Radiocarbon dating zooarchaeological remains from Market Lavington

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In 2019, as part of the Feeding Anglo-Saxon England project (FeedSax), Dr Matilda Holmes at the University of Leicester undertook palaeopathological analysis of cattle remains from an Anglo-Saxon settlement excavated at Grove Farm, Market Lavington, Wiltshire (Williams and Newman 2006). These included zooarchaeological remains from three contexts for which limited dating evidence was available: a 'dark earth' layer (contexts 12128 and 12497), a north-south ditch (context 13704), and a sunken-featured building (SFB3, context 13750). In the original site phasing, all of these contexts were assigned to a broadly defined Early Saxon phase dated AD 400–700, principally on the basis of associated Early Saxon pottery.

In order to obtain firmer and more precise dates for these zooarchaeological assemblages, the FeedSax project submitted samples of cattle bones for radiocarbon dating by the Oxford Radiocarbon Accelerator Unit in 2020. The radiocarbon determinations obtained from these samples have been calibrated using IntCal20 (Reimer *et al.* 2020) and OxCal 4.4.2 (Bronk Ramsey 2009) as shown in the table below and the calibration graphs at the end of this report.

Results

context	material	laboratory no.	age BP	calibrated dates AD (confidence)
12128	cattle bone: left posterior 1st phalanx	OxA-40331	1519±21	536–604 (93.6%)
12497	cattle bone: right posterior 1st phalanx	OxA-40332	1524±22	534–603 (88.9%)
13704	cattle bone: right posterior 1st phalanx	OxA-40333	1255±22	674–779 (76.2%), 787–829 (17.8%)
13750	cattle bone: right posterior 2nd phalanx	OxA-40334	1522±22	534–604 (90.4%)

Three of these new dates confirm and refine the original 'Early Saxon' phasing of these contexts. The bones from the 'dark earth' layer most likely date from the latter part of the sixth century. The bone from SFB3 dates from the same period, and together all three dates raise the possibility that settlement activity did not commence in this area before the mid-sixth century, in contrast to the adjacent cemetery which is thought to have been in use from the late fifth century (Stoodley in Williams and Newman 2006, 173–4).

The bone from the north-south ditch has returned a later-than-expected date, most likely between the late seventh and late eighth centuries: a period for which firm evidence of settlement activity was hitherto lacking at the site. Although the ditch may of course have been dug long before the deposition of the dated cattle bone, it is not implausible that the ditch itself was created in the later seventh or eighth century. It cuts an Early Saxon pit, and ditched enclosures in general are recognised as a feature of Mid Saxon settlements, *c.* AD 650–850 (Hamerow 2012, 72–83). Furthermore, the identification of a beam slot containing a sherd of possible Mid Saxon date (Williams and Newman 2006, 20), along with the predominance of organic-tempered pottery at the settlement (ibid., 96),

could also indicate a phase of occupation centred on the seventh century or later (McKerracher 2018, 137).

Acknowledgements

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References

Bronk Ramsey, C. (2009). 'Bayesian analysis of radiocarbon dates', *Radiocarbon* 51(1), pp.337–360.

