermum mopane in the south are scattered throughout a more-or-less continuous grassland. Average precipitation is > 500 mm pa and surface water is available throughout the year. Because of its rich vegetation and varied opportunities for both grazers and browsers, this zone has the highest large mammal diversity in southern Africa with species such as elephant (Loxodonta africana), giraffe (Camelopardis giraffa), blue wildebeest (Connochaetes taurinus), kudu (Tragelaphus strepsiceros), buffalo (Syncerus caffer) and Burchell's zebra (Equus burchelli) prominent.

2. The Transvaalian Ecozone is a more semi-arid belt immediately south of the Zambezian Ecozone. Rainfall is lower and surface water less abundant. Vegetation varies, with shrubby acacia grassland prevalent in the west of the zone, but denser bush and forest in its east and along the coast. Large mammals are similar to those found in the Zambezian Ecozone, though Klein (1984a: 118-119) suggests that its animal biomass was probably lower.

3. The Kalaharian Ecozone corresponds broadly to the Kalahari region of Botswana and eastern Namibia, with rainfall decreasing from a mean of almost 500 mm pa in the northwest to one of 200 mm pa in the southwest. Porous, sandy soils mean that water is rapidly absorbed, producing a scarcity of surface water, especially in the central Kalahari. Vegetation varies from relatively rich acacia woodland in the north to sparser woodland in the drier south. Ungulates are generally similar to the previous two zones, but drought-adapted springbok (Antidorcas marsupialis) and gemsbok (Oryx gazella) are common.

4. The Basutolian Ecozone is formed by the Drakensberg Mountains and their adjacent plateau in the interior of South Africa, Lesotho and western Swaziland. Mean annual precipitation is quite high (620-750 mm), with marked diurnal and seasonal ranges of temperature. Except on the plateau east of the Great Escarpment where forest patches were more common, the indigenous vegetation is essentially pure grassland. As a result, this ecozone had the highest animal biomass of any in southern Africa. Dominant ungulates include black wildebeest (Connochaetes gnou), springbok, red hartebeest (Alcelaphus buselaphus), blesbok (Damaliscus dorcas) and quagga (a now extinct subspecies of Burchell's zebra).

5. The Karoo-Namaquan Ecozone is made up of two distinct units. Forming a narrow band along the Namibian coast is the Namib Desert, in which mean annual rainfall is < 130 mm and often considerably less than this. Vegetation here is very sparse. In the western third of South Africa the Karoo region has a higher rainfall (130-400 mm pa) and richer, though still scrub-like, often succulent-dominated, plant communities with some grasses. Dominant ungulates are the same as those found in the Basutolian zone, but with drought-adapted gemsbok and springbok particularly well-represented.

6. The Cape Ecozone consists of the mountains of the Cape Fold Belt and the adjacent coastal forelands. As previously remarked, this zone differs in having winter or all-year round rainfall, the amount varying from 250 mm on its interior margins to 750 mm or more in favoured parts of the coast. Grassland is rare in this zone, with the dominant vegetation a sclerophyllous shrub and heathland similar to those of the Mediterranean and California. Dense, evergreen forests occur in some well-watered areas, particularly around Knysna. With grasses rare in the Cape ecozone, grazers are also uncommon and browsing species, such as Cape grysbok (Raphicerus melanotis) and steenbok (R. campestris), assume a greater importance than elsewhere.

3. Historical Geography of Southern Africa

Today southern Africa, as defined here, comprises eight independent states (Fig. 3). Several of these countries have undergone changes of name at either the national, regional or city level, particularly during the last two decades. Given this and given also that all the material reviewed here was first acquired during the colonial era when many of today’s political divisions had not yet been formalized, it seems useful to review briefly some of the changes in the sub-continent’s historical geography.

The modern country of South Africa, from which the bulk of the Museum’s southern African material derives, was established in 1910 by the Union of four existing British colonies - the Cape of Good Hope, Natal, the Orange River Colony and the Transvaal - that formed the provinces of the new unitary state. The last two of these had, until 1902, been independent states, under the names of the Orange Free State and the South African Republic (Davenport 1978). Notwithstanding the creation within them of so-called ‘national’ states for various ethnic groups
during the apartheid period, all four of these provinces remained in existence until the adoption of the Interim Constitution of 1994 (Humphries et al. 1994). They have now been replaced by the nine new provinces shown in Figure 4.

During the 19th century the colonies of the Cape of Good Hope and Natal grew by the incorporation of areas along their borders that, for a time, often had a separate colonial administration (Davenport 1978). Three of these entities are reflected in the Gazetteer entries: Zululand (now part of the province of KwaZulu-Natal), British Kaffraria (now part of the Eastern Cape Province) and British Bechuanaland (now part of the Northern Cape Province), the source of some of the material provenanced simply as Bechuanaland.

The former Rhodesia, which as Southern Rhodesia was colonized by Cecil Rhodes' British South Africa Company in 1888-1890, became independent as Zimbabwe in 1980. It has since introduced several changes of name for cities, towns and geographical features to bring them into line with indigenous pronunciations or designations. Examples that affect material in the Gazetteer include the changing of Fort Victoria to Masvingo, Gwelo to Gweru and Salisbury to Harare.

Name changes affecting the remaining southern African countries have been comparatively minor. The former German colony and (after World War I) Mandated Territory of South West Africa became the independent republic of Namibia on the withdrawal of South African forces in 1990, while the former British protectorates of Bechuanaland and Basutoland both changed name on becoming independent in 1966: Bechuanaland, inhabited predominantly by speakers of the SeTswana language, became Botswana and Basutoland reverted to its indigenous name of Lesotho. Swaziland, which gained independence from Britain in 1968, has retained the name it had during the colonial period, while the small amount of material from Mozambique and Angola, both of which became independent of Portugal in 1975, comes from places whose names have also remained the same.
Fig. 3 Southern Africa: contemporary political divisions.
Fig. 4 South Africa: contemporary political divisions.
2. Southern African Archaeology and its Changing Relationship with Britain

1. Introduction
In recent years the history of Stone Age archaeological research in southern Africa has been the subject of an excellent synthesis by J. Deacon (1990a). Much fuller reviews of the period during which the great mass of the material held by the British Museum was acquired have also been conducted by Goodwin (1935, 1946a). For these reasons it seems inappropriate to recapitulate old ground and attempt to present here a full account of either the development of Stone Age archaeology in the sub-continent or the framework of ideas that guided that development (Parkington 1984). The interested reader is referred to these basic sources and to the extensive references that they contain. Instead, I propose to concentrate on changes in the relationship between southern African archaeological research and the United Kingdom, hoping that this may be more in keeping with the overall theme of this Catalogue of southern African material housed in the British Museum. I identify six areas of interest, which, to a certain extent, trace a chronological development of their own:

- the early development of southern African archaeology when an emphasis can be detected on locating and legitimizing developments within this ‘colonial outpost’ through links with London, the imperial metropole;
- connected to this, but arising only in the early part of the 20th century when a strong antiquarian presence had already developed in southern Africa, the impact on local archaeology of visits by the British Association for the Advancement of Science;
- visits to academic institutions in the United Kingdom by southern African archaeologists, whether for study or, especially in more recent times, for research;
- the impact of British expatriate archaeologists on the development of archaeology within southern Africa, a process that was particularly strongly marked in the 1960s and 1970s;
- research projects conducted in southern Africa by British archaeologists who remained based within the United Kingdom, although generally working in close collaboration with local specialists;
- financial support offered to archaeological projects in southern Africa by British-based funding agencies.

2. Colony and Metropole: The Antiquarian Era of Southern African Archaeology
Trigger (1984; 1989) has shown how the later 19th century development of archaeology in Europe’s overseas colonies followed broadly similar patterns. J. Deacon (1990a: 40) has further characterized the dominant paradigm of this period in southern Africa, which ran from roughly the 1850s through until as late as the early 1920s, as one of work by largely amateur collectors whose ‘overriding goal was simply to record the range of artefacts found and to compare them with those found in Europe’. As part of this process of comparison many of these early collectors were concerned to dispatch at least some of their finds to Britain, so drawing both them and themselves to the attention of a much wider scientific public through the presentation of the artefacts and papers about them at meetings of learned societies. Acceptance of the genuine nature of their finds by leading European scholars, such as Sir Charles Lyell, Sir John Lubbock and Sir John Evans, simultaneously validated the artefacts and assured their collectors of the significance of their role in a much broader academic community and development. Hillier (1898: 124) explicitly states this when commenting that:

    several of the implements taken from this gravel [at East London by George McKay, qv, Appendix 4] have been sent to the Jermyn Street and British Museums; and their genuiness has been recognised by Sir Roderick Murchison and Sir J. Lubbock.

This concern was, perhaps, particularly marked in the 1860s and 1870s when antiquarian collecting was beginning to take off in southern Africa. At precisely the same time European Palaeolithic archaeology, following what Daniel (1975) referred to as the annus mirabilis of 1859, was in a phase of rapid growth, spurred on by the publication of Darwin’s On The Origin of Species and by the acceptance of the work of Boucher de Perthes in the Somme gravels and of Pengelly at Torquay. At the British Museum Sir Augustus Franks, Keeper of British and Medieval Antiquities from 1866 to 1896, played an important part in this process. A close friend of both Lubbock and Evans (Cook 1997), he was also a prominent member of the Society of Antiquaries (President, 1891-1897) and a Trustee of the Christy Collection. Well-connected and well-informed, he was in an excellent position to purchase material that he considered worthy or interesting for the British Museum and played an extremely significant rôle in building up its Stone Age collections (Cook 1997).

    It is within this overall context that we can, for example, place the collections of T. H. Bowker, first made near East London in the Eastern Cape Province in 1858 (Hewitt 1955: 95). Bowker had by 1866 presented 41 stone artefacts to the Royal Artillery Museum, then housed in Woolwich, London (Feilden 1883); they were transferred to the Tower of London in 1924. His brother, J. H. Bowker shared his antiquarian interests and reported the discovery of stone artefacts at several localities, as well as the continued use in the mid-19th century of both stone and broken glass to make arrowpoints by surviving San groups.
(Bowker 1872). Both contributed to the collections of the British Museum, J. H. Bowker presenting artefacts from Rorke’s Drift in KwaZulu-Natal collected in the aftermath of the Anglo-Zulu War of 1879 and T. H. Bowker being the ultimate source of the artefacts donated by Sir George Grey (1869) from the family farm at Tharfield in the Eastern Cape Province.

Artefacts collected in the 1860s by C. J. Busk and the Rev. (later Sir) Langham Dale from sites on the Cape Flats were also sent to Britain and first published by the former’s brother George Busk (1869), who exhibited them at the Third International Congress of Archaeology that took place in Norwich in 1868. These artefacts served, in Goodwin’s (1935: 295) phrase, as ‘ammunition’ in the struggle between Sir John Lubbock and Thomas Huxley for dominance over the newly created society being formed at this time by the merger of the Ethnological and the Anthropological Societies of London. Lubbock (1869) published a brief account of the Busk/Dale collection and followed it up with a further paper comparing African stone artefacts with others from Europe and Syria (Lubbock 1870a); in a third paper he comments on Dale’s subsequent collection of what would now be termed Middle Stone Age points, again from the Cape Flats (Lubbock 1870b), and in a fourth exhibited artefacts to the Society of Antiquaries (Lubbock 1871). Having established his credentials, as it were, as a leading authority on the Stone Age archaeology of several different parts of the world, Lubbock was, at the beginning of 1871, and on Huxley’s suggestion, elected the first President of what became the Anthropological Institute of Great Britain and Ireland (Goodwin 1935: 296). Partly under his patronage, southern African artefacts continued to be exhibited and discussed at the Institute’s meetings through the 19th and early 20th centuries, while others received a wider audience when displayed in such contexts as the Colonial Exhibition of 1886 (Hamy 1899).

Paralleling this interest, British museums, like their counterparts on the European mainland, actively sought to collect the skeletal remains of southern Africa’s indigenous populations. As A. Morris (1987, 1992) shows, this was largely the work of travellers who acquired human remains, particularly crania, incidental to their visits to southern Africa. Additionally, some were collected as ‘trophies’ during military conflicts along the expanding frontier of the Cape Colony (A. Morris 1996). The majority of the Khoisan skeletal remains that survive from these 19th- and early 20th-century British collections belong to the Natural History Museum (A. Morris 1987). None appear to have been collected by any of the individuals responsible for the British Museum’s archaeological collections from southern Africa.

As Lubbock’s use of the Dale collection shows, there was considerable interest in southern African prehistory among mid-19th-century scientists and this actively contributed to the search for stone artefacts in southern Africa and, indeed, to wider social and political developments in the British colonies there. This is evident, for example, in the career of John Colenso, Anglican Bishop of Natal, who was moved to develop a sustained critique of traditional, fundamentalist beliefs in the veracity of the Old Testament partly because of the need to convey Christianity in a credible fashion to his Zulu converts, but partly because of his exposure to evolutionary theory, geology and palaeolithic archaeology (Guy 1983). Accused of heresy, he was supported by Sir Charles Lyell, Charles Darwin and Thomas Huxley among others when seeking reinstatement as Bishop, a case in which he was ultimately successful, but at the cost of permanently dividing the Anglican Church in South Africa. His wife, Frances Colenso, corresponded with Lyell’s wife and sister-in-law for almost 30 years after the heresy trial and, in a letter of January 31st 1866, obviously in response to an enquiry from the Lyells, remarks that:

I have not yet heard of any flint knives in this part of the world, and am almost afraid to enquire lest the natives shall think I want them to make them for me. (Rees 1958: 103).

Though there is no further mention in their published correspondence of Mrs Colenso seeking out stone artefacts, this letter points up the way in which the educated élite of the British colonies in southern Africa was part of a broader academic and intellectual community. Further evidence of such networking is provided by the fact that Thomas Bowker stayed with the Colensos in the lead-up to the Anglo-Zulu War of 1879 and by the friendship between Mrs Colenso and Lucy Lloyd, sister-in-law of and co-worker with Wilhelm Bleek, a Cape Town-based philologist who initiated the study of the language and belief systems of the /Xam Bushmen of the Northern Cape (Rees 1958). The massive archive that Lloyd and Bleek produced during the 1870s and 1880s not only forms the basis for current understanding of southern African rock art (Lewis-Williams & Dowson 1989), but also offers a unique insight into the ways in which South African hunter-gatherers resisted, but were ultimately dispossessed and assimilated by, European colonialism (J. Deacon 1996).

With southern Africa firmly established as an area from which stone artefacts comparable to those becoming known in Europe could be found, papers by Layard (1870), Dale (1871), J. Anderson (1878), Holub (1880), Frere (1881) and others began to appear regularly in the Anthropological Institute’s Journal in the latter part of the 19th century. Though indigenous southern African journals began publishing at this time (the semi-popular Cape Monthly Magazine and, from 1878, the Transactions of the South African Philosophical Society), both British visitors to the sub-continent and locally based collectors directed many of their papers to British-based journals of arguably greater prestige and circulation. This is particularly the case, for example, when we consider that the first general syntheses of southern African prehistory were published in this way - Gooch’s (1881) ‘Stone Age of South Africa’ in the Journal of the Anthropological Institute and Rickard’s (1881a, 1881b) two papers in the Proceedings of the Cambridgeshire Antiquarian Society. The prominence of this trend, which continued until the development of the South African Journal of Science, the Proceedings of the Rhodesian Scientific Association and the Annals of the South African Museum in the early part of the 20th century, is evident in Table 1, taken from the comprehensive bibliography in Goodwin’s (1935) review of the early history of Stone Age archaeological research in the sub-continent. Not until the
establishment of the *South African Archaeological Bulletin* in 1945 was there a southern African journal devoted specifically to the publication of archaeological research.

### 3. The British Association for the Advancement of Science

Following on from the demonstration of human antiquity in southern Africa provided by collectors in the later 19th century, not least in British-based journals, the British Association for the Advancement of Science held two meetings in southern Africa in the first third of the 20th century. In both 1905 and 1929 these meetings had important consequences for the development of archaeology in the sub-continent, promoting new initiatives in the fields of classification and cultural systematics, heritage legislation and archaeological fieldwork.

Meeting in South Africa in 1905 the British Association for the Advancement of Science acted as an important stimulus for the development of southern African archaeology (Goodwin 1935: 313), in part through the publication of papers by Johnson (1905) and Péringuey (1905) summarizing recent discoveries of midden sites on the Cape Flats and of Early Stone Age artefacts near Vereeniging and elsewhere. Several of the Association’s members subsequently visited the Victoria Falls and papers by Lamplugh (1905a; 1905b) and Feilden (1905) report on the occurrence of stone artefacts from above and below the Falls, in river gravels and in the ancient river channel. However, the most important archaeological consequence of the Association’s visit was the address given by A. C. Haddon (1905) in his capacity as President of the Association’s section H. Referring to Britain’s own recent experience in the establishment of an Ancient Monuments Act, Haddon (1905) argued that ‘all relics of the past...should be jealously preserved, and guarded from intentional and unwitting injury’ (quoted in Goodwin 1935: 316). He saw these aims being achieved through both the scheduling of sites and their excavation and conservation by suitably appointed curators or inspectors. These remarks directly encouraged the passage of antiquities legislation by the government of Rhodesia (then including both Zambia and Zimbabwe), as well as the establishment of an Ancient Monuments Commission in South Africa following Union in 1910.

