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KABAZI II: LAST INTERGLACIAL OCCUPATION, ENVIRONMENT & SUBSISTENCE

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Table of Contents

	Preface	XI
Chapter 1	Kabazi II: Stratigraphy and Archaeological Sequence *Victor P. Chabai*	1
Chapter 2	Vegetation Evolution of the Kabazi II Site *Natalia Gerasimenko*	25
Chapter 3	Small Mammals from the Palaeolithic Site of Kabazi II, Western Crimea *Anastasia K. Markova*	51
Chapter 4	Snail Fauna from Kabazi II *Constantine Mikhailesku*	67
Chapter 5	Analyses Archéozoologiques des Unités V et VI de Kabazi II *Marylène Patou-Mathis*	77
Chapter 6	Kabazi II, Units V and VI: Artefacts *Victor P. Chabai*	99
Chapter 7	Saving the Stock to be Prepared for the Unexpected. Transformation of Raw Material at the Middle Paleolithic Site of Kabazi II, Level V/1 *Thorsten Uthmeier*	133
Chapter 8	Transformation Analysis at Kabazi II, Levels V/2 and V/2A *Thorsten Uthmeier*	155
Chapter 9	Carefully Planned or Confronted with the Unknown? Transformation of Raw Material at the Middle Palaeolithic Site of Kabazi II, Level V/3 *Thorsten Uthmeier*	165

Chapter 10 Kabazi II, Unit V, Lower Levels: Lithics from the Pocket 181
Jürgen Richter

Chapter 11 Consumption and Production: Transformational Processes 191
in the upper Levels of Kabazi II, Unit VI
Jürgen Richter

Chapter 12 Consumption of Imported Tools and Cores at Kabazi II, Levels VI/7 & VI/8 209
Martin Kurbjuhn

Chapter 13 Meat and Stones: Kabazi II, Levels VI/9 to VI/10 219
Jürgen Richter

Chapter 14 Transformation Analysis at Kabazi II, Levels VI/11-14 227
Thorsten Uthmeier and Jürgen Richter

Chapter 15 Operational Sequences of Bifacial Production in Kabazi II, Units V and VI 257
Martin Kurbjuhn

Chapter 16 Hasty Foragers: The Crimea Island and Europe during the Last Interglacial 275
Jürgen Richter

Bibliography 287

Contributors 297

Chapter
12

Consumption of Imported Tools and Cores at Kabazi II, Levels VI/7 & VI/8

Martin Kurbjuhn

Transformation Analysis of Kabazi II, VI/7

The archaeological Level VI/7 which was excavated on 19 m² is separated from Level VI/6 by sterile deposits of 14 to 16 cm thickness. The distribution of artefacts does not display a significant concentration in this area (Fig. 12-1), the highest density of flints being observed in the square metres: 4K, 7Λ, 5Λ, 4Λ and 5M.

The rather small assemblage of this level (Fig. 12-2) comprises 79 flint artefacts, including 7 chunks, 54 chips, 13 flakes, 1 preform and 4 tools: one notched piece, one scraper and two unidentifiable tool fragments (tips). Two other blanks show modification of their edges resulting from usage and/or sedimentation.

Due to the fact that there are very few flakes and no cores in the assemblage, a detailed description of the blank production is not possible. Some flakes might certainly stem from bifacial production, including one rejuvenation flake.

The raw material of Level VI/7 is mostly grey coloured (from light to mid grey) with blurred schlieren and little white dots. The source of this material is most probably the Bodrak valley, 6 kilometres south-west of Kabazi II. Some artefacts were made of brown raw material from river pebbles, possibly from the Kacha valley (Fig. 12-3). In those cases where the shape of the nodules used was identifiable, these were round or flat (Fig. 12-4).

From the entire assemblage, 49 artefacts were examined using transformation analysis. Due to the high degree of patination, 29 pieces could not be assigned to the work pieces. These artefacts were, together with most of the chips, defined as sorting rest. Thus, only 17 artefacts from the assemblage could be designated to individual RMUs. This small number does, however, not mean that the assemblage is less susceptible to transformation analysis, although in some cases it does make some of the results more or less hypothetical.

Eleven pieces were categorised as single pieces, with no equivalent artefact of the same raw material nodule. In only 3 cases were real work pieces, which include more than 1 artefact, identified (Fig. 12-5).

