

RADIOCARBON DATES FROM TYNING'S GREAT SWALLET, CHARTERHOUSE-ON-MENDIP, SOMERSET

by

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ABSTRACT

Two samples of bone from Tynning's Great Swallet were submitted for accelerator radiocarbon dating. The dates obtained, at 95.4% probability, were: 2480 - 2290 BC for *Bos primigenius* from about 40 m depth and 400 - 340 BC (34.8%) ; 300 - 200 BC (60.6%) for *Homo sapiens* from about 30 m depth. These results imply that the infilling of this shaft was a relatively gradual and probably natural process. In the absence of Iron Age artefacts, the circumstances of the deposition of the human remains are obscure.

INTRODUCTION

In the course of a cave dig in Tynning's Great Swallet, a quantity of bone, both human and animal, and a single worked flint were recovered. This work was described by Mullan and Boycott (2005) who described the nature of the deposit and compared it to the nearby sites of Charterhouse Warren Farm Swallet (Levitan, *et al.*, 1988) and Brimble Pit (Lewis, 2000) both of which have intentional deposits of late Neolithic and Early Bronze Age. In order to test this comparison, two samples, one of an atlas vertebra of *Bos primigenius* and one of a lumbar vertebra of *Homo sapiens* were submitted to the Research Laboratory for Archaeology and the History of Art at Oxford for accelerator radiocarbon dating. The relative stratigraphic positions of these finds are shown in Mullan and Boycott (2005), figure 2. The *Bos* came from area F at a depth of about 40 m below the entrance and the *Homo* from area A-B at a depth of about 30 m.

RESULTS

The Oxford laboratory results are summarised in Table 1.

Species	Laboratory No.	Dates		
		Uncalibrated	Calibrated 68.2% probability	Calibrated 95.4% probability
<i>Bos primigenius</i>	OxA-15165	3904±32 BP	2470 - 2340 BC	2480B - 22290 BC
<i>Homo sapiens</i>	OxA-15350	2254±29 BP	390 - 350 BC (28.8%) 290 - 230 BC (39.4%)	400 - 340 BC (34.8%) 320 - 200 BC (60.6%)

Table 1. Radiocarbon dates from Tynning's Great Swallet.

The dates were calibrated using the Oxcal computer program (v3.10) of C. Bronk Ramsey, using the 'intcal04' dataset (Reimer, *et al.*, 2004), the age ranges are as shown in Figures 1 and 2.

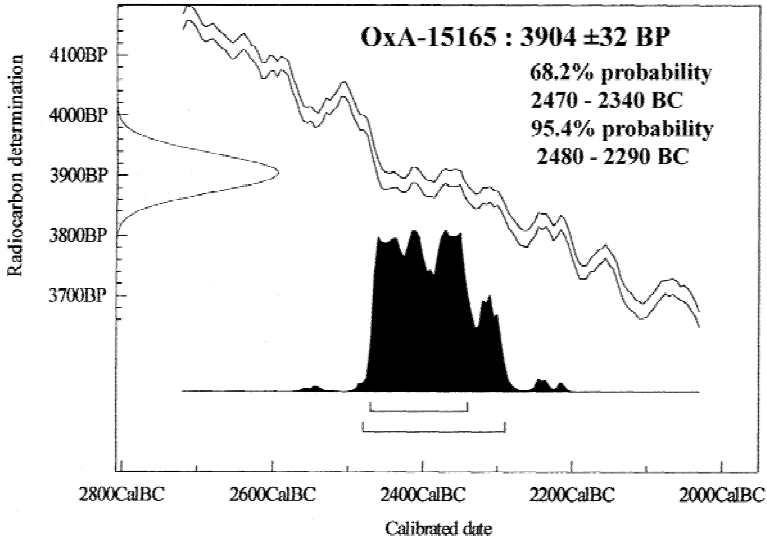


Figure 1. Calibration curve for sample OxA-15165 from Tynning's Farm Swallet.

