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KABAZI II: THE 70 000 YEARS SINCE THE LAST INTERGLACIAL

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Chapter
6

Kabazi II, Level II/7D: Planning the Days after a Successful Hunt

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Kabazi II, level II/7D is situated within the Western Crimean Mousterian sequence in the lower part of stratum 7 which is correlated with the marine isotopic stage 3, and ESR-dated to a time range between 44,000±5,000 and 38,000±4,000 B.P. In the Ukraine this phase is termed Vytachiv, vt_{1b2}, and corresponds to the Hengelo of northwestern Europe (Gerasimenko 1999, 2005). level II/7D is a 3 to 8 cm thick archaeological horizon which was excavated in an area of 30 m². It is separated from other archaeological levels by 8 to 15 cm thick sterile horizons which have prevented an admixture of older or younger finds (Chabai 1998b; Chapter 1, this volume).

Distribution of Finds

Artefacts are, for the very most part, spread over the southern part of the excavation area between the squares Π and H, and their distribution is indicative of two closely situated centres of activity. The first is located in the very south-east and is marked by the square with the highest density of artefacts, namely Π-4, which contains 22 pieces. Just beside lies the square O-4 with a total of 19 artefacts. Artefact density decreases slightly to the middle, and rises again to the very eastern corner of the excavation area. Here square H-8, which also yielded 19 artefacts, denotes the second activity centre (Fig. 6-1). A third feature is also discernible; beginning at the northern end of the larger concentration, artefact distribution passes fluently into a long corridor extending northwards. Here artefacts are located only in square lines 4 and 5; density decreases gradually from south to north but is always higher in square line 4.

Environment

According to palynological analysis (Gerasimenko 1999) climate conditions at the time level II/7D was deposited were typical for the transitional phase between an Interstadial and Stadial; having becoming more inclement compared to conditions prevailing in the previous stage.

Although a decline of the broad-leaved flora is a characteristic feature of this interval, this stage also

Е					1
Ж				1	3
З				3	4
И					1
К				5	2
Л				3	6
М	1			5	9
Н	19	15	9	7	15
О	7	11	13	13	19
П		1	2	1	22
Р					
	8	7	6	5	4

Fig. 6-1 Kabazi II, level II/7D: distribution of all artefacts, examined by transformation analysis. (18 artefacts could not be mapped).

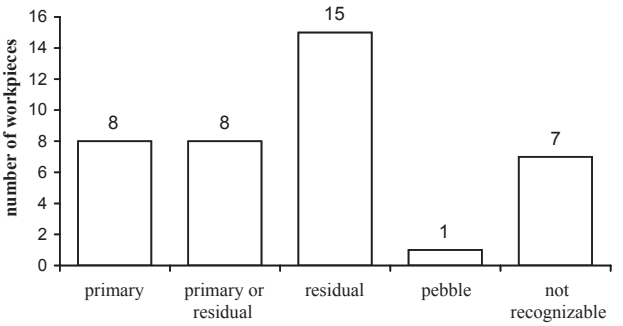

Fig. 6-2 Kabazi II, level II/7D: frequency of workpieces, according to raw material source.

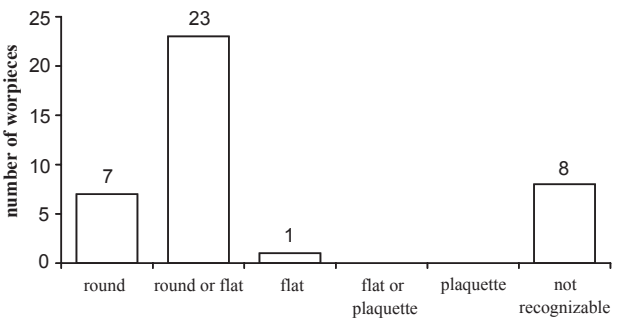

Fig. 6-3 Kabazi II, level II/7D: frequency of workpieces, according to raw material nodule shape.

displays the highest percentage of *Pinus* pollen in the sequence, and pine forests would have grown in very close proximity to the site. Shrubs had also become more common, and probably formed smaller groups on the Kabazi slope. Furthermore, *Juniperus*, as a concomitant of pine forests, probably had an extended range in the area.

Sortation of Raw Material Units

In Kabazi II, level II/7D a total of 199 artefacts could be assigned to 39 raw material units (RMU), of which 31 are workpieces and eight are represented by single pieces only. A further 53 pieces were too heavily patinated, and the raw material was not identified. These artefacts were excluded from further analysis, joining the sorting rest, which already included those pieces smaller than 3 cm; a certain size being necessary to permit true allocation to a raw nodule and so to a given workpiece (Weißmüller 1995, p. 63).

The colour scale of the lithic material is diverse, ranging from very light-grey pieces over a huge amount of middle-grey tones to almost black, sometimes with a brownish tinge. Although the raw material of most workpieces was clearly identifiable,

some difficulties were experienced with a small group of artefacts made from the blackish raw material. Even after consideration of their brightness (glossy - matt), which is the second criterium consulted when assigning a piece to a particular RMU, all doubts could not be removed. A further criterium, the type and number of inclusions and schlieren in the material, finally made possible a more probable, and in some cases a certain allocation of the pieces. Although less diverse in appearance, the cortex is also important, not just for the sortation process, but also for identifying the source of the raw material.