Drawing an analogy between archaeology and geology, Haddon also emphasized the virtues of developing a firm handle on the chronostratigraphic relationships of artefact finds, arguing, in particular, that:

> It would probably be to the interest of South African archaeology if the terms ‘Eolithic’, ‘Palaeolithic’ and ‘Neolithitic’ were dropped, at all events for the present, or restricted solely to the type of technique; it might prove advantageous if provisional terms were employed, which could later either be ratified or abandoned, as the consensus of local archaeological opinion should decide (Haddon 1905, quoted in Goodwin 1935: 315).

Haddon’s plea for the abandonment of the earlier Eurocentric terminology of Gooch (1881) and others achieved some initial success with Péringuey’s (1911) recognition of three main ‘types’ in the South African Stone Age and later with Neville Jones’ (1920, 1926) sequencing of finds from the Northern Cape Province and Zimbabwe, though both authors retained such classically European terms as ‘Solutrean’ or ‘Mousterian’. But in the subsequent creation of a thoroughly indigenous classification of the southern African Stone Age by Goodwin and Van Riet Lowe (1929) Haddon’s imprint can also be found: Goodwin had been a student of his at Cambridge (J. Deacon 1990: 42). Indeed Goodwin (1935: 334) explicitly acknowledged that, in establishing their new system (described in Chapter 4), they were acting on Haddon’s advice to reject direct parallels, in nomenclature as much as in artefact description and analysis, with European assemblages and thus also the diffusionist view that Europe should be seen as the ultimate ‘presumed source of all things’ (Goodwin 1935: 334) in southern African prehistory.

Following the British Association’s first meeting in South Africa in 1905, 24 years passed before it again met in the sub-continent. During that period the most important contributions to southern African archaeology by British-based scholars were the general account produced by Henry Balfour (1910) and the visit of Miles Burkitt in 1927. Balfour, then Curator of the Pitt Rivers Museum in Oxford, had visited southern Africa for the British Association’s meeting in 1905 and echoed Haddon’s (1905) address at that time in stressing the need for organized research and the enactment of rigorous antiquities laws, an argument that saw its first effects in 1911 and 1913 with the passage of the Bushman Relics Protection Acts. Burkitt (1928) repeated Balfour’s call for an emphasis on the establishment of clear associations for excavated and collected material during his own visit in 1927. In addition, he quickly produced a general introduction to southern African prehistory that drew heavily on the rapid expansion of research by Goodwin, Van Riet Lowe, Hewitt, Jones and others earlier in the decade (Goodwin 1935: 329-339).

The British Association for the Advancement of Science met again in South Africa (in both Johannesburg and Cape Town) in 1929, bringing to the sub-continent a range of distinguished anthropologists and archaeologists from Europe, including Balfour and Haddon (for the second time), the Abbé Breuil (thus initiating a long association with the region), Louis Leakey and Hermann Braunholtz (already at the British Museum and at that time serving his first term as President of the Royal Anthropological Institute). The meetings provided the occasion for the presentation of preliminary reports on two recent excavations. At Fishhoek (Skildergat) Cave on the Cape Peninsula Peers (1929) had found Middle Stone Age assemblages in stratigraphic relation to each other for the first time. Further north, Armstrong and Jones had re-excavated Bambata Cave in the Matopo Hills of Zimbabwe specifically at the invitation of the Association, demonstrating a sequence there of successive Early, Middle and Later Stone Age occupations (Armstrong 1931). Their motivation for doing this was partly the relative lack of scientifically uncontrolled, ‘indiscriminate digging’ (Armstrong 1931: 239) that sites in Zimbabwe had then experienced, and partly the significance attached to that country’s geographical position within a diffusionist model that saw all major developments in South African prehistory originating from much further north. Elsewhere
in Zimbabwe the Association sponsored Caton-Thompson's (1931) excavations at the same time at Great Zimbabwe, which confirmed MacIver's (1906) earlier finding that the stone enclosures there date to the first half of the second millennium AD and are the work of ancestral Shona communities. In addition to promoting and visiting these important fieldwork campaigns, several members of the Association went on an extended archaeological tour organized by Van Riet Lowe (1930), one useful consequence of which was that Breuil (1930, 1931) was able to produce some of the first Francophone syntheses of southern African prehistory.

4. Study and Research in the United Kingdom

Archaeology began to be taught formally in southern Africa when Goodwin commenced lecturing at the University of Cape Town in 1923, lectures that were the first to be offered in the subject anywhere south of the Sahara (J. Deacon 1990a: 46). Not until the 1960s, however, did the University of Cape Town offer a full single honours degree in archaeology alone and several of its graduates therefore proceeded to Britain for postgraduate training or research. In coming, as the vast majority did, to Cambridge, they not only attended one of the foremost archaeology departments in the country, but also followed in Goodwin's own footsteps; he had read Archaeology and Anthropology there immediately after the First World War (J. Deacon 1990a: 42). Among those of his students to trace the same path were Glyn Isaac (1959-61) and Carmel Schrire (1961-63), both of whom ultimately went on to distinguished academic careers in the United States. Though Isaac did not return to southern Africa to carry out fieldwork of his own, concentrating instead on projects in Kenya and Tanzania (Isaac 1989), Schrire (1995) has been both a leading figure in the development of historical archaeology in South Africa and an important voice in recent debates about the relationships between pastoralists and foragers in the Cape.

Other South African archaeologists to have undertaken part of their postgraduate training or research in Britain include Hilary Deacon, who spent a year in the 1960s at the Institute of Archaeology in London, and Garth Sampson, who completed a doctorate at Oxford in 1969, having previously read Part II of the Archaeology and Anthropology Tripos at Cambridge. On his return to South Africa Deacon became the first archaeologist in a generation to be appointed at the Albany Museum in Grahamstown and subsequently founding professor of the Department of Archaeology at the University of Stellenbosch. In part through the meticulous excavation of three sites with excellent organic preservation (Melkhoutboom, Boomplaas and Klases River Mouth), he was one of the first southern African archaeologists to develop explicitly ecological and systemic models of cultural change and has more recently contributed significantly to the debate surrounding the origins of modern humans (H. J. Deacon 1976, 1989, 1993). Sampson, on the other hand, has been based largely in the United States, from where he has carried out one of the most comprehensive survey projects ever undertaken in southern African archaeology (Sampson 1985), attempted to identify group territories from the analysis of decorative motifs and techniques on Smithfield pottery (Sampson 1988) and conducted extensive research on the effects of European contact and settlement on the indigenous Bushmen of the upper Karoo (e.g. Sampson 1994).

More recently, the high costs of postgraduate study in the United Kingdom for overseas students have tended to discourage southern African graduates from coming to Britain to carry out postgraduate research. On the more positive side, the development of university departments within South Africa has provided local opportunities for postgraduate work for South African students (J. Deacon 1990a: 50), while students from Zimbabwe and Mozambique in particular have benefited from the Uppsala-based Swedish initiative on the development of urbanism in eastern and southern Africa (Sinclair 1989). Nevertheless, during the period 1985-1996 at least seven archaeologists, four of them in professional employment in southern Africa at the time of writing, worked towards or completed postgraduate degrees at the Universities of Cambridge, Leicester, London and Oxford. One of these individuals was, until recently, the sole professional archaeologist in Namibia, a second is based at the National Museum, Bloemfontein, South Africa, and a third at the National Museum of Botswana, while a fourth is the first Botswanan archaeologist to obtain a doctorate and occupy a permanent teaching post in her own country.

It is to be hoped that the recent welcome growth in interest in African archaeology in Britain, exemplified by the creation of university lecturerships earmarked for Africanists, may afford further opportunities for future generations of African students to carry out research in British institutions. One aspect of this that has only recently begin to develop is the visit to Britain by southern African archaeologists to carry out research on collections housed in British museums. Examples include Janette Deacon's (1984a, 1984b) study of arrowheads made by 19th century /Xam Bushmen that form part of the collections of the Pitt Rivers Museum, Oxford and Tim Maggs' recent search for ethnographic material removed from KwaZulu-Natal in and after the Anglo-Zulu war of 1879. Archaeologists such as J. Deacon and Cedric Poggenpoel have also visited Britain to see how current British practices in heritage management and museum presentation may be of assistance in developing these fields in South Africa.

5. British Archaeologists Working in Southern Africa

Beginning in 1961 when Ray Inskeep was appointed to succeed Goodwin as Head of Archaeology at the University of Cape Town (UCT), a series of British nationals was recruited into museum and university based archaeological positions in South Africa. Inskeep himself worked at UCT until 1972 and in that time strengthened the teaching of the subject there and oversaw its expansion into a separate department. As well as directly teaching or supervising many of those who still hold professional appointments in South Africa, he also vigorously advanced the case for archaeology and museums in general to receive more generous state support. Partly as a result of his lobbying, a
new professional body, the Southern African Association of Archaeologists, was set up in 1972; it continues to represent archaeologists within South Africa, as well as organizing a series of successful biennial conferences and field excursions and acting as a forum that, especially since the ending of apartheid, brings South African scholars together with archaeologists working in other southern African countries. It would be misleading, however, to suggest that Inskeep’s impact on South African archaeology was only in the fields of teaching and infrastructural development. Editing the South African Archaeological Bulletin offered another powerful means of raising the discipline’s profile and it was effectively under his editorship that the Bulletin evolved from a journal with a significant antiquarian/amateur element in its pages to a much more strongly academic publication. In addition to an extensive excavation programme of his own focussed on the late Holocene levels of Nelson Bay Cave on South Africa’s southern coast (Inskeep 1987), Inskeep also facilitated the entry into southern African archaeology of Richard Klein, a leading faunal analyst, who excavated the early Holocene and late Pleistocene levels at Nelson Bay (Klein 1972), and of Ron Singer, who sponsored the first excavations at Klasies River Mouth (Singer & Wymer 1982).

Inskeep arrived in South Africa from Livingstone Museum, Zambia, having previously lectured at the University of Cambridge. This Cambridge connection was strengthened in 1967 when John Parkington joined the staff of the UCT Department. The past 35 years have seen Parkington develop a research unit of his own at UCT that has provided probably the most detailed archaeological study of a small scale area (centred on the Verlorenvlei River of the Western Cape) ever undertaken in the sub-continent (Parkington & Hall 1987). Numerous publications attest to the wealth of information obtained by Parkington and his students and co-workers on the prehistory and palaeoenvironmental record of the region which serves as a model study of, for example, the archaeology of the Pleistocene/Holocene transition (e.g. Parkington 1988, 1990) and of the integration of rock art, field survey and excavation into a single research project (e.g. Parkington 1989, Parkington et al. 1986).

The focus in much of Parkington’s work on questions of subsistence, land-use and environmental change derives in part from the Higgs school of palaeoeconomy, influential at Cambridge through the 1960s. The work of Pat Carter in Lesotho and the southern Drakensberg discussed below falls more explicitly within this palaeoeconomy paradigm, while Peter Robertshaw, who held a position at the Albany Museum in Grahamstown in the late 1970s, undertook research into the origins of pastoralism that involved an examination of shellfish and fishing economies before conducting further fieldwork in the Eastern Cape Province (Robertshaw 1979, 1984). Other British (and ex-Cambridge) archaeologists who held positions in South Africa at this time include David Seddon (1967), who worked at UCT in the mid-1960s, and Robin Derriercourt (1977), who taught at the University of Fort Hare in the Eastern Cape Province in the 1970s. Also from a Cambridge background, Rona MacCalman was persuaded by Ray Inskeep (pers. comm.) to go to Namibia in the early 1960s and worked there at the State Museum in Windhoek for several years. She thus became the first woman to hold an archaeological position anywhere in the subcontinent and the first female British archaeologist to work in southern Africa since Caton-Thompson (1931) in 1929. In addition to undertaking several important surveys and excavations, mostly of Middle Stone Age sites (MacCalman 1962, 1963, 1965), she produced one of the very few firsthand studies of stone artefact production and use by southern African foragers (MacCalman & Grobbelaar 1965).

During the 1980s and 1990s the earlier pattern of British archaeologists taking up permanent academic positions in South Africa disappeared. In part this reflects the substantial numbers of South African nationals now graduating and seeking employment in archaeology, though the effects of relative international isolation in the dying years of the apartheid régime have also to be considered. British nationals have, however, played a significant rôle in the development of archaeology in two other countries within the sub-continent. In Zimbabwe Robert Soper has lectured at the University of Zimbabwe since 1985, while Charlotte Taggart and Gwilym Hughes held positions at, respectively, the Queen Victoria Museum and Great Zimbabwe National Monument for varying periods of time during the 1980s. In Botswana a local archaeological presence has been developed within the History Department of the University of Botswana, in part staffed by British nationals on short-term contracts; both Paul Lane and Andrew Reid conducted important survey and excavation programmes on aspects of local Iron Age archaeology (Lane 1996; Reid et al. 1997).

6. Based in Britain: Research Projects Conducted in Southern Africa

At the same time as British archaeologists have taken up teaching and research posts at southern African institutions and southern African archaeologists have come to Britain to study or to carry out research projects of their own, a third dimension of the relationship between the two has developed in recent decades. Beginning in the late 1960s British archaeologists operating from within United Kingdom universities have conducted sustained fieldwork programmes of their own in southern Africa.

One of the earliest of these projects was the investigation by Pat Carter, then of the University of Cambridge, of Middle and Later Stone Age land-use strategies in the Lesotho highlands and the southern Drakensberg. His research, which included the first systematic archaeological excavations to be undertaken in Lesotho, formed part of a more broadly conceived study of hunter-gatherers in this region as it was conducted in collaboration with Patricia Vinnicombe’s (1976) recording and analysis of rock paintings in the same areas. Far from being a refuge area in which hunter-gatherer settlement had a time depth of no more than a few centuries as suggested by Davies (1951), their work demonstrated that people had lived in the Lesotho highlands since at least the end of the Early Stone Age, developed models of how they had used the region’s landscapes and resources under both
glacial and interglacial conditions and initiated the investigation of its palaeoenvironmental history (Carter 1970, 1978). Vinicombe (1976) simultaneously collated much valuable information on the history of local hunter-gatherers during the 19th century and pioneered the use of Bushman-ethnography to understand southern African rock art.

British-based archaeologists have continued to maintain an interest in the archaeology of this southeastern part of southern Africa. Charles Cable (1984) carried out extensive field surveys in southern KwaZulu-Natal in 1979-80 and explored the evidence for Carter's (1970) seasonal mobility model in much greater detail for his doctorate at Cambridge. Peter Mitchell then analysed the artefact assemblages from Carter's excavation at Sehonghong rock-shelter in eastern Lesotho (Carter et al. 1988) as part of an Oxford-based doctoral project examining the late Pleistocene Later Stone Age of southern Africa (Mitchell 1988). He subsequently carried out the first excavation-based project in western Lesotho (Mitchell 1994a) and has more recently undertaken further excavations at Sehonghong itself. These have sought to refine our understanding of the cultural-stratigraphic sequence at one of the few southern African sites with occupation before, at and after the Last Glacial Maximum (Mitchell 1993), while further survey work in the surrounding area has confirmed Carter's original assessment of its importance for improving upon our knowledge of southern African prehistory (Mitchell 1996), most recently through excavation of a multi-phase open-air occupation site with evidence for intensive fish exploitation (Mitchell & Charles 1996).

Moving further north and east, David Price-Williams of the University of London has carried out a long-term programme into the Later Stone Age prehistory of Swaziland (Price-Williams 1981; Price-Williams & Watson 1982). Much of the analysis of the artefact assemblages recovered has been the work of Larry Barham (1990), working out of the University of Bristol, who has more recently excavated at Middle Stone Age sites in Zambia (Barham 1995). An important component of the Swaziland project was the investigation of late Quaternary palaeoenvironmental change, a topic addressed in part through analysis of charcoals from archaeological sites (Prior & Price-Williams 1985) and in part through geo-morphological studies of calcretes and other landforms (Price-Williams & Watson 1982). On the opposite side of the sub-continent Myra Shackley (1985) of the University of Leicester carried out field surveys for Stone Age sites in Namibia about the same time. Finally, a team from the University of Liverpool led by Patrick Quiney, Tony Sinclair and John McNabb carried out investigations of the Middle Pleistocene archaeology and landscapes of the Makapanagat/Cave of Hearths area of the former Transvaal in the 1990s.

Zimbabwe has been the other main focus of work by British-based archaeologists. Gwilym Hughes (pers. comm.) has helped to direct a project that has excavated at Old Bulawayo, the later 19th century capital of King Lobengula of the Matabele. The site is being partially reconstructed to serve as a museum. Since 1993 the British Institute in Eastern Africa (which is based in Nairobi as an overseas school of the British Academy) has also conducted fieldwork in Zimbabwe. This project was focused on the history and function of agricultural terrace systems in the Inyanga Highlands and was undertaken in close collaboration with the University of Zimbabwe (Soper 1994). Having assisted in this project, one of the British Institute's former graduate scholars, Nick Hanson-James, undertook a Cambridge-based doctoral research project into the origins, dating and significance of Bambata Ware, a pottery style first identified from Armstrong's (1931) excavations at Bambata Cave (qv, Chapter 5); this pottery is associated with some of the earliest evidence for domestic livestock in southern Africa.

