Bushmen life casts: science, paradigms, and prejudice

Sarah Wild, 12 March 2018

In the storage vaults of the Physical Anthropology Department of Iziko Museums in Cape Town, dozens of full-body lifecasts crouch, stand and lie in the dark. These casts of Bushmen* (see end note on nomenclature) are more than 100 years old, and the people who once wore these faces are long dead. Initially, these casts were used for scientific study, then as museum objects to showcase their "otherness" trapped in timelessness, for a European audience (Cedras 2016, pp. 32, 43). Museum authorities removed them from public display in 2001, following a public outcry about how they dehumanised South Africa's first inhabitants. The CEO of Iziko Museums (quoted in Cedras 2016, p.116) said at the time: "The [primary] argument centred on the fact that the Bushmen were treated like natural history specimens." He said that the lifecasts would be "untouched and archived until we have consulted on the best route forward". However, 17 years later, the casts remain "untouched and archived" without a framework for how to deal with them or, for that matter, other examples of this form of science that remain hidden in the back rooms of South African universities and museums. Ultimately, I am working toward an ethical framework to determine right action with regards to these casts: should they be destroyed, archived, returned to communities, put on display, or used for future research. This paper sets out the first step in a discussion about inter-temporal morality and how to decide right action with regards to past race science artefacts. It will sketch out a brief trajectory of race science in general, and comparative anatomy in South Africa in particular, in order to show that the lifecasts were made within a certain paradigm, which had certain moral assumptions regarding how people could be treated. The ultimate goal of this paper is to show that, when considering what to do with the

lifecasts, there are different scientific paradigms at play, and that these paradigms are underpinned by different moral frameworks of what scientific research could involve.

Between 1908 and 1924, South African Museum taxonomist James Drury made more than 60 casts of Bushmen from places as widely spread as Kanye in the Bechuanaland Protectorate (in modern day Botswana) to Carnarvon in South Africa, as well as from convicts held in Kimberley, Gaborone, Windhoek and Cape Town (Cedras 2016, 49). Although a relatively small project, Drury's work tapped into a larger scientific zeitgeist: the notion that human races were distinct and discrete units; these differences could be measured through scientific methods; and that these scientifically-proven differences illustrated a hierarchy of races. This mode of thought was firmly entrenched within Western scientific discourse by the beginning of the 20th Century. Known as race science, it was the prevailing scientific paradigm at that time for engaging with human racial diversity (Cedras 2016, p.63; Dubow 1995, p.27). There are many forms of race science, such as comparative anatomy, phrenology, and eugenics, although eugenics may be the best known due to its links with Nazi human experiments. However, this paper will focus on typology and comparative anatomy, since that was what drove the creation of the Bushman life casts and which formed a sub-paradigm used to investigate the larger paradigm of race science.

Three terms that are integral to discussing different and time-bound scientific traditions, namely "normal science", "paradigms", and "scientific revolution". This notion of paradigm, and its specific association with science, was introduced by Thomas S. Kuhn, in 1962 in his influential work, *The Structure of Scientific Revolutions*. For Kuhn, science – he specifically refers to it as "normal science" – was a practice constrained by a set of agreed upon rules and norms, which are derived from previous scientific achievements:

> ‘[N]ormal science’ means research firmly based upon one or more past scientific achievements, achievements that some particular scientific community acknowledges for a time as supplying the foundation for its further practice. (Kuhn 1970, p.10)

By this Kuhn seeks to show that normal science is indeed a process of accretion – it builds upon the ideas that preceded it. However, at the same time, this process of accrual is contained and constrained within a given paradigm:

> ‘Paradigms’ [is] a term that relates closely to ‘normal science’. By choosing it, I mean to suggest that some accepted examples of actual scientific practice – examples which include law, theory, application, and instrumentation together – provide models from which spring particular coherent traditions of scientific research.(Kuhn 1970, p.10)

