Proc. Univ. Bristol Spelaeol. Soc., 2019, 28 (1), 129-136

A SUMMARY REPORT AND RADIOCARBON DATE ON THE HUMAN REMAINS FROM A BONE ASSEMBLAGE FOUND AT SCREECH HOLE, HAM WOODS, NEAR CROSCOMBE, SOMERSET.

by

V.J. SIMMONDS and K. BRAYNE

ABSTRACT

A bone assemblage containing human remains was discovered at the base of a scree slope in Ham Woods, Croscombe by local diggers trying to locate caves of speleological, rather than archaeological, potential. It is noted that the bone assemblage was not recovered by systematic or controlled excavation, therefore, no contextual information is available regarding these remains.

The human bone recovered from the site are suggested to represent three articulated inhumation burials – an infant, a seven/eight-year old child and a mature adult. The fact that three individuals have been recovered suggests that this site might contain multiple human burials.

A suitable bone sample was submitted for radiocarbon dating, the result suggests an Early Iron Age date for the human remains sampled.

INTRODUCTION

Screech Hole (NGR ST 5965 4460) is located at the base of a scree slope in Ham Woods, Croscombe on the southern flank of the Mendip Hills, Somerset. The site attracted the attention of local cave diggers and during their activities a bone assemblage, containing human and animal remains was recovered. The assemblage was subsequently handed over to Vince Simmonds and Robin Taviner (Mendip Cave Registry and Archive). It was advised that no further uncontrolled digging at the site should continue and the site has now been sealed to protect any remaining archaeological assets.

The underlying geology in Ham Woods comprises a succession of Carboniferous limestones, in the lower combe, the youngest, Oxwich Head Limestone Formation, then Clifton Down Limestone Formation, with the oldest, Burrington Oolite Subgroup in the upper section of Ham Woods. Several faults have affected the limestones. In the south-west, at Croscombe, the limestone is overlain by Dolomitic Conglomerate of Triassic age, to the north-west and south-east, the overlying stratum comprises Downside Stone of Triassic and Jurassic age.

HUMAN BONE ANALYSIS

K. Brayne

Skeleton 1.

This skeleton was recovered in good condition, although nearly all the bones were broken post mortem, presumably during the excavation process. Roughly half of the axial skeleton (ribs, vertebrae and pelvis) was missing. Most of the cranial vault was present, but no

Figure 1. *Screech Hole location plan. By courtesy of Robin Taviner.*
Contains OS data © Crown copyright and database rights 2019.

facial bones. Both mandible and maxilla were present, although broken, and the dentition was all present. The bones of the hands and feet were almost entirely absent. In total about 70% of the skeleton was recovered. Because the bone was recovered in a disarticulated state, there was no means of knowing if the skeleton was inhumed in a grave dug into soil deposits or an exhumation which became covered with soil over time. However, it is interesting to note that the condition of the bone from the cranial vault differed from that of the postcranial skeleton. The post-cranial bone was in very good condition, stained reddish brown by the soil matrix but with an intact periosteal (outer) bone surface. Even the axial skeleton (ribs, pelvis and vertebrae), consisting largely of porous trabecular bone which does not survive the burial environment as well as the long bones of the limbs, is in good condition.

The bones of the cranial vault are notably less well preserved, particularly on the inner table, which presented with considerable exfoliation of the peristeal (surface) bone. This suggests that the cranium may have been subject to different conditions within the burial environment than the rest of the skeleton, for example being subject to water damage. This might suggest that the skull was separated from the postcranial skeleton during the burial process, or for some reason of positioning was more exposed to post-depositional disturbance. Unfortunately, because this individual was not subject to careful archaeological excavation this question cannot be answered.

