Proc. Univ. Bristol Spelaeol. Soc., 2021, 28 (3), 297-314

A NEW EARLY MESOLITHIC BURIAL SITE: PRELIMINARY NOTES ON THE RADIOCARBON DATES FROM THE HUMAN BONE FROM CANNINGTON PARK QUARRY CAVE:

by

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ABSTRACT

Human remains were found in a cave in the 1960s during quarrying activity and collected along with the animal bone which was also exposed. The cave, located just outside of the town of Cannington, was later briefly investigated by the local caving club. The bones were examined and reported on by Philip Rahtz as part of the above ground and adjacent Roman to post Roman cemetery (Cannington Cemetery). The cave bones had been thought to either belong to the cemetery, or from an earlier period, but were not radiocarbon dated at the time.

Work by Cotswold Archaeology on the Cannington Bypass and Hinkley C project provided an opportunity to re-examine the cemetery archive and ignited the curiosity to resolve the actual date of the cave remains. Grant funding from BABAO paid for two radiocarbon dates, which demonstrated that both human bones were from the early Mesolithic. These results suggest that the cave in Cannington Quarry is a Mesolithic burial site, which had previously been unknown.

THE CAVE

Recovery of Mesolithic human remains from the UK are extremely rare and new sites are infrequently discovered. By re-examination of remains held in a museum an entirely new cave site has been revealed. The site, process of the discovery and results of the radiocarbon dating are discussed in the following report.

The cave was located at ST 25177 40402 on Chad's Hill, Cannington, Somerset, UK. It was located in a now abandoned quarry for carboniferous limestone (Figure 1).

Quarrying for building and road stone on Cannington Hill began in the late 18th century (Baggs and Siraut, 1992) and continues at the time of writing on the north side (Castle Hill Quarry). The hill has an Iron Age Hillfort called 'Cannington Camp' at its summit and on the site of the southern quarry was a cemetery estimated to originally have had more than 2000 graves, dating mid-4th century to the 8th century AD (Rahtz *et al*. 2000).

The discovery of the cave appears to have occurred after blasting in the southern quarry (known as Cannington Park Quarry) in 1962. Located on the east edge of the quarry it consisted of a wide triangular chamber with a narrow cleft leading to the surface. Sketches drawn at the time (Locke, 1964) and later illustrated in the publication by Rahtz *et al*. (2000) show the location of human bones lying amongst the blast rubble at the opening of the cave and some animal bones are also labelled (Figure 2) The animal bones have been variously recorded by A.P. Currant as red deer, badger, horse and *Bos* or *Bison*; by Pater and Higgs as red deer and pig and by Locke as aurochs, fallow deer and pig. Locke's identifications are the ones noted on the sketch plan in Figure 2. The accounts of those who entered the cave are detailed in the 2000 publication.

The Shepton Mallet Caving Club (SMCC) surveyed the cave in 1964 and the chamber was described as 7 m by 4.5 m and at a height of 21 m AOD. An exploratory trench was sunk

Figure 1. *Cannington Park Quarry: location map and (top right) Lidar.*

in the centre of the chamber to a depth of approximately 2 m. This appears to have been unremarkable unlike the chamber in Jackdaw Cave on the other side of the hill (at Castle Hill Quarry). At Cannington Park the stratigraphy comprised a series of roof falls, which had pieces of stalagmites in the top three levels. This exploration in 1964 by SMCC also revealed a second cleft, 1 m wide, (named Boulder Cleft) which had at the bottom a very well preserved and almost complete aurochs (*Bos primigenius*) skeleton of which most of the left side was recovered (whereabouts now unknown). It was deduced to be a natural cleft into which the *Bos primigenius* had fallen.

The artificial opening made by the quarry blasting was not the original entrance to the cave and the exploration by SMCC did not conclusively discover its location. It is assumed to have been close by on the hillside. The location of the bones under and amongst the blast rubble suggests they may even have been at the back of the original cave.

Despite the sketchy details regarding the location and nature of the cave and the position of the bones within, the results of these investigations were two boxes of human and animal bone. These are assumed (rightly or wrongly) to be the results from the two explorations, one by Tony Locke and the other by R.J. Lampert. SMCC did not report recovering any human bone during their investigations.

The boxes now reside in Somerset Museum Store where they are curated by South West Heritage Trust; accession number TTNCM: 64/1994/15. It was thought at the time of original discovery that the bones were from the Roman – Post-Roman cemetery above, which was under a rescue excavation around the same time. Later, the bones from the cave were reported on (for details see the Rahtz *et al*. 2000) and included as part of the post-excavation publication of the cemetery.