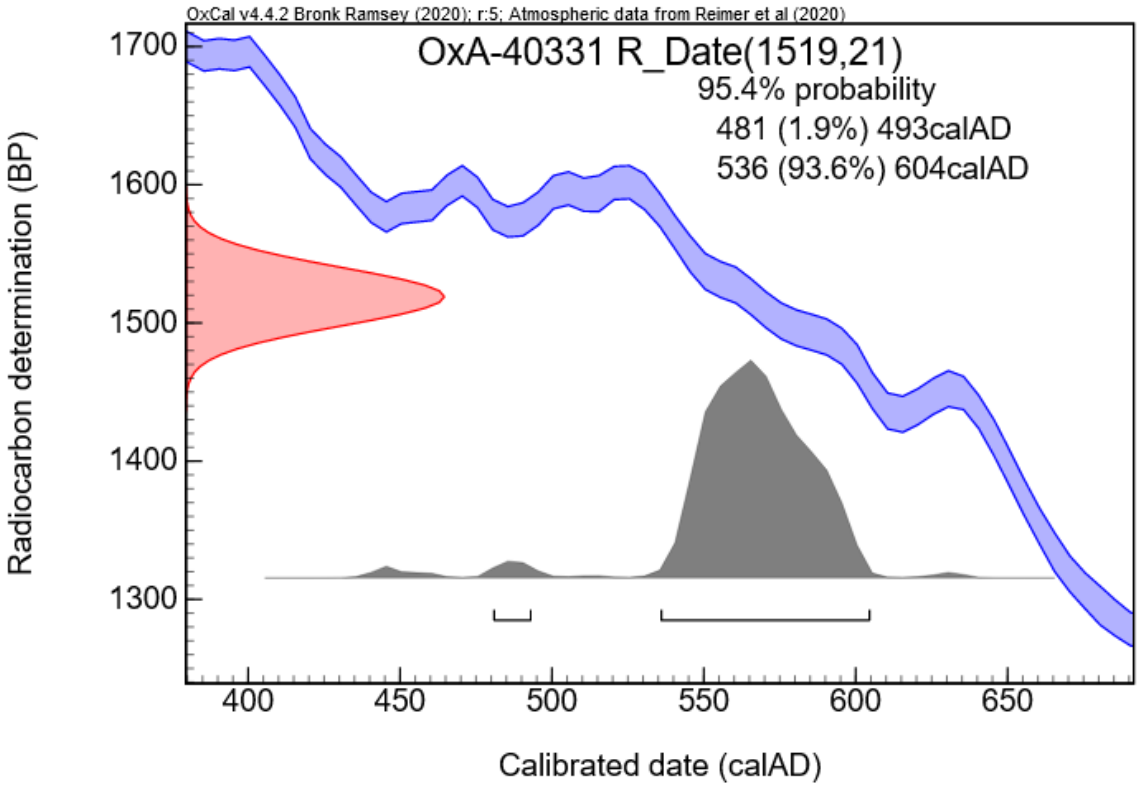
Hamerow, H. (2012). *Rural Settlements and Society in Anglo-Saxon England* (Oxford: Oxford University Press).

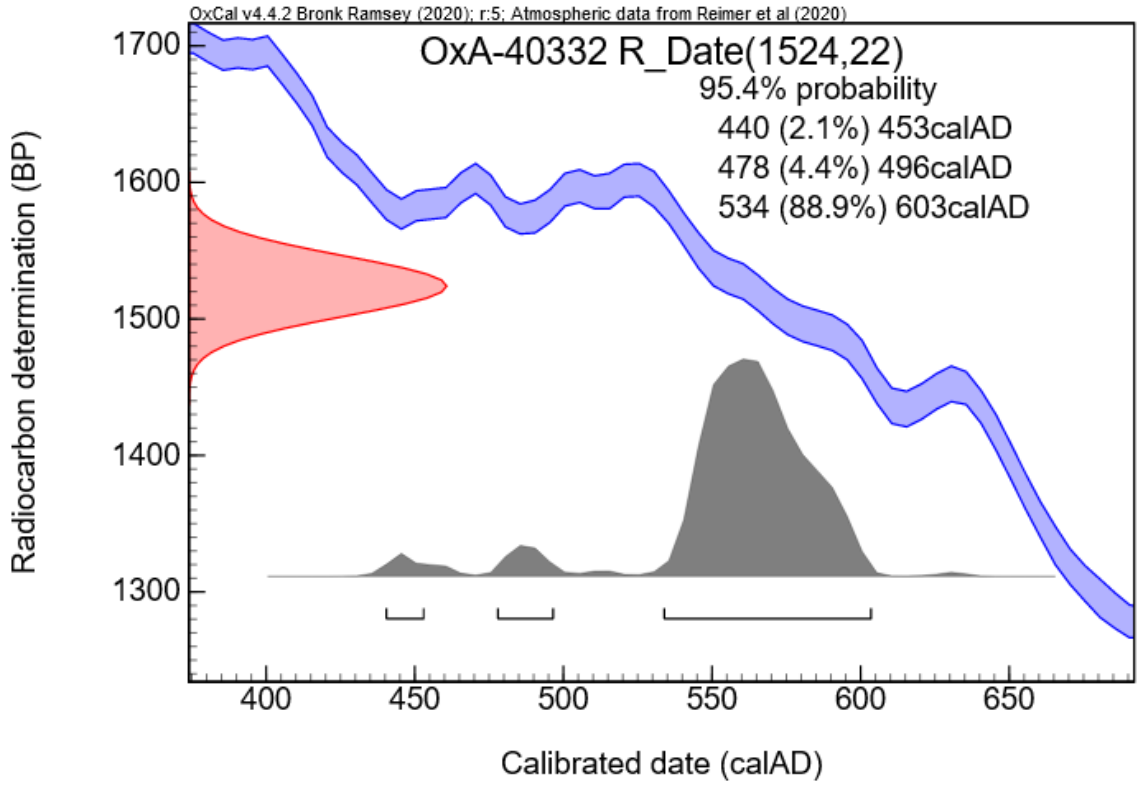
McKerracher, M. (2018). *Farming Transformed in Anglo-Saxon England: Agriculture in the Long Eighth Century* (Oxford: Windgather Press).

