

ArchaeoMaps cc - Karen van Ryneveld - Cell: 084 871 1064 - E-mail: karen@archaeomaps.co.za

2020-08-24

Attention -

1) South African Heritage Resources Agency (SAHRA)

Tel / Cell - 021 462 4502 E-mail - <u>info@sahra.org.za</u>

2) Cradle of Humankind World Heritage Site (COHWHS) Management Authority

Tel / Cell - 011 085 2114
E-mail - cradle@gauteng.net

3) Department of Environment, Forestry and Fisheries (DEFF)

Tel / Cell - 012 399 9141

E-mail - MSipilica@environment.gov.za (contact for Minister of DEFF)

[SAHRA being the recipient of this report by ArchaeoMaps. Contact details of the COHWHS Management Authority and DEFF included for SAHRA's reference purposes.]

Heritage Crime -

Zindzi Mandela – #Sterkfontein Tweet, 13 June 2019, Sterkfontein and the Cradle of Humankind World Heritage Site (COHWHS), a UNESCO World Heritage Site.

Summary

The Heritage Crime reported on pertains to a tweet by Ms. Mandela, member of the ruling African National Congress (ANC) and South African ambassador to Denmark at the time of the incident. The tweet, dated 13 June 2019, reads as follows:

"When you came here without land you found the original people making fire. Next you'll claim you taught us. Just like Chris Barnard learnt the basics of heart surgery from his Black gardener. What you're good at is fantasy #Sterkfontein". (With the 'Black gardener' referring to Hamilton Naki).

It is argued that the tweet evidences Ms. Mandela's use of heritage for purposes of political gain [See NHRA 1999, Section 5(1)(d): "Heritage resources management must guard against the use of heritage for sectarian purposes or political gain"], and that she did so intently, through the use of #Sterkfontein (coined with the reference to fire) in her initial post (13 June) and the follow up primary hashtag #OurLand in the twitter debate that ensued, thereby linking heritage, in this case the Sterkfontein site, a well-known site, being one of the Cradle of Humankind World Heritage Sites (COHWHS), one of ten of South Africa's United Nations Educational, Scientific and Cultural Organization's (UNESCO) World Heritage Sites, directly with the current land debate, centred on the 'The Stolen Land' paradigm and Expropriation Without Compensation (EWC).

It is further argued that Ms. Mandela's initial tweet (13 June), as well as certain follow up tweets, represent, in terms of the NHRA 1999, Section 51(5)(b): "... statement(s) or representation(s) knowing it to be false or not knowing or believing it to be true", with basic information on South Africa's heritage and history readily available in books, academic journal and commercial papers and articles and importantly, easily accessible on the internet.

The initial tweet by Ms. Mandela (13 June), and the 'Twitter Storm' that ensued marked the last prominent socio-political social media endeavour by her and with lasting impact, as evidenced by the referral thereto by President Cyril Ramaphosa during an online funerary tribute to her, 17 July 2020. The President stated:

"... She was brave enough to articulate her forthright views about the question of land. She did believe that indeed land was a key determinant of how our people would finally get their economic freedom. We draw many lessons from her life. Her love for motherland, South Africa, to fight against Apartheid rulers of our beautiful land. That love that she had to do that was expansive. We cannot even imagine what freedom would be, had people like Zindzi not stood up for the freedom of our people...".

Not at the time of the initial tweet (13 June) or the twitter debate that ensued did the South African Heritage Resources Agency (SAHRA), the Cradle of Humankind World Heritage Site (COHWHS) Management Authority or the Department of Environment, Forestry and Fisheries (DEFF), on whose behalf the COHWHS Management Authority manages the COHWHS comment on the incident, not on their own accord and in the absence of evidence that such comment was directly requested from another party, not at the request from such a party.

The initial tweet by Ms. Mandela (13 June) bears further reference:

- 1) The ease with which heritage is used for purposes of political gain, be it party political or policy specific in recent years, with legislative repercussions unaddressed or ignored;
- 2) The heritage status quo of sites used in such cases, in the Heritage Crime reported on here on national (Sterkfontein National Heritage Site) and international (COHWHS UNESCO World Heritage Site) level; and
- 3) The heritage type sites used in such cases, in the Heritage Crime reported on, the Plio-Pleistocene fossil hominin record (and these hominins' technological achievements) to initiate and further contemporary socio-political debate.

In closure, and highlighting the necessity of the reported Heritage Crime being suitably addressed by SAHRA (and other relevant authorities), the NHRA 1999, Section 3(1) states: "For the purposes of this Act, those heritage resources of South Africa which are of cultural significance or other special value for the present community and for future generations must be considered part of the national estate and fall within the sphere of operations of heritage resources authorities", and further thereto the NHRA 1999, Section 11: "There is hereby established an organization to be known as the South African Heritage Resources Agency (SAHRA) which shall be a body corporate capable of suing and being sued in its corporate name and which shall be governed by a Council established in terms of Section 14".

RECOMMENDATIONS

This Heritage Crime report is submitted posthumously. The Heritage Crime reported on had not been addressed by the relevant authorities (SAHRA, the COHWHS Management Authority and DEFF) at the time of its occurrence. It however remains the mandatory responsibility of the relevant authorities to address it, both on a site-specific and national level, with Sterkfontein being a declared National Heritage Site, and as part of the COHWHS, a UNESCO World Heritage Site, the incident needs to be reported to UNESCO. It is recommended that the incident be first addressed by the relevant authorities, prior to reporting to UNESCO.

Ms. Mandela passed on 13 July and was laid to rest on 17 July 2020. The Heritage Crime reported on can thus at best be addressed in retrospect by the relevant authorities. In doing so, the following recommendations are made:

- 1) That the relevant authorities make use of a media-campaign (social / mainstream media, as may be suitable) to reach the relevant audience associated with the incident (participants of the 'Twitter Storm') as well as the general South African community at large.
- 2) The particulars of the incident be relayed in the media-campaign in a transparent, clear and concise manner.
- 3) That, with cognisance to the fact that the incident can only be addressed in retrospect, emphasis be placed on the particulars of legislative heritage management protocol, as well as the rights and responsibilities of all South Africans towards our heritage.

With respect to Ms. Mandela's recent passing and with sympathy to family, friends and colleagues, it is recommended that a six month period be allowed (prior to, or on 26 February 2021) for the relevant authorities to address the concern / indicate their intent to address the concern in a suitable manner different from the above recommended to ArchaeoMaps.

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1) The Accused

Ms. Zindzi (Zindziswa Nobutho) Mandela (1960 - 2020)

Postal Address: N/A
Physical Address: N/A
Tel: N/A
E-mail: N/A

[This Heritage Crime report is submitted posthumously].

2) Introduction - The Heritage Crime Report

Ms. Mandela (1960 – 2020) passed on 13 July after a short sickbed and was laid to rest on 17 July 2020 at the Fourways Memorial Park, Johannesburg. The daughter of anti-Apartheid and liberation struggle stalwarts Nelson Rolihlanhla Mandela (1st Democratic President of South Africa) and Winni Madikizela-Mandela, Ms. Mandela, a member of the ruling African National Congress (ANC) was herself a prominent politician; South African ambassador to Denmark at the time of the reported incident, and due to take up a position as ambassador to Liberia just prior to her death (en.wikipedia.org/wiki/Zindzi_Mandela; Savides & Pijoos 2020).

The incident referred to pertains to a tweet by Ms. Mandela, dated 13 June 2019:

"When you came here without land you found the original people making fire. Next you'll claim you taught us. Just like Chris Barnard learnt the basics of heart surgery from his Black gardener. What you're good at is fantasy #Sterkfontein". (With the 'Black gardener' referring to Hamilton Naki).



Figure 1: Tweet by Ms. Mandela, 13 June 2019 (after Gouws 2019)

Ms. Mandela's tweet resulted in what had been described at the time as a 'Twitter Storm', with the hashtag #Sterkfontein changed the following day, 14 June, first to #TheLandIsOurs and thereafter to #OurLand, the hashtag which became dominant in the debate together with #HandsOffZindziMandela, used by many of her supporters. Follow-up tweets by Ms. Mandela included (Bengu 2019):

"Dear Apartheid Apologists, your time is over. You will not rule again. We do not fear you. Finally #TheLandlsOurs"; and "Whilst I wine and dine here ... wondering how the world of shivering land thieves is doing #OurLand".



Figure 2: Follow up tweets by Ms. Mandela, 14 June 2019 (after Bengu 2019)

On 14 June a further tweet from Ms. Mandela's account read (Okoye 2019):

"Will be back for the Msunery here #OnMyTnsCs. Miss all these trembling white cowards, shem. Botha, Potgieter. Thieving Rapist descendants of Van Riebeck, etc: how are you my babies? We shall gesels more Mr Skont and Ms Unus #OurLand";

and on 18 June a tweet stated (Mabuza 2019):

"Zithandwa zam, Maqabane: I am back from my trip and will take a stroll down twitter streets tomorrow. Thank you. Thank you. Thank you #OurLand".



Figure 3: Tweet by Ms. Mandela, 14 June 2019 (after Okoye 2019)



Figure 4: Tweet by Ms. Mandela, 18 June 2019 (after Mabuza 2019)

At the time the Department of International Relations and Cooperation's (DIRCO) spokesperson, Clayson Monyela, emphasised the necessity of verification of the authenticity of the account prior to formal comment by DIRCO (Bengu 2019). With authenticity of the account verified, Minister Naledi Pandor, DIRCO, stated that the Department was further investigating the source, or occasion of the tweets in accordance with their social media policy (Mabuza 2019).

Politicians, political parties and -commentators, civil society organizations, citizens, members of the public and others weighed in on the 'Twitter Storm', including amongst others Ekurhuleni Mayor Mzwandile Masina, who stated: "If Zindzi Mandela could address us in the 80s on behalf of her father at the height of Apartheid, what will be difficult in 2019 for her to air her views on the land question which by the way we have resolve on as the ANC. Land belongs to us, nothing more can be closer to the truth" (Citizen Reporter 2019). Alana Bailey, Afriforum, of the opinion that Ms. Mandela's tweets were inciting towards Whites in the country, reported that the organization had submitted a hate speech complaint against Ms. Mandela to the South African Human Rights Commission (SAHRC), after initial, albeit failed requests to have Ms. Mandela recalled from her position (News 24 Correspondent 2019a). In response to which the Economic Freedom Fighter's (EFF) spokesperson Mbuyiseni Ndlozi accused Afriforum of 'racism' and called for "… land to be returned to its rightful owners, the Black people", stating also that: "There is nothing racist by stating the correct fact that White people drove a racist project of land dispossession called colonialism" (News 24 Correspondent 2019b). Amongst others Afrikaans musician Steve Hofmeyer responded with a tweet: "Dear @zilevandamme and @ZindziMandela I'm a South Africa taxpaying citizen. Effectively, I AM your boss. You WILL jump when I say so and you WILL ask how high. And when you come to take our lives & land, you WILL die. Our contract is that simple. And don't you forget it", a tweet which the ANC described as 'racist' and 'inhumane', and stated that a charge of crimen injuria will be laid against Hofmeyer (Regter 2019).

The initial tweet by Ms. Mandela (13 June), and the 'Twitter Storm' that ensued marked the last prominent socio-political social media endeavour by her and with lasting impact, as evidenced by the referral thereto by President Cyril Ramaphosa during an online funerary tribute to her, 17 July 2020. The President stated:

"... She was brave enough to articulate her forthright views about the question of land. She did believe that indeed land was a key determinant of how our people would finally get their economic freedom. We draw many lessons from her life. Her love for motherland, South Africa, to fight against Apartheid rulers of our beautiful land. That love that she had to do that was expansive. We cannot even imagine what freedom would be, had people like Zindzi not stood up for the freedom of our people..." (Newzroom Africa 2020).

The above a brief glimpse into the 'Twitter Storm' that ensued, and not an all-inclusive description thereof. From a heritage management point of view, the following:

- 1) Notably absent from the twitter debate stage was heritage, the South African Heritage Resources Agency (SAHRA), as well as the Cradle of Humankind World Heritage Site (COHWHS) Management Authority and the Department of Environment, Forestry and Fisheries (DEFF), on whose behalf the COHWHS Management Authority manages the COHWHS. The following with specific reference thereto:
 - Sterkfontein forms part of a serial nomination of 15 sites, inscribed in 1999 on the United Nations Educational, Scientific and Cultural Organization's (UNESCO's) World Heritage List as the Fossil Hominid Sites of South Africa, also known as the Cradle of Humankind World Heritage Site (COHWHS) (sahra.org.za/cradle-of-humankind; whc.unesco.org/en/list/915/). The COHWHS comprises one of ten of South Africa's UNESCO World Heritage Sites (getaway.co.za/travel-news/south-africa-10-unesco-world-heritage-sites).
- 2) Sterkfontein is a declared National Heritage Site under the National Heritage Resources Act, Act No 25 of 1999 (NHRA 1999). The preamble of the NHRA 1999 states:

"This legislation aims to promote good management of the national estate, and to enable and encourage communities to nurture and conserve their legacy so that it may be bequeathed to future generations. Our heritage is unique and precious and it cannot be renewed. It helps us to define our cultural identity and therefor lies at the heart of our spiritual well-being and has the power to build our nation. It has the potential to affirm our diverse cultures, and in so doing shape our national character.

Our heritage celebrates our achievements and contributes to redressing past inequities. It educates, it deepens our understanding of society and encourages us to empathise with the experience of others. It facilitates healing and material and symbolic restitution and it promotes new and previously neglected research into our rich oral traditions and customs."

Two Sections of the NHRA 1999 are of direct relevance with reference to this Heritage Crime report, being Sections 5 and 51:

- Section 5(1): "All authorities, bodies and persons performing functions and exercising powers in terms of this Act, for the management of heritage resources must recognize the following principles:
 - (d) heritage resources management must guard against the use of heritage for sectarian purposes or political gain"; and
- Section 51(5): "Any person who -
 - (a) fails to provide any information that is required to be given, whether or not on the request of a heritage resources authority, in terms of this Act;
 - (b) for the purpose of obtaining, whether for himself or herself or for any other person, any permit, consent or authority in terms of this Act, makes any statement or representation knowing it to be false or not knowing or believing it to be true;
 - (g) within the terms of this Act, commits or attempts to commit any other unlawful act, violates any prohibition or fails to perform any obligation imposed upon him or her by its terms, or who councils, procures, solicits or employs any other person to do so,

shall be guilty of an offence and upon conviction shall be liable to such maximum penalties, in the form of a fine or imprisonment or both such fine and imprisonment, as shall be specified in the regulations under subsection (3).

3) Hashtags and social media: According to Wikipedia "A hashtag, introduced by the number sign, or hash symbol, #, is a type of metadata tag used on social networks such as Twitter and other microblogging services. It lets users apply dynamic, user-generated tagging that helps other users easily find messages with a specific theme or content" (en.wikipedia.org/wiki/Hashtag). Hashtags have many purposes, but essentially allows the user to associate the post with a specific topic, to allow those not already following the user profile, but interested in the topic, to easily

find the post. Hashtags helps individuals, brands and governments to increase their followers and amplify the reach of their social posts (civicplus.com/blog/ce/how-to-use-hashtags-to-promote-your-social-media-posts).

It is argued that Ms. Mandela used heritage for purposes of political gain [See NHRA 1999, Section 5(1)(d): "Heritage resources management must guard against the use of heritage for sectarian purposes or political gain"], and that she did so intently, through the use of #Sterkfontein (coined with the reference to fire) in her initial post (13 June) and the follow up primary hashtag #OurLand in the twitter debate that ensued, thereby linking heritage, in this case the Sterkfontein site, a well-known site, being one of the COHWHS and a UNESCO World Heritage Site directly with the current land debate, centred on 'The Stolen Land' paradigm and Expropriation Without Compensation (EWC).

4) It is known and reflected in Ms. Mandela's tweets that she was abroad at the time of her initial tweet and in the days immediately thereafter (see Figures 1, 3 & 4); tweets were thus not send from the Sterkfontein site. However, it is important to state that on-site notices at Sterkfontein, COHWHS, alert visitors not only to the heritage status of the site, but also to comply with SAHRA heritage site protocols. An on-site notice at the Sterkfontein ticket office reads as follows:

"STERKFONTEIN CAVES - VISITOR MANAGEMENT POLICY

In 1999 the fossil hominid sites of Sterkfontein Caves, Swartkrans, Kromdraai and Environs in the Cradle of Humankind were declared a World Heritage Site by UNESCO, which aims to preserve areas of exceptional value throughout the world. In addition to holding World Heritage Site status, the Sterkfontein Caves is also a declared National Heritage Site as proclaimed by the South African Heritage Resources Agency (www.sahra.org.za). SAHRA abides by international conservation principles to protect places of cultural significance in South Africa for future generations. The legislation serves to protect conservation-worthy places including archaeological and palaeontological sites that provide an understanding of the history of the earth, life on earth and humankind..."



Image 1: On-site notice at the Sterkfontein Site (ArchaeoMaps - 2020-03-12)

5) Further to the above:

- O Human / hominin evolution is included in the South African school curriculum, and have been for more than a decade (Sutherland & L'Abbé 2019; Tyelela 2019); and
- No visitor numbers were available for the purpose of this study, but it is reported that the COHWHS receives more than 200,000 visitors per annum, including school groups for educational tours (S.A. Government 2016).

3) Sterkfontein & Environs: The Cradle of Humankind World Heritage Site & the NHRA 1999

Sterkfontein comprises one of the Cradle of Humankind World Heritage Sites (COHWHS). The Mission of the COHWHS is to "Protect, conserve and interpret the Outstanding Universal Value (OUV) of the COHWHS". The COHWHS was established and inscribed in 1999 on the United Nations Educational, Scientific and Cultural Organization's (UNESCO's) World Heritage List, with specific reference to its palaeoanthropological fossil record and the contribution thereof in furthering our understanding of early hominin origins and evolution. The site comprises an approximate 53,000ha area which had been developed to aid and advance research, conservation, community liaison, economic development and tourism, with educational tourism centred at the on-site interpretive centre, Maropeng, and at the Sterkfontein Caves, Gauteng (provincialgovernment.co.za/units/view/153/Gauteng/Cradle-of-Humankind-World-Heritage-Site-COHWHS).

The COHWHS comprises of fifteen (15) [originally twelve (12)] declared National Heritage Sites, together constituting the serially listed sites inscribed by UNESCO in 1999 as the Fossil Hominid Sites of South Africa. The components of the fossil hominid (hominin) sites of Sterkfontein, Swartkrans, Kromdraai and environs (Gauteng province), together with Makapan Valley (Limpopo province) and the Taung Skull Fossil Site (North-West province) are protected as National Heritage Sites, in terms of the National Heritage Resources Act, Act No 25 of 1999 (NHRA 1999), with management of each site further guided by the World Heritage Convention Act (1999), the National Environmental Protected Areas Act (2003), the National Environmental Management Act (1998), the National Environmental Management Biodiversity Act (2004) and the Physical Planning Act (1967). Components of the UNESCO 1999 Fossil Hominid Sites of South Africa are situated in different provinces of South Africa, each with a different combination of structures dealing with its management (sahra.org.za/cradle-of-humankind; whc.unesco.org/en/list/915/).