7. British Sources of Funding for Archaeological Research in Southern Africa

While British-based researchers have been able to call upon funds located in the United Kingdom for the support of archaeological research in southern Africa, it seems appropriate to round off this review of the relationship between southern African archaeology and Britain by examining briefly the support that some of those funds have given to southern African archaeologists.

Foremost among those funds is undoubtedly the Swan Fund, established under a bequest from James Swan, himself an important collector of stone artefacts principally from the Northern Cape and North West Provinces of South Africa (Appendix 4). The Swan Fund, which operates under the aegis of trustees holding professorial appointments in the University of Oxford, was set up in order to support archaeological and anthropological research on the Bushman peoples of Africa and their ancestors. Since its inception, it has sponsored numerous archaeological and anthropological research projects. While some of these have involved work in other parts of the African continent, the majority of grants have been given to research projects within southern Africa. In particular, one may note the support given to research projects on the Later Stone Age archaeology of the Western Cape undertaken by John Parkington's Spatial Archaeology Research Unit at the University of Cape Town (e.g. Manhire 1987; Parkington 1988; Jerardino & Yates 1996), research on Later Stone Age pastoralists carried out by Andrew Smith (e.g. Smith et al. 1991) of the same university, Aron Mazel's (1989) long-running investigation of the hunter-gatherer prehistory of the Thukela Basin of KwaZulu-Natal and studies by Anne Solomon (1995) of the rock art of the southeastern mountains.

The Boise Fund, also administered by trustees holding academic positions within the University of Oxford, has a comparable origin. Established under a bequest from Charles Boise, its purpose is to promote research on hominin evolution. Although a considerable amount of its income has been used to support research on early hominids in East Africa and on aspects of primatology, it has also provided funding for archaeological work in southern Africa, including recent excavation of the late Quaternary site of Sehonghong Shelter in the Lesotho highlands (Mitchell 1993).
The Swan and Boise Funds are, in a sense, open to all-comers, in that, though based in Oxford, membership of the University is by no means a prerequisite for application. Other funds with specific links to one or more British institution have, however, also supported archaeological research in southern Africa. The Sir Henry Strakosch Memorial Trust, which seeks to strengthen ties between Britain and South Africa, provided generous support for research by Cable (1984) in KwaZulu-Natal in 1979-80 and by Mitchell (1994a) at sites in the Caledon Valley in 1989. The Smuts Memorial Fund, located at Cambridge University, also supported Cable’s (1984) research, while occasional valued support for projects in southern Africa has also come from the Prehistoric Society and the Society of Antiquaries of London. Further academic links between Britain and southern Africa in the field of archaeology have come through the work of the British Council, while links between the University of Oxford and the sub-continent have recently been strengthened by the establishment of the Oppenheimer Fund, which seeks to promote academic exchanges and visits between Oxford and universities in South Africa. Finally, we may note that the British Institute in Eastern Africa’s field project in the Inyanga Highlands of Zimbabwe has received important support from the Trustees of Rhodes House (Soper 1994).

Through all of these bodies, as well as through the continued work of British or British-based archaeologists in southern Africa and of southern African researchers at British universities, the links forged in the 19th century at the outset of archaeological research in the sub-continent continue to grow. The British Museum continues to play an important rôle in this process. From the standpoint of the collections themselves, one recent example relates to Nick Walker’s (1995) recent synthesis of the Stone Age prehistory of the Matopo Hills of southwestern Zimbabwe, which was partly informed by his examination of the original material excavated in the 1929 by Armstrong (1931) at Bambata Cave. Organizationally too the British Museum is actively contributing to African archaeology, hosting a conference in October 1995 that brought British and Belgian Africanist archaeologists together to present new research findings and discuss the future of African archaeology.
Table 1. Journals publishing archaeological papers relating to the southern African Stone Age 1858-1920 (after Goodwin 1935).

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<td>/</td>
<td>Denotes decades in which a journal had not yet been published or had ceased to be published</td>
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3. The History and Contemporary Significance of the Collections

Peter Mitchell and Alison Roberts

1. The History of the Collections

In discussing the historical origins of the British Museum’s southern African Stone Age collections, three factors stand out as being of particular importance: their geographical origin, the date at which they were collected and/or acquired by the Museum and the professional background (in so far as this can be established) of the individuals who collected them. The motivation behind the original collection of the objects, and how and why they were subsequently acquired by the British Museum, are among the principal questions that this chapter seeks to address. All these factors are also connected to the political, social and economic history of southern Africa during the late 19th and 20th centuries. Their consideration also helps to determine the contemporary significance of the material, a subject which forms the final section of this Chapter.

Where are the collections from?

Table 2 provides a breakdown of the geographical origins of the British Museum southern African Stone Age collections by country and, for South Africa, by province. Not surprisingly, given its longer colonial history and more developed industrial, academic and educational infrastructures, which have strong 19th-century roots, South Africa occupies by far the dominant position within the collections, whether these are assessed as number of provenances or number of separate collections from those provenances (74.4 % and 76.6 % respectively). Zimbabwe and Botswana account for the bulk of the remaining collections, with Angola, Lesotho, Mozambique, Namibia and Swaziland barely represented, and then by the activities of only one or two individuals at one or two localities in each case. The higher profile of Botswana and Zimbabwe reflects similar factors to those that account for the dominant position of South Africa, such as the activities of individuals involved in the gold-mining industry of Botswana and the early development of a professional infrastructure in Zimbabwe.

In addition, an examination of the breakdown of provenances and collections within South Africa shows a far from random situation (Table 2). Some provinces, especially Mpumalanga and the Northern Province, are scarcely represented at all; they account for only 1.0 % and 2.1 % of all provenances and 1.0 % and 1.4 % of all collections respectively. At the other end of the scale, the Western Cape and Northern Cape are represented by almost 40 % of the total number of provenances and by almost 50 % of the total number of collections. Of the remaining provinces, two groups can be identified, with Gauteng and KwaZulu-Natal each accounting for 5-10 % of the collections and provenances, and the Free State, Eastern Cape and North West each accounting for 10-15 % of the collections and provenances. The explanation of this patterning lies largely in the interconnectedness of the history of South African archaeology and the wider social, economic, political and military history of the country. It may suffice to flag here just a few of these broader historical processes, such as the concentration of 19th century collecting around the two educational and political hubs of the then Cape Colony - Cape Town (in the Western Cape) and Grahamstown (in the Eastern Cape). Both cities developed museums at a comparatively early date and archaeology and archaeologists (such as Layard, Pérignon and Hewitt) figured prominently in this process. Two further historical developments that need to be borne in mind are the discovery of diamonds in the Barkly West/Kimberley area in the 1860s and 1870s and the various military conflicts of the late 19th century, particularly the Anglo-Zulu War of 1879 and the Second South African War of 1899-1902. The first of these processes led to the rapid identification of prehistoric stone artefacts in the gravel terraces of the Vaal River (e.g. Stow & Jones 1874) and subsequently spawned much more sustained archaeological exploration (Beaumont & Morris 1990). The conflicts of 1879 and 1899-1902, on the other hand, are responsible for many of the British Museum collections from KwaZulu-Natal and the North West Province.

When were they collected?

Table 3 provides a decade-by-decade breakdown of the chronology of acquisition of the British Museum southern African Stone Age collections and Fig. 5 summarizes this information in graphical form for South Africa. It is quite clear, even from a cursory inspection of these data, that the collections were not acquired at an even rate. This section discusses some of the reasons for this chronological patterning and, in so doing, refers back to some of the historical developments in the relations between southern African archaeology and Britain considered in Chapter 2. For reasons discussed in the previous Chapter many of the earliest collectors of southern African stone artefacts ensured that parts of their collections were dispatched to Britain, often for exhibition at conferences (e.g. the Third International Congress of Prehistoric Archaeology held at Norwich in 1868) or at meetings of learned societies, such as the Anthropological Institute. Once displayed, the material was not normally shipped back to southern Africa. Instead, much of it found its way (directly or indirectly) into the British Museum. It was in this way that many of
# Catalogue of Stone Age Artefacts from Southern Africa in The British Museum

## Table 2. Geographical patterning in The British Museum's southern African Stone Age collections.

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</thead>
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<tr>
<td>Namibia</td>
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<tr>
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<tr>
<td>Swaziland</td>
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<td>0.4</td>
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<tr>
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<th>Provenances</th>
<th>Collections</th>
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</thead>
<tbody>
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<td>%</td>
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<td>14.1</td>
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<td>Free State</td>
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<td>Gauteng</td>
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<tr>
<td>KwaZulu-Natal</td>
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<td>7.3</td>
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<td>Mpumalanga</td>
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</tr>
<tr>
<td><strong>Total</strong></td>
<td>192</td>
<td>100.1</td>
</tr>
</tbody>
</table>

Fig. 5 Chronology of acquisition of The British Museum's Stone Age collections from South Africa.
The British Museum's first southern African Stone Age collections, among them those donated by Layard, Dale, Busk and Spence from the Cape Flats between 1865 and 1872, were obtained. Although in this earliest phase of the collections' history the emphasis was very much on the Western Cape Province of what is now South Africa, the Eastern Cape is also represented, initially by donations of artefacts from Grahamstown, Kleinemonde and Tharfield by Sir Charles Lyell and Sir George Grey. The middle years of the 1870s saw further additions to the Museum's holdings from both parts of the Cape Colony with the donation of the Thurburn collection from Port Beaufort in 1873 and of the collections made by Dr Atherstone, principally from the Eastern Cape, in 1876. Of other figures active in the early years of South African archaeology, Hillier (1898) gave to the Museum in 1887 some of the finds from his excavations near the mouth of the Buffalo River, while the donations of both Dale (in 1872) and Lubbock (in 1916) include artefacts found by George McKay in his excavations in the East London area (Binneman 1990).

The major increase in the size of the British Museum holdings from South Africa in the 1880s was, however, largely the result of the interests of just two men, whose activities reflect, in part, themes within the broader history of South Africa at this time: exploration and military conflict. Andrew Anderson, an explorer and surveyor, sold his extensive collections to the Museum on October 20th 1885. They were accessioned as part of the Christy Collection (see below) and cover 49 distinct provenances from not only four South African provinces (Northern Cape, North West, Gauteng and Free State), but also three other countries in the sub-continent (Botswana, Namibia and Zimbabwe). Many of his finds from the Northern Cape Province were made in the Kimberley area and derive from sites along the Vaal River; reflecting the explosive growth of diamond digging, and consequent discovery of stone artefacts, here after 1867 (Davenport 1978).

In part encouraged by the wealth being produced from the Cape Colony’s diamond fields, British policy in southern Africa moved in the 1870s toward one of seeking the confederation of all the region’s political units, including the Boer republics of the Orange Free State and the Transvaal, under British hegemony (Davenport 1978). In 1877, Britain annexed the Transvaal, and in 1879, invaded Zululand, events that led to the Anglo-Zulu War of 1879 and the First South African War of 1880-1881. These conflicts both brought to South Africa several individuals with wide-ranging intellectual interests, and provided new opportunities for those already living there to pursue their research. The British Museum collections reflect this political situation in part through material donated by Sir Bartle Frere (the British High Commissioner who had initiated the Zulu War) and Colonel J. H. Bowker (who visited Rorke’s Drift in 1880). Much more important, however, are the collections of Colonel H. Feilden, who served at this time in both Natal (material collected at Buffalo River, Estcourt, Isandhlwana, Natal, Newcastle,
Fielden was not the only army officer with antiquarian interests posted to the sub-continent during the Second South African War. While Major F. Smith was responsible for the donation of a single handaxe from Pienaarsrivier in Griqualand West and the 'Bechuana Province' during the Bechuanaland Expedition of 1884 (Shillington 1985). Through the late 19th and early 20th centuries several amateur archaeologists continued the tradition of exhibiting their finds to the broader archaeological and anthropological fraternity in Britain, usually by presenting them at meetings of the Royal Anthropological Institute. Accounts of their work then appeared in the Institute's publications (the Journal of the Royal Anthropological Institute and Man). Examples include Fielden’s (1883) collections discussed above, Leith’s (1898) finds from the Pretoria gravels, R. Jones’s (1898) presentation of artefacts from Swaziland and the results of excavations by Frames (1898) and Bazley (1905) in what is now KwaZulu-Natal. Many of these artefact collections were subsequently donated to the British Museum, not surprisingly perhaps given the close relationship between the Institute and the Keepers of the British Museum’s Department of British and Medieval Antiquities and Ethnography. The period 1905-1930 saw the gradual disappearance of this acquisition route, a consequence of the growing professionalization of archaeology within southern Africa and the establishment of a variety of journals there interested in publishing archaeological finds. Jansen’s donation (in 1918) of finds from Victoria West are probably the last example of this kind (Smith 1919; Jansen 1926).

Nevertheless, the Museum did acquire a considerable quantity of material from southern Africa during the 1920s, including donations from two museums, Bulawayo Museum in what is now Zimbabwe (in 1921) and the Albany Museum, Grahamstown (in 1922). This period also saw the first of several donations by James Swan, a long-term employee of De Beers, the Kimberley-based diamond producers, and an enthusiastic amateur archaeologist. Reflecting his geographical base, almost all of his collections were made in the Northern Cape and North West Provinces, though the bulk of them were donated to the McGregor Museum, Kimberley, and the then Archaeological Survey of South Africa, located in Johannesburg. Also arriving during this period were collections made by Neville Jones from Taung in the Northern Cape (in 1919) and several sites in the Free State and Northern Cape (in 1928), artefacts purchased from the Wilson brothers collected at Middledrift near King Williams Town, Eastern Cape Province (in 1926, 1931) and the extensive Ward collection from several sites near Carnarvon, in the Eastern Cape (in 1931).

Despite the importance, in some cases considerable, of these individual collections, it was the two successive meetings in southern Africa of the British Association for the Advancement of Science that had the greatest impact on the British Museum’s acquisition of artefacts from the sub-continent during the 20th century. The importance of the 1905 meeting for initiating the study of Early Stone Age assemblages in the Victoria Falls area was mentioned in Chapter 2 (Lamplugh 1905a; Fielden 1905). It is reflected in the number of finds from the Zambo side of the Falls that the Museum now has, though from South Africa only nine bifaces from Simondium in the Western Cape Province came the British Museum’s way. The 1929 meeting of the Association was, however, a different matter. Following the formal sessions of the conference, several of its participants, including the British Museum’s own Hermann Braunholtz, went on an extensive tour of South Africa guided by Clarence Van Riet Lowe. It is abundantly evident from the British Museum South African collections that Braunholtz took advantage of this opportunity to acquire ‘representative’ artefacts from many of the ‘type-sites’ recently recognised by Goodwin & Van Riet Lowe (1929) in their synthesis of the region’s Stone Age prehistory. Furthermore, the extensive collections donated in 1929, 1930 or 1931 by South African amateur archaeologists (De Villiers, Hardy, Van Alphen, Van Heerden) and professionals (Van Riet Lowe, Willman) alike suggests that the connections Braunholtz made at this time were amply repaid. Key sites from which material was acquired include Avalon, Brakfontein, Canteen Kopje, Fauresmith, Lockshoek, Pniel, Sheppard Island, Skildsegat, Stellenbosch and Ventershoek, all represented in Goodwin & Van Riet Lowe (1929) for reasons discussed in greater detail in the Gazetteer.

In addition to the fruits of Braunholtz’s own activities, the British Museum acquired in 1930 or later collections made by several British archaeologists who were in southern Africa for the Association’s meeting. Kathleen Kenyon’s donation of a group of handaxes and grindstones from Paarl in the Western Cape is one example of this. On a larger scale we can point to the Favell collection from Taung Mission Spruit acquired on his death in 1936 and to the more extensive Armstrong collection from there and from sites such as Alexandersfontein, De Kiel Oost, Jacobsdal and Kimberley in the Free State and Northern Cape that he bequeathed on his death in 1959. In short, the 1929 British Association meeting and its immediate aftermath contributed material from over 40 distinct provenances within South Africa and represents the high watermark of the British Museum’s acquisition not just from there, but from southern Africa as a whole.
At the 1905 meeting of the British Association in South Africa Haddon (1905) had made a plea for the establishment of an Ancient Monuments Protection Act and of an inspectorate that could enforce its provisions (Goodwin 1935: 316), but the two Bushman Relics Protection Acts of 1911 and 1913, passed in the aftermath of Union, had little impact. Having failed adequately to define what the terms ‘Bushmen’ or ‘relic’ meant, the sale and export of artefacts, particularly to overseas museums, continued unabated (Goodwin 1946a: 129). The establishment of a Historical Monuments Commission in 1923 did little to address the issue since the relevant act contained no provision for the declaration of National Monuments and failed to allocate funds to the Commission (Abrahams 1989). Three years later Gill (1926) expressed additional concerns about the absence of any system for licensing archaeological excavations or ensuring that they maintained minimal standards of excavation, recording or publication. Gill’s paper and representations made by Goodwin, then lecturer in archaeology at the University of Cape Town, did, however, eventually bear fruit in 1934 with the enactment of the Natural and Historical Monuments, Relics and Antiques Act (J. Deacon 1990a). This repealed previous legislation, empowered the Historical Monuments Commission to proclaim specific monuments, relics and antiques and prohibited the destruction or alteration of such proclaimed monuments. Henceforth, archaeological excavations also required a permit issued by the Commission and the export of archaeological materials from South Africa was prohibited, except where the exchange of collections between South African museums and those of other countries might be authorized by the Commission (Goodwin 1946a). The consequences of the Act were felt almost immediately with a dramatic fall-off in the acquisition of South African prehistoric material by overseas institutions. Indeed, with the exception of some of the collections made by James Swan from sites in the Northern Cape and North West Provinces, individual artefacts from Mafikeng and Kimberley and small collections from Weenen and Modderpoort acquired between 1935 and 1940, it brought the collection of South African stone artefacts by the British Museum to a close.

