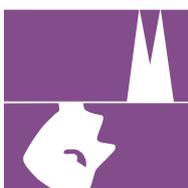
The background of the page features a large, light-colored watermark of the seal of the University of Cologne. The seal is circular and contains a central illustration of the Adoration of the Kings. It shows the Virgin Mary seated on the right, holding the infant Jesus. Three kings are kneeling before them, offering gifts. A fourth king stands to the left, holding a gift. Above the scene is a six-pointed star. The seal is surrounded by a circular border with Latin text.

■ **Flintknappers at Kabazi II, Level II/7C**

Jürgen Richter

Victor Chabai, Jürgen Richter, Thorsten Uthmeier (eds.),
Kabazi II: The 70,000 years since the Last Interglacial.
Palaeolithic Sites of Crimea, Volume 2.
Simferopol - Cologne, 85-100

2006



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Chapter 5

Flintknappers at Kabazi II, Level II/7C

Jürgen Richter

Level II/7C stems from the lower part of geological stratum 7 and is assigned to the lower Western Crimean Mousterian within Unit II. Finds were concentrated in the northern part of the excavation area (Fig. 5-1). The assemblage of level II/7C comprises 312 artefacts (> 2cm), 226 of which have been designated to 42 raw material units (Fig. 5-2; note: RMUs 12, 46-49 have been omitted). Raw materials derive mainly from a primary source, possibly from the Bodrak valley (Fig. 5-4); only three workpieces were collected from a residual occurrence, possibly from nearby Mount Milnaya. Characteristic of the primary source are predominantly round nodules (Fig. 5-3) of black-grey and light-grey coloured flint. These data already suggest that Kabazi II-Unit II/7C served as a workshop, with flintstone with a weight of 15,392 g having been imported and discarded at the site. The distribution of patinated artefacts (Fig. 5-5) clearly contrasts the overall distribution of artefacts (Fig. 5-1).

Imported single objects (10)

All imported and discarded single objects (Fig. 5-6, 5-7, 5-8) appear to have fulfilled two functional demands, firstly “cutting” (backed knives), and secondly “scraping” (scrapers). These activities were essential to the butchering and exploitation of 24 *Equus hydruntinus*, the remnants of which were found on the same occupation surface.

Workpieces imported as raw nodules (12)

These RM units (Fig. 5-9, 5-10) represent mostly nodules from a primary raw material source. The only exception (RMU 5) within this category, however, is representative of a pure workshop situation. In this case, a raw nodule was decorticated and formed into

a prepared core for export, without flake production.

Seven other RM units of this category, however, show the production of flakes, five of which included the production of tools (Fig. 5-10). In most of the examples from this category, the core was exported from the site. Tools and cores were only very rarely discarded. From this perspective, the main focus of occupation in level II/7C involved the production and export of objects.

All N category units show long transformational sequences, some of which are of considerable volume (Fig. 5-11, 5-12). At the time of the level II/7C occupation, the site obviously served two combined functions: as a hunting and butchering camp, as attested by the faunal remnants and by the single-objects category of workpieces; and as a location for the production of cores, blanks and tools for export and use elsewhere.

З				1	2
И		1		2	5
К				6	4
Л				4	5
М	7		1	6	9
Н	27	18	15	14	22
О	16	36	16	21	32
П	1		6	13	23
Р					
	8	7	6	5	4

Fig. 5-1 Kabazi II, level II/7C: distribution of all artefacts included in transformation analysis.

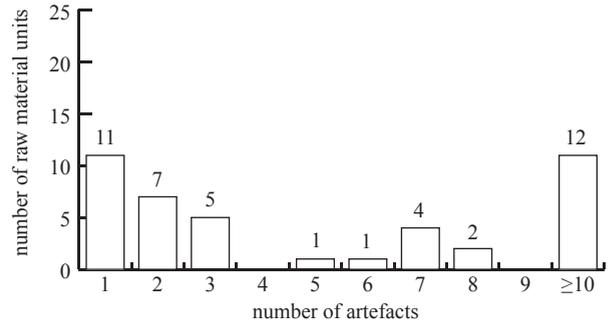


Fig. 5-2 Kabazi II, level II/7C: number of artefacts per workpiece.

Workpieces imported as cores (18)

In a total of 18 cases prepared cores were brought to the site, these being only slightly decorticated, and still covered by remnants of fresh cortex (Fig. 5-13, 5-14). This implies the presence of a nearby workshop site where the nodules had been processed prior to their transport to Kabazi II. This workshop is probably linked to the afore mentioned primary source of raw material. Moreover, the N and C categories were both planned for later export, and the cores must be interpreted as “migrating cores”.

Only three examples show the correction of cores without any further production of flakes on-site (RMU 23, 36, 38; see Fig. 5-13). A total of 13 examples display some flake production, and two feature the production and discard of tools.

As tools occurred only among seven of all single-object and core-related workpieces, the occupation in level II/7C was clearly more centred on flake production than on tool production. The tools used for butchering were rather imported as single objects than realised on blanks which had been produced at the site. This would speak in favour of several short stays which served the procurement of meat, hides, cores, blanks, and tools for another campsite. Was this camp perhaps at Kabazi V, just around the corner of the Mount Kabazi escarpment?

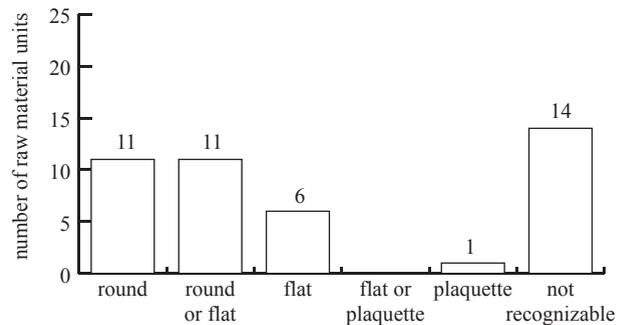


Fig. 5-3 Kabazi II, level II/7C: shapes of raw nodules.