In 2011, infrastructure works by EDF energy as part of the development of the Hinkley Point Power station, entailed constructing a bypass around Cannington. The archaeological investigation in advance of this work was undertaken by Cotswold Archaeology, who also excavated several other sites across Hinkley Point. As part of the post-excavation process the Post-Roman cemetery at Cannington quarry was an obvious site to investigate to place the results of the recent archaeology in context. It was noted in the publication by Rahtz *et al*. (2000) where it detailed the cave investigations and bones recovered at the quarry. The intriguing line:

> *"but these possible cave burials would be very much earlier still; only radiocarbon determinations could resolve this problem"*

piqued curiosity enough to initiate further investigation to determine if they were indeed from the cemetery or not. Application for a grant from BABAO (British Association of Biological Anthropologists and Osteoarchaeologists commercial grant 2018) was successful and sufficient to allow for two radiocarbon dates from the bones. This report details the results of the radiocarbon dates and an updated analysis of the bones.

RADIOCARBON DATING RESULTS

The radiocarbon dating was undertaken by SUERC (Scottish Universities Environmental Research Centre) during February 2019. For sample methodology see Dunbar *et al*. (2016). Stable carbon and nitrogen isotope measurements were undertaken at the same time on the same samples.

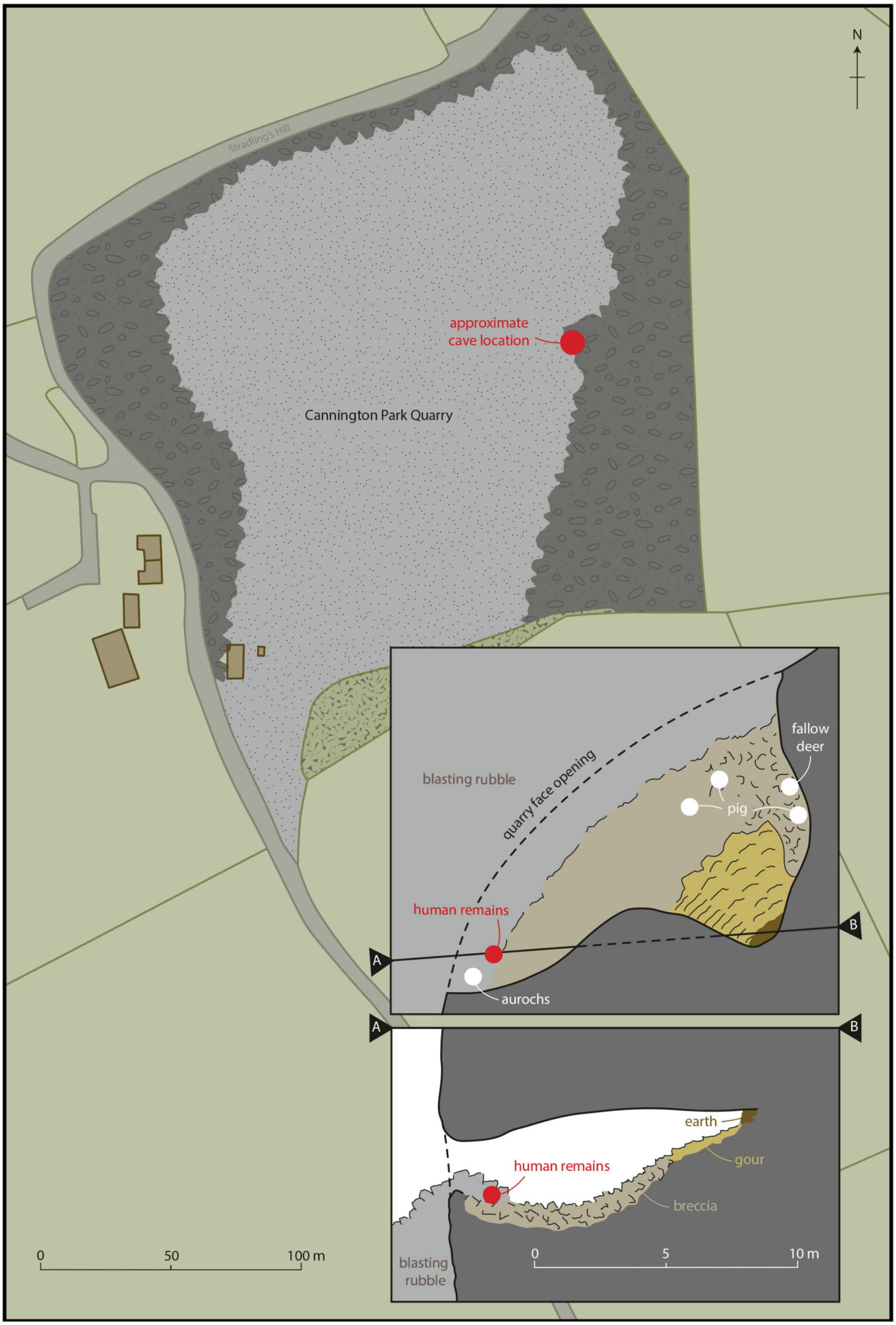

Figure 2. *Approximate location of the cave within Cannington Park Quarry and plan and elevation sketches of the cave indicating the location of the bones.*

Adapted from Figure 9, Rahtz *et al* 2000.

