

The meaning of “kombewa” method in Middle Palaeolithic: techno-economic analysis of lithic assemblages from Riparo Tagliente (VR), Carapia (RA), Podere Camponi (BO) and Fossato Conca d'Oro (MT)

Anna Iliana CASINI*

* Dipartimento di Biologia ed Evoluzione, Università degli Studi di Ferrara, C.so Ercole I d'Este 32 – 44100 Ferrara
annailiac@yahoo.com

SUPERVISOR: Marta Arzarello

Abstract

We're posting, in this work, part of the data obtained from the Master Erasmus Mundus thesis in Quaternary and Prehistory, carried out at Ferrara University. We took account of the lithic materials coming from the site of Riparo Tagliente (VR) and from the surface sites of Carapia (RA), Podere Camponi (BO) and Fossato Conca d'Oro (MT), all attributed to Middle Palaeolithic. In particular, were identified and analyzed the lithic products coming from a *débitage Kombewa*; were settled the natural and technical elements that have influenced their production and management; the study was based only on those lithic materials with a ventral face remains attributed to a *débitage Kombewa*. This work wants, as its final aim, state the intentionality or not of the *Kombewa* production. The data achieved were sufficient to state the non-intentionality of the *Kombewa* production: in this way, *débitage Kombewa* appears to be, at least here, a secondary *chaîne opératoire*, existing with non significant percentages in the 4 sites, even if we should not forget that the flakes coming from a similar method are recognizable only if they preserve a ventral face remains of the flake-core.

Keywords: Middle Palaeolithic, secondary *chaîne opératoire*, opportunistic meaning, *débitage Kombewa*.

Résumé

Avec ce travail, nous exposons une partie des données obtenues dans le cadre de la thèse de Master d'Erasmus Mundus en Quaternaire et Préhistoire, soutenue à l'Université de Ferrare (Italie). Le travail a été mené sur les ensembles lithiques provenant du site de Riparo Tagliente (VR) et des collectes de surface de Carapia (RA), Podere Camponi (BO) et Fossato Conca d'Oro (MT), tous attribuables au Paléolithique moyen. En particulier, ils ont été déterminés et analysés les produits lithiques dérivés du *débitage Kombewa*; ils ont été définis les éléments naturels et techniques qui en ont conditionnés la production et la gestion; l'observation s'est basée uniquement sur des matériels avec des restes de face ventral des correspondant au *débitage Kombewa*. Ce travail a comme objectif d'affirmer l'intention ou moins de la production *Kombewa*. Les données émergées ont été suffisantes pour affirmer la non intentionnalité de la production *Kombewa*: ainsi les *débitage Kombewa* résulte être, dans ces cas, une chaîne opératoire secondaire, présente avec des pourcentages pas significatives, même s'il ne faut pas oublier que les éclats provenant d'une telle méthode sont reconnaissables seulement s'ils conservent encore une partie de la face ventral de l'éclat nucleus.

Introduction

The aim of this work is the location and the analysis of the lithic products coming from a *débitage Kombewa* and the settlement of the natural and technical elements that have ruled its

production and its management inside a stratigraphy site and inside three surface sites of Middle Palaeolithic.

The study was based only on those materials with a ventral face remains attributed to a *Kombewa* method. Lithic finds accounted as

débris were counted out. Moreover, it was completed an overall review of the raw materials used for the *débitage Kombewa*.

Regional Setting

The four examined sites are spread between Veneto, Emilia Romagna and Basilicata. The site of Riparo Tagliente is set on Lessini Mounts, on the left side of Valpantena, at about 250 m on sea-level, in the municipal land of Grezzana, East of Stallavena, in Verona province (I.G.M. Sheet n° 49 IV S.O. – Grezzana) (Bartolomei *et al.*, 1982; Bartolomei *et al.*, 1984; Thun Hohenstein, 2001; Arzarello & Peretto, 2001; Arzarello, 2003). The site of Carapia is located at the top of a high-ground, at about 75 m on sea-level, in the municipal land of Faenza, East of Tebano, in Ravenna province (I.G.M. Sheet n° 99 I N.E. – Faenza) (Travaglini, 2008). The site of Podere Camponi is placed at the top of a small hillock at about 100 m on sea-level, in the municipal land of San Lazzaro di Savena, West of Ozzano dell'Emilia, in Bologna province (I.G.M. Sheet n° 87 II S.E. – Pianoro) (Nadgauda, 2008). The site of Fossato Conca d'Oro is situated on the plane that decrease towards the sea, between the rivers Agri and Sinni, below the knoll where is situated the sanctuary of Madonna di Anglona, in the municipal lands of Tursi and Policoro, in Matera province (I.G.M. Sheet n° 212 IV S.E. e S.O. – Tursi e Policoro) (Prisma, 2007) (Fig. 1).