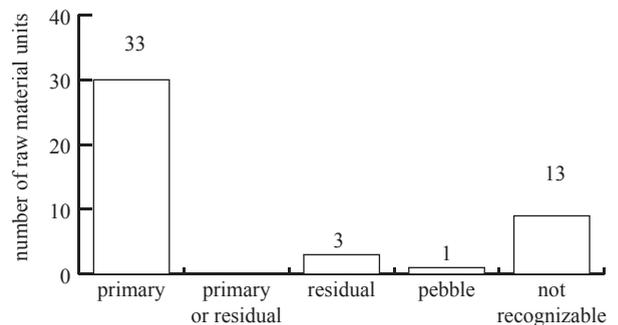


Fig. 5-4 Kabazi II, level II/7C: nature of raw materials.

З			1	2	
И	1		1	4	
К			6	2	
Л			2	3	
М			1	1	
Н		1			
О	1			1	
П					
Р					
	8	7	6	5	4

Fig. 5-5 Kabazi II, level II/7C: distribution of patinated artefacts (RMU 39).

Concepts of flake production

Three different concepts of flake production have been observed:

- a) A concept of blade production based on bipolar, parallel exploitation surfaces. The cores featured core flanks on both sides, and percussion surfaces were prepared via core tablets. Here we are dealing with a true blade concept without possible interfaces to any kind of flake production. The blades display attributes of hard hammer percussion (RMU 3, 6, 13, 15).
- b) A Levallois concept based on centripetal, recurrent flake production, sometimes shifting towards parallel-elongated flake production (Fig. 5-15, 5-16). As a special feature, the Levallois percussion was sometimes performed by soft (limestone?) hammers.

- c) A Kombewa („flake from flake“ production) concept which was sometimes performed along with the Levallois concept upon one and the same nodule (RMU 11; Fig. 5-11, 5-12). The Kombewa concept appears to have been carried out after the Levallois principle of terminal and lateral convexity and striking platforms, which were prepared separately.

A bifacial tool

Within one of the blade production sequences a bifacial tool was produced which was then used and consequently exported; its broken tip was found on-site (RMU 13; Fig. 5-10).

RM →	28	22	41	50	18	20	45	40	30	26	2
OFF-SITE 0 Import	scraper 	convergent scraper 	scraper 	side-scraper 	backed piece 	Siret flake 	core for a backed piece 				
INTRA-SITE	1 Preparation										
	2A Blank production										
	2B Correction										
	3 Modification										
Discard	7-O	8-H	7-H		5-H	4II	5JI	4-H	7-O	H5	O-5
Export ←											
Transformation Section	Tw	Tw	Tw	Tw	Bw	Bw	Bw	Bw	Bw	Bw	Co

Fig. 5-6 Kabazi II, level II/7C: transformation sections of workpieces, imported as single objects: Bw = blank without debitage or modification, Tw = tool without debitage or modification, Cw = core without debitage (*chaîne opératoire*, after Geneste 1985; 1988; 1990).

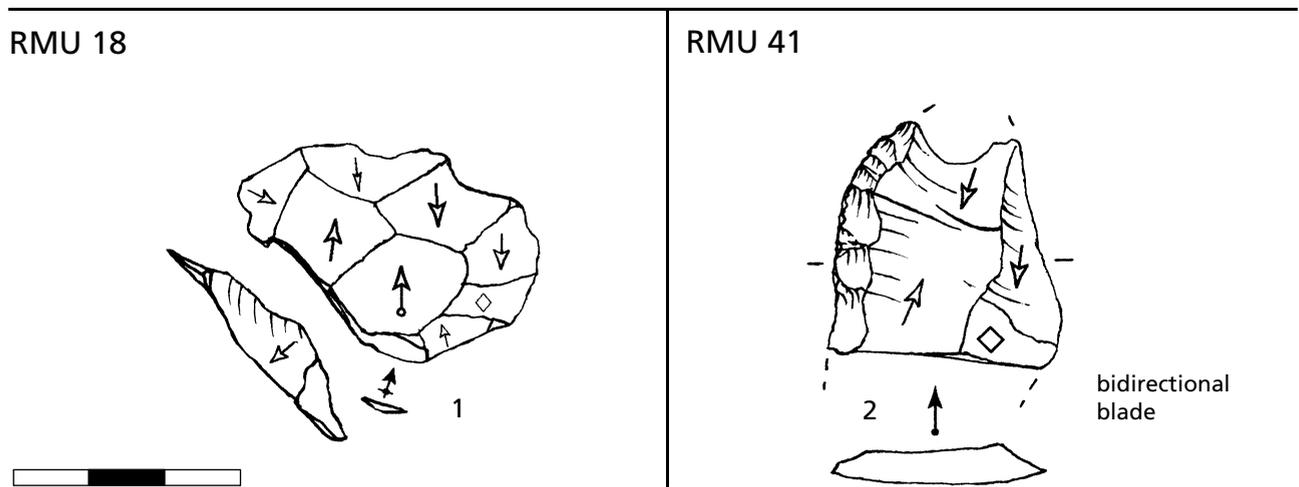
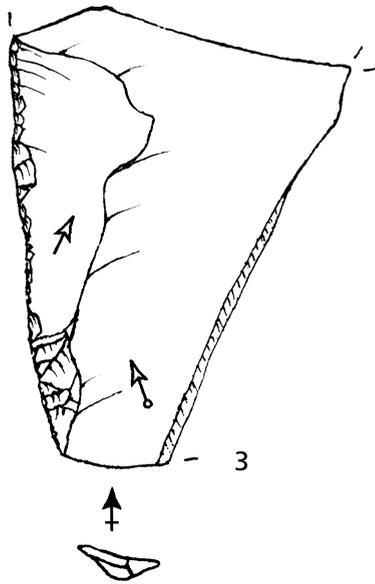
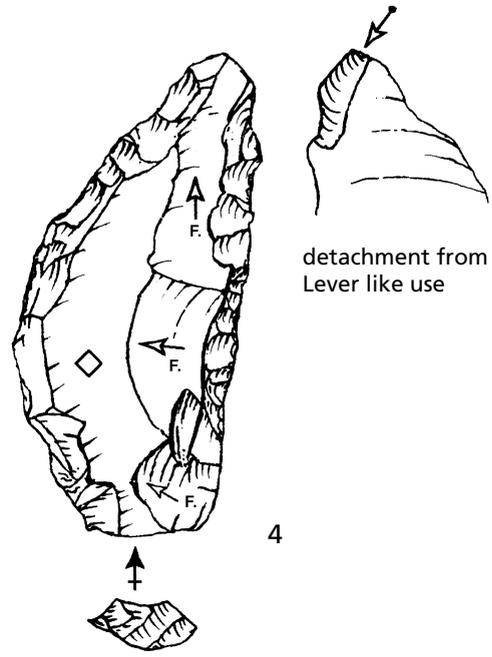


Fig. 5-7 Kabazi II, level II/7C: single objects.

