Research Article

REVISITING THE PEOPLE OF WHITCHER'S CAVE, EASTERN CAPE, SOUTH AFRICA: AN OSTEOBIOGRAPHIC ANALYSIS

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ABSTRACT

Human remains excavated or collected in southern Africa until the late 1900s are often poorly contextualised and suffer from neglected curational histories. For example, in 1926, F.W. FitzSimons reported that he had excavated 51 human skeletons from Whitcher's Cave, but little is known about their context and curatorial journeys. Here, we reassess the human remains from Whitcher's Cave currently curated in the Raymond A. Dart Archaeological Human Remains Collection at the University of the Witwatersrand. We provide a short historical overview and recalibrated previously published radiocarbon dates to situate the remains within the broader Holocene Stone Age sequence. At least 32 individuals, representing adults of both sexes and children, can be recognised in the current collection. Cumulatively, the results of our analyses regarding age, stature and trauma reflect a relatively short-statured, but healthy, hunter-gatherer population living at Whitcher's Cave from at least ~5000 years ago until ~1800 years ago.

Keywords: Bioarchaeology, Tsitsikamma caves, Later Stone Age, MNI, skeletal remains.

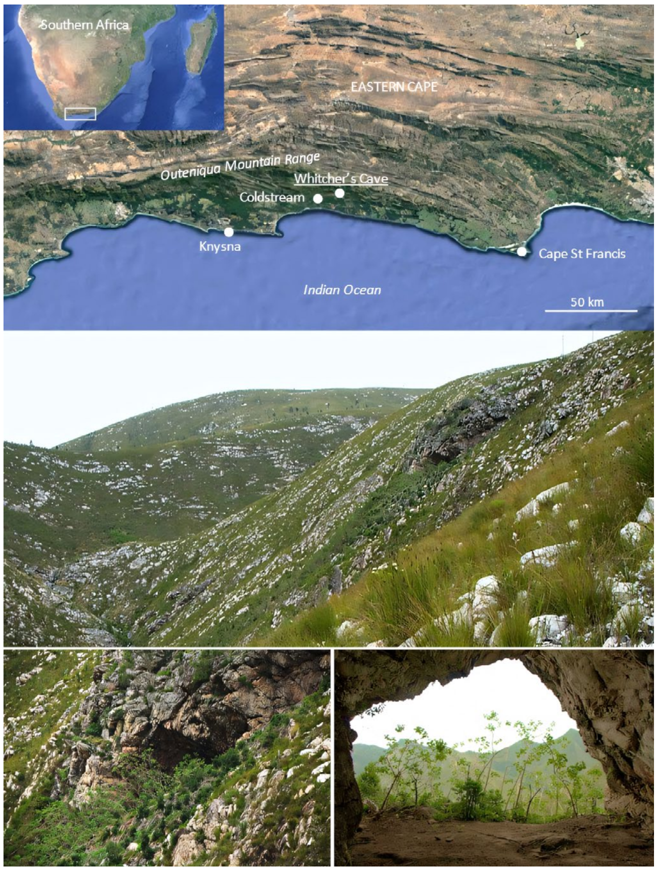

FIG. 1. *Top: Map of the region in which FitzSimons excavated with the location of Whitcher's Cave indicated. Middle: The immediate landscape of Whitcher's Cave. Bottom left: The entrance to Whitcher's Cave. Bottom right: The view from Whitcher's Cave. Map generated from Google Earth Pro by M.L.; photographs used with permission by ©Peter Swart.*

INTRODUCTION

In the 1960s, Donald Schauder (1963) relocated Whitcher's Cave in the Cacadu District of the Outeniqua Mountain Range, in the Eastern Cape Province, about 20 km inland from the Indian Ocean along the south coast of South Africa (Fig. 1 top). The cave is ~700 metres above sea-level on the coastal side of the mountains, situated near a spring "about a hundred yards from the crest of the ridge" (Wells & Gear 1931: 444) (Fig. 1, middle). It reaches 30 m into the mountain and before excavation, it was about 3 m high at its mouth, sloping to 2.4 m at the back (Turner 1970) (Fig. 1, bottom). It is located south-west of Witkloof, and north-west of Heuningkloof along the Elandsbos River. Botanically, Whitcher's Cave is associated with the Eastern Fynbos-Renosterveld Bioregion of South Africa with evenly spread rainfall throughout the year (Mucina & Rutherford 2006).

