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Palaeolithic Sites of Crimea,
Vol. 1

KABAZI II:
LAST INTERGLACIAL OCCUPATION,
ENVIRONMENT & SUBSISTENCE

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Chapter 11

Consumption and Production: Transformational Processes in the Upper Levels of Kabazi II, Unit VI

Jürgen Richter

LEVEL VI/1: TOOL CONSUMPTION AND PREPARATION OF PREY

The assemblage of level VI/1 comprises 94 artefacts, 59 of which are assigned to 9 different raw material units. The artefact distribution map lacks any clear patterning (Fig. 11-1), and the workpieces would appear to represent a random collection (Fig. 11-3), mainly from secondary raw material sources (Fig. 11-4). The number of artefacts per raw material unit is very low (Fig. 11-2). The assemblage contains only five tools and 3 utilized pieces.

Workpieces were introduced to the site either as single objects or as cores or preforms.

Single objects (3)

Two flakes with sharp edges were imported and used as single objects (Fig. 11-5; RMU 5 and RMU 1, which is broken) as well as a bifacially worked point with scraping edges (RMU 12).

Imported tools modified on-site (2)

A bifacial tool was imported and then used and modified, and afterwards exported from the site (Fig. 11-5; RMU 3). RMU 10 reflects a similar situation, where a bifacial tool was imported, used, broken and discarded on site.

Workpieces imported as cores (1)

Only one example of a “migrating core” was attested:

A core was imported, from which flakes were produced, one of them being modified to become a scraper which was then used and discarded, and the core again exported (Fig. 11-5; RMU 11).

Workpieces imported as preforms (2) and nodules (1)

In two cases, a preform was imported, from which a bifacial tool was produced, used and exported (Fig. 11-5; RMU 7 and RMU 8). In RMU 8, the bifacial tool was broken during use, a fragment was discarded on site, and the rest of the tool was recycled and exported. RMU 6 was a flat nodule or plaquette, also imported for bifacial production.

Conclusion: Consumption of lithics

Unit VI, level 1 delivered a lithic assemblage which was devoted to consumption at the site, scrapers and scraping being the most important activities. The assemblage seems to reflect a short-term occupation, or several short episodes. Only one RMU unit (RMU 6) was designed for production and export. In this single case, a raw piece was introduced to the site and a bifacial tool produced for export.

By contrast, 4 out of 8 RMU units reached their final stage at the site, 3 were “migrating” cores and preforms, and only one (RMU 6) contributed to the enlargement of the post-site raw material budget.

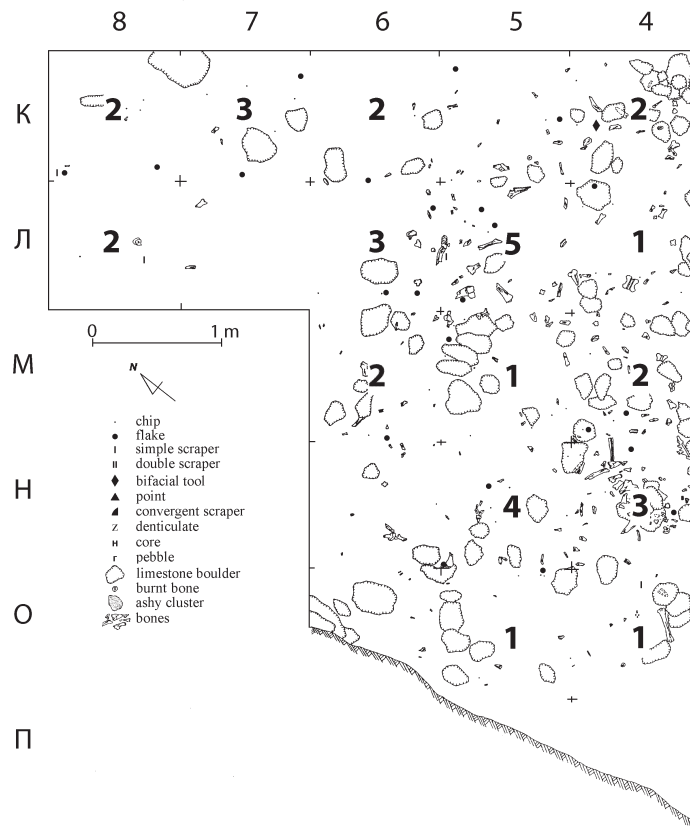


Fig. 11-1 Kabazi II, level VI/1: artefact distribution (pieces > 2cm).

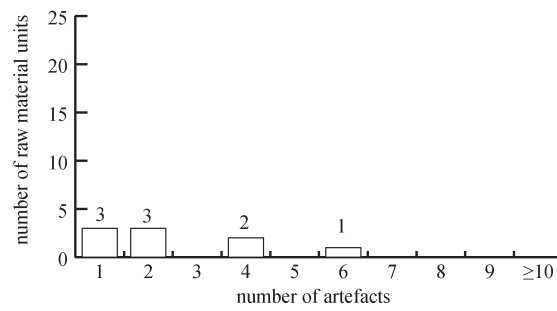


Fig. 11-2 Kabazi II, level VI/1: number of artefacts per workpiece.

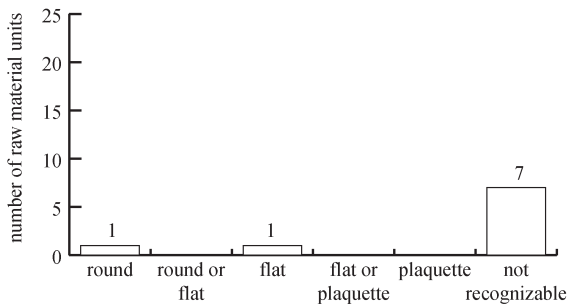


Fig. 11-3 Kabazi II, level VI/1: shapes of nodules.

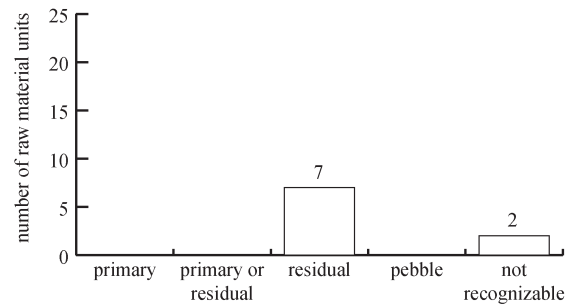


Fig. 11-4 Kabazi II, level VI/1: nature of raw materials.