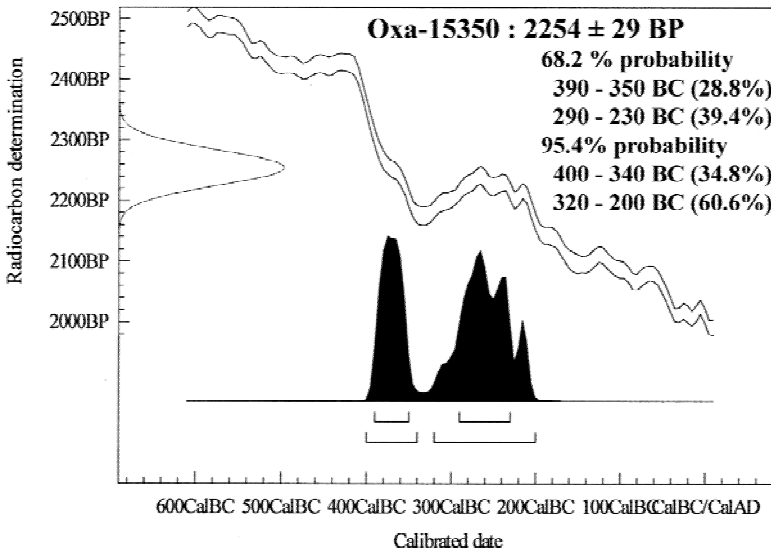


Figure 2. Calibration curve for sample OxA-15350 from Tynning's Farm Swallet.

DISCUSSION

The date for sample OxA-15165 falls within the Bell Beaker (Copper Age - Early Bronze Age) archaeological phase, though the earlier end of the range would lie close to the Late Neolithic - Copper Age (Bell Beaker) transition. The date for sample OxA-15350 falls within the Middle Pre-Roman Iron Age (MIPRIA) phase.

The dates obtained from these two specimens demonstrate that, despite a superficial similarity, there is, in fact, a significant difference between this shaft infill and those found at Charterhouse Warren Farm Swallet (Levitan, *et al.*, 1988) and Brimble Pit (Lewis, 2000). In each of those cases, there was a relatively rapid and apparently intentional accumulation of material. At Charterhouse Warren Farm Swallet, for example, 5 m of material seems to have accumulated rapidly between Horizons 2 and 4, both of which contained objects which can be reasonably accommodated in the middle Bell Beaker assemblage and might even have derived from a single beaker burial. The radiocarbon dates from the two horizons do not show any significant age differences. In addition Stanton (1989) noted that the cobbles in the deposit did not seem to be derived from the shaft's sides.

At Tynning's Great Swallet, neither of these features is duplicated. From the dates obtained, it would appear that this deposit has accumulated far more slowly, at approximately 0.5 m per century. The single find of a thumb scraper (Figure 3) at a level between the two dated bones is in broad agreement with this conclusion. The flint has been identified as late Neolithic in date (Jacobi, *pers comm.*; Lewis, *pers comm.*) which supports the position that the deposit has been formed steadily and the stratigraphy has not been disturbed. Further, the diggers note that, although a very occasional sandstone boulder has been seen, the majority of the deposit is composed of subangular limestone clasts, which have probably been derived from the local bedrock.



Figure 3. *The flint thumb scraper from Tynings Great Swallet.*
(Cat. No. M45.5/1)

Thus it would seem that, although this site is broadly similar in type to the other two mentioned, collapse dolines containing an infill consisting mainly of clasts of cobble to small boulder in size, and although it is less than a kilometre from Charterhouse Warren Farm Swallet it does not seem to have been used in the same way by the Copper Age to Early Bronze Age population. As for the Iron Age human remains, if artefacts had been found with them, then a burial, or intentional deposition, would have been a reasonable suggestion. There is ample evidence, from finds, for Iron Age use of caves on Mendip so an intentional inhumation at such a site would not be surprising. Unfortunately the lack of evidence makes it impossible at present to reach any conclusions about how the bones came to be deposited. It remains to be seen whether more material will come to light at this site and help to answer these questions. Work has continued in the cave since the publication of the 2005 report and a little more bone has been recovered.

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