

Ancient TL SUPPLEMENT

Date List

November 1991 Issue 5

1. This list includes dates for fired materials of archaeological interest, submitted to *Ancient TL* during 1991 for which sufficient information has been supplied. Readers are referred to earlier issues of the Date List for a fuller description of the structure of entries.

2. Application forms are available from the Editor, who will be pleased to advise on data compilation; laboratories wishing to submit dates for which the current date entry specification is not suitable should write to him. The application forms may be supplied on either paper or magnetic media.

Laboratory: [name] Date Entry Specification Entry: [entry number]

PART I

Site: [Name] Location: [Region, country] Grid Ref.: [National map reference]

Site Description: [Brief description of period and nature of site]

Dates/Ages:

Lab. Ref. Material Archaeological Ref.

[Type]	[Type]	[Lab. abbrev.]				
TL	Context	Date	800 AD ± 50 (Dur87TLfg)	100-1/6	pottery	ABC-1a
	Single	Age				
			[Overall error]	[Test year]	[Technique]	[Context reference]
				[Sample ref.]	[Dated material]	

— TL Context Components: [Details of component TL dates/ages used to derive Context Date/Age] —

Archaeological Evidence: [Excavator's brief description of context(s)]

Site Director: [Full name and institutional postal address]

Reports: [Details of excavation and laboratory reports]

PART II

Section A. TL Measurements	
1. min.([mineral]) tech.([technique]; [grain size range, gsr] μm) <i>Data tabulated for each sample:</i>	
2. P = [value] \pm s.e. Gy	3. Slopes [2nd/1st: [value] \pm s.e.]
4. [Type of plateau] Plateau [\pm [value] %; [T ₁ - T ₂]]	
4a. Peak [@ [value] °C ; [heating rate]°/s; [pre-heat details if applicable]]	
5. Stability[[interval, T ₁ - T ₂]; [period]; [storage T °C]; [result ; [value] \pm [value] %]]	
6. a value = [value] or b value = [value]	

Section B. Dose-rate Measurements	
<i>Data tabulated for each sample:</i>	
1. Total Effective Dose-rate = [value] \pm s.e. mGy/a [α = [value] % [method] ; β = [value] % [method] ; γ = [value] % [method] ; cos(mic) = [value] % [method]]	
2. Radon [\pm [value] % [method]]	
3. Water [Sample ([value] \pm s.e. %); (Burial) Environment ([value] \pm s.e. %)]	

Section C. Error [[Procedure : eA76 or specify other]]

Section D. TL Age	
<i>Data tabulated for each sample:</i>	
TL Age[\pm [random error] ; \pm [overall accuracy]]	

Special Remarks: [Details of entries with * or any other additional information]

KEY TO ABBREVIATIONS

STANDARD METHODS/TECHNIQUES/PROCEDURES

i	Inclusion	pd	Pre-dose	a Plat	Age plateau
fg	Fine-grain	MA	Multiple activation	d Plat	Dose plateau
mml	Multi-mineral	ADD	Additive dose proc.	s Plat	TL Signal plateau
		Sb	Sensitivity baseline		
α -c	Alpha counting	FPh	Flame Photometry	TLD	TL dosimetry
AAS	Atomic absorption	NAA	Neutron Activation Analysis	XRF	X-ray fluorescence
β -c	Beta counting	PXE	PIXIE		
CAP	Capsule	SPEC	Spectrometer (SPEC = portable)		
Non-standard		AutoR	Auto regeneration	PTTL	Photo-transferred TL

MINERALS & ETC.

cal	Calcite	Nf	Sodium feldspar	*	Other
ft	Flint	p	Polyminerals	-	Not applicable
f	Feldspar	q	Quartz	e	Equivalent to (used as prefix)
Af	Unsep. alkali feldspar	z	Zircon	a	Year
Kf	Potassium feldspar	por	Porcelain		

Terms: I, P, a, b, A, S_N, S_O, TAC: as defined in the literature.

