

TREE-RING DATING IN THE CITY OF LONDON:

FINSBURY HOUSE

Jennifer Hillam

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ABSTRACT

Tree-ring analysis was carried out on three oak timbers of unknown date from Finsbury House in the upper Walbrook valley. No firm dating was obtained for the two samples which were suitable for measurement.

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INTRODUCTION

In 1981, a watching brief was carried out at Finsbury House, Blomfield Street (site code: FIN'81), by Cathy Maloney of the Museum of London's Department of Urban Archaeology. The site was in the upper Walbrook valley, just outside the City walls. The only evidence of human activity, as well as the only means of dating the site, were three oak timbers which may have been piles from a section of revetment along a tributary of the Walbrook in its upper reaches. Sections were removed from the three timbers for tree-ring analysis in order to attempt to date the site.

ANALYSIS

Because the site was given low priority in the Museum of London's dendrochronology programme, the timbers were not examined until early 1986, and by this time they had been badly attacked by modern fungi and were in very bad condition. Only sample 3 of the original samples proved measurable. This had 121 very narrow rings (Table 1), and measurement was made more difficult by the fungal attack. The three duplicate samples, taken at the same time as the originals and stored in the Museum of London, were then sent to Sheffield. Samples 3 and 5 were in better condition than the originals, although sample 4 was in much worse condition. Because of the narrow rings, three sets of measurements were taken from sample 3, two from the original and one from the duplicate sample. The ring widths were averaged to give the ring sequence, 3M, which has 121 rings. Sample 5 had 73 rings, but its ring sequence did not seem to match with that of 3M.

RESULTS

The two ring sequences were first compared with the London Roman chronology, City Southwark. This contains data from various sites in the City and Southwark. It was compiled by Ian Tyers (Sheldon & Tyers 1983), and contains data supplied by various dendrochronologists. It is a well-replicated chronology covering the period 252BC to AD255, and has been used to date many Roman timbers from London, such as those from Copthall Avenue, also from the Walbrook valley (Hillam 1986). The Finsbury House samples gave no t-values over 3.5 with this chronology (see Baillie 1982, for an explanation of t-values, and their use

in tree-ring research), nor did they match the Copthall Avenue chronology, 45BC-AD96.

The Finsbury samples were next compared with two medieval chronologies from London: Southwark, which dates to AD 779-1227 (Tyers unpubl), and City, which contains data from several sites in the City and covers the period AD 682-1159 (Hillam unpubl). No conclusive results were obtained. 3M and 5 were then tested against other dated reference chronologies, starting with England (Baillie & Pilcher pers comm) which is made up from various regional chronologies and spans the period AD 404-1981. A t-value of 4.8 was obtained for 3M when its outer ring was AD 894. This result was not confirmed by other comparisons however, and at the moment the two Finsbury samples must be regarded as undated. Their ring width data are included for future reference (see Appendix).

CONCLUSION

This small project highlights the problems of using only one or two samples for tree-ring dating. Had more samples been available, it may have been possible to date them. The lack of agreement between Finsbury and Copthall Avenue suggests that the Finsbury sequences are not contemporary with those from the only other timbers examined from the Walbrook valley, which are late 1st-early 2nd century AD in date.

ACKNOWLEDGEMENTS

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REFERENCES

Baillie MGL 1982 Tree-Ring Dating and Archaeology, London.

Hillam J 1986 Copthall Avenue: tree-ring dating of Roman timbers from the Upper Walbrook Valley, City of London, Ancient Monuments Laboratory reports series.

Sheldon HL & Tyers I 1983 Recent dendrochronological work in Southwark and its implications, London Archaeologist 4(13) 355-61.

Table 1: Details of the Finsbury House samples. Sketches not to scale; * - sample not measured.

CONTEXT	RINGS	AV RING WIDTH	SKETCH	DIMENSIONS
3	121	1.09mm		175 X 140mm
4*	-	-		190 X 180mm
5	73	1.63mm		180 X 175mm

LONDON
FIN3M

121

1	-	56	57	54	67	97	67	43	69	58	49
11	-	37	74	81	86	87	88	106	91	102	89
21	-	105	95	103	85	47	89	46	32	47	32
31	-	33	49	64	77	102	78	99	87	86	69
41	-	40	49	39	93	103	96	70	78	65	36
51	-	33	30	45	29	27	23	35	45	35	52
61	-	43	56	27	36	26	26	32	26	37	47
71	-	50	43	33	31	31	27	30	21	35	21
81	-	21	26	25	19	33	30	35	28	23	26
91	-	30	32	25	18	28	44	36	37	27	30
101	-	18	21	31	31	34	61	92	86	47	52
111	-	63	37	88	80	109	127	97	74	86	100
121	-	116									

COMMENT - MEAN OF 3 SETS OF MEASUREMENTS FROM 2 SAMPLES - NO SAPWOOD

MEAN RING WIDTH IN MM = 1.09206612

LONDON

FINS

73

1	-	59	74	106	161	155	79	114	130	103	174
11	-	156	108	97	74	62	114	68	94	85	108
21	-	86	96	101	87	74	92	70	83	57	36
31	-	42	45	42	48	38	96	79	88	86	129
41	-	104	96	77	78	64	82	110	131	148	97
51	-	92	71	53	54	53	36	48	25	38	58
61	-	63	83	72	63	47	51	38	51	54	61
71	-	74	96	89							

COMMENT - PITH PRESENT - NO SAPWOOD - UNDATED

MEAN RING WIDTH IN MM = 1.6309589