Similar to most Cape shelters and caves, Whitcher's Cave was used by San foragers or hunter-gatherers (we use these terms interchangeably) before the arrival of African pastoralists (also referred to as Khoe) or European settlers in the Eastern Cape. During colonial times, these caves and shelters were often exploited for human skeletons to assist in the endeavour of categorising past human populations in the search for the origins of *Homo sapiens* – thought at the time to have had its roots in Eurasia (Lombard 2022; Morris 2022).

From 1921 to 1926, Frederick William FitzSimons, who served as the director of the Port Elizabeth Museum from 1906 to 1936, excavated a series of nine shelters and caves, including Whitcher's Cave. The region in which he excavated stretched roughly between Knysna and Cape St Francis along the Tsitsikamma (Tzitzikama) coast and inland between Keurbooms River and the Kareedouw pass (Fig. 1, top). FitzSimons' main focus was the retrieval of human skeletal remains – especially crania for comparative purposes. He showed little concern for the spatial organisation, the sequence of the archaeological deposits, or its associated artefacts. Consequently, the archaeological context of the skeletons he excavated remains mostly unknown (Morris 2022). Although many of the sites FitzSimons explored could not be relocated (Turner 1970), Schauder (1963) was able to find Whitcher's Cave so that its location is now known.

The skeletal material from Whitcher's Cave is currently curated in the Raymond A. Dart Archaeological Human Remains Collection at the University of the Witwatersrand (Dart Collection). Our aim with this study is to report on a reassessment of these remains. Thereby we hope to add value and information to the collection and to the population histories of the site and southern Africa in general. For the first time since their excavation, we estimate the minimum number of individuals (MNI) that can be identified from the assemblage, discuss their potential demographic profiles, and assess pathological conditions where possible. The full description of the skeletal assemblage provides a reference for future research on human remains from the Tsitsikamma coast. We also recalibrated previously published radiocarbon dates and contextualise these within the Stone Age sequence of South Africa. This study forms part of a current initiative to fully record, contextualise and publish human remains curated in various South African repositories (e.g. Steyn *et al*. 2019; Steyn & Meyer 2020; Meyer *et al*. 2021).

BACKGROUND TO THE EXCAVATION OF WHITCHER'S CAVE AND THE BROADER CONTEXT

FitzSimons was born in Ireland in 1870, and as a young boy relocated with his parents to Pietermaritzburg in the now KwaZulu-Natal Province. After his school years in South Africa, he attempted to study medicine in Dublin, Ireland, but returned to Pietermaritzburg without qualifying. He started working at the Natal Society Museum (Morris 2022) and was 35 years old when he became director of the Port Elizabeth Museum. Here, his main interest was in snakes and the commercialisation of snake venom. He established the first snake park in Africa (only the second worldwide) within the museum complex in 1918–1919 (Pringle 1941). FitzSimons had no training or experience in archaeology "and his anthropology was, at best, the result of a few physical anthropology lectures during his incomplete medical studies in Dublin" (Morris 2022: 46). His interest in southern African human remains was piqued by a cranium known as the Boskop skull (Haughton *et al*. 1917; Pycraft 1925). The skull cap was brought to him from the Potchefstroom region in what is now the North West province of South Africa. It was clearly very old and therefore potentially important, prompting FitzSimons to try digging for further remains at the site where it was found (Morris 2022). Being unsuccessful with this endeavour, he started excavating closer to Port Elizabeth.

