

Radiocarbon dating archaeobotanical remains from Walsingham Way, Ely

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In 2010, development-led excavations by the Cambridge Archaeological Unit, between West Fen Road and Walsingham Way in Ely, revealed a long sequence of boundary ditches and occupation activity spanning the Middle Saxon to Medieval periods, ‘as well as a continuation of boundary alignments up to the post-Medieval period’ (Slater 2011, 1). These successive systems of ditched enclosures can be seen as part of the extensive enclosure complexes earlier excavated at the Ashwell site on West Fen Road (Mortimer *et al.* 2005).

As was the case at the Ashwell site, the Walsingham Way excavations produced a valuable assemblage of charred plant remains, studied by Anne de Vareilles (de Vareilles 2011). This assemblage was of considerable interest to the Feeding Anglo-Saxon England project (FeedSax) as a proxy for Anglo-Saxon and medieval crop husbandry practices and environments. According to the site’s artefactual chronologies, the two environmental samples richest in charred plant remains (33 and 45) were dated to the medieval phase (twelfth to fourteenth centuries). Sample 33 was deemed earlier (Phase 6a) than sample 45 (Phase 6b), but neither sample was precisely dated.

In order to refine the dating of these samples, FeedSax submitted charred grains from these two samples to the Oxford Radiocarbon Accelerator Unit for radiocarbon dating. These cereal grains – both identified as free-threshing wheat (*Triticum* L. free-threshing type) – were selected and photographed at the University of Oxford by the author; the photographs are included in the project’s photographic archive (McKerracher *et al.* in prep.).

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 figures at the end of the report.

Results

sample	context	grains	laboratory no.	original phase	age BP	calibrated dates AD (confidence)
33	1172	3 x wheat	OxA-38656	C12–14 (6a)	1065±20	955–1025 (81.8%)
45	844	3 x wheat	OxA-38655	C12–14 (6b)	880±20	1156–1220 (87.6%)

The new radiocarbon date obtained for sample 45 is consistent with its original medieval phasing, and indeed provides a greater degree of precision, with the highest probability dates falling between cal. AD 1156 and 1220. This range perhaps corresponds best with Phase 6a, rather than Phase 6b as originally proposed. Sample 33, however, has returned a date range of cal. AD 955–1025 (at 81.8% probability), corresponding to Phase 4 (Late Saxon) in the original site chronology, and perhaps more precisely Phase 4b. This revised dating is consistent with the presence of St Neots ware pottery (c. AD 850–1150) in the same linear feature [119] (Slater 2011, 19). The feature may therefore potentially be a century or two earlier than previously thought, but such a revision would not necessitate any other major changes to the site’s overall chronology.

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References

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Calibration of radiocarbon determinations