Laboratory: Oxford

Entry: 46

Site: Beedenbostel
Location: Near to Celle, Lower Saxony, Topographic Map 3327 Beedenbostel, Germany.
Grid Ref: R 3585648.97, H 5834271.65

Site Description: This is an "open air" site, with several pre- and protohistoric occupations, from the late Upper Palaeolithic and Mesolithic onwards.

Dates	Lab. Ref.	Mat'l	Archaeological Reference
TL single dates:	268a2	burnt quartz	34, 53/51
2.80 ± 0.30 ka	(Ox90TLi)	"	94, 53/51
3.10 ± 0.30 ka	268a3	"	188, 54/50
8.65 ± 0.78 ka	(Ox90TLi)	"	102, 57/51
3.10 ± 0.30 ka	268c5	burnt flint	113, 54/52
9.88 ± 0.78 ka	(Ox90TLi-fg)	"	"

Archaeological Evidence: Two of the younger dates(268a2,268a3) correspond to the late Bronze Age. They are acceptable for dating structure No.1, a sort of hearth not dateable by archaeological means.

Site Director: Dr. S. Veit, Oberkustos, Niedersachsisches Landesmuseum, Am Maschpark 5, 3000 Hannover 1, Federal Republic of Germany.

Reports: In preparation.

Laboratory: Oxford

Entry: 46

PART II
TECHNICAL SPECIFICATION

Section A. TL Measurements

1. Mins (Burnt quartzes and burnt flint) tech₁(qi and fit) (90 - 125 μm), fg(1 - 8 μm)

Sample Ref.	P ± s.e. (Gy)	I/P	Slips	s Plateau	Peak	Stability	a val
268a2	12.65 ± 0.65	0	0.85 ± 0.05	± 3%; 350-400°	375°; 5°/s;	-	-
268a3	7.70 ± 0.40	0	1.08 ± 0.05	± 3%; 325-375°	350°; 5°/s;	-	-
268b4	6.05 ± 0.30	0	1.20 ± 0.05	± 3%; 300-450°	300°; 5°/s;	-	-
268c5	12.90 ± 0.60	0	0.80 ± 0.05	± 3%; 300-400°	375°; 5°/s;	-	-
268c11	5.70 ± 0.30	0	-	± 5%; 325-375°	375°; 5°/s;	325- 375°; 0.5 a;	18°; 100 ± 3%

Section B. Dose-rate Measurements

Sample Ref.	Total Eff. Dose-rate mGy/a	Dose-rate Components			Radon		Water		
		α %	β %	γ %	cos.	%	%	Sample %	Env. %
268a2	4.55 ± 0.70	-	91	6	3	0 ± 10	0 ± 2	24 ± 6	
268a3	2.49 ± 0.39	-	84	11	5	"	"	"	"
268b4	0.70 ± 0.10	-	41	41	18	"	"	"	"
268c5	4.17 ± 0.62	-	90	7	3	"	"	"	"
268c11	0.58 ± 0.08	8	20	49	23	"	"	"	"

Section C. Error [eA76]

Sample Ref.	TL Age		Errors	
	ka	ka	Random ka	Overall ka.
268a2	2.80	-	-	0.30
268a3	3.10	-	-	0.30
268b4	8.65	-	-	0.78
268c5	3.10	-	-	0.30
268c11	9.88	-	-	0.78

Site: Els Colls

Location: Tarragona, Spain

Grid Ref.: 41° 17.10' N., 0° 45.20' E.

Site Description: The site is a rock shelter in the Sierra de Monsant area of Tarragona. The flints are from the burnt soil horizon at the base of level two.

Dates	Lab. Ref.	Mat'l	Archaeological Reference
TL Context Age: 13.0 ± 1 ka	(Ox90)TLfig	270f	burnt flint
TL single ages:			
11.6 ± 1.1 ka	270f1		89/2733
12.7 ± 1.2 ka	270f2		88/1488
11.2 ± 1.1 ka	270f3		88/519
10.8 ± 1.1 ka	270f4		89/1745
19.3 ± 2.2 ka	270f5		88/1589
12.1 ± 1.1 ka	270f6		89/2647
11.7 ± 1.1 ka	270f8		89/5319
16.1 ± 1.6 ka	270f9		89/2790

Archaeological Evidence: The flints are from level 2, which contains fire-places and a lithic industry of Upper Palaeolithic type. Level 4 is of the same typology. First indications placed the site around 20 to 25 ka BP, but the TL age fits well with the C-14 dates of other sites with similar lithic industries.

