

Two Thousand Years in Dendi, Northern Benin

Archaeology, History and Memory

Edited by

Anne Haour



BRILL

LEIDEN | BOSTON

Contents

Acknowledgments	XI
List of Figures and Tables	XIII
List of Maps	XVIII

PART 1

- 1 Introduction 3
Anne Haour
- 2 Crossing Archaeology and Oral Tradition: Approaching Dendi History from Sites of Memory 6
Olivier Gosselain and Lucie Smolderen
- 3 Palaeoenvironmental Data on Dendi, in the Last 3000 Years 20
Anne Haour
- 4 The Archaeology of the Eastern Niger Valley 23
Anne Haour and Didier N'Dah
- 5 An Archaeological and Ethnographic Approach to a Site and Its Region 26
Anne Haour, Olivier Gosselain, Alexandre Livingstone Smith, Sam Nixon and Didier N'Dah

PART 2

- 6 Landforms, Hydrography, and Vegetation 31
Raoul Laibi, Didier N'Dah and Paul Adderley
- 7 The Archaeological Landscape: Survey and Settlement 41
Nadia Khalaf, Anne Haour, Didier N'Dah and Alexandre Livingstone Smith

PART 3

- 8 Ethnographic Methods 53
Olivier Gosselain, Lucie Smolderen, Victor Brunfaut, Jean-François Pinet and Alexandre Livingstone Smith
- 9 Architecture and Settlements Today 58
Victor Brunfaut and Jean-François Pinet
- 10 Textile Production in Dendi: An Ethnographic and Historical Study of a Chain of Production 73
Lucie Smolderen

PART 4

- 11 Excavation Strategies and Methods: Approaching an Archaeological Terra Incognita 85
Anne Haour, Didier N'Dah, Carlos Magnavita, Sam Nixon and Alexandre Livingstone Smith
- 12 The Mound of *Tombo*: Introduction to the Site 92
Didier N'Dah, Carlos Magnavita, Sam Nixon, Anne Haour and Alexandre Livingstone Smith
- 13 The Geophysical Prospection of Birnin Lafiya 96
Carlos Magnavita
- 14 The Pavements at *Tombo* Birnin Lafiya 103
Didier N'Dah and Barpougouni Mardjoua
- 15 Pavements and Other Architectural Features 112
Sam Nixon
- 16 Stratigraphy and Dating: Excavation Units and Associated Dates 132
Alexandre Livingstone Smith, Louis Champion, Nicolas Nikis and Anne Haour
- 17 The Pottery 139
Anne Haour, Sam Nixon, Alexandre Livingstone Smith, Nicolas Nikis and David K. Kay
- 18 Ironworking 174
Caroline Robion-Brunner
- 19 Metal Objects and Slag from Birnin Lafiya 193
Anne Filippini
- 20 Beads and Pendants 199
Sonja Magnavita
- 21 The Cowrie Shells 205
Annalisa Christie and Anne Haour
- 22 Figurines and Terracotta Objects 211
Romuald Tchibozo
- 23 Archaeobotanical Remains 216
Louis Champion and Dorian Fuller
- 24 Wood Charcoal 234
Barbara Eichhorn

25 Animal Remains 240
Veerle Linseele and Wim Wouters

26 Human Skeletal Material 254
Ronika K. Power and Anne Haour

PART 5

27 Birnin Lafiya within West African Archaeology 283
Anne Haour and Sam Nixon

28 The Site within West African Political and Craft History 294
Olivier Gosselain and Anne Haour

PART 6

Catalogue of Trench Descriptions

A Pekinga (PEK) 307
Abubakar Sule Sani

B Toutokayeri (TTO-14-SI, II & III) 316
Nicolas Nikis, Alexandre Livingstone Smith and Anne Haour

C Kompa Dune (KOD) 325
Anne Haour and Nadia Khalaf

D Torouwey (TRO-14-SI) 333
Alexandre Livingstone Smith and Olivier Gosselain

E Kompanti (PTI-14-SI) 336
Alexandre Livingstone Smith and Nicolas Nikis

F Tin Tin Kanza 339
Louis Champion, Nadia Khalaf and Anne Haour

G Boyeri (BOY-14-SI & II) 359
Nicolas Nikis, Alexandre Livingstone Smith and Olivier Gosselain