The COHWHS is managed by the Cradle of Humankind World Heritage Site (COHWHS) Management Authority on behalf of the Minister of Environment, Forestry and Fisheries (DEFF).

The National Heritage Resources Act, Act No 25 of 1999 (NHRA 1999) states, amongst others: DEFINITIONS

- 2.(iii) "Conservation", in relation to heritage resources, includes protection, maintenance, preservation and sustainable use of places or objects so as to safeguard their cultural significance;
- 2.(vi) "Cultural significance" means aesthetic, architectural, historical, scientific, social, spiritual, linguistic or technological value or significance;
- 2.(xvi) "Heritage resource" means any place or object of cultural significance;
- 2.(xvii) "Heritage resources authority" means the South African Heritage Resources Agency, established in terms of Section 11, or, insofar as this Act is applicable in or in respect of a province, a provincial heritage resources authority;
- 2.(xviii) "Heritage site" means a place declared to be a national heritage site by SAHRA or a place declared to be a provincial heritage site by a provincial heritage resources authority;
- 2.(xxiii) "Management", in relation to heritage resources, includes the conservation, presentation and improvement of a place protected in terms of this Act;
- 2.(xxx) "Owner' include the owner's authorized agent and any person with a real interest in the property and
 - (a) In the case of a place owned by the State or State-aided institutions, the Minister or any other person or body of persons responsible for the care, management and control of that place;
 - (b) In the case of tribal trust land, the recognized traditional authority;
- 2.(xxxvi) "Presentation" includes -
 - (a) The exhibition or display of;
 - (b) The provision of access or guidance to;
 - (c) The provision, publication or display of information in relation to; and
 - (d) Performances or oral presentations related to,
 - heritage resources protected in terms of this Act.

GENERAL PRINCIPLES FOR HERITAGE RESOURCES MANAGEMENT

- 5(1) All authorities, bodies and persons performing functions and exercising powers in terms of this Act for the management of heritage resources must recognise the following principles:
 - (a) Heritage resources have lasting value in their own right and provide evidence of the origins of South African society and as they are valuable, finite, non-renewable and irreplaceable they must be carefully managed to ensure their survival;

- (b) Every generation has a moral responsibility to act as trustee of the national heritage for succeeding generations and the State has an obligation to manage heritage resources in the interest of all South Africans;
- (c) Heritage resources have the capacity to promote reconciliation, understanding and respect, and contribute to the development of a unifying South African identity; and
- (d) Heritage resources management must guard against the use of heritage for sectarian purposes or political gain.
- Heritage resources contribute significantly to research, education and tourism and they must be developed and presented for these purposes in a way that ensures dignity and respect for cultural values.
- 5(7) The identification, assessment and management of the heritage resources of South Africa must: -
 - (a) Take account of all relevant cultural values and indigenous knowledge systems;
 - (b) Take account of material or cultural heritage value and involve the least possible alteration or loss of it;
 - (c) Promote the use and enjoyment of and access to heritage resources, in a way that is consistent with their cultural significance and conservation needs;
 - (d) Contribute to social and economic development;
 - (e) Safeguard the options of present and future generations; and
 - (f) Be fully researched, documented and recorded.

ARCHAEOLOGY, PALAEONTOLOGY AND METEORITES

- 35(4) No person may, without a permit issued by the responsible heritage resources authority
 - (a) Destroy, damage, excavate, alter, deface or otherwise disturb any archaeological or palaeontological site or meteorite;
 - (b) Destroy, damage, excavate, remove from its original position, collect or own any archaeological or palaeontological material or object or meteorite;
 - (c) Trade in, sell for private gain, export or attempt to export from the Republic any category of archaeological or palaeontological material or object, or any meteorite; or
 - (d) Bring onto or use at an archaeological or palaeontological site any excavation equipment which assist in the detection or recovery of metals or archaeological and palaeontological materials and objects, or use such equipment for the discovery of meteorites.

OFFENCES AND PENALTIES

- 51(5) Any person who -
 - (a) Fails to provide any information that is required to be given, whether or not on the request of a heritage resources authority, in terms of this Act;
 - (b) For the purpose of obtaining, whether for himself or herself or for any other person, any permit, consent or authority in terms of this Act, makes any statement or representation knowing it to be false or not knowing or believing it to be true;
 - (c) Fails to comply with or performs any act contrary to the terms, conditions, restrictions or directions subject to which any permit, consent or authority has been issued to him or her in terms of this Act;
 - (d) Obstructs the holder of a permit in terms of this Act in exercising a right granted to him or her by means of such a permit;
 - (e) Damages, takes or removes, or causes to be damaged, taken or removed from a place protected in terms of this Act any badge or sign erected by a heritage authority or local authority under section 25(2)(j) or section 27(17), any interpretive display or any other property or thing;
 - (f) Receives any badge, emblem or any other property or thing unlawfully taken or removed from a place protected in terms of this Act; and
 - (g) Within the terms of this Act, commits or attempts to commit any other unlawful act, violates any prohibition or fails to perform any obligation imposed upon him or her by its terms, or who councils, procures, solicits or employs any other person to do so,

shall be guilty of an offence and upon conviction shall be liable to such maximum penalties, in the form of a fine or imprisonment or both such fine and imprisonment, as shall be specified in the regulations under subsection (3).

4) Background Literature

Sterkfontein & Environs: The Hominin (Palaeoanthropological) Record, the Stone Age & Fire

To start with the #Sterkfontein reference, or Sterkfontein and environs, the Cradle of Humankind World Heritage Site (COHWHS): -

One of the many, fairly general descriptions of the significance of South Africa's hominin or palaeoanthropological record is provided by Mitchell (2000) in "The Archaeology of Southern Africa":

"HOMINIDS AND HOMININS

The many physical and behavioural resemblances between people and Africa's great apes led Darwin (1871) to propose that the continent was the birthplace of the human lineage. Subsequent genetic studies and palaeoanthropological fieldwork have fully confirmed this hypothesis, though only in the 1920s did the first fossil evidence come to light in Zambia and South Africa. The latter find in particular, the Taung child, initiated the search for potential Plio-Pleistocene ancestors in Africa and provided the type-specimen for the genus Australopithecus. Subsequent research has demonstrated that even if southern Africa cannot claim the finely resolved archaeological sites and detailed chronologies of the East African Rift Valley, it has an extensive hominin record of its own and archaeological assemblages that are among the oldest in the world. This chapter considers both these aspects of human origins, beginning with the classic fossil sites of the Sterkfontein Valley and its environs, Taung and Makapansgat, and moving on to discuss the less well known, but equally important fossil and archaeological evidence of the Middle Pleistocene...

Discussions of human evolution continue to be framed by the classificatory terminology for living organisms devised by Linnaeus in the eighteenth century. This places *Homo sapiens* and its extinct relatives, some of them presumed to have been ancestral to modern humans, within the family Hominidae, itself grouped with the apes into the superfamily Hominoidea. Old World monkeys, New World monkeys, lemurs, bushbabies and tarsiers form the other major divisions of the order Primates. In applying this taxonomy to the fossil record several problems are apparent. First, the Linnaean scheme, formulated in a pre-Darwinian era, does not readily lend itself to discussions of evolution. Where to draw the dividing line within an evolving population is problematic and worse where populations show considerable sexual dimorphism. Neither is the definition of species as reproductively isolated groups applicable in the past where such behaviour cannot be observed. Most classifications thus use morphological (i.e. skeletal) characters, even though many of the features distinguishing species from each other in the present may be differences of coloration or behaviour that do not fossilize...

A different perspective is offered by analysis of the DNA of modern humans and apes. Supporting Darwin's claim for an African origin for humanity, these studies show that humans and chimpanzees share over 98% of their DNA, with gorillas only marginally less closely related. This kind of distance is common among very closely related species, although traditionally African apes and humans are placed in separate families. These analyses force a radical reassessment of primate taxonomy. From the standpoint of genetic or molecular systematics, chimpanzees, gorillas and humans are *all* **hominids**. The Linnaean names commonly employed by palaeontologists thus overemphasize the differences they describe and the term 'hominin' is increasingly replacing 'hominid' when discussing humans and their immediate fossil ancestors and relatives, a usage followed here.

Comparison of blood proteins and DNA shows that chimpanzees and humans last shared a common ancestor no more than 8-6Mya¹. Unfortunately, no relevant fossils of this age are known, but well before 4Mya hominins had certainly evolved. The most substantial collections come from Aramis, Ethiopia, and the Lake Turkana area of northern Kenya. Finds from the former, including a near complete skeleton, are described as Ardipithecus ramidus and those from the latter as Australopithecus anamensis. Dates of 4,4 and 4,2-3,9Mya respectively have been obtained for these fossils, which probably lie close to the base-line from which all other hominins evolved. Later hominins fall into two groups, conventionally treated as distinct genera, Australopithecus and Homo, though the more robustly built australopithecines from southern and eastern Africa are increasingly placed in a further genus, Paranthropus. In very general terms, all australopithecines, while definitely bipedal, retained features which suggest that tree-climbing was still important. Their skulls had small brains [350-530cm³], with relatively large, projecting faces and large cheek teeth. Members of the genus Homo, by contrast exhibit trends towards increasing cranial capacity [530-1,500cm³], stature and body weight, reduction in dentition, jaws and cranial crests, delayed maturation rates and more obligatory bipedalism.

¹ Mya - Millions of years ago

Between 4-3Mya the East African fossil record is represented by over 300 specimens assigned to the species Australopithecus afarensis, among them the famous Lucy skeleton from Hadar, Ethiopia. Several skeletal features, including curved phalanges and cranially oriented shoulder joints, indicate that A. afarensis spent a significant amount of time climbing trees. However, other skeletal evidence and 3,7 million year old footprints preserved at Laetoli, Tanzania, confirm its bipedal status. Another striking feature is a variability in size that lies at the extreme range of that found among extant apes and humans. Either this reflects a degree of sexual dimorphism inconsistent with a monogamous social structure, or more than one species is present. Nevertheless, with its distinctly apelike skull and long arms, at least a part of the A. afarensis sample was probably ancestral to the several australopithecine taxa recognized after 3Mya. Identification of a mandible from Chad as similar to A. afarensis and its assignment to a new species, A. bahrelghazali, remind us too that hominin evolution may have taken place across a much wider area of the continent, including regions where fossil preservation is much less likely. Nevertheless, the diverse landscapes and rich plant food resources of south-central Africa, extending as far as the northern Transvaal, may have provided particularly favourable conditions for hominin speciation.

GRACILES, ROBUSTS AND THE GENUS HOMO

Three South African localities have produced fossil evidence of early hominins, Taung, in North-West Province, set the ball rolling in 1924 with the skull of an infant gracile australopithecine, the first Plio-Pleistocene hominid to be discovered. Though many other fossils have come from this limestone quarry, the Taung child remains the only hominin discovered there. This isolation limited the impact of Dart's discovery, many anthropologists dismissing it as an ape. Crucial to this assessment was Robert Broom's work at three sites (Kromdraai, Sterkfontein and Swartkrans) in the Sterkfontein Valley near Johannesburg. Together they have yielded the remains of several hundred individual australopithecines, as well as a few specimens attributed to *Homo*, making them the most prolific fossil hominin locality anywhere in the world for the period 3,5-1,5Mya. Several distinct geological members occur at each site, but the overwhelming majority of the fossils come from Members 4-5 at Sterkfontein, Members 1-3 at Swartkrans and Member 3 in the eastern excavation area at Kromdraai Cave B. Other fossiliferous sites in the Sterkfontein area now under exploration include Drimolen, which recently yielded a surprisingly complete robust australopithecine skull and two of the youngest early hominin individuals ever found; Gladysvale, which has produced a few teeth tentatively assigned to A. *africanus*; and Cooper's B and Gondolin, source respectively of a robust australopithecine face and two *Paranthropus* teeth. Some 300km to the north, Makapansgat, investigated since 1947, has contributed several more specimens older than most of those from Sterkfontein.

Southern Africa lacks directly datable volcanic ash and tephra deposits. Determining the age of early hominin localities thus depends largely on faunal comparisons with the better-dated East African sequence, supported by palaeomagnetic and thermoluminescence readings. A further contrast is that the most prolific sites, those in the Sterkfontein Valley and environs, are dolomitic limestone caves into which sediments and bone fell from the surface. Fossils in the hardened breccia deposits typically requires hammers, chisels and even explosives as excavation tools, in marked contrast to the finer grained lacustrine and riverine sedimentary contexts of East Africa! Brain's research suggests that some hominins were killed and eaten by leopards and their remains introduced into the deposits through carnivore activity. Taung offers a slightly different picture, as puncture marks and depressions on the child's skull suggest that it was carried to the site by a large raptor, such as a crowned eagle (Stephanoaetus coronatus), though perhaps only after it had been killed by a carnivore.

Two main kinds of hominin occur in these southern African Plio-Pleistocene deposits, the gracile and robust australopithecines. When first discovered, separate taxa were proposed for the hominins of each site. Contemporary assessments group the Taung child, the overwhelming majority of the hominins from Member 4 at Sterkfontein, some of the Gladysvale specimens and all those from Makapansgat as Australopithecus africanus. This gracile species has an age range of 3,0-2,3Mya. Though cranial capacity was perhaps only 10% higher (mean 440cm³), several features, including a shorter, less projecting face, suggest that it was advanced over A. afarensis. Its growth pattern, however, seems to have been closer to that of apes than of modern humans. Growth increment lines in the Taung child's teeth, for example, estimate its age at death at 2,7-3,7 years old, compared with the 5-6 years gauged from comparing its tooth eruption sequence to that of modern humans. Limb proportions and general post-cranial anatomy indicate that A. africanus remained adapted for tree climbing as well as bipedal locomotion, and may have followed an even more arboreally inclined lifestyle than A. afarensis.

The recent discovery at Sterkfontein of a partially reconstructable foot with an apparently splayed big toe provides additional confirmation that gracile australopithecines were facultative bipeds *and* climbers. Astonishingly, the well-preserved skull and post-cranial skeleton of the same adult individual [StW-573 – "Little Foot"] have since been located at the site. Coming from Member 2, this fossil dates to 3,3Mya, making it the oldest hominin known from

southern Africa. Not only is it the most complete australopithecine individual ever found, it appears not to fall within the morphological range of the younger Member 4 hominins, suggesting that it belongs to a more archaic taxon than A. africanus. Quite clearly, the southern African fossil record holds many more surprises and looks set to continue rivalling East Africa as a key source of information on the evolutionary history of early hominins.

Unlike the gracile australopithecines, the robust branch of this hominin group is thus far represented in southern Africa only in the Sterkfontein Valley and its environs. Known fossils include all those from Kromdraai B, along with almost all those from Swartkrans Members 1-3 and a few specimens from Cooper's B, Drimolen, Gondolin and Sterkfontein Member 5. Together they span a time range of perhaps 1,8-1,0Mya. Though generally considered to form a single taxon, Australopithecus or Paranthropus robustus, Howell use differences in cranial capacity, cheek teeth size and limb robusticity to assign the much later Swartkrans sample to *P. crassidens*. A possible ancestral form may be subsumed within some of the *A. africanus* specimens from Sterkfontein Member 4, currently dated 2,8-2,6Mya. Unlike their gracile relatives, robust australopithecines are well known in East Africa. Two species are generally recognized there, *P. aethiopicus*, dating to 2,7-2,3Mya, and *P. boisei*, with dates of 2,3-1,0Mya. The evolutionary relationships of these taxa are not certain. One possibility sees *P. aethiopicus* as ancestral to both *P. robustus* and *P. boisei*, which might then be viewed as geographic variants of the same species. Alternatively, since *A. africanus* does not retain all of the primitive traits seen in *P. aethiopicus*, the two may be ancestral to regionally separate lineages of robust australopithecines, end-products of a process of parallel evolution. Whichever view is accepted, the robust australopithecine adaptation was clearly very successful. What this was and how it differed from that of the gracile australopithecines has been the subject of much research.

In many respects, the terms 'gracile' and 'robust' are misnomers. Both differ from A. afarensis in much the same features, and the slightly larger brain size of the robust australopithecines [averaging 520cm³] is minimally significant. Differences in overall body size were also small. This is best estimated at 30 and 41kg for female and male A. africanus individuals and at 32 and 40kg for females and males of P. robustus respectively, no larger than modern chimpanzees. The striking difference lies rather in the jaws and dentition. Robust australopithecines had greatly expanded cheek teeth, thick enamel and very deep mandibles, which the massive jaw muscles needed to work them anchored on powerfully built zygomatic arches and sagittal crests. This very distinctive craniofacial architecture reflects in specialization for applying substantial force between upper and lower cheek teeth during chewing. It is this that lies at the root of most explanations of the differences between robust and gracile taxa. J. Robinson was the first to propose this 'dietary hypothesis', arguing that P. robustus was adapted for an exclusively vegetarian diet compared to the more omnivorous diet of A. africanus. More recent studies of jaw mechanics, enamel thickness and occlusal microwear also emphasize the crushing of small, hard items, most probably hard fruits, pods and nuts. As well as explaining the distinctive robust australopithecine morphology, a more specialized diet could help account for their subsequent extinction (through competition with Homo, a dietary generalist) and apparent non-involvement in stone tool production.

Isotopic analysis suggests, however, that the dietary hypothesis is not as strong as once thought. Both the strontium / calcium and carbon isotope composition of *P. robustus* specimens from Swartkrans indicate a much greater degree of omnivory. Carbon isotopes, in particular, point to substantial consumption (30%), either directly of grasses or of animals that ate grasses. Dental morphology and microwear exclude both grazing *per se* and large-scale seed consumption. Instead, scavenging of carnivore kills and direct consumption of grass-eating vertebrates and insects seem likely, supported by Aiello & Wheeler's argument that all hominins must have consumed some animal foods in order to obtain sufficient high-quality nutrients to support encephalisation. Though these findings encourage more subtle assessments of dietary differences between hominin taxa, they do not dispute the importance of plant food processing in the evolution of the distinctive robust australopithecine morphology. A further factor is the possibility that graciles and robusts lived in contrasting habitats where different dietary emphases would be expected. Palaeoecological reconstructions suggests that the gracile australopithecines found at Makapansgat and Sterkfontein lived in subtropical forest or forest fringe conditions, something clearly compatible with their retention of tree climbing abilities, even though stable isotope analyses indicate that substantial patches of grass must also have been present. *P. robustus*, on the other hand, is associated at Kromdraai and Swartkrans with more open grassland, albeit with locally wet habitats close by.