Table 1. *Radiocarbon dating results.*

Lab code	Sample code	Material	$\delta^{13}C$	$\delta^{15}N$	Ratio C:N	^{14}C BP	Cal* 95.4%	Cal* 68.2%
SUERC-2 84330 (GU50051	CPQ64-1	Femur - non-adult	-19.2‰	8.7‰	3.3	9225 ±23	8549-8504 cal BC (18.9%) 8494-8316 cal BC (76.6%)	8538–8515 cal BC (13.2%) 8476-8418 cal BC (33.8%) 8407-8398 cal BC (9.7%) 8372-8350 cal BC (11.6%)
SUERC- 84331 (GU50052)	CAN65-2	Left femur	-19.7‰	8.6‰	3.4	8925 ±21	8240-8164 cal BC (36.4%) 8121-7963 cal BC (59.1%)	8231-8173 cal BC (31.7% 8114-8090 cal BC (13.2%) 8076-8062 cal BC (6.2%) 8041-8012 cal BC (17.2%)

*OxCal4.4.2 Reimer, *et al* (2020) using the IntCal20 atmosphere calibration curve.

Two samples were selected, one from each box, and due to the disarticulated nature of the remains these were to be from two clearly different individuals. Selection comprised one non-adult unfused femur (adolescent or older child sized) and the other fully fused adult femur.

The results are presented in Table 1. Both samples were placed firmly in the early Mesolithic and do not overlap in their date ranges.

There is no evidence for marine consumption in the diet as seen in the $\delta^{13}C$ and $\delta^{15}N$ values for the bone collagen, so no allowance for marine reservoir effect has been made to the calibration. These samples values are within the same range as the nearby Mesolithic Mendip cave sites (Aveline's Hole Schulting 2005, Gough's cave quoted in Meiklejohn *et al*. 2011 and Totty Pot Schulting *et al*. 2010).

The calibrated dates are contemporary with activity in the nearby Mendip caves (Meiklejohn *et al*. 2011) and in particular an ulna from Aveline's hole has the same BP 8925 ±45 as the left femur from Cannington (see Figure 3). The collation of dates by Meiklejohn *et al.* (2011) states there are 18 directly dated sites (though one doubtful) with Mesolithic human bone from the UK, with a further two considered Mesolithic from other evidence. These form clusters in north-west Scotland, Midlands, Thames Valley and Mendip and south-west England. These two new dates take the number of directly dated sites with Mesolithic human remains sites up to 19 (or 21) and add to the Mendip and south-west England group.

The two results lie on a plateau on the calibration curve, further examination of this by testing in OxCal indicates they are statistically different and, therefore, of different ages. This suggests that individual burial was probably not a single event, had occurred over time and is unlikely to be a close family arrangement, since the dates would place them many generations apart. Cultural memory of the cave and selection of particular individuals is inferred from this evidence but will have to wait the results of aDNA analysis for confirmation.

The stable carbon and nitrogen ratios for both individuals are similar (Table 1). The results are within accepted C:N values (not above 3.4) and lie within the ranges seen at Aveline's Hole (Schulting *et al*. 2019), where ranges δ^{13}Carbon -19.1‰ to -21 ‰ and δ^{15}Nitrogen 7.7‰ – 10.3‰. Since the adult and non-adult from Cannington have very similar ratios it suggests that the non-adult is old enough to be out of the weaning effect (higher trophic nitrogen level) and eating a similar diet to the adult. The $\delta^{13}C$ and $\delta^{15}N$ values are consistent with a terrestrial diet. Marine signatures have been found in Mesolithic human remains from Caldey Island (Schulting and Richards 2002), Wales, which is not a great distance across the sea from the site at Cannington. Throughout the Holocene Caldey Island would have been between 2-4 km from the coast. Present day Cannington is 4 km to the coast and 2 km to the River Parrett, which lies in a flood plain and estuary leading to the sea. With lower sea levels at the time of use of the cave, the distance to the sea would have been greater, but the flat flood plain area would allow easy access to the sea. It is interesting that there is no apparent exploitation of marine resources and further investigation into the diet of these individuals is required.