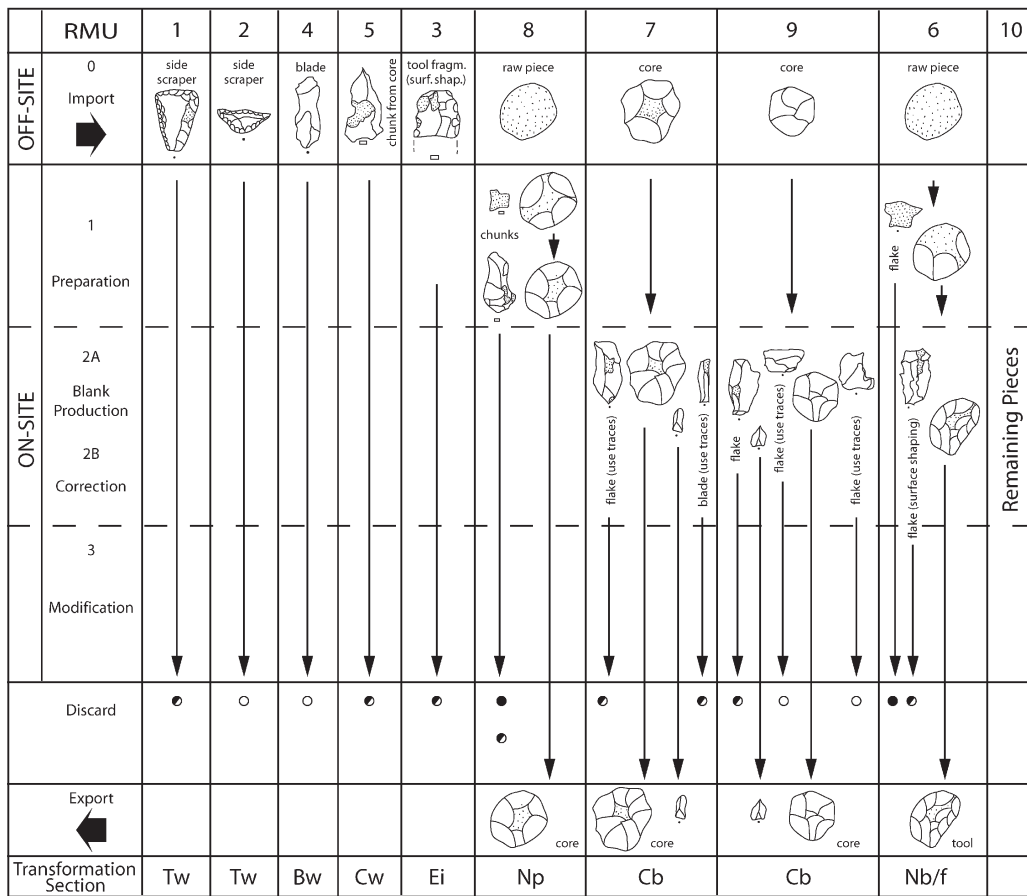


Fig. 11-5 Kabazi II, level VI/1: transformation sections of workpieces. Bw = blank without debitage or modification; Tw = tool without debitage or modification; TT = fragments of a formal tool, used as a single object; Cb = blank production from a core; Nb = blank production from a raw nodule. Cm = blank production from a core with modification of blanks; f = bifacial production or surface shaping (steps of the formal *chaîne opératoire* after Geneste 1985; 1988; 1990).

LEVEL VI/2: CONSUMPTION OF LITHICS FOR SCRAPING AND CUTTING

This assemblage consists of only 46 artefacts (Fig. 11-6), mainly chips. Of the larger pieces, 20 were assigned to 11 raw material units, thus each comprising only very few pieces (Fig. 11-7). As in level VI/1, raw material procurement occurred quite randomly (Fig. 11-8, 11-9). Contrasting level 1, some raw nodules were introduced to the site for initial exploitation (Fig. 11-10).

Single objects and imported tools (7)

Four raw material units were imported as single objects, used and discarded without further modification (RMU 4, 7, 12, 15), among them one bifacial point (RMU 7). In three cases, imported pieces consist of tools which were rejuvenated or modified (RMU 6, 5, 8). The imported pieces fulfilled scraping and cutting activities.

Workpiece imported as a preform (1)

One preform was imported (RMU 10) and transformed into a bifacial tool which was exported.

Imported raw nodules (3)

Three raw material units were brought into the site as nodules (RMU 1, 3, 16), one of them having immediately been discarded without any modification (RMU 16). RMU 3 was broken into several chunks, one of them discarded, and at least one other was decorticated and exported as a pre-core (decorticated nodule). RMU 1 was used to produce a bifacial tool which was used and discarded on site.

Conclusion: Consumption and limited production

The level VI/2 assemblage was, in 7 out of 11 cases,

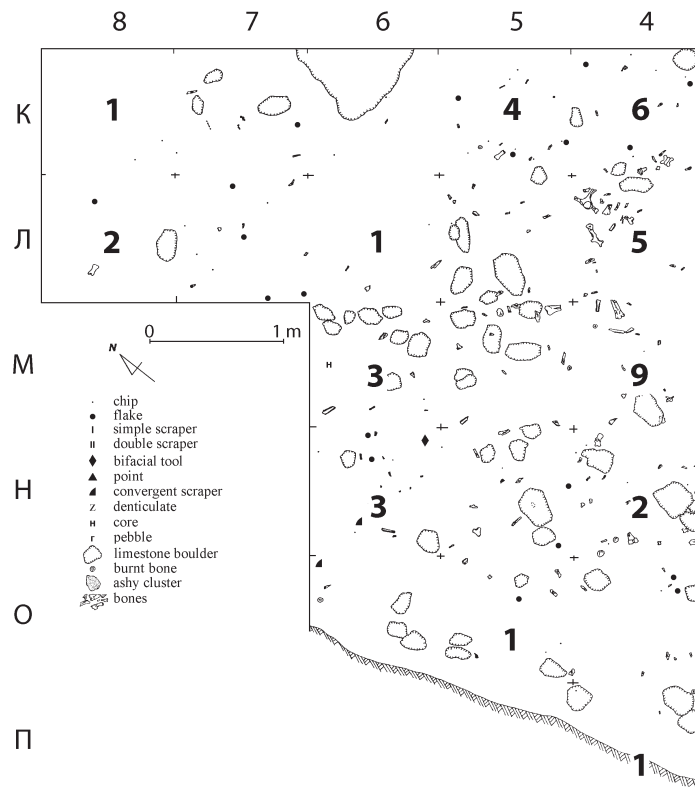


Fig. 11-6 Kabazi II, level VI/2: artefact distribution (pieces > 2cm).