Seven RMUs were completely void of cortex, thus making their descent impossible to identify. For all other cases the cortex colour is light-yellowish to grey and white. Most nodules (15 RMUs) stem from a source with a residual character, the cortex being both thin and weathered. The cortex of 8 RMUs is white, chalky and not weathered, this would speak in favour of it coming from a primary source. In the case of a further 8 RMUs, the source, whether primary or residual, could not be identified. The next flint outcrops are located only a few kilometres from the site (Chabai 1998b); it is possible that all the nodules were collected from a single location where both fresh nodules, as well as those with a more weathered appearance, could be found (Fig. 6-2).

All nodules, with the exception of those where this was not ascertainable, were either round or flat (Fig. 6-3).

The assemblage from level II/7D displays a great uniformity in the quality of the raw material. This standardisation might indicate that raw material selection was already a specialist activity.

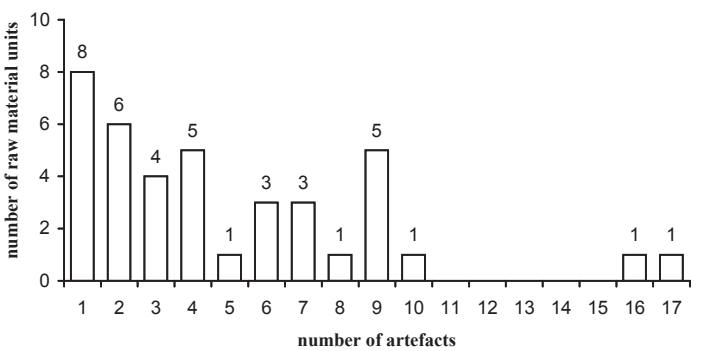

Fig. 6-4 Kabazi II, level II/7D: frequency of artefacts in raw material units.

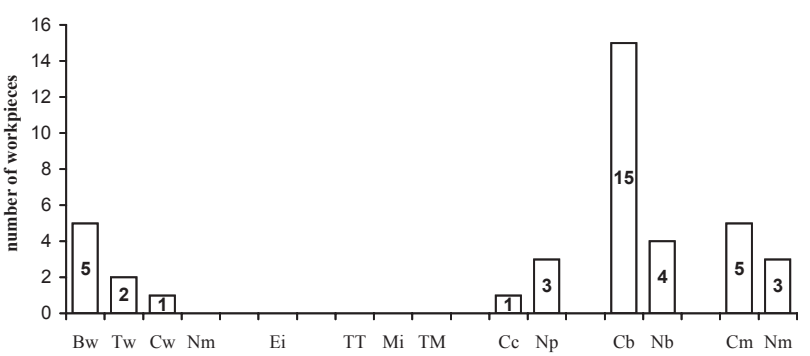

Fig. 6-5 Kabazi II, level II/7D: frequency of transformation sections: Bw = blank without transformation (within the excavated area), Tw = tool without transformation, Cw = core without transformation, Nw = nodule without transformation, Ei = isolated functional part of a tool, including resharpening 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 blank(s); black marked – workpieces with flakes from *façonnage* and / or surface shaped tools.