It is proposed that further radiocarbon dating work on the human remains from Cannington would be beneficial for understanding the length of time of the use of the cave for burial. Recent work by Schulting *et al.* (2019) on other cave material demonstrated why direct dating of disarticulated material with uncertain or unknown provenance can yield surprising results. Unexpectedly there was Neolithic dated bone mixed in with the bones which were Mesolithic and this was limited to only some crania. Dates from the animal bone would answer the question as to whether these are contemporary or not with the human remains. In addition to the radiocarbon date, the carbon and nitrogen results would add to the other two results to build

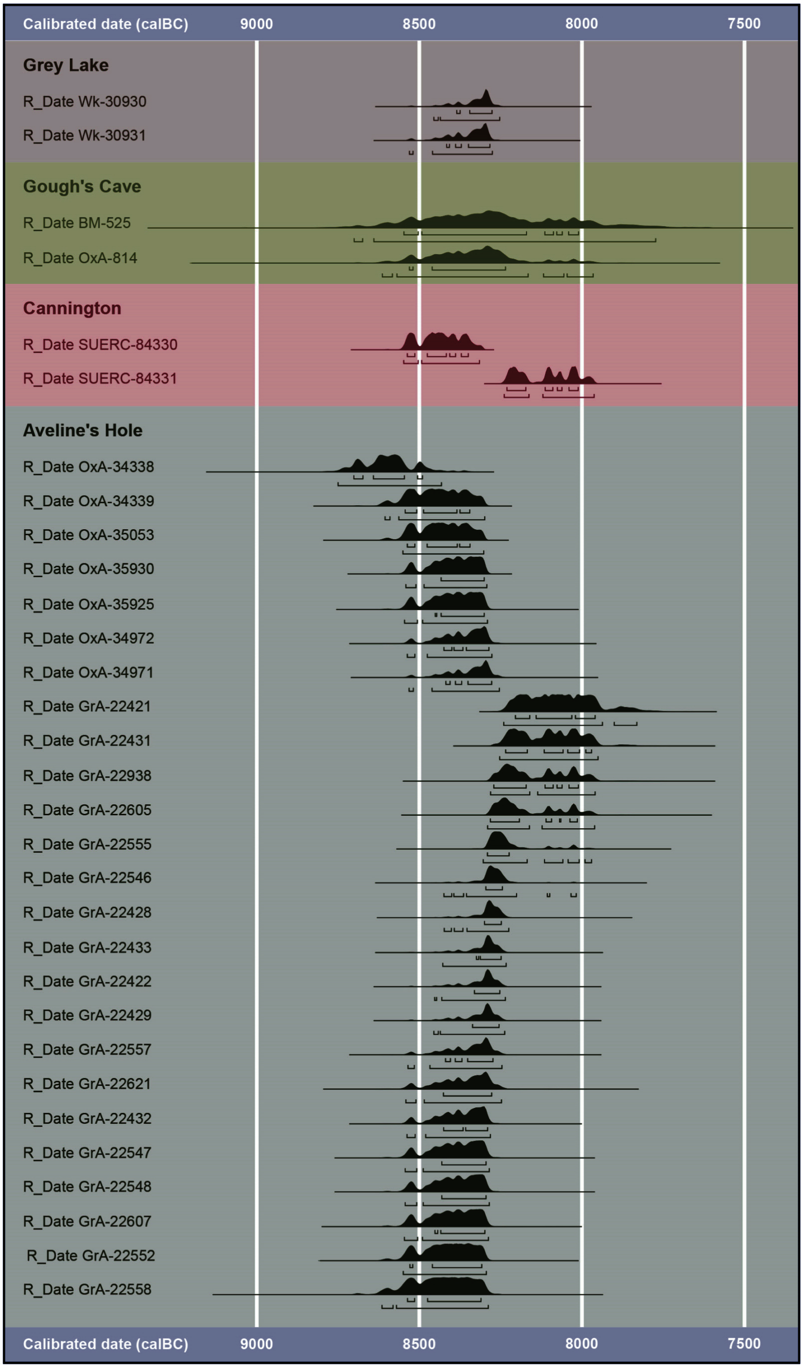

Figure 3. *Calibrated radiocarbon dates from Mendip directly dated Mesolithic sites showing correlation with Cannington Park Quarry Cave.*
After Meiklejohn *et al*, 2011; Schulting *et al*, 2019 and Brunning and Firth, 2012.

a picture of the diet people ate. If the animal bone is found to be contemporary it would particularly benefit from this analysis.

OSTEOLOGY

The bones were first examined soon after collection in 1964/5. They were then re-examined in 1985 and the report was included in the 2000 publication (Rahtz *et al*. 2000). The observations made by Rosemary Powers (Department of Paleontology at the British Museum of Natural History) in 1985 were recorded as follows:

Box 1 (coded CPQ64-1 for the radiocarbon date): Box labelled 'Cannington Park Quarry 64/1994/15'. These were reported on by Rosemary Powers pages 446-447. Summarised as: "human: minimum of three individuals, at least two male."