Fig.1. Geographic placing of the 4 sites.

Material and Methods

The lithic material analyzed includes a total of 82 *Kombewa* finds: 27 cores and 55 flakes.

Such finds are coming from those 4 Italian sites previously mentioned: the lithic products of Riparo Tagliente, that were checked, are 2908 artefacts and they are concerning 22 stratigraphy units (US 34, 35, 36, 37, 40, 41, 42, 42 α , 42 β , 42 γ , 42-43, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52 e 54); from these, 46 pieces pertaining to the *Kombewa* method were discovered: 1 cores and 45 flakes. The lithic materials of Carapia, that were analyzed, are 2058 pieces; from these, 26 artefacts attributed to the *Kombewa* method were found: 19 cores and 7 flakes. The lithic industry of Podere Camponi recovered from the ground consist of 217 finds; from these, only 4 can be recognized as *débitage Kombewa*, all cores. The lithic products of Fossato Conca d'Oro collected from the ground are 248 pieces; from these, just 6 are endorsed as *débitage Kombewa*: 3 cores and 3 flakes.

Finds were recovered under an accurate search of all lithic artefacts, oriented towards the research of those materials with a ventral face remains attribute to the *Kombewa* method. To remember that the products and the cores coming from a *débitage* on flake, shot for the exhaustion of the raw material or for an intensive exploitation, cannot be identify anymore, especially after the total removal of the core-flake ventral face. Consequently, the artefacts from a *débitage* on flake are always undervalued.

The ensemble was collected, classified and filed. The data were posted on a computer support (database), using a common computer program (Microsoft Excel Mac 2004), letting so a quick hint and a fast data processing.

There were created 2 cards to study and collect all the data, one for the flakes and one for the cores, with several entries that met technical requirements to whom we'd like to give attention: flake morphology, overflow orientation, angle dorsal face/butt measuring, detaches direction, striking platform typology, etc.. The analysis was completed, as well, by the dimensional data-raising and by the raw material typology used.

For a better understanding of the morpho-technical cores features, there were set up the 27 cores drawings: they were carried out by the author handling and thanks to the help of a scanner (Fig. 2).

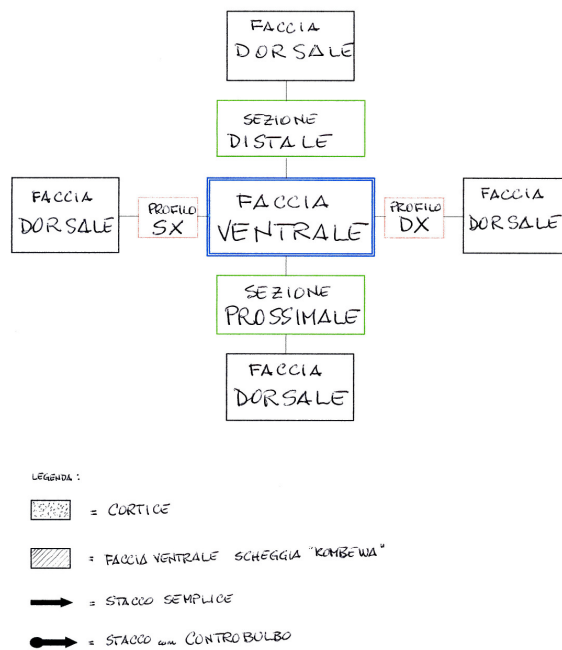


Fig.2. Scheme for the graphic description of the cores.

Débitage *Kombewa*: studies' history

The term *Kombewa* first appeared in a work of W.E. Owen (1938). *Kombewa* is the name of Seme hamlet, in the central district of Kavirondo, in Nyanza province (Kenya). Owen was a pioneer in this field but, afterwards, other authors challenged themselves by studying *Kombewa* artefacts, basing not only on African finds but also European.

In 1932 Owen collected some wide irregular and rough flakes, discovered in a street skirting a hillock. Some of them seemed *débris*, while others had a small flake detached from the ventral face. Definitely, it was a lithic workshop but then Owen didn't find any artefacts that could be identify as complete tools. A year later, in 1933, Owen found something that looked like *débris* and rough cores on the upper slopes of a hill named Usenge, not far from the river mouth of Yala in the Lake Victoria: these specimen were remained in his collection as non-identify culture (Owen, 1938 & 1939).