At Whitcher's Cave, FitzSimons excavated with Mr C.J. Whitcher (after whom the cave was named), who lived in the town of Coldstream on the banks of the Lottering River to the west of the cave (Fig. 1). When they started excavating, the floor of the cave was covered by a midden deposit containing ash, shells, animal bones, stone chips and pottery to the depth of about 2–3 m (Turner 1970). According to FitzSimons (1926), they began excavating at the mouth of the cave and found the first skeletons 46 cm from the surface. "Day after day, skeletons were exhumed, until the number totalled no less than 51" (FitzSimons 1926: 814) (Fig. 2).

The remains were very fragile, and "[e]ach skeleton lay on its side with knees flexed, and large, flat stones rested upon it. Sometimes there was only one exceptionally large stone. On other skeletons there were two, and often three stones … The majority of them [the stones] had been smeared with red ochre on the underside. On a few, traces of crude paintings were seen" (FitzSimons 1926: 814–815) (for a discussion of painted gravestones from the region, see Pearce 2005). FitzSimons observed that he found 'big-boned' people in the lower levels of Whitcher's Cave, and smaller people buried closer to the surface.

Near the crania and upper limbs of male adults, FitzSimons (1926) apparently found lumps of red ochre, tools, weapons, ornaments, and food. In some instances, there were ostrich eggshell drinking vessels, placed with their holes upwards in front of the faces of individuals. He interpreted this as indicating that they contained water when placed with the body. "In the skull of one adult male was embedded the point of a large rough celt or boucher, indicating a violent death" (FitzSimons 1926: 815). In another area, he found five men buried in the same hole, with their bones intermingled and without any artefacts or grave markers. We treat these interpretations and descriptions with caution, considering FitzSimons' lack of archaeological training.

His team also excavated the skeletons of women and children. He reported that they found the women's bones with "pottery, big polony-shaped masses of clay intermixed with quartzite grit and charcoal for the making of pottery, stone mortars and large numbers of grinders …" (FitzSimons 1926: 815). FitzSimons (1926) further provided broad descriptions of many implements and tools, including 'ornaments of stone'. Wells and Gear (1931) also commented on red ochre, ostrich eggshell beads, the stone tool industry (rough flakes and points), and "a tanged point of unusual character, roughly carved out of compact bone, with no trace of subsequent polishing" (Wells & Gear 1931: 445).

Port Elizabeth Museum served initially as curatorial facility for both the skeletal remains from the Whitcher's Cave and the associated artefacts. Turner (1970) mentioned that

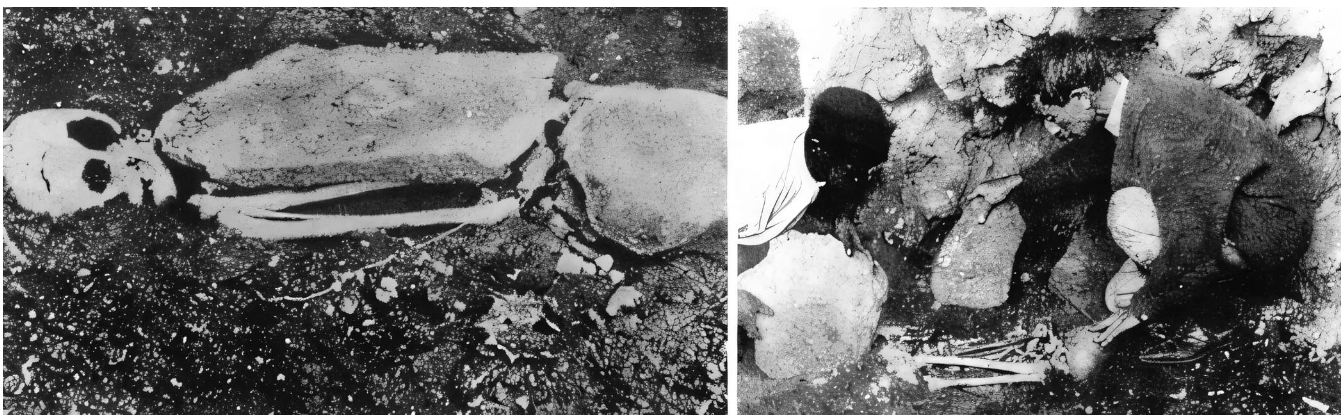

FIG. 2. *Left: Human skeletons from either Tsitsikamma or Whitcher's Cave found under burial stones. Right: FitzSimons and a helper removing stones from a burial (images from Schauder 1963: Plate XII).*