H Bogo Bogo (GOG-14-SI) 366
Nicolas Nikis and Alexandre Livingstone Smith

I Kwara zeno (KAZ-14-SI & II) 373
Pascal Gnankpo Amoussou, Inès Corolin Amoussou, Nicolas Nikis, Olivier Gosselain and Alexandre Livingstone Smith

J Gorouberi (GOB-13-SII) 379
Caroline Robion-Brunner

- K Gorouberi (GOB-14-SI & II) 390
Nicolas Nikis, Alexandre Livingstone Smith, Anne Filippini and Anne Haour
- L Karimama (KAR-14-SI) 395
Alexandre Livingstone Smith and Nicolas Nikis
- M Kusulabu (KUS-14-SI & SII) 399
Alexandre Livingstone Smith, Nicolas Nikis and Barpougouni Mardjoui
- N Kozungu (KOZ-14-SI) 405
Alexandre Livingstone Smith and Nicolas Nikis
- O Tondo windi (TOW-14-SI) 416
Louis Champion and Anne Haour
- P Bokorobu (BOK) 421
Franck N'Po Takpara
- Q Birnin Lafiya (S1) 427
Anne Haour
- R Birnin Lafiya (S4) 434
Anne Haour and Barpougouni Mardjoui
- S Birnin Lafiya (S5) 450
Alexandre Livingstone Smith, Nicolas Nikis, Louis Champion and Anne Haour
- T Birnin Lafiya (S8) 460
Richard Lee
- U Birnin Lafiya (S9) 467
Alexandre Livingstone Smith and Nicolas Nikis
- V Birnin Lafiya (S3/10) 485
Sam Nixon
- W Birnin Lafiya (S11) 498
Richard Lee
- X Birnin Lafiya (S13) 519
Jennifer Wexler and Nestor Labiyi
- Y Kargui (KGI-14-SI) 526
Alexandre Livingstone Smith and Anne Filippini
- Z Alibori I 532
Didier N'Dah
- AA Alibori Site 2 536
Didier N'Dah

AB	Molla (MOL-14-SI)	541	<i>Inès Corolin Amoussou, Nicolas Nikis, Alexandre Livingstone Smith and Anne Haour</i>
AC	Tomboutou (TOU-14-SI)	546	<i>Pascal Gnankpo Amoussou, Alexandre Livingstone Smith, Nicolas Nikis and Anne Haour</i>
AD	Kantoro (KRO-14)	551	<i>Louis Champion, Anne Haour and Anne Filippini</i>
AE	Garou (GAR-14-SI)	575	<i>Alexandre Livingstone Smith</i>
AF	Guene zeno (ENE-14-SI & II)	579	<i>Alexandre Livingstone Smith</i>
AG	Guene (GUE-14-SI)	582	<i>Alexandre Livingstone Smith</i>
AH	Kouboukourou (ROU-14-SI)	585	<i>Alexandre Livingstone Smith</i>
AI	Madekali (KLI-14-SI & RCI)	590	<i>Alexandre Livingstone Smith, Louis Champion and Nicolas Nikis</i>
	Pottery Plates	601	
	Catalogue of Small Finds	640	
	Radiocarbon Dates	696	
	Gazetteer	710	
	References	755	
	Maps	779	
	Index	786	

Madekali (KLI-14-S1 & RC1)

Alexandre Livingstone Smith, Louis Champion and Nicolas Nikis

1 Location

Madekali is a modern town south of Malanville. It is located on a small plateau overlooking the modern flood plain. We excavated at a place said to have been an entrance of the former *birni* that later became a trash mound. Today it is a pathway inside the city.

2 Geographical Coordinates

LAT: 11.70455396, LONG: 3.548894031 (WGS84)

3 Discovery

KLI-14-RC1 and KLI-14-S1 were identified and excavated by Alexandre Livingstone Smith on 14 February 2016.

4 Destruction Risks

The site is in the middle of a modern settlement and RC1 is a road cut. The site has been partly destroyed by roadworks. Sections of the site are exposed on the side of the road. Extensive survey and excavations are needed.

5 Excavation

Madekali had never been excavated. One test pit was excavated 9 m east of the road-cut RC1. The road-cut was straightened, cleaned, photographed and drawn (RC1). Samples of pottery material and charcoal (including archaeobotanical samples) were taken directly from the profile. KLI-14-S1 was excavated 9 m east of RC1. The test pit was 1 × 1 m and excavated by spits of 10 cm (except for the superficial layer which was excavated in one spit of 20 cm). Within each spit, archaeological contexts (i.e. distinct contexts) were separated, sieved and bagged separately. All the spits were sieved down to 5 mm. Test pit S1 was interrupted at 140 cm into the compacted silt that could reasonably be related to the uppermost layer in RC1.