In the mid '60, Balout analyzed the lithics coming from an Algerian Acheulean site (Ternifine). There were brought to light 107 *hachereaux*, almost the entirety of the lithics; indeed, the balances in this group were considered valid. In a table, it was note down, for the different kind of *hachereaux*, the retouches side, for the edges and for the bases, making a

typological classification (Balout, 1967; Balout *et al.*, 1967). The *hachereaux* were divided by type: 0, 1, 2 and 6; "type 6" is explained as a "*hachereau sur éclat Kombewa*" and it could be temporarily defined also as a "*hachereau obtenu par retouche d'un éclat Kombewa, c'est-à-dire présentant deux faces d'éclatement, donc tiré d'un éclat ayant servi de nucléus*" (Balout, 1967; Balout *et al.*, 1967; Tixier, 1957).

In the mid '70, Bordes has studied flakes-core *Kombewa*, those coming from some French sites. He underlined that, in level J3a of Pech de l'Azé IV, next to classic *Levallois* flakes, exist *Kombewa*. This method is perfectly known in Africa but, here, it's applied to the production of tiny flakes but well recognizable (Bordes, 1975). The lithic industry nature studied by Bordes define a Mousterian *facies* that we don't know, for the moment, nowhere else and Bordes restricted himself to talking about "*asinipodian facies*" (Pech = Podium, Azé = asinus), without try to illustrate it (Bordes, 1975).

At the beginning of the '80, Dauvois studied the simultaneity of *Kombewa* and *Levallois* in the Acheulean of Maghreb and of Sahara North-West. He deduced that *Kombewa* coordinates the main elements of flint knapping, with a view to the future achieve shape. This method is more rational, with a lower number of acts, to produce regular flake with a predetermined shape (better chances, rare, two acts last: the first striker hit to obtain the big flake, the second to detach the *Kombewa* flake) (Dauvois, 1981).

Technological study are becoming more and more frequent where authors point out and describe, at times accurately, retrieval *chaîne opératoire* of a flake as a core, bearing in mind every step. Tixier and Turq (1999) published an article that wanted to be a "*réflexion générale*" regarding cores on flakes and their presence in the Lower and Middle Palaeolithic of Aquitaine. It was impossible manage a subject so rich, so they try to update a little bit the previous journals. The authors explain the definition of different ways wherein they have divided the *débitage* on flake. As how it was done with *Levallois* cores or "discoïd" cores (Boëda, 1993), if we let pass a fictitious plane of reference between the two faces bound, we divide a flake (or a blade) in two "knapped" volumes (one higher and one lower) limited by a convex surface. The *débitage* can be also complete in the flake thickness, from which derive four possible

way of knapping, according to the volume position and the *débitage* direction:

- Mode 1, exploitation du volume inférieur (Kombewa method) ;
- Mode 2, exploitation du volume supérieur (Kostienki type or Nahr-Ibrahim);
- Mode 3, exploitation du volume supérieur perpendiculairement au plan de référence (i.e. thick end-scrapers, maybe some Quina *débitage*) ;
- Mode 4, exploitation dans l'épaisseur de l'éclat support, parallèlement au plan de référence (i.e. burin).

Therefore, from Acheulean, the presence of cores on flake is steady but the variability of the products obtained is far from being known. However, paradoxically, we have more data on *Kombewa* method than the other methods (Tixier, 1957; Tixier & Turq, 1999; Turq, 1992).

Débitage Kombewa: the method

The Acheulean knappers realize that the bulb on the ventral face of every flakes is smooth and presents a convex swelling. The flake has also, after the preparation of a striking platform from this surface (ventral face), the whole geometric features necessary to obtain at least one flake whose oval shape and whose sharp edge (*Kombewa*), deriving from the intersection of two convex surfaces, are such predetermined. Therefore, it's using this "rounded" surface of a ventral face that one flake and only one could be predetermined in her shape and in her thickness. During the flake *débitage*, whose ventral face will be useful as a surface of *débitage* and as a surface of detachment for the *Kombewa* flake, could be introduced the preparation of a striking platform.

Kombewa method uses a heavy striker to obtain the flake-core, according to the direct flint knapping technique (Tixier *et al.*, 1980). The limited productivity of *Kombewa* method has as main feature his simplicity, the outstanding morpho-functional quality of the artefacts achieved and of the sharp edges, widely used by the acheuleans and by the mousterians. The term *Kombewa* is often used in a wider meaning that include the whole types of *débitage* on flake: these methods, unlike *Kombewa stricto sensu*, run to the production of more artefacts than only one (Tixier & Turq, 1999).