the archaeological material at the museum consisted of rubbing-stones, tools, and bored stones marked from A to G, but highlighted the poor excavation and curatorial records, indicating that accession numbers such as '325G' possibly refer to the layers from which the objects were excavated, but that no corroborating records could be found. Schauder (1963) showed some of FitzSimons' notes and photos, but it is hard to decipher anything meaningful from these, and he, too, mentioned the poor documentation and the loss of many objects.

Wells and Gear (1931) brought the human remains to the University of the Witwatersrand for analysis without any excavation records. In the process, it seems that they mixed many of the remains and lost or discarded their original accession numbers. According to Morris (2022), it is entirely possible that FitzSimons kept no records in the first place. Wells and Gear (1931) indicated that they tried to reconstruct shattered skulls, resulting from inadequate packaging, ultimately studying 12 skulls, four isolated mandibles, and a 'number of other bones', assigning arbitrary numbers to these as they unpacked the material. They divided the remains into two groups based on the degree of mineralisation – i.e. an earlier and a later group. Within their historical context (see Morris [2022] for discussion), they described the first group as 'Bush/Mongoloid', and the latter as 'Bantu/Australoid' (Wells & Gear 1931). In addition to the crania, mandibles, and bones mentioned above they report, but do not describe in any detail, several more partial crania and mandibles as well as commingled remains.

FitzSimons (1923a, b, 1926) and Wells (1929) conducted studies of the skeletal remains. These, however, have limited value today although they may assist in finding provenance for the material now housed in the Dart Collection. More recently, Sealy and Pfeiffer (2000) included a few of the Whitcher's Cave individuals in their study of diet, stature (body size), and landscape use amongst Holocene populations of the southern Cape. Stynder (2006) and Neuweger (2007) included a few of the more complete skulls in craniometric assessments, while Morris (2012) and Pfeiffer (2016) reported on one individual with healed cranial trauma. Thus far, no one has reported on the skeletal assemblage from Whitcher's Cave curated in the Dart Collection as a whole, which is the purpose of this contribution.

MATERIALS AND METHODS

Although FitzSimons (1926) mentioned 51 skeletons, the number of individuals represented in the existing assemblage is uncertain. Some of the remains were initially housed at the Port Elizabeth Museum and still show PEM numbers. Subsequent to their transfer to the University of the Witwatersrand in 1926, they were formally catalogued under accession numbers A1169 to A1177 and A1184 to A1189 (Morris 1992). Currently, all the units/box numbers that Morris (1992) mentioned are present. The material is, however, commingled and most of the boxes contain skeletal elements of more than one individual. For example, entry A1185 is listed as containing 'mandibles', yet it contains the remains of 27 individuals, with both maxillae and mandibles present. Therefore, we first wanted to establish the minimum number of individuals (MNI) (L'Abbé 2005; Adams & Byrd 2006). During this step in our analysis, we recorded the most common element, and attempted to reassemble sets of individuals using pair matching, taphonomic features, and the age and sex of the individuals. The spreadsheet showing the various identified individuals, with numbers, is available upon request.

To provide basic biological profiles, we assessed the assemblage using standard biological anthropological methods (Buikstra & Ubelaker 1994; İşcan & Steyn 2013). For estimating age, our analysis included cranial suture closure (Acsadi & Némeskeri 1970), features of the pubic symphyses (Brooks & Suchey 1990), and general degenerative changes for adults. Many individuals are represented by mandibles and maxillae only. We recorded general observations on the degree of dental wear to assist in age estimation. For San and/or Khoe remains, Pfeiffer (2022) suggested that analysts should place less emphasis on features such as the pubic symphyses and sternal rib ends, and more on dental wear and other old-age features such as vertebral compression. For juveniles, we recorded dental development (AlQahtani *et al.* 2010) and skeletal maturation (Schaefer *et al.* 2009). We grouped individuals into various age groups, with adults starting at 20 years as suggested by Falys and Lewis (2011).