The developmental stage of the dentition suggests this individual was aged seven years +/- 24 months at death. The post-cranial skeleton also reflects this developmental stage, the vertebral bodies have recently fused to the vertebral arches (which usually occurs by the age of six) and the length of the long bones supports this estimation of age. This individual presented with porous lesions on the roof of the left orbit, a condition known as cribra orbitalia. Cribra orbitalia is usually recorded as a symptom of iron deficiency anaemia, especially in children. It

has also been suggested, however, that local inflammation of the orbital roof could be caused by an involvement of the lacrimal gland, and mumps has been suggested as a possible cause (Moller-Christiansen and Sandison, 1963, quoted in Ortner and Putscher, 1981: 259). Iron deficiency anaemia was a common condition in prehistory and among the multiple causes were an inadequate diet, excessive blood loss through injury, chronic disease such as cancer, parasitic infection of the gut, and the secondary impact of an infection. The symptoms would have been fatigue, pallor, shortness of breath and palpitations. Lesions affecting the bone, particularly, cribra orbitalia, probably only occur in childhood, and their presence indicates an active disease process (Manchester and Roberts, 1995).

Figure 2. *Skeleton1 in anatomical position*.
Photo: © Kate Brayne.

Skeleton 2.

An almost complete left ulna and radius were recovered. These two bones articulate, and both present with the same level of degeneration of the joint surfaces. The author is confident that these bones are from the forearm of the same individual: a mature adult, in middle age or older. There is also the shaft of an adult fibula, an adult femoral head, the shaft of an adult metacarpal and a mid shaft fragment of an adult humerus. It is not certain if these bones are also associated with Skeleton 2.

Figure 3. *Cribra Orbitalia, Skeleton 1, left orbit.*
Photo: © Kate Brayne.

Skeleton 3.

A right and left distal tibia shaft from an infant were also recovered. These may be disarticulated, but they are an exact pair, and the author considers it probable that they derived from the same individual, which may have been an articulated skeleton before excavation occurred.

Remarks.

There is a strong possibility that the human bone recovered from this location represent three articulated inhumation burials: an infant, a seven/eight-year-old child and a mature adult. That three individuals may have been recovered suggests that this is a site which contained multiple human burials.

RADIOCARBON DATING

A suitable sample was selected from Skeleton 1 and submitted for radiocarbon dating. The radiocarbon age determination was carried out by the Bristol Radiocarbon Accelerator Mass Spectrometry Facility (BRAMS).

The result in uncalibrated radiocarbon years is 2533 ± 27 BP (BRAMS-1263.2.2), data given are corrected for isotopic fractionation using the 13C/12C ratio measured on the AMS.