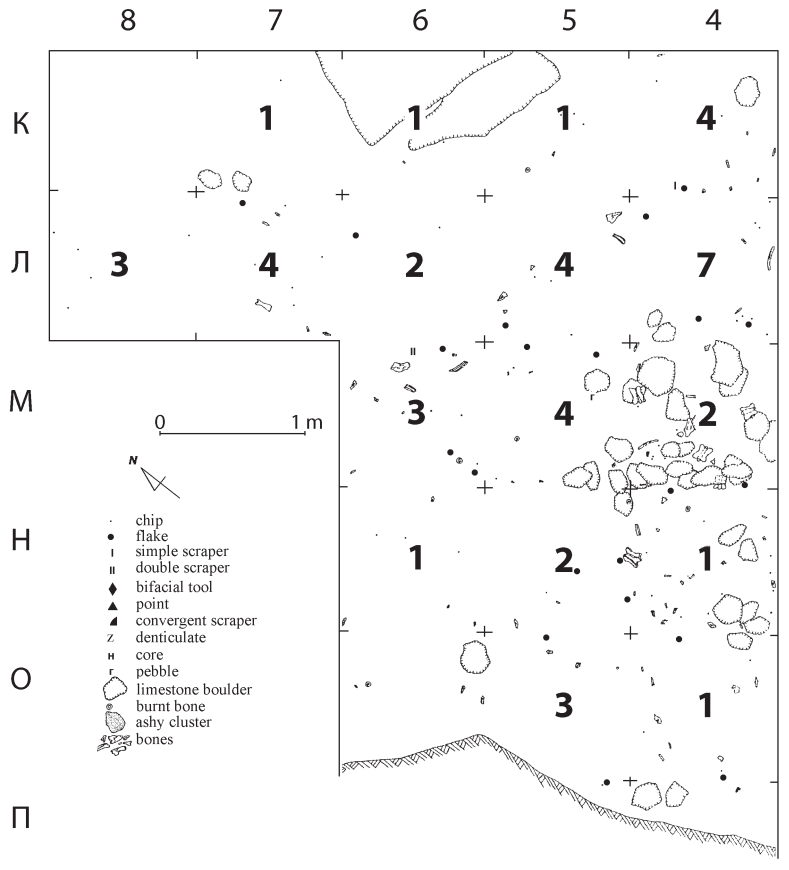

Fig. 12-1 Kabazi II, level VI/7: distribution of all artefacts, which were examined in the transformation analysis.

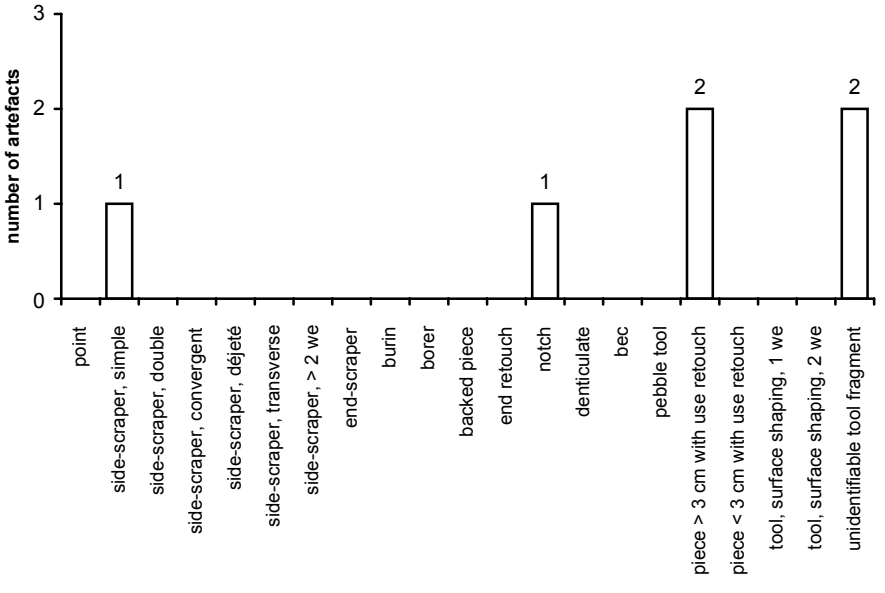

Fig. 12-2 Kabazi II, level VI/7: frequency of tools (note: pieces with use retouch are not regarded as formal tool classes).

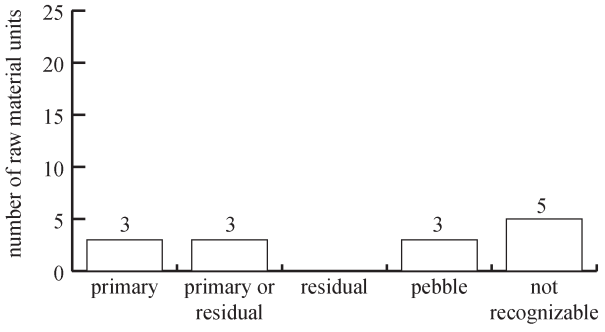

Fig. 12-3 Kabazi II, level VI/7: frequency of workpieces according to the raw material source.

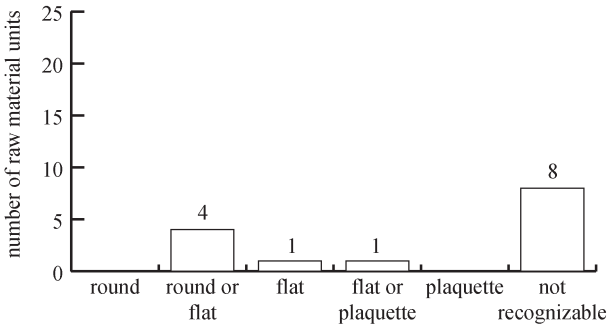

Fig. 12-4 Kabazi II, level VI/7: frequency of workpieces according to the different shape of the used raw material nodule

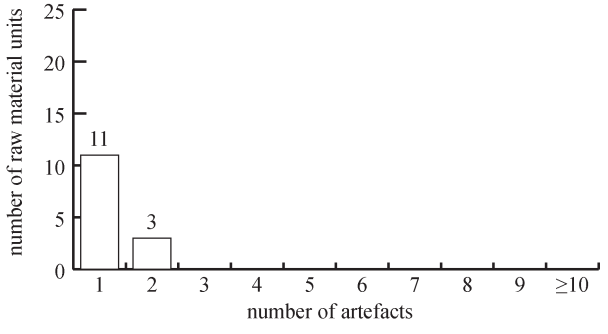

Fig. 12-5 Kabazi II, level VI/7: frequency of artefacts in raw material units.