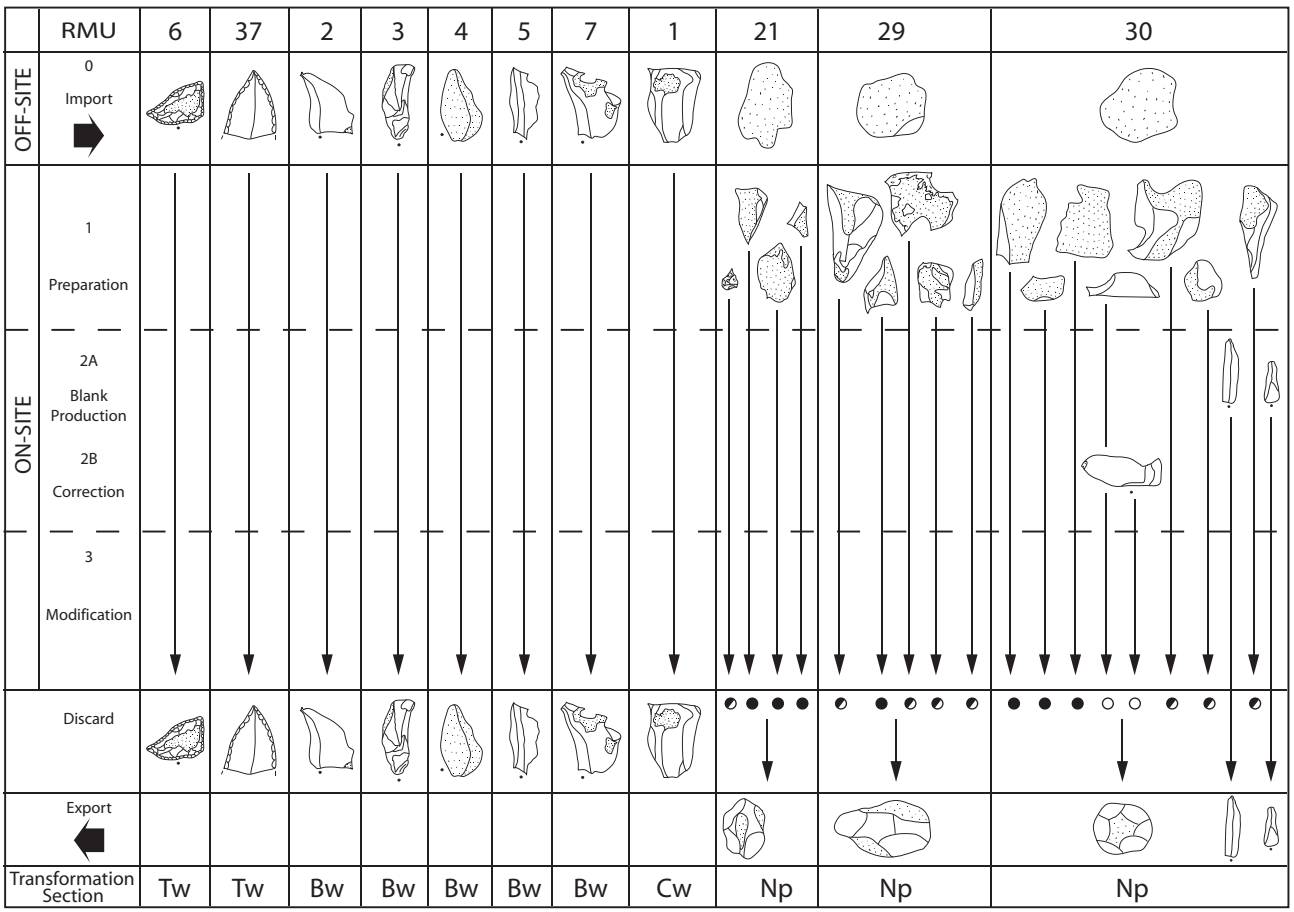

Fig. 6-6 Kabazi II, level II/7D: transformation analysis.

Transformation Analysis

The sortation of the assemblage from Kabazi II, Unit II, level 7D yielded a total of 39 raw material units (RMUs), comprising eight single pieces and 31 workpieces. Generally speaking, workpieces comprise between 2 and 4 lithics for thr most part and between 5 and 10 lithics for the rest. However, in two exceptional cases, units with 16 and 17 pieces were also identified (RMU 36, 33) (Fig. 6-4).

The character of this level is characterised by the usage of so called „curated cores", i.e. cores which remain in use over a longer time period, and which are carried from site to site until they are eventually exhausted. A total of 24 RMUs – two thirds of the entire inventory – are curated cores. The most common transformation section is Cb, i.e. blanks were produced from a core, but without traceable tool production. In ten cases (Np, Nb, Nm) a raw nodule was imported to the site, and for only eight RMUs (Cm, Nm) is the on-site production of tools ascertainable. (Fig. 6-5).

The single pieces: Bw, Tw and Cw

Approximately 20 % of RMUs comprise single pieces (RMU: 1 Cw; 2, 3, 4, 5 and 7 Bw; 6 and 37 Tw): RMU 2 is a simple flake without cortex; RMU 7 is a flake with partial cortex cover; and RMU 4 a flake with complete cortex coverage of its dorsal surface. Neither of these three pieces shows any macroscopic signs of usage. RMU 3 and RMU 5 both comprise imported, unretouched blades without cortex; RMU 6 is a side-scraper with more than two working edges, made on a partly cortex covered flake; and RMU 37 is a convergent side-scraper on a terminal fragment of a flake without cortex. Thus, it can be assumed that there were two significant motives which led to the importation of these artefacts to the site: unretouched blades and flakes for cutting, and the two formal tools for scraping. Remarkable in this context is the single piece of RMU 1, a mostly decorticated