6 Site

Madekali is a living village. The extent of the site is unknown, but our informants walked us around the supposed *birni* enclosure that encloses the centre of the modern city. A smelting site was found eroding in the middle of the city.

7 Stratigraphy

The combined stratigraphy of RC1 and S1 shows that the modern city of Madekali is built on a medieval settlement mound similar to that of Birnin Lafiya. RC1 displays a series of interconnected anthropic structures overlain by a layer of building rubble. This same layer constitutes the bottom of S1 (Context 19). In S1 this context is overlain by a series of ash deposits confirming the use of the area as trash midden. The presence of glass at a depth of 1 metre seems to indicate a rather late date of use. The analysis of the stratigraphy combined with the radiocarbon dates indicates a gap between the Medieval and Modern/Contemporary occupations.

8 Finds

Finds include very different kinds of pottery, three clay or stone beads (SF 2014-22 to 24, the first possibly a spindle whorl) in the upper part of the sequence, fine ceramic fragments (SF 2014-04 and 2014-35, the latter a pipe fragment), and metal fragments: a trapezoidal mass with a small point (SF 2014-93), which might be possibly included with the functional category of tools, and a metal rod (SF 2014-94). Faunal and botanical remains were very abundant. Sampling in a rich organic sandy layer in lower part of RC1 (Context 6) yielded mainly pearl millet (*Pennisetum glaucum*) and African rice (*Oryza glaberrima*) but also a few remains of sorghum (*Sorghum bicolor*), unspecified nuts, *Adansonia digitata*, *Elaeis guineensis*, *Canarium schweinfurthii*, *Vigna unguiculata* and *Digitaria*.

Three others grey sandy layers (Context 8, Context 16, Context 18) have been sampled in the lower half of S1. The



FIGURE A1.1 Atmosphere

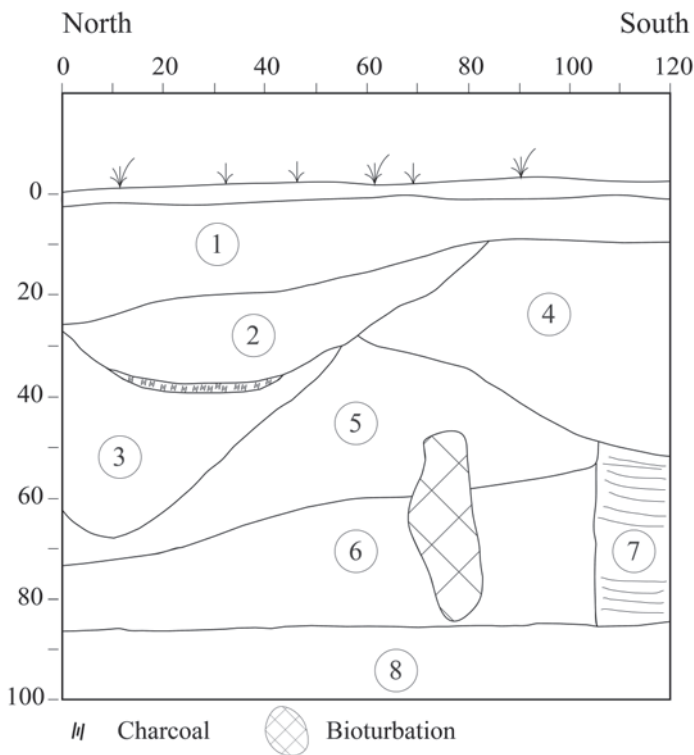


FIGURE A1.2
 KLI-14-RC1, East section
 1 Compact grey to orange sand (very fragmented pottery)
 2 Loose grey sand
 3 Loose grey sand with abundant charcoal
 4 Compact orange sand
 5 Compact grey brown sand
 6 Compact 'greasy' black sand (rich organic content)
 7 Sand lamination
 8 Natural substratum