Box 2 (coded CAN65-2 for the radiocarbon date): Box labelled 'Cannington Jan '65 – Boulder Cave'. These were reported in Rahtz *et al*. 2000 pages 445-446. Summarised as "human: minimum of four individuals, three adults and neonate; probably one male and two female."

In order to establish that the boxes in the museum were the same as those described in the publication, the inventory was checked. The listed bones are nearly all the same as those described in the publication. This includes the animal bone, with the exception of an additional canid skull (Tables 2 and 3).

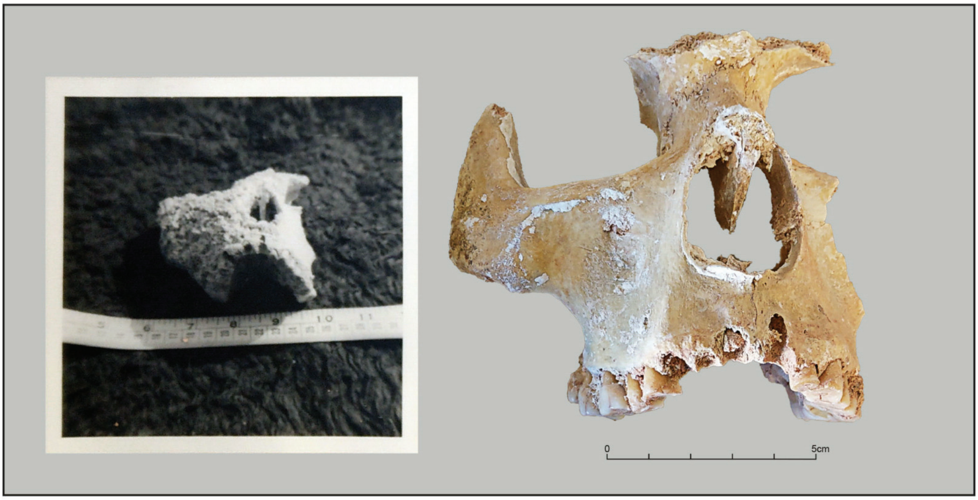

Figure 4. *Maxilla in present state, right, with an archive photo, left, taken during the original analysis showing the heavy calcareous deposit.*
Photo: Author.

The paper archive associated with the boxes includes an original photograph taken before the removal of the calcareous deposit on a maxilla mentioned in the report (Figure 4). It shows just how much was removed for the original analysis. It was observed that all the bones had, to some extent, this white calcareous deposit. The soft chalky substance was hard and stubborn in places and there was also a reddish thin layer, possibly the 'ferruginous stain' of the original report, in places (Figure 5). The deposits obscured the bone surface underneath, which was probably why some was removed during the original examination. During the current investigations it was left in situ, as it forms part of the evidence for the position of the bones on the cave floor.

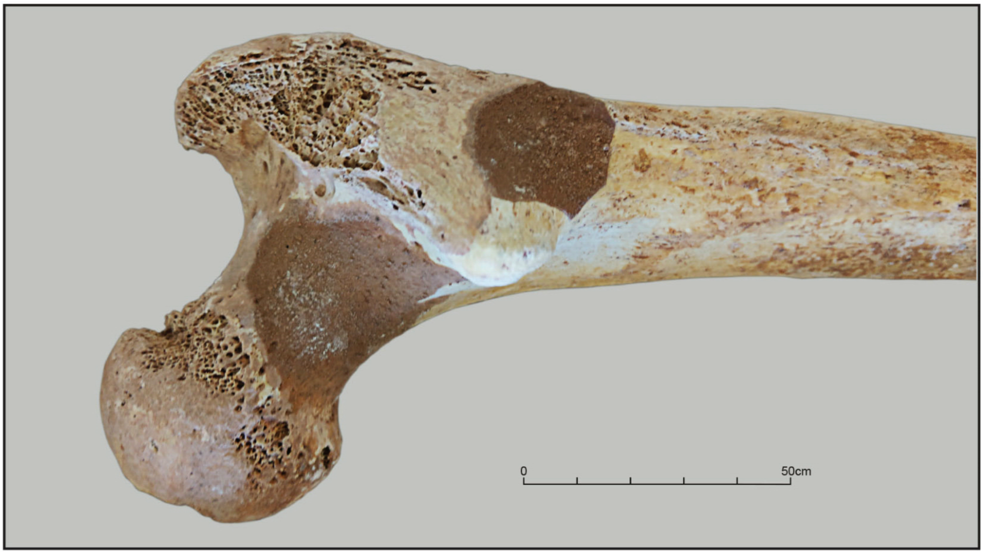

Figure 5. *Right femur with thin reddish layer deposits on the posterior aspect.*
Photo: Author.