Though australopithecines are by far the most common Plio-Pleistocene hominin in South Africa, *Homo* is also present at both Sterkfontein and Swartkrans. Understanding the origins of this genus is, however, better approached from the more extensive East African record. Discovered at Olduvai in 1961, *Homo habilis* for long held claim to being its oldest member (1,9-1,8Mya). Subsequent research have emphasized considerable diversity in the size and morphology of the cranial and post-cranial remains attributed to it, such that many palaeoanthropologists

attribute some specimens to a separate taxon, *H. rudolfensis* (1,9-1,8Mya). Though the latter is bigger brained and bodied, the phylogenetic status of both taxa remains uncertain. B. Wood & Collard conclude that they are better considered australopithecines on grounds of locomotion (bipedalism plus efficient arboreal activity), maturation rate (more ape-like), diet (items needing more forceful processing) and brain size (still relatively small).

Very few potential *Homo* specimens predate 1,9Mya. The best contender is the A.L. 666-1 maxilla from Hadar, Ethiopia, dating to 2,33Mya and found in association with stone artefacts. Approximately the same age are a partial mandible from Uraha, Malawi, and a temporal bone from near Lake Baringo, Kenya. These early dates are consistent with Vrba's suggestion that global climatic cooling around 2,5Mya provoked a burst of species turnover (extinction and evolution) among hominins, comparable to that observed among African bovids. Though other analysis only shows a link to extinctions, not speciation, the approximately contemporary appearance of the first stone artefacts does suggest this was a critical juncture in hominin evolution.

But to which earlier hominin population we should then look as a potential ancestor for early *Homo* remains very much in question. *A. africanus* is one possibility, implying an evolution for *Homo* in southern Africa rather than eastern Africa, although some gracile australopithecines may have been wrongly included among the East African *H. habilis* population. McHenry & Berger's analysis of hominin body proportions excludes an evolutionary progression from *A. afarensis* through *A. africanus* to *Homo*, but the potentially more archaic australopithecine remains recently found at Sterkfontein Member 2 may offer a southern African ancestry for *A. africanus* that perhaps bypassed *A. afarensis*. Alternatively, a partial cranium from Ethiopia's Middle Awash area assigned to *A. garhi* establishes the presence in East Africa of a hominin intermediate in dental and cranial features between the australopithecines and *Homo* at around 2,5Mya, precisely the time required for an ancestor of the A.L. 666-1, Uraha and Lake Baringo specimens. Intriguingly, the same locality has yielded stone flakes and cut-marked and smashed animal bones.

Linking these early fossils to later members of the genus *Homo* remains contentious. Since the early 1950s *H. erectus* has been recognized as a widespread Lower / Middle Pleistocene taxon in Africa, China, Indonesia and perhaps Europe. More recently, many palaeoanthropologists considered that there is too much morphological variation between the Asian and African specimens for all to belong to the same species. As a result, *H. erectus* has been reserved for fossils from the Far East, with African specimens assigned to a new species, *H. ergaster*, though other analysts argue that there is no basis for such a separation. Both taxa share many anatomical features, including increases in brain and body size over earlier representatives of *Homo* and a concomitant reduction in sexual dimorphism. Other distinguishing traits include thicker cranial bones, brow ridges and a long, low skull. Given the lack of convincing older hominins in Asia, *H. ergaster*, which first appears around 1,8Mya, is assumed to be the African ancestor of a population that later moved into Asia, giving rise there to *H. erectus*.

The southern African record for early Homo is much scantier than for the australopithecines. A partial cranium from Member 5 at Sterkfontein (StW-53), once assigned to *H. habilis*, is now generally recognized as a gracile australopithecine. A somewhat better preserved skull (SK-847) was recovered from Swartkrans Member 1. Along with a few other fossils, all once assigned to *Telanthropus capensis*, StW-80 from Sterkfontein and possibly a single *Homo* specimen from Drimolen (DNH-35), it is a rare southern African example of *H. ergaster* dating to 1,8-1,7Mya.

The well preserved skeleton of a young male from Nariokotome, Kenya, offers our best insight into the post-cranial anatomy of this later species. One of the most striking things about this individual is its large size (estimated at 1,8m tall and weighing 68kg had it reached maturity), and tall, lean physique resembling many present-day equatorial Africans. Its narrow pelvis may have been more effectively designed for walking and running than our own and its robust, heavy muscled skeleton implies routine heavy physical exertion. Cumulatively these features suggest an adaptation quite different from those of earlier hominins, one in which improved thermo-regulation played a key role within an active life in dry, open savanna environments rather than more closed, wooded ones. The small size of the pelvis and adult cranial capacities of at least 85ocm³ also imply a more human like maturation rate, coupled with a much longer period of infant dependency than inferred for the australopithecines, studies of tooth eruption confirm a slower growth pattern and longer lifespan relative to apes. All these differences carry further implications for hominin behaviour, for example as regards diet quality and how mothers with young offspring acquired food (e.g. through being provided by other individuals). The archaeological record now increasingly offers another source of evidence for investigating such questions.

PLIO-PLEISTOCENE ARCHAEOLOGY IN SOUTHERN AFRICA

In southern Africa definite archaeological traces of Plio-Pleistocene hominins are preserved only in and close to the Sterkfontein Valley. Though individual stone-knapping or butchery events cannot be reconstructed, dating is difficult and sites are not numerous enough to investigate how hominins exploited the wider landscape, recent work is producing a much better understanding of this early phase of the sub-continent's archaeological record.

Sterkfontein provides the largest Plio-Pleistocene archaeological assemblage with over 9,000 artefacts recovered from Member 5. The Oldowan assemblage from here may be the oldest cultural material yet found in southern Africa. Faunal comparisons suggest it is 2,0-1,7Mya old, wholly consistent with dates for similar occurrences in East Africa... Oldowan assemblages do, indeed, show the simplest forms of stone tool working of an industry. In addition to hammerstones and manuports, they comprise flakes and the cores from which these were struck. Some flakes are variably retouched and some cores have battered or damaged edges suggestive of use... Oldowan assemblages are thus highly informal, especially when made of quartz, which produces large amounts of chips, chunks and small flakes. Additional criteria, such as consistent absence of more complex artefacts and independent evidence of Plio-Pleistocene age, are necessary to substantiate their identification as Oldowan... Oldowan artefacts were probably employed for many different purposes. In East Africa, but rarely at Sterkfontein, cutmarks on animal bones and experiments show that some flakes were used to remove meat from carcasses.

Stone artefacts are also present at Kromdraai, Swartkrans and, on a very small scale Drimolen. A few flakes and pebbles from Members 4 and 5 at Kromdraai B are contemporary with the robust australopithecine fossils, while the larger assemblage at Kromdraai A postdates them. At Swartkrans J.D. Clark assigned artefacts from Members 1-2 to the 'Developed Oldowan', with a probable age of 1,7-1,5 Mya. More recently, Field has argued that there is nothing diagnostic in the Member 1 assemblage and that the 'Developed Oldowan' material from Member 2 should be included within the Acheulean Complex. Further north, rare flakes and cobbles in Makapansgat's Member 5, which may substantially postdate the australopithecine fossils from Member 3, do not unequivocally result from deliberate flaking or introduction by hominins.

Not all the artefacts from these early assemblages are made in stone. Several polished long-bone fragments come from Drimolen, Sterkfontein Member 5 and Swartkrans Members 1-3. Experiments show that this polish could result from using them to dig out edible plants from rocky soil or from excavating termite mounds. Strontium / Calcium ratios of the SK-847 specimen from Swartkrans imply a substantial intake of underground plant foods, suggesting this was an important component of the early *Homo* niche. Though bone in Oldowan and Acheulean assemblages was never more than minimally modified, such worked fragments, combined with microwear studies, are important in indicating that from the very beginning of the surviving archaeological record, if not before, organic materials were also used. Perhaps Dart's claim for an **osteodontokeratic** culture preceding the use of stone is not wholly implausible, though the skeletal part frequencies in the australopithecine-bearing Member 3 at Makapansgat on which he based his argument wholly reflect pre- and post-depositional factors, not hominin choice.

Understanding how these artefacts, bone or stone, were integrated into the day-to-day behaviour of early hominins is more easily approached from the East African record. However, the largely fresh condition of the Strekfontein Oldowan artefacts implies an origin close to the caves in which they were found. Kuman suggests two features that might have attracted hominins to such a location: The shade provided by trees growing around the cave openings and the shelter from the elements offered by the dolomite outcrops themselves. These features could have repeatedly brought hominins back to the site, just as the availability of flakable chert may have attracted them to the MNK factory site at Olduvai.

By 1,5 \pm 0,3Mya the Sterkfontein sequence registers the change to the Acheulean technology. As well as the production of bifacially worked handaxes and cleavers, Kuman shows that the crucial factor in this was the ability to strike large (>10cm) flakes. At Sterkfontein this permitted greater use of chert and quartzite and an expansion of the raw material range to include diabase, coupled with more extensive transport of stone to the site, probably because downcutting of the Blaauwbank River had increased the distance over which raw materials had to be obtained from. Kuman & Clarke estimate the age of the oldest Acheulean material at Sterkfontein to be 1,7-1,4Mya old. Acheulean artefacts in Member 3 at Swartkrans are estimated to be 1,0Mya old.

Quite which hominins were responsible for the artefacts we have considered is not totally clear-cut. Both *H. ergaster* and *P. robustus* occur with 'Developed Oldowan' tools in Members 1 and 2 at Swartkrans and *P. robustus* alone has been found with Acheulean artefacts in Member 3. A comparable picture is evident in East Africa, where both *Homo spp.* and *P. Boisei* were contemporary with the Oldowan. Since Chimpanzees use and make tools, including stone

artefacts under experimental conditions, it seems likely that all hominins had some ability in this area. Indeed, Susman suggested that the morphology of (probably) robust australopithecine hands was well adapted to the precision gripping needed for artefact manufacture. This conclusion has, however been criticized, and the lack of two distinct artefact traditions may argue against *Paranthropus* making stone tools, though much more recently Neanderthals and anatomically modern humans produced virtually identical lithic assemblages in the Near East, and the Oldowan's informality can scarcely be definitive in this regard. If a primary role for early stone artefacts was in accessing meat and bone-marrow, as experimental, cutmark and microwear evidence all suggest, this would fit a presumed greater interest in meat-eating by *Homo*, as compared with the robust australopithecines. That stone artefacts and *Homo* appear in the archaeological record at broadly the same time reinforces this view. The combination of extended tool use and greater dietary breath with more efficient heat regulation and locomotion may have been crucial in *Homo*'s success and (through competitive exclusion) the eventual extinction of the australopithecines.

Regrettably, the fact that the faunas at Sterkfontein and its neighbours were almost wholly accumulated by non-hominin agencies means that southern Africa is not yet able to contribute much to these questions. Such work has, however, been carried out at the finer-grained, more readily dated East African sites. Important and interrelated research themes there include the degree to which meat was important in early hominin diets, how it was obtained and whether the association of bones and stones implies the sharing of food, perhaps accompanied by a sexual division of labour and provisioning of home-base as among recent hunter-gatherers. Contrary to the initial expectations of such a model, critical assessments of site taphonomy suggests that many associations of fauna and artefacts are not causally linked, that supposedly early shelters did not exist and that scavenging of carnivore kills or naturally dying animals was probably more significant as a source of meat and bone-marrow than hunting. Though the connection between meat eating (however obtained) and food-sharing has recently been raised again, both at the Plio-Pleistocene boundary and for long afterwards a humanlike appearance may have gone hand-in-hand with a way of life distinctly unlike that of modern people.

ACHEULEAN ASSEMBLAGES AND THE TRANSITION TO THE MIDDLE STONE AGE

Probably the longest lasting artefact tradition ever created by hominins, the Acheulean is found from Cape Town to north-western Europe and as far as India between 1,4 and 0,2Mya, with the oldest secure dates coming from Ethiopia. It occurs widely in southern Africa, with some sites, such as Kathu Townlands, containing tens of millions of artefacts. Yet despite the many sites, Inskeep's comment that the Acheulean falls within a 'prehistoric dark age' still rings true. Organic remains are only rarely preserved and dating remains extremely difficult. This was, however, probably a critical period in hominin evolution, encompassing the transition from *H. ergaster* to archaic forms of *H. sapiens*.

The hallmark of Acheulean technology, first recognized in southern Africa in river gravels at Stellenbosch, was the production of two kinds of bifacial implements, handaxes and cleavers... Handaxes and cleavers give the impression of being purposefully designed... Experimental work indicates that they are superior to retouched and unretouched flakes in almost all heavy-duty butchery situations, especially if larger mammals or longer work periods are involved. Microwear analysis from Wonderwerk Cave suggests they were also used to work plant materials, such as wood and sedge. Waterlogged Acheulean contexts at Amanzi Springs and Kalambo Falls have produced examples of worked wood. A range of uses thus seems likely.

Almost all Acheulean assemblages in southern Africa come from disturbed open-air locations. Rock-shelter occupations are generally lacking. A few exceptions include Cave of Hearths and Olieboompoort, Wonderwerk and Montagu Cave in South Africa and the Zimbabwean sites of Bambata and Pomongwe..."

To further understand the relationship between Homo, the Acheulean Industrial Complex and fire, Sievers (2012) states: "'The ability to control fire was a crucial turning point in human evolution, but the question when hominins first developed this ability still remains.' But, in a paper in the prestigious journal, Nature, scientists from South Africa, Israel, Germany and America have published the earliest secure archaeological evidence of burning, at approximately 1Mya. Through micromorphological and Fourier transform infrared microspectroscopy (mFTIR) analysis of intact archaeological deposits at Wonderwerk Cave in the Northern Cape, they have provided evidence of burned bone and ashed plant remains from an early Acheulean occupation of the cave.

The evidence of fire is 30m from the entrance of the cave, too deep for a stray veld fire to have spread (the analysis show there was no spontaneous burning of guano either). Moreover, the evidence of repeated fires, one on top of the other, suggests that our early ancestors were regularly visiting the cave and using fire in the cave... Fire has

many uses such a providing light and warmth, protection against predators, and of course, for cooking. Richard Wrangham, author of 'Catching Fire: How cooking made us human', writes that once we started cooking, our food was more easily and quickly digested. Furthermore, we no longer needed such big guts for digestion – compare our digestive system to that of a python which takes up to six days to digest a meal – and because cooking is essentially a form of pre-digestion, the energy saved by not having to digest enormous amounts of raw food could be channelled into brain food. Thus, it is no coincidence that humans, the only species on earth that cooks, are the most cognitively complex and intelligent species around…"

Research at Wonderwerk Cave have not only revealed insightful information on the early use of fire, but has also yielded an early Acheulean member confirmed at 2,0Mya (Horwitz & Chazan 2015).

The Stone Age of southern Africa is divided into three phases:

- o The Earlier Stone Age (ESA) [≥2,5Mya ±250kya²], and including the earlier Oldowan and primary, later Acheulean Industrial Complexes as discussed above;
- o The Middle Stone Age (MSA) [±250 ±40kya], with characteristic flake and blade technology; and
- o The Later Stone Age (LSA) [±40kya Present (BP³), ~1950AD4] with refined flake, blade and regular composite tool technology and directly associated with a more complex lithic toolkit (both macro- and microlithic) than that of the MSA.

It can thus be concluded that the anthropogenic use of fire is confirmed in the archaeological record during the Acheulean phase of the Earlier Stone Age (ESA) at around 1,0Mya, whilst the probable use of fire may date back as far as 1,4Mya. Fire, having had been an integral part of especially Acheulean ESA culture continued to form part of the cultural suite throughout the Middle (MSA) and Later Stone Age (LSA). Without discussing site specific archaeological evidence of use during the MSA and LSA, the use of fire by anatomically modern (Homo sapien sapien⁵) LSA peoples at the southern tip of Africa were also reported on by the first Dutch settlers at the Cape, 1652. Indigenous LSA people of southern Africa comprise the KhoiSan, and including San ('Bushmen') hunter-gatherers and Khoe / Khoi or Khoekhoen / Khoikhoi ('Hottentots') pastoralists, with the Dutch having had encountered groups of the latter upon arrival. Early Dutch diary inscriptions confirming the use of fire among the Khoe (and themselves) are numerous, and including amongst others (Leibrandt 1897):

"11 Nov. 1652

Quieter. 24 in hospital complaining of pains through their joints, which feel as if broken – no wonder – as labour is hard, food is old and so scarce that no one gets what he absolutely requires – no fish when weather is bad – the seine very old and bad – enough to do to repair it. If no supplies in cattle or from ships quickly come, the people will grow too weak to work, as peas, barley, meat and pork are running out – the fish caught have saved provisions, otherwise we would have nothing now. Pray earnestly for arrival of natives with cattle – see their fires across the bay" (Khoe fire);

"8 Dec. 1652

Bought 11 cows and 29 sheep from Saldanhars, among the latter same captains, one of whom we entertained yesterday. Grass set on fire by Saldanhars – requested them not to come so near us with their fire, upon which all immediately proceeded to extinguish the same, for which each received a finger's length of tobacco – seem bent upon not injuring us but showing us kindness – this is reciprocated – we are nevertheless on our guard. Thousands of Saldanhars around us, but not trespassing on the pasture grounds occupied by us – seem to have great faith in us. Brought two fine partridges for a finger length of tobacco – told them to bring more, as they were very nice" (Khoe fire); and

"29 May 1653

Eight men of the galiot are cutting firewood for the lime kilns, and the rest of the men are hard at work on the fortress to get it finished. Could not get the Hottentoos to do more work; they say they had been tired too much yesterday" (Dutch fire).

In summary, the early hominin Sterkfontein and environs fossil record, the premise of the COHWHS, comprises in the words of Michell (2000), "... the most prolific fossil hominin locality anywhere in the world for the period 3,5-1,5Mya", with the overwhelming majority of fossils from this period coming from Sterkfontein Members 4-5. The site also yielded of the earliest evidence for the probable use of anthropogenic fire, dated to 1,4Mya. In addition thereto, A. Promethius, the StW-573 "Little Foot" skeleton from Sterkfontein Member 2, the most complete skeleton discovered to date and

² kya – Thousands of years ago

³ BP – Before the Present; estimated at circa 1950AD

⁴ AD – Anno Domini; (after) the year o

⁵ The term *Homo sapiens sapiens* used here with cognisance to the scientific debate of *H. sapiens sapiens* being a speciation of *H. sapiens* or a separate species, and used in this context with direct reference to the package of cultural modernity generally associated with LSA peoples (Jurmain *et. al.* 2000)

conservatively dated to 3,3Mya (Whittles 2017), together with the fairly recent, 2013, discovery of *H. Naledi* at the Rising Star Cave system, dated to 335-236kya (Greshko 2017), designates the greater site terrain one of the longest hominin chronologies (albeit not continuous) in the world, and spanning an approximate 3 million year period.