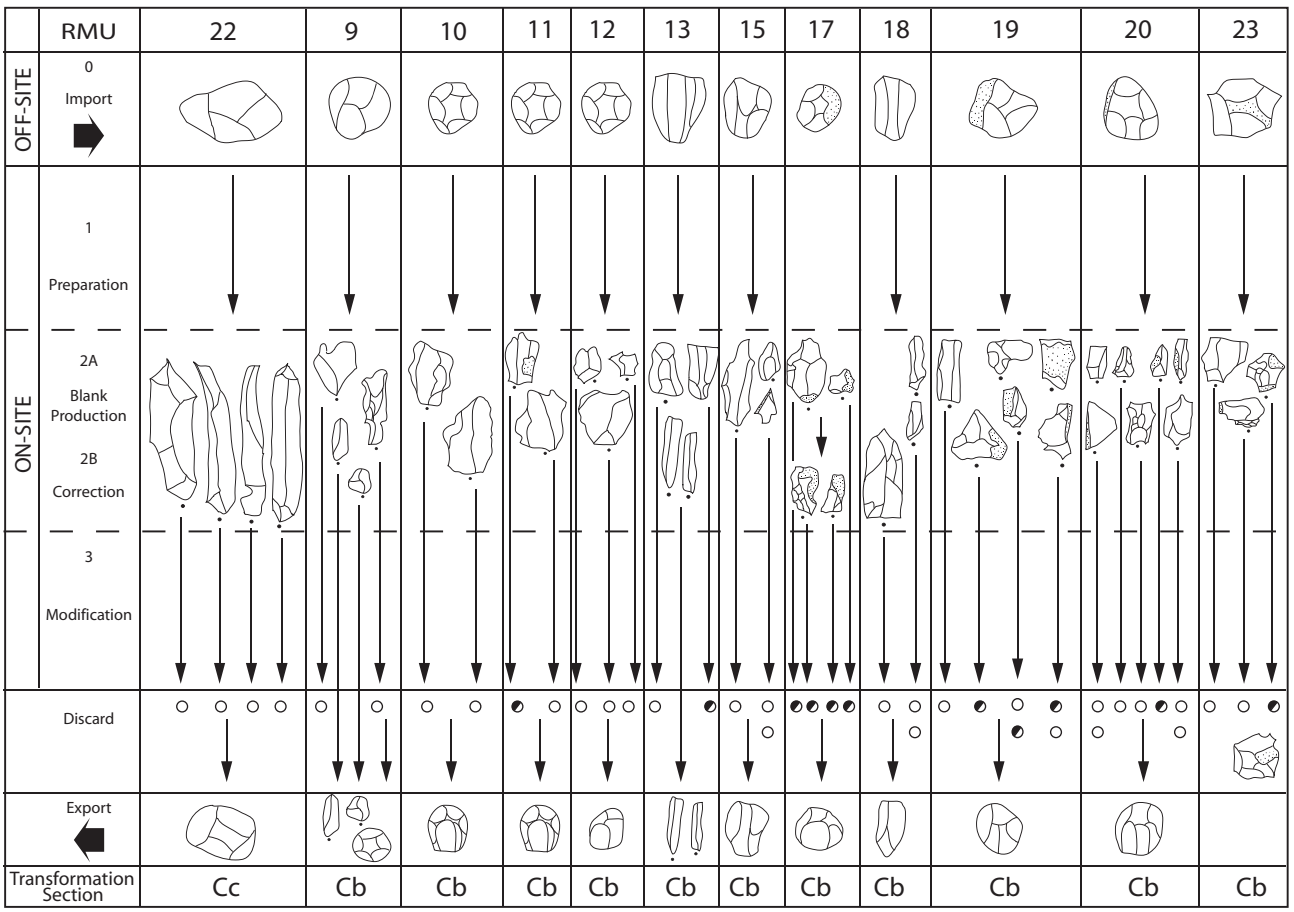

Fig. 6-7 Kabazi II, level II/7D: (continued from Fig. 6-6) transformation analysis.

core, from which apparently no blanks were taken on-site. Although thought valuable enough to carry to the site initially, here it was – perhaps due to the availability of fresh or better quality material – replaced without further usage. This is quite uncommon practise considering the general treatment of cores in this level (Fig. 6-6, RMU 1, 2, 3, 4, 5, 6, 7, 37).

Preparation of a raw nodule: Np

In three cases (RMU 21, 29, 30) is the import and on-site decortication of a raw nodule attested. The flakes which have been produced during the decortication show no macroscopic sign of further usage, nor is any other usage of the nodules evident. All three nodules resulted in a (partly) prepared core which was then exported from the site (Fig. 6-6, RMU 21, 29, 30).

Production of blanks from a core: Cb

Generally speaking, the treatment of cores on this site was a circumspect one. The most common scenario in this level (occurring a total of 15 times) is indicative of an already decorticated core being carried to the site, and there used to produce simple flakes and blades (RMU 9-13, 15, 17-20, 23, 25, 35, 38, 39). A modification of the blanks to formal tools has not been attested for these RMUs, but for obvious reasons cannot be excluded: produced tools may have been exported. Nevertheless, this feature corresponds to the transformation section Cb. RMUs 17 and 18 also show that a correction of the core's striking platform occurred during exploitation. In RMU 35 the original core broke into two pieces during a sequence of blank production. It was probably for this reason that these core fragments were left behind at the site. In the case of RMUs 13, 23 and 39 the cores were probably considered as too exploited for further usage, and together with the fragments