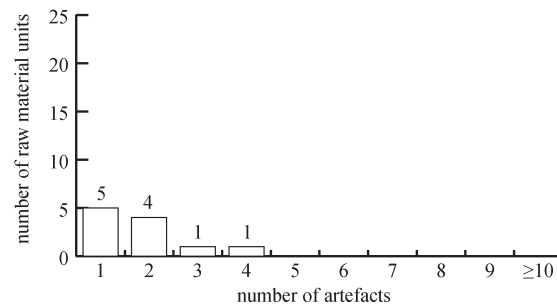


Fig. 11-7 Kabazi II, level VI/2: number of artefacts per workpiece.

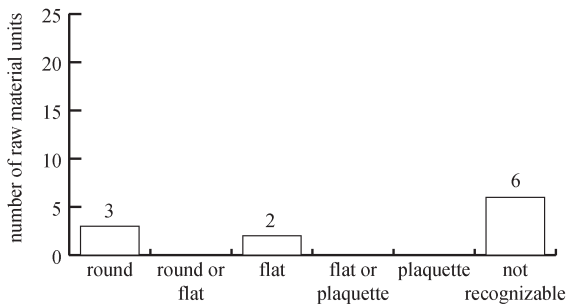


Fig. 11-8 Kabazi II, level VI/2: shapes of nodules.

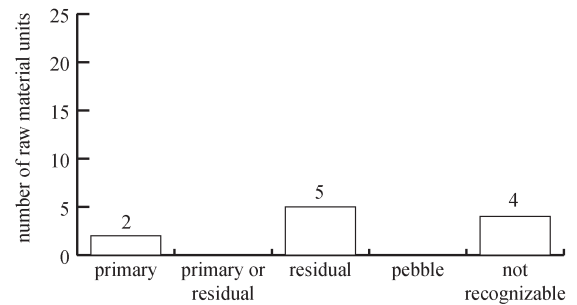


Fig. 11-9 Kabazi II, level VI/2: nature of raw materials.

	RMU	7	4	15	12	16	5	6	8	3	10	1	18
OFF-SITE	0 Import ➔	point (surface shaping)	blade	crested flake	flake	raw piece (partially decorticated)	tool (surface shaping)	tool (surface shaping)	point (surface shaping)	raw piece (partially decorticated)	preform	flat round nodule	
ON-SITE	1 Preparation									fracture chunk decortication		fracture	
	2A Blank Production												
	2B Correction												
	3 Modification						resharpening	resharpening	breakage rework			point (surface shaping)	
Discard		○	○	●	○	●	○ ○	○ ●	●	● ●	○ ○	● ●	
Export ◀							tool (surface shaping)	tool (surface shaping)	point (surface shaping)	precore	tool (surface shaping)		
Transformation Section		Tw/f	Bw	Bw	Bw	Nw	Mi/f	Mi/f	TM/f	Np	Cb/f	Nm/f	

Fig. 11-10 Kabazi II, level VI/2: transformation sections of workpieces. Bw = blank without debitage or modification; Tw = tool without debitage or modification; Nw = nodule without debitage; Mi = modification debris of a blank or tool, used as a single object; TM = formal tool with debris of modification; Np = preparation of a raw nodule; Cb = blank production from a core; Cm = blank production from a core with modification of blanks; /f = bifacial production or surface shaping (steps of the formal *chaîne opératoire* after Geneste 1985; 1988; 1990).

focused on consumption of imported lithics. Mostly, imported tools were used or consumed and imported nodules were modified for immediate consumption.

Only three artefacts were produced on site: One tool was discarded after use, and only one tool and one pre-core were exported.

LEVEL VI/3: CONSUMPTION OF HUNTING PREY?

Of the 63 artefacts found in this level (Fig. 11-11), only 14 pieces were attributed to one of the 9 raw material units (Fig. 11-12). By some contrast to levels VI/1 and VI/2, they came from all kinds of sources except river beds (Fig. 11-13, 11-14).

Raw material units imported and used as single objects (5)

RMU units used as single objects (Fig. 11-15) are used predominantly for scraping activities. Among

these, 3 display side-scraper working edges (RMU 1, 2, 3; Fig. 11-16), and another is a blade with a utilized edge (RMU 4). Only one unit is connected with flake production (fragment of a core, RMU 5; Fig. 11-16).

Workpieces imported as raw nodules (2)

Both imported raw material nodules were used for production and export (Fig. 11-15). From RMU 6, a bifacial tool was produced and exported, and a core was prepared from RMU 8 and taken from the site.

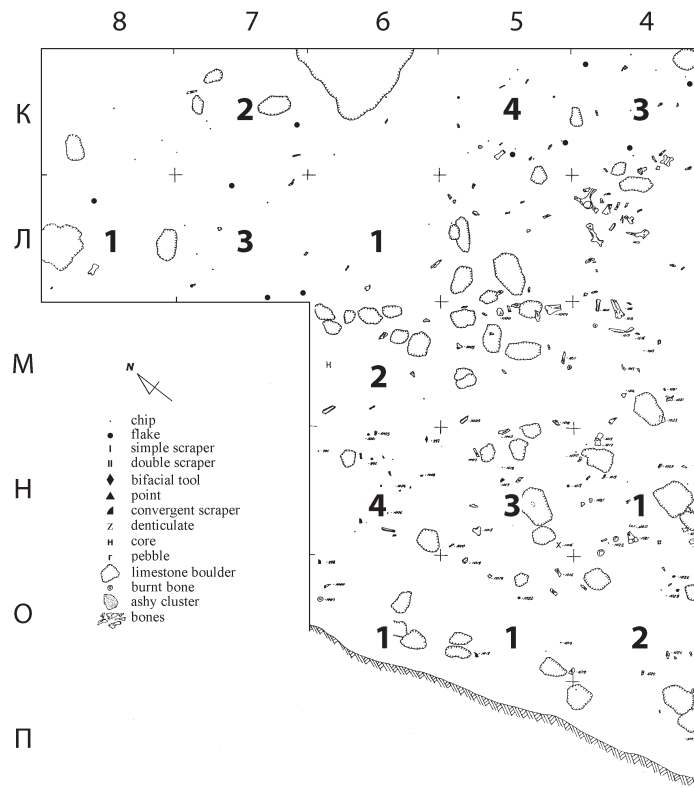


Fig. 11-11 Kabazi II, level VI/3: artefact distribution (pieces > 2cm).