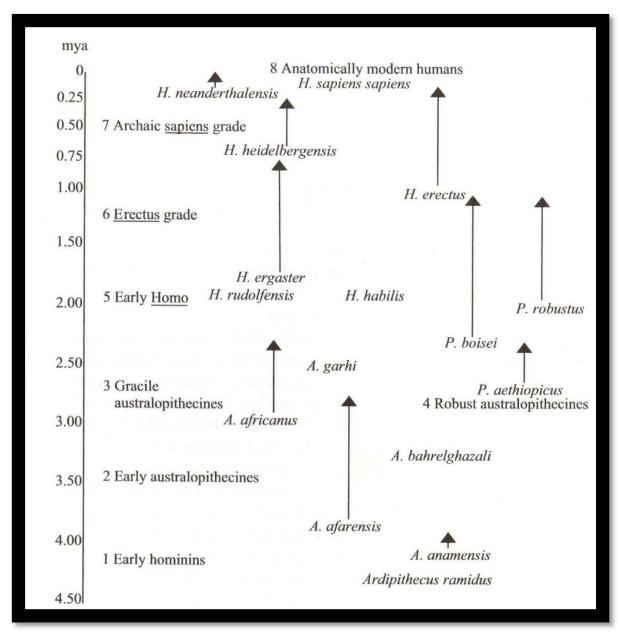


Figure 5: Successive relations in hominin evolution (Mitchell 2000)

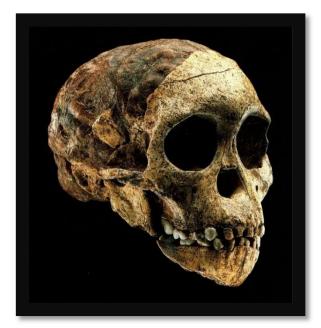


Plate 1: Australopithecus africanus, Taung child, Taung (Johanson & Edgar 1996)



Plate 2: *Paranthropus robustus*, SK-48, Swartkrans (Johanson & Edgar 1996)

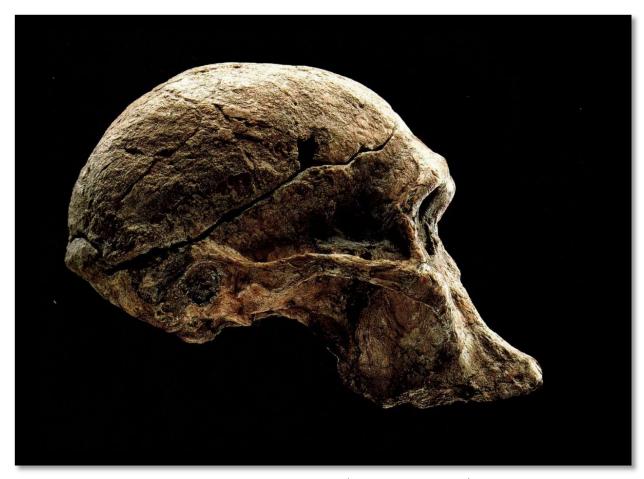


Plate 3: Australopithecus africanus, Sts-5 / 'Mrs. Ples', Sterkfontein (Johanson & Edgar 1996)

❖ Farming: The Bantu Diaspora & the Iron Age

The transition from an essential Stone Age to Iron Age people in Africa is described by Phillipson (1985) as follows: "So far we have discussed the stages of human development during which man relied for his livelihood on the foods provided by his natural environment – on the meat of wild animals and fish, and on wild vegetable foods. In Africa, as in other parts of the world, man has been exclusively a forager for more than 99% of his existence.

... From as early as 12kya, some Nile Valley communities in Upper Egypt may have been making relatively intensive use of cereal foods. These practices may have been accompanied by care of wild grasses by such means as control of weeds, clearance of ground and, perhaps, occasional provision of water. Under these circumstances sowing might also have been employed to increase the density of growth in the tended places and to extend the areas colonized by the wild plants. With or without conscious selection for desired qualities, such practices would in due course have led to the development of crops morphologically distinct from their fully wild prototypes. By such means, some of the late Pleistocene peoples of the Nile Valley seem on occasion to have exploited wild cereals, but there is no evidence that true cultivation was developed at this time. These are among the earliest instances of intensive cereal utilization that have yet been demonstrated anywhere in the world, and there can be no reasonable doubt that they were indigenous African achievements. But they did not lead to the widespread adoption of such practices at this early date...

Food-production did not become widespread in the northern half of Africa until about the sixth millennium BC^{6,7}. By that time plant cultivation and animal domestication had both been long established in the Near East. Although it is not easy to show to what extent some early food-production practices in northern Africa were derived from the Near East, it is clear that many developments both here and further to the south were autochthonous. In this context it is particularly illuminating to consider from where the wild forms of the various plant and animal species that were eventually domesticated came. It has for long been assumed that cultivated wheat, barley and flax were all introduced into Africa from the Near East, but it is now known that wild barley and einkorn wheat occur in several areas of Egypt where their food-value was recognized from early times. If we exclude crops such as maize and cassava (manioc), which are known to have been introduced from the New World within the last five hundred years, and those such as bananas brought somewhat earlier across the Indian Ocean, most of the crops which are or have been cultivated in Africa are species that are indigenous to that continent and which must presumably have been first cultivated there. Examples are the more important types of yam, African rice, and the cereals sorghum, finger millet, bulrush millet and teff, together with the Ethiopian plants ensete and noog, all of which are derived from plants which grow wild in the sub-Saharan latitudes. It will be noted from this list that indigenous African food crops fall into three primary categories: Rice, other cereals and vegetatively propagated plants such as yams and ensete. Each of these categories requires a distinct method of cultivation, and there is no reason to believe that the development of these horticultural modes was in any way interconnected. Much discussion of early African foodcrops centres on the cultivation of cereals, because of the nature of the primary evidence and its greater chances of preservation, but cereals did not necessarily come first.

In the case of domestic animals, the position is somewhat different. Sheep and goats have no African wild prototypes, for it has been shown that the Barbary sheep cannot have given rise to any known domestic types. Cattle present more difficulties, and could be descendant from wild forms in North Africa / the Near East. Perhaps in due course light will be thrown on this problem by bone studies more detailed than those which have so far been undertaken. An added complication is that it is often difficult to differentiate between sheep and goats on the basis of the fragmentary bones that are recovered from archaeological sites, and references to 'sheep / goat' or to 'small stock'... indicate remains which cannot be attributed with confidence to the correct species. It is, however, abundantly clear that none of the major domestic animals of sub-Saharan Africa are derived from species that are indigenous to that part of the continent; they must therefor have been introduced from elsewhere.

Here it is appropriate to briefly evaluate the types of archaeological evidence that may be accepted as proof of ancient food production. By far the most convincing are the actual remains of cultivated plants or domestic animals, or unequivocal artistic representations of them. Pollen grains or seeds may be preserved under appropriate

⁶ BC – Before Christ (or BCE – Before the Current Era; the year o)

⁷ Phillipson's (1985) basic description of early food production still holds true. Subsequent research has however greatly furthered our understanding, defining and detailing aspects thereof. Whilst a detailed discussion of site specific studies falls outside the scope of this report, more contemporary dating is of general importance, pushing confirmed dates for agricultural food production back to approximately 8,000 BP (see for ex. Chia & D'Andrea 2017) with implications for the start of the diaspora, generally now understood as dating to between 6-4,000BP.

conditions, or impressions of seeds may occur on pottery. Some food plants, such as yams, will by their very nature hardly ever be represented in the archaeological record, and this lead, as noted above, to undue emphasis often being given to the better preserved evidence for cereal cultivation. Furthermore, plants generally will tend to be under-represented in comparison with animals, whose bones are relatively indestructible.

Domestication of both plants and animals eventually give rise to physical differences which serve to differentiate the domestic forms from their wild prototypes. The domestication process involves deliberate selection and control of breeding. For example, preference will be given to the larger yams or to cereals which do not shed their seeds as soon as they are ripe, but retain them when harvested. Animals of docile temperament, often of small size, will more readily be incorporated in controlled herds. Thus, after a few generations, significant physical differences will have been established. It follows from this that the initial stages of domestication are correspondingly difficult to recognize in the archaeological record. Furthermore, it now appears highly probable that the emergence of fully food-producing economies was the result of a far longer period of intensive exploitation and experimentation than was previously realized. The distinction between hunting and gathering on the one hand and food production on the other is thus far from distinct.

Archaeological evidence for food production, other than actual food remains, is far less convincing. The evidence of artefacts is often ambiguous: sickles and grindstones for instance could have been used for gathering and preparing wild cereals, or for different materials altogether.

Despite the elusiveness of evidence, the importance of the adoption of food production techniques should not be under-emphasised. Possession of such techniques gave man greater control than he had generally possessed over his own food supply. Although concentrated natural resources had in earlier times occasionally allowed him to maintain semi-permanent settlements, these were usually small. In several areas' food production seems to have been adopted in response to environmental deterioration and population pressure; and it in turn enabled populations to increase still further. The relatively settled life which is inherent to most forms of agriculture (but not, of course, to pastoralism) provided a stimulus for the accumulation of material possessions beyond those that could readily be transported. A sedentary lifestyle could also have facilitated increased child-bearing, as pregnancy and nursing are a hinderance to mobility. Communities could now more readily afford to maintain members who specialized in activities other than the obtaining of food. The increased sizes of these communities and the frequency with which they came into contact with their neighbours must often have necessitated the development of political structures more complex than those which had existed among simpler societies of earlier times.

Such developments were not, of course automatic. On the one hand they help to explain how such a complex civilization as that of ancient Egypt arose apparently less than 2,500 years after food-production was first regularly adopted on a significant scale in the Nile Valley. On the other hand, in many areas of Africa, peasant communities have been able to maintain themselves without centralized state systems into recent times. Nor must it be thought that food-production, once adopted, led to the rapid abandonment of hunting and gathering. Both activities continued to play an important part in most pre-Colonial African economies, while a few communities have maintained an exclusive hunting-gathering lifestyle. With low population densities, such as have prevailed in many parts of Africa until recent times, the natural resources are such that hunting and gathering provide a level of nutrition as high, or higher than, that achieved by farming peoples. It is nevertheless true that food production has provided the economic basis for most of the major technological, artistic and socio-political achievements of African culture during the past 7,000 years."

A principle technology, and key to the development and success of these farming communities, was what is called 'slash and burn' agriculture; a method of cultivation where forests or woodland are burned and cleared for planting. Ash not only provided some initial fertilization, but also kept the affected plot relatively weed free. After some years of cultivation soil fertility started to decline and weeds increased, upon which the agricultural activity moved to a new plot and the process of field preparation was repeated (Britannica.com/topic/slash-and-burn). Fire was thus of key importance to early farming communities, not limited to farming activities only, it played a significant role in everyday life; it was used as fuel, for warmth and lighting, cooking, in the firing of ceramics and as iron working technology developed in the smelting process and manufacturing of iron artefacts. 'Slash and burn' agriculture can be seen as one of the key technologies propelling the Bantu⁸ diaspora.

⁸ Bantu – Ba'Ntu

Mitchell (2000) further explains that:

"Exploiting both animals and indigenous cereal and root crops, by 3,000BP African societies practiced diverse forms of food production north of the Congo Basin and Serengeti. Further south, the perceived homogeneity of the material culture of the earliest agricultural groups and the fact that this was introduced rapidly and without local precursors have led archaeologists to conclude that it must reflect the physical movement of substantial numbers of people. That these assemblages occur in areas now populated by speakers of Bantu languages, which themselves demonstrably have a recent common origin, provide the basis for linking these two expansions. Farming and the presumed advantages of iron tools for land clearance and cultivation are thought to have fuelled population growth.

Linguistics identify the Cameroon / Nigeria border as the centre of origin for Bantu languages. Tracing relationships between them is not simple. Many classifications emphasize statistical comparison of selected vocabulary (lexicostatistics), typically of words thought most resistant to change. The more laborious comparative method, which works out regular sound correspondences between languages to see if they are related, has been much less widely undertaken. Nurse makes the further point that many analyses use only one approach, cautioning against exclusive dependence on lexicostatistics and the pitfalls of its derivative, glottochronology. The tendency of many analysts to work with models resembling family trees in which each language has only a single ancestor, thus concealing multiple influences on its origin, is also unrealistic.

The one generally accepted division within Bantu is that between Western and Eastern languages, although debate persists on allocating some languages to one or the other group. Vanisha's reconstruction indicate that Proto-Western Bantu speakers fished, hunted, kept goats and cultivated yams and oil palm without, at first, using iron. Archaeologically they may be represented by sites in Gabon and Congo-Brazaville dating to 3,000 – 2,000BP. Connections between these sites and later farming communities to the south are elusive, partly because increasing aridity constrained expansion of root-crop based economies into Angola. Ceramics from two rather later sites in Congo-Kinshasha, Madingo-Kayes and Naviundu may provide a link. Pottery from both emphasizes comb-stamping and broad grooves organized in bands of intertwined lines and other motives. Later facies of this Naviundu Tradition occur in southern Zambia, north-western Botswana, including the important sites of Nqoma and Divuyu, and northern Namibia, where they may represent the arrival of the ancestral Herero language cluster. Others appear ancestral to the Luangwa pottery still made by Western Bantu-speakers in Zambia.

While ancestral western Bantu speakers moved south along the Atlantic coast and inland up rivers draining into it, Proto-Eastern Bantu speakers are thought to have spread along the rainforest's northern edge, towards the Great Lakes. This makes ecological sense, as linguistic reconstructions suggest they became acquainted there with cereals, cattle and sheep as well as goats. Urewe ceramics occur in East Africa's Interlacustrine area from 2,500BP, frequently associated with iron-smelting debris. Though settlements have yet to be excavated and wild resources probably remained important, Urewe finds concentrate on prime agricultural land, and pollen sequences demonstrate land-clearance. The chronological primacy of Urewe ware and its proximity to areas in which cattle, sheep and perhaps cereals had been used for several centuries make it the earliest known component of the Chifumbaze Complex, which group together almost all the Early Iron Age assemblages of eastern, south-central and southern Africa. Similarities in ceramic design traceable through to recent pottery traditions provide an association between Chifumbaze and Eastern Bantu speakers.

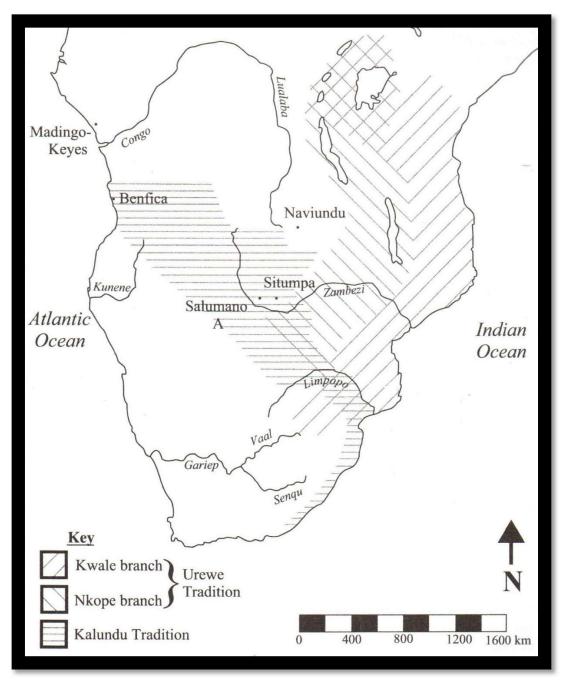
Ceramic typology is central to current discussions of the expansion of iron-using farmers across southern Africa. The most widely used approach is that of Huffman, who employs multidimensional analysis of three variables – vessel profile, decoration layout and motif – to reconstruct different ceramic types. The method reliably separates the ceramics of known contemporary groups, unlike others emphasising vessel shape and decoration technique. Since ceramic design is part of a much larger code and overlaps considerably with designs employed in other media, such as beadwork, it may identify groups of people among whom these codes were shared, learned and transmitted. Huffman argues that since large zones of ceramic uniformity are often punctuated by short distances over which style changes substantially, these changes in non-verbal communication may also mirror patterning in verbal communication (i.e. language). If this is correct, ceramics can thus be used to trace the movements of people, though not necessarily of special social or political groupings. Counter examples certainly exist to this equation... (and there are) ... difficulties within this approach... However, since Huffman's stance currently dominates research into early farming communities in southern Africa the ensuing discussion follows his framework...

Within the Chifumbaze Complex broad distinction exists between different sets of assemblages, though Collett expresses reservations as to whether all form part of the same tradition. One, Phillipson's 'Eastern Stream' essentially coincides with Huffman's Urewe Tradition. Two divisions are discernible. Assemblages belonging to the

Kwale branch extend along the coast from Kenya to KwaZulu-Natal. Inland, and reaching from southern Tanzania through Malawi and eastern Zambia into Zimbabwe, others are grouped as the Nkope branch. Stretching from Angola through western Zambia, Botswana and Zimbabwe into South Africa are a third series of assemblages from the Kalundu Tradition."

Huffman (2007), based on his three-tiered ceramic multidimensional method (vessel profile, decoration layout and motif), proposes three waves (population movements of expansion and contraction) of Iron Age farming peoples into southern Africa:

- Early Iron Age (EIA): 200 900AD;
- o Middle Iron Age (MIA): 900 1,300AD; and
- o Later Iron Age (LIA): 1,300 1,840AD.



Map 1: Outline of the main movements of the southward expansion of farming communities (Bantu diaspora) beyond the equator (Mitchell 2000)

The East Coast of Africa

From the 7th century onwards and reaching its height in 1,100AD, Islam had played an undeniable role in World, and for the purpose of this discussion African history. Hrbek (1988) explains:

"At the time of his first visit, the community around the prophet Mohammad, who preached the new religious system, Islam, in the small town of Mecca, lost in the boundless wastes of the Arabian desert, did not count even a hundred people fighting for survival against the growing hostilities of their compatriots. Five centuries later the adherents of this faith were to be found on a territory stretching from the banks of the Ebro, the Senegal and the Niger in the West, to the Syr-Darya and the Indus in the east, and from the Volga deep in the heart of the Eurasian continent to the East-African coast. In the central parts of this territory the Muslims formed the majority of the population whereas in some fringe areas they were rulers and traders, expanding further and further the Islamic frontiers... In the meantime Islam had ceased to be an exclusively Arab religion; the new faith showed the capacity to win over and assimilate ethnic elements of the most diverse origins, fusing them into a single cultural and religious community... By the end of the 11th century the original Arab empire had long since ceased to exist. It was transformed into a bewildering array of petty states, regional powers and contending dynasties, few of them of Arab origin. Thus the Arab empire of the first conquerors was transformed into the Muslim world of the Middle Ages... From the late 7th century to the end of the 12th century the Muslim empire functioned like a free-trade area. The commodities produced in one part of the world became available in other parts so that a uniformity of consumer goods existed among a large, diverse population inhabiting a wide territory. The Muslim world, lying midway between East and West, served also to disseminate technological innovations among the peoples of outlying areas. The increased commercial activity between various parts of the Muslim world and beyond its frontiers stimulated local production of commodities for markets in other places."