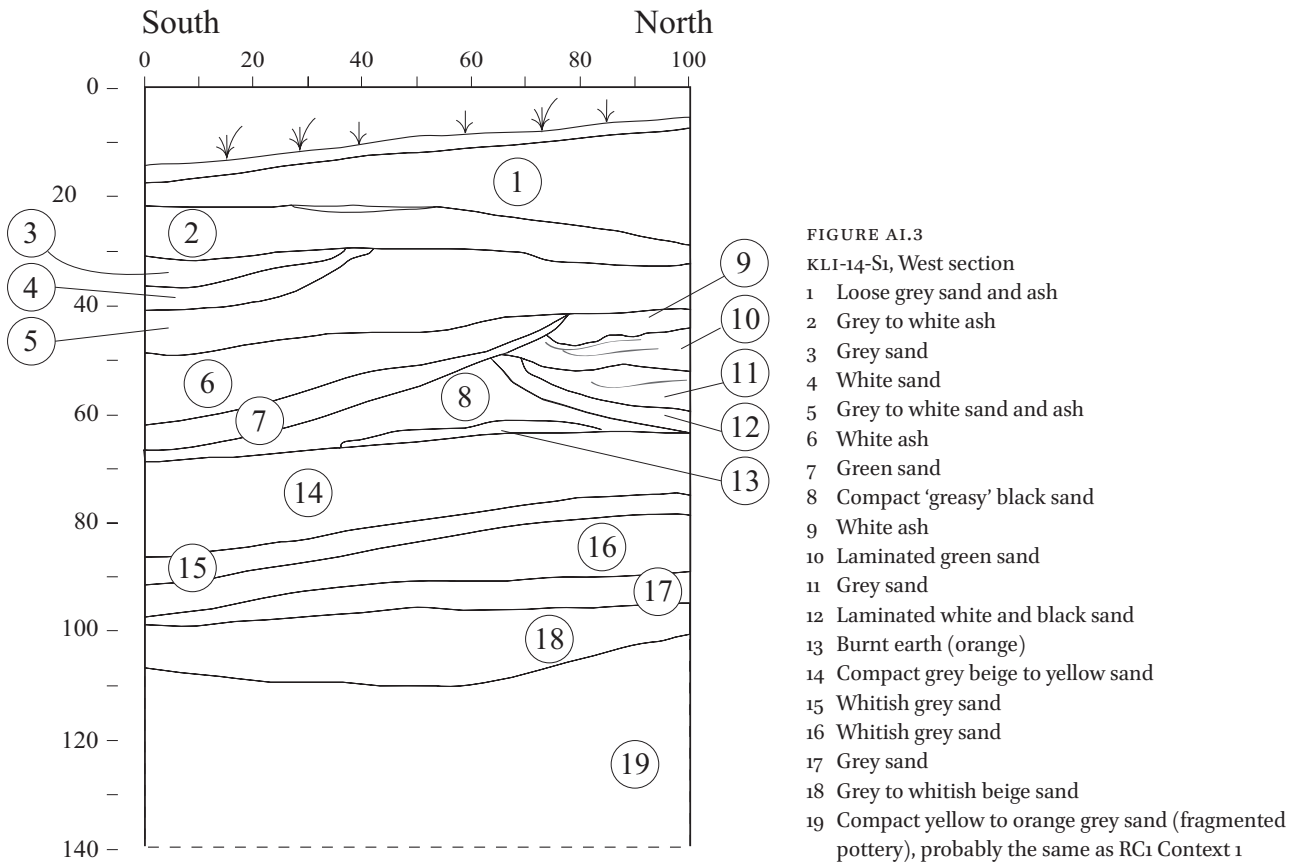


FIGURE A1.4 KLI-14-SI, West section at completion

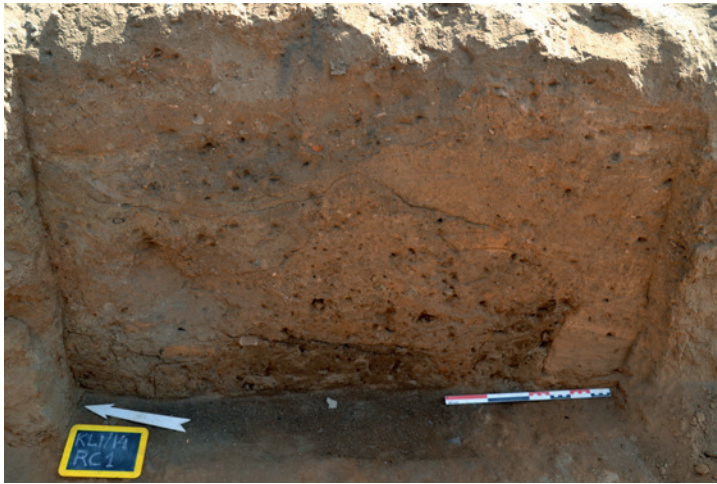


FIGURE AI.5
KLI-14-RC1, East section at
completion

main point is the absence of African rice (*Oryza glaberrima*), *Vigna unguiculata* and *Digitaria*. Pearl millet is still present but in lower quantities. Sorghum (*Sorghum bicolor*) is present in Context 8 and 16. Nuts (indeterminate), *Adansonia digitata*, *Elaeis guineensis*, *Canarium schweinfurthii* have been identified in the three contexts while *Gossypium sp.* which (not present in Context 6 sample of RC1) is identified in Context 8 and 18 and *Acacia* only in Context 8.

9 Interpretation and Cultural Attribution

The sequence is indicative of a long history, although trash middens tend to grow quickly. The presence of a sequence above the settlement mound deposits, oral testimonies, supported by the presence of new types of pottery, indicate a post-thirteenth century occupation. Although the chronological hiatus may indicate a break in the settlement, we think this can be related to the location of the test-pit. Indeed, it was not located in the most ancient neighbourhood of the village, but at one of the gates of the *birni*.

10 Radiocarbon dates

TABLE AI.1

OxA-30959	160	29	KLI-14-SI-U18	Phase 5
OxA-31049	143	27	KLI-14-SI-U8,	Phase 5
OxA-31050	162	27	KLI-14-SI-80-90	Phase 5
