

Report on TL Testing of Ceramic Samples from Place Saint-Lambert

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Introduction

We briefly report here the results obtained from four pottery samples submitted to the Durham TL Dating Service for Survey Dating.

Survey Dating is the first level of the two-tiered Service and provides a means of testing the suitability of pottery for TL dating and also, where the material is datable, a low accuracy ($\pm 20\%$ of the TL age) Survey Date. This first level serves as a precursor to a Dating Programme where the highest accuracy currently available, of between $\pm 5\%$ and $\pm 10\%$ of the TL age, is obtained.

The Samples

Four sherds were submitted for testing, reference L.3252, L.3773, L.3533 and L.3610, and their find locations and fabric descriptions are given elsewhere in this excavation report. Unfortunately, two of the sherds (L.3252 and L.3610) had to be rejected before testing since their thickness was less than 6 mm, as required for TL dating.

The Experimental Procedures and Results

Samples L.3773 and L.3533 (our references DurTL 63-7 and 63-8 respectively) were tested using the quartz inclusion technique (Fleming, 1970). The dose-rate measurements used for Survey testing have been described elsewhere (Bailiff and Watson, 1985). The TL behaviour for sample L.3533 was found to be unsatisfactory and a date was not produced. However, a Survey Date was obtained for sample L.3773¹.

Laboratory reference	TL Date
Dur86TL63 - 7AS [qi]	600 AD $\pm$ 200

The error, given in years at the 68 % level of confidence, represents the overall error on the system of error formulation given by Aitken (1976) which takes random and systematic sources of error into account. The TL date given is an absolute date and requires no secondary calibration.

Abbreviated Technical Specification

DurTL Survey Quartz Inclusion (90-150 μ m).
P = 6.0 ± 0.9 Gy [I = 12 %; Slopes = 1.1 ± 0.1]. Total Effective Dose-rate = 0.25 Gy/a [β (60 %); γ + cosmic (40 %)] Water [sherd (8 %) soil (10 %); $\pm 20\%$] Fading [no test]

Bibliography

AITKEN M.J. (1976), Thermoluminescent age evaluation and assessment of error limits: revised system. *Archaeometry* 18, 233-238.
BAILIFF I.K. and WATSON I.A. (1985), A TL Dating Service for Archaeologists. *Nucl. Tracks*, 10 (4-6), 817-821.
FLEMING S.J. (1970), Thermoluminescent Dating: refinement of the quartz inclusion method. *Archaeometry*, 12, 133-147.

(¹) L.3773: Secteur A, Vieux Marché, zone A, couche 17, période mérovingienne.