In Africa, between the 7th and the end of the 11th centuries, the influence of Islam centred on Egypt and the North African region. It was from Egypt that Arab Bedouins gradually made their way into Nubia, leading to the downfall of the Christian kingdoms of the Nilotic Sudan, with Egypt in turn having had been the final destination of many Black African slaves (under the *bakt* treaty), with salves from as far afield as Nubia, Ethiopia, the western and central Sudan, and beyond. By the end of the 7th century the Arabs had wrested the Maghrib from the Berbers; the Berbers resented the political domination of the Arabs, but many adopted Islam. It was on the trade caravans of the Berbers that Islam was introduced to trans-Saharan Africa. Sudanese West Africa was never conquered by Arabs or other Muslim peoples; but it felt the ever increasing impact of the Muslim world. An impact similarly felt along the East African coast (Hrbek 1988).

Since before the advent of the Christian era the East African coast had been visited by merchants for commercial purposes. Increasingly prosperity of the coastal towns belonging to this trade network depended on the economy of the whole Indian Ocean area, but since the 7th century particularly on that of the Muslim countries. East African coastal settlements traded in gold, iron, ivory, hides and other commodities. But it was not only the material welfare of these settlements that benefited from trade, indirectly, from the 7th century onwards, so did Islam (Hrbek 1988).

The role of outsiders in the early history of the east coast of Africa is undeniable. From Somalia to Mozambique monsoon winds facilitated travel and trade, and the development of coastal communities. Masao & Mutoro (1988) argue that some settlements were founded, and others transformed or heavily influenced by Arabs or Arabized Persians, who introduced stone buildings, ideas of manufacturing lime and cement as well as the arts of wood-carving and cotton weaving. Along the coast the mixture of immigrants with the local population resulted in ethnically mixed and economically specialized societies. The Arabs called the local East African populations al-Zandj, or al-Zindj, being the Negroid or Bantu-speaking peoples of the coast and interior and reported on the land being ruled by the local Zandj population, under Zandj kings. The East African coast were divided into three parts: The land of the Barbar (bilãd al-Barbar) in the north, the land of the Zandj (bilãd al-Zandj) between the Webi Shebele River and some point on the coast opposite Zanzibar, and the Sofala country (ard or bilãd al-Sufāla) to the south, to the south of which the Arab geographers described lied the mysterious country of Wāk-Wāk9. Arab writings represent Sofala as the terminal of voyages, as ships did not venture to sail further due to stormy seas, but these writings also represent Sofala as a well-known and frequently travelled country, not some exotic faraway land.

English translations of early Arabic writings remain scares, one such being the work of Abi l'Cassem Abdallah Ebn Haukal, a native of Khorasan, who probably completed the text around 950AD. The original Arabic was translated into Persian,

⁹ *Wāk-Wāk* or Wak Wak (Wakwak) / Wak Gam – Land to the south of the Sofala territory, invariably interpreted as the land of the 'Bushman' (San) by authors incl. amongst others Theal (1910) or as a (mis)translation of Kwa Kwa (Kwakwa) referring to 'Hottentot' or Khoe / Khoi (Khoekhoen / Khoikhoi) peoples by others, incl. for ex. Murray (1891). A general collective approach would designate this area to have been inhabited by KhoiSan peoples.

and from Persian to English in 1800, entitled "The Oriental Geography of Ebn Haukal, an Arabian Traveller of the Tenth Century. Translated from a Manuscript in His Own Possession, Collated with One Preserved in the Eton Collage, by Sir William Ouseley, Knt., L.L.D.". The limited section of this work mentioning East Africa reads as follows (after Theal 1910):

"Between Yajouge and Majouge, and the northern ocean, and between the deserts of the Blacks and the other limits of the ocean, all is desolate and waste, without any buildings. I know not what are the roads or stages of those two deserts which are on the coasts of the ocean, because it is impossible to travel in them on account of the excessive heat, which hinders the building of houses, or the residing there. Thus, also in the south, no animal can exist, so excessive is the heat, nor any person dwell there.

On the sea coast there is a place called Zeilaa, which is the port for those who go to Yemen and Hejaz. Then begin the deserts of Nubia. The Nubians are Christians; and their country is wider than that of the Abyssinians; and the Egyptian Nile passes through their territories, and goes on to the land of the Zingians (Ethiopia); and one cannot proceed beyond that.

The sea continues to the land of Zingbar, Ethiopia, opposite Aden: Thence it departs from the regions of Islam. Ethiopia is a dry country, with few buildings and very little cultivated ground. The leopard skins and other spotted skins which are brought to Yemen, come from this place. The inhabitants are at war with the Mussulmans. There is in Zingbar a race of White people, who bring from other places articles of food and clothing. This country produces little: The inhabitants are not much inclined to the cultivation of arts and sciences".

With reference to East and southern Africa the work of Abou'l Haean Ali el Masoudi is of importance. Masoudi was born in Bagdad towards the close of the third century after the hegira. Widely travelled; India, many parts of the East, and Africa as far as the island of Kanbalou¹o, Masoudi later in life settled in Antioch, Bassorah¹¹ and Old Cairo. In 943AD he completed his work, translated from Arab to French in 1861-1877 and entitled "Les Praires d'Or", an English translated extract of which states (after Theal 1910):

"I have seen in the geography (of Ptolemy) a plan representing the Nile issuing from the foot of the mountain el-Komr. Its waters, which bursts forth at first from twelve sources, flow into two lakes like the ponds (of Bassorah); they unite when issuing thence, and flow through sandy and mountainous regions. The Nile pursues its course across that part of the Soudan which adjoins the country of the Zendj, and from it issues a branch which flows into the sea of the Zendj. The sea washes the island of Kanbalou, an island well cultivated, and inhabited by Mohammedans who speak the language of the Zendj. They made themselves masters of the island by taking captive all the Zendj population, at the time of the conquest of the island of Crete in the Mediterranean by the Mohammedans, at the commencement of the Abbaside dynasty and about the close of the reign of the Ommiades.

Concerning the branch of the Nile which, as we have said, flows into the sea of Zendj, this is nothing but a channel which issues from the great basin of the Zendj, and separates that country from the frontiers inhabited by the Abyssinian races. Had it not been for this channel, the great deserts, and the drifting sands, the turbulent and innumerable hordes of the Zendj would have driven the Abyssinians from the land of their birth.

The Indian sea forms upon the borders of Abyssinia a channel which projects into the country of Berbera, a part of the territory inhabited by the Zendjes and the Abyssinians. This channel, known by the name of Berberi, is five hundred miles long, and its breath from one shore to the other is one hundred miles. The territory of Berbera must not be confounded with the country of the Berbers, situated in the land named Ifrikiyah, a land quite distinct from that of which we are speaking, and which has nothing in common with it except the name. The pilots of Oman sail down this channel to reach the island of Kanbalou, which lies in the sea of Zanguebar, and is inhabited by a mixed population of Mohammedans and of pagan Zendjes. These same sailors of Oman maintain that this channel of Berberi, that they designate the sea of Berbera and of the country of Djafouna, is of much greater extent than we have indicated; they add that its billows are like high mountains, and they term them *blind billows*, without doubt because after having been swollen like high mountains they sink into the form of deep valleys; but they never break, nor are they covered with foam, as one observes in other seas. They give them also the name of *foolish billows*. The sailors who frequent these parts are Arabs from Oman and of the tribe of Azd. When they have reached the open sea, and are willingly going up and down the rolling billows, they sing in harmony the following refrain:

Berbera and Djafouna, may your billows be foolish! Djafouna and Berbera, those are their billows.

¹⁰ Kanbalou – Madagascar(?)

Bassorah – Historic port (damaged during Iran-Iraq war, 1980-1988), situated on the Shatt al-Arab near the Persian Gulf (Iraq)

The termination of their passage on the sea of Zendj is the island of Kanbalou, of which we have already spoken, and the country of Sofala and of the Wakwaks, situated upon the border of Zanguebar and at the extreme end of this branch of the sea. The people of Siraf also make this passage, and I myself have sailed upon this sea when I left Sendjar, the capital of Oman, in company with several nakhoda or pilots of Siraf, among others Mohamed, son of Zeïdboud, and Djewher, son of Ahmed, surnamed Ibn Sirah, who was lost there afterwards with all his crew. My last passage from the island of Kanbalou to Oman took place in the year 304 (AH¹²). I was on board a vessel belonging to Ahmed and Abd es-Samed, two brothers of Abd er-Rahim, son of Djâfar of Siraf, a resident of Mikan, which is one of the quarters of Siraf, and these same two men, Ahmed and Abd-Samed, sons of Djâfar, perished afterward with their property in this sea. At the time of my last voyage the emir of Oman was Ahmed, son of Helal, son of a sister of el Kaïtal. Indeed I have sailed upon many seas, the sea of China, of Roum, of Khazars, of Kolzoum, and of Yemen, I have gone through dangers without number, but I have known none more full of perils than the sea of Zendj, of which we have been speaking.

We return to the different kings of the country and to the enumeration of the kingdoms which remain to be described upon the border of the sea of Abyssinia. The king of the Zendj is called Flimi.

Behind the country of Alawah (Lowata) there is a large population of Blacks living, called Bekneh (Bedjneh). They go naked like the Zendj. Their country contains mines of gold. It is in this kingdom that the Nile is divided, and from it issues a large channel which when it leaves the Nile takes a greenish colour. The principle stream, the true Nile, has no other offshoots, and its course is towards the country of the Nubians. But at certain times the great branch of the Nile is diverted into this channel, and takes a whitish colour, when the little arm turns green. This channel divides into several streams of water and canals crossing inhabited valleys; afterwards it reaches the deserts of the south towards the shores of the Zendjes, and it discharges its waters into the sea of Zendj.

When the posterity of Noah spread themselves out over the earth, the sons of Kouch, son of Kanaan, directed their steps towards, and crossed over the Nile. There they separated; some, that is to say the Nubians, the Bedjah, and the Zendjes, turned to the right, between the east and the west; the others, in great numbers, marched towards the west, in the direction of Zagawah, of Kanem, of Markab, of Kawka, of Ganah, and other parts of the country of the Blacks and of the Demdemeh. Those who went towards the right, between the east and the west, separated in their turn, and formed several nations; the Mékir, the Meekkir, the Berbera, and the other tribes of the Zendjes.

The country of the Zendjes furnishes skins of tawny panthers; the inhabitants use them to clothe themselves, or send them to a Mohammedan country. They are the largest panther skins and the most beautiful to make saddles of. The sea of Zendj and of Abyssinia is on the right side of the sea of India, though these two seas join each other. Tortoise shells are also exported from this country, of which combs are made, in the same way as horn is used for this purpose.

As we have already stated, the Zendjes and the other tribes of Abyssinia spread themselves out along the right bank of the Nile to the extremity of the sea of Abyssinia. Alone among all the tribes of Abyssinians, the Zendjes proceeded along the channel which flows from the larger stream of the Nile and empties itself in the sea of the Zendj. They established themselves in this country, and spread out to Sofala, which is the most distant frontier of the territory and the terminus of the navigation of the vessels of Oman and of Siraf in the sea of the Zendj. Just as the sea of China reaches to the country of Sila (Japan), of which we have already had occasion to speak, so are the limits of the sea of Zendj the country of Sofala and of the Wakwak, a country which produces gold in abundance and other wonderful things. The climate is hot, and the land is fertile. It is there that the Zendjes built their capital; afterwards they chose a king whom they named Waklimi. This name, as we have already seen, has always been that of their sovereigns. The Waklimi has as dependents all the other Zendjian kings, and has command of three thousand fighting men. The Zendjes employ the ox as a beast of burden, because in their country there are neither horses, nor mules, nor camels, and they do not even know of such animals. Snow and hail are unknown to them, as to all the Abyssinians. Among them are some tribes who have their teeth very sharp and who are cannibals. The country of the Zendjes commences at the channel which is derived from the upper Nile, and extends to the country of Sofala and of the Wakwak. Their habitations are spread out over an area of about seven hundred parasangs¹³ in length and breath.

¹² AH – After the hegira (Muhammad's departure from Mecca to Medina in 622AD, marking the consolidation of the first Islam / Muslim community)

¹³ Parasang – Measure of length equal to about 5.5km

This country is formed of valleys, mountains and sandy deserts; it contains many wild elephants, but not even a single tame one is found there. The Zendjes do not employ them in war or for other purposes, and they hunt them only to kill them. When they wish to capture them, they throw into the water the leaves, the bark, and the branches of a tree which grows in their country, then they place themselves in ambuscade until the elephants come to drink. The water burns and intoxicates them, they fall down and cannot rise again, their legs, as we have said, being deprived of movement. The Zendjes attack them, armed with long darts, and kill them in order to take their tusks. It is their country which furnishes those tusks of ivory of which each one weighs one hundred and fifty menn or more. They are usually taken to Oman, and are sent to China and India. That is the course which they follow, and if they were not so forwarded, ivory would be very abundant in the Mohammedan country.

But returning to the subject of which we were treating at the beginning of the chapter, the Zendjes, the description of their country, and of the other tribes of Abyssinia. The Zendjes, although constantly occupied in hunting elephants and collecting ivory, do not employ this material for domestic purposes. Instead of gold and silver they use iron for making ornaments for their persons, just as they use oxen, as we have already stated, as beasts of burden or for war, instead of camels and horses. These oxen are harnessed like horses, and run with the same speed.

In reverting to the Zenjes and to their kings, the name of the king of this country is *Waklimi*, which signifies son of the supreme lord; they designate their sovereign thus because he was chosen to rule over them with equity. Therefor if he exercises a tyrannical power and if he departs from the rules of justice, they put him to death and exclude his posterity from the accession to the throne, for they maintain that by conducting himself in that way he ceased to be the son of the master, that is to say the king of heaven and earth. They give to God the name of *Maklanjalou*, which means the sovereign master.

The Zendjes express themselves with elegance, and there are among them orators in their language. Frequently a devout person of the country, standing in the middle of a numerous concourse of people, addresses an exhortation to his audience in which he calls upon them to do that which is pleasing to God and to be submissive to his commands. He represents to them the chastisements they will make themselves liable to by disobedience, and cites the example of their ancestors and their ancient kings. These people have no religious code; their kings follow custom, and in governing they conform to certain political rules. The Zendjes use as food the banana, which is as plentiful with them as it is in India; but the principle article of their diet is millet and a plant called kalari, which is drawn from the ground like the truffle and the root of the elecampane. It is found in abundance at Aden and in the district of Yemen which adjoins this town, it resembles the colocasie of Egypt and Syria. They consume also honey and flesh. Each one worships whatever he pleases, a plant, an animal, or a mineral. They possess a large number of islands in which the cocoa palm grows, the fruit of which is one of the articles of food of all the tribes of Zendjes. One of these islands, situated at a distance of one or two days' journey from the coast, contains a Mohammedan population among whom royalty is transmitted. This is the island of Kanbalou, of which we have had occasion to speak in this work".

But relationships between the African population or the Zendj and the Arab / Indian trading community were not always peaceful, Masouri recounts such an incident (after Theal 1910):

"Under the caliphate of Moutazz, in the year 252 of the hegira, the first symptoms of discord between the Bellalites and the Saadites appeared at Bassorah, and the revolt of the chief of the Zendj was the consequence of these troubles.

The history of Ahmed, son of Moudebbir, that of Ibrahim, his brother, and the transactions of the latter with the chief of the Zendj when he made him prisoner, present a view of facts of great interest.

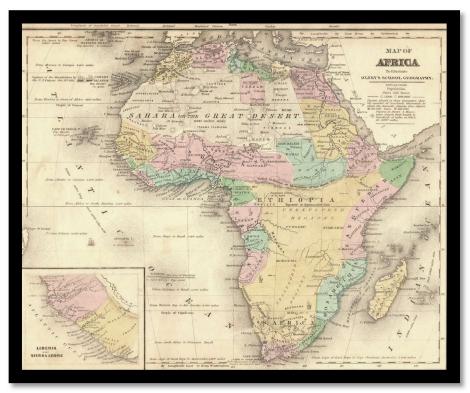
The revolt of the chief of the Zendj broke out at Bassorah in the reign of Mouhtadi, in the year of the hegira 255. This man claimed to be Ali, son of Mohamed, son of Ahmed, son of Yea, son of Zeïd, son of Ali, son of El-Huceïn, son of Ali, son of Abou Talib; but in the general opinion this genealogy was false and should be rejected. He was a native of a village named Verzenên, which was a dependency of the province of Rey. His conduct proved that the accusation against him of belonging to the sect of the Kharédjites named Azrakites was well founded; indeed he killed women, little children, old men, and all those whose lives should have been spared, which proves that the charge was correct... Placing himself at the head of the Zendj, he raised the standard at *Bir Makhl* (the well of the palm tree), between Medinet el-Fath and Kerkh-Basrah, on Thursday the third day of Ramadan in the year of the hegira 255. He made himself master of Bassorah in 257, and was killed on Saturday the second of safer, in the caliphate of Moutamid-Alallah.

On Thursday the third day of the moon of rébi I in the year 258 of the hegira, he (Moutamid-Alallah) bestowed a vestment of honour upon his brother Abou Ahmed Mouaffak and on Mouflih, after which he sent them to Bassorah to fight against the chief of the Zendj. Mouflih, the Turk, gave battle to this chief on Tuesday the twelfth day before the end of djemani I of the same year. Struck by an arrow in the temple, Mouflih died on Wednesday, the next day. His body was conveyed to Samarra, and was buried in that town. Mouaffak then ceased to carry on the contest with the chief of the Zendj.

In the month of safar in the year of the hegira 267 Mouaffak renewed the campaign against the chief of the Zendj. In rébi II he detached his son Abou 'I Abbas to march upon Souq el-Khamïs, or Chârani, one of the towns devoted to the Alevide, that is to say the chief of the Zendj. Abou 'I Abbas made himself master of the place, and of all the spoil it contained, he took several other towns, and put to death all the Zendj that he encountered. On his side Mouaffak entered the province of Ahwaz (Susiane) and repaired there the damages caused by the enemy. He returned afterward to Bassorah, and did not cease to fight against the chief of the Zendj until he killed him. This rebel, whose power lasted fourteen years and four months, had massacred without pity children and aged people, men and women, everywhere he had spread fire and pillage. In a single battle fought near Bassorah, he killed three hundred thousand men.

Mohallebi, one of the principle officers of Ali ben Mohamed (the name of the chief of the Zendj), remained at Bassorah after this battle... As those of his party who remained at Bassorah still held firmly to the opinions of Mohallebi and continued to assemble on certain Fridays, they were outlawed. Some succeeded in saving themselves, the others were killed or were drowned. A large number of them concealed themselves in the houses and the wells; they came out only at night, and hunted for dogs, rats, and cats, which they killed for food, but this resource was soon exhausted, and they found nothing more to eat. Then they devoured the corpses of their companions who died, they watched one another, each waiting for the death of the other, the strongest killed their comrades and devoured them. To these evils the want of fresh water was added.

The insolence of the army of Zendj was such that they sold by auction the women of the family of Hacan, of Huceïn, and of Abbas, the descendants of Hachem, of Koreïch, and of the noblest Arab families. A young girl was sold for two or three dirhams. Every Black owned ten, twenty, and even thirty of these women; they served as concubines to the Blacks, and in comparison with their wives performed the work of the humblest slaves".