The condition of the bones and bone surface is excellent. The pieces are fragmented, with old and new breaks (presumably when they were collected from the blasting rubble) but are mostly in large pieces. The bones are still robust and light in colour. The bone surface in particular did not exhibit the usual, brownish colour, rooting and degradation associated with a period of time under the earth (Dupras and Schultz, 2013). There is no indication of the linear cracking associated with rapid wet/dry action on most of the bones. However, the neonate left femur, and adult radius from box 1 do have the linear cracking, as do some of the animal bone suggesting that perhaps they lay in a different location in the cave.

Possible gnaw marks were observed on a femur from box 1. Linear striations were located on the centre of the bone shaft, about 10 mm wide (Figure 6). This would suggest a mammal had gnawed on the bone once the flesh had gone but it is not possible to determine how long after de-fleshing it happened. Wild mammals are frequently present in caves and badger bones (part of the Mesolithic fauna) for instance, were found along with the human. Gnaw marks were also observed on bone at Aveline's Hole (Schulting and Wysocki, 2002, p262). Post-depositional interference by animals may aid disarticulation of the remains.

Where it was possible to observe, some of the joints (auricular surface for example) did not have any deposits on them, whereas the remainder of the bone did. This indicates that two bones had lain joined or articulated during the time the deposits were laid down. However, other joints (for example, scapula glenoid fossa) were covered in white deposits. This may indicate post-depositional movement, or that the bones were not originally placed articulated. Deposits on bone are common from caves, especially in limestone areas and further analysis of the material would aid interpretation.

Animal bone was similarly affected; however, the Canid skull showed linear cracking of wet/dry action and patchy reddish deposit as if articulated. This could indicate that the canid skull was from a different part of the cave and since it was not on the original inventory, its origin is more questionable.

Figure 6. *Possible gnaw marks on the shaft of a long bone.*
Photo: Author.

From observation of the taphonomy of the bones it is concluded that they had lain on the cave floor and not been interred within the earth. From the pattern of the deposits many of the bones look to have lain supine and possibly in anatomical position, though perhaps with some post-depositional movement.

This appears to fit with the description by Pater and Higgs (who retrieved bones from the cave in May/June 1964) where it is stated “the animal remains lay on and in the surface rubble ... they comprised the articulated skeletons of three red deer and four pig … in the south east corner of the cave, a human femur and fragments of two human radii were found ... less than three feet from the base of the entrance cleft” (notes also that right radius and ulna of *Bos primigenius* bones were recovered by R.J. Lampert from the rubble slope outside the cave in 1962).

Table 2. *Identifications by the author of the human bone.*

Bone	Side	Age/sex	Comment	metric
Box 1	*ID 2019*			
Maxilla	Left	Adult	3 teeth, but broken or split. Corresponds with 'maxilla' p446 recorded by R. Powers. Heavy calcareous deposits on both sides.	
Loose teeth		Adult	2x M2 and left M1. No wear on M2, minor wear on M1	
Maxilla with right zygomatic and nasal bones	Right	Adult – Male	Calcareous deposits all over. (B&W photo Fig. 4). Recorded by Power p446 as 'face'. Teeth present were Left C-M3 and right PM1-M3. Left I2 root only worn to stump. Front teeth much more worn than molars. Dentine exposure on canine and first premo-lar.	Measurements the same as Powers, 1985, p446
Frontal & parietal			Parietal and frontal fragments re-fitted.	Min breadth 98 mm
Occipital		Male	4 re-fit fragments, 1 glued (?1985) Protruding nuchal crest – male characteristic.	
Maxilla	Palate		Left side M1 half broken off, M2 present. Right side M2 only (cracked), M3 ?congenitally absent as no room in palate (but absent on the left). Calcareous deposit across the alveolar.	
Temporal x2				
Petrous portion x2	Left		Both left side and different size	
Talus and calcaneus	Right		Small and fit together	Max length: 78 mm calc and 57 mm Tal
Thoracic vertebra x2		Non-adult		
Clavicle		Non-adult	Unfused epiphyses with fusing flake (16-21 years, Scheuer and Black 2000)	
Tibia		Neonate	Possible tibia fragment	
Rib fragments				