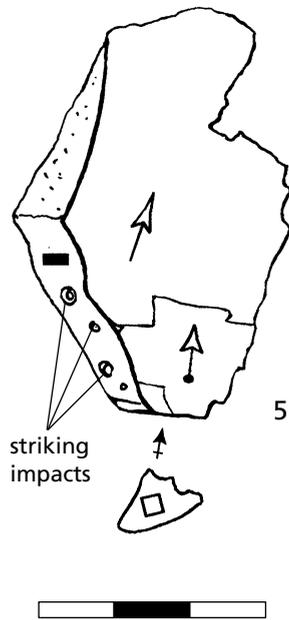
RMU 28



RMU 22



RMU 20



RMU 30

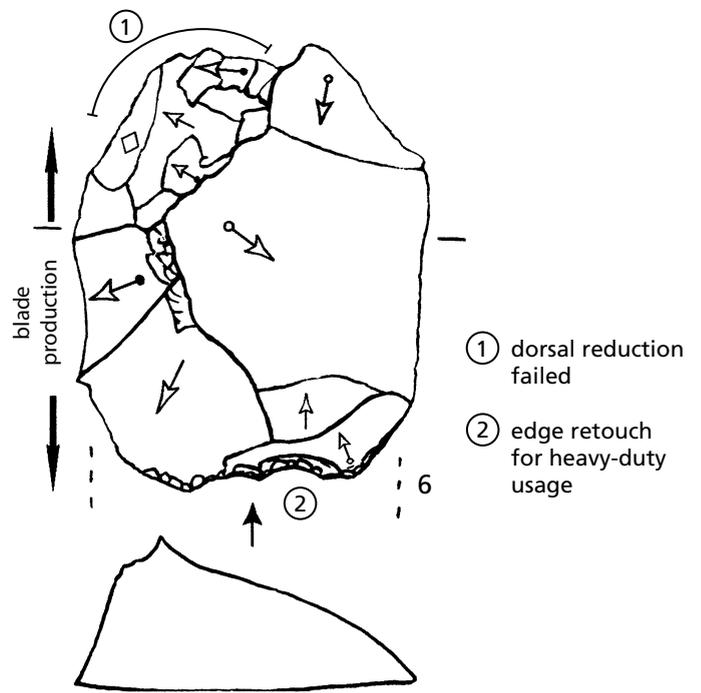
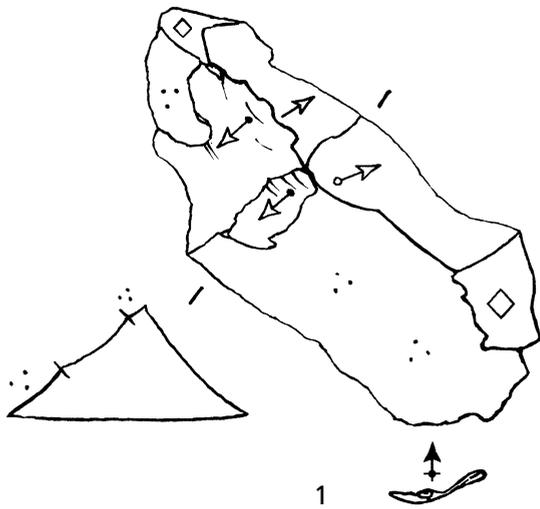


Fig. 5-7 continued.

RMU 45



RMU 26

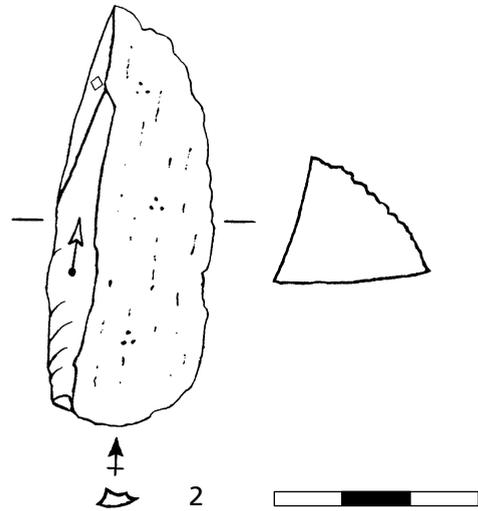


Fig. 5-8 Kabazi II, level II/7C: single objects.

RM	5	9	17	19	24	37	27	3
OFF-SITE 0 Import	nodule	nodule	nodule	flat nodule	flat nodule	flat nodule	nodule	nodule
INTRA-SITE 1 Preparation	chunk, Levallois core, Kombewa core	chunk, Levallois core, Kombewa core	chunk, Levallois core, Kombewa core	Levallois core, preferential flake				
2A Blank production			Levallois core, Levallois flake production	Levallois core, preferential flake				
2B Correction							core tablet	
3 Modification								
Discard	4M			50, 6H, 5H	8H, 60 o.A., o.A.5I]	05 04, 05	6I, 8M	04 o.A., 04 M4, 04 H4, 4I, 8M, 4I, 8M, 50 8H, 4I, 80, 4I, 5I]
Export	core	core, preferential flakes	core, preferential flakes, preferential flakes	core	core	core	blades	core blades
Transformation Section	Np	Nb	Nb	Nb	Nb	Nb	Nb	Nb

Fig. 5-9 Kabazi II, level II/7C: transformation sections of workpieces, imported as raw nodules and subsequently exploited: Np = preparation of a raw nodule, Nb = blank production from a raw nodule (*chaîne opératoire*, after Geneste 1985; 1988; 1990).