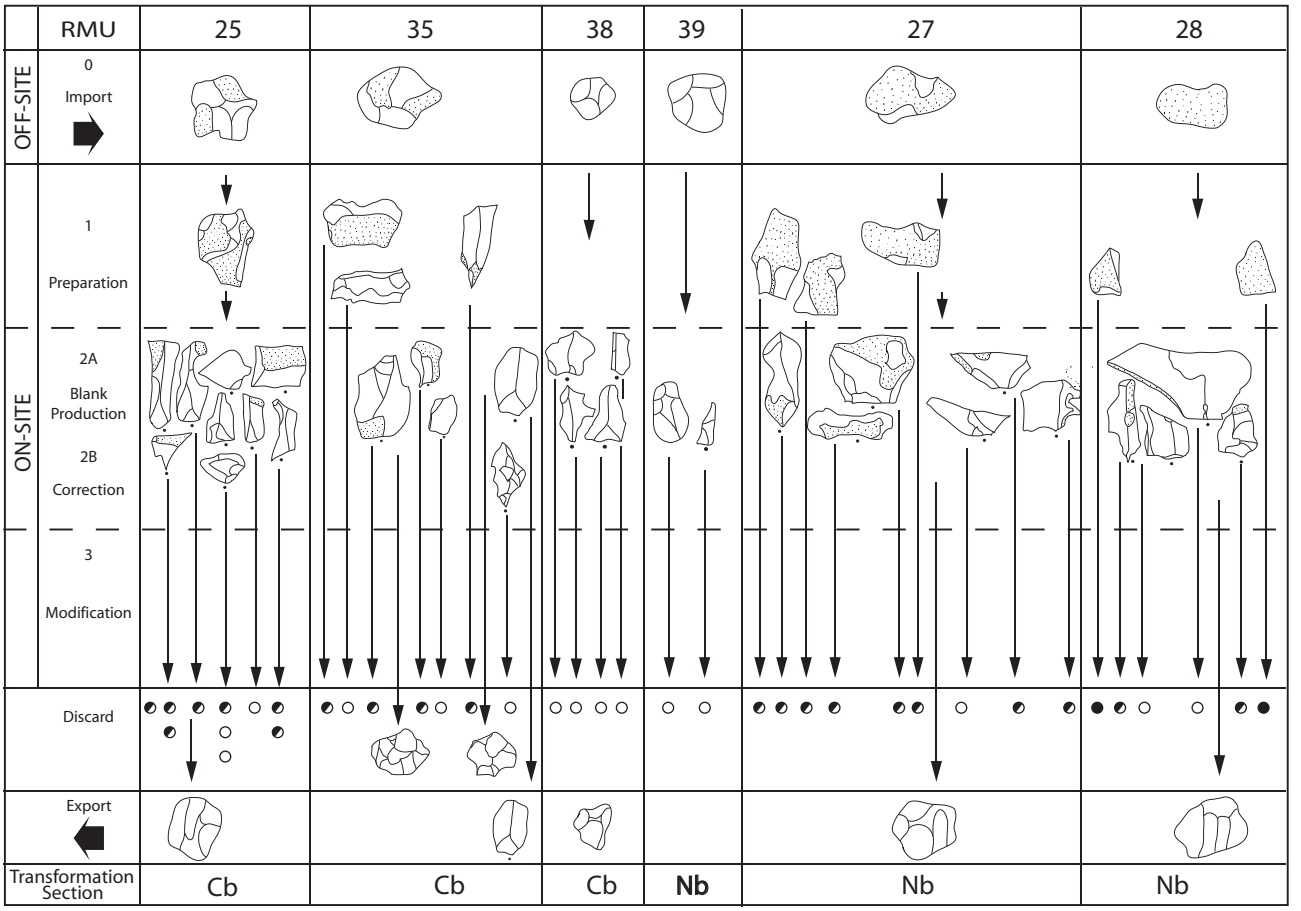

Fig. 6-8 Kabazi II, level II/7D: (continued from Fig. 6-7) transformation analysis.

of RMU 35 abandoned on-site. This implies that the great majority of the imported cores were once again exported (Fig. 6-7, 6-8, RMU 9-13, 15, 17-20, 23, 25, 35, 38, 39).

Production of blanks from a raw nodule: Nb

Slightly different from Cb are the RMUs 27, 28, 31 and 32. In these cases a raw nodule was imported to the site, where decortification took place; a step which is indicated by the many completely cortex covered blanks. In a next step, these so prepared cores were used for blank production. However, and as previously observed in transformation section Cb, no tool production is evident, and again the majority of the cores were exported. Only the core from RMU 32 was left behind. This RMU is in so far special in that a near complete exploitation sequence becomes visible. There are not only artefacts from the decortification process, but also from blank production and core correction. Thus, in contrast to all other RMUs a heavy exploitation of just one raw nodule (RMU 32) was for some reason performed on-site (Fig. 6-8, 6-9, RMU 27, 28, 31, 32).

Production of formal tools from cores or nodules: Cm and Nm

In eight RMUs (Cm: 8, 14, 16, 33, 36 and Nm: 24, 26, 34) the modification of blanks to formal tools is attested. In the main part scrapers were produced: a simple side-scraper in RMU 14, 16 and 34 respectively; a double side-scraper on a blade in RMU 33; a convergent side-scraper in RMU 36; and a offset side-scraper on a partly cortex covered flake in RMU 24 (Fig. 6-9, 6-10, 6-11, RMU 8, 14, 16, 24, 26, 33, 34, 36). The microscopic trace wear analysis of the working edges of side-scrapers indicates that these tools were used differently in Eastern and Western Europe,