OxA-31051	970	28	KLI-14-SI-120-130	Phase 4
OxA-31353	1045	29	KLI 14 RC1 Unit 2	Phase 3-4
OxA-31584	1030	27	KLI 14 RC1 Unit 5	Phase 3-4
OxA-31583	992	26	KLI 14 RC1 Unit 2	Phase 3
OxA-31585	1093	27	KLI-RC1-U6	Phase 3

II KLI SI

TABLE AI.2 Desampling

Level	Number
0-20	40
20-30	3
30-40	34
40-50	54
50-60	27
60-70	41
70-80	86
80-90	84
90-100	54
100-110	18
110-120	252
120-130	114
Total	807

Analysis in the field by Alexandre Livingstone Smith and at UEA by Sam Nixon and Anne Haour

TABLE A1.3 Category 4

Level	Undecorated	Illegible
0-20	15	0
20-30	9	0
30-40	9	0
40-50	3	0
50-60	10	0
60-70	11	0
70-80	19	1
80-90	12	2
90-100	4	0
100-110	1	1
110-120	12	0
120-130	27	6
Total	132	10

Analysis by Sam Nixon and Anne Haour

TABLE A1.4 Category 3

Context	#	Burn	Dec1	Dec 2	Dec 3	Dec 4	Dec 5	
0-20	7	ext/int						
	5	int						
	10	ext						
	1		pnt-r-c					
	1		blepharis					
	2		rc-1b					
	1	ext	rc-1a		plain			
	1	int	sl-1		rc-1a			
	1	ext/int	plain		rc-1a	plain		
	1		rfp-1a int					
	1		roul					
	1	ext	plain		sl-1	roul		
	2		rc-1a					
	1	ext	ch-1		roul	ch-1	roul	
	1	ext/int	plain		sl-1	sx over roul		
	1	int	roul					
	1	ext/int	undec.		rc-1a	pnt-rb	undec.	
	1	ext/int	undec.		sl-1			
	20-30	6	ext/int					
		1		roul				
1		ext/int	plain		rc-1a			
1		int						
1		ext						
1		ext/int	undec.		sl-3			
30-40	1		undec.		sl-1 (int)			
	9	ext/int						
	4	ext						

TABLE A1.4 Category 3 (cont.)