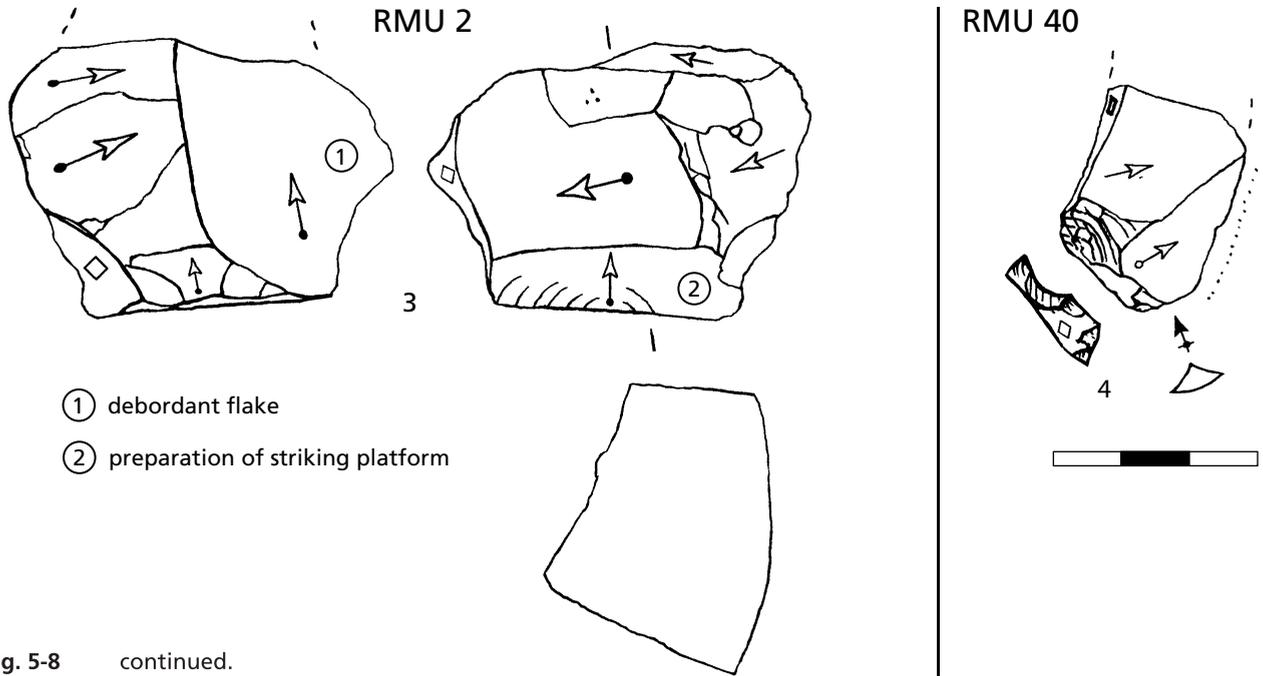


Fig. 5-8 continued.

RM →	11	21	15	14	13
OFF-SITE					
0 Import	large nodule	flat nodule (exotic)	nodule	nodule	nodule
INTRA-SITE	1 Preparation	some Siret	5-II, 7-H	5-II, 4-H, 8-H, 6-O, 7-O, 8-H, 4-H, 6-H, 11-6, 7-H	4-H, 4-II, 5-O, 6-H, 7-H
	2A Blank production	Levallois blades	blade production	three flakes transformed into cores	Laminar concept: blade production
	2B Correction				
	3 Modification	double side-scraper	scraper	crested blade failed, debordant flake, core tablet, core fragments and chunks, renovation of distal convexity	
Discard	6-II, 8-H, 8-H, 5-H, 4-H	4-II, 8-O, 6-H, 8-H	8-H, 9-H, 7-O, 7-O, 8-H, 7-H, 8-O, 8-H, 8-H, 6-O	8-O, 6-H, 6-O, 8-H, 8-H, 4-O	11-6, 4-H, 6-O
Export ←	blades, Kombewa core	core	blades, large flakes	1 core, elongated flakes	bifacial tool fragment, core
Transformation Section	Nm	Nm	Nm	Nm	Nm/f

Fig. 5-10 Kabazi II, level III/7C: transformation sections of workpieces, imported as raw nodules and subsequently exploited: Nm = blank production from a raw nodule and modification of blank(s); /f = surface shaping present in RMU (*chaîne opératoire*, after Geneste 1985; 1988; 1990).

