

# Radiocarbon dating archaeobotanical remains from Coton Park

Mark McKerracher

In 1998, development-led excavations by Northamptonshire Archaeology (now Museum of London Archaeology) at Coton Park, Warwickshire, revealed a Late Saxon to medieval settlement sequence culminating in the desertion of the village in the early fourteenth century (Maull 2001). Environmental sampling during the excavations produced a substantial assemblage of charred plant remains (Hutchins 2001).

The density of features excavated at the site was such that the dating of many features could only be tentative (Maull 2001, 20). The following phases were proposed for the Anglo-Saxon and medieval periods:

- **Phase 3 (Late Saxon/medieval):** mid-tenth – eleventh century
- **Phase 4 (medieval):** twelfth century
- **Phase 5 (medieval):** late twelfth – thirteenth century
- **Phase 6 (medieval):** mid – late thirteenth century

In order to obtain more secure and precise dates for the archaeobotanical evidence, the Feeding Anglo-Saxon England (FeedSax) project submitted charred grains from eight samples to the Oxford Radiocarbon Accelerator Unit for radiocarbon dating. These samples were chosen for being the richest in charred plant remains, according to the original post-excavation assessment, and therefore potentially the most useful for the study of medieval agriculture. The archaeobotanical remains were originally studied by Eden Hutchins, but were not taxonomically sorted in the archive (Hutchins 2001). The cereal grains selected for dating – all identifiable as free-threshing wheat (*Triticum* L. free-threshing type) – were identified 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 for 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 on this report.

## Results

sample	grains	laboratory no.	original phase	age BP	calibrated dates AD (confidence)
1	3 x wheat	OxA-38185	6 (mid-late C13)	941±24	1034–1160 (95.4%)
5	3 x wheat	OxA-38211	6 (mid-late C13)	939±24	1035–1161 (95.4%)
35	3 x wheat	OxA-38212	4 (C12)	849±25	1161–1261 (95.4%)
36	3 x wheat	OxA-38213	6 (mid–late C13)	946±24	1033–1159 (95.4%)
40	3 x wheat	OxA-38214	6 (mid–late C13)	939±26	1031–1165 (95.4%)
41	3 x wheat	OxA-38215	5 (late C12–13)	925±25	1036–1177 (93.9%)
42	3 x wheat	OxA-38216	4 (C12)	900±24	1045–1086 (30.4%), 1121–1218 (62.1%)
50	3 x wheat	OxA-38217	5 (late C12–13)	924±25	1036–1177 (93.5%)

The tentative original chronology of these samples, as presented in the archive report, spans the twelfth to late thirteenth centuries over three successive phases (Hutchins 2001). The new radiocarbon dates reveal, however, that six of the eight samples most probably date from between the 1030s and 1170s. This overall date range is earlier than expected, and corresponds roughly with the latter part of Phase 3 and the earlier part of Phase 4 in the original chronology. The date range returned for sample 42 is wider, extending as late as the early thirteenth century, but this sample could still potentially be contemporary with those dated to between the 1030s and 1170s. Sample 35, by contrast, has been radiocarbon-dated to cal. AD 1161–1261 (with 95.4% confidence), a range which corresponds roughly with the original Phase 5.

The new data thus demonstrate that this archaeobotanical assemblage presents little opportunity for the study of agricultural developments over time, but could provide a valuable ‘snapshot’ of practices in one well-represented phase, most likely corresponding with the immediate post-Conquest period – perhaps the same phase in which a new enclosure complex was laid out (original Phase 4) – whereas sample 35 could provide a small glimpse of the agricultural regime accompanying the first establishment of the ‘planned village’ (original Phase 5). Given the substantial revisions made to the original phasing by the new radiocarbon dates, it is very possible that several of the remaining, undated samples do not belong to their originally assigned phases.

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### References

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### Calibration of radiocarbon determinations