For most of the other countries of southern Africa the British Museum has too little in its collections to make a discussion of chronological patterning in their acquisition worthwhile. We note, nevertheless, that the British Museum collections from Namibia all derive from the activities of Andrew Anderson, who was also an important collector within what is now Botswana; with one exception, the remaining of the British Museum Stone Age collections from Botswana were acquired from H. S. Gordon in 1930 and 1934. For Zimbabwe, however, further consideration is worthwhile. Patterning in the acquisition of this part of the British Museum Stone Age collections follows broadly the same trends as in the case of South Africa, though it is a little more compressed chronologically because of the later date at which archaeological research began. With the exception of the few artefacts from river gravels and surface contexts in Matabeleland found by A.A. Anderson (1887a) and purchased from him in 1885, all of the Zimbabwean part of the collections discussed were excavated or collected after 1900. The earliest phase of antiquarian research is represented by the White collection from the Matopo Hills, Khami and Plumptree (donated in 1922), while the 1905 visit of the British Association for the Advancement of Science contributed the Lamplugh collection from the Matetsi Valley. However, the bulk of the remaining collections firmly date to the 1920s and 1930s. At the beginning of this period a donation from the Bulawayo Museum in 1921 added material from several localities (Charter District, Gweru Kopje, Sawmills River, Shangani, Victoria Falls), much of it collected by W. H. Kenny, an early prospector. Five years later Father King sold finds acquired from Gardner’s work at Driefontein and in 1928 and 1930 Neville Jones respectively sold and donated artefacts that he had collected from several sites in Matabeleland.

The following year’s meeting of the British Association for the Advancement of Science in South Africa sponsored, as we have already seen, two major excavations in Zimbabwe, those of Caton-Thompson (1931) at Great Zimbabwe and of Armstrong (1931) and Jones at Bambata Cave and other sites in the Matopo Hills. The immediate consequence of this for the British Museum was Brauholz’s acquisition for the Museum (in 1930) of finds from a range of other sites in Matabeleland (Hope Fountain, Imbusini, Mauchini Brook, Powola Brook). The finds excavated by Armstrong, though exported from Zimbabwe at the end of the Rhodesian Archaeological Expedition’s activities there, were only formally acquired by the British Museum some time later. The first phase of this is marked by the bequest made in 1936 by Dr R. Favell, who had participated in the expedition, of artefacts from Nswatugi Cave, along with others that he had either collected himself or been given by other archaeologists (Gweru Kopje, Gokomere Cave, Inyati, Sawmills). Most of the finds from Armstrong’s excavations, however, were only acquired following their bequest at his death in 1959, along with further material from Gokomere Cave that he had been given by Gardner. By this time Armstrong had given parts of his collections to other museums, though as far as Zimbabwean sites are concerned the only consequence of this was that it was not until 1987 that the Manchester Museum transferred to the British Museum the outstanding part of the Armstrong Collection from Bambata Cave itself. Following South Africa’s example, the then Southern Rhodesia banned the export of archaeological finds without a license from the National Monuments Commission in 1936. Though they were only acquired by the British Museum after 1936, the Favell and Armstrong Collections, as well as the much smaller Hobley Collection from Sawmills, had already been removed from Zimbabwe several years before this legislation came into force.

**Who collected them?**

Table 4 summarizes data on the occupations, where known, of the individuals responsible for the collection of the British Museum southern African Stone Age holdings. The emphasis is very much on the activities of individual
collectors since only a small proportion of the total holdings from southern African Stone Age contexts derive from exchanges with, or donations from, museums in the sub-continent. Such museums are, with their provenances, the National Museum in Bloemfontein (South Africa, no further provenance), the Albany Museum in Grahamstown (Alicedale, Grahamstown, Kasouga River and Wilton Large Rock Shelter) and the Bulawayo Museum (Gweru Kopje, Nswatugi Cave, Powoola Brook, Sawmills, Victoria Falls).

In compiling Table 4 a difficulty was posed by the fact that many of the individuals who contributed to the British Museum collections were, in a very real sense, polymaths. This is evident in the brief biographical details of them provided in Appendix 4 and can be illustrated, for example, by Dr Hugh Exton, who was responsible for the Museum’s three artefacts from Lesotho. Exton was born in England, studied there and in the Netherlands and eventually qualified in medicine in Germany. Moving to South Africa he prospected for gold in Zimbabwe, travelled through Botswana, moved to Bloemfontein and there became the city’s mayor, a leading member of the committee that set up the National Museum in 1878 and its first Honorary Curator. Having published a paper on the auriferous rocks of the Witwatersrand, he went on to become the founding President of the South African Geological Society, as well as President of the South African Medical Society, a military surgeon during the Second South African War and an amateur ornithologist. How to classify such a man? Despite his many accomplishments, Exton was first and foremost a doctor and is included as such in Table 4, but it is worth bearing in mind that there is an unavoidable element of arbitrariness in such a decision.

With this caveat in mind, what general conclusions can be drawn from an examination of Table 4? The largest single professional category represented is that of geologists and mining prospectors, who together account for just over one-fifth of all the individual collectors. Interestingly, however, given what we have already said about the boost to the British Museum collections provided by discoveries made during diamond digging operations on the Vaal River, few of these individuals had any specific connection with the diamond industry. The most notable exception to this generalization is James Swan, who collected extensively in the Northern Cape and North West Provinces, both during and after his employment by De Beers at their Kimberley headquarters. Swan was also responsible for the donation made to the Museum by S.H. Routley, an employee of the London-based Diamond Corporation Ltd. Otherwise, the strong representation of geologists in Table 4 seems rather to derive from their coming across stone artefacts in the course of their geological work or prospecting, a coincidence that in several cases (notably that of Edward Wayland) led to a substantial redirection of their work and research in a more strictly archaeological direction. Other examples of such individuals would include both Lamplugh (1905a, 1905b) and F. White (1900, 1905), respectively the first individuals to publish on the archaeology of the Victoria Falls and to excavate at rock-shelter sites in Zimbabwe.

Closely allied professionally to the geologist/miner group are those individuals classified in Table 4 as engineers and surveyors, several of whom (e.g. Frames, Frylinck and Trevor) worked for mining companies; Trevor (1930), indeed, combined his mining expertise and archaeological interests to publish one of the first papers on Iron Age mines in the former Transvaal province of South Africa. Andrew Anderson, who has already been mentioned, also fits perhaps within this general grouping, although he has been included as an explorer in Table 4. He was a qualified surveyor, had his map of southern Africa published by the Royal Geographical Society in 1885 and also found several of his Northern Cape archaeological specimens in diamond diggings, one of them, a Middle Stone Age point from Klip Drift (part of Christy Collection +7872), on his own claim.

Many of the individuals who contributed to the British Museum collections from southern Africa were employed in Government service, either as colonial administrators in the 19th century, as civil servants or in the military. Together, these categories include a further fifth of the individuals whose occupations are known, more if one bears in mind that several geologists, engineers and doctors were employed by Government. The apex of colonial society is represented by the donations made by Sir George Grey (Governor of the Cape Colony and High Commissioner of South Africa 1854-1861) and Sir Bartle Frere (who occupied the same positions between 1877 and 1880). District magistrates are represented by only three individuals (Jansen, Orpen and Van Alphen), a perhaps surprisingly small percentage. It would be of interest to know from an examination of museum collections in South Africa if the low representation of government officials is a general pattern in the ‘antiquarian’ phase of southern African archaeology and, if so, what other intellectual or scientific interests such individuals may have pursued. The example of Colonel J. H. Bowker, who, in addition to his career as a soldier and civil servant, collected stone artefacts, co-authored a work on South African entomology and was also a noted botanist, comes to mind.

Both the Anglo-Zulu War of 1879 and the Second South African War of 1899-1902 resulted, largely through the activities of Colonel Feilden and Major Collins, in significant additions to the British Museum collections, notably from KwaZulu-Natal and the North West Province. Other military men also contributed to the British Museum southern African holdings. In addition to J. H. Bowker just mentioned, these include his brother, Commandant T. H. Bowker (Rorke’s Drift - in the aftermath of the Anglo-Zulu War), Colonel Goldsmid (South Africa, no further provenance - Second South African War), Major Smith (Pienaarsrivier, Second South African War) and Major-General White (Bechuana Province - Bechuanaaland Expedition of 1884). Several other individuals, especially some of those included in Table 4 under the category of ‘doctors’, also had strong military connections, among them Colonel Hardy (Fish Hoek, Noordhoek), founder member and first President of the South African Archaeological Society, as well as an important collector of Middle and Later Stone Age artefacts from the Cape Peninsula (Goodwin 1926a; Malan 1939).
### Table 4. Occupations of private individuals who contributed to The British Museum southern African Stone Age collections (sources given in Appendix 4).

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<td>Engineer</td>
<td>7</td>
<td>8.0</td>
<td>10.6</td>
</tr>
<tr>
<td>Explorer</td>
<td>1</td>
<td>1.1</td>
<td>1.5</td>
</tr>
<tr>
<td>Geologist/Miner</td>
<td>12</td>
<td>13.6</td>
<td>18.2</td>
</tr>
<tr>
<td>Horticultural</td>
<td>1</td>
<td>1.1</td>
<td>1.5</td>
</tr>
<tr>
<td>Museum curator</td>
<td>5</td>
<td>5.7</td>
<td>7.6</td>
</tr>
<tr>
<td>Priest</td>
<td>6</td>
<td>6.8</td>
<td>9.1</td>
</tr>
<tr>
<td>Soldier</td>
<td>9</td>
<td>10.2</td>
<td>13.6</td>
</tr>
<tr>
<td>Unknown</td>
<td>22</td>
<td>25.0</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>88</td>
<td>99.9</td>
<td>N = 66</td>
</tr>
</tbody>
</table>

**Note:** The term ‘collector’ is used with reference to Avebury, Evans, Lyell, Seton-Karr and Sturge in recognition of the fact that all had originally acquired southern African material second-hand from actual collectors in the field.
Professional archaeologists, anthropologists and museum curators form a further component of Table 4, accounting for almost another fifth of all those individuals whose occupations are known. That this figure is not higher reflects the comparative lack of professionalization of archaeology in southern Africa, as elsewhere, well into the 20th century and the high profile of amateur antiquarians as a result. To count figures such as Sir John Evans and Sir John Lubbock as archaeologists only goes to confirm this, since the first was, in fact, the owner of a printing company and the second a bank-owner and politician. Nevertheless, the list also includes Kathleen Kenyon and Clarence Van Riet Lowe, while a further significant component of the British Museum southern African Stone Age holdings result from the collecting activities of individuals professionally employed in the museum world. Neville Jones, whose archaeological interests led him to abandon the missionary field to become Zimbabwe's first museum-based archaeologist, is one of the most important of these, although Layard and Péringuey (both curators of the South African Museum, Cape Town) and Hewitt (Director of the Albany Museum) contributed a small component of the British Museum collections, along with Maria Wilman (Director of the McGregor Museum, Kimberley), one of only five women to be represented in Table 4. The British Museum's own staff are represented by Sir Charles Read, Keeper of the Department of British and Medieval Antiquities and Ethnography from 1896 until 1921, and by Hermann Braunholtz, Keeper of the Department of Oriental Antiquities and Ethnography (1938-1945) and Keeper of the Department of Ethnography (1945-1953). Read's contribution from southern Africa is restricted to a few handaxes from Simondium (Western Cape) and the Shangani River (Zimbabwe), but Braunholtz's is much more substantial and spans five South African provinces, as well as Zimbabwe. The two visits to southern Africa of the British Association for the Advancement of Science already remarked on provide the context for their visits and their acquisitions, though it is also worth mentioning that it was via his connection with Read that William Bazley (1905) donated some of the finds from his excavation of the Alfred County Cave in KwaZulu-Natal.

A theme that has received relatively little mention in earlier discussions of the early history of southern African archaeology is that of the interconnectedness of many of the early collectors. As one example of the ties of friendship, and in some cases marriage, that linked together many of the intellectual leaders of South Africa in the latter half of the 19th century, we have already commented on the connections between Sir Charles Lyell and his family on the one hand and Mrs Frances Colenso on the other and noted the connections between her and Lucy Lloyd, co-recorder of the Bleek/Lloyd archive that is fundamental to any understanding of southern African rock art or the history of the /Xam Bushmen (Lewis-Williams & Dowson 1989; Skotnes 1996). As another, and more extensive example, of such a network we can take the two Eastern Cape figures of Drs Atherstone and Kannemeyer, the first a contributor to the British Museum collections principally from what is now the Eastern Cape Province (Bushman's River, East London, Keiskamma River), the latter author of an important early paper (Kannemeyer 1890) that is ‘one of the few detailed descriptions of the use and making of stone tools ever published in Southern Africa’ (J. Deacon 1990a: 41).

A true polymath who combined his medical profession with active interests in botany and geology, Atherstone was related by marriage to the Bowker brothers (Mitford-Barberton & Mitford-Barberton 1952) through two different connections: both his cousin, Frederick Barber, and his brother, John Atherstone, married two of the Bowkers' sisters, respectively Mary Elizabeth and Anna Maria. Atherstone's own interest in geology had been inspired through his friendship with Andrew Geddes Bain, generally regarded as the father of the subject in South Africa. Bain himself contributed stone artefacts from Kleinemonde on the Eastern Cape coast to the British Museum, while others originally collected by him there were donated via Sir Charles Lyell, the leading British geologist of the time. Atherstone too donated artefacts from Kleinemonde: Tharfield, the Bowker family farm, lies only a few kilometres away. Both Atherstone and J. H. Bowker were keen botanists and sent specimens of plants that they had collected to Sir Joseph Hooker, Director of Kew Gardens in London. Hooker himself was centrally located within the mid-19th-century British scientific elite, a colleague and friend of Sir Charles Lyell, as well as of Darwin and Huxley. It was to Hooker, apparently for want of direct access to Lyell, that J. H. Bowker sent the finds from his excavations in Lesotho (Royal Botanic Gardens, Kew, Director's Correspondence South Africa vol. 189, no. 388), although elsewhere he refers to sending artefacts directly to Lyell (Bowker 1884). Both sets of finds appear now to be lost, along with the artefacts from the mouth of the Great Fish River sent by his older brother, T. H. Bowker, to the Royal Artillery Museum in 1866; J. H. Bowker's subsequent collection of artefacts from Rorke's Drift in KwaZulu-Natal did, however, pass to the British Museum.

One of J. H. Bowker's other interests was butterflies, a passion that he shared with Dr Daniel Kannemeyer, who may also have served with him in the Cape Mounted Rifles' campaign against Chief Moorosi in Lesotho in 1879. Kannemeyer practised medicine at Burgersdorp in the Eastern Cape, using the opportunities this offered him of meeting surviving San individuals to accumulate information on the last forager communities of the surrounding area (Kannemeyer 1890). He worked closely with Alfred Brown, another Eastern Cape doctor and antiquarian, Brown concentrating on the collection of Middle Stone Age artefacts and Kannemeyer on those of Later Stone Age origin (Goodwin 1946a: 31); neither published extensively. Kannemeyer did, however, inspire George Leith to develop an interest in archaeology, introducing him to the subject by showing him rock paintings near Burgersdorp when Leith was teaching there in 1886 (Goodwin 1946a: 36; Leith 1964: 13). Leith (1898) went on to excavate at Cave St. Blaise near Mossel Bay at Kannemeyer's instigation in order to vindicate the views previously advanced by Atherstone (1871) that the
shell midden deposits there were of human origin. Some of the material from his excavations, along with eoliths and Early Stone Age artefacts from several sites in Pretoria, form part of the British Museum collections, together with J. P. Rothwell's finds from Vogelstruisfontein, Gauteng, whom Leith also knew. As a codicil to this part of the Atherstone/Bowker network, we may note Kannemeyer's connections with Péringuey (Goodwin 1946a: 34) and with Dr Selmar Schönländ, curator of the Albany Museum, Grahamstown, and a former associate of Henry Balfour (1910), the curator of Oxford's Pitt Rivers Museum, to which Schönländ donated finds from the Eastern Cape. 