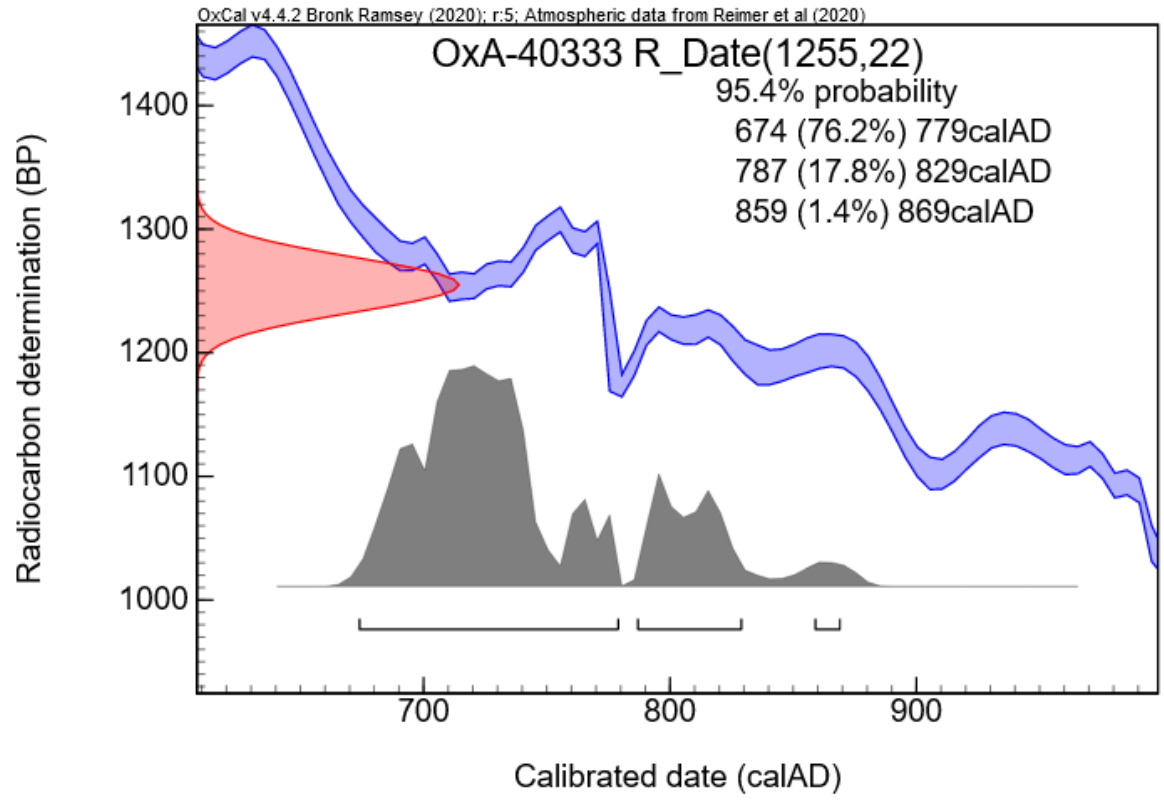
Reimer, P., Austin, W., Bard, E., Bayliss, A., Blackwell, P., Bronk Ramsey, C., . . . Talamo, S. (2020). 'The IntCal20 Northern Hemisphere Radiocarbon Age Calibration Curve (0–55 cal kBP)', *Radiocarbon* 62(4), pp.725–757.