Bone	Side	Age/sex	Comment	metric
Femur	Right		Almost complete	Head 41mm - Female = <43.5 Sub troch AP 24mm, ML 29mm (index 82.7).
Femur	Right		Head and distal joint surface absent. Long and robust.	Sub troch- AP 24 mm, ML 34 mm (index 70.5).
Femur		Non-adult	Distal portion only. Unfused – adolescent/older child-sized. Sampled for C^{14}.	
Tibia	Right			Nut for – AP 35 mm, ML 21 mm
Femur	Left		Head. May articulate with pelvis.	45 mm. Male = >44.5.
Pelvis	Left	?male – 19-34 years	Pubis Stage 2 (19-34y) (Suchey-Brooks 1990) or auricular surface Phase 2 (25-29y) (Lovejoy *et al*. 1985). Wide sciatic notch, but the rest of the features are male.	
Sacrum		Male	Parts 1-3 are fused. Does not articulate with pelvis.	
Humerus	Left			
Humerus	Right		Not pair with left. Very thin.	
Rib	Left			
Clavicle	Left			
Radius	Right			
Ulna	Right			
Lumbar vertebra			May articulate with sacrum.	
Scapula	Right		Glenoid fossa and acromion area, blade broken.	25 mm width of glenoid (Female range <26.1)
Box 2			*"Cannington Boulder Cave – Mixed human and bos" Jan '65*	
Temporal most part of	Left	?female		
Mastoid process and petrous	Right	Male		
Radius			Complete	206 mm- Stature 152.2 cm female, 157 cm male

Bone	Side	Age/sex	Comment	metric
Radius head				
Radius head				
Ulna	Right		Complete	269 mm – stature 172.5 cm female, 173.5 cm male
Ulna head				
Humerus	Right		Shaft and distal	
Humerus	Left		Shaft and distal	
Humerus	left		Mostly present, but not complete	
Humerus	Right		Proximal and shaft	
2nd Metacarpal	Left			
Femur	Left		Complete	420 mm, stature 161.3 cm male, 157.84 cm female Head 41 mm (?female) sub troch AP 26 mm, ML 33 mm (index 78)
Femur	Left			Head 44 mm (male). sub troch AP 25 mm, ML 33 mm (index 75)
Femur	Left			AP 27 mm, ML 34 mm (index 79)
Femur	Right			
Tibia	Left		Complete	370 mm. stature female 169 cm, male 172 cm. AP 38 mm, ML 20.5 mm (index 53)
Tibia				AP 37 mm, ML 22 mm (index 59)
Tibia			Shaft	
Tibia			Shaft	
Femur		Neonate		74 mm (Gowland and Chamberlain, 2002) 38-44 weeks.
1st metatarsal	Left			
Scapula	Right			
Scapula	Right			
Clavicle	Right			
Rib fragments x7				

Bone	Side	Age/sex	Comment	metric
Sternum and manubrium				
Vertebrae lumbar and thoracic			Broken/damaged	
Pelvic fragments	Right	Male		
Pelvic fragments	left	Female		

The animal bone was all present and as described in 1985 for each box (Table 3), with the exception of a question over the identification of the tibia which may be dog. Additional animal bone which was not in the original recording was present, mainly the skull and mandible of a dog. The lack of mention of a medium mammal rib seems an acceptable oversight, but to not mention an entire skull does seem odd. Therefore, the origin of this skull is called into question; was it included accidentally in the return of the boxes to the museum?

Badgers and dogs are known to go into caves (and not return), so it is unsurprising to find the remains of these animals present. Red deer, Bovine and horse however, are unlikely to have found their way into the cave by accident. These are probably human-introduced and would benefit from radiocarbon dating to see if they are of a similar date to the human bone, since for example, the horse was reintroduced to Britain in the Bronze Age, so cannot be the same date. A similar range of animal bone was found in Avelines's Hole (Murray and Schulting 2005). Whether these were deposited as offerings or ornamentation is unknown, but it is interesting to note that they are all from the mid-section, ribs and vertebrae of the animal, which can form some of the best cuts of the meat, apart from the red deer which is the mandible.

Table 3. *Identification by the author of the animal bones.*

Animal Bone	Id 1985	ID 2019
Box 1	Teeth and jaws of red deer.	present
	Humerus of badger	present
	Cervical vertebrae of horse	present
	Thoracic and caudal vertebra of bovine (*Bos* or *Bison* sp.)	present
	-	Skull and mandibles of canid (probably dog).
Box 2	Two humeri and tibia of badger	Humeri badger; tibia possibly dog.
	?juvenile thoracic vertebrae	present
	Large rib fragment and second phalanx of bovine (*Bos* or *Bison* sp.)	present
	Juvenile thoracic and lumbar vertebrae	present
	-	Medium mammal rib

The minimum number of individuals in total is seven if the boxes are taken separately, three for Box 1 and four in Box 2. However, if the assemblage is taken as a whole this breaks down into four Adults (2 male, 1 female, unknown) one non-adult (probable adolescent or older child) and one neonate.