RMU 11

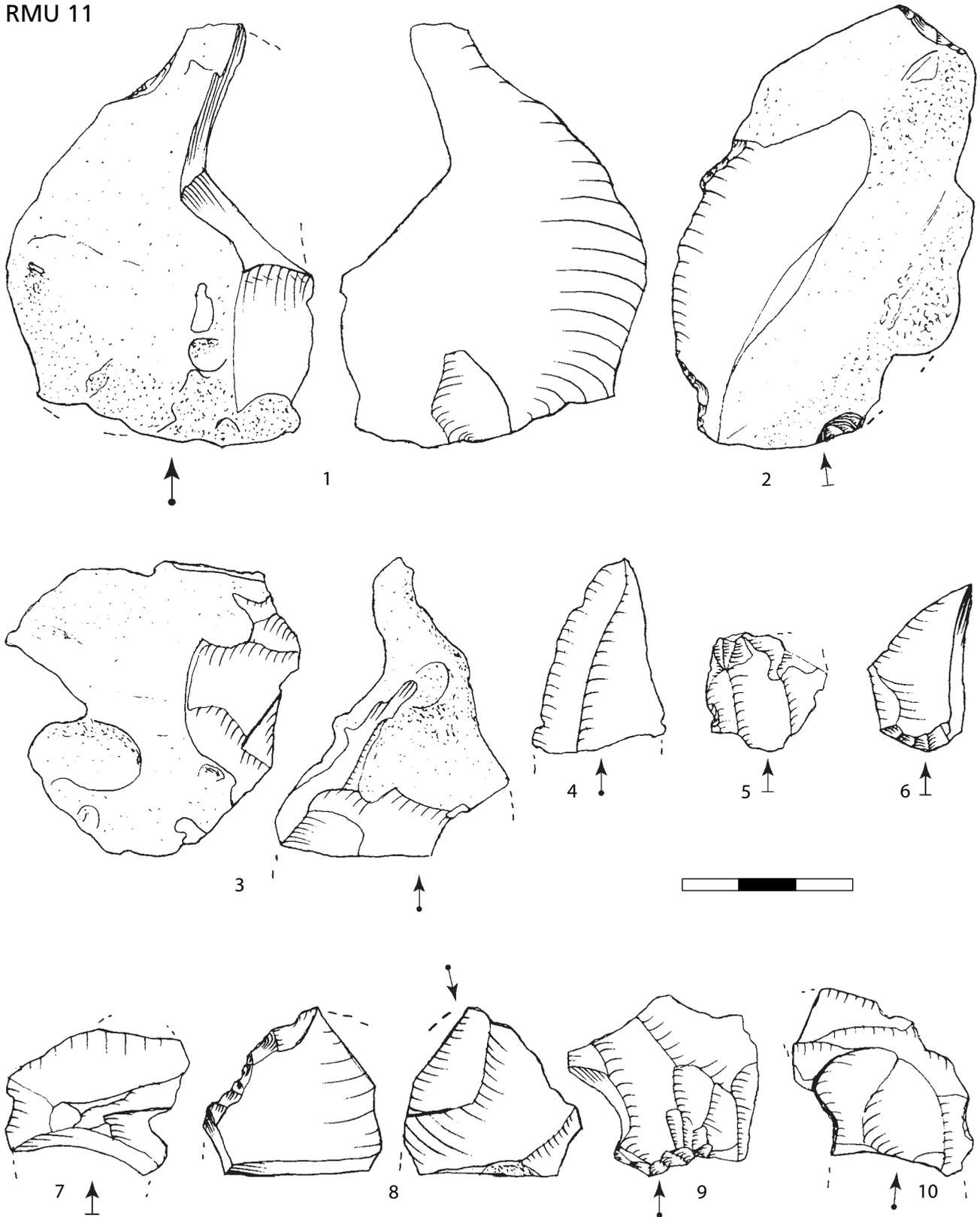


Fig. 5-11 Kabazi II, level II/7C: artefacts from RMU 11. Initial stage of transformation (Nm class): Blanks from decortication of a raw nodule and preparation of a core.

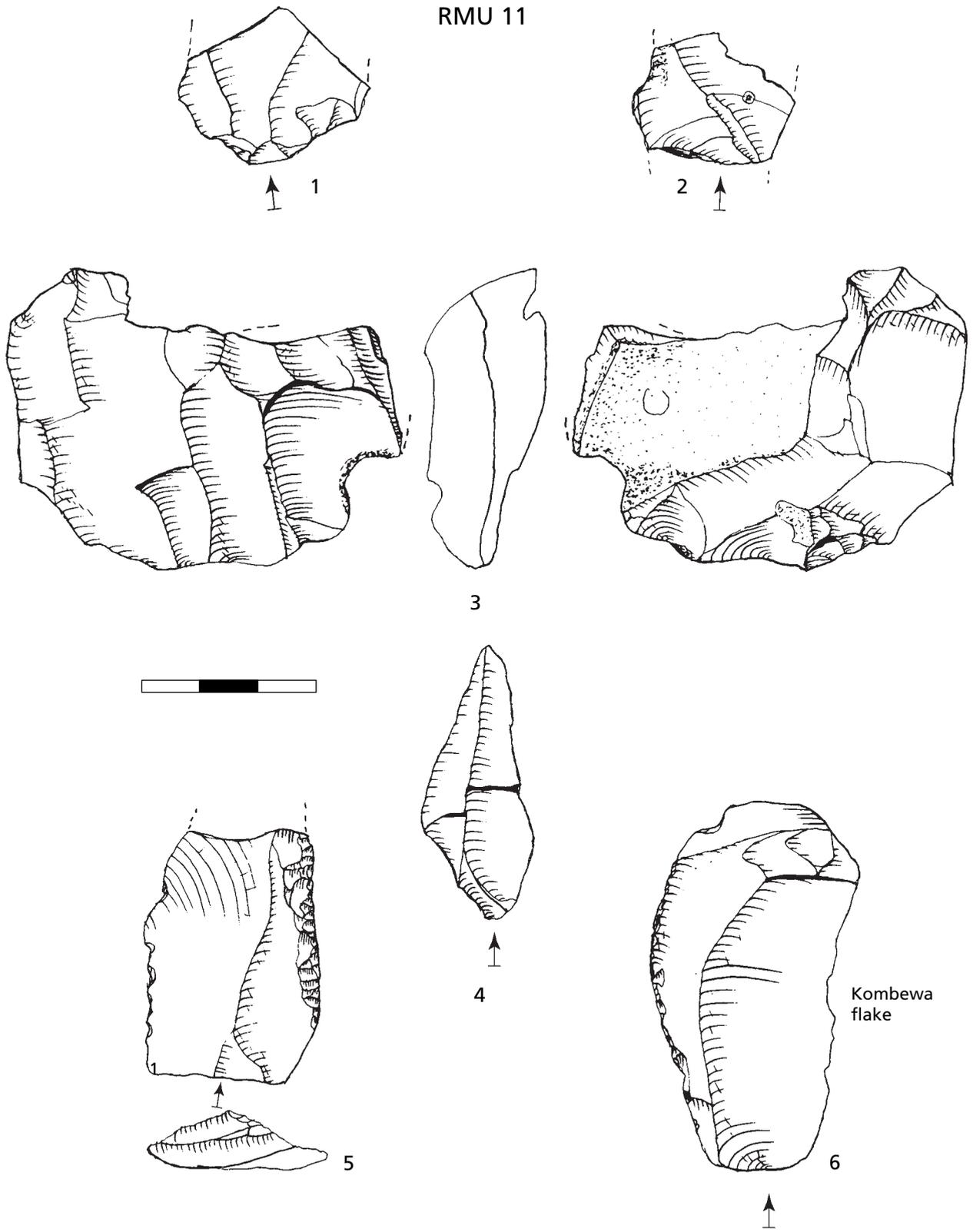


Fig. 5-12 Kabazi II, level II/7C: artefacts from RMU 11. Subsequent stages of transformation (Nm class): Blanks from blank production, broken core and broken scraper.