Site Director: Prof. Dr. J. Ma. Fullola i Pericot, University of Barcelona, Dept. of Prehistory and Archaeology, Baidiri Reixac, 08028 Barcelona, Spain.

Reports: None published.

PART II
TECHNICAL SPECIFICATION

Section A. TL Measurements

1. Min (burnt flint) tech. (fig : 1 - 8 µm)

Sample Ref.	P ± s.e. (Gy)	I/P	Slps	s Plateau	Peak	Stability	a val.
270f1	51.5 ± 1.5	0	-	± 5%; 300-400*	375%; 5%;	300 - 400; 0.5 a; 18; 100 ± 3%	0.125
270f2	60.2 ± 3	-	-	± 2%; 350-450*	-	350 - 450; -	0.146
270f3	55.6 ± 2.6	-	-	± 5%; 350-450*	-	350 - 450; -	0.09
270f4	65 ± 2.5	-	-	± 3%; 325-400*	-	325 - 400; -	0.10
270f5	39 ± 2	-	-	± 3%; 325-400*	-	325 - 400; -	0.052
270f6	46.2 ± 2.6	-	-	± 5%; 350-400*	-	350 - 400; -	0.058
270f8	59.9 ± 1.8	-	-	± 2%; 350-400*	-	350 - 400; -	0.103
270f9	88 ± 4	-	-	± 3%; 350-450*	-	350 - 450; -	0.074

Section B. Dose-rate Measurements

Sample Ref.	Total Eff. Dose-rate	Dose-rate Components			Radon		Water		
		α	β	γ	cos.	%	%	Sample	Env.
	mGy/a	%	%	%	%	%	%	%	%
270f1	4.43 ± 0.65	59	34	6	1	0 ± 5	0 ± 2	4 ± 4	-
270f2	4.73 ± 0.70	66	27	6	1	-	-	-	-
270f3	4.94 ± 0.74	56	38	5	1	-	-	-	-
270f4	5.99 ± 0.90	59	36	4	1	-	-	-	-
270f5	2.02 ± 0.30	39	46	13	2	-	-	-	-
270f6	3.83 ± 0.57	45	47	7	1	-	-	-	-
270f8	5.10 ± 0.77	59	35	5	1	-	-	-	-
270f9	5.45 ± 0.82	52	42	5	1	-	-	-	-

Method	α-c	α-c	FPPh	CAP	SpEC	SpEC	SpEC
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Section C. Error [eA76]

Sample Ref.	Section D. TL Age			Errors Overall ka.
	TL Age ka	Random ka	Overall ka.	
270f1	11.6	-	1	1
270f2	12.7	-	1.2	1.2
270f3	11.2	-	1	1
270f4	10.8	-	1	1
270f5	19.3	-	2	2
270f6	12.1	-	1.1	1.1
270f8	11.7	-	1	1
270f9	16.1	-	1.6	1.6

Laboratory: Oxford Entry: 48

Site: Little Hoyle Cave
 Location: Penally, Dyfed, Wales, England
 Grid Ref.:
 Site Description: Limestone cave in a small side valley off the river valley.

Dates	Lab. Ref.	Mat'l	Archaeological Reference
TL Single Date:	9430	±800 a (Or-90TLfg)	273f flint L. H. 90: NP 1049

Archaeological Evidence: The burnt flint was a small blade core of "Mesolithic" type stratified in the latest phase of a succession of screens. These are presumed largely Late Glacial age and are overlying probable loess, overlying frost shattered bedrock.

Site Director: Dr. H. Stephen Green, Keeper of Archaeology and Numismatics, National Museum of Wales, Cathays Park, Cardiff, CF13NP.