Single pieces: import of an isolated object

In 5 cases single artefacts were categorised as belonging to the transformation section *Bw* (Fig. 12-6 and 12-7). These pieces are flakes which were produced at other localities and then imported to the site. These blanks were then discarded without any further modification. All these imported flakes, often partly covered with cortex, were produced using the hard hammer technique. Another two single pieces were assigned to the category *Tw*. These imported tools – 1 notched tool and 1 scraper – were also discarded on site without any further modification.

Three single pieces fall into the category *Ei*. In two cases (RMU 6 and 7) a scraper was imported and used on site. During usage, the tips of both tools broke off. The corresponding tools were later exported to another location. The rejuvenation flake from RMU 8 serves as an indication of an imported bifacial tool which was reshaped on site. As in the other cases, the bifacial tool was exported after usage.

Work pieces of the category "C"

Three work pieces were identified as belonging to transformation sections which are indicative of imported cores which underwent further modification on site. In one case (RMU4), a core was imported and blank production took place on site. The actual core was later exported from the site. In RMU 3, a preform was imported and surface shaped on the site. As it was not possible to assign any modification chips to the RMU, it is not clear if the export condition was a finished surface shaped tool or a preform. Also, in the case of RMU 5 a preform was imported to the site. The evidence for further facial shaping on site is lacking, but the piece was corrected by using the hard hammer technique.

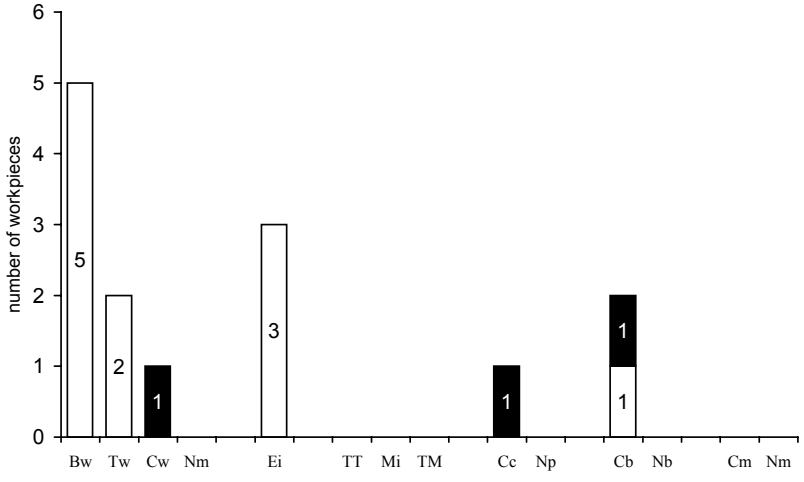

Fig. 12-6 Kabazi II, level VI/7: frequency of transformation sections: Bw = blank without transformation (within the excavated area), Tw = tool without transformation, Cw = core without transformation, Nw = nodule without transformation, Ei = isolated functional part of a tool, including resharpening flake, TT = broken tool with corresponding tip, Mi = two or more isolated chips from modification, TM = tool with corresponding chips from its modification, Cc = correction of a core, Np = preparation of a raw nodule, Cb = blank production from a core, Nb = blank production from a raw nodule, Cm = blank production from a core and modification of blank(s), Nm = blank production from a raw nodule and modification of blanks(s); black marked – workpieces with flakes from *façonnage* and / or surface shaped tools.

Conclusion

The assemblage of Kabazi II, VI/7 is clearly focused on the import and consumption of formal tools and blanks with sharp edges (Fig. 12-7). All tools and most of the flakes were imported as single pieces with no further modification on site. This is indicative of a very short term occupation of Level VI/7 with a focus on cutting activities (Fig. 12-8). The production of tools on site is totally lacking and only in two cases (RMU 3 and 4) did very limited blank production take place, exclusively for demands on the site. The production of blanks and tools for further, anticipated activities on other sites is lacking. This means that the quantity of artefacts exported is extremely small in comparison to the amount of imported objects (Table 12-1). The artefact kit decreased during this occupation. The very minimal artefact production for future use is possibly attributable to the very short time spent at the site, or it is due the absence of local raw material sources (or the knowledge of them). Nevertheless all activities – most probably those of butchering – could be carried out by means of the imported single pieces.

Transformation Analysis of Kabazi II, VI/8

The archaeological layer VI/8 is separated from level VI/7 by sterile deposits of 8 to 10 cm, and from level VI/9 by sterile sediments of 9 to 11 cm thickness. The excavation area covers approximately 19 m². The distribution of artefacts, with its highest density in square metre 6-H, shows no significant concentration. However, especially in the unexcavated areas in rows 4K to 4O and 7M to 7O, more artefacts belonging to this level must be expected (Fig.12-9).