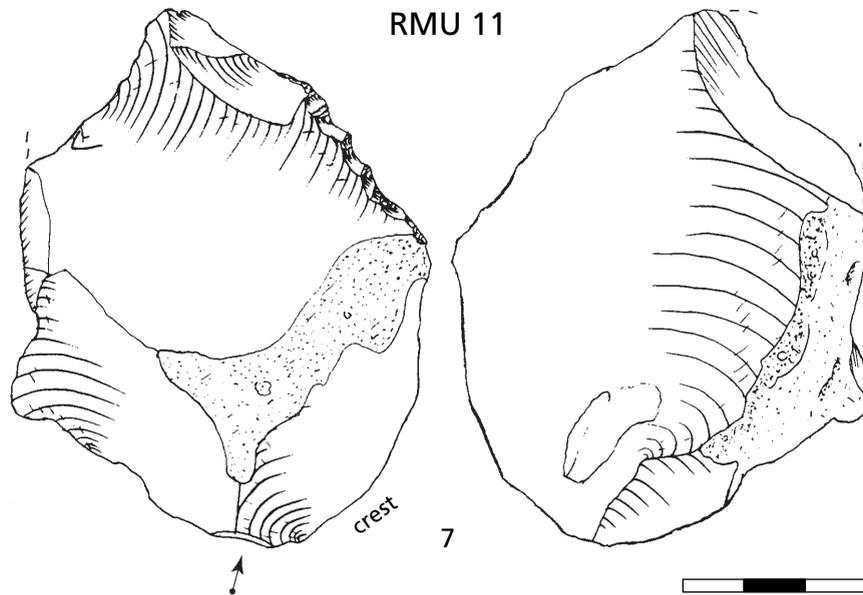


Fig. 5-12 continued

RM →	23	36	38	1	4	6	7	8	10	25
OFF-SITE 0 Import	rejuvenated Levallois core 			core 	fresh core 	initially exploited core 	core with lateral crest 	fresh core 	large flake 	fresh core
INTRA-SITE	1 Preparation				lateral decortication 	rest of striking platform preparation 		facetted striking platform 	hinges 	
	2A Blank production				Levallois 	blades along long negative 	striking platform for lateral preparation 		preparation of Levallois exploitation face failed by several hinges 	flexure flake
	2B Correction				slightly lateral preferential flake 					hinge lip removed
	3 Modification									
Discard	○ 0-7 ○ 4-0 ○ 6-H	○ 7-0 ○ 7-C	○ 5-M ○ 5-H ○ 4-0	○ 7-0 ○ 5-11	○ 7-H ○ 4-0	○ 4-M ○ 3-0 ○ H-5 ○ 4-11 ○ 7-H	○ 7-0 ○ RM correct? ○ H-5	○ 5-0 ○ 5-11 ○ 4-M	○ 8-0 ○ 6-0 ○ 4-K ○ 4-0	○ 4-0 ○ H-5
Export ←	core 		core, chips 	core 	core, flakes 	blade core, blades 	core 	core, flakes 	some flakes 	core
Transformation Section	Cc	Cc	Cc	Cb	Cb	Cb	Cb	Cb	Cb	Cb

Fig. 5-13

RMU 11

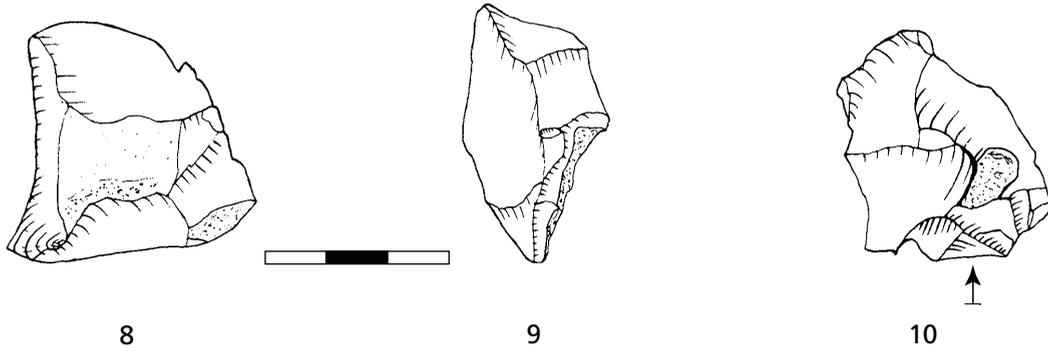


Fig. 5-12 continued.

RM →		29	31	32
OFF-SITE	0 Import	Levallois core from pebble 	initially prepared flat nodule 	large flake
INTRA-SITE	1 Preparation		chunks 2x 3 blades 3x 	chunks debordant flake broken along fissure
	2A Blank production		striking platform flake 2x 	
	2B Correction		bad Levallois core 7x 	
	3 Modification		broken core 7x 	
Discard	6-O H-5 H-6 4-H 4-O O-5 N.N	5-O O-9 O-8 O-4 O-4 O-8 O-6 O-6 O-7 7-O	7-H O-8 O-4 O-4 O-8 O-6 O-6 O-7 O-7	N.N 5-O 3-H 4-H O-6 5-O H-4 4-O
Export ←			broken core 	
Transformation Section	Cb	Cb	Cb	

Fig. 5-13 continued.

◀ Fig. 5-13 Kabazi II, level II/7C: transformation sections of workpieces, imported as cores and subsequently exploited: Cc = correction of a core, Cb = blank production from a core (*chaîne opératoire*, after Geneste 1985; 1988; 1990).

RM →		34	35	42	43	16
OFF-SITE	0 Import	decorticated nodule 	decorticated nodule 	core 	core 	fresh core
INTRA-SITE	1 Preparation					 Levallois rec. bipolaire
	2A Blank production					
	2B Correction					
	3 Modification					
	Discard	 8-H 4K 5-II 4-M 7-0 5-II	 G2V 7-0 4-I 5-II 7-H 4-H 8-H 7-H 7-0 7-0	 H-5 8-0 4-O	 ?	 7-0
	Export ←	 core etc.	 core	 core etc.	 core etc.	 core etc.
	Transformation Section	Cb	Cb	Cb	Cm	Cm

Fig. 5-14 Kabazi II, level II/7C: transformation sections of workpieces, imported as cores and subsequently exploited: Cb = blank production from a core, Cm = blank production from a core and modification of blank(s) (*chaîne opératoire*, after Geneste 1985; 1988; 1990).