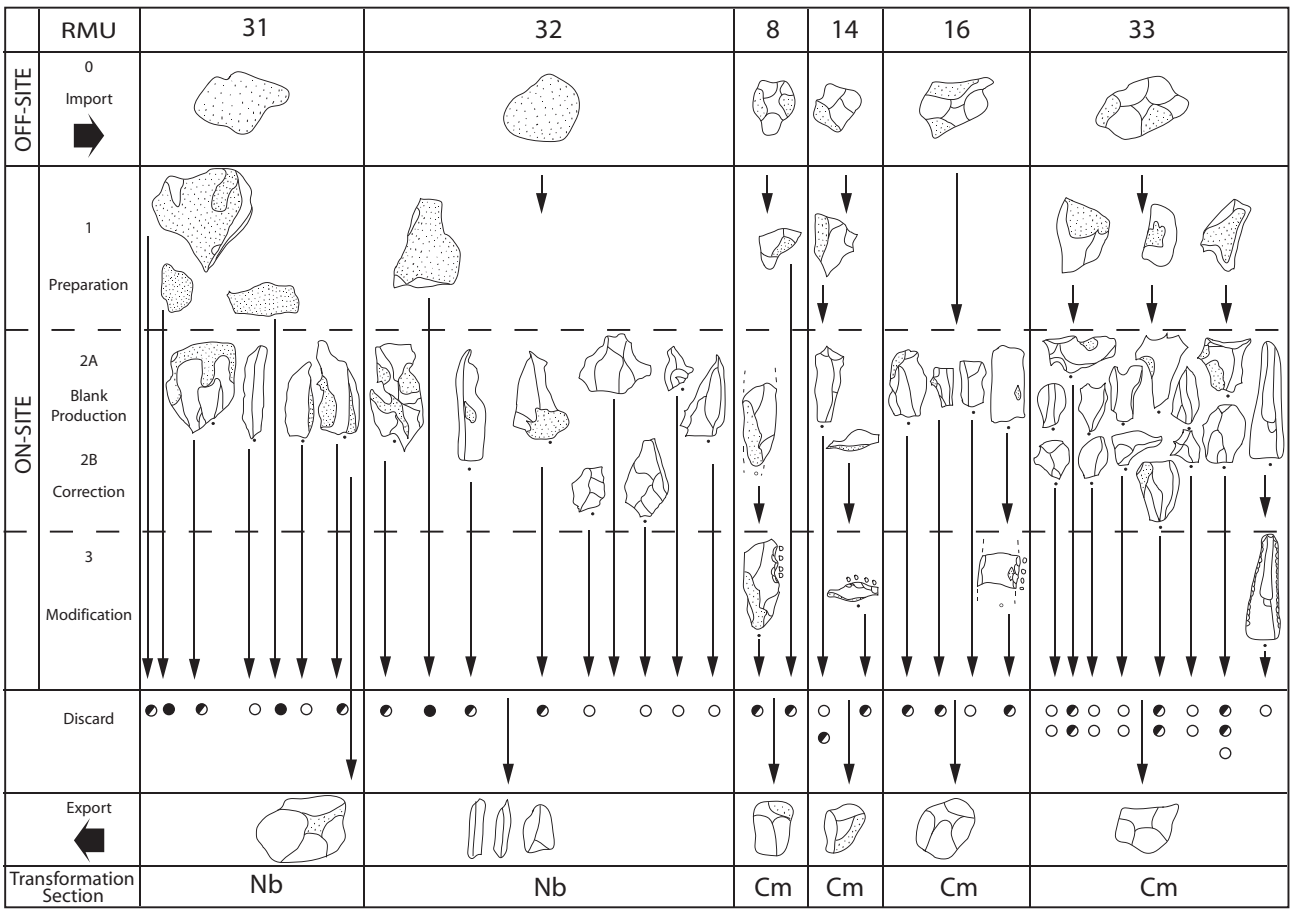

Fig. 6-9 Kabazi II, level II/7D: (continued from Fig. 6-8) transformation analysis.

according to the availability of wood (Hoffecker, 102-103). Whereas in Western Europe side-scrapers were usually used to work wood (Beyries 1988; Anderson-Gerfaud 1990), in Eastern Europe there appears to have been a stronger tendency to use them in the processing of skins and meat (Semenov 1964, 83-84; Shchelinskii 1981, 57; Anderson-Gerfaud 1990, 405). Further, there are two notched pieces, made on partly cortex covered flakes in RMUs 8 and 26, as well as a point in RMU 36.

All in all, including the single pieces, eight out of the eleven formal tools are scrapers (Fig. 6-12), and with the exception of RMU 36 all cores were exported.

Core correction: Cc

Another exception to core treatment at the site can be observed in the core correction in RMU 22. Although core correction also took place in RMU 17, 18 and 32, this occurred during a longer sequence of usage and, above all, additional to blank production. In the case of RMU 22, however, the core had been corrected, but with no other activity attested. This phenomenon is so to say the opposite of that observed in RMU 1: the core was considered worth carrying onto the site, where, despite the abundance of raw material, its striking platform was corrected, and the core retained by the group (Fig. 6-7, RMU 22).

In RMU 10, 11, 17, 20, 24 and 26 the Levallois method was used to produce flakes (Boëda 1993, 1994; Bordes 1980). The presence of Levallois tortoise, Biache and Volumetric flaking methods, and the absence of bifacial surface shaping is representative for the Western Crimean Mousterian (Chabai 1998c) to which this level undoubtably belongs.