Sex was estimated in adults only, through assessment of the morphological features of the pelvis (rarely present) and skull (Buikstra & Ubelaker 1994, İşcan & Steyn 2013). For most individuals only a skull was available, and because the crania of Khoesan individuals are not highly dimorphic some of these estimates remain tentative. All basic analyses and establishment of MNI were done by the first author, and cross-checked by AM.

We calculated stature from available femora only. Because the sex of most of the individuals are not known, we used the generic femur:stature ratio for Africans, using the regression equation of Feldesman and Fountain (1996) where living stature = 30.285687 + (2.986895 x femur maximum length).

Extensive craniometric analyses were previously conducted on some of the intact adult skulls (Stynder 2006; Neuweger 2007). We therefore did not conduct additional craniometric analyses but recorded cranial and postcranial measures where possible using standard anthropological instruments (Buikstra & Ubelaker 1994). We also assessed the individuals for signs of trauma and disease, including non-specific conditions such as periostitis and cribra orbitalia (Stuart-Macadam 1985, 1992; Ortner 2003). To counter possible intra-observer bias, MS established the MNI and conducted all the initial analyses, and AM cross-checked all observations and interpretations.

The cultural material found with the human remains from Whitcher's Cave were poorly documented, not curated according to context, and the deposits of the site were never dated. We can therefore not describe the archaeology relating to any of the specific individuals. Sealy and Pfeiffer (2000), however, dated five of the skeletons, and Stynder (2006) another, which provides some temporal context. ML calibrated these age estimates using OxCal's Southern Hemisphere 20 curve and aligned the resulting dates with data for the Holocene Later Stone Age (LSA) sequence throughout southern Africa (Lombard *et al.* 2022). We did not correct for a marine reservoir effect during calibration, because the stable isotope data associated with the individuals from Whitcher's Cave indicate that they ate little marine food (Sealy & Pfeiffer 2000).

RESULTS

DATING AND ARCHAEOLOGICAL CONTEXT

The newly calibrated dates are shown in Fig. 3 (top). Although only a few individuals have dates, this analysis shows that the cave was occupied or used during at least two technocomplex phases on the broader landscape (Fig. 3, bottom). The three individuals with the older dates were buried during what is known as the Wilton technocomplex for which most dated contexts fall between 5834 BCE and 2686 BCE (Lombard *et al.*

trichonocephaly, associated with premature closure of the metopic suture (Barnes 2012).

Individuals 5 to 9 are very fragmentary. PEM325S 5–7 are cranial vault fragments of juvenile individuals of which we were unable to determine the age. Number 8 consists of two cranial vault fragments of a very small child, while nr 9 includes cranial fragments, 6 ribs, two humeral diaphyses, and a radial diaphysis. Based on the length of the humeral (68.5 mm) and radial diaphysis (55 mm), we assessed this individual (nr. 9) to have been a late foetus/newborn upon death (see Fazekas & Kósa 1978; Warren 1999).

A1186

A1186 comprises the well-preserved postcranial skeleton of an adult individual. All major long bones of the upper limb are present, as well as a left femur and both tibiae. Five ribs, 16 vertebrae and a complete left os coxa are also preserved. The only foot bones in the whole assemblage (four tarsals) are associated with this individual.

Based on the small size of the os coxa, the wide subpubic angle, wide greater sciatic notches and rectangular-shaped pubis, the remains are clearly those of a female. Using the femur, her stature was calculated to about 132.7 cm. All the bones are extremely gracile, and we present the femoral measurements below with our discussion on stature.

The pubic symphysis is in a phase 2 or 3, whereas a sternal end of a rib (possibly the 4th or 5th) is in a phase 3 (Brooks & Suchey 1990; Oettlé & Steyn 2000). The ossification lines of the iliac crests are still visible, indicating recent fusion. The medial end of the right clavicle is only partly fused. These characteristics suggest a young adult individual, who was probably 20–30 years old when she died.