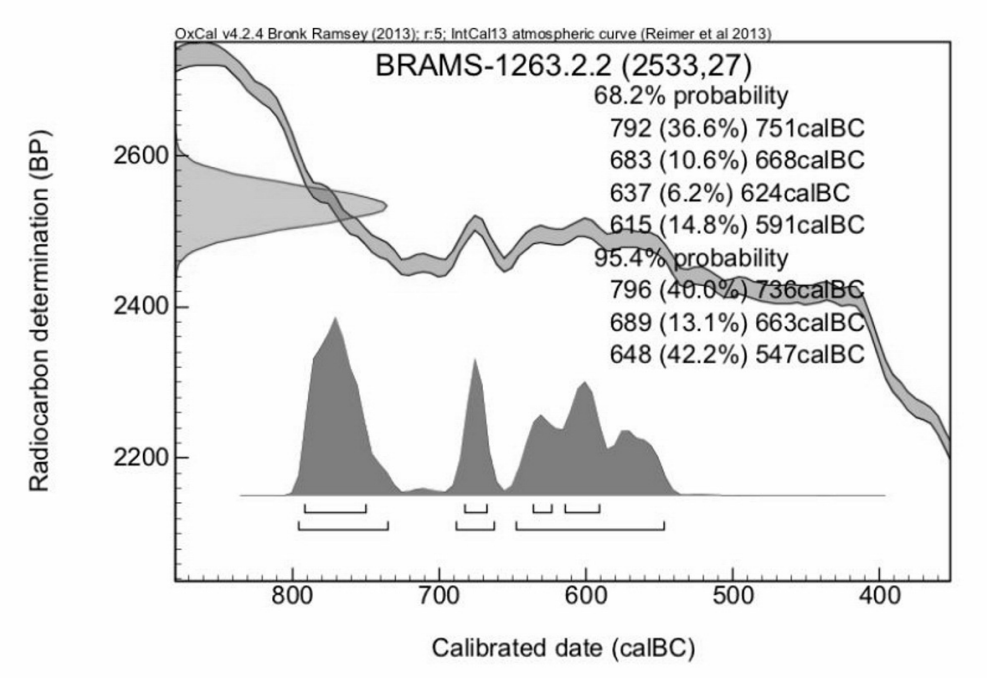

Figure 4. *Calibration curve for sample BRAMS-1263.2.2 from Skeleton 1. The calibration was performed using OxCal software v4.2.4 (Bronk Ramsey, 2009) and the IntCal13 atmospheric calibration curve (Reimer, et al, 2013).*

DISCUSSION

The aim of this report is to bring into the public domain the radiocarbon age determination results obtained on a selected sample from the human remains recovered from Screech Hole, Ham Woods, Croscombe.

The following summary and tables have been included for background information and to highlight those Mendip caves that are associated with Iron Age activities, particularly those with human remains for which radiocarbon dates are available. For a more detailed overview, Bryant (2011) gave a comprehensive account of the Iron Age use of Mendip's cave sites.

Table 1. *Bone, pottery, metal and other finds as evidence for human use of Mendip caves and swallets during the Iron Age period.*

Cave	Bone	Pottery	Metal	Other
Bone Hole	Human (12 skulls reported)	IA		
Browne's Hole	Human 28 individuals of IA/RB date	IA		Undiagnostic flint
Charterhouse Warren Farm Swallet				
Chelm's Combe Shelter			Part of furnace and associated slag	hearth
College Wood Rock Shelter		IA		
Cook's Hill Hole	Human			
Cooper's Hole		IA		
Fairy Cave		IA		
Gough's Old Cave		IA		Quern stone, hearth
Gough's Cave	Human and animal	IA		
Great Oone's Hole		IA		
Ham Hole		IA		
Hay Wood Cave	Human and animal	IA		
Pig's Hole & Sow's Hole		IA		
Read's Cavern	Human and animal	LIA	Fragments of bronze and iron	Clay, craft objects, hearth
Rowberrow Cavern			Furnace and slag fragments of metalwork, evidnce of iron smelting	hearth
St Cuthbert's Swallet	Human			Glass beads
Saye's Hole		LIA	Fragments of iron and bronze	Craft objects, hearth
Screech Hole	Human	EIA		
Soldier's Hole		EIA		
Sun Hole		EIA, LIA		
Tom Tivey's Hole		IA		
Whitcombe's Hole	animal	EIA		
Wookey Hole	Human and animal		Extensive metawork assemblage including iron and bronze objects	Craft objexts, hearth

Key: EIA, Early Iron Age; IA, Iron Age; LIA, Late Iron Age

The Iron Age of Britain covers the period from about 800 BC to the Roman invasion of AD 43. Several cave sites on Mendip have evidence for occupation and/or use during the Iron Age, for example in Reads Cavern, where excavations revealed a substantial artefact assemblage including late Iron Age pottery, fragments of metal (iron/bronze), hearths, human and animal bone and craft objects (Bryant, 2011). Iron Age material has been recovered from Charterhouse Warren Farm Swallet; and possible metal working evidence at Wookey Hole, Rowberrow Cavern, Chelm's Combe and Saye's Hole. However, much of the evidence for the use of Mendip caves comes primarily in the form of human remains and the evidence for metal working is limited to just a few sites. Although some caves appear to have been used for settlement, other uses of these liminal places may have been explicitly ritual (Webster, 2008 p.133).

There is evidence that twenty-four Mendip cave sites were utilised for a variety of reasons during the Iron Age period, although some sites, for example, Pig's/Sow's Hole and Cooper's Hole might be discounted as residual finds (Bryant, 2011). The artefactual evidence presented shows that pottery predominates the archaeological record with 19 of the 24 sites having recovered pottery. The pottery recorded ranges in date from the Early Iron Age to the Late Iron Age. Human remains were recorded at 9 sites, although only 6 radiocarbon dates are available. Dates estimated from associated finds such as pottery might be subject to re-interpretation. Metals, including iron and bronze, were recorded at 6 sites; hearths at 6 sites; animal bone including worked objects at 4 sites; craft objects including glass beads at 4 sites and a quern stone at 1 site. The evidence indicates a wide range of activities having taken place at cave sites throughout the Iron Age period including domestic, craft work and metal industry.