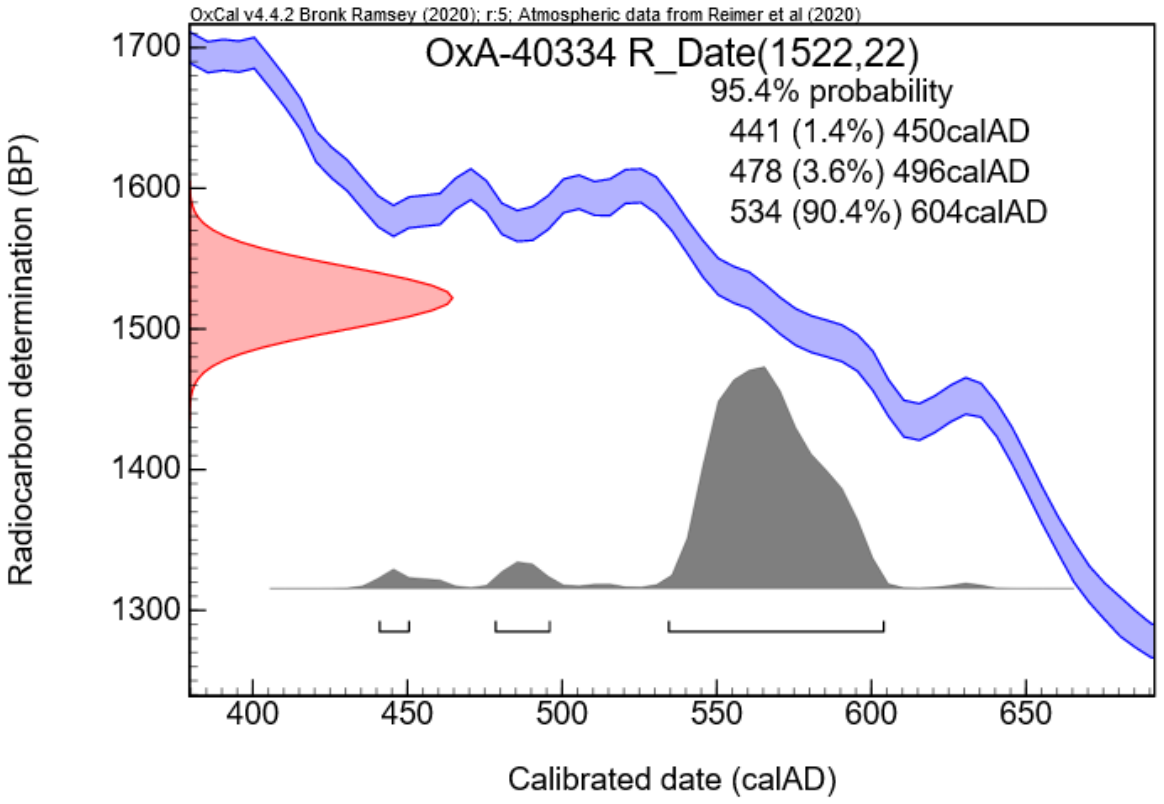
Williams, P. and Newman, R. (2006). *Market Lavington, Wiltshire, An Anglo-Saxon Cemetery and Settlement. Excavations at Grove Farm, 1986-90*. Salisbury: Wessex Archaeology.

Calibration of radiocarbon determinations






OxCal v4.4.2 Bronk Ramsey (2020); r:5; Atmospheric data from Reimer et al (2020)
OxA-40333 R_Date(1255,22)
95.4% probability
674 (76.2%) 779calAD
787 (17.8%) 829calAD
859 (1.4%) 869calAD
Radiocarbon determination (BP)
1400
1300
1200
1100
1000
700
800
900
Calibrated date (calAD)


OxCal v4.4.2 Bronk Ramsey (2020); r:5; Atmospheric data from Reimer et al (2020)
OxA-40334 R_Date(1522,22)
95.4% probability
441 (1.4%) 450calAD
478 (3.6%) 496calAD
534 (90.4%) 604calAD
Radiocarbon determination (BP)
1700
1600
1500
1400
1300
400
450
500
550
600
650
Calibrated date (calAD)