We noted no signs of trauma or pathology. The presence of a preauricular sulcus may indicate that she had borne at least one child.

A1218

A1218 comprises a partial neurocranium only, with a complete frontal and two partial parietal bones. The visible cranial sutures are completely obliterated, suggesting an older adult. The rounded supra-orbital margins and prominent glabella suggest a male individual. We observed no signs of disease or trauma and could gather no other information.

A1185

This box contains 21 mandibles of adults and juveniles (some with associated maxillae) as well as six isolated maxillae, which we were unable to associate definitively with any of the crania described before. These are reflected and included in Tables 3 and 4, where we used them to calculate the MNI and assess the demographic distribution of the complete assemblage.

A1184, A1189, A1191, A1193

These numbers represent commingled postcranial remains, comprising mainly the major long bones of the upper and lower limbs. Other postcranial bones represent a smaller proportion of the assemblage. Box A1184 contains the femora that Sealy and Pfeiffer (2000) sampled for C14 dating and isotopes. We attempted matching pairs of bones, but this was not possible for all the bones. The 10 right-sided and 10 left-sided femora in Table 3, for example, represent 15 individuals, because some were paired and others unpaired. The numbers of the various types of bones are included in Table 3.

TABLE 3. *Numbers of skeletal elements present and estimation of the minimum number of individuals (MNI).*

Bony element	(n) unpaired	(n) right side	(n) left side	MNI
Cranium*	25	–	–	25
Maxilla	–	18	18	20
Mandible	–	23	22	29
Humerus	–	7	10	9
Ulna	–	5	7	7
Radius	–	5	6	6
Femur	–	10	11	15
Tibia	–	9	9	12
Fibula	–	3	3	?5
Os coxa	–	5	10	11
Sacrum	6	–	–	6

*Some crania are represented by bones of the cranial vault only, whereas others are more complete. Most of the maxillae mentioned are associated with one of the crania, but some are isolated maxillae.

ESTIMATION OF MINIMUM NUMBERS OF INDIVIDUALS, DEMOGRAPHICS AND HEALTH INDICATORS

In Table 3, we quantify the main elements, with the most frequent being 29 mandibles or partial mandibles, and the next-most frequent the crania (n = 25). To provide a realistic MNI, we attempted to isolate sets of mandibles, maxillae and crania that are clearly un-associated with each other, based on age, general size and sex. For the most part, we were unable to definitively match isolated maxillae (with or without the rest of the cranium intact) with specific mandibles. By attempting to tentatively pair these, it became clear that there are at least three more individuals, where crania, maxillae and mandibulae could not possibly be matched to one another at all, resulting in an MNI of at least 32 individuals. The true number of individuals represented in the Whitcher's Cave collection is probably considerably higher, but it is impossible to exclude potential matches between crania and mandibles/maxillae, because the remains are so incomplete. The number of vertebrae and ribs is limited, and we did not attempt to count or sort them into individuals, given their incompleteness and the general inaccuracy in matching these elements.

Table 4 captures the age distribution (with adult age categories according to Falys & Lewis 2011) of the assemblage,

TABLE 4. *Age distribution of individuals (adult categories according to Falys & Lewis 2011).*

Age group	n
Neonatal (0–6 months)	2
Infants (6 months – 6 years)	2
Juveniles (7–11 years)	3
Adolescents (12–19 years)	3
20–34 years	1
35–45 years	3
45+ years	16
Total	30
Adult*	9

*no closer estimate possible for these individuals

TABLE 5. *Femoral measurements of adults and stature reconstruction (Buikstra & Ubelaker 1994). All measurements in mm, stature reconstruction in cm.*

	A1186 325J	A1184 PEM325 A*	A1184 PEM325 A*	A1184 VI*	A1184 VII	A1184 VIII	A1184 IX*	A1184 X
Max L	343	347	419	419	387	400	432	387
Bicondylar L	343	346	418	416	382	395	428	381
Epic Br	57	59	74	70	61	70	76	62
Max head D	32	32	39	40	36	39	45	36
AP subtr D	15	15	22	21	19	24	23	19
Transv subtr D	23	21	30	26	22	27	31	24
AP midsh D	20	–	–	–	24	25	29	23
Midsh circ	57	–	–	–	68	75	86	68
Stature (in cm) SEE = 2.31 cm	132.7	133.9	155.4	155.4	145.9	149.8	159.3	145.9