But models, laws and theories change, and with them traditions of scientific research. Scientists pursue normal science based on models and theories, derived from previous normal science and the frameworks they yielded, in an effort to explain the universe. But models and theories are not concrete replica of reality. Because of this, during this pursuit of normal science anomalies show ways in which current models and theories – and ultimately current paradigms – are flawed. As Kuhn writes:

> [N]ormal science repeatedly goes astray. And when it does – when, that is, the profession can no longer evade the anomalies that subvert the existing tradition of scientific practice – then begin the extraordinary investigations that lead the profession at last to a new set of commitments, a new basis for the practice of science.” He refers to these shifts as “scientific revolutions”, which are “the tradition-shattering complements to the tradition-bound activity of normal science. (1970, p.6)

To decide what to do with the life casts, the notion of paradigms is useful because it supplies the language to discuss two different ways of doing and considering science, one which is

acceptable today and one which is not. Kuhn seeks to show that normal science is indeed a process of accretion – it builds upon the ideas that preceded it, but that this accretion process is contained within a paradigm. Once the accretion process is disrupted through an overwhelming recognition of anomalies, the paradigm suffers an irreparable blow and is replaced by another one. Although at a slower pace, the same irreparable blow occurs to the moral framework which supported the scientific paradigm.

Race science, as a way of understanding human diversity, began to gain traction in the 18th Century, but by the mid-1940s, following the discovery of the extent of human experimentation by the Nazis, race science – from typology to eugenics – was considered ethically unacceptable and a flawed paradigm for studying human diversity. Thus the normal science performed in the service of this paradigm, such as the making of the life casts, was both discarded as a scientific mode of inquiry, as was the ethical framework that had underpinned it.

Race science as a scientific discipline and as a paradigm has its roots in Carl Linnaeus' seminal book *Systemae Naturae*. In this work, published in 1735, he broke the natural world up into discrete units, creating categories and hierarchies of organisms. Linnaeus also pointed to the similarities between humans and primates (Stepan 1982, p.7) and through an alchemy of prejudice and this systematic categorisation of the natural world, scientists and philosophers sought this link between humans and apes, by identifying what they assumed to be the least-developed and most ape-like races. "The search to establish the lower limits of humanity became especially important in the 18th Century, and in the hundred or so years before [biologist Charles] Darwin, this came to be expressed in terms of searching for the 'missing link'.... Hottentots, and then later Australian aboriginals, were commonly seen as the

‘lowest’ of savage races,” writes Saul Dubow (1995, p.21). A century later Darwin’s pioneering work, *On the Origin of Species* published in 1859, laid out the processes of natural selection and argued that although unique from other animals, humans had evolved from an animal ancestor. Although not intended for this purpose, “evolution strengthened [old racial ideas], and provided them with a new language of struggle and survival” (Stepan 1982, p.49). When applied to societies and cultures, this thinking became collectively known as Social Darwinism, defined by Dubow as “a broad philosophy or ideology which describes social evolution in terms of laws and natural selection and stresses the importance of biological inheritance” (1995, p.120).

This mode of thought was firmly entrenched within Western scientific discourse by the beginning of the 20th Century. It carried with it the underpinning ideology that, in the survival of the fittest of societies, Western caucasian society was the pinnacle of human development. Humanity was, thus, a gradation from barbarian to civilised, degenerate to sophisticated. The crutch of Darwinism can be seen in the biological vocabulary of race science, such as “adaptation”, “segregation”, “degeneration”, “fitness”, “stock”, “hybridisation”, etc (Dubow 1995, p.9). An important way to grade these differences in human physiognomy became known as comparative anatomy, in which one human body was compared with another, and measurement was used to reinforce stereotypes of degeneration and superiority. This method was used to “arrange and rank societies in terms of their levels of civilisation” (Cedras 2016, p.22). The method, namely physical measurement to illustrate type and evolution, was part of normal science: both Linnaeus and Darwin had shown its use and usefulness when used in the natural sciences. Physical anthropology constituted an attempt to measure these different “types of humans”, and was a continuation of inquiry

within the prevailing paradigm – that measurement would allow categorisation and descriptions of evolution. Human biologist Alan Morris, referencing Stepan, writes:

> "The 'type' was defined as an ideal individual who possessed all of the important characteristics of the race. Hence the focus was only on those features that could differentiate between races. The place of the individual was well defined in typology. Because the type was an ideal standard, the individual could be compared to a type and his or her purity assessed. Variations were impurities, but the characteristics of the type could be dissected out through careful observation by the skilled observer." (Morris 2012, S157)

While mainstream scientific thought accepted the idea of evolution, and erroneously extrapolated that to humans "types", it still saw these "types" as discrete, static units that, once formed, were now impervious to change. Known as the model of early race formation, the argument goes thus: humans were subject to evolution which gave rise to races; however, once humans became "fully human", with intelligence and the ability to speak, "his inventiveness and intelligence protected his body from the further influence of natural selection, and acted only on mental traits" (Stepan 1982, p.85).

By the beginning of the 20th Century, the idea of races as discrete units was fixed in people's minds, as was the ability to measure a person's race and thus slot them into the hierarchy of human development. This was the paradigm: building upon the theories and work of Linneaus and Darwin, as well as many others, the scientific community agreed that different races had different physical characteristics, that races were discrete units, and that there was a gradation of development which corresponded to different human value. This gradation of value also determined how research subjects could be treated. But those were only the broad strokes of paradigm: scientists undertook normal science – using physical measurement,

which was the best tool available to them – to investigate and understand the matter of racial difference. They did this using the disciplines of physical anthropology and typology, themselves sub-paradigms within the larger paradigm of race science.

Permeating the development of race science was the European notion of the Bushman as exotic and other, and this had momentous consequences for the scientific paradigm, as well as what was considered acceptable scientific practice. The othering of Bushmen justified their mistreatment at the hands of colonisers, both white and black, and reinforced social hierarchies of power. As Joseph Rouse notes in the preface to his 1987 work *Knowledge and Power*:

> [W]e cannot readily separate the epistemological and political dimensions of the sciences: the very practices that account for the growth of scientific knowledge must also be understood in political terms as power relations that traverse the sciences themselves and that have a powerful impact on our other practices and institutions and ultimately upon our understanding of ourselves. (Rouse 1990, p. xi)

Prejudice and power play an important role in the evolution of race science, and what was considered ethical during the pursuit of scientific knowledge. Travellers' reports in the 18th Century from African expeditions spoke unflatteringly of Bushmen races, painting a picture of a savage and primitive people who were little more than apes (Magubane 2007, p.110). "The surprise and then disgust Europeans expressed on first encountering for themselves the Africans in Africa created long-standing prejudices concerning the African's physical, mental, and moral nature…. Most tragically, too, the African was compared with the great apes which came out of Africa, and which Europeans encountered at the same time they met the Negro," writes Stepan (1982, p.8).

These prejudices were solidified through the examples of Bushmen and black people brought to Europe as part of "exotic curiosity shows". The most famous of these people brought to Europe for the entertainment of the general public, and then research by scientists, is Saartjie Baartman. Baartman, a South African woman who became known as the "Hottentot Venus", was during her short life and in death a stage curiosity and a victim of science. When she died in 1815, her manager sold her body to scientists at the Natural History Museum in Paris, without her consent (Holmes 2007, pp.152-153). A cast was made of her body, she was dissected, and her skeleton and preserved brain and genitals put on display until the 1970s. Her remains were returned to South Africa and buried in 2002. Museum officials said the dissection was "in the interests of the progress of human knowledge" (quoted in Holmes 2007, p.154). Part of this quest was to determine where Baartman and other Bushmen fit into the alleged hierarchy of race groups, but Rachel Holmes in *The Hottentot Venus* also notes the misogynistic fascination of male scientists with black women's genitals and their supposed lascivious sexual appetites (Holmes 2007, pp.141-142). There was a skewed power dynamic at play in the case of Saartjie Baartman that cannot be ignored; it is mirrored, although to a lesser extent, in the making of the life casts. In this power dynamic, the pursuit of knowledge justifies the mistreatment of an individual, because that individual does not have intrinsic value aside from what value they can give when their physical dimensions are translated into measurements. By the beginning of the 20th Century, when the South African Museum commissioned the lifecasts of Bushmen, the "otherness" and inferiority of black people in general, and the Bushmen in particular, had solidified in the European imagination, and in that of Western scientists.