Mary Barber, sister of the Bowker brothers, was herself a noted natural historian, author of a brief note on stone artefacts (Barber 1872) and a contributor of information to Edgar Layard, first curator of the South African Museum in Cape Town, for his book The Birds of South Africa, which was published in 1867. It was to Layard that her brother, T. H. Bowker, sent stone artefacts that he had excavated near the Fish River some time before 1858 (Hewitt 1955 pace Busk 1869). When this or a later consignment of artefacts found by Bowker was unpacked in Cape Town around 1860, Mrs Emma Dale was present and 'was inoculated with...enthusiasm' for archaeology (Hewitt 1955: 94, quoting Layard 1872). At the time, her husband, the Rev. Langham Dale, was Superintendent-General of Education in the Cape Colony and it seems likely to have been through this connection that Dale was, in Goodwin's (1935: 296) words, brought ‘into the magic circle of archaeologists’ and encouraged to begin collecting stone artefacts of his own from the Cape Flats, while also acquiring others from George McKay's excavations near East London. As well as publishing himself, Dale (1870a, 1870b, 1871) sent some of his finds to Britain, along with others collected by Charles Busk. The latter's brother, the palaeontologist George Busk, presented them at the Norwich Congress of Prehistoric Archaeology in 1868 and later published them (Busk 1869). Busk was one of the key scientists working on subjects connected to the debate concerning human antiquity in the mid-19th century and well-known to others, such as Joseph Prestwich, Hugh Falconer, John Evans and John Lubbock. It was presumably through this acquaintance that Lubbock first became aware of the South African artefacts to which he later referred in several papers (Lubbock 1869, 1870a, 1870b, 1871) that helped him in his campaign to become founding President of what later became the Anthropological Institute of Great Britain and Ireland (Goodwin 1935). Many, possibly all, of the artefacts sent to Britain at this time by Dale and Charles Busk, including those illustrated in the Proceedings of the Norwich Congress (Busk 1869), now form part of the British Museum collections.

Connections of friendship and intermarriage link all the individuals just discussed and some of these were formalized through the discussion circle established by Dr Richard Rubidge, a leading Eastern Cape surgeon between 1844 and 1869. Both Atherstone and Andrew Geddes Bain were members of this group, along with George William Stow, a geologist who compiled a major work on the prehistory of southern Africa (1905) and was one of the first people to begin the recording of the sub-continent’s rock art (Stow & Bleek 1930).

A second series of interconnections reflected through the collections of the British Museum was founded on links made through the Church, particularly the Society of Jesus. One of the earliest pioneers of Zimbabwean archaeology was Father Thomas Gardner, a Jesuit missionary, based successively at missions such as Driefontein and Gokomere, both of which are represented in the British Museum collections. Gardner reached the then Southern Rhodesia in 1902 and commenced a long career publishing archaeological papers four years later with a report on finds made near Bulawayo (Gardner 1906). He was a close friend of a fellow Jesuit, Father Philip Stapleton, who taught at St. George's College in what is now Harare between 1929 and 1928 and had previously taught at St. Aidan's College, Grahamstown. While in the Eastern Cape, Stapleton had been closely associated with John Hewitt, the Director of the Albany Museum, an association that included the excavation of the Howieson's Poort type-site (Stapleton & Hewitt 1927) and a general review of South African archaeology in the mid-1920s (Hewitt & Stapleton 1925). Though Stapleton himself is not represented among the British Museum's donors, another Jesuit priest, Father Edward King, visited Rhodesia in 1931-32 and must have met both him and Gardner at that time; King sold to the Museum a further collection of artefacts from Driefontein acquired prior to this visit from Gardner. Stapleton's time in Grahamstown coincided with the presence there not only of John Hewitt, but also of an Anglican priest, Reverend Percy Cettlewell, Headmaster of St. Andrew's School between 1909 and 1933. It was Cettlewell who was responsible for the donation by the Trustees of the Albany Museum of artefacts from several Eastern Cape sites (Alicedale, Grahamstown (Sugar Loaf Hill), Kasouga River, Wilton Large Rock Shelter). As one point of connection between this clerical circle (also represented in the early years of Zimbabwean archaeology by Reverend Neville Jones and in the British Museum collections by both him and Reverend Rupert Cranswick) and the Atherstone-Bowlkers-Kannemeyer circle we can isolate Dr Selmar Schönländ, colleague of Kannemeyer, biographer of Mary Barber (née Bowker) and immediate predecessor of Hewitt as director of the Albany Museum.

The acquisition of Stone Age material from southern Africa by The British Museum.

In considering the history of the southern African collections now held by the Department of Prehistory and Early Europe (PEE), attention must also be paid to the curatorial history and departmental structure of the British Museum itself. This department was only founded in 1969 (as the Department of Prehistoric and Romano-British Antiquities) and thus acquired virtually none of its southern African collections while in its present form. Indeed, the only such acquisitions made since 1969 have been by transfer from other institutions: the Geological Museum (in 1989), the Passmore Edwards Museum (in 1996) and the Institute of Archaeology (1989). In each of these cases, southern African artefacts were included as part of larger
The bulk of the collections now held by PEE were acquired by the Victorian Department of British and Medieval Antiquities and Ethnography, which was founded in 1866 as an offshoot of the Department of the Oriental (Egyptian and Assyrian) Antiquities, and disbanded in 1921 to form the Department of British and Medieval Antiquities (parent of both PEE and the present Department of Medieval and Early Europe) and the Department of Ceramics, Oriental Antiquities and Ethnography (parent inter alia of the present Department of Ethnography). The collecting policies of the first Keeper of this Department, Augustus Woolaston Franks, were highly influential in building up the national collections in a wide variety of areas, including Stone Age material (Cook 1997). Franks began his career at the British Museum in 1851, when the issue of an extended antiquity for humankind was still the subject of fierce debate, took over the running of his own department the year after Lubbock (1865) coined the term ‘Palaeolithic’, and managed to build up one of the finest and most comprehensive Palaeolithic collections in the world while the subject itself was still in its infancy. Both his policies and methods were maintained by his protégé and successor, Sir Charles Hercules Read, the second and last Keeper of the Department.

In building up the Palaeolithic collections Franks was assisted by two main factors: firstly, the Christy Collection and Fund, and secondly his friendships with leading figures in the emerging subject of Palaeolithic archaeology. Both these factors are evident in the acquisition of Stone Age material (Cook 1997). Franks began his career at the British Museum in 1851, when the issue of an extended antiquity for humankind was still the subject of fierce debate, took over the running of his own department the year after Lubbock (1865) coined the term ‘Palaeolithic’, and managed to build up one of the finest and most comprehensive Palaeolithic collections in the world while the subject itself was still in its infancy. Both his policies and methods were maintained by his protégé and successor, Sir Charles Hercules Read, the second and last Keeper of the Department.

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the meeting. Leith also mentions that he has ‘selected a pretty complete series for you here which will be sent to you in due course’. The next letter is written from Bristol and Leith states that ‘I have left a good few of the drift gravel implements for you in the schoolroom where the paper was read. Please send to get them lest they be ‘jumped’.’ By 17th December 1898 Leith is back in Pretoria and writes to Sturge explaining how ‘before leaving Aberdeen for Bristol I sorted out a box of Coast flake implements into 4 lots and put a card with your name into the lot intended for you’. He also hints as to why he has sent material to Sturge and was now arranging to send more; ‘I shall be very pleased indeed if you will pack the sent material to Sturge and was now arranging to send together with any other of the finer specimens that you are sending me.’ The full extent of this ‘exchange’ is revealed in the final letter, dated 30th June 1899. This letter also shows that the arrangement with Sturge was not an isolated occurrence on Leith’s part:

...Shortly after I left here your exchange came to hand but it was only last night that I had the pleasure of unpacking them. They arrived I am glad to say in perfect order thanks to your careful packing. I am perfectly satisfied with the Danish spearheads you sent in exchange for my Mossel Bay celts.... I am particularly pleased to get the Italian implements and the bone needles from Switzerland. I have a few French paleolithic reed in exchange from Prof Boyd Dawkins, a fairly good collection of American implements from Prof Putnam and English paleoliths from Col Underwood. I propose sending you some implements from the Stormberg Cave Shelter some from the Waterberg flats and one or two perforated digging stones and rubbers from various districts. In exchange I would like specimens from various European countries, from Egypt or India...

The Boyd Dawkins and Underwood material is now held by other British museums (Appendix 3) and it can be assumed that the material sent to Putnam is now somewhere in America. What became of the objects that Leith traded for his South African material is unknown. Fortunately, however, few of the collections held by the British Museum fall into this category of material acquired from secondary collectors. Other examples may include the five pieces from Trechmann (Coega, Zwartkops River, both in South Africa’s Eastern Cape Province) and the single object donated by Horace Brown (Beyers Kloof Farm in South Africa’s Eastern Cape Province), a man known in other contexts to have enhanced his own collection by exchanging antiquities with others.

Such exchanges of material were commonplace between collectors during the late 19th and early 20th centuries, and, indeed, museums also participated in such practices - often in the name of ‘education’ and/or to further their own acquisitions. A noteworthy example from among the British Museum’s southern African Stone Age collections is the material donated from Alfred County Cave in KwaZulu-Natal by William Bazley. We discuss the significance of these finds in the following section, but consider here such evidence as survives in the British Museum’s archives (MME Letters archive) relating to their acquisition. The earliest surviving correspondence dates to March 1904 and records that Sir Charles Read, then Keeper of the Department of British and Medieval Antiquities and Ethnography, sent a parcel of 17 British Palaeolithic and Neolithic artefacts and a copy of the British Museum’s Stone Age Guide to a Mr Henry Higgs at Treasury Chambers for his ‘South African correspondent’. A letter from Higgs to Read dated 20th July 1904 clarified that this was indeed William Bazley, whom he described as an ‘eccentric old colonist’. Higgs then sent Bazley’s material to Read with a note stating that ‘The things he sends are for you, not for the museum.’ Two copies of Man containing Read’s report on Bazley’s finds (Bazley 1905) were then sent to Bazley on 20th January 1905. Higgs, who was later to become Principal Clerk in H.M. Treasury, had presumably made Bazley’s acquaintance while serving as Special Commissioner to Natal in 1902-1903, not long before this exchange of correspondence began. Why Read sent the European material to Natal is unknown, but it is possible that this may have been in response to an enquiry from Bazley about the prehistoric material that he had found.

Judging by Reginald Smith’s description in the 1926 third edition of the Guide to Antiquities of the Stone Age in the Department of British and Medieval Antiquities, a large part of the southern African Stone Age collections was then on display, or accessible to the public in glass-topped drawers below the table cases. The only major collection which seems to have been missing is that included in the Sturge bequest, which amounted to several tonnes of artefacts from around the world. This was stored elsewhere because of its magnitude and was only available upon request. Smith briefly discusses the African collections and attempts to structure his discussion by reference to the chronological sequence then known from western Europe. Although he was quite cautious about drawing direct comparisons, he described artefacts from Rustenburg in the former Transvaal and from Swaziland’s Mbabane River as being ‘somewhat in the St. Acheul style’ (ibid. 179-180).

Other objects from the Cape Flats were compared to material from the classic French Palaeolithic sites of Le Moustier and Solutré, although with the qualifying comment that ‘these may simply be chance coincidences’ (ibid. 180). Finally, material from the Wilton Large Rockshelter and Kimberley was described as similar to ‘those of Maz d’Azil date in Europe (the pygmy period)’ (ibid. 180). Smith did, however, commit himself so far as to say that ‘A find in the Umhlatuzane river valley near Mariannhill, Natal, confirms the opinion that the handaxes of Africa and Europe belong equally to the Drift period’, but again qualified his statement by adding that ‘...it remains to be proved whether the hand-axe remained the typical implement till comparatively recent times’ (ibid. 179). The Smith display had to be disbanded during the Second World War and there has not been a significant proportion of the southern African collections on exhibition in the British Museum since that time. The collections have, however, continued to remain available for research.

2. The Present Day Significance of the Collections

Assessing the significance of cultural remains is increasingly a feature of modern archaeology, whether in determining what to conserve, display or repatriate, or in considerations of how best to mitigate the impact on the archaeological environment of a range of development...
projects and activities (cf. Schiffer & Gumerman 1977). In discussing the significance of the British Museum southern African Stone Age collections, three interrelated themes can briefly be addressed: the significance of the collections as historical documents, their significance for education and their potential for further research. We take each of them in turn.

As the preceding sections of this chapter have hopefully shown, the British Museum collections help document virtually the first hundred years of Stone Age archaeology in southern Africa. They do this by providing material evidence of the interests of many of those involved with the southern African past between c. 1860 and 1950, by suggesting what was of value to these archaeological pioneers and by showing which periods or issues in prehistory exercised the greatest attraction over them. This is readily illustrated with two examples that concern the work of a single collector, George Leith. Leith’s (1898) paper on South African archaeology not only reported the results of his excavations at Cape St. Blaize Cave, Mossel Bay, which conclusively showed the human origin of its shell midden deposits, but also addressed the differentiation of naturally from humanly flaked pieces of stone in his consideration of finds from the Pretoria gravels. The first issue, previously debated by Barrow (1801), Lichtenstein (1928-30), Atherstone (1871), “F” (1871) and others, exactly parallels slightly earlier debates on the origins of Denmark’s kjøkkenmøddinger (Daniel 1975: 87-88), while the second forms, as Leith (1898: 268-269) himself indicates, part of the then ongoing controversy over the authenticity of so-called ‘Harrisonian eloliths’ in Kent and elsewhere (Daniel 1975: 230-231).

Our discussion of the chronological and geographical patterning in the activities of those individuals who contributed to the British Museum holdings from southern Africa adds a further dimension to the historical significance of those collections. It is clear, for example, that important political and economic events and processes (such as the discovery of diamonds, the Anglo-Zulu War and the Second South African War) had an effect on the manner in which and the areas from which the Museum acquired its southern African collections. What is also evident is the importance of ties of friendship and of professional connections between many of the collectors which resulted in them forming parts of intellectual networks not only within southern Africa, but also extending to the scientific elite of contemporary Britain. Southern African prehistory, right from its earliest days in the 1860s, was never peripheral to developments in the wider fields of palaeolithic archaeology and hunter-gatherer research.

It is this historical dimension of the British Museum collections that is, perhaps, foremost in considerations of their contemporary significance. However, we ought not to forget the importance of the British Museum holdings as by far the largest and most diverse Stone Age archaeological collection from southern Africa at any British institution (cf. Chapter 5 with Appendix 3). This makes the British Museum, in particular, central to any consideration of the relations between the evolving discipline of archaeology within the sub-continent and Britain, but also offers to the British Museum an unparalleled opportunity, outside of southern Africa, for the public display and interpretation of southern African archaeology.

Yet museums exist to provide opportunities for research, as well as to conserve, to present and to educate. One aspect of the research potential of the British Museum collections forms the basis of and justification for the present chapter, i.e. their own history and what this can tell us about the motives and interests of those people who acquired them. Unfortunately, because so much of the British Museum southern African collections (e.g. many of the artefacts collected by Andrew Anderson) come from undatable surface contexts, have little or no stratigraphic provenance or represent highly selected and biased components of much larger assemblages, few of them have the potential to inform us about southern African prehistory, rather than the prehistory of the region’s archaeology. But there are exceptions to this generalization and these are picked up and discussed in the Gazetteer. Notable among them are Bambata Cave, where the British Museum now has nearly the entirety of the artefact assemblages recovered by Armstrong and Jones in their excavation of 1929 (Armstrong 1931), along with tracings of the now sadly faded rock paintings that cover its walls. Walker (1995: 152) makes explicit reference to having examined the British Museum collection from Bambata when reassessing the site’s stratigraphy and cultural sequence; part of the same collection has also been recently examined by Nick Hanson-James (pers. comm.), whose doctoral thesis addresses the significance and spatio-temporal parameters of the distinctive Bambata Ware ceramic tradition named after the site. Remaining within Zimbabwe, Walker’s (1995) recent synthesis of the archaeology of the Matopo Hills mentions other excavations carried out there in the early decades of the 20th century, notably by White (1905) at a shelter near World’s View and by Armstrong (1931) at Gumali Shelter. Walker (1995: 188) comments in the first case that ‘most of the material has been lost’ and in the second that ‘the excavated material is no longer available’. However, in both cases some, albeit probably highly selected, artefacts survive in the British Museum. Not only do these confirm Armstrong’s (1929) reference to the presence of both a Later and a Middle Stone Age component at Gumali (and further demonstrate that the former is of mid/late Holocene Age), but they also attest to the previously unremarked fact that White (1905) dug at two separate shelters near World’s View; the artefacts in his collection from the Matopos are clearly provenanced to a shelter A and a shelter B.