Map 2: Map of Africa (date unknown) (https://i.pinimg.com/originals/d9/41/67/d94167ab8735bb5of8cc9b65b1654c61.jpg)



Map 3: The Islamised Areas of Africa circa 1,100AD (El Fasi & Hrbek, 1988)

The Southern Extremity of the Bantu Diaspora

From an ethno-historical point of view, Theal (1910) wrote of the Later Iron Age (LIA) Bantu diaspora south of the Zambezi River:

"As has been seen the territory of Sofala was occupied by Bantu in the tenth century of our era, but how far south that territory extended cannot be ascertained with precision. It is certain, however, that it did not pass the Sabi River, and beyond it the only inhabitants were Bushmen¹⁴, the Wakwak of the Arab writers. Westward its limit was short of the Mashonaland of our day, for down to much more recent times Bushmen alone occupied that border. Whether the tribe mentioned by Masoudi was the modern Karanga is uncertain, though in all probability it was, still it is possible that the first immigrants may have been conquered and exterminated by later intruders.

These Bantu of Sofala were the first of their family to occupy land south of the Zambesi. When they arrived, it is most improbable that on the opposite coast the Hottentots¹⁵ had reached the Kunene.

Some centuries must have elapsed before they were followed by others of their kin. The centre and the western portion of the continent was being gradually occupied, and at length either pressure or war forced other bands to cross the Zambesi and make their way south. These people were the ancestors of the Bakalahari and Balala of our day, and they settled somewhere about the headwaters of the Molopo River, which was then a much larger stream than it is now. From the time of their arrival until the middle of the eighteenth century of our era bands frequently came down from the north, but even now, though they have multiplied at an amazing rate since they have been under the protection of the Europeans, the whole number south of the Zambesi and the Kunene does not exceed seven millions, who represent all the offshoots from the great mass of Bantu in the central zone of the continent.

If tradition can be relied upon, the first immigrants who settled in the territory now called Betshuanaland had large herds of cattle in their possession. They formed a number of little bands independent of each other, who came down in succession. These pioneer parties, being small and weak, tried to fraternise with the Bushmen, and were not molested to any serious extent by those savages. Their quarrels were principally with each other. They built kraals at distances far apart, and cultivated the ground about them, leaving the aborigines in undisturbed possession of the open spaces between. With these they to some extent mixed their blood, and numbers of Masarwa or Betshuana-Bushmen came into existence.

After a time another horde came down from the north. These were the ancestors of the people known to early European visitors, from the name of one of their chiefs, as the Leghoyas, of whom the Bataung living in Basutoland are the present representatives. They were more numerous and better armed than the pioneer bands, upon whom they had no scruple in falling, with the object of seizing their cattle and garden produce. Many of the little communities were broken up and dispersed, some seeking refuge in the desert, where they have since been known as Bakalahari, others remaining as slaves, who were termed Balala or the paupers. The Leghoyas then settled in the country, built villages, and made gardens, just as the pioneers had done.

The hordes migrated slowly, often remaining for two or three years at favourable localities on their way. Some of these stations are mentioned in their traditions, others can be recognized by the materials found on their sites. The Bataung, for instance, used stone for building their huts to a much greater extent than any of the other tribes, and Mr. R.N. Hall has recently discovered close to Bulawayo the ruins of a station of those people that must have been occupied for many years. When the next body of invaders made its appearance, if it was stronger the preceding horde was obliged to move on, but sometimes it migrated from pure love of change, as many of the Betshuana clans have done down to our times.

The next to make their appearance in Southern Betshuanaland were the Batlapin, closely followed by the much more powerful Barolong, who settled for a couple of generations on the northern bank of the Molopo. The antiquaries of this tribe state that their ancestors, in the time of a chief whose name and lineage from father to son to the present day are preserved, left a country on the border of a great lake where at one time of the year shadows were cast towards the north, and gradually migrated southward. About the middle of the eighteenth century the Barolong crossed the Molopo and dispersed the Leghoyas or Bataung, who, however, were able to retreat to the eastward with their cattle, and then the newcomers settled in the country, where some of their descendants are still living. They made their principle kraal originally on the Setlagodi River, but after a few years moved much farther

¹⁴ 'Bushmen' – Wakwak – San

^{15 &#}x27;Hottentots' – Khoe / Khoi (Khoekhoen / Khoikhoi)

on, and occupied the bank of the Hart, where their chief Tao (Lion) established his headquarters at the place ever since called after him Taung, that is the place or residence of Tau. This was the commencement of a feud between the Leghoyas and the Barolong, which was carried on without intermission until after the middle of the nineteenth century, and which was one of the leading difficulties of the government of the Orange River Sovereignty, when Molitsane on the one side and Moroko on the other could not be brought to observe peace.

These Batlapin and Barolong completed the destruction of the pioneer bands, those who had escaped the attacks of the Leghoyas being now compelled to become Bakalahari or Balala, and to live after the manner of Bushmen. They were in the most miserable condition to which human beings can be reduced, they could not even own a jackal's skin, and their lives were regarded by their tyrants as of no more value than the lives of dogs. Whether they were originally less intelligent than other Betshuana, or whether they became stupid and spiritless from oppression and degradation, is uncertain; but when Europeans first visited these wretched people, they were found to be the most abject of all the dwellers in South Africa.

There was no attempt to conciliate the Bushmen, for the newcomers were too strong to fear their hostility. Girls of that race were taken by the Batlapin in the same manner as by the Hottentots, but against all others relentless warfare was waged. The Betshuana were armed with long bows, and soon learned to poison their arrows; they used also the assegai and battle-axe, and protected their bodies with a diminutive shield. In a fight on the open plain the aboriginal savages had no chance whatever, though when attacked on a mountain or among rocks they often managed to beat off their assailants. Still the country was so large, the Bantu invaders were as yet so few in number, and their settlements were so far apart, that the Bushmen could not be entirely exterminated. At the beginning of the nineteenth century they were still numerous in the territory that then began to be known as Betshuanaland, and there are still a few to be found in the desert.

In the fifteenth, sixteenth and seventeenth centuries, when these events were taking place, the country north of the Orange and east of the Kalahari was moister than it is at present. For some unknown reason it has gradually become drier since Europeans became acquainted with it, and the process must have been going on long before the first white man made his appearance there. The traditions of the Betshuana are not needed to confirm this fact: The dry beds of ancient rivers and the remains of luxuriant vegetation are ample evidence. It is very possible indeed that the Betshuana, by frequently burning the grass and destroying the great forests of camelthorn trees they found in the territory, hastened the process of desiccation.

After the Barolong other tribes of the same family came down, notably the Bakwena, whose branches in course of time spread over the whole country south of the Waterberg and the Olifants' River eastward to the Kathlamba and down nearly to the Orange. These people, whose siboko is the crocodile¹⁶ and who in former times venerated that reptile because they believed that the spirits of their ancestors appeared to them in this form, constitute the largest section of the Bantu family in South Africa at the present day. The majority of the Basuto tribe of our time are Bakwena, so are the Bahurutsi, the Bangwaketse, the Bamangwato, and very many others. The present Bakwena tribe is merely a small section of this great family, and took its name not from that circumstance, but from its chief at the time of its formation as an independent body being named Kwena. At the close of the sixteenth century there were Bakwena living north of the Zambesi, but whether they were the pioneers of that branch of the Bantu family, or stragglers left behind on the march southward, cannot now be ascertained. The Dominican friar Dos Santos, who was living on the Zambesi at the time, gives the following particulars:

'Below these mountains of Lupata, close to the river on the eastern side facing the lands of Mongas, is a fine lake, three leagues in circumference and very deep, in the middle of which is an island very lofty and craggy, about a thousand yards in circumference... The Kaffirs¹ call this lake Rufumba. It is of fresh water, abounds with good fish, hippopotami, and very large crocodiles. On its edge is a grove called by the Kaffirs Tshipanga, thickly wooded with shady trees. The Kaffirs who live in the vicinity of this grove bury their dead there, and it is looked upon by all as a very sacred place, the principle reason of this being that the crocodiles of the Rufumba stretch themselves in the sun on its borders according to their custom, and the Kaffirs imagine that the souls of their dead go into the crocodiles and frequent this lake, for which reason they frequently throw food at them on the borders of the grove.'

The various tribes who settled in the country along the eastern border of the Kalahari were consequently at war, plundering one another of cattle, yet they increased in number at a marvellous rate. Their battles were not attended with much loss of life, and every female on arriving at the age of womanhood began to bear children. Each tribe

¹⁶ Crocodile – Or alligator interpreted as crocodile

¹⁷ Kaffirs – Bantu

lived by itself in a town of from five to fifteen thousand inhabitants, around which extended to a great distance gardens of millet, beans, watermelons, and sweet cane. Beyond these their horned cattle, sheep, and goats were herded, many of which were also kept at distant locations and brought in as needed. The towns required to be moved frequently. The garden ground would become less productive after three to four crops had been taken from it, and owing to the want of even the simplest sanitary arrangements the town itself would become offensive. Then another site would be selected, and on a fixed day the whole population would march to it and begin to erect huts and enclosures, each family taking its position in the new village exactly as in the place abandoned.

After the Bakwena the next to come down along the central plateau were the Bavenda group of tribes, who arrived on the southern bank of the Limpopo about the close of the seventeenth or the beginning of the eighteenth century. According to their own traditions they migrated from the lower basin of the Congo, but there is sufficient evidence in their language and their customs to prove that they do not belong to the western branch of the Bantu family. Their affinities with the Bakwena group are in many respects so close that they must have separated from them at no very remote time, and it is impossible to doubt that they were first driven to the lower Congo basin from some region far to the east. The scattering of the remnants of tribes in the destructive wars towards the close of the sixteenth century, as related in the records of the Portuguese on the Zambesi, must have been in every direction, east, west, north, and south, just as in the dispersions caused by Tshaka.

It is not improbable that these people were the same as those termed by the Portuguese Cabires, who laid waste the territory between the Zambesi and the Limpopo soon after the Abambo and some of the Amazimba passed southward through it. This is mere conjecture, however, for there are no means of tracing either the origin of the fate of those Cabires who were so destructive to the Makaranga. If they and the Bavenda were the same, they must have roamed around the southern portion of what is now Mashonaland for many years before crossing the Limpopo. According to their traditions, the Makaranga were subject to the greatest of their chiefs, which seem to point in that direction.

Before the wars of Tshaka the Bavenda occupied the whole of what is now the district of Zoutpansberg. In those wars they were dispersed, but after the emigrant farmers from the Cape Colony drove Moselekatse to the north, the fugitives who survived began to collect together again under the chief Mpofu and others, and settled once more in parts of the district from which they had fled. On the death of Mpofu, his sons Ramovana and Ramapulana fought for chieftainship. The emigrant farmers under Commandant-General Hendrik Potgieter assisted Ramapulana, and secured the position for him, but as a vassal of their government. From that time that section of the Bavenda has been commonly known as the Baramapulana, but it was of hardly any importance until the accession in 1864 of Magadu, son of Ramapulana, to the chieftainship, which he held until his death in 1895.

Among many other sections of less note of this branch of the Bantu family are the tribes which have as their chiefs men with dynastic titles of Pafuri and Tshivasa, and which also occupy land in the Zoutpansberg district.

The reverend Mr. Hofmeyer, a missionary for twenty years among these people, states in his volume issued in 1890 that they are able to make out the meaning of an address in Sesuto, and that he has seen among them wooden images, such as are found in use by some of the Betshuana. This establishes their affinity with the Bakwena, and proves them to be of East African origin. But he has also ascertained that they venerate sticks stuck in the ground, such as those used by the Ovaherero to represent their ancestors, which seem to prove that their traditions of having migrated from the lower basin of the Congo are correct. Their religion is ancestral spirit worship, like that of all other Bantu, but sacrifices to the shades of the dead are more frequent, and food is commonly placed upon graves. Some other differences exist between these people and the Bakwena, but none of much importance.

The last to move down from the distant north to the territory below the Limpopo was the little tribe termed the Bakwebo, which arrived, it is supposed from the lower Congo basin, shortly after the middle of the eighteenth century. This is the tribe governed in our time by the chieftainess Madjaji, about whom there was supposed to be much mystery, as she was kept carefully concealed from strangers. There is no special difference, however, between these people and their neighbours, and their language is merely a link between Tshevenda and Sesuto.

The eighteenth century was far advanced before the Betshuana crossed the Vaal River. The Bataung, who had been compelled to flee from the Barolong, set their faces south-eastward from their former home on the Setlagodi, crossed the Hart and the Vaal, and took up their residence along the upper course of the Vet River. In their new settlement they were attacked by some offshoots of the Bakwena, by whom they were robbed of many of their

cattle. These enemies passed onward, however, without completely destroying them, and settled along the upper banks of the Caledon, where they were joined at a later date by many others.

In 1505 when the Portuguese formed their first settlement on the south-eastern coast, the Makaranga tribe occupied the territory now termed Mashonaland and the seaboard between the Zambesi and Sabi rivers. Before the commencement of the eighteenth century that tribe was broken up by war, and about that time a considerable immigration began to set in from the north. The immigrants, who were the ancestors of most of the people now called by Europeans Mashona, came down from some locality west of Lake Tanganyika in little parties, not in one great horde. The first to arrive was a clan under a chief named Sakavunza, who settled at a place near the present town of Salisbury.

The details of this immigration were not placed on record by any of the Portuguese in the country, who merely noticed that there was a constant swirl of barbarians, plundering, destroying and replacing one another; and when recent investigators like Mr. R.N. Hall, of Zimbabwe, and Mr. W.S. Taberer, the government commissioner, endeavour to gather the particulars from the descendants of the immigrants, it was found to be impossible to obtain more accurate information from them concerning the events of distant times than the general fact that their ancestors came down from the north about two centuries ago. Messrs. Hall, Taberer, and other inquirers state that their proper designation is Baroswi, or Barotsi, and that they constitute a very large proportion of the population of what is termed Mashonaland at the present day.

The large number settled in the territory now termed Matebeleland, where they remained until 1834, when Moselekatse began to send raiding parties in their direction. Then all those nearest the Matebele kraals, without waiting to be attacked, fled eastward, those farther north, that is the section now under Lewanika, having already been conquered by the Makololo under Sebetoane, who had taken part in the murderous career of the Mantati horde, and subsequently forced their way up from the Bakwena country. The unfortunate Makaranga, who had suffered terribly under the iron rod of the Angoni and the Matshangana, were then still further crushed until they and the Baroswi alike were brought under subjection by the Matebele.

After the arrival in the territory south of the Zambesi the Baroswi not only carried on war against the earlier inhabitants, but among themselves one clan was constantly pillaging another, so that discord and strife was perpetual. There was no paramount power over all, every chief who was strong enough to hold his own being absolutely independent of every other. In this turmoil the aborigines almost completely disappeared, for the Bantu, at variance with each other concerning other matters, were united in endeavouring to exterminate them.

Clans of the Baroswi family continued to migrate from the distant north into the territory that is now Rhodesia until the close of the eighteenth century. In some respects, though not in any matters of importance, they differed from the earlier Bantu immigrants. Thus their custom was to dry the dead bodies of men of note before enclosing them in hides for burial, which made the corpses appear like mummies. Girls, when mere infants, were contracted in marriage, though the husband could not claim them until they were capable of bearing children.

Some other customs which are commonly considered as peculiar to them are observed by many other Bantu in South Africa. Such, for instance, is the putting to death of twin children, through fear that if they were allowed to live they would try to displace the chief, and of girls who cut their upper teeth first, under the belief that if they were permitted to grow up any man marrying them would immediately die. Their law of inheritance also, which provides that when a man dies his principle son takes all of the widows except the one who bore him, is common to many other of the interior tribes. So is their skill in weaving loin cloths of wild cotton or making them of bark, and in carving wood, as well as their knowledge of building rough walls of unhewn stone.

They differ from the Makaranga in personal appearance, having coarser features and being blacker in colour and somewhat stouter in build. There is no other tribe in South Africa which has so many individuals bearing traces of Arab, Persian and Indian blood as the Makaranga, which is due to the long continuance of Asiatic intercourse with them in past times. All who have dealings with them state that, though now spiritless and deranged from constant strife and oppression during more than two centuries, they possess greater latent power of advancement, especially in mechanical arts, than any other Bantu in the country.

On the eastern coast, south of the Makaranga and extending now even farther than the Fish River, are to be found the sturdiest and most warlike of all the Bantu in South Africa. The numerous tribes into which they have been divided since Europeans became acquainted with them are so closely related to each other in language and customs

that they must have formed a community by themselves at no very distant date, and as some of them crossed the Zambesi only a little before the close of the sixteenth century, the others cannot have long preceded them. This section of the Bantu came from some locality on or near the western coast, so that their route of migration crossed that of the Betshuana like that of the letter X.

It is not only from the traditions of these people that it is known they have come down from the country beyond the Zambesi in recent times. Tradition can never be entirely depended upon in such matters, and from it no dates could be obtained, five hundred years or three hundred years would be indistinguishable from each other. It is exceedingly vague also, and no antiquary among the tribes is able to give any particulars whatever concerning events during the migration. They can give the names of chiefs for a period of perhaps three hundred years, but are quite ignorant of what the earlier ones did or where they lived and died. In short, any occurrence that they give on account of dating back longer than a century and a half must be regarded as doubtful, unless supported by other evidence, and even their relations of more recent events must be carefully looked into and compared with those from rival tribes.

Fortunately other evidence is available in this case. In 1498 the first Portuguese fleet that crossed the Indian sea touched at the mouth of the Limpopo River, and on board one of the ships was a man, Martin Affonso by name, who could speak several dialects of the tribes on the western coast. This man was able to make himself understood by some of the people on shore, who, as the chronicler Damião de Goes states, must have been strangers from some part of Guinea.

Recent immigrants they certainly must have been, and they must have come from the western coast, or a man understanding only dialects in use there could not have conversed with them. They were Batonga, and on their way across the continent they dropped sections behind, particularly on the south bank of the Zambesi, where the descendants of those offshoots are to be found today. That is all the information obtainable now upon the first billow of Bantu invaders that rolled over the continent from north-west to south-east, and that subsided on the shore of the Indian sea between the Sabi River and Delagoa Bay. What set that billow in motion, what havoc it wrought on its way, what time it took on its course, are all among the unknown particulars of the past. Nothing more can be said with certainty than that the Batonga of the Zambesi Valley and of the eastern coast arrived there some time during the fifteenth century.

The whole number of these immigrants was very small, but they were strong enough to exterminate or drive away the aborigines from the localities where they settled. They practised agriculture, though not so extensively as the Betshuana, depending for subsistence more upon their cows and goats than upon vegetable food. They smelted iron, which they wrought into implements such as assegai heads, axes, knives, and hoes, coarser and clumsier than those made by the Makaranga and Betshuana tribes.