Reports: Green, H.S. (1986) The Palaeolithic Settlement of Wales Research Project: A Review of Progress 1978-1985. in *The Palaeolithic of Britain and its nearest neighbours: Recent Trends* (Ed. S. N. Colcutt) Recent Trends Series, Vol.1. Published by Dept. of Archaeology and Prehistory, University of Sheffield. ISBN 906090 27X.

Laboratory: Oxford Entry: 48

PART II
 TECHNICAL SPECIFICATION

Section A. TL Measurements

1. Min. (Burnt flint) tech. (fg: 1 - 8 µm)

Sample Ref.	P ± s.c. (Gy)	I/P	Slips	s Plateau	Peak	Stability	a val.
273 f	5.94 ± 0.28	0	-	± 3%; 350-400°	375°; 57k;	350 - 400°; 0.3 a; 18°; 100 ± 3%	0.184

Section B. Dose-rate Measurements

Sample Ref.	Total Eff. Dose-rate	Dose-rate Components			Radon Sample Env.	Water	
		α	β	γ cos.			
273f	mGy/a 0.63 ± 0.09	% 19	% 19	% 42	% 20	% 0 ± 2	% 10 ± 5
Method	α-c	α-c	α-c	CAP	α-c	α-c	SPEC
			FPh	SPEC	SpEC		

Section C. Error [eA76]

Section D. TL Age

Sample Ref.	TL Age	Errors		Overall
		Random	Systematic	
273f	9430	-	-	800

**PART II
TECHNICAL SPECIFICATION**

Section A. TL Measurements

1. Min (film) tech. (fg : 1 - 8 µm)

Sample Ref.	P ± s.e. (Gy)	I/P	Slips	σ Plateau	Peak	Stability	a val.
274F2	5.65 ± 0.17	0	-	± 2%; 375-450°	375°; 5°/s;	375 - 450°; 0.25 a; 18°; 100 ± 3%	0.088
274F3	8.30 ± 0.46	0	-	± 5%; 350-425°	375°; 5°/s;	350 - 425°;	0.147
274F5	6.60 ± 0.40	0	-	± 3%; 350-400°	375°; 5°/s;	350 - 400°;	0.155
274F1	6.98 ± 0.28	0	-	± 3%; 325-400°	375°; 5°/s;	325 - 400°;	0.187

Section B. Dose-rate Measurements

Sample Ref.	Total Eff. Dose-rate	Dose-rate Components			Radon		Water	
		α	β	γ	cos.	Sample	Env.	
	mGy/a	%	%	%	%	%	%	
274F1	0.92 ± 0.14	17	15	54	14	0 ± 5	0 ± 2	60 ± 20
274F2	0.79 ± 0.12	7	13	63	16	"	"	"
274F3	0.95 ± 0.14	17	16	53	14	"	"	"
274F5	0.88 ± 0.13	14	14	57	15	"	"	"

Method: α-c, α-c, CAP, α-c, FPPh, SPEc, SPEc, SPEc

Section C. Error [eA76]

Section D. TL Age

Sample Ref.	TL Age	Errors		Overall
		Random	a.	
274F1	7590	-	700	700
274F2	7150	-	700	700
274F3	8700	-	850	850
274F5	7480	-	700	700

Site: Bossington
Location: The site is in the valley bottom of the river Test at Houghton, Stockbridge, Hants., England.
Grid Ref.: SU 337308
Site Description: Burnt flints are on a mineral palaeosol surface, associated with flint blades. Underneath the overlay is peat with wood, in turn overlain by tufa.

Dates	Lab. Ref.	Mat'l	Archaeological Reference
TL single dates:	7590 ; ±700 a	(Ox90TLfg)	274F1 burnt flint Site B, Trench 3
	7150 ; ±700 a	"	"
	8700 ; ±850 a	"	"
	7480 ; ±700 a	"	"

Archaeological Evidence: A late Mesolithic date equates with the associated flint blades. There is an adjacent late Mesolithic site of about 4000 flints, but it is less well stratified than the burnt flint.

Site Director: Dr John G. Evans, University of Wales, Dept of Archaeology, PO Box 909, Cardiff CF13XU, UK.

Reports: None published