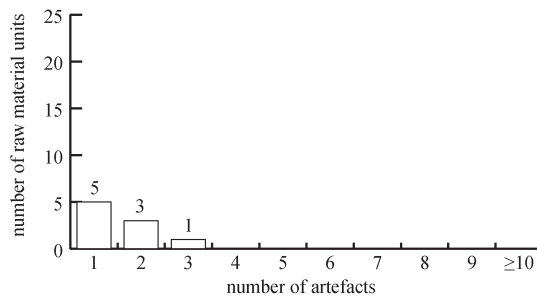


Fig. 11-12 Kabazi II, level VI/3: number of artefacts per workpiece.

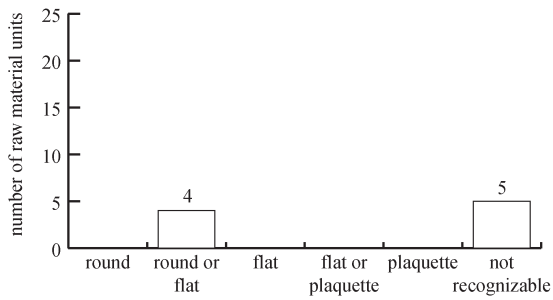


Fig. 11-13 Kabazi II, level VI/3: shapes of nodules.

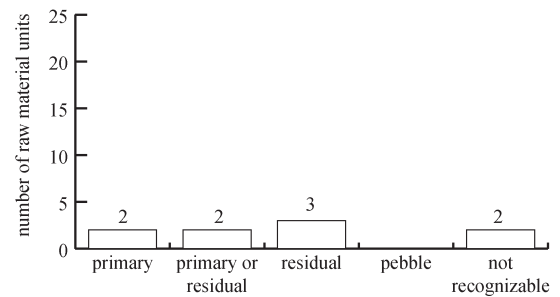


Fig. 11-14 Kabazi II, level VI/3: nature of raw materials.

	RMU	1	2	4	5	3	8	7	9	6	10
OFF-SITE	0 Import ➔	side scraper	side scraper	blade	chunk from core	tool fragm. (surf. shap.)	raw piece	core	core	raw piece	
ON-SITE	1 Preparation						chunks			flake	
	2A Blank Production							flake (use traces)	flake (use traces)	flake (use traces)	flake (surface-shaping)
	2B Correction							blade (use traces)	flake (use traces)	flake (use traces)	
	3 Modification										
Discard	○	○	○	○	○	●	●	●	○	○	●
Export ➔						core	core	core	core	tool	
Transformation Section		Tw	Tw	Bw	Cw	Ei	Np	Cb	Cb	Nb/f	Remaining Pieces

Fig. 11-15 Kabazi II, level VI/3: transformation sections of workpieces. Bw = blank without debitage or modification; Tw = tool without debitage or modification; Cw = core without debitage; Ei = end or tip of tool, isolated; Np = preparation of a raw nodule; Cb = blank production from a core; Nb = blank production from a raw nodule (steps of the formal *chaîne opératoire* after Geneste 1985; 1988; 1990).

Workpieces imported as cores (2)

Both RMU units of this class represent “migrating cores” which were imported to the site, exploited to a certain degree, and then exported, together with some blanks. Flakes were produced from both cores, some of which were used and discarded on site (RMU 7, 9).

Conclusion

The assemblage of level VI/3 seems to be the result of a very short occupation. Some artefacts were used and discarded, and very limited production took place. Some flakes were made from “migrating cores”, and only one core and one bifacial tool were added to the lithic inventory of the occupants.

LEVEL VI/4: BIFACIAL PRODUCTION FROM PREFORMS FOR FUTURE DEMAND

Of the 52 artefacts from level VI/4 (Fig. 11-17), 35 larger pieces were assigned to 13 raw material units (Fig. 11-18). Only one raw material unit contained more than 4 pieces. The nodules used were flat or globular (Fig. 11-19) and came from primary and residual resources (Fig. 11-20). Tools were unstandardized or unfinished.

Raw material units used as single objects (4)

Two of the single objects (Fig. 11-21) were functional artefacts: one flake (RMU 8) and one bifacial point (RMU 5). Two single objects were connected with lithic production, such as an imported raw nodule (RMU 1) and a preform (RMU 3) which were both broken and immediately discarded.