The only observed pathological lesions were increased porosity on the vault surface of the frontal and parietal (refit) bones in box 1 often referred to as 'orange-peel' lesion. This increased porosity has an unknown aetiology, but may be indicative of localised infection, metabolic stress or be age-related.

The maxilla dentition in Box 1 has dental wear possibly inferring use of the teeth as a tool. The anterior teeth on the occlusal surface were considerably more worn than the posterior. The usual patterning for wear is the molar teeth and second premolar (posterior) are worn before the anterior (incisors and canines, first premolar), since these are the chewing teeth and therefore subject to coarse food abrasion. Teeth are commonly used as a third hand, or tool and non-masticatory use will result in a different wear pattern (Larsen, 1997). Loss of the posterior teeth through caries may result in the anterior teeth being used for chewing, and therefore subject to abnormal attrition. The presence in this instance of all the molar and premolar teeth as well as canine, has meant that wear due to tooth loss is highly unlikely, though without the mandible this is not completely conclusive. The left second incisor has lost all the enamel and is a root only or 'stump' due to the excessive abrasion. There are no grooves and the wear is even, both of these have been observed to indicate use of teeth as a tool. The unfortunate consequence of potentially using the teeth as a tool means that the dental wear cannot be used to estimate the age of the individual. At least two incisors from Aveline's Hole (Schulting *et al.* 2005) have increased wear to the middle anterior part of the occlusal surface which was considered to possibly reflect working of sinew or plant fibres. Further work is needed on the dental wear; micro- and macro-examination may elucidate information relating to activity or dietary reconstruction.

Flattening of the lower long bones was examined, since squatting, mechanical stress and pathology have all been suggested as factors to cause the anterior posterior flattening observed on the tibia and femur (Brothwell, 1981). It is noted that a right femur has an index which is platymeric (flattened) at 70, however another right femur, which may be female, has 82 which is also platymeric. A further three left femori are all playtcnemic (78, 79 and 75). A right tibia is platycnemic (very flattened) with an index of 60, a left tibia is 53 (hypercnemic) and a further unsided tibia is 59 (platycnemic). Earlier British populations are more likely to exhibit flattening and therefore these results are consistent with this date.

There are no indicators of metabolic disease, other than the porosity on the cranium, which suggests that diet was sufficient in childhood and adulthood. Dental enamel hypoplasia was not observed, but the teeth which are usually affected (canine and incisors) are not present or observable, so this cannot be ruled out. There are also no fractures or periostitis (which is indicative of infection).

As a group these appear to represent a mix of ages and sex, which would correspond to a normal attritional pattern of death. However, the date range for the burials based on the two radiocarbon dates suggests that these burials were not necessarily contemporary and may have occurred over a long period of time.

CONCLUSION

The (re)discovery of the human bones from Cannington Cave and their direct dating has contributed to the number of known Mesolithic cave sites. It sits neatly into an important regional pattern of cave burials in the Early Mesolithic period in the south west and Mendip area.

It is recorded that Mesolithic worked flints were found at Brymore House, 1 km south of the quarry (Wymer and Bonsall, 1977), and now reside in the Museum of Somerset. Though a comment on the Somerset HER (record 10296) suggests that this site as the location of the discovery may be in doubt. This is further evidence for the presence of activity in the immediate area during this period. The date ranges from the Mendip cave sites (Aveline's Hole, Totty Pot and Cheddar Gorge Meiklejohn *et al*. 2011) and the open site at Greylake (Brunning and Firth, 2012) where several skulls (and long bones) were recovered are contemporary with the dates from Cannington Quarry.

The stable carbon and nitrogen isotope results also concur with the Aveline's Hole results, adding to the evidence for Early Mesolithic diets. Despite their disarticulated nature, the bones are fairly robust and complete. It has been possible to provide estimates for age and sex for some of the bones, as well as metrical details. The range of population suggests that all members of the community were afforded burial in the cave, as seen at other sites. The possible extra-masticatory wear may be evidence of using the teeth as a tool, which was also observed at Aveline's Hole.

These preliminary investigations demonstrate the potential of the assemblage and the value of reinvestigating material contained within museums.

ACKNOWLEDGEMENTS

The author would like to thank Graham Mullan for all the information and encouragement; Rick Schulting for his support; Amal Khreisheh at South West Heritage Trust, Somerset Heritage Centre, Somerset Museums Service for all her help and for permission to sample the bones; Matilda Holmes for assistance in the identification of the animal bones; Cotswold Archaeology for supporting this research, in particular Andrew Mudd, Martin Watts and Alistair Barclay and finally BABAO for the research grant without which establishing the date of the bones would have not been possible. I am very grateful to Lucy Martin for the illustrations and Richard Oram for the Lidar.

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