Context	#	Burn	Dec1	Dec 2	Dec 3	Dec 4	Dec 5
	1	int					
	3	ext	pnt-r-c				
	2		roul				
	1	ext	roul				
	1		sw-1	rc-1a			
	1	ext/int	plain	pnt-rc overrc-1a	plain		
	2		rc-1a				
	1		mch-4				
	2		pnt-r-c				
	1	ext/int	undec.	sl-2			
40-50	3	ext/int					
	1	ext	plain	roul	sl-3	sw-1	sl-2
	1	ext	herb				
	1	int	roul	sl-2	plain	sp4-t	roul
	1		rc-1a				
	1	ext/int	underlying rc-1a	sl-1	sx	sl-1	
	1		roul				
	1	ext/int	plain	roul			
	1		rc-1a	herb			
50-60	3	ext	pnt-r-c				
	4	ext					
	2	ext/int					
	1	ext	plain	sh	plain	sl-1	roul
	1		ch-1	rc	ch		
	1	ext/int	roul				
	1	ext	plain	sl-1			
	2	int					
60-70	5	int					
	7	ext/int					
	1		rc-1a	plain			
	1	ext/int	plain	sl-2	sx over rc-1a	sl-2	
	1	ext	plain	roul			
	1		mch-3				
	1	ext/int	sl-1	ind	st-2		
	1	ext/int	plain	sl-8			
	3	ext					
	1	ext					
	1	ext/int	indistinct	sx	sh-1	sl-1	undec
	1		su	blepharis			
70-80	1		rfp-1b				
	9	ext					
	5	ext/int					
	2	int					
	2		roul				
	1	int	plain	pnt-r-b over rc-1a			
	1	ext/int	plain	roul	mch-2	sx over rc-1b	
	1	int	rc-1b				

TABLE A1.4 Category 3 (cont.)

Context	#	Burn	Dec1	Dec 2	Dec 3	Dec 4	Dec 5
80-90	1		plain	blepharis			
	1		pnt-bl-c				
	1	ext/int	sl-8	plain			
	1		pnt-r-c				
	9	ext					
	1	ext/int	plain	sl-1	roul		
	1		plain	sl-1			
	1	int	rc-1b				
	1	ext	plain	sl-1	rc-1a		
	2	int					
	1	ext	sl-6	rc-1a			
90-100	1		rc-1b				
	1		plain	roul	sl-1		
	1	ext/int	plain	sl-4			
	2	ext/int					
	1	ext/int					
	2	ext					
	1		rc-1a				
	1		rc				
	1	int	roul				
	1	ext	plain	sl-5 over roul	st over roul		
	2		roul				
100-110	1	int	fpr-1b				
	1	int	plain	sl-3	sh-12		
	1		roul				
	1		rfp-1b				
110-120	1	ext					
	2	int					
	1	ext/int	sl-10				
	3		roul				
120-130	1	int	rfp-4				
	3		rfp-1b				
	1		plain	sl-1	rc-1b		
	1	ext/int	plain	ch-1	roul		
	1		plain	sl-1	roul		
	1	int	ch-1	sl-1	rfp-1c	sl-1	
	2	ext					
	5	ext					
	1	int	rfp-1a	rfp-1b			
	1	int	rc-1b				
	1		plain	ch-1	roul		
1		rfp-1b					
2		rc-1a					
1		rc-1b					
3	ext	roul int					
4	int	roul					
1		roul					

TABLE A1.4 Category 3 (cont.)

Context	#	Burn	Dec1	Dec 2	Dec 3	Dec 4	Dec 5
	1	ext	plain	sl-5			
	1		roul	roul			
	1		rfp-1b				
	1		perf	undec			
Total	230						

Analysis by Sam Nixon, Anne Haour and David Kay

This assemblage appeared to contain a variety of roulette types which, due to erosion, could not always be precisely identified but the overall impression is one of diversity.