Such instances may be few, but a final example illustrates their importance, and suggests that other surprises may still be found in early collections. As has already been remarked, near the beginning of the 20th century William Bazley, an engineer, excavated at a site in the then Alfred County of what is now southern KwaZulu-Natal. Bazley (1905) published only brief details of his excavation, which was carried out with few stratigraphic controls. As Goodwin (1935: 314) commented, had things
been otherwise ‘it should have yielded very valuable evidence from this part of the country’, not least because the site appears to have had up to 5.6 m of deposit, contained well-preserved faunal remains and also three human skeletons (Bazley 1905). In his *Loom of Prehistory* Goodwin (1946a: 78-79) refers to Bazley having sent some of his finds to C. H. Read and urged ‘the Natal authorities to locate his sites and collections’. Neither he, nor later reviewers of the prehistory of KwaZulu-Natal (e.g. Vinnicombe 1976; Cable 1984), were able to do this, yet over 200 of the artefacts from this site have remained in the British Museum’s Christy Collection since being given to Read (the then Keeper of British and Medieval Antiquities and Ethnography) in 1905. Their analysis, as part of this project, confirms Goodwin’s suspicion that a Middle Stone Age assemblage was present at the site, but also suggests the presence of a Later Stone Age occupation both across the Pleistocene/Holocene boundary and during the mid/late Holocene, as well as of a Howieson’s Poort occurrence. Though small, the surviving Bazley collection is sufficient to confirm the importance of the site and to justify a further search to relocate it. No shelter with such a long, complex and potentially informative cultural sequence is known elsewhere along the 750 km of South Africa’s eastern seaboard between Kaplan’s (1990) excavations at Umhlatuzana near Pietermaritzburg and Klasies River Mouth, with its early anatomically modern humans of Last Interglacial Age (H. J. Deacon 1989, 1995).
4. Terminology and Typology

1. Terminology

The historical development of Stone Age terminologies in southern Africa

Although various attempts, often influenced by prior European studies, were made in the late 19th and early 20th centuries to classify Stone Age artefact assemblages from southern Africa, the terminology in use today has its roots in the work of Goodwin and Van Riet Lowe (1929). The origins of their system and the transformations that it has undergone since, as well as the factors, theoretical and logistical, that contributed to these developments have been well reviewed by several recent authors (e.g. Parkington 1984; J. Deacon 1990a) and require little comment here. This section is therefore restricted to a largely descriptive treatment that relates present day terms to those of the older literature.

Southern Africa’s own ‘Three Age System’, as it might fairly be called, was developed by Goodwin when, invited to bring order to the collections of the South African Museum in Cape Town, he was seized by ‘the absolute necessity for evolving an entirely new cultural terminology’ (Goodwin 1958: 25). This he achieved by placing artefacts into typological groups, identifying recurrent assemblages believed to be of cultural significance from the repeated co-occurrence of particular artefact types and dating them by degree of patination and all too rare stratigraphic information (J. Deacon 1990a: 43). Basing himself on collaboration with other workers, particularly Van Riet Lowe, whose primary field of expertise lay in the Orange Free State and Transvaal, rather than the sites of the Cape Fold Mountain Belt and its coastal forelands, Goodwin was led to propose a division into Earlier (or Early) and Later Stone Ages. The Earlier Stone Age was represented by what was then known as the Stellenbosch Culture, regarded as equivalent to the Acheulean or Lower Palaeolithic of Europe. The Later Stone Age, in which two industries, the Wilton and the Smithfield, were identified, was thought similar to the Middle and Upper Palaeolithic and Mesolithic of Europe (J. Deacon 1990a: 44). This scheme won general acceptance at the 1926 meeting of the South African Association for the Advancement of Science (Goodwin 1926b), but received a much fuller exposition in The Stone Age Cultures of South Africa, which Goodwin and Van Riet Lowe (1929) co-authored three years later. In this monograph, the term Middle Stone Age (Fig. 6), the third of the ‘Three Ages’, was introduced to designate assemblages distinguished by having triangular flakes with convergent dorsal scars and faceted butts.

Sub-divisions of the Early, Middle and Later Stone Ages were initially few, but in the 1930s and 1940s a plethora of industries and their variants were identified, particularly in the case of the Later Stone Age (LSA). Parkington (1984) has reviewed these terms for the LSA and has shown how they in part reflect the problems of dealing with the influence of raw material on assemblage composition and appearance. Other factors considered at the time were the respective rôles of temporal variation within individual industries (notably Goodwin’s (1938) analysis of the sequence at Oakhurst Shelter) and of differential activity performance (e.g. the specialization in wood-working thought by Van Riet Lowe (1936) to lie behind the large numbers of notched scrapers found in Smithfield assemblages in KwaZulu-Natal). None of the terms developed during this period, however, remain current today. The same is true of the various sub-divisions recognised previously for the Middle Stone Age (MSA), with the exception of the Howieson’s Poort, a term extended by Goodwin (1929) from the type-site in the Eastern Cape Province to include material from several surface sites (and later also from rock-shelters) in the Western Cape (Sampson 1974: 232). Recognised through the presence of relatively high frequencies of backed pieces, including segments that resemble those of the Wilton, smaller flakes and flake-blades and finer-grained raw materials, the Howieson’s Poort remains a widely recognised sub-division of the southern African MSA (Fig. 7).

With the expansion of archaeological research in the 1930s and again after the Second World War, it began to be recognised that Goodwin and Van Riet Lowe’s (1929) threefold basic division of the southern African Stone Age could not readily accommodate cultures thought to be transitional between the ‘Ages’ that it identified. In response to this feeling, the Third Pan-African Congress on Prehistory, which met in Livingstone, Zambia, in 1955, created two intermediate periods - the First Intermediate connecting the Early and Middle Stone Ages, the Second Intermediate linking the Middle and Later Stone Ages. The First Intermediate included the Fauresmith Industry, named from a type site in the Free State from which the British Museum has material, which combines bifacially worked handaxes and cleavers with a range of scrapers, prepared cores and long blades. Fauresmith assemblages were recognised across most of South Africa and in Lesotho (Clark 1959: 147-149). The term Sangoan was employed to refer to a roughly contemporary industry, containing large numbers of picks and core-axes, north of the Limpopo River (Sampson 1974: 107), with the Charaman recognised as a late expression of this in Zimbabwe, e.g. at the base of the Bambata Cave sequence (Cooke 1966).
Fig. 6. Middle Stone Age unifacial points and flake-blades (after Goodwin & Van Riet Lowe 1929: 121—from Maitland, Stilbey and Fish Hoek).
Fig. 7. Howieson's Poort artefacts from the type-site (after Goodwin & Van Riet Lowe 1929:131).
Although the terms Fauresmith (Beaumont & Morris 1990) and Sangoan (McBrearty 1988) remain in use to describe geographically quite widespread industrial traditions that do indeed appear to show features transitional between Early and Middle Stone Age lithic technologies, the Second Intermediate has completely fallen by the wayside. The term *Magosian*, widely used from the 1930s to the 1960s to describe assemblages of the Second Intermediate Period that combined prepared core techniques with small blades and backed tools, was jettisoned when it was realised that the type site and many other assemblages were mixed surface collections or came from stratigraphically disturbed contexts in rock shelter excavations (Sampson 1974: 236). Within southern Africa recent work by Walker (1980) in Zimbabwe has shown that the same is true of the so-called Tshangulan assemblages, which display a similar combination of MSA flaking technology and backed microliths. Further south, the supposedly Magosian sequence at Rose Cottage Cave in the eastern Free State has turned out to encompass several successive MSA occurrences, only one of which - described as Howieson’s Poort - features large numbers of backed pieces (Wadley & Harper 1989). The Howieson’s Poort alone survives as a useful term and, although Parkingon (1991) has questioned whether everything described as Howieson’s Poort really forms part of the same entity, it is clear from excavations at sites such as Klases River Mouth (Singer & Wymer 1982; H. J. Deacon & Geleijnse 1988) and Border Cave (Beaumont et al. 1978) that Howieson’s Poort assemblages occur sandwiched within the overall Upper Pleistocene Middle Stone Age sequence.

As one of the results of a conference of Africanist archaeologists held at Burg-Wartenstein in Austria in 1965, far-reaching suggestions were made to improve the cultural systematics of the African Stone Age (Bishop & Clark 1967), in part because of the wild abandon with which terms such as ‘Wilton’ had been applied as far from South Africa as Somalia and Kenya (Inskeep 1967). The Burg-Wartenstein Conference proposed that *archaeological occurrences* be grouped into *phases*, that might be either temporal or spatial in nature, and that these phases in turn should be grouped into *industries* and then *industrial complexes*. These proposals have been less than wholly successful, in part because the entities were not clearly enough defined, and in part because underlying assumptions remained unchallenged. In particular privileging stone tools at the expense of other datasets and expecting that all aspects of a cultural system will be equally represented at all sites have proven problematic.

Garth Sampson (1972) presented the results of his extensive excavation and survey work along the middle Gariep River Valley within the format laid down at Burg-Wartenstein, and subsequently produced a synthesis of southern African Stone Age archaeology along the same lines (Sampson 1974). With this one exception, however, the last three decades of archaeological research have tended to eschew the formal definition or proliferation of taxonomic schemes in favour of questioning the assumptions to which reference has just been made. Instead of emphasizing the details of lithic typology, H. J. Deacon (1972, 1976) developed a model of the southern Cape LSA in which patterning among assemblages, linked to distinctive patterns of food wastes in archaeological sites, was viewed as reflecting subsistence and settlement strategies, albeit that broad correlations with stone artefact sequences were also apparent (J. Deacon 1984a). Other studies, notably by Mazel & Parkington (1981), Carter (1978) and Cable (1984) have stressed the influence of seasonal mobility on assemblage composition, developing Van Riet Lowe’s (1938) and Clark’s (1958) earlier insights into the importance of spatial variability in the activities performed at different points on the landscape. More recently, and as part of an overall shift from an ecological paradigm that emphasized people-to-nature research questions toward one that is much more centrally concerned with people-to-people topics of social relations and ideology (J. Deacon 1990a), there has been renewed interest in attempts to isolate identity-conscious prehistoric communities from variation in the spatial patterning of material culture items (e.g. Sampson 1988; Mazel 1989; Binneman 1994a). Going still further, Lewis-Williams (1993) has powerfully urged the wholesale abandonment of lithocentric terminologies of any kind in favour of a periodization and organization of our data that stresses changing patterns of social relations. The implications of his critique have still to be fully taken on board by southern African archaeologists, but will doubtless be an important source of debate in future years.

**Current terminologies for the southern African Early and Middle Stone Ages**

As Volman remarks, it is possible to identify only broad, poorly distinguishable divisions within the timespan of the Early Stone Age, which covers more than a million years. Older developmental schemes suggesting progressive refinement in the production of handaxes and other artefacts can no longer be sustained (Sampson 1974), but the rarity of *in situ* assemblages and firm dating controls hinders any attempt to assess or understand assemblage variability on anything more than the grossest level.

Volman (1984: 180), indeed, distinguishes only between a Lower and an Upper Acheulean for the period 1.6 to 0.2 million years ago, with older artefacts from excavations in Member 5 at Sterkfontein and Member 1 at Swartkrans comparable to the Oldowan/Developed Oldowan assemblages of East Africa. He notes, however, that no clearcut typological differences have been demonstrated between the Lower and Upper Acheulean and that a ‘chronological boundary at about one million years ago may prove more satisfactory’ (Volman 1984: 181). For this reason no sub-division of the Acheulean has been attempted in the present Catalogue. The term ‘Fauresmith’ has, nevertheless, been retained, following Beaumont & Morris (1990: 4-5) to refer to those very late Acheulean assemblages that include some use of parallel-sided and convergent flake-blades and Levainois prepared core technology; as they point out (*pace* Humphreys 1972b) such artefacts are found in a range of raw materials and are not merely the consequence of the exploitation of horfnels in order to make stone tools. Dating is extremely tentative,
but somewhere within the range 250,000 - 190,000 years ago is likely (Beaumont & Morris 1990: 5).

Current practice in discussion of the southern African Middle Stone Age, as illustrated by Thackeray's (1991) recent survey, is to follow the terminology devised by Volman (1981), who has produced the most thorough reassessment. Volman identified four successive temporal subdivisions - MSA 1, MSA 2, Howieson’s Poort and MSA 3 (Table 5) - based largely on the sequence from Kloesies River Mouth, although he still found it necessary to describe his scheme as ‘informal’, given the variability that characterizes the MSA and the difficulties of dating, and thus correctly correlating, individual sequences and assemblages. Even in the case of the Howieson’s Poort, it is by no means clear that all assemblages assigned to this group on the basis of enhanced frequencies of backed pieces, fine-grained raw material use or smaller artefacts, do genuinely belong together (Parkington 1991).

Volman (1984: 207) himself emphasized that the assemblages he grouped together as MSA 3 share little in common, other than their presumed or definite post-Howieson’s Poort age. Indeed, the suspicion exists that during the period 25 - 60,000 BP quite different cultural trajectories may have been followed in different parts of the sub-continent. There are indications, for example, that in the Boomplaas sequence from the Cape Fold Mountain Belt large flake-blades and points of ‘classic’ MSA form continued in use until some time after 32,400 BP (H. J. Deacon 1995). In the Lesotho highlands, on the other hand, there appears to be a stronger case for a gradual shift in patterns of raw material usage and towards the production of more clearly microlithic assemblages (Parkington 1991), even though MSA formal tools continued to be produced as late as the beginning of Oxygen Isotope Stage 2 at some sites (Opperman & Heydenrych 1990; Mitchell 1994b). Despite these differences, problems of chronological control as the radiocarbon barrier is approached and the paucity of well-published, large assemblages for study have so far precluded the recognition of regional industries or industrial phases within the MSA 3. This is to be regretted as more tightly defined spatio-temporal patterning in lithic traditions seems, at least in some parts of the Old World, to be associated with the development during the timespan of the MSA 3 of more modern forms of cultural behaviour (Mellars & Stringer 1989; Mellars 1991).

**Current terminology for the southern African Later Stone Age**

The most recent general survey of the southern African Later Stone Age as a whole is that produced by J. Deacon in 1984, although Wadley (1993) has discussed the Pleistocene LSA south of the Limpopo and Mitchell (1997) discusses the Holocene LSA in the same region between 10,000 and 2000 BP; more regionally focused summaries are de rigueur in many doctoral theses (e.g. Mazel 1989; S. Hall 1990; Bousman 1991). J. Deacon (1984b) has divided the LSA into four broad units that have proved to be of general heuristic value as a means of organizing the various industries of the last 20 - 25,000 and more years: late Pleistocene early microlithic, terminal Pleistocene/early Holocene non-microlithic, Holocene microlithic and late Holocene with pottery. These divisions are followed here (Table 6).

Within J. Deacon’s (1984b) category of Pleistocene early microlithic assemblages a primary distinction can be drawn between assemblages marked by a heavy investment in the specialized production of unretouched bladelets and those that lack even this degree of formality. The first of these groups is generally referred to as Robberg (in the Western and Eastern Cape) or Robberg-like (in the remainder of South Africa, Lesotho and Swaziland) and is associated with radiocarbon dates of between 19 000 and 12, 000 BP (J. Deacon 1984b; Mitchell 1995). The interaction network suggested by the strong bladelet emphasis common to all Robberg assemblages and such features as identically ornamented bone beads from sites as far apart as Mpumalanga and the Western Cape Province (Wadley 1993) does not seem to have extended significantly north of the Limpopo or Gariep Rivers. Contemporary assemblages in Namibia, Zimbabwe and Botswana are highly informal, indeed not even markedly microlithic in the case of those from sites such as Apollo 11 Cave and Pockenbank 1 (Wendt 1972; J. Deacon 1984b), though more bladelet-rich assemblages are reported from Mashonaland (Walker & Wadley 1984) and the Tsoililo Hills (Robbins et al. 1996).

Predating the Robberg at several sites in South Africa and Lesotho are informal microlithic assemblages that lack its characteristic bladelet cores and large numbers of unretouched bladelets. These assemblages do, however, clearly belong within the LSA as it is generally defined: witness, for example, the presence of bone points and ostrich eggshell beads in the LP and LPC layers at Boomplaas Cave (J. Deacon 1990b; H. J. Deacon 1995). The term ‘Early Later Stone Age’, often abbreviated to ‘ELSA’, has come into general use to describe such occurrences, following its invention by Beaumont and Vogel (1972). However, this has proven contentious, with the so-called ELSA assemblage from Rose Cottage Cave turning out to be a composite of several LSA occurrences of different ages (Wadley 1991) and that from Border Cave, effectively the type-site for the concept, perhaps more appropriately considered to be transitional between MSA and LSA stone-working technologies (Mitchell 1988; Barham 1990). Though there certainly is a degree of unity between at least some bladelet-poor, early microlithic assemblages of pre-19,000 BP age, the extent to which it is still useful, rather than confusing, to refer to them as ‘ELSA’ is open to question (Wadley 1991). The cultural systemsatics of the earlier part of the Pleistocene LSA is consequently a continued topic for debate, a discussion tied up with explanations for the transition from MSA to microlithic stone-working traditions and for the appearance in the archaeological record of a whole range of new kinds of material evidence, such as art, personal ornament, bone tools etc. (J. Deacon 1990b; Mitchell 1994b).

Goodwin and Van Riet Lowe (1929) did not have the data to hand that might have suggested to them that the LSA extended back into the Pleistocene. However, the basic distinctions that they were able to draw within the material
known to them have largely withstood the test of time and continue to form the basis for our structuring of post 12,000 BP LSA assemblages. Broadly speaking, three divisions are now recognised. The oldest of these, referred to either as late Pleistocene/early Holocene non-microlithic assemblages (J. Deacon 1984b) or, more commonly, as the Oakhurst Complex (after Sampson 1974), is broadly equivalent to Goodwin and Van Riet Lowe's (1929) Smithfield A assemblages. Important characteristics are a general preference for coarser-grained raw materials and/or those that occur as larger preforms, a tendency for both flakes and scrapers to be longer and broader than either before or afterward and an overall low frequency of formally retouched artefacts. Associated with many of these assemblages, which are largely bracketed between about 12,000 and 7/8,000 BP, are increased frequencies of items such as worked bone and ostrich eggshell beads. In some parts of the sub-continent regional industries are recognised within the Oakhurst Complex: the Albany in the coastal forelands of the Eastern and Western Cape, the Lockshoek in the Karoo and along the central portions of the Gariep River Valley, the Pomongwan in southwestern Zimbabwe (Sampson 1974) and the Kuruman in the Northern Cape (Humphreys & Thackeray 1983). Elsewhere (e.g. in the Magaliesberg Mountains - Wadley 1987) the more general terms Oakhurst or Oakhurst-like are used. In areas such as Lesotho there is, from about the late tenth millennium BP a marked increase in formal tool frequency associated with the appearance of highly distinctive end-retouched scrapers that also have adze-like retouch and/or less extensive trimming along their lateral margins (Fig. 8). To distinguish such assemblages from older Oakhurst occurrences that consistently lack these features, the term 'later Oakhurst' has been informally used (Mitchell 1994a; 1996).