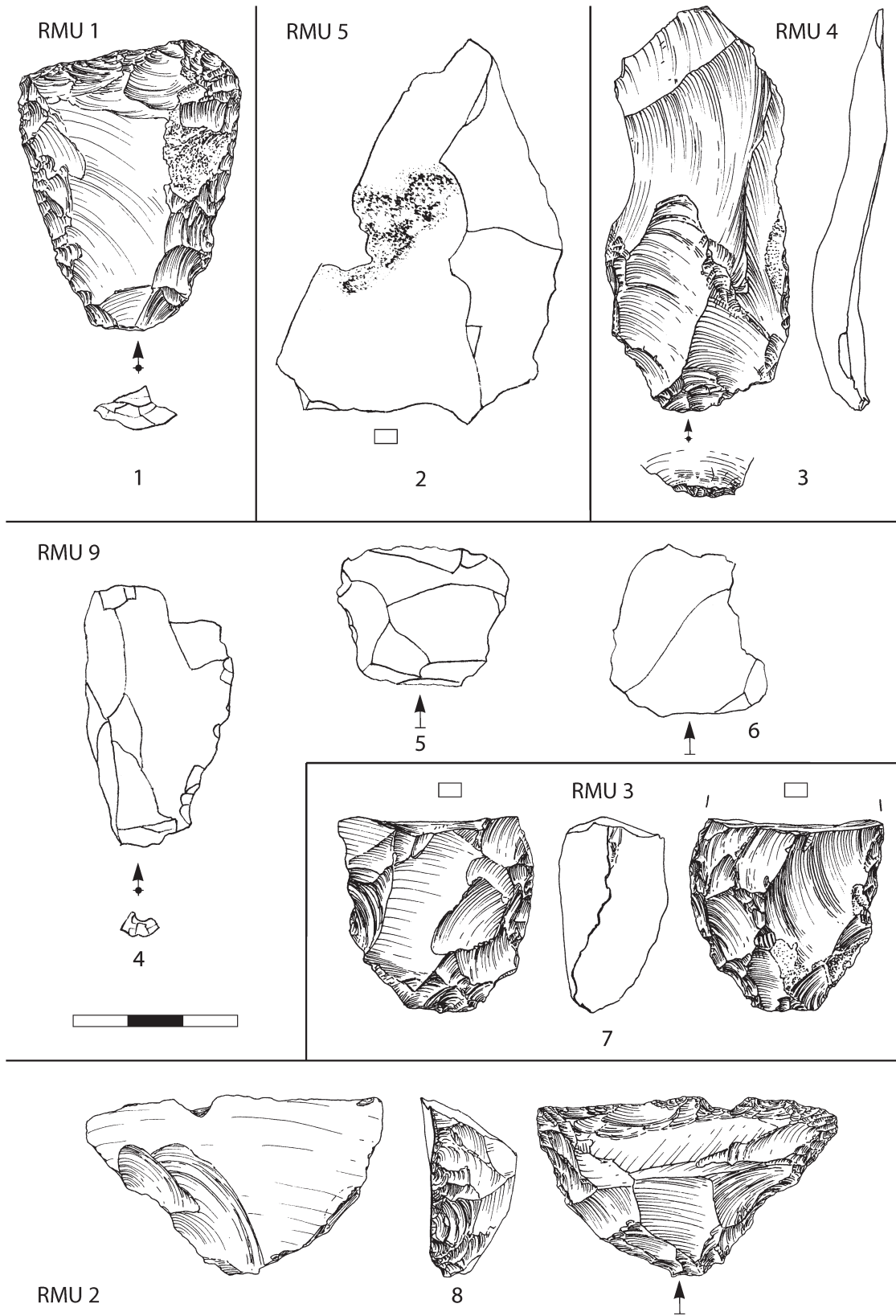


Fig. 11-16 Kabazi II, level VI/3: selected workpieces.

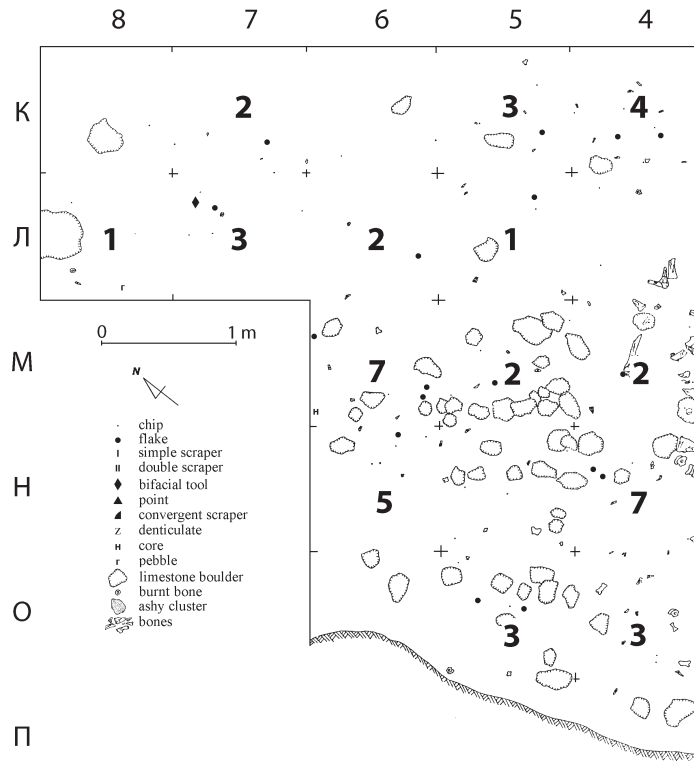


Fig. 11-17 Kabazi II, level VI/4: artefact distribution (pieces > 2cm).

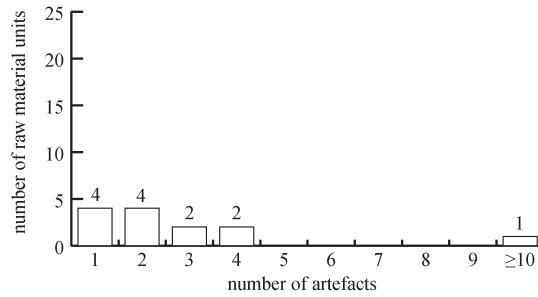


Fig. 11-18 Kabazi II, level VI/4: number of artefacts per workpiece.

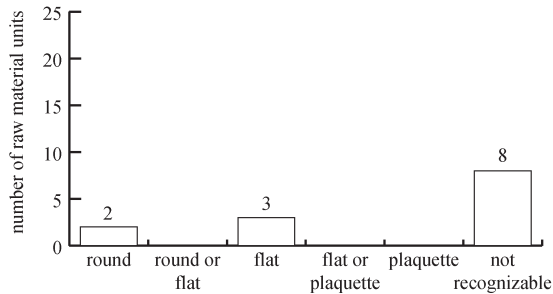


Fig. 11-19 Kabazi II, level VI/4: shapes of nodules.

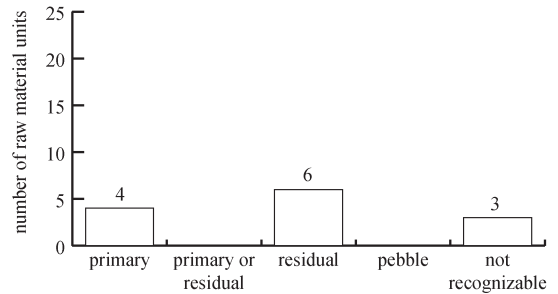


Fig. 11-20 Kabazi II, level VI/4: nature of raw materials.

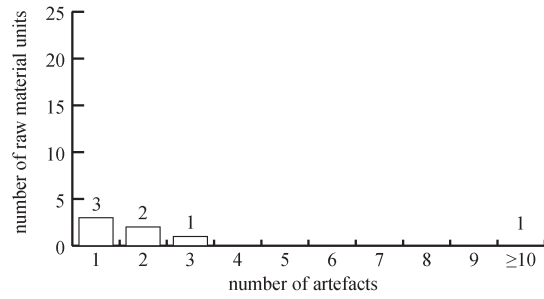


Fig. 11-23 Kabazi II, level VI/5: number of artefacts per workpiece.

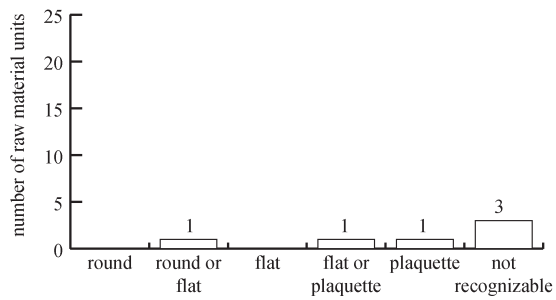


Fig. 11-24 Kabazi II, level VI/5: shapes of nodules.

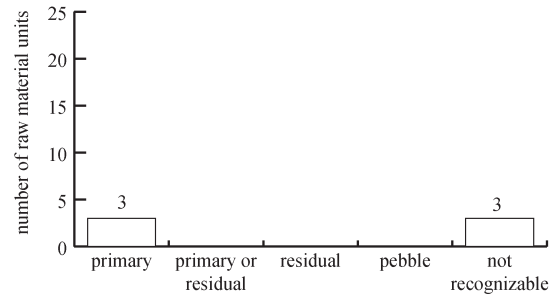


Fig. 11-25 Kabazi II, level VI/5: nature of raw materials.