TABLE A1.5 Rims

Context	#	R.Type	Brn	Dec1	L1	Dec2	L2	Dec3	L3	Motif 4	L 4	Ang	Diam	Mx thick
0-20	1	S1												0.7
	1	S1	ext/int									3	34	0.7
	1	S1										4		0.7
	1	S1	ext/int									4		0.4
	1	E16	ext/int									5		0.7
	1	E6	ext/int									4		0.7
	1	E44	ext									4		1.2
20-30	1	S1	ext/int									3	15	0.7
30-40	1	S1	ext/int									3		0.8
	1	S1	ext									4		0.7
40-50	2	S1										4		0.7
	1	S1	ext/int									3		0.9
	1	S1	int	undec	u-int	rc-1a	u-int							0.6
	1	E9	ext/int	pnt-r	u	pnt-r	u-int							0.5
	1	E9	ext/int	pnt-r	u							5		0.5
50-60	1	S1	ext									3	15	0.6
	1	S1	ext/int									5		0.6
	1	S1	ext/int									4		0.6
	1	S1	ext/int											1.0
	1	E18	ext/int	undec	u	sl-1	u	rc-1a	u			5		0.7
	1	T4	ext/int	indis	u	sl-3	u					2		1.0
60-70	1	S1	ext/int	sl-7	u							3	18	0.7
	1	S1	ext/int									3	14	0.8
	2	S1	ext/int									4		0.9
	1	S1		sl-1	l							4		0.6
	1	S1	ext/int	pnt-r										0.6
	1	S1	ext/int									5		0.7
	1	E18	ext									5		0.8
	1	E1										4		0.9
70-80	1	S1	int	indis	u							2		0.9
	1	S1	ext/int											0.8

TABLE A1.5 Rims (*cont.*)

Context	#	R.Type	Brn	Dec1	L1	Dec2	L2	Dec3	L3	Motif 4	L 4	Ang	Diam	Mx thick
80-90	1	S1	ext/int									3	16	0.7
	1	T17	ext/int									4		0.6
	1	E15		indis	u			sl-3	u			4		0.9
	1	S1										4		0.8
	1	S1		undec	u	rc	u	pnt-r	u			3	24	0.8
	1	S1	ext/int									4		0.6
	1	E1	ext/int	rc-1a	c-int	undec	c-int	rc-1a	c-int	pnt-r	c-int	5		0.6
	1	E1	ext/int									5		0.7
90-100	1	E1	ext									5		0.7
	1	E9	ext/int									5		0.6
	1	E18	ext/int	undec	u	is-geo	25	u				4		0.7
	2	T17												0.9
100-110	1	E15	ext/int	sl-1	c	pnt-r	u	pnt-rb	c-int + u-int			4		0.5
	1	E37	ext/int											1.2
	1	S1										4		1.0
	1	S1										3		0.7
	1	S1	ext									4		0.5
110-120	1	T22												1.5
	1	S1										3		0.6
	1	S4												1.2
	1	S3												0.8
120-130	1	T14	ext/int									2		0.8
	1	E11												0.7
	1	E37	ext/int									4		1.3
	1	S1										4		0.7
	1	S1												0.7
	1	S2										4	15	0.7
	1	T22												1.4
	1	T11	ext/int									2		1.2
	1	T11	ext/int											1.2
	1	E26	int									4		0.8
Total	1	E4										5		0.7
	1	S6	ext/int									2	18	0.8
	67													

Analysis by David Kay

12 KLI-RC1

TABLE AI.6 Desampling

Context	Number
Context 1	177
Context 2	30
Context 3	37
Context 4	20
Context 5	72
Context 6	170
Total	506

Analysis in the field by Alexandre Livingstone Smith and at UEA by Sam Nixon and Anne Haour

TABLE AI.7 Category 4

Context	Undec	Illegible
Context 1	3	0
Context 2	4	0
Context 3	2	0
Context 4	0	0
Context 5	2	0
Context 6	9	0
Total	20	0

Analysis by Sam Nixon

TABLE AI.8 Category 3

Context	#	Burn	Dec1	Dec2	Dec3	Dec4
Context 1	4	ext				
	1	int				
	1		roul	plain		
	1		roul			
Context 2	1	int				
	2		rc-1a			
	1	ext/int	mch-2	plain	sp1-l	sh
Context 3	1	ext/int	is-geo 11			
	2	ext				
	1		rc-1a			
Context 5	1	ext				
	1		rfp-1b			
Context 6	11	ext				
	1	ext/int				
	1	ext	rfp-1b inside			
	3		roul			
	1	int	roul			
	3		rc-1a			
	3		rfp-1b			
	2		rc-1a	plain		
Total	43					

Analysis by Sam Nixon and Anne Haour

TABLE A1.9 Rims

Context	#	R Type	Brn	Dec1	L1	Dec2	L2	Dec3.	L3	Ang	Diam	Mx thick
Context 2	1	S6								2	10	0.8
	1	S1										0.6
Context 3	1	S4										1.3
Context 5	1	S1		ch	l					4		0.7
Context 6	1	S4								3	22	0.7
	1	CB4	ext/int									0.5
Total	6											

Analysis by Sam Nixon