Table 2. *Human remains from Mendip caves with radiocarbon dates from the Iron Age.*

Cave	^{14}C age BP	Iron Age Phase	Lab. Ref.
St. Cuthbert's Swallet	2022	Late	SUERC-50796
Charterhouse Warren Farm Swallet	2145	Middle	SRR-3450
Wookey Hole	2245	Middle	SUERC-50793
Tyning's Great Swallet	2254	Middle	OxA-15350
Ham Woods (Screech Hole)	2533	Early	BRAMS-1263.2.2
Gough's Cave	2850	Late BA/Earliest IA	OxA-1202

Radiocarbon dates are currently available for six cave sites, although the earliest of these, Gough's Cave, is at the Late Bronze Age/Earliest Iron Age transition. The remaining five radiocarbon dates span the Iron Age period, one site (Screech Hole, Ham Woods) dated to the Early Iron Age, three sites (Charterhouse Warren Farm Swallet, Wookey Hole and Tyning's Great Swallet) assigned to the Middle Iron Age and one (St. Cuthbert's Swallet) to the Late Iron Age.

In the wider locality, non-cave related dates are available, including a female burial uncovered at the Golf Links, Wells 2261 BP (SUERC-50797). This Iron Age date has been suggested to fit with the assumed Iron Age hillfort or defended settlement of King's Castle,

located on the hilltop, less than 200 m away from the burial (Lane, 2016). Hillforts developed in the Late Bronze Age and Early Iron Age at the beginning of the 1st millennium BC. It is possible that the combe through Ham Woods provided an access route to Maesbury hillfort, where there is an entrance to the enclosure on the east-south-east side.

Near to Screech Hole, another cave site has been dated to the Early Iron Age period by association with recovered artefacts. Ham Hole (NGR ST 6022 4503) was recorded as a roomy phreatic tunnel formed in Liassic conglomerate. A partial excavation by the Shepton Mallett Caving Club and the Mendip Nature Research Committee between 1952-58 recovered some Early Iron Age pottery. However, a visit to the site by the author in 2016 found that any sediments, potentially containing further archaeological assets have been largely removed by local cave diggers.

BIBLIOGRAPHY

Bass, W.M, 1987. *Human Osteology: A Laboratory and Field Manual*. Columbia. Missouri Archaeological Society.

Bronk Ramsey, C. 2009. Bayesian Analysis of Radiocarbon Dates. *Radiocarbon*. **51.** 337–360.

Bryant, A. 2011. Iron Age Cave Use on Mendip: A Re-evaluation. In Lewis, J. (Ed.) *The Archaeology of Mendip: 500,000 Years of Continuity and Change.* Heritage (Oxbow Books).

Lane, B. 2016. New radiocarbon dates for sites around Wells. *The Proceedings of the Somerset Archaeological and Natural History Society for 2015*. **159.** 186-190

Ortner, D.J., and Putschar, W.G.J., 1985. *Identification of Palaeopathological Conditions in Human Skeletal Remains.* Washington D.C. Smithsonian Institution Press.

Reimer, P. 2013. IntCal13 and Marine13 Radiocarbon Age Calibration Curves 0–50,000 Years cal BP. *Radiocarbon.* **55.** 1869–1887.

Manchester, K. and Roberts, C. 1995. *The Archaeology of Disease*. Stroud. Sutton Publishing Ltd.

Webster, C.J. (Editor) 2008. The Archaeology of South West England: South West Archaeological Research Framework (SWARF) *Resource Assessment and Research Agenda. Somerset County Council.* available at http://www.somerset.gov.uk/swarf

V.J. Simmonds
vince@mendipgeoarch.net

K. Brayne
rudyard@archaeologist.com