

RE-ANALYSIS OF SAMPLES TAKEN FROM THE BELLFRAME AT ST MARY'S CHURCH, CARLTON-ON-TRENT, NOTTINGHAMSHIRE

In 1983 tree-ring analysis was undertaken on sliced samples from timbers of the bellframe (Elphick Group J) at this church but this did not produce any reliable dating.

Following current standards of quality assurance two of these samples do not have enough growth rings for secure dating and so have not been re-analysed. However, analysis undertaken on the third sample (CAR-C01) now produces a consistent and secure match for the timber represented at a first-ring date of AD 1377 and a last-measured ring date of AD 1447 (Table 1).

Given it is known that 95% of mature oak trees in this region have between 15 and 40 sapwood rings it is possible to calculate an estimated felling date for the timber represented to within the range AD 1453–78. This gives a probable construction date for the bellframe in the second half of the fifteenth century.

Table 1: Details of sliced samples taken from the bellframe at St Mary's Church, Carlton-on-Trent, Nottinghamshire

Sample number	Sample location	Total rings*	Sapwood rings**	First measured ring date (AD)	Last heartwood ring date (AD)	Last measured ring date (AD)
CAR-C01	Frame head, south side, east end	71	09	1377	1438	1447
CAR-C02	Frame cill, south side, east end	NM	--	----	----	----
CAR-C03	Frame cill, north side, east end	NM	--	----	----	----

NM = not measured