CONCLUSION

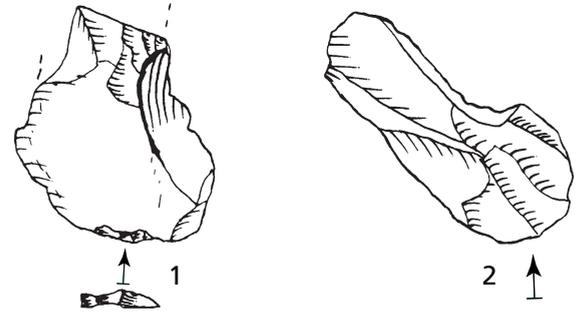
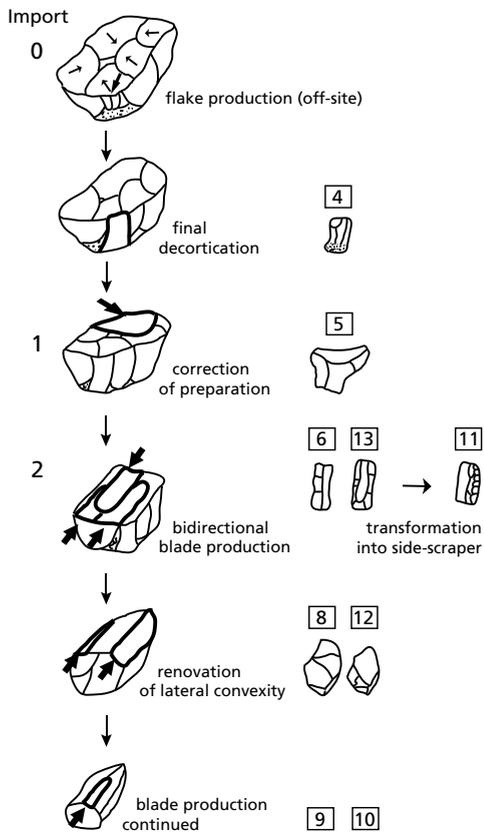
During the level 7C occupation of Kabazi II, 24 wild horses were brought to the site, butchered and processed. In the same context, isolated scrapers and backed knives were imported, used and discarded.

A second context is defined by three different concepts of blank production performed on imported raw nodules from a primary source. Cores, blanks and tools were produced for immediate export. This

second context is indicative of short stays without the discard of tools produced on-site.

The first context features several lithic transformation sequences in their final stages and connected to hunting activities. By contrast, the second context displays transformation sequences in a transitional or initial stage connected to core, blank and tool procurement for later consumption elsewhere (Fig. 5-17).

RMU 16 – operational scheme



RMU 16

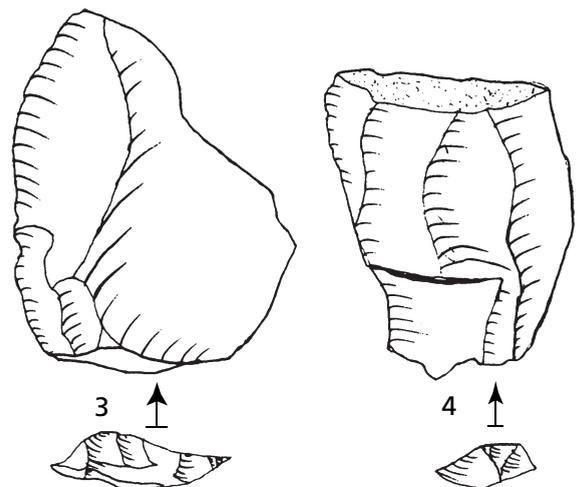


Fig. 5-15 Kabazi II, level II/7C: model of bidirectional blade production, as indicated by artefacts from RMU 16 (sketch: Thorsten Uthmeier); cf. Fig 5-16 for numerals in squares .

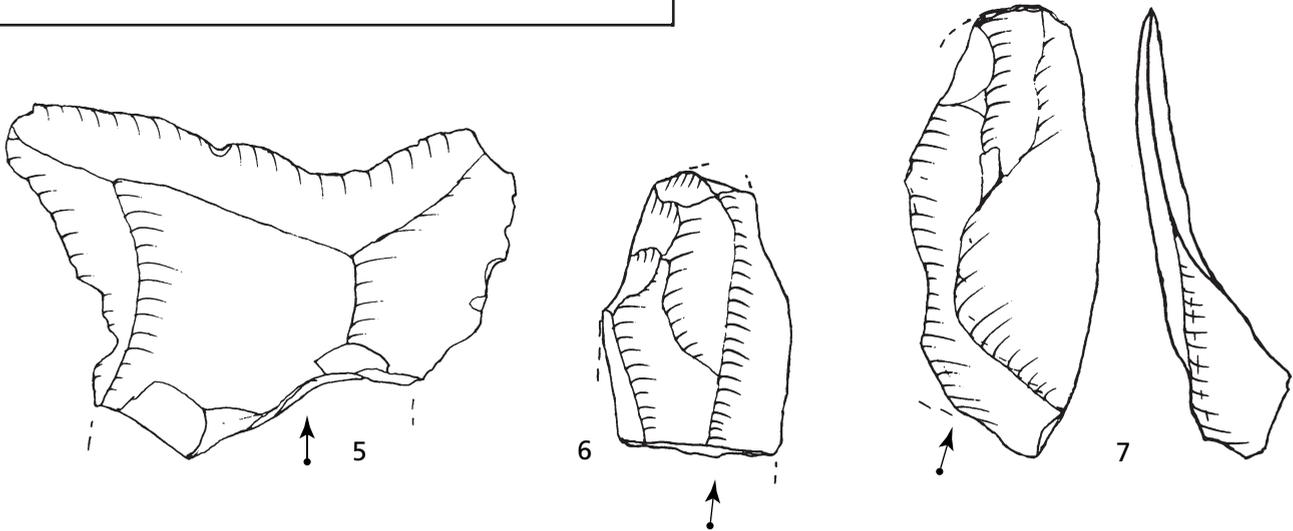


Fig. 5-16 Kabazi II, level II/7C: artefacts from RMU 16 (Cm class). Blanks from correction of an exploitation surface of an imported core (cf. model Fig. 5-15).