This perception is one of the factors that drove the genocide of Bushmen in South Africa, although these were also other reasons. This extermination of the indigenous people has been

well-documented (Dubow 1995; Magubane 2007; Skotnes 1996; Rassool 2015), and this paper will not engage with this large-scale slaughter over the course of two centuries. But the resultant scarcity of bushman bodies was a source of concern for scientists wishing to study their morphology (Cedras 2016, pp.20, 36; Morris 2002). The Bushmen were considered a means to an end for these scientists, as opposed to individuals with intrinsic value. South Africa, at the beginning of the 20th Century, was a British colony, and its scientific endeavours were modelled on those of its imperial motherland. The year 1905 was pivotal for South African science: it was the first visit of the British Association for the Advancement of Science to South Africa. Alfred Haddon, chairman of the association's anthropology section, during this visit implored researchers to preserve knowledge of indigenous people before it was lost forever:

> But our first and immediate duty is to save for science the data that are vanishing; this should be the watchword of the present day…. Anthropometric data are everywhere wanting, very few natives have been measured, and the measurements that have been made are insufficient both as regards those taken and the number of individuals measured. The interesting subject of comparative physiognomy is unworked. (quoted in Morris 2002)

The life-cast project – an endeavour driven by the museum's director Louis Péringuey – aimed to record what was thought to be a "dying" race. When Drury took the first lifecast in 1908, his explicit aim was scientific – to preserve a race "type" for researchers to study – and was imbued with a sense of urgency. Drury's instructions were also very specific about the examples of bushmen that Péringuey wanted Drury to cast, and the parts of their bodies that he wanted "special attention" paid to, such as the genitals. In a letter to Drury, he wrote:

> Do not chose [sic] the too decrepit specimens. But I would prefer however to have those with all the wrinkles of the body, especially the belly, than to have them as well

> fed as our previous specimens…. Could you take a woman with her little one on her back, wraps and all, it would indeed look very natural…. Endeavour to buy the garments of the Bush people in order to clothe the reproductions with if you can, provided that their garments or arms are not Manchester or [?Birmingham] goods… (quoted in Cedras 2016, p.45)

Consequently, the casts that Drury made were of people who already fit into their notion of what constituted a "pure" bushman, and – knowingly or unknowingly – upheld the paradigm. Selection of Bushmen who did not fit their conception of race, from physical characteristics through to socio-economic status, could create anomalies within the prevailing paradigm of science-backed white supremacy.

Initially, the lifecasts were kept in the museum's collection, but in the 1930s were put on display. Ultimately, the Bushman Diorama, which was first shown as an exhibit in 1959, aimed to immortalise the idea of hunter-gatherer life (as romanticised by museum curators). The lifecasts were positioned behind glass viewing panels, with a painted savannah backdrop and birds flying overhead (Cedras 2016, pp.73-75). The diorama continued in many incarnations for more than four decades, even as a show travelling throughout Europe and South Africa between 1976 and 1981. In 1996, artist Pippa Skotnes curated an exhibit called *Miscast: Negotiating the Presence of the Khoisan*, which received widespread attention. The exhibit included information about the roles played by and treatment of Bushmen by anthropologists and scientists, and drew attention to the genocide of the Bushmen and how they were mistreated in the name of science. The outcry, which gained momentum over the next five years, saw the closure of the Diorama in 2001.