Of the two LSA industries recognised by Goodwin and Van Riet Lowe (1929) it is the Wilton that has survived least changed from its original formulation. Assemblages featuring large numbers of small, often thumbnail-shaped scrapers and backed segments (Figs. 9 and 10) are found throughout the sub-continent during the middle Holocene, though with a marked geographical cline in their first date of appearance. Janette Deacon (1984b: 249) suggests that this pattern shows that the new industrial tradition developed initially in Namibia and Zimbabwe, for reasons as yet unknown. Its gradual southward spread, appearing south of the Gariep after 7500 BP is not inconsistent with some kind of diffusionary process, though the details of this remain obscure. Assemblages attributed to the Wilton Complex are found in the same areas as the Oakhurst, but, with the exception of Sampson's (1974) recognition of separate coastal and interior industries, no regional subdivisions are in common use. More generally employed, is Sampson's (1974) term 'Post-classic Wilton', which has emerged as a useful summary term for assemblages that, while clearly forming part of the same tradition as the Classic segment-rich Wilton of the middle Holocene, see segments effectively replaced by other kinds of backed microliths, shifts in scraper morphology and increased use of adzes. Areas in which this term has seemed particularly useful include Gauteng (Wadley 1987), the eastern Free State (Wadley 1996) and Lesotho (Mitchell et al. 1994).

Pottery was added to most Stone Age traditions in southern Africa at one or other time during the last two millennia BP with recent work in both southwestern and southeastern southern Africa raising the possibility that its adoption may have predated the local adoption or introduction of elements of food-production (Mazel 1992a; Sealy & Yates 1994; cf. Henshilwood 1996). As a consequence, microlithic assemblages from this period are often referred to as Ceramic Wilton (Sampson 1974) or Post-classic Wilton with pottery (e.g. Wadley 1991). Local variants of this phenomenon in the Northern Cape Province have been designated the Swartkops and Doornfontein industries (Beaumont et al. 1995), the former with high frequencies of backed blades and coarse, undecorated, commonly grass-tempered ceramics, the latter with a high incidence of quartz, few formal tools and thin-walled, sometimes decorated pottery.

No longer in use for the Lockshoek Industry (the former Smithfield A) or the Post-classic Wilton assemblages of the Caledon Valley and KwaZulu-Natal (the former Smithfield C and N), the term Smithfield is used today only with specific reference to a series of late Holocene assemblages from South Africa's interior plateau. Best known from Sampson's (1972, 1985) work along the middle stretch of the Gariep River and in the Seacow Valley, these assemblages are characterised by endstruck scrapers larger than those found in earlier Wilton occurrences in the same area and by highly distinctive ceramics that emphasize the use of a variety of impressed decoration techniques and a grass-tempered fabric (Sampson 1988). Associated dates begin as early as c. 600 BP and Smithfield assemblages continued to be made into the 19th century by the last hunter-gatherer groups to inhabit the Karoo, with recent work increasingly showing the complex variability in material culture that marked this area over the last few hundred years (e.g. Sampson & Vogel 1995; Bollong & Sampson 1996).

In Zimbabwe Walker (1995) has recently revised previous terminologies for the Later Stone Age, drawing largely upon the results of his fieldwork in the Matopo Hills. He notes that in many cases the industries previously recognised by Cooke (1975) and by Cooke et al. (1966) were defined without critical examination of the material from their supposed type-sites and that these were, in any case, often unsealed surface scatters or excavations with poor stratigraphic controls. A serious lack of dating and a failure to consider the possibility of variability in assemblage composition between sites belonging to the same, contemporaneous cultural group are additional problems, most obviously in Cooke's (1979) study of the Later Stone Age of Mashonalnd. Walker's re-excavation of sites such as Pomongwe Cave and reanalysis of older collections has shown that the so-called 'Tshangulan Industry' (Cooke 1963), once thought to be a late example of a basically Middle Stone Age technology that had taken on such LSA innovations as bored stones and worked bone, is the result of stratigraphic mixing. However, some degree of core preparation and production of prepared points may

The Holocene prehistory of the Matopos is characterized by four successive industries, now termed Pomongwe, Nswatugi, Amadzimba and Ceramic Matopan, though these stages 'are probably no more than artificial segments of a continuum' (Walker 1995: 99). The Pomongwe Industry has few backed tools and scrapers of larger average size relative to its successors and with dates ranging between 9400 and 11,000 BP crosscuts the Pleistocene-Holocene boundary (Walker 1995: 73); relative to earlier assemblages, a wide range of worked bone artefacts is found in Pomongwe assemblages. The Nswatugi
Industry (formerly Khami, Matopan or Wilton) exhibits a marked increase in backed tool frequencies and a reduction in scraper size, with several subdivisions recognised between 6500 and 9500 BP. From about 4800 BP, Walker identifies an Amadzimba Industry marked by changes in raw material usage, backed tool frequencies and the innovation or increased use of a wide range of bone and shell artefacts. The final phase of the Later Stone Age in the Matopo Hills is associated with the introduction of pottery after c. 2150 BP. Though these ceramics are generally referred to as Bambata ware after the first site at which they were discovered, Walker (1995: 205) has urged that this be replaced by the term Gwanda ware after the Zimbabwean district in which it is mostly found, with the associated industry as a whole termed ‘Ceramic Matopan’. Though his point in doing this is to avoid terminological confusion with the Middle Stone Age Bambata Industry, it is as yet too early to know whether his suggestions will become widely used. Associated with the spread into southern Africa of domestic small stock, the Ceramic Matopan, and thus archaeological evidence for the presence of foragers in the Matopo Hills, appears to come
to an abrupt end c. 1500 BP, consequent upon the establishment of iron-using, agropastoralist communities in the region (Walker 1995: 205).

The relative lack of Stone Age archaeological research in other parts of Zimbabwe makes it difficult to know how far this Matopo Hills sequence is valid elsewhere, particularly given the abrupt breaks in occupation evident at Diana’s Vow Shelter in Mashonaland (Cooke 1979) and in field survey results from the Zimbabwean lowveld (Walker in press a). The presence of a microlithic Pleistocene LSA assemblage at Duncombe Farm in Mashonaland (Walker & Wadley 1984) is one among several hints of inter-regional variability that remain to be explored. In general, however, the Matopos sequence, though also associated with parts of southern Africa lying to its north, has stronger similarities than they do with Africa south of the Limpopo (Walker 1995: 254). Thus, the Pomongwe can be considered a northerly expression of the Oakhurst Complex and the Nswatugi of the Wilton, while the Amadzimba and Ceramic Matopan parallel post-classic Wilton assemblages with and without pottery respectively.

In general, current practice among most southern African researchers is to employ specific names only for the highest order entities that they recognise among the Stone Age artefact assemblages of the sub-continent. Even for the Holocene, when the archaeological record is at its richest and dating controls at their most precise, most regional syntheses make reference to no more than three, perhaps four, designations (Oakhurst, Wilton, Post-classic Wilton, Smithfield). Indeed, some projects, such as those of Parkinson and his co-workers in the Western Cape Province (Parkington & Hall 1987) or Mazel (1989) in the Thukela Basin of KwaZulu-Natal, have striven to avoid using industry or industrial complex names at all. On the one hand this has the effect of signalling a difference in priority from the traditional concerns of space-time systematics and a conscious shift to investigating issues of ecological, social and ideological change, a shift that is the defining feature of southern African archaeology over the last three decades. On the other, it indicates the rejection of a transformationalist, punctuated equilibrium view of societal change in favour of a model that views change as something much more continuous and accumulative (Parkington 1980).

Linked to these attempts to develop a more narrative approach to prehistory (Parkington 1993) has been a concern in some studies for the detailed investigation of spatial patterning in material culture. Identification of prehistoric alliance networks has, conversely, sometimes favoured the proliferation of regionally specific names for the phenomena under discussion, whether these are the Ndaka, Toleni and Injasuthi ‘social regions’ that Mazel (1989) identifies in the later Holocene of the Thukela Basin, or the Kabeljous and Wilton industries recognised by Binneman (1994b) along the western coastlands of the Eastern Cape Province. The tension between these two goals promises to produce further changes in Stone Age cultural systematics as southern African archaeologists increasingly grapple with both social issues and the effects on their data of varying levels of spatio-temporal resolution (Mitchell et al. 1996).

2. Typology
At the present time southern African researchers tend to analyse Early, Middle and Later Stone Age stone artefact assemblages using separate typologies as a reflection of what are perceived to be quite different ways of reducing and using stone (J. Deacon 1984a: 221). Although this practice is open to the criticism that it necessarily exacerbates differences between assemblages from each Age, thereby making it difficult, if not impossible, to identify and explain changes in the organizational properties of technological systems (Mitchell 1994b), it is followed here.

Early Stone Age artefacts have been described simply as either handaxes, cleavers or undifferentiated bifaces where they are not simply cores or flakes. Middle Stone Age artefacts have, in general, been described using a simplified version of the typology employed by Volman (1981), while the scheme developed by J. Deacon (1984a) has been used as the basis for the description of Later Stone Age artefacts. In each case these decisions reflect the most common
contemporary usage. The accompanying glossary provides definitions of the terms employed here, grouping them according to the artefact classes recognised by J. Deacon (1984a): unmodified, utilised, formally retouched and ground.

Typological glossary of terms related to stone assemblages in Southern Africa

**Adze:** A flake, or sometimes a pebble, with one or more concave, sometimes straight, working edges shaped by one set of flake scars, as well as by secondary flaking that results from use. Mastic traces show that adzes were used hafted, probably in an end-mounted fashion (J. Deacon 1984a: 391). On some specimens retouch on opposing sides shows that they were sometimes reversed in their mount. Microwear analyses demonstrate that adzes were principally employed in wood-working activities (Binneman & Deacon 1984).

**Backed bladelet:** A bladelet that has at least one of its longitudinal edges modified by abrupt backing retouch. Sometimes both lateral edges may be backed. Where the tip of the bladelet is now missing it is not always clear if the artefact was originally a backed bladelet or a borer.

**Backed flake:** A flake of irregular size and shape that has one or more edges modified by backing retouch.

**Backed microlith:** In southern Africa the term ‘microlith’ is employed with reference to any small (generally less than 25 mm long) artefact, e.g. the large numbers of unmodified bladelets characteristic of the late Pleistocene Robberg industry (Mitchell 1988). Hence, the term ‘backed microlith’ is reserved for those flakes or bladelets less than 25 mm in size that have been backed on one or more edges, generally opposite to that which may display evidence of utilisation. **Backing** refers to the blunting of an edge by abrupt vertical retouch, most commonly by pressing the edge against a hard anvil with either the ventral or the dorsal surface uppermost (J. Deacon 1984a: 388). It seems to have been employed to facilitate the holding of the microlith in a haft.

**Backed point:** A bladelet that has been backed along one lateral edge, leaving the other one sharp but unmodified, the two edges intersecting to form a point.

**Backed scraper:** A scraper that has been backed along one edge, generally that opposite to its retouched convex working edge.

**Biface/bifacially worked implement:** Often used as an imprecise or informal term for a handaxe, this term is employed here to refer to an artefact that resembles a handaxe or cleaver in overall morphology, but that is not clearly one or the other. Such artefacts may be roughouts that were abandoned before completion.

**Bifacial point:** Middle Stone Age points that have been retouched over a large part or the entirety of both the dorsal and the ventral surface. In at least some cases such retouch was accomplished by pressure-flaking. Further modifications, e.g. the presence of a tang, may have been designed to facilitate hafting, as in one example in the Christy (ex Dale) Collection from the Cape Flats.

**Blade:** A parallel-sided flake with one or more dorsal ridges and a length at least twice as great as its breadth. Blades are more than 25 mm long.

**Blade core:** A core with at least one platform from which blades have been struck.

**Bladelet:** A narrow parallel-sided flake with one or more dorsal ridges and a length at least twice as great as its breadth. Bladelets differ from blades in being no more than 25 mm long.

**Bladelet core:** A core with at least one platform from which bladelets have been struck.

**Bored stone:** A pecked and rounded cobble, variable in size, perforated from both sides to form an ‘hour-glass’ section. Bored stones were used ethnographically as weights for wooden digging sticks in some parts of southern Africa. They are found only in Later Stone Age contexts.

**Borer:** A bladelet with steep retouch along both lateral edges forming a point at the distal end suitable for boring holes in hide, ostrich eggshell and other materials. Microwear studies have so far only confirmed the first of these functions (Binneman 1982).

**Chunk:** A piece of stone considered to be the result of human intervention, but lacking the diagnostic features that would permit it to be classified as a core or a flake.

**Cleaver:** Similar to a handaxe, but with a broad axe-like cutting edge more or less at right angles to the long axis. Generally made on large, rectangular flakes, cleavers may be unifacially or bifacially worked.

**Core:** A piece of stone from which at least three flakes have been systematically removed from one or more clearly defined striking platforms. Several variants are separately defined: bladelet, disc, flat bladelet, irregular, Levallois, radial, Victoria West.

**Core-reduced piece:** Cores that have been worked so much that they can no longer be flaked. Usually quadrilateral in shape, they have one or more chisel-like striking platforms, often at opposed ends of the core. They differ from flat bladelet cores in that they do not have bladelet removal scars, and from **pièces esquillées** in that their platforms are not crushed. Core-reduced pieces show clear evidence of having been produced using a bipolar flaking technique and are thus most common where quartz
or small-sized nodules of opaline were favoured as raw materials.

**Core rejuvenation flake**: A flake detached from one end of a core in order to remove an old, exhausted platform and simultaneously form a new one. Core-rejuvenation flakes may bear traces of the negative flake-scars struck from the old platform.

**Core tablet**: The flake produced as a result of rejuvenating an old platform by striking a blow at one end of the original platform to remove a wedge-shaped tablet and thus obtain a new striking platform immediately below the first.

**Crested blade flake** (*lame à crête*): An elongated blade or flake with a single dorsal ridge and triangular cross-section deriving from the initial stage of preparing the edge of a blade or bladelet core for the subsequent detachment of blades or bladelets. Crested blades often retain a small, bit-like piece of the core from which they were detached, are frequently curved and resemble burin-spalls. Flake scar remnants originate from the sinuous central ridge, rather than the edges of the artefact.

**Disc core**: A core in which flakes have been removed from around the perimeter of a piece of stone that has previously been prepared through repeated flaking of the perimeter to create a suitably acute platform angle.

**Distal section**: A broken fraction of a blade, bladelet or flake-blade that retains its tip, but has lost its butt.

**Flake**: Artefacts produced by percussion from a core with clear dorsal and ventral surfaces. The dorsal surface has negative flake scars from previous flaking events and/or retains cortex, while the ventral surface is flat and has a bulb of percussion marking the point of impact from the hammer. Unless broken, flakes also have a clear butt.

**Flake-blade**: A flake that is at least twice as long as it is wide and that has at least one dorsal ridge, but which does not necessarily have strictly parallel sides. The term is commonly employed in the analysis of Middle Stone Age assemblages and subsumes those artefacts that are, on the stricter definition given above, clearly blades.

**Flat bladelet core**: A specific kind of bladelet core, usually less than 20 mm long, that does not have a flat platform. Instead, the bladelets were removed from a chisel-like end, often employing a bipolar flaking technique. Flat-bladelet cores are thus found most commonly where quartz or small-sized nodules of opaline were favoured as raw materials.

**Formal tool/formally retouched**: Artefacts in which the working edge and/or other edges have been deliberately retouched to modify their shape to a predetermined and repeated pattern or to produce a desired working edge. Formal tools are more characteristic of Later than of Middle Stone Age assemblages since MSA retouched artefacts show comparatively little standardization of size or morphology.

**Grindstone**: Abrasive stones with signs of smoothing or pecking from being used as grinding surfaces, generally in the preparation of pigments and/or plant foods (Humphreys & Thackeray 1983: 301). **Lower grindstones** are flat slabs with one or more surfaces either ground smooth into a more-or-less marked hollow or a smoothed area that shows signs of pecking. **Upper grindstones** (or **mullers**) are cobbles with one or more smoothed facets that are the result of being used in the hand for grinding.

**Grooved stone**: A pebble or small cobble with one or more grooves pecked into its surface that have then been ground smooth. The grooves normally run the full length of the pebble, are seldom more than 10 mm wide and may be either U- or V-shaped in cross-section. Ethnographic data indicate that grooved stones were used for a variety of tasks, including straightening bone arrowpoints and reed or wooden arrowshafts after heat had been applied to the stone, applying poison to arrows and smoothing the edges of ostrich eggshell beads (Clark 1959: 225-226; 246).