Of the next Bantu to make their appearance on the eastern coast very little definite information can be given. As they spoke the same dialect, however, as those that arrived towards the close of the sixteenth century, as their siboko was the same, and as all their leading customs were similar, they must have been members of the same community proceeding in advance of the main body. Such migrations can only be accomplished slowly, as halts are made for years at convenient places along the line of march. Then a party coming on behind arrives, and the one in advance is obliged to move on. At last the shore of the ocean is reached, and as progress in the previous direction is now barred, the future line of advance must be either up or down the coast. When the ancestors of the Xhosas, Thembus and Pondos reached the sea, the coast to the north was already occupied by the Batonga, so they turned to the south, and entered the territory now known as Natal. Vestiges of their sojourn in that region could be found there after the middle of the nineteenth century.

They had scattered themselves thinly along the coast as far south as the mouth of the Umzimvubu River, towards the close of the sixteenth century their numbers were greatly increased, and an impetus was given to the movement southward by an interruption from the far distant north-west into the lower valley of the Zambesi of devastating bands that pillaged and destroyed all the weaker clans in the line of march. When other food could not be procured, these invaders resorted to cannibalism, and at length became so accustomed to eat human flesh that they consumed it as an ordinary article of diet. One of the largest of these bands was termed the Amazimba, and to this day the word zim with the southern Bantu denotes a cannibal. It enters largely into folklore tales, and is commonly used to frighten disobedient children. This band drove before it a horde of fugitives composed of the remnants of numberless tribes plundered and partly destroyed on the way from the Atlantic shore, and that collectively was known as the Abambo.

Just as with the Mantati horde and the Amangwane two centuries and a quarter later, the Abambo and the Amazimba were partly destroyed by starvation and partly by incessant war, but some remnants forced their way in murderous marches through the earlier settlements to distant localities, where they remained and built permanent kraals. A considerable remnant of the Abambo horde in this manner cut its way through the western part of the territory occupied by the Makaranga, and finally settled in the valley of the Tugela and in the territory farther south. On its march it had incorporated a large number of Karanga girls, and probably of boys also, so that at least one section of it was largely affected by this mixture of blood. To the present day this section – the Amazizi – show abundant signs of Karanga ancestry, and are as a rule more intelligent than any of their neighbours. By other tribes they were even often termed Amalanga on this account. The occupation of Natal by the Abambo compelled the pioneers of their family to move farther along the coast, and very likely these were joined by many little offshoots from the main body. The Xhosas, Thembus, and Pondos still term Natal Embo, that is the country of the Abambo.

Sometime after its settlement in Natal the horde broke up into many communities independent of each other, between which rivalries and feuds broke out just as everywhere else among the Bantu. These new tribes were probably the remnants of older ones that had been broken up and pressed into the horde on its journey across the continent, but which still retained their former titles and regarded their separate existence as a matter of common usage and right.

The Portuguese, who occupied stations at Sofala, Sena, and Tete at this time, give no direct information upon the occupation of Natal by the Abambo. Very likely they knew nothing of what was going on at a distance from their forts, just as the Cape government and colonists knew nothing at the time of the career of the Mantati horde or of Sotshangana or Moselekatse. Or if rumours of terrible destruction being caused inland by a horde of ferocious invaders ever reached them, they were too much taken up with their own disasters to pay attention to them. Even of the section which they termed the Cabires, that gave them much trouble, they placed very little information on record. It is from them, however, that we learn that in 1570 the Abambo horde made its first appearance on the northern bank of the Zambesi above Tete, that there were then very few Bantu inhabitants south of the Umvolosi River, and that after 1600 Natal had a considerable population. The traditions of all the tribes that they came down from the north may not count for much, but they cannot be altogether passed over. A much stronger proof of the recent occupation by Bantu of the country south of the Sabi River is the fact that the Arabs never attempted to form a station there. They were among the very keenest traders in the world, but south of the Sabi were only Wakwak or Bushmen, so nothing was to be bought or sold there. In 1505 the Portuguese wrested Sofala from them, but they never thought of sending a trading party south of Delgoa Bay before the interruption of the Abambo, and then the days of their enterprise and vigour were gone for ever.

The remaining tribes on the south-eastern coast, that is those between Natal and Delagoa Bay, may have occupied that territory at the same time as the Abambo settled in Natal, or they may have arrived there at a little later date. They are the same in language and generally in customs, and there is nothing unlikely in the supposition that they were part of the same horde that had lagged somewhat behind. But it is possible that they were connected with the Amazimba, who, though pursuing the Abambo, were themselves fugitives from some stronger power in the locality from which they set out on their murderous career. Before the time of Tshaka the Abatetwa were the most prominent people in that part of South Africa, and at the beginning of the nineteenth century they were under a chief of note named Dingiswayo.

A man who claimed to be the grandson of Dingiswayo by one of his inferior wives, and who had received sufficient education to be able to write English fluently, in 1883 drew up an account of his tribe, which was forwarded to the author of this volume by a friend interested in South African history. It assigns to the Abatetwa a position of greater importance than they really filled, in as much as it claims paramountcy for them from the time of their arrival in Zululand over every other tribe in South-Eastern Africa, including even the sections of the Abambo. But this is in perfect keeping with all narratives of the kind from Bantu antiquaries, who invariably represent their own chiefs as more glorious than any others, and it need not be taken into consideration.

The writer of the account says that the Abatetwa were driven across the Zambesi from some place far away in the north or north-west by their neighbours the Komanti and the Ashongwa, and he puts their arrival in Zululand at the time of the great grandfather of Dingiswayo. Of the earlier history of the tribe, or even the names of its remote chiefs, his own ancestors, he had been unable to obtain any information that he could depend upon. Of its career on the march he says nothing, but pictures it as conquering all around it upon its arrival in Zululand, which country he is therefor of opinion ought to be regarded as rightly belonging to it. Such a narrative, however, is not to be strictly depended upon, and in some of the particulars given, such as, for instance, the date of the arrival of the

Abatetwa, it is certainly erroneous; but it corroborates the general tradition of a not very remote migration of the tribes now living in Zululand from some far distant locality.

When the pioneers of the Bantu crossed the Umtamvuna they encountered the earlier Hottentot occupants, who were themselves recent immigrants, and who had largely mixed their blood with that of the aboriginal Bushmen. These were too feeble to resist the advancing wave from the north, and therefore met with the fate of the weaker everywhere in Africa. The males were exterminated, and the females were incorporated with the conquerors. Through this amalgamation the language of the tribes in advance was greatly affected, three of the Hottentot clicks being introduced – chiefly in words pertaining to the occupations of women, - and even the character and appearance of the people underwent a change. It is this mixture of Hottentot and Bushman blood that makes the difference between Xhosa or Thembu and the Hlubi of our day. Originally they were in every respect identical.

Along the coast the Bantu settlements were denser than in the interior, but south of the Tugela River in general only the terrace adjoining the sea and the one next to it were occupied. From these the Bushmen were entirely driven, but in advance of the migrating Bantu they massed in as great numbers as could obtain food, and held their own until the beginning of the eighteenth century, some indeed until nearly a hundred years later. They were numerous in the territory between the Kei and Keiskamma when Rarabe, a chief who was well known to Europeans on the eastern frontier of the Cape Colony, entered that district. They stole and killed his favourite racing ox, which so incensed him that he gave orders for their destruction, and was not appeased until none were left. On the plateau adjoining the Kathlamba from the Tugela to the Fish River they were not disrupted, except by occasional parties of men sent to punish them for committing robberies in the lowlands, and there they remained until long after the British conquest of the Cape Colony.

On the western coast the Bantu occupation is still more recent than on the south-eastern. The first small horde that appeared there was subdued by the Hottentots, and forced to adopt the language and customs of its conquerors. These are the people now called Berg Damaras by Europeans and Ghou Damara by the Namaquas – Haukoin they term themselves, - who are Bantu or possibly negro by blood, and live like Bushmen almost entirely on game, insects, reptiles, and wild plants. They hardly ever attempt to cultivate the ground, and when they do, it is only to plant watermelons of the wild variety and dacha for smoking, which they use to great excess. Their habitations are made of a few branches of trees or shrubs, not always covered with mats, and their weapons and implements are of the crudest kind.

At length the Hottentots moved further southward, and left them behind. They were then attacked by the Ovaherero, a purely pastoral and nomadic tribe, who came down from the north, drove them into the mountains of what is now southern Damaraland, and occupied the plains themselves. The reverend C. Hugo Hahn, of the Rhenish missionary society, who was for many years a resident with the Ovaherero and collected their traditions, states that they can only with certainty be tracked back to a locality somewhere in the neighbourhood of the Zambesi below the Victoria Falls. From that locality they migrated westward with great herds of cattle and flocks of sheep, and then turned to the south, crossing the Kunene a little before the middle of the eighteenth century. After passing the Kaoko, they met the Haukoin or Ghou Damara, who fled from them to the mountains. They next encountered clans of the Namaqua Hottentots, whom they fought with and gradually drove far to the southward.

This war with the Hottentots lasted many years, and occasionally the Ovaherero would be beaten and driven back for a time, it was found to be the case in 1792 by the expedition from the Cape Colony which penetrated the country in that year. But occasional reverses were followed by successes until Oasib, chief of the Hottentot tribe called the Red Nation, applied to Jonker Afrikaner for assistance. Jonker was the son of that Jager Afrikaner who was a widely dreaded freebooter at the beginning of the nineteenth century, and who was more widely known at a later date as having in his old age become a convert to Christianity. Jonker followed the career of his father very closely. At this time he was living on the bank of the Orange River, but as soon as the request from Oasib reached him, he and his followers set out to join in the fray. The tide of fortune then turned, and the Ovaherero were speedily driven back to Zwakop, which riverbed was afterwards regarded as the boundary between the two peoples. This was the condition of things when in 1814 the reverend H. Schmelen, of the London Missionary Society, arrived in the country and commenced work there among the Namaquas.

After they crossed the Kunene the Ovaherero threw off a section, which took the name Ovambanderu and became quite independent, and from both of the tribes numbers of individuals who were without property of any kind moved away to seek food like Bushmen. These destitute persons are called Ovatyimba, and form distinct communities. Of all the inhabitants of South Africa, the Ovaherero and their offshoots have the reputation of being

the most heartless and unfeeling towards each other, hence the condition of the Ovatyimba. These people differ in many respects from the Bantu of the interior and the eastern coast, though they are of the same family and speak a dialect of the same language. They do not practise agriculture, but depend for sustenance upon wild plants and their horned cattle and sheep. Some of their peculiar customs will be described farther on, which will show them to be less advanced than the other members of their family.

The Ovaherero were preceded by the Avare group, of which the Ovambo tribe is the best known. This group consists of eleven distinct tribes, who occupy a small tract of land south of the Kunene River some distance from the coast. These people were industrious agriculturalists, breeders of cattle, and workers in iron. They sink wells, sometimes thirty meters in depth, manufacture many useful articles, and are altogether far in advance of their southern neighbours. They are believed to have migrated from the valley of the Congo River, but the exact locality is unknown. Their dialect differs considerably from that of the Ovaherero, though there are strong reasons for supposing that the last-named people migrated from the same valley to the neighbourhood of the Zambesi some time before their removal to their present home. North of the Avare group the tribes need not be mentioned, as they live beyond the territory to which these pages are limited.

Along the western coast, north of the Zwakop River, the Ovaherero, like all the other invaders, attempted to exterminate or drive out the Bushmen. Pastoral communities and wild hunters could not exist side by side. But they did not entirely succeed, for the nature of the country is such that escape to barren and waterless parts was comparatively easy. The Kalahari desert lay on the east, into which the weaker party could retreat when hard pressed, without danger of successful pursuit. And so it happens that Bushmen are still to be found in what is now German South-West Africa, though not in any considerable number.

The invasion of the Bantu did not at first affect the Hottentots, except at the extremities of the thin line they occupied along the coast, for nowhere else did they come in contact.

All of the tribes and people dealt with in this chapter, together with their kindred who possess a vast extent of Africa north of the Kunene and Zambesi Rivers, are now usually termed the Bantu, in accordance with a proposal of the late Dr. Bleek. They had no word except tribal names to distinguish themselves from other races, ntu in their language meaning a human being or person of any colour or country; but ethnologists felt the want of a specific designation for them, and adopted this as a convenient one. In the division of mankind thus named are included all those Africans who use a language which is inflected principally by means of prefixes, and which in the construction of sentences follows certain rules depending upon harmony of sound.

Before the Bantu tribes migrated to Africa south of the Zambesi great differences existed between them, and there was a tendency for these differences to increase after their settlement where Europeans found them. Intercourse between the different sections was restricted, as in general each tribe regarded its neighbour with jealousy, and each group of tribes of recent common origin looked upon every other such group as enemies. Besides the change which takes place in all written languages in the course of even a few generations, there was a habit with some of these tribes which hastened the variation, and therefor made intercourse more difficult. This was the *hlonipa* custom, by which women were obliged constantly to invent new words, so that each dialect changed in a different manner from all others. The structure of the dialects remained the same, but the words used by a Thembu, for instance, could not be understood by a Morolong or an Omuherero. An educated European can at once see that the great majority of the roots in all the dialects is the same, and that there is consequently but one language; but the people who used those dialects were unable to detect this.

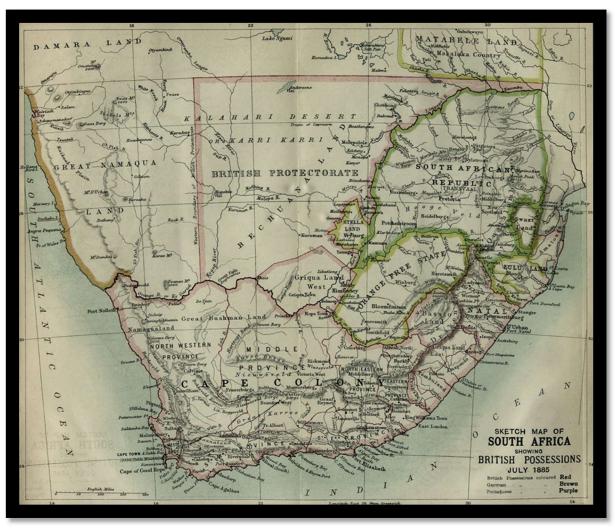
A change of speech was followed, though much more slowly, by change of customs and ceremonies, and even by dissimilar modifications of religious belief. Long intercourse with Arabs, Persians, and Indians resulted in a great advance in the mental condition of the eastern tribes over those of the west.

For general purposes the tribes can be classified in the three groups already mentioned as migrating to the southern portion of the continent by separate routes – from the coast of Guinea south-eastward, from what is now German East Africa south-westward, and from the Congo basin southward, - though there are many trifling differences between the various branches of each of these. In the first group can be placed those along the eastern coast south of the Sabi River, and those which in recent times have made their way from that part of the country into the highlands of the interior. The best known of these are the Amaxhosa, the Abathembu, the Amampondo, the Amabaca, the Amamfengu or Fingos, the whole of the tribes in Natal, the Amazulu, the Amaswazi, the Amatonga,

the Magwamba, the Matshangana, and the Matabele. This group can be termed the eastern coast tribes, though some members of it are now far from the sea.

The second group can include the tribes that at the beginning of the nineteenth century occupied the greater part of the interior plain north of the twenty-ninth parallel of latitude, and came down to the ocean between the Zambesi and Sabi Rivers. It will include among many others the Batlapin, the Batlaro, the Bakatla, the Barolong, the Bahurutsi, the Bangwaketse, the Bakwena, the Bamangwato, the Batawana, the Bavenda, the Bapedi, the Makaranga, the Baroswi, and the Basuto. This group can be termed the interior tribes.

The third will comprise the Bantu living between the western part of the Kalahari desert and the Atlantic ocean, who may be termed the western coast tribes. These are very recent immigrants, and before the beginning of the twentieth century had no influence upon South African history. They differ in many respects from their eastern kindred, being blacker in colour, coarser in appearance, and duller in intellect than the others, if an average be taken. The dialects spoken by them are also more primitive. It will not be necessary to describe the people of this section as fully as the others, but the principle points of difference will be given for comparison."



Map 4: Map of South Africa, 1885AD (http://www.samapsandflags.co.za/Links%20Page%20Docs/Download%20Maps/A2south_africa_1885.jpg)

Chris Barnard & Hamilton Naki

CHRIS BARNARD

"Christiaan Neethling Barnard (1922 – 2001) was a South African cardiac surgeon who performed the world's first humanto-human heart transplant operation and the first one in which the patient regained consciousness. On 3 December 1967, Barnard transplanted the heart of accident-victim Denise Darvall into the chest of 54-year-old Louis Washkansky, with Washkansky regaining full consciousness and being able to easily talk with his wife, before dying 18 days later of pneumonia. The anti-rejection drugs that suppressed his immune system were a major contributing factor. Barnard had told Mr. and Mrs. Washkansky that the operation had an 80% chance of success, a claim which had been criticized as misleading. Barnard's second transplant patient Philip Blaiberg, whose operation was performed at the beginning of 1968, lived for a year and a half and was able to go home from the hospital.

Born in Beaufort West, Cape Province, Barnard studied medicine and practised for several years in his native South Africa. As a young doctor experimenting on dogs, Barnard developed a remedy for the infant defect of intestinal atresia. His technique saved the lives of ten babies in Cape Town and was adopted by surgeons in Britain and the United States. In 1955, he travelled to the United States and was initially assigned further gastrointestinal work by Owen Harding Wangensteen. He was introduced to the heart-lung machine, and Barnard was allowed to transfer to the service run by open heart surgery pioneer Walt Lillehei. Upon returning to South Africa in 1958, Barnard was appointed head of the Department of Experimental Surgery at the Groote Schuur Hospital, Cape Town.

He retired as Head of the Department of Cardiothoracic Surgery in Cape Town in 1983 after developing rheumatoid arthritis in his hands which ended his surgical career. He became interested in anti-aging research, and in 1986 his reputation suffered when he promoted *Glycel*, an expensive 'anti-ageing' skin cream, whose approval was withdrawn by the United States Food and Drug Administration soon thereafter. During his remaining years, he established the Christiaan Barnard Foundation, dedicated to helping underprivileged children throughout the world. He died in 2001 at the age of 78 after an asthma attack..." (en.wikipedia.org/wiki/Christiaan_Barnard).

HAMILTON NAKI

"Hamilton Naki (1926 – 2005) was a laboratory assistant to cardiac surgeon Christiaan Barnard in South Africa. He was recognized for his surgical skills and his ability to teach medical students and physicians such skills despite not having received any formal medical education, and took a leading role in organ transplant research on animals.

A controversy arose after his death in that at least five periodicals and the 'Associated Press' retracted statements in their obituaries of Naki that claimed he had participated in the world's first human-to-human heart transplantation in 1967, the incident has been cited as an example of inadequate fact checking by the newsmedia and delayed corrections of the errors..." (en.wikipedia.org/wiki/Hamilton_Naki).