By this time, the world had moved far away from the practice of typology and comparative anatomy. The scientific paradigm of race science was no longer considered a valid form of scientific inquiry and it was also deemed morally problematic. There are a number of reasons for this shift, and it is not the scope of this paper to trace in detail the downfall of race science. However, there is a critical watershed. The atrocities committed in the Nazi concentration camps illustrated the logical conclusion of race science: hierarchies of race resulted in hierarchies of human treatment. If a race was considered less important or valued than other races, then people of that racial group would be mistreated by society and by science, and this was morally unacceptable. As Dubow writes in *Scientific Racism in Modern South Africa* (1995, p.1): "A principal cause of this huge shift in perception has been the traumatic experience of Nazi holocaust, which alerted humanity as a whole to the terrifying consequences of politicized racism." But this focus on Germany and Nazi action clouded the extent to which these ideas were pervasive in pre-war Europe and America and has obfuscated the extent to which race science was a prevailing paradigm of pre-war Western science (Dubow 1995, p.2).

What was considered acceptable scientific practice in 1908 is not acceptable in 2018, because they are two separate paradigms, each with their own moral assumptions. Consequently, any attempt to determine right action is actually a moral discussion between two paradigms across time.

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Nomenclature:

A note on the word "Bushman": Words, particularly labels, carry connotations and associations, and the word "Bushman" is subsumed in a racist and derogatory history. In 2007, a newspaper reader wrote into the *Mail & Guardian*'s ombudsman, objecting to the use of the word Bushman in an article. The reader said the word technically meant "one who lives in the bush", but had also been used to describe apes, and quoted a 1902 Dutch dictionary, which said: "The possibility cannot be ruled out that the name '*bosch(jes)man*' in this meaning of 'ape-man' was carried over to the despised group/tribe, whom (the settlers) in fact regarded as creatures of a much lower level, hardly indistinguishable from apes (quoted in Kruger 2007)".

Unfortunately, there is no collective indigenous label for southern Africa's first inhabitants. They have been labelled "San", "Bushmen", "Basarwa" "Ovakwankaala" or "Ovakuruha" but this was all by non-Bushmen groups (Suzman 2001). In recent years, the labels "San" and "Bushman" have been used interchangeably. "San groups have traditionally identified themselves according to individual group labels and languages such as "Ju/'hoansi", "Naron" or "Bugakxoe"," write the authors of a report into the status of the San in southern Africa.

"Almost all labels referring to San collectively were coined by non-San and are etymologically pejorative."

In attempting to adjudicate whether the newspaper could – and, importantly, should – use the term "Bushman", ombudsman Franz Kruger reached out to a number of representative groups. Survival International, an activist group promoting tribal people's rights, said they used the term "Bushman" because both "San" and "Basarwa" also have derogatory origins. The group used "Bushman" because it was accepted by the community and well-known. South African San Council chair Andries Steenkamp said that the council did not object to the use of the term. Alex Thomas, adviser to the South African San Council, told Kruger that groups would prefer to be addressed by their indigenous labels. But delegates at the Common Access to Development Conference held in Botswana in 1993 also agreed that specific groups, such as "Ju/'hoansi" or "Kxoe", should be used wherever possible.

That, unfortunately, does not help when it comes to talking about the victims of race science. As will be shown in this paper, the scientists treated the Bushman as a single entity with no distinction representing an entire race. Their record keeping was also poor, with the location of a cast person sometimes included, sometimes not. Throughout the literature – both archaic and modern – the term Bushman is used. Since it is not possible to determine the specific groups which people belonged to, and since there is no indigenous collective term for the people selected for casting, this paper will refer to this group of people as "Bushman".

As Kruger says in his ombud finding:

> The contradictory views available make a choice very difficult. Where possible, it would be good to use the name of the particular group involved. But that will often not be possible: for practical reasons, the media [and ultimately academia] need an

umbrella term. I think that in this and other cases the people affected should have the strongest say in how they are described. But until there is a clearer consensus, both “San” and “Bushmen” will remain in use. (Kruger 2007)