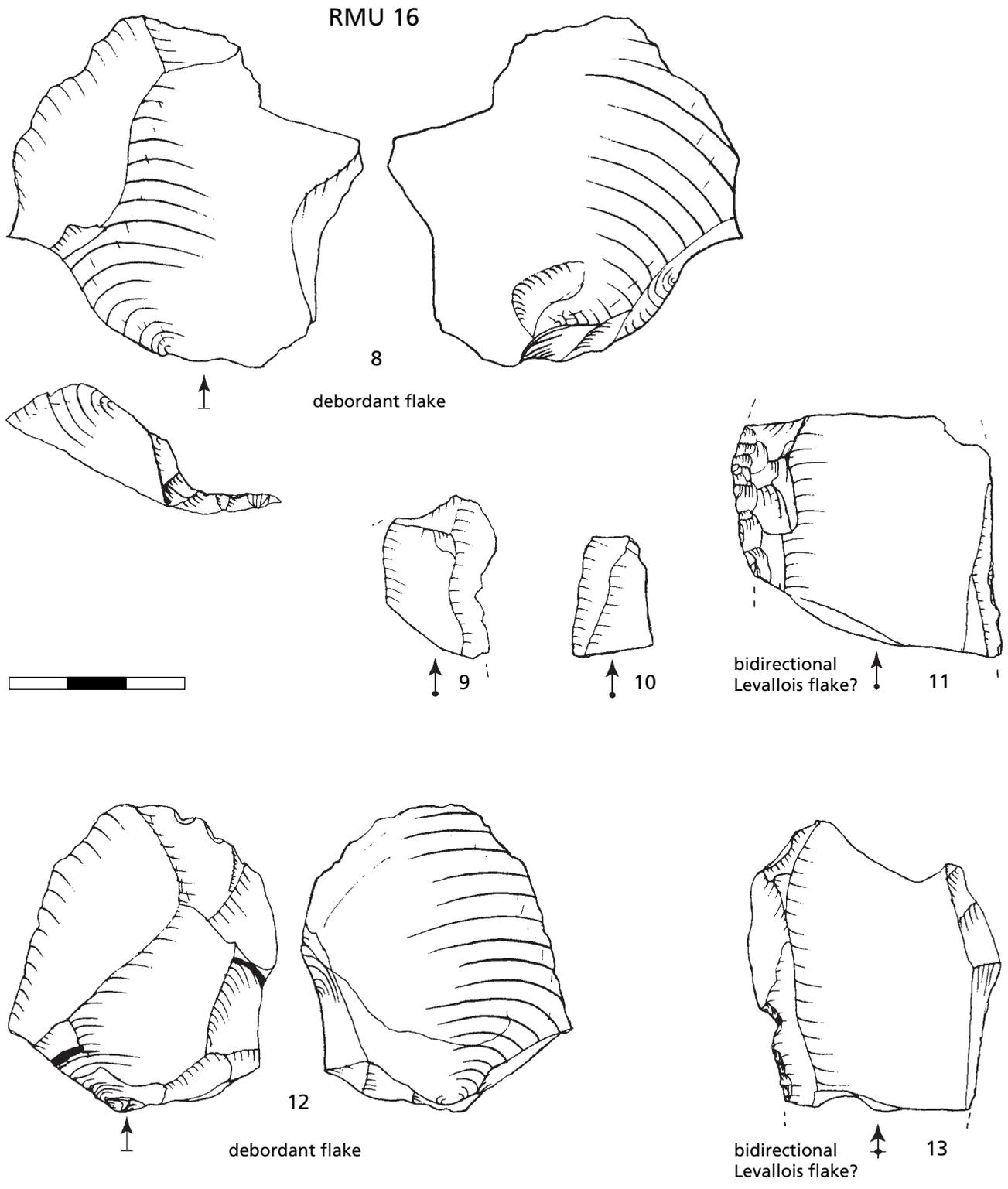


Fig. 5-16 continued. Kabazi II, level II/7C: artefacts from RMU 16 (Cm class). Blanks from preparation of a bidirectional Levallois exploitation surface; and blades from bidirectional production, one of them transformed into a scraper, broken and discarded (cf. stage 2 of model Fig. 5-15).

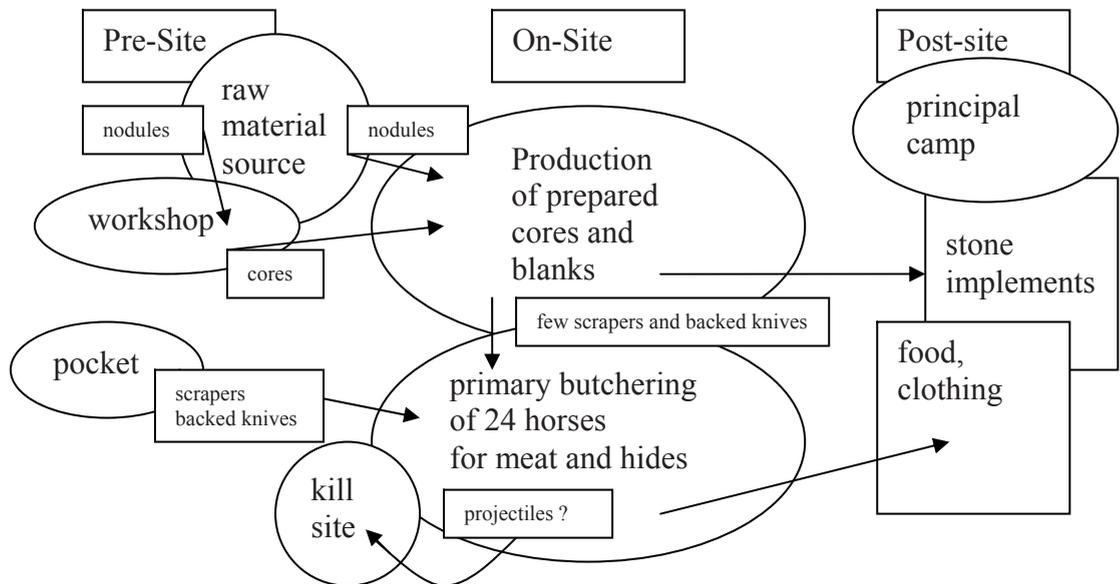


Fig. 5-17 Kabazi II, unit II, level 7C: a model of site functions based on lithic transformation analysis.

ABSTRACT

КАБАЗИ II, ГОРИЗОНТ II/7C: МОДЕЛИ ЭКСПЛУАТАЦИИ СЫРЬЕВЫХ РЕСУРСОВ

Ю. Пухтер

На территории поселения II/7C было разделано 8 туш гидрунтинговых лошадей. Для разделки животных были принесены в готовом виде несколько скребел, включая обушковые. После использования импортные орудия были оставлены на стоянке.

Вместе с тем, на стоянку были принесены желваки кремня. Сколы и нуклеусы, получившиеся в результате расщепления данных желваков, были унесены со стоянки.

Таким образом, на стоянке горизонта II/7C были использованы две модели обеспечения сырьем. Суть первой модели состоит в использовании на территории стоянки импортных орудий. Вторая модель основана на полном цикле кремнеобработки на территории стоянки с последующим экспортом нуклеусов и серии наиболее удачных сколов-