*measured on right side
Note that there are two different individuals labelled as PEM325A.
Max = maximum, L = length, Epic = epicondylar, Br = breadth, D = diameter, AP = anteroposterior, subtr = subtrochanteric, Transv = transverse, midsh = midshaft, circ = circumference

predominantly based on individuals with maxillary and mandibular elements. We could assess age sufficiently for 30 individuals to place them into an age category. Another nine could only be categorised as 'adult'. The total does not add up to the MNI of 32, because some of the adult crania may match some of the maxillae and mandibles used to assess age, whereas in some cases age assessment was not possible. All age groups are represented, but most of the individuals seem to have died after the age of 45 years (n = 16).

Table 5 shows statures calculated from individual adult femora (n = 8). The estimated statures are very short, ranging from 132.7 to 159.3 cm. The most gracile individual is represented by a nearly complete skeleton of a female (A1186; 325J).

Overall, there are few indicators of pathology. Of the 17 individuals with orbits, only two (11.7%) have cribra – in both cases mild. These occur in two juvenile individuals, one 10.5–12.5 years old, and the other 5.5–7.5 years old. We observed no other signs of chronic infectious disease or nutritional deficiencies, and none of the individuals/skeletal elements show evidence of subperiosteal bone depositions.

One individual (A1187) has healed cranial trauma (see Morris 2012), and this may also be the case for A1171. Two individuals have possible cranial developmental abnormalities (Figs. 4 & 5). A juvenile individual (A1169) has a persistent metopic suture and unusual cranial shape, while individual A1192 PEM 325S nr 4 has a possible congenital developmental defect of the frontal bone. This shape is often referred to as a trigonocephaly deformity and results from premature fusion of the metopic suture, or complete agenesis of the suture (Barnes 2012). Other than that, we observed no signs of disease or trauma.

CONCLUDING DISCUSSION

Although the sample is too small to conduct a formal demographic analysis, we were able to show that the assemblage contains many older adult individuals, suggesting a relatively good life expectancy for the Whitcher's Cave population. There is no over-representation of younger individuals in the assemblage, but it is possible that such more fragile remains were overlooked during excavation or not collected and curated. Based on the individuals present, it seems that the people living at Whitcher's Cave were mostly healthy, with few generalised signs of chronic disease. This was also reported for other Cape Holocene forager communities (Pfeiffer & Sealy 2006; Pfeiffer 2022). We observed no signs of any specific nutritional or infectious disease, and the incidence of enamel hypoplasia (see Steyn *et al.* this volume) and cribra orbitalia was low. The occurrence of possible congenital/developmental cranial defects in two individuals is interesting. Craniosynostosis is often associated with a genetic aetiology (Wilkie 1997; Wilkie *et al.* 2007) with Lajeunie *et al.* (1998) (as cited in Van der Meulen 2012) suggesting that in some cases there is a familial link. Given this, these conditions may point to the possibility that the Whitcher's Cave people had a relatively restricted gene pool. It would be interesting to assess whether these types of anomalies are present in other assemblages from the Tsitsikamma coast.

We observed traumatic changes in the crania of two individuals only, and no ante- or peri-mortem fractures on other skeletal elements. Cranial injuries in Stone Age populations have been associated with violence during interpersonal or intergroup conflict, perhaps about limited resources (Morris 2012; Pfeiffer 2016; Gibbon & Davies 2020). FitzSimons (1926) mentioned that one of the individuals had a large stone tool embedded in his cranium, but this was not present in any of the individuals in our study.