Plate 4: Chris Barnard (1922 – 2001) (en.wikipedia.org/wiki/Christiaan Barnard)

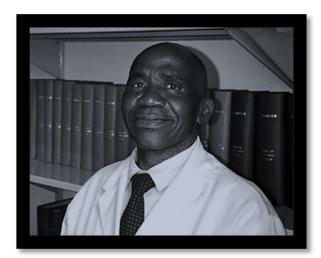


Plate 5: Hamilton Naki (1926 – 2005) (en.wikipedia.org/wiki/Hamilton Naki)

5) Conclusion and Recommendations

South Africa is a country with a long, complex and multifaceted past. In South Africa, at the COHWHS (Gauteng, North-West and Limpopo provinces), the unravelling of early hominin origins and evolution is characterized at around 3,3Mya with Australopithecus Promethius, the StW-573 or "Little Foot" skeleton from Sterkfontein Member 2 – the most complete Australopithecus skeleton discovered to date (Whittles 2017). Sterkfontein Members 4-5 have yielded the world's richest collection of fossils remains dating to the period 3,5-1,5Mya, with information complimented by fossil finds from the other sites, sketching the complex story of both the gracile australopithecines and their robust counterparts, the paranthropines, and with early Homo, evidenced by a rare H. ergaster fossil at 1,8Mya (Mitchell 2000). Infrequent later period fossil evidence extends to H. Naledi of the Rising Star Caves at 335-236kya (Greshko 2017). At the COHWHS evidence of stone tool manufacture is present at around 2,0Mya for the Oldowan and at roughly 1,8Mya for the Acheulean Industries of the Earlier Stone Age (ESA). Exactly who were responsible for the production of these, Paranthropus or Homo, is still unknown, most likely Homo. At Wonderwerk Cave in the Northern Cape the earliest date for Acheulean lithic artefacts have been confirmed at 2Mya. These hominins also made fire, confirmed at Wonderwerk Cave at 1Mya, whilst evidence from the COHWHS indicates the probable use of anthropogenic fire at around 1,4Mya (Horwitz & Chazan 2015; Mitchell 2000).

At around 180kya *Homo sapiens* made their appearance on the cultural landscape, evidenced in South Africa by fossil finds from the Klasies River Mouth (Eastern Cape) and Border Cave (KwaZulu-Natal) sites. These early human finds are associated with Middle Stone Age (MSA) artefacts, characterised by flake and blade lithic technology. By 40kya *H. sapiens sapiens* are widespread across the South African cultural landscape, generally associated with the package of 'cultural modernity', the symbolic use of space and material culture to define social relationships, including groupings based on kinship, gender, age or skill and reflected in a more complex material culture (Wadley 2001), and directly with the more complex and refined lithic technology of the Later Stone Age (LSA). The LSA continued in South Africa until recent times, 4950AD. Later LSA peoples, collectively referred to as the KhoiSan include both San hunter-gatherer and Khoe / Khoi (Khoekhoen / Khoikhoi) pastoralist groups (Mitchell 2000). For purposes of this Heritage Crime report it is important to state that fire formed part of the cultural suite throughout the Stone Age, from the Earlier (ESA) to the Middle (MSA) to the Later Stone Age (LSA).

The current peopling of South Africa is reflective of the majority having had largely replaced the original LSA or KhoiSan peoples over a period covering the rough past 500 years (but in cases as recent as 150-200 years), with, though simplified, specific reference to the Later Iron Age (LIA) influx of Bantu speaking peoples from the north (Huffman 2007; Theal 1910) and European settlement from the south, first by the Dutch in 1652, and by the British from 1795 / 1806 onwards (Giliomee & Mbenga 2007). To reconfirm, fire formed part of the cultural suite of both LIA Bantu speaking peoples and European emigrants (Britannica.com/topic/slash-and-burn; Leibrandt 1897).

The past 500 years of South Africa's pre-history and history can be described as troublesome at best: Marred by conflict, wars and the large-scale displacement of peoples, the eking out of a livelihood by survivors, often within a heavily deteriorated or new social grouping, and more than often in a new environment, with or without impact on another peoples territory. Cultural practices of the past included both slavery and subversion, the results of which are still prevalent in contemporary communities, of both victors and victims. It is this cultural complexity that the National Heritage Resources Act, Act No 25 of 1999 (NHRA 1999) are cognisant of in its emphasis on a reconciliatory and consultative approach towards the conservation and protection of these diverse cultures, of both the present and the past.

* * *

The Heritage Crime reported on here centres on, and started with a tweet by Ms. Mandela, at the time of the incident a member of the ruling African National Congress (ANC) and the South African ambassador to Denmark. The tweet referred to, dated 13 June 2019, reads as follows:

"When you came here without land you found the original people making fire. Next you'll claim you taught us. Just like Chris Barnard learnt the basics of heart surgery from his Black gardener. What you're good at is fantasy #Sterkfontein" (With the 'Black gardener' referring to Hamilton Naki).

The preamble of the NHRA 1999 states:

"This legislation aims to promote good management of the national estate, and to enable and encourage communities to nurture and conserve their legacy so that it may be bequeathed to future generations. Our heritage is unique and precious and it cannot be renewed. It helps us to define our cultural identity and therefor lies at the heart of our spiritual

well-being and has the power to build our nation. It has the potential to affirm our diverse cultures, and in so doing shape our national character.

Our heritage celebrates our achievements and contributes to redressing past inequities. It educates, it deepens our understanding of society and encourages us to empathise with the experience of others. It facilitates healing and material and symbolic restitution and it promotes new and previously neglected research into our rich oral traditions and customs".

Two Sections of the NHRA 1999 are of direct relevance with reference to this Heritage Crime report, being Sections 5 and 51:

- Section 5(1): "All authorities, bodies and persons performing functions and exercising powers in terms of this Act, for the management of heritage resources must recognize the following principles:
 - (d) heritage resources management must guard against the use of heritage for sectarian purposes or political gain"; and
- Section 51(5): "Any person who
 - (a) fails to provide any information that is required to be given, whether or not on the request of a heritage resources authority, in terms of this Act;
 - (b) for the purpose of obtaining, whether for himself or herself or for any other person, any permit, consent or authority in terms of this Act, makes any statement or representation knowing it to be false or not knowing or believing it to be true;
 - (g) within the terms of this Act, commits or attempts to commit any other unlawful act, violates any prohibition or fails to perform any obligation imposed upon him or her by its terms, or who councils, procures, solicits or employs any other person to do so,

shall be guilty of an offence and upon conviction shall be liable to such maximum penalties, in the form of a fine or imprisonment or both such fine and imprisonment, as shall be specified in the regulations under subsection (3).

* * *

- 1) With reference to Ms. Mandela's initial tweet (13 June), it is argued that Ms. Mandela used heritage for purposes of political gain [See NHRA 1999, Section 5(1)(d): "Heritage resources management must guard against the use of heritage for sectarian purposes or political gain"], and that she did so intently, through the use of #Sterkfontein (coined with the reference to fire) in her initial post (13 June) and the follow up primary hashtag #OurLand in the twitter debate that ensued, thereby linking heritage, in this case the Sterkfontein site, a well-known site, being one of the COHWHS, one of ten of South Africa's UNESCO World Heritage Sites, directly with the current land debate, centred on the 'The Stolen Land' paradigm and Expropriation Without Compensation (EWC).
- 2) Ms. Mandela need not have applied to SAHRA to make a statement / representation in terms of South Africa's heritage [See NHRA 1999, Section 51(5)(b): "Any person who- for the purpose of obtaining, whether for himself or herself or for any other purpose, any permit, consent or authority in terms of this Act, makes any statement or representation knowing it to be false or not knowing or believing it to be true; shall be guilty of an offence..."]. However, any such statement / representation needs to be read (amongst others) in conjunction with Section 5(1)(d). It is argued that Ms. Mandela's initial tweet (13 June), as well as certain follow up tweets, represent, in terms of the NHRA 1999, Section 51(5)(b) a statement(s) / representation(s) knowing it to be false or not knowing or believing it to be true. With reference to Ms. Mandela's initial tweet (13 June) the following:
 - o #Sterkfontein, used in conjunction with the reference to fire and followed by the statement / inference "Next you'll claim you taught us"; and
 - The statement that Chris Barnard had been taught the basics of heart surgery from his 'Black gardener' (Hamilton Naki).

Information on both the above matters are available in books, academic journal and commercial papers and articles, and importantly, easily accessible on the internet. It is reasoned that Ms. Mandela's initial tweet (for example) represents a statement(s) / representation(s) that is false, or not knowing or believing it to be true, and based on the accessibility of information, that the statement(s) / representation(s) was made with intent.

Further to the above, on-site notices at Sterkfontein, COHWHS, alert visitors not only to the heritage status of the site, but also to heritage management protocols. It is known that Ms. Mandela was abroad at the time she sent the initial tweet (13 June). However, information pertaining to heritage management protocols, and including the NHRA 1999, are also easily accessible on the internet.

- 3) Ms. Mandela passed on 13 July 2020 after a short sickbed. Not at the time of the initial tweet (13 June 2019) or the twitter debate that ensued did SAHRA, the COHWHS Management Authority or DEFF, on whose behalf the COHWHS Management Authority manages the COHWHS comment on the incident, not on their own accord and in the absence of evidence that such comment was directly requested from another party, not at the request of such a party. With this Heritage Crime report inevitably addressed posthumously no information regarding Ms. Mandela's tweet(s) can be obtained from her [See NHRA 1999, Section 51(5)(a): "Any person who fails to provide any information that is required to be given, whether or not on the request of a heritage resources authority..."].
- 4) Following the initial tweet by Ms. Mandela (13 June) and during the days that followed the Department of International Relations and Cooperation (DIRCO) confirmed the authenticity of Ms. Mandela's account. Minister Pandor, DIRCO, stated that the Department was further investigating the source, or occasion of the tweets in accordance with their social media policy (Bengu 2019). The results of this investigation are of importance with reference to the relevant authorities' (SAHRA, the COHWHS Management Authority and DEFF) responsibility in addressing the Heritage Crime, as Ms. Mandela may have been counselled, procured or solicited to have acted on behalf of another [see NHRA 1999, Section 51(5)(g): "Any person who within the terms of this Act, commits or attempts to commit any other unlawful act, violates any prohibition or fails to perform any obligation imposed upon him or her by its terms, or who councils, procures, solicits or employs any other person to do so..."], in which case responsibility of the Heritage Crime is invariably also vested with the initiator of the crime, and action against the initiator should accordingly be taken.

* * *

- Ms. Mandela's initial tweet (13 June), with #Sterkfontein followed primarily by #OurLand, is argued as the use of heritage for purposes of political gain [NHRA 1999, Section 5(1)(d)], and reasoned to have been done so intently to garner further social media support for the current land debate, centred on 'The Stolen Land' paradigm and Expropriation Without Compensation (EWC). Additional tweets by Ms. Mandela are recorded to have included, amongst others: "Trembling white cowards who are the thieving rapist descendants of Van Riebeck", "Uninvited visitors who don't want to leave" (en.wikipedia.org/wiki/Zindzi_Mandela) and "I am not accountable to any white man or woman for my personal views. No missus or baas here. Get over yourself" (Mabuza 2019). The twitter debate that ensued, the 'Twitter Storm' (Bengu 2019), with inferred envisioned results, in part or in whole, had significant impact on the socio-political arena as evidenced also by the referral thereto by President Ramaphosa during an online funerary tribute to her, 17 July 2020. The President stated:
 - "... She was brave enough to articulate her forthright views about the question of land. She did believe that indeed land was a key determinant of how our people would finally get their economic freedom. We draw many lessons from her life. Her love for motherland, South Africa, to fight against Apartheid rulers of our beautiful land. That love that she had to do that was expansive. We cannot even imagine what freedom would be, had people like Zindzi not stood up for the freedom of our people..." (Newzroom Africa 2020).
- Ms. Mandela's tweets were contrary to the reconciliatory essence of the NHRA 1999, with its emphasis, as per the preamble of the NHRA 1999, on the research, conservation and preservation of our past and the legacies associated therewith, in order to not only educate and further our understanding, but also to bequeath these cultural identities to future generations.
 - Whilst the NHRA 1999, Section 35, focusses on physical impact on heritage resources and sites in a management context, any transgression of the NHRA 1999, Section 5(1)(d), which states that: "Heritage resources management must guard against the use of heritage for sectarian purposes or political gain", comes with true impact. Our heritage resources are valuable, finite, non-renewable and irreplaceable [NHRA 1999, Section 5(1)(a)], with reference to the physical resources themselves, their scientific value and the cultural associations and legacies attached thereto, hence the responsibility of every generation to act as trustee thereof for future generations [NHRA 1999, Section 5(1)(b)]. Heritage resources have a reconciliatory capacity, with the power to promote both understanding and respect [NHRA 1999, Section 5(1)(c)]. Heritage research, education and tourism aids and advances the insurance of dignity and respect [NHRA 1999, Section 5(5)] for our diverse and complex cultural heritage, both present and past. With respect thereto the NHRA 1999, Section 5(7) states: "The identification, assessment and management of the heritage resources of South Africa must: -
 - (c) Promote the use and enjoyment of and access to heritage resources, in a way that is consistent with their cultural significance and conservation needs; and
 - (e) Safeguard the options of present and future generations".

[The 'Twitter Storm' that resulted from Ms. Mandela's initial #Sterkfontein tweet, with its overtly emotional, recent political overtones speaks for itself. Why the use of #Sterkfontein, Sterkfontein being a National Heritage Site, one of the COHWHS, and a UNESCO World Heritage Site, may well forever remain unanswered. Why the use of South Africa's Plio-Pleistocene fossil hominin heritage and one of these hominins' main technological achievements, fire, to initiate and engage in contemporary socio-political debate? Why the seeming deliberate twisting of easily accessible histories, with reference to both the fossil record and the recent past (Chris Barnard and Hamilton Naki)?]

Human / hominin evolution is included in the South African school curriculum, and have been for more than a decade (Sutherland & L'Abbé 2019; Tyelela 2019). In addition thereto, the COHWHS, including Maropeng and the Sterkfontein Caves, receives in excess of 200,000 visitors per annum, including school groups for educational tours (S.A Government 2016). In that sense the 'Twitter Storm' that ensued was revealing: Participants were adult and educated, students and working-class people. The general lack of understanding of specifically South Africa's distant past, coined with an equal lack of understanding of legislative heritage management protocols raise serious questions relating to both the school history (including human / hominin evolution) curriculum and the effectiveness of the Maropeng informative displays.

Information displays at Maropeng focus on the fossil hominin record of the COHWHS, but including the palaeontological record as well as fossil and interpretive information from elsewhere in Africa and beyond for context purposes, with a small section devoted to contemporary culture. Information displays don't reach to explain the current peopling of South Africa; it does not include later development, migrations and lifeways of the KhoiSan, the Bantu diaspora or early European settlement, and the histories that unfolded. The past 500 years of South Africa's pre-history and history can be described as troublesome at best, as it follows the movements, displacements and settlements of these three primary, broad cultural groups, the very cultural groupings that underlie the current peopling of South Africa. But suffice to say, the fossil hominin record of the COHWHS pertains no more, or less, directly to any of these primary, broad cultural groups; with early hominin origins and evolution so far in our distant past that it comprises one of the histories in which all South Africans can share without the complexities characterising the past 500 years.

- With reference to South Africa's pre-history and history, and based on the 'Twitter Storm' that followed Ms. Mandela's initial tweet (13 June), the following observations are preliminary reported on:
 - 1) That the Plio-Pleistocene early hominin origins and evolution (including the technological achievements of these hominins, such as fire), as evidenced by the fossil record of the COHWHS is still poorly understood:
 - 2) Knowledge of the Bantu diaspora seems limited, with an emphasis on 'Black history / heritage' focussing on the latter part of the past 500 years, often resulting in the impression of a stationary history with reference to the temporal-geographic dimensions thereof.
 - 3) European settlement history (associated with its much more representative written / documentary records) is noticeably better known and often over represented in the socio-political arena; and
 - 4) KhoiSan history, including the histories of San hunter-gatherers and Khoe / Khoi (Khoekhoen / Khoikhoi) pastoralist herders are often conflated onto a single history, and simplified to the extent of a contorted confusion of 'facts', with a marginalised or fringe presence in socio-political debate.
- o The initial tweet by Ms. Mandela (13 June) bears further reference:
 - 1) The ease with which heritage is used for purposes of political gain, be it party political or policy specific in recent years, with legislative repercussions unaddressed or ignored;
 - 2) The heritage status quo of sites used in such cases, in the Heritage Crime reported on here on national (Sterkfontein National Heritage Site) and international (COHWHS UNESCO World Heritage Site) level; and
 - 3) The heritage type sites used in such cases, in this case the fossil hominin record (and these hominins' technological achievements) of our distant, or Plio-Pleistocene past, to initiate and further contemporary sociopolitical debate.

In closure, and highlighting the necessity of the reported Heritage Crime being suitably addressed by SAHRA (and other authorities), the NHRA 1999, Section 3(1) states: "For the purposes of this Act, those heritage resources of South Africa which are of cultural significance or other special value for the present community and for future generations must be considered part of the national estate and fall within the sphere of operations of heritage resources authorities" and further thereto the NHRA 1999, Section 11: "There is hereby established an organization to be known as the South African Heritage Resources Agency (SAHRA) which shall be a body corporate capable of suing and being sued in its corporate name and which shall be governed by a Council established in terms of Section 14".

RECOMMENDATIONS

This Heritage Crime report is submitted posthumously. The Heritage Crime reported on had not been addressed by the relevant authorities (SAHRA, the COHWHS Management Authority and DEFF) at the time of its occurrence. It however remains the mandatory responsibility of the relevant authorities to address it, both on a site-specific and national level, with Sterkfontein being a declared National Heritage Site, and as part of the COHWHS, a UNESCO World Heritage Site, the incident needs to be reported to UNESCO. It is recommended that the incident be first addressed by the relevant authorities, prior to reporting to UNESCO.

Ms. Mandela passed on 13 July and was laid to rest on 17 July 2020. The Heritage Crime reported on can thus at best be addressed in retrospect by the relevant authorities. In doing so, the following recommendations are made:

- 1) That the relevant authorities make use of a media-campaign (social / mainstream media, as may be suitable) to reach the relevant audience associated with the incident (participants in the 'Twitter Storm' etc.) and the general South African community at large.
- 2) The particulars of the incident be relayed in the media-campaign in a transparent, clear and concise manner.
- 3) That, with cognisance to the fact that the incident can only be addressed in retrospect, emphasis be placed on the particulars of legislative heritage management protocol, as well as the rights and responsibilities of all South Africans towards our heritage.

With respect to Ms. Mandela's recent passing and with sympathy to family, friends and colleagues, it is recommended that a six month period be allowed (prior to, or on 26 February 2021) for the relevant authorities to address the concern / indicate their intent to address the concern in a suitable manner different from the above recommended to ArchaeoMaps.

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Prepared by -

Llyworld.

ArchaeoMaps (Karen van Ryneveld) Tel / Cell - 084 871 1064

E-mail - <u>karen@archaeomaps.co.za</u>

MSc WITS University

ASAPA CRM Accreditation [Member nr: 163] -

- o Field Director (Iron Age; Colonial Period)
- o Principle Investigator (Stone Age)