	RMU	7	6	2	3	5	1	4
OFF-SITE	0 Import ➔	flake 	Siret 	flake 	plaquette 	preform 	plaquette (fragment) 	
ON-SITE	1 Preparation						fracture 	
	2A Blank Production						formatting 	Remaining Pieces
	2B Correction							
3 Modification						transversal side scraper 		
	Discard	○	○	○	● ○	● ○	● ● ●	
	Export ◀				preform 	preform 	core? 	
Transformation Section		Bw	Bw	Bw	Nb/f	Cb/f	Nm/f	

LEVEL VI/6: PRODUCTION OF LEAF POINTS FROM PLAQUETTES

Level VI/6 (Fig. 11-27) contained 90 artefacts, 61 of these could be attributed to 21 raw material units (plus 2 units with burnt pieces and 1 unit with unclassified artefacts), these included 3 larger units with 12, 9 and 7 artefacts each (Fig. 11-28, 11-29, 11-30). Bifacial production, for the delivery of narrow leaf points, played a major role in this assemblage. Quite rarely, flake production occurs (RMU 4, RMU 14) in this level (Fig. 11-32).

Raw material units used as single objects (8)

Two raw nodules were imported, but immediately discarded (Fig. 11-32; RMU 4, RMU 13). For cutting and scraping activities, flakes (RMU 9, RMU 24), a flat chunk (RMU 23) and side-scrapers (RMU 16, RMU 18) were introduced and used as single objects, one of which may also have been earmarked as a possible preform for a bifacial point (RMU 16).

Raw material units imported as tools, with on-site modification (2)

One scraper was introduced, used, rejuvenated, used again and then discarded (RMU 19). One leaf point or fragment of a leaf point was introduced to receive secondary surface shaping (RMU 5). After additional retouch, it was transformed into a bifacial double side-scraper, which was then used and discarded.

Workpieces imported as raw nodules (6)

All units of this class represent bifacial production sequences. As the imported raw nodules (plaquettes: RMU 2, 6, 22, nodules: RMU 8, 12, 15) were sometimes quite thin and narrow, the focus of production was most probably upon relatively small bifacial tools, such as leaf points. All units of this group seem to have ended as leaf points or preforms for export. In two cases, production was only initial (RMU 6, RMU 15; Fig. 11-32).

Workpieces imported as preforms and cores (5)

Nodules and plaquettes, which had been initially prepared, were imported both for bifacial production (RMU 3, RMU 17) and for flake production (RMU 14, RMU 20). One of the cores was discarded after exploitation (RMU 14; Fig. 11-31), the other

was probably exported (RMU 20). The remaining nodule was discarded immediately after import (RMU 10).

Remarks on bifacial production

Often, small plaquettes or nodules were chosen for production. Their weight was mostly between 30 and 40 grams, and on one occasion as little as 25 grams. These raw material volumes allowed solely for the production of small, mostly thin, bifacial pieces. RMU 15 shows the initialisation of a nodule, beginning on both narrow ends of an elongated piece. On one end, preparation was on the upper face, on the other end on the lower face (Fig. 11-32). Bifacial shaping continued in an alternating manner, always producing blanks of a convex longitudinal section. Thus, in this manner, biconvex cross-sections were achieved (RMU 5) with edges following an s-shaped outline. In this context, two different groups of RMU units can be observed: The first group of units reflects situations in which a raw material piece was introduced and processed, but the final product was exported and is now missing from the assemblage (for example RMU 22; Fig. 11-31). The second group of units lacks not only raw material pieces but also all traces of bifacial production. On the other hand, they comprise a number of discarded tools. Complete transformation sequences (Nm) are totally absent from the assemblage which is thus indicative of an arbitrary window within a circulating land use pattern.

Remarks on production of flakes

The production of flakes is almost totally absent from the assemblage. One large nodule (RMU 4) might have been collected for flake production, but its poor quality (with many scars and internal fissures) led to the immediate discard of the piece. Only RMU 14 displays a Levallois blade concept which might have delivered some blades for export. The only standard blank present in the assemblage came in as a single object, an isolated straight side-scraper (RMU 18). The obvious lack of blanks and blades might suggest that an opportunity for flake production was absent from the Kabazi II level VI/6 occupation and from the neighbourhood of the site. At that time, the nearby Kabazi V site was not yet occupied.

◀ **Fig. 11-26** Kabazi II, level VI/5: transformation sections of workpieces. Bw = blank without debitage or modification; Cb = blank production from a core; Nb = blank production from a raw nodule; Nm = blank production from a nodule with modification of blanks; /f = bifacial production or surface shaping (steps of the formal chaîne opératoire after Geneste 1985; 1988; 1990).

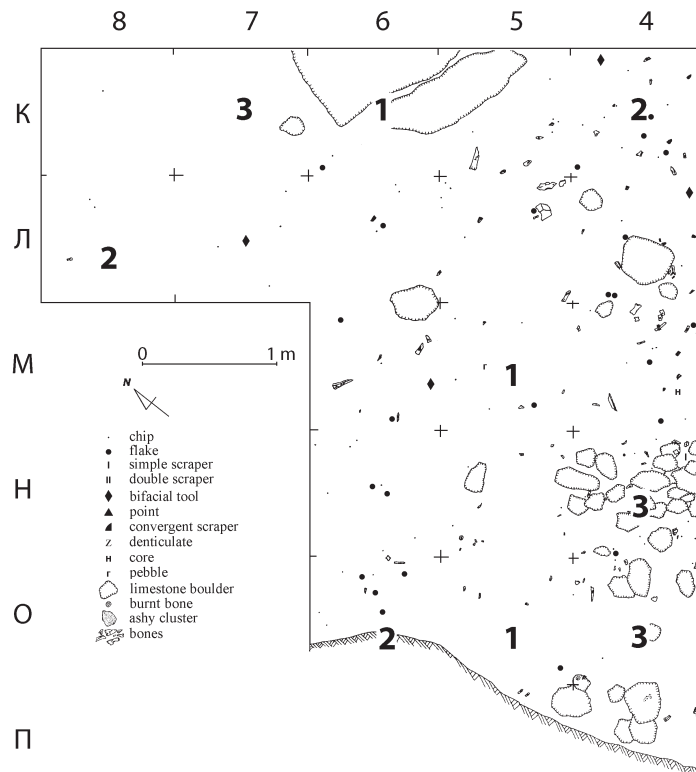


Fig. 11-27 Kabazi II, level VI/6: artefact distribution (pieces > 2cm).