The body size of southern African foragers is much discussed, specifically the development of their small body size (e.g. Froment 2001; Pfeiffer & Sealy 2006; Pfeiffer & Harrington 2011; Pfeiffer 2012; Morris 2022). MSA individuals show considerable variability in their morphology (Rightmire & Deacon 1991; Grine *et al.* 2021; Pfeiffer & Sealy 2006), but Stynder *et al.* (2007a, b) demonstrated continuity in cranial morphology throughout the Holocene. In the few cases where we were able to calculate the statures of individuals from Whitcher's Cave, they were relatively small (as generally expected from Holocene hunter-gatherers of the region), ranging between 132.7 and 159.3 cm. Sealy and Pfeiffer (2000) explored body size and diet in Holocene foragers from the Cape, including five dated individuals from Whitcher's Cave (Fig. 3). Based on femoral head diameter, they found the Whitcher's Cave average of 389.9 mm (n = 5) to be substantially (16.9 mm) below the mean (406.8 mm, n = 47) for southern Cape foragers included in their study.

We were able to measure eight femora with an average length of 391.8 mm (average stature 147.3 cm). Although Sealy and Pfeiffer (2000) suggest that reliance on terrestrial foods at Whitcher's Cave, as opposed to a habitual marine diet, may have contributed to their short statures, this does not necessarily reflect undernutrition. Pfeiffer (2012) further suggested that neither dietary deficiency nor heat control caused the gracility of southern African forager populations at a population level. Instead, not selecting for a large body size – in terms of energy regulation and accident/injury avoidance – may explain the phenomenon (Pfeiffer 2012). Genetic studies support the hypothesis that a small body size has selective advantages for some African hunter-gatherer populations (Perry *et al.* 2014). Our finding that most of the individuals buried at Whitcher's Cave were older adults with advanced tooth wear, and few signs of chronic disease, seems in line with such hypotheses – at least for Holocene southern Africa.

In our introduction, we mentioned how FitzSimons' interest in South African Stone Age skeletons was triggered by the 'big-brained' individual from Boskop. He described the human remains excavated from some of the coastal sites as the 'Cliff Dwellers of Zitzikama', with an average cranial capacity higher than that of inland hunter-gatherers (FitzSimons 1923a). At Whitcher's Cave, he noted larger 'Cliff Dwellers' in the lower contexts compared to smaller 'Bushman Cliff Dwellers' in the upper contexts (FitzSimons 1926). We could only measure one of the dated crania (A1172), which is also the most recent and smallest adult cranium, probably belonging to a female. We are therefore unable to comment on cranial robusticity and possible changes through time. From their femoral morphology, we could assess the stature of four dated individuals:

- 145.9 cm for A1184 (VII), dated to 802–1046 BCE
- 132.7 cm for the female represented by A1186, dated to 905–1256 BCE
- 149.8 cm for A1184 (VIII), dated to 3534–3940 BCE
- 155.4 cm for A1184 (VI) dated to 3711–4218 BCE.

This may seem to support a reduction in stature through time, but the sex of only the shortest individual is known, so sexual dimorphism cannot be excluded as an explanation for the observed range. It is therefore our conclusion that, based on current data, we cannot confirm observations regarding a change in either cranial capacity or stature through time at Whitcher's Cave.

Taking the current composition of the collection into account, it is clear that the initial excavators and analysts were a product of their time. Such early research focussed on the morphometric classification and comparison of crania and mandibles with a strong focus on so-called racial typology. As such, postcranial elements were often disregarded in efforts to organise the world's populations into distinct physical groups or 'races' (Morris 2022). While FitzSimons (1926) mentioned 51 skeletons, we were able to identify 32 individuals based on the MNI calculation of the most frequent skeletal elements. However, because MNI assessments are parsimonious, the actual number of people from Whitcher's Cave in the Dart Collection may be more. FitzSimons also mentioned that the remains were fragile, but we found the bone condition and preservation to be generally excellent, given their antiquity and the less-than-ideal excavation, curation and analytical/sampling processes previously followed. Although the loss of contextual information (and possibly also of excavated material) is regrettable, all the remains from Whitcher's Cave in the Dart Collection are now properly separated, numbered and curated according to the details provided in this paper, adding to their curational value and making them more accessible/useful for future studies.

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