**Hammerstone**: A cobble with pitting that results from its having been used in the hand as a hammer.

**Handaxe**: An elongated, often pear-shaped or triangular artefact terminating in a point that has a cutting edge on either side. The butt end, opposite to the point, may be left rounded and untrimmed. Handaxes are either made on large flakes or on cores and are generally worked on both faces. Handaxes were probably general purpose, hand-held tools, although experiments suggest that butchery seems likely to have been one important function (P. Jones 1980).

**Irregular core**: A core in which flakes have been removed from one or more platforms without giving the core any regular shape.

**Knife**: A particular class of Middle Stone Age retouched artefact, knives exhibit retouch along a straight edge. Two kinds can be distinguished: **unilateral**, where only one edge has been retouched, and **bilateral**, where two (generally opposing) edges have been retouched.

**Levallois core**: A roughly circular form of prepared core in which the core has first been trimmed so as to permit the detachment of a single flake of predetermined size and shape. One surface of the core is covered with preparation scars which have been truncated by the removal of the Levallois flake (Carter 1978: 142). Often at the point at which the detaching blow has been struck a series of very small flakes has been removed at right angles to the core to provide a **faceted striking platform**, part of which has then come away with the flake. Faceting is common in many Middle Stone Age assemblages and is an additional means of predetermining the size and shape of the flakes produced.
Catalogue of Stone Age Artefacts from Southern Africa in The British Museum

Mesial section: A broken fraction of a blade, bladelet or flake-blade that retains neither its butt nor its tip.

Milled-edge pebble: A small, round and relatively flat pebble the outer perimeter of which has been pitted through use as a hammerstone against a hard material. J. Deacon (1984a: 377) notes that they are generally made in quartzite.

Miscellaneous retouched piece: A term employed for artefacts which show sustained retouch, but cannot readily be accommodated within any of the formal tool classes distinguished by Middle or Later Stone Age typologies.

Naturally backed knife: A term devised by Parkington (1984: 127) to refer to large sidestruck flakes produced on a right-angled core edge such that they retain a natural cortex backing. They are retouched with overlapping step flaking to produce a gently convex edge opposite to the cortical backing. Naturally backed knives are most common in assemblages of terminal Pleistocene/early Holocene age and only rarely occur in materials other than hornfels.

Notched flake or blade: Artefacts showing a particular kind of utilisation in which damage to an edge has been sufficiently sustained for one or more clearly concave notches to form.

Pièce esquillée: Pièces esquillées are similar to core-reduced pieces except that their chisel-ended striking platforms exhibit definite signs of crushing. Furthermore, they are often larger than artefacts classified as core-reduced pieces. Although they too are probably exhausted bipolar cores, the crushing appears to be the result of their being used as a wedge to split wood, or perhaps bone, activities confirmed by microwear analysis of examples from Boomplaas Cave in the Western Cape Province (Binneman 1982: 318).

Point: A flake or flake-blade of Middle Stone Age origin that has been retouched on two converging edges to form a point. The term is restricted to retouched artefacts and is not used here for flakes or flake-blades which may be similar in overall shape, but remain unretouched. It seems likely that some, perhaps most, points, along with other Middle Stone Age formal tools and artefacts, were hafted in mastic as the cutting parts of composite tools (cf. Inskeep 1978: 57-58).

Proximal section: A broken fraction of a blade, bladelet or flake-blade that retains its butt.

Radial core: A core from which flakes have been removed from around the perimeter of a roundish piece of stone.

Scraper: Artefacts, commonly made on flakes or flake-fragments, though other blanks are sometimes used, characterised by a flat ventral surface and by a deliberately retouched convex edge. The convexity of the retouched edge distinguishes them from adzes, points and knives.

Southern African archaeologists have differentiated between several different kinds of scraper on grounds of size (e.g. J. Deacon 1984a) and/or morphology (e.g. Sampson 1974). In a general work such as this such distinctions have not been pursued, except to note whether a scraper is also backed, whether it is of thumbnail type (i.e. < 20 mm in width and length and approximately quadrilateral in shape) and whether it does, or does not, have adze-like retouch along one or both lateral edges. Backed scrapers are distinctive of the southern Cape coastlands in the middle to late Holocene, thumbnail scrapers are characteristic of the Wilton Complex and scrapers with adze-like lateral retouch are most typical of the period 7000-9500 BP (J. Deacon 1984b). Microwear analyses demonstrate that scrapers were almost exclusively employed as hide-working tools (Binneman 1982).

Segment: A flake, or part of a bladelet, that has a straight, sharp edge opposite to a curved arc backed by abrupt retouch. In plan, segments are thus comparable to the segments of an orange. Segments, which are characteristic of the mid-Holocene Wilton Industry of the Later Stone Age have traditionally been interpreted as arrow armatures. Microwear analyses, however, demonstrate that they were also mounted (probably in series) as inserts in tools that were employed in the cutting, sawing and whittling of a variety of materials (Binneman 1982; Wadley & Binneman 1994).

Sinker: A small pebble with a groove around its middle to allow its suspension from a piece of string, used to help sink nets and found in coastal sites of mid-to-late Holocene age (J. Deacon 1984a: 400).

Spheroid: A battered and rounded spherical piece of stone, possibly used as a hammerstone.

Unifacial point: Middle Stone Age points that have been retouched over a large part or the entirety of the dorsal surface. In at least some cases such retouch was accomplished by pressure-flaking. Some unifacial points show further modifications, e.g. hollowing out of their base, that would have facilitated hafting (cf. Clark 1959: 175).

Unmodified: Artefacts that show no sign of macroscopically visible edge damage or retouch.

Utilised: An adjective used to refer to those artefacts with damage visible to the naked eye that is considered to be the result of the actions and activities in which the artefacts were employed. It must be remembered, however, that microwear studies have repeatedly shown that many artefacts which, from a typological standpoint, are classed as unmodified were clearly employed in a variety of tasks, though without leaving macroscopically visible evidence of this on their edges (Phillipson & Phillipson 1970; Binneman 1982). By convention, grindstones and hammerstones are also generally included within the utilised category.
3. Raw Materials
In contrast to the dominance of flint in most European Palaeolithic assemblages, southern African people made use of an extremely wide range of raw materials for making stone tools. Their distribution varies widely across southern Africa as a reflection of the sub-continent’s complex and varied geology. Clark (1959: 5) still provides what is perhaps the clearest overview of the situation, although it is by no means exhaustive. Broadly speaking, it is possible to distinguish between the following raw material provinces (Fig. 11).

1. The Cape Fold Mountain Belt and its coastal forelands
An area where the geology belongs largely to the Cape System, which is of Palaeozoic age. Massive sandstones and quartzites form the basal (Table Mountain Sandstone) series and dominate the scenery since they form the mountains, including Table Mountain itself. The overlying Bokkeveld and Witteberg Series are made up of zones of sandstone and shale and of sandstone, quartzite and shale respectively (Wellington 1955: 21-22). The most common rocks used in manufacturing stone artefacts were sandstone, quartzite and silcrete.

2. The Karoo and most of the highveld outside the Drakensberg and Maluti Mountains.
The geology here, which forms part of the Karoo System, is essentially sedimentary in origin and dates to the late Carboniferous, Permian and Triassic periods. The rocks here consist largely of shales, silstone-mudstones and sandstones cut through by extensive networks of dolerite dykes and sills (Wellington 1955: 22-5). Dolerite and hornfels are thus the most common raw materials, although finer-grained opalines and other rocks of volcanic origin are available in the Gariep and Caledon Rivers which drain the Lesotho highlands.

3. The Drakensberg and Maluti Mountains (including rivers draining from them)
The youngest of the major geological provinces of Africa south of the Limpopo, this area consists of sandstone capped by the Jurassic lavas of the Lesotho Formation, the most recent part of the Karoo System (Wellington 1955: 25). Although hornfels and dolerite occur where volcanic dykes have passed through older sandstones, the most common raw material, at least as far as Later Stone Age assemblages are concerned, is opaline, which derives from pipe amygdales in the Lesotho Formation lavas.

4. The Kalahari
This is an area now largely covered by sands of Tertiary and Quaternary age (Wellington 1955: 28-30) in which opalines and silcrete were the most commonly used raw materials.

5. The Northern Cape and North West Provinces (outside of areas covered hitherto)
Sandwiched geographically between the Karoo System and the Kalahari sands, this is an area of largely Pre-Cambrian geology in which a variety of rocks were used to make stone artefacts (Humphreys & Thackeray 1983: 17-19). Chert, banded ironstone, quartzite, lavas, sandstone and opalines were all employed.

6. KwaZulu-Natal
The Escarpment and foothills of the Drakensberg Mountains belong to the Karoo System, while older rocks of the Cape System and others of Archaean age are present in the south and midlands of the province; relatively recent Cretaceous, Tertiary and Quaternary rocks are present in much of Zululand and north to the Mozambique border (Burrows 1951: 32-35). Some of the materials used by Stone Age people (opalines, hornfels) derive from the Drakensberg volcanics, others (e.g. quartz, quartzite and silicified limestone) are native to lower-lying situations.

7. The former Transvaal (Gauteng, Mpumalanga, Northern Province) and Swaziland
Although some areas, such as northern Swaziland and the adjacent Barberton District of Mpumalanga, include ancient granites, gneisses, schistose rocks and others of igneous origin that are of Archaean age, the remainder of this region is largely made up of various Pre-Cambrian systems. Some of these (such as the Witwatersrand System and the Bushveld Igneous Complex) are responsible for much of South Africa’s mineral wealth as they contain gold-bearing conglomerates and other economically important metals (Wellington 1955: 12-18). Archaeologically, their significance is that they offered, depending on locality, a wide variety of raw materials, of which quartz, chert and lavas were particularly important.

8. Zimbabwe
Largely consisting of Archaean granites and gneisses, the Zimbabwean Plateau is a region in which quartz and quartzite were among the most common materials employed by Stone Age people, although opalines were important in the Matopo Hills of Matabeleland.

9. Angola, Mozambique and Namibia
A glance at the map will show that these countries have quite complex geologies, but the extreme paucity of material from them in the British Museum collections means that detailed discussion of their geological history is unnecessary here.
In keeping with general practice among southern African archaeologists, a minimalist strategy has been followed in the recognition of different lithic raw materials among the artefacts examined in the British Museum collections. In other words, only a few basic categories have been employed and it is accepted that a finer sub-division, particularly of metamorphic and igneous rocks, would most likely result had the artefacts been subject to detailed petrological examination and analysis. Furthermore, the distinctions between different raw material classes are not always clearly evident. In the present study, for example, it was occasionally difficult to decide if a particular artefact was more appropriately classified as chert or as opaline, or, if from the Cape Fold Mountain Belt and its forelands, as a very fine-grained quartzite or (Table Mountain) sandstone. Specific raw material categories recognised are as follows:

**Chert:** Crypto-crystalline rocks similar to opalines, but differing in that they are somewhat less fine-grained and less translucent.

**Dolerite:** A medium-grained basic igneous rock occurring mainly in dolerite dykes or sills (Whitten & Brooks 1972: 131).

**Granite:** A coarse-grained igneous rock formed from a mass of interlocking crystals. The colour varies according to the rock's mineral makeup, but it always has a speckled appearance.

**Hornfels:** A generally quite fine-grained, greyish-black metamorphic rock produced by the metamorphosis of shale or mudstone and available either from specific point sources along dolerite dykes or eroded out in stream beds. Hornfels acquires a patina that varies from light grey to orange-red with age. Indurated shale and lydianite are synonyms that may be found in the older literature.

**Ironstone/banded ironstone:** A relatively coarse-grained sedimentary rock with a plate-like fracture pattern.

**Opaline:** Also known as crypto-crystalline silicas (CCS), a term that subsumes agate, chalcedony and jasper, opalines are fine-grained conchoidally fracturing rocks occurring as small nodules that derive from pipe amygdales in volcanic formations.

**Quartz:** A particular form of highly brittle crypto-crystalline silica often requiring the use of a bipolar technique for its flaking. Quartz does not have a well-developed conchoidal fracture pattern. Two varieties can be distinguished: crystal quartz is clear and glass-like, while vein quartz is milky white and variably opaque. Unworked quartz crystals are a feature of some assemblages and have sometimes been thought to have been used as shamanistic paraphernalia (Wadley 1987: 45-46).

**Quartzite:** Rocks that are visibly much coarser-grained than opalines or silcrete and formed almost entirely of fused quartz grains. Within the Cape Fold Mountain Belt and its coastal forelands quartzites grade into Table Mountain Sandstone.

**Sandstone:** A detrital sedimentary rock accumulated by either wind or water action in which the particles, mostly quartz grains, are < 2mm in size (Whitten & Brooks 1972: 30-31). Sometimes sandstone is found that has clearly been metamorphosed as a result of exposure to the heat from volcanic dykes. In these cases baked sandstone is the term used.

**Silcrete:** A fine-grained, very hard, brittle, intensely indurated and usually grey silicified sandstone (Cooke et al. 1993: 62) widely used for the manufacture of stone artefacts in both the Kalahari and the Western and Eastern Cape Provinces.

**Silicified limestone:** A distinctive, fine-grained variety of limestone that has undergone silicification (i.e. the introduction of silica into a non-siliceous rock) present only in the Bazley Collection from an unknown rock-shelter (Alfred County Cave) in southern KwaZulu-Natal.

**Silstone/mudstone:** Relatively fine-grained sedimentary rocks, sometimes silstones/mudstones are found that have clearly been metamorphosed as a result of exposure to the heat from volcanic dykes. In these cases the term baked siltstone/mudstone is employed.

**Tuff:** A rare category of raw material found only in the Lesotho highlands and in the rivers that drain them. Tuff is the consolidated ash and small, solid fragments of lava or country rock thrown out of a volcano (Whitten & Brooks 1972: 369-370).
Fig. 11. Major lithic provinces of southern Africa. (after Clark 1959)
Table 5. Distinguishing features of successive subdivisions of the southern African Middle Stone Age (after Volman 1981, 1984; suggested ages after Volman 1984 and Thackeray 1991)

<table>
<thead>
<tr>
<th>Sub-division and correlation with global $^{18}O/^{16}O$ curve</th>
<th>Cores</th>
<th>Flakes</th>
<th>Retouched artefacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>MSA 3 Stage 3</td>
<td>Highly varied, chief distinguishing feature is its post-Howieson’s Poort age</td>
<td>Highly varied, but with fewer backed pieces than the Howieson’s Poort</td>
<td></td>
</tr>
<tr>
<td>Howieson’s Poort Stages 5a–4</td>
<td>Generally smaller, broader and with fewer faceted butts than either preceding or succeeding stages</td>
<td>Backed tools relatively common, including segments, most often in fine-grained rocks. Also scrapers, points</td>
<td></td>
</tr>
<tr>
<td>MSA 2 Stages 5e–5b</td>
<td>Prepared cores more common Many flake-blades, decreasing in length with time</td>
<td>More common. Denticulates, points (unifacial and bifacial), scrapers. Backing rare</td>
<td></td>
</tr>
<tr>
<td>MSA 1 Stage 6</td>
<td>Many radial and disc cores Small, broad, few have faceted butts</td>
<td>Rare. Points absent, scrapers few</td>
<td></td>
</tr>
</tbody>
</table>

Table 6. Sub-divisions of the southern African Later Stone Age

| Smithfield 600BP                                              | Either a late continuation of the Wilton tradition (Humphreys 1979) or a separate industry (Sampson 1974) found in the Free State and eastern Karoo, characterised by larger endstruck scrapers and a range of distinctive ceramics. |
| Ceramic Wilton/Post-class Wilton with pottery 2000 BP          | A continuation of the Wilton tradition, with the addition of ceramics and further changes in formal tool morphology and frequencies. In the Northern Cape regional industries are the Swartkops and Doornfontein and in the Matopo Hills occurrences are associated with Bambata Ware. |
| Post-classic Wilton c. 4500–2000 BP                           | A continuation of the Wilton, but with changes in formal tool frequencies and morphology, notably the gradual supercession of segments by other kinds of backed microliths. Known locally as Amadzimba in the Matopo Hills. |
| Wilton c. 4500–9500 BP                                        | Microlithic assemblages characterised by a proliferation of small scrapers and backed microliths, as well as by enhanced use of fine-grained rocks. Known locally as Nswatugi in the Matopo Hills of Zimbabwe. |
| Oakhurst c. 8000–12 000 BP                                    | Non-microlithic assemblages, often emphasizing coarse-grained rocks. Formal tools are few, except for large scrapers, though scrapers with adze-like lateral retouch are common after c. 9500 BP. Regional variants are Albany (southern and eastern Cape Fold Belt), Kuruman (Northern Cape), Lockshoek (Free State and Karoo) and Pomongwan (Matopo Hills). |
| Robberg c. 12 000–19 000 BP                                   | Microlithic assemblages with few formal tools, but rich in unmodified bladelets and bladelet cores, preferentially made in fine-grained rocks. |
| Early Later Stone Age (ELSA) 21 000 BP                        | Some assemblages predating 21 000 BP that are microlithic, informal and quartz-dominated, e.g. Boomplaas, Members LP and LPC. |