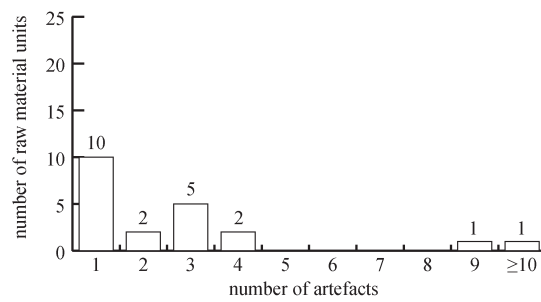


Fig. 11-28 Kabazi II, level VI/6: number of artefacts per workpiece.

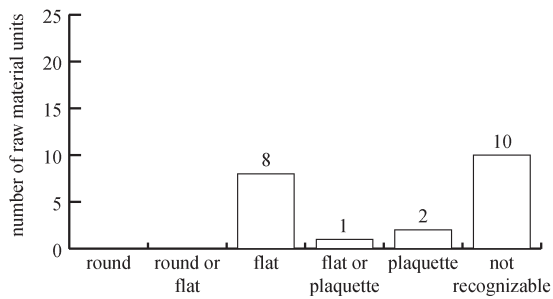


Fig. 11-29 Kabazi II, level VI/6: shapes of nodules.

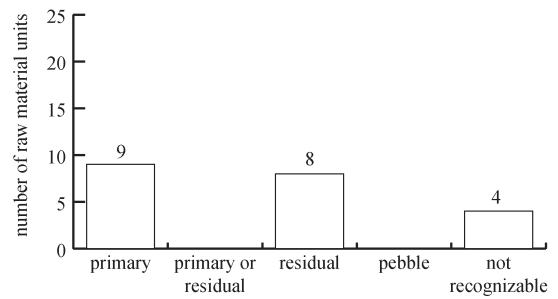


Fig. 11-30 Kabazi II, level VI/6: nature of raw materials.

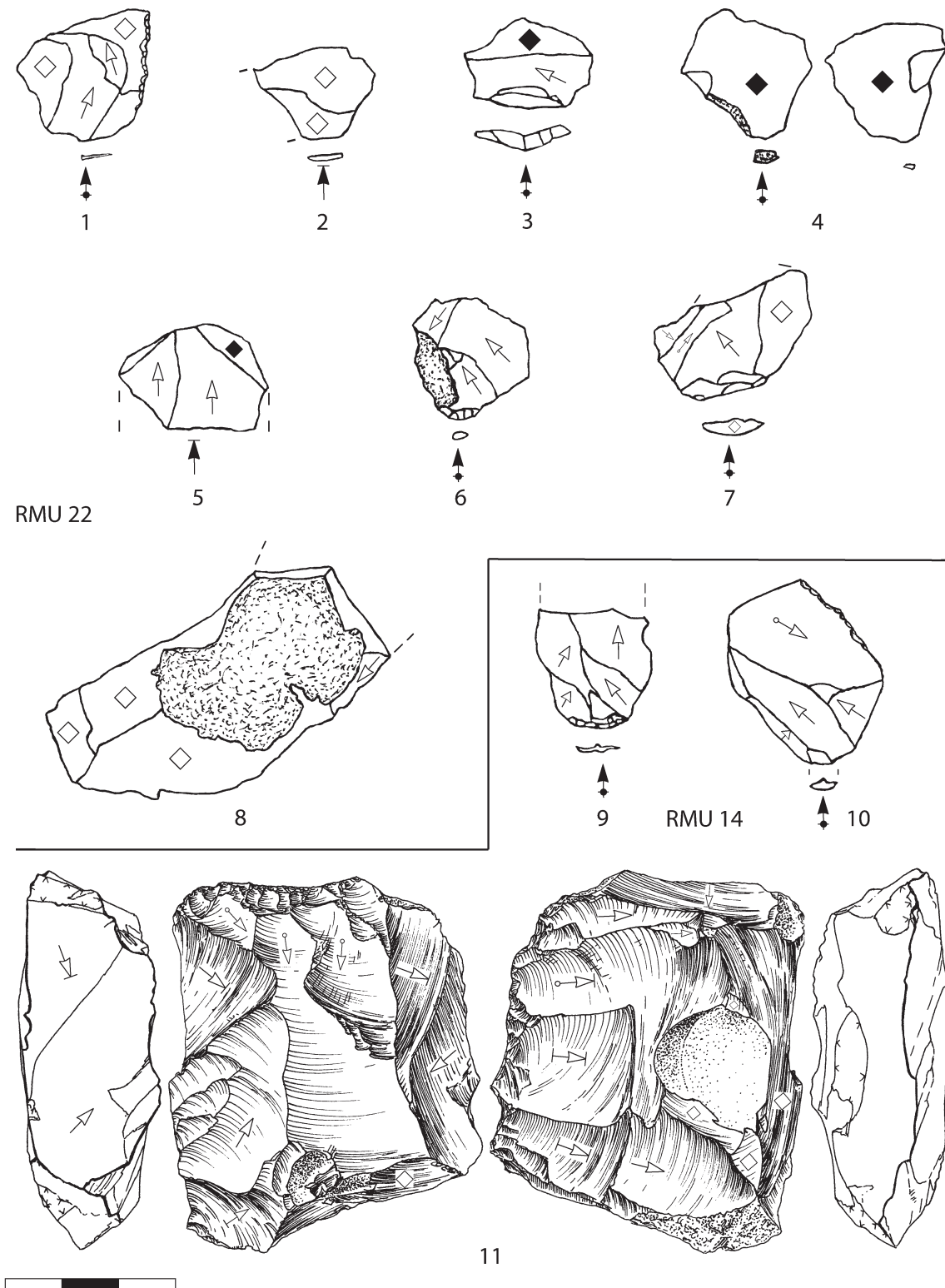


Fig. 11-31 Kabazi II, level VI/6: selected workpieces – core with flakes (RMU 14) and chunk with trimming flakes from bifacial production (RMU 22).