The artefact assemblage of level VI/8 contains 76 pieces (including 48 chips), of which 30 artefacts were examined using transformation analysis.

The tool assemblage of Level VI/8 comprises two simple side-scrapers, 1 transverse side-scraper and two surface shaped tools (Fig. 12-10). One of these is

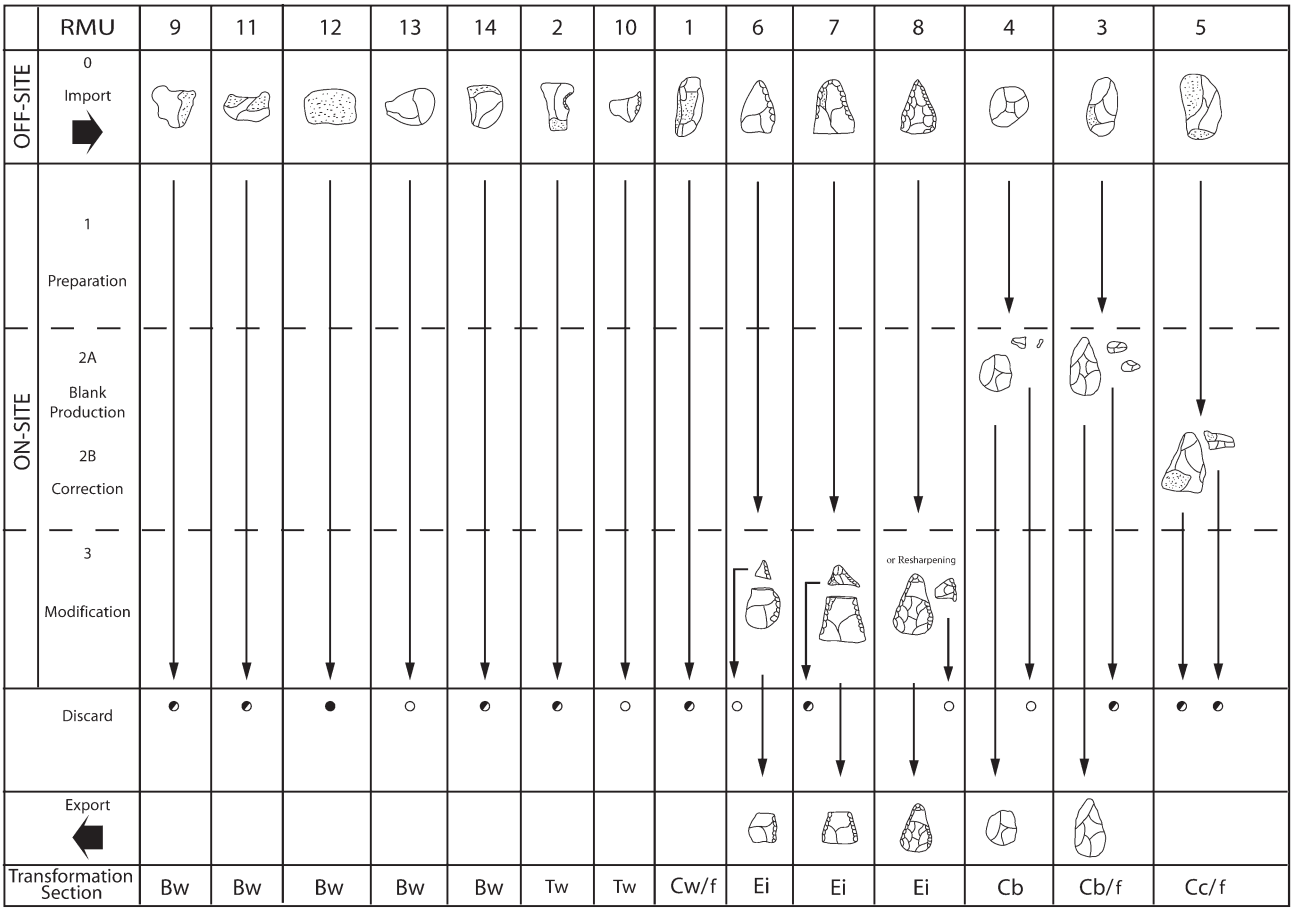

Fig. 12-7 Kabazi II, level VI/7: flow chart depicting the results of the transformation analyses. For each raw material unit, hypothesis are made about the phases of the formal *chaîne opératoire* (after Geneste 1985; 1988; 1990conducted within the excavated area (transformation section); classification of transformation sections are based upon the presence and absence of indicative blank classes (abbreviations see Fig. 12-6); */f = *façonnage* is indicated by flakes from *façonnage* and / or surface shaped tools.