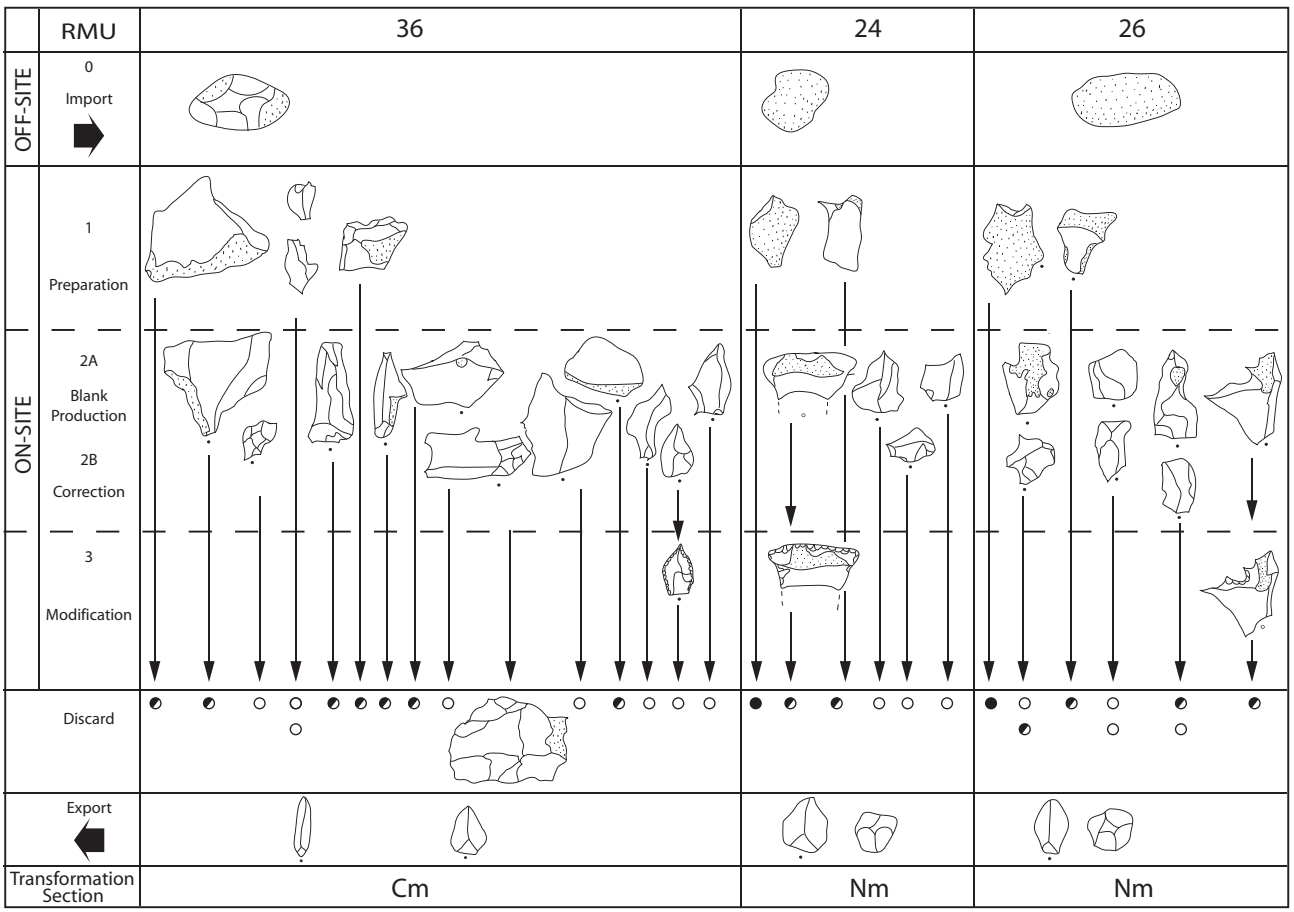

Fig. 6-10 Kabazi II, level II/7D: (continued from Fig. 6-9) transformation analysis.

Conclusion

Characteristic for this level is the occurrence of curated cores. So, what can these cores tell us about Neanderthal planning strategies in everyday life, and what role do formal tools play in this context?

The *chaîne opératoire* of curated cores is staggered and is not performed at a single location. This means that they are in use for a longer period of time. Excluding the seven single pieces which are not cores, this phenomenon is attested in 31 RMUs at Kabazi II, level II/7D. Thus, curated cores comprise approximately ¾ of the total inventory, and nearly 100% of the RMUs containing cores. There is only one remaining case (RMU 32) which does not fit into this pattern.

Among the tools the dominant type (eight out of eleven pieces) is the scraper. According to trace wear analysis this is a highly multifunctional tool; possibilities of usage ranging from working hard materials such as wood, to softer ones, such as meat or skin. A medium bone density in level II/7D, compared to other levels, suggests that these tools were in fact used for activities associated with animal resources, but this was perhaps not there only task. Compared with other levels, e.g. level IIA/1 (in which only three or four formal tools were observed, and at the same time a much higher bone density than in level II/7D), one might assume that due to the abundance of pine in the nearer region, the working of wood was perhaps also performed on-site. Considering the relation of bones to artefacts just mentioned, it is highly unlikely that level II/7D was just a butchery site. The lack of burnt bones and charcoal, as well as habitation structures is indicative of only a short stay at the site. The most likely scenario is that after having made a short halt following a successful hunt, during which the carcass(es) of the animals were roughly dismembered, the group moved on to Kabazi Mountain with the meat carrying parts. Here, a point and some scrapers were produced, and, along with two other tools

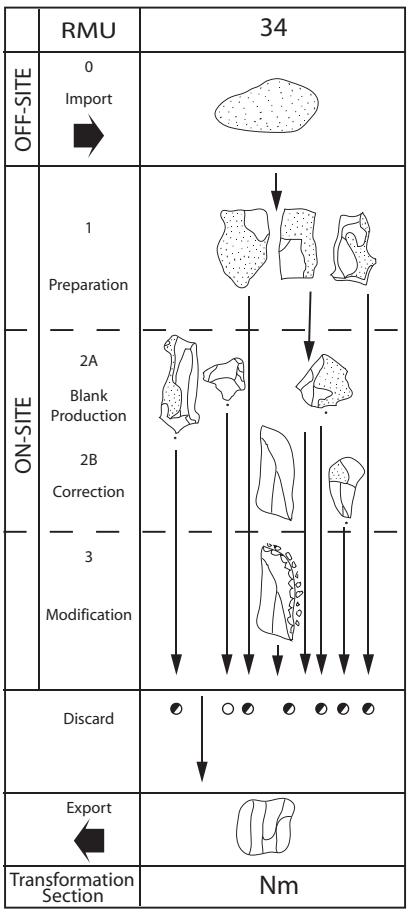

Fig. 6-11 Kabazi II, level II/7D: (continued from Fig. 6-10) transformation analysis.