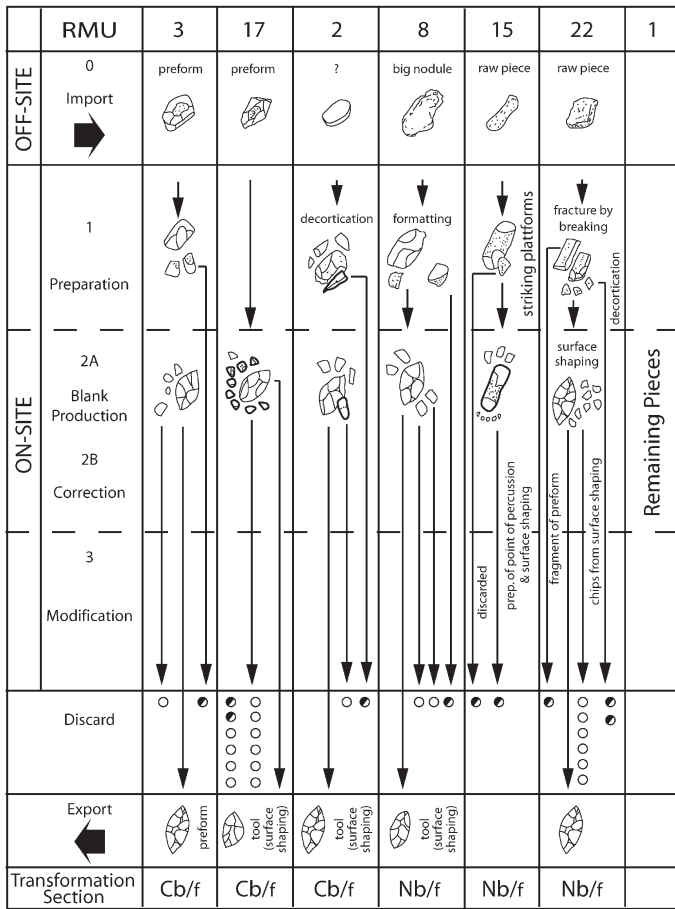


Fig. 11-32 continued.

RESULTS:

TRANSFORMATIONAL PROCESSES AS DOCUMENTED IN THE UPPER LEVELS OF UNIT VI

All Unit VI occupations were very short. Activities at the site were connected with the slaughtering and butchering of horses (see Chapter 5, this volume). Many blanks and tools were brought to the site as single objects for cutting meat and scraping hides. Particularly in the upper layers, lithics were consumed rather than produced, and raw material procurement was random. The lower layers, however, yielded additional evidence for the production of blanks and bifacial tools, most of which were probably bifacial points or even leaf points. To fulfil this demand, raw material procurement was, partially, more concentrated on slabs and

plaquettes from primary sources. During the earlier occupations of this part of the stratigraphical sequence, namely in levels VI/6 and VI/4, the activities on the site added to the lithic budget, and planning for anticipated demand is visible. During the later occupations, for example in layer VI/1, the lithic budget decreased. Lithic procurement was principally "pocket-based". Faunal analysis (see Chapter 5, this volume) would suggest spring-time occupations for layers VI/5 and VI/1, and for an autumn occupation in layer VI/6. which due to its resemblance to layer VI/4, might apply to this layer also.

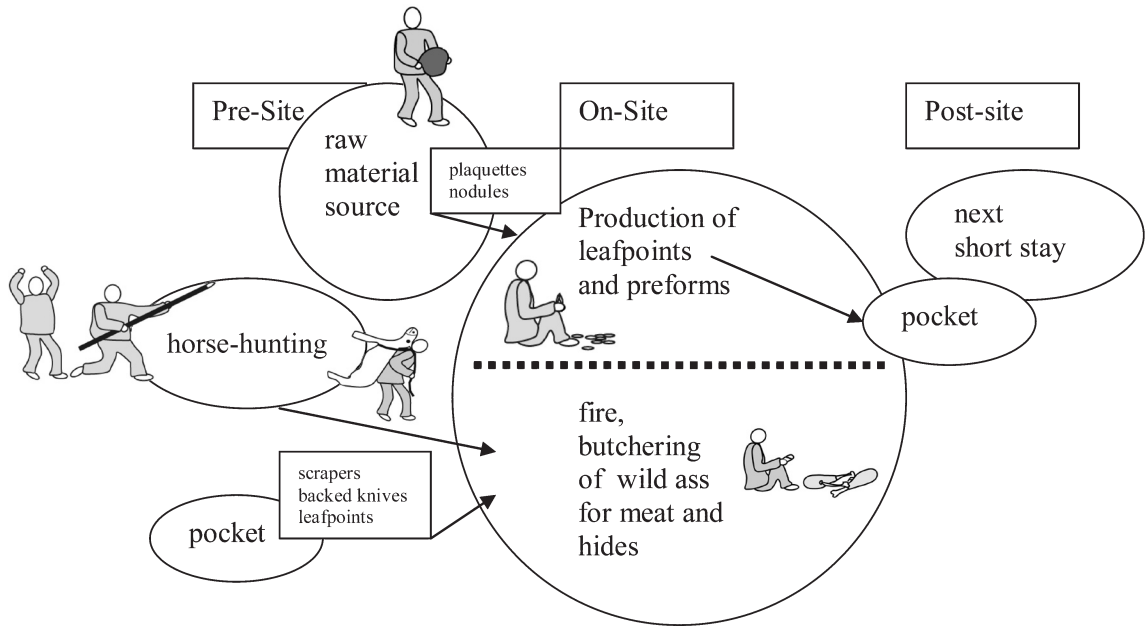


Fig. 11-33 Kabazi II, level VI/6: results of transformation analysis. Consumption of lithics and production of leaf points for later use were equal.

ABSTRACT

КАБАЗИ II: КРАТКОВРЕМЕННЫЕ ПОСЕЛЕНИЯ ГОРИЗОНТОВ VI/1 – VI/6

Ю. РИХТЕР

Поселения горизонтов VI/1 – VI/6 характеризуются очень кратковременным обитанием. Большинство заготовок и орудий были принесены на стоянку как отдельные артефакты для разделки мяса и обработки шкур. На поселениях горизонтов VI/1 – VI/3 артефакты чаще использовались, чем производились. В горизонте VI/1 объем импортированного кремневого сырья незначителен. Отдавалось предпочтение получению заготовок из «путешествующих нуклеусов», а не производству орудий из желваков и плиток. Фактически, основную роль в обеспечении кремнем поселения горизонта VI/1 играл «карманный набор».

Более убедительные свидетельства доставки и обработки сырья были обнаружены в материалах горизонтов VI/4 и VI/6. Из принесенных на поселения желваков и плиток кремня изготавливались заготовки и двусторонние орудия, вероятно, в основном, листовидные острья. Причем, желвачный и плиточный кремнь происходил из месторождений. Таким образом, на поселениях горизонтов VI/4 и VI/6 модель использования сырья характеризуется, как импортом готовых изделий, так импортом и последующей обработкой кремневого сырья, что свидетельствует о большей глубине планирования и попытке избежать непредвиденных обстоятельств.