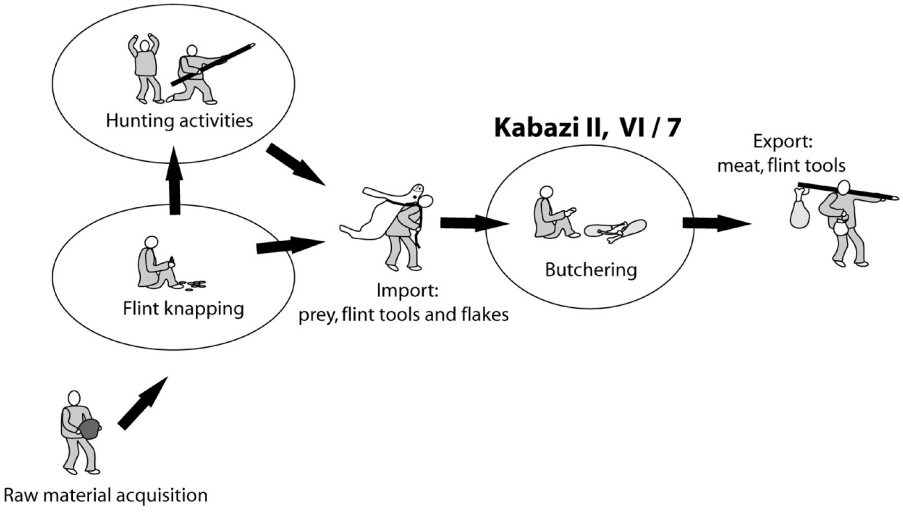

Fig. 12-8 Kabazi II, level VI/7: reconstruction of on-site and off-site activities.

assemblage: Kabazi II, Unit VI, Level 7			data related to identification of imported item: raw piece: phase 0		data related to identification of imported item: initially prepared or flaked piece: phases 1 or 2		data related to identification of imported item: inner part of flaked piece			on-site transformation (as indicated by discard): production of blanks: phases 1 and 2					indifferent	modification and usage: phase 3				early discard		
raw material unit	weight (in g)	N	raw piece or chunk	cortical flake	flake partly covered by cortex	flake without cortex	core/preform	unknown blank (bifacially surface shaped piece)	imported item	flake	blade	trimming flake	core/preform	chunk	chip	simple tool	surface shaped tool	chip from modification	flake from rejuvenation or broken tool tip	raw piece	transformation section	evacuation > 3 cm
9	7	1			1				Flake	1											Bw	
11	10	1			1				Flake	1											Bw	
12	22	1		1					Flake	1											Bw	
13	7	1				1			Flake	1											Bw	
14	9	1			1				Flake	1											Bw	
2	3	1			1				Tool							1					Tw	
10	5	1				1			Tool							1					Tw	
1	409	1			1				Preform				1								Cw/f	
6	2	1				1			Tool										1		Ei	Tool
7	3	1			1				Tool										1		Ei	Tool
8	5	1				1			Tool										1		Ei	Tool
4	9	2			1	1			Core	2											Cb	Core
3	8	2				2			Preform	2											Cb/f	Preform
5	40	2	1		1				Preform			1	1								Cc/f	

Table 12-1 Kabazi II, level VI/7: classification of the transformation sections of RMUs with the decisive features as well as the reconstruction of evacuation/exportation.

a bifacial, heavily exhausted tool. Another is a small triangular scraper (breitdreieckiges Faustkeilblatt, after Bosinski 1967). Three flakes display a modification of their edges caused by use or sedimentation processes. One artefact, classified as a preform, is made on a flake and is already surface shaped. It is, however, still lacking a final edge retouch.

Beside blanks from regular core reduction there are 3 Kombewa flakes in the assemblage which show blank production from a big flake.

The raw material used is rather inhomogeneous. The colour varies between different shades of brown, to shades of grey to black. According to the cortex, primary as well as secondary raw material sources were used (Fig. 12-11). The shape of the nodules (where distinguishable) varies from round and flat. In one case a plaquette was identified (Fig. 12-12)

From the 30 artefacts examined, 26 pieces were assigned to 15 raw material units. A further 4 pieces were allocated to the sorting rest, due to their high degree of patination.

Six RMUs comprise only 1 single artefact, e.g. no other corresponding piece of the same raw material was identified. The remaining RMUs contain a very low number of pieces of between 2 and 4 artefacts (Fig. 12-13). This serves as a first indication that only very small sections of the whole transformation process are present in this level.

Single pieces: Import of an isolated object

One of the single pieces (RMU 8) was identified as belonging to the category *Bw* (Fig. 12-14 and 12-15). It is a rather big flake, nearly fully covered by cortex. The flake shows no traces of use, making the motivation behind the import of the piece rather unclear. Four other single pieces are classified as formal tools (transformation categories *Tw* and *Tw/f)*. These include two simple side-scrapers (RMU 10 + RMU 11). Beside these side-scrapers, two surface shaped tools were imported to the site. One is a bifacial tool which was imported in an already exhausted condition (RMU 2). Another surface shaped tool is a triangular scraper (RMU 15). All these tools were discarded without any further modification (reshaping etc.) on the site. In one case (RMU 5), a preform of a bifacial tool was imported (transformation category *Cw/f*). It had already been surface shaped, but without the final edge retouch. Despite this, it was discarded before it was transformed into a formal tool.

Work pieces of the category "C": Import of a core with further modification on site

In 7 cases an import of a core was attested. Six of these RMUs belong to the transformation category *Cb*. The imported core belonging to RMU 1 was not yet finished and was subsequently prepared on site. After its preparation, blank production took place. In 5 cases (RMU 14, 3, 7, 12 and 13) the imported cores did not require any further preparation, and were used directly for the production of a number of flakes. In the case of RMU 9, the imported core delivered a flake and flakes with 2 ventral sides (Kombewa Flakes) which were struck off on site. In only one case (RMU 13), a further modification of a blank took place and a transversal scraper was produced (transformation category *Cm*). After their exploitation on site, 6 out of the 7 cores were exported to another locality. Only in one case (RMU 14), was the imported core discarded on site.