brought from elsewhere, were used to remove the fat, tendons and muscle fibrils from the skin, and to dismember the prey more carefully. Furthermore, at this point it was necessary to calculate very precisely the needs and tasks of the near future, i.e. it was important to avoid carrying superfluous weight, but at the same time without the risk of running out of nutrition, tools and raw material. Obviously, at the time, the people did not consider their need for scrapers as high (leaving a large number of still "operational" tools of this catergory behind). On the other hand a high number of cores were exported. According to the observations made on the RMUs, especialy the three RMUs 32, 1 and 22 this number of 26 cores was not totally arbitrary: In the case of RMU 32 we find the only case in which the whole *chaîne opératoire* from decortification to rejection is attested on-site. Therefore, it is likely that the number of exportable cores was already considered sufficient. RMU 1 supports this assumption, it being a core initially thought worth carrying, but which was disgarded at the site without further usage. One might think that this action was solely a reaction to the availability of fresh raw material, but in RMU 22 only the striking platform of the imported core was corrected before renewed exportation. Naturally, the decision at which point a core is too exploited, and no longer suitable for further usage is a relative and individual one. However, excluding RMU 35 where a striking accident provoked the end of this core, there are only three cases of cores being rejected, and for these there is no other visible motive other than their being considered exhausted and unsuitable for further use.

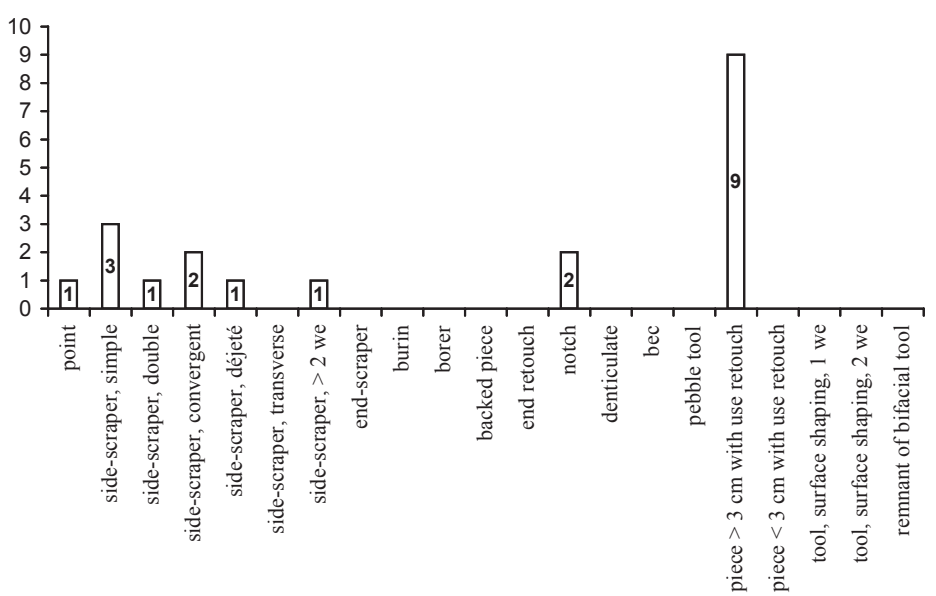

Fig. 6-12 Kabazi II, level II/7D: frequency of tools (pieces with use-retouch are not counted as formal tools).

Having completed their preparation for the next days the group moved on, carrying with them 26 cores, selected meat parts, and probably some wooden tools. They left behind eight still functional scrapers and one point.

Therefore, in the days between successful hunts the main concern of the group was to remain flexible and to retain the ability to react efficiently to both opportunities as well as to unforeseen crises. This was the main motive behind their planning strategies, much more in fact than being prepared for a particular set of tasks. Indeed, the latter would have meant them carrying with them more tools, a strategy which would have been reflected by an export of the scrapers from level II/7D rather than just the cores, which permit a flexible adaptation of the tool spectrum. Therefore, the group was well aware of its material needs, i.e. how many cores it would require, before passing the next flint source. Furthermore, they knew how long their supply of meat would last, which may of course correspond with the amount of cores carried with them.

Therefore, and to conclude, we must assume that the behaviour of the Kabazi hunters was carefully planned, and not merely a short term opportunistic reaction to a set of given circumstances.

Abstract

КАБАЗИ II, ГОРИЗОНТ II/7D: ПЛАНИРОВАНИЕ ПОСЛЕ УДАЧНОЙ ОХОТЫ

А. МАЙЕР

Горизонт II/7D был обнаружен в отложениях нижней части геологического слоя 7, которые образовались во время климатических условий интерстадиала Хенгело.

Орудийный набор стоянки горизонта II/7D был произведен на заготовках полученных при расщеплении нуклеусов. Характерной чертой комплекса артефактов данной стоянки является экспорт нуклеусов, а не орудий. Такая модель эксплуатации сырья свидетельствует о планировании дальнейшей хозяйственной деятельности в условиях сырьевого дефицита.