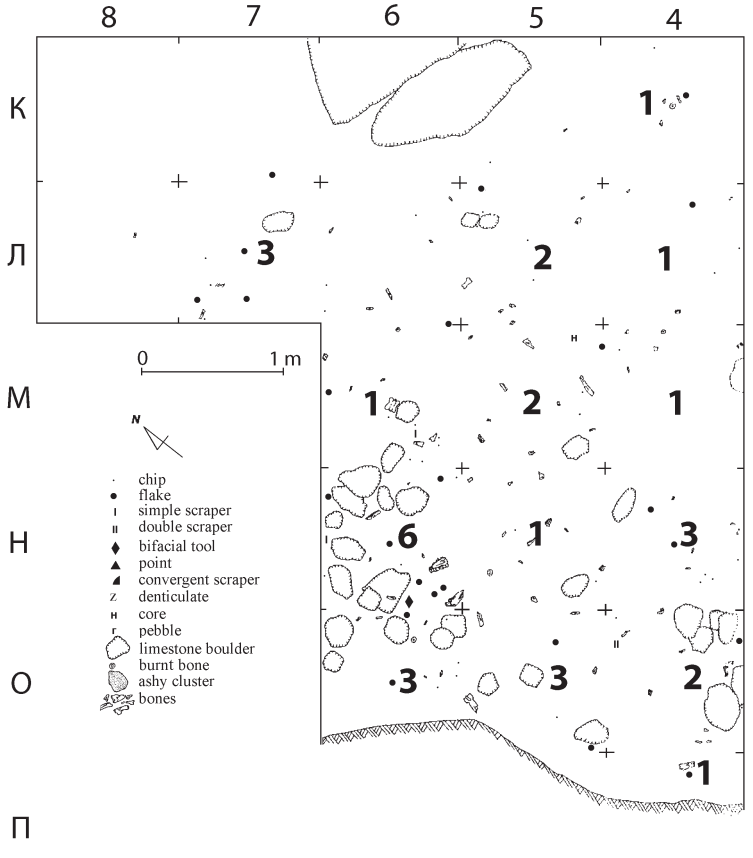

Fig. 12-9 Kabazi II, level VI/8: distribution of all artefacts, which were examined in the transformation analysis.

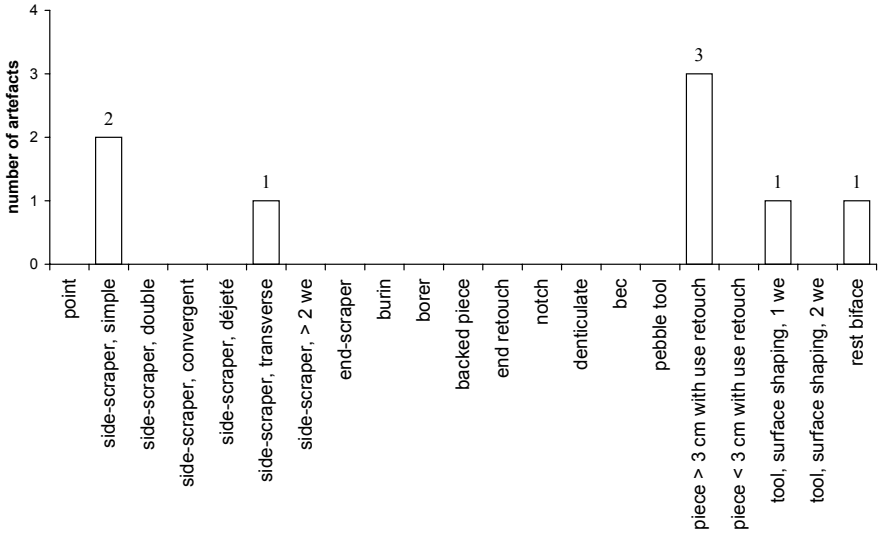

Fig. 12-10 Kabazi II, level VI/8: frequency of tools (note: pieces with use retouch are not regarded as formal tool classes).

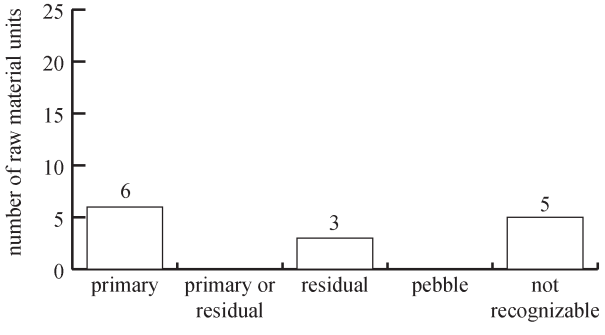

Fig. 12-11 Kabazi II, level VI/8: frequency of workpieces according to the raw material source.

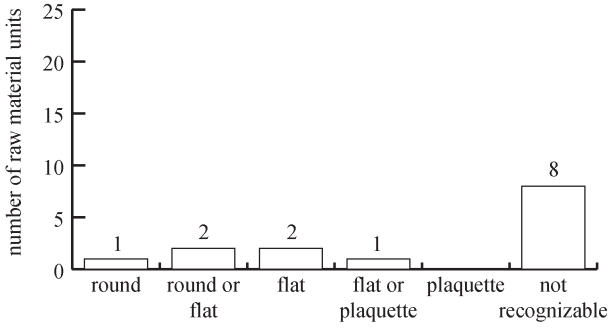

Fig. 12-12 Kabazi II, level VI/8: frequency of workpieces according to the different shape of the used raw material nodule.

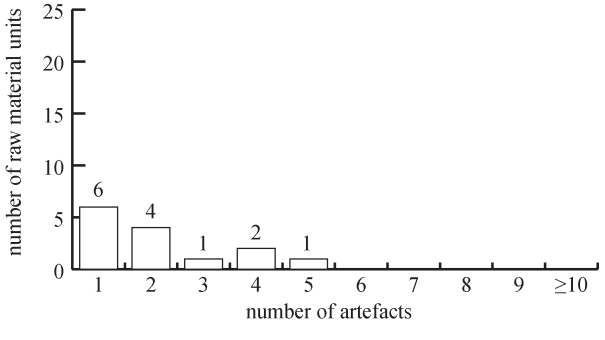

Fig. 12-13 Kabazi II, level VI/8: frequency of artefacts in raw material units

Work pieces of the category "N": Import of a nodule with further modification on-site

In only one case was an imported nodule identified (transformation category *Np*). In RMU 4, a flint plaquette was imported to Kabazi II. Once on site, the plaquette was decorticated and prepared, however, without a subsequent production of regular blanks. The decorticated nodule/core is not present in the RMU, i.e. was exported.

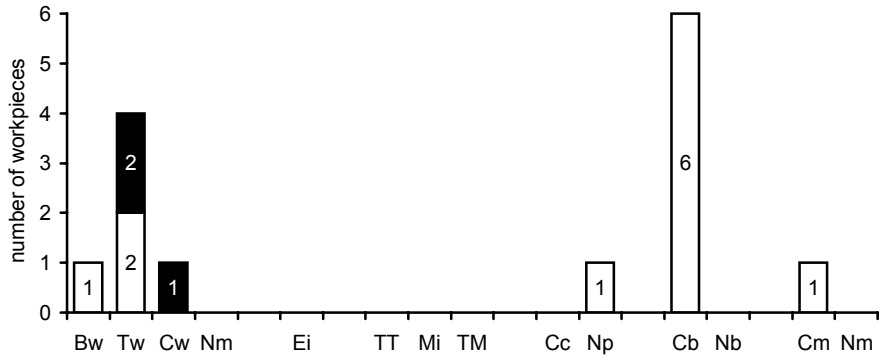

Fig. 12-14 Kabazi II, level VI/8: frequency of transformation sections: Bw = blank without transformation (within the excavated area), Tw = tool without transformation, Cw = core without transformation, Nw = nodule without transformation, Ei = isolated functional part of a tool, including resharpening flake, TT = broken tool with corresponding tip, Mi = two or more isolated chips from modification, TM = tool with corresponding chips from its modification, Cc = correction of a core, Np = preparation of a raw nodule, Cb = blank production from a core, Nb = blank production from a raw nodule, Cm = blank production from a core and modification of blank(s), Nm = blank production from a raw nodule and modification of blanks(s); black marked – workpieces with flakes from *façonnage* and / or surface shaped tools.

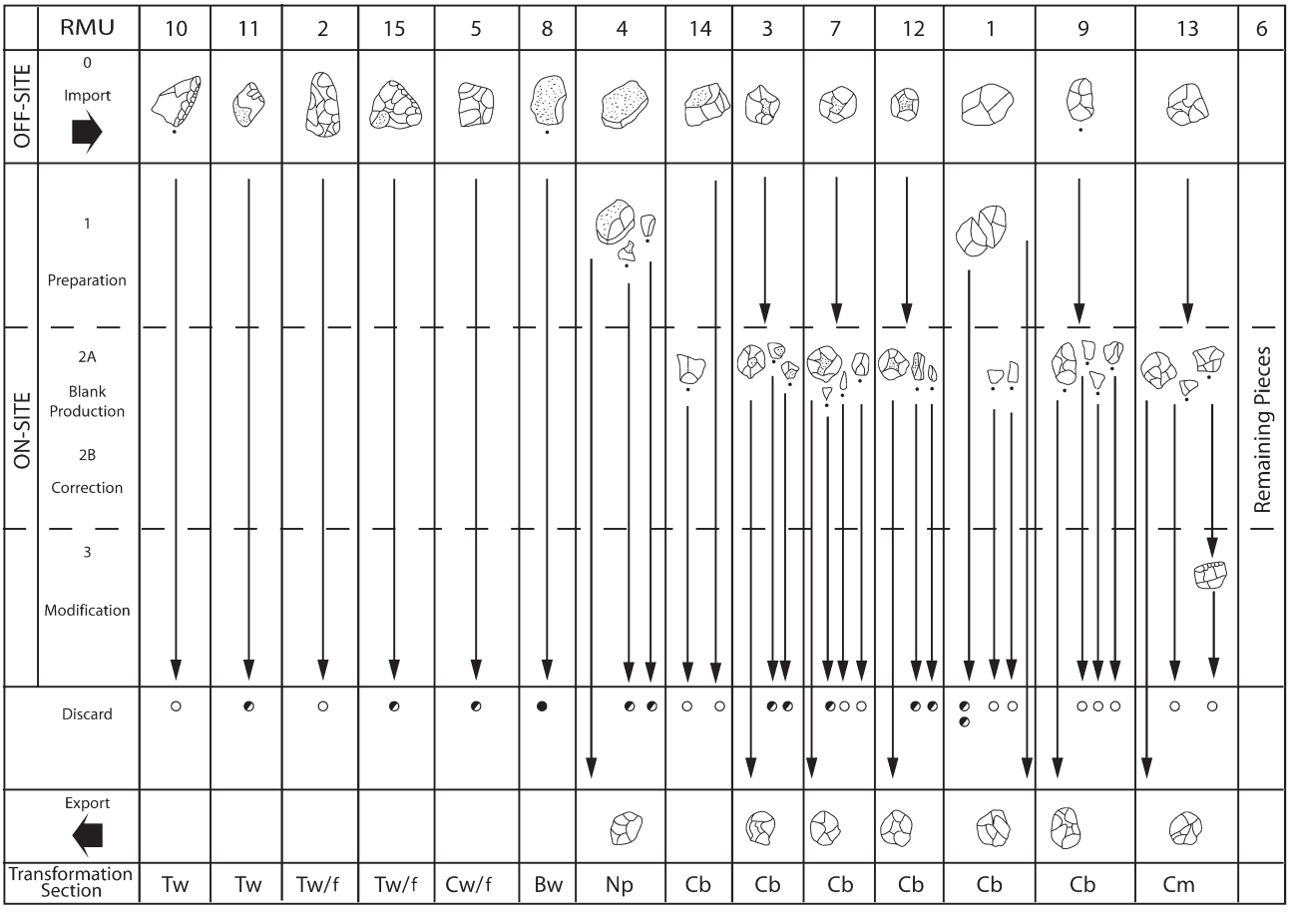

Fig. 12-15 Kabazi II, level VI/8: flow chart depicting the results of the transformation analyses. For each raw material unit, hypothesis are made about the phases of the formal *chaîne opératoire* (after Geneste 1985; 1988; 1990conducted within the excavated area (transformation section); classification of transformation sections are based upon the presence and absence of indicative blank classes (abbreviations see Fig. 12-14); */f = façonnage is indicated by flakes from *façonnage* and / or surface shaped tools).

Conclusion

In general the Raw Material Units of this level can be subdivided into 2 major groups:

1. RMUs which attest the import of a tool without further modification/transformation on site.

2. RMUs which attest the import of a core with a subsequent production of a small number of blanks on site.

The transformation section on site is very limited and is focused on the production of blanks of stage 2a (Geneste 1985) (Fig. 12-15). All other transformation sections, e.g. the decortication of nodules, core preparation and blank modification, are nearly completely lacking. These activities were, in comparison to Level VI/7, carried out at localities other than Kabazi II. The used cores were exported to other sites. This pattern can be explained by a very short occupation where, in addition to the imported tools, only flakes with sharp edges were required. This pattern, as well as the small amount of artefacts, leads to the conclusion that in this level the butchering of animals killed in the hunt took place.

Abstract

УТИЛИЗАЦИЯ ИМПОРТИРОВАННЫХ ОРУДИЙ И НУКЛЕУСОВ НА ПОСЕЛЕНИЯХ КАБАЗИ II, ГОРИЗОНТЫ VI/ И VI/8

М. КУРБЮН

Для трансформационного анализа было использовано 49 артефактов из горизонта VI/7. Семнадцать артефактов подразделяются на 13 сырьевых групп (RMU). Восемь сырьевых групп представлены единичными изделиями, среди которых обнаружено 5 отщепов, 2 орудия, 1 фрагмент дистальной части орудия и 1 скол обработки двустороннего орудия. Три артефакта были определены, как относящиеся к трансформационным рядам, которые предполагают модификацию на стоянке одного нуклеуса и двух преформ. При этом импортированные нуклеус и преформы были затем экспортированы. Все орудия и большинство отщепов были импортированы на стоянку и не подверглись на территории поселения какой-либо обработке. На территории поселения горизонта VI/7 отсутствуют какие-либо свидетельства производства орудий и заготовок для последующей их утилизации на других поселениях. Фактически, это означает, что принесенный на поселение объем артефактов, значительно сократившись после его утилизации, не был восстановлен на территории этого же поселения.

Для трансформационного анализа коллекции горизонта VI/8 было использовано 26 артефактов, которые были подразделены на 15 сырьевых групп. Шесть сырьевых групп представлены единичными артефактами, в основном орудиями, что указывает на их импортный характер. Более того, отсутствуют какие-либо свидетельства модификации данных орудий на территории поселения. Восемь сырьевых групп отражают наличие на стоянке нуклеусов и / или желваков, при расщеплении которых было получено небольшое количество сколов. Только в одном из восьми случаев нуклеус был оставлен на стоянке, тогда как в остальных случаях нуклеусы были экспортированы. Такие трансформационные ряды, как снятие корки с желваков, подготовка нуклеусов и производство заготовок практически не представлены артефактами.