Results and Discussion

Riparo Tagliente: *Kombewa* unit, made up by 46 artefacts (1 core and 45 flakes), books a percentage really mild (1,59%) on the entire lithic materials (2908 pieces). The flake-core on Selce del Tenno is complete and overtaken and turn put to be *Levallois*. It's used most for the flakes Selce del Tenno and Biancone proving that the typology of raw material exploited is the same in the all lithic complex, where Selce del Tenno and Biancone are the most employed with higher percentage than the others. The majority of the flakes are complete and has an oval morphology. There aren't any negative scars on a lot of flakes and those, that have them, underline unidirectional detachments. The *débitage* analysis underlines a predominance of SSDA, that is the most representative method compared to the others that, however, stand out in a strong way (*Levallois*, discoid, laminar). *Kombewa débitage* represents a secondary *chaîne opératoire* gaining in this way an opportunistic meaning rather than intentional. This factor, perhaps, is undervalued because in some cases which the production is going on after the total removal of the ventral face, it's impossible to recognize the following products as *Kombewa* and the core isn't anymore identify as a flake. We should not forget that *Kombewa* flakes are recognizable only if they still preserve a part of the flake-core ventral face. Even if the number of *Kombewa* finds recovered is so low, it's probable that this is to relate with a higher number of cores on flake intensively exploited. In this case, any signs of the ventral face useful for the *Kombewa* flakes identification is totally deleted, blocking any ways of spotting.

Carapia: *Kombewa* unit, made up by 26 pieces (19 cores and 7 flakes), books a percentage really mild (1,26%) on the entire lithic materials (2058 finds). All the cores are on flint except one and they're almost complete. The *débitage* most used is *Levallois*. The flakes are all on flint (proving that the kind of raw material exploited is the same for the all lithic complex, where the flint was exploited with higher percentage than the flintite) and they're complete, except 2 incomplete. The morphology is, in the same manner, oval and rounded; the negatives are mainly unidirectional. The *débitage* analysis underlines a predominance of SSDA rather than the other methods concluding that, even here, the *Kombewa* unit takes up an opportunistic meaning

rather than intentional, caused by the restricted number of *Kombewa* products recovered. It's possible that there were in the site a higher number of cores on flake that they were exploited afterwards intensively, deleting any traces of ventral face useful for the identification of a *Kombewa* find. We should consider that the lithic material analyzed was recovered in surface collection and this could have modify the existing trend of the site.

Podere Camponi: on the entire lithic industry, composed by 217 artefacts, *Kombewa* unit, totally 4 cores, has a mild percentage (1,84%). Flint is the favourite raw material, here and in the entire industry (jasper was exploited in lower percentage than flint or ftanite); 3 cores on 4 are complete. The *débitage* mostly employed is *Levallois*: there's a predominance of this *débitage*, concluding, in this way, that *Kombewa* unit takes up an opportunistic meaning rather than intentional, considering the lean number of finds recovered. It's possible that there were in the site a higher number of cores on flake that they were exploited afterwards too intensively and now they aren't anymore recognizable for the total lack of ventral face, warranting a lean number of *Kombewa* artefacts identified. To bear in mind that the lithic material studied is coming from a surface collection and this could not represents *in toto* the real trend of the site.

Fossato Conca d'Oro: *Kombewa* unit, 6 artefacts (3 cores and 3 flakes), achieves a lean percentage (2,42%) on the entire lithic industry of the site (248 finds). The cores are all on jasper and complete. The *débitage* mostly employed isn't *Levallois*, only 1 on 3 is a *Levallois* core for point on flake. The raw material mostly exploited for the flakes is quartz sandstone, then jasper: the kind of raw material exploited is the same for the all lithic complex, where jasper was exploited in higher percentage than quartz sandstone or flint. 1 flake on 3 is a fragment. The negative scars are viewable only on 1 complete find. The *débitage* analysis underlines a predominance of SSDA rather than the other methods concluding that the *Kombewa* unit takes up an opportunistic meaning rather than intentional, caused by the restricted number of *Kombewa* products recovered. It's possible that there were in the site a higher number of cores on flake that they were exploited afterwards intensively, deleting any traces of ventral face useful for the identification of a

Kombewa find. We should notice that the lithic material analyzed was recovered by a surface collection and this could deform the real trend of the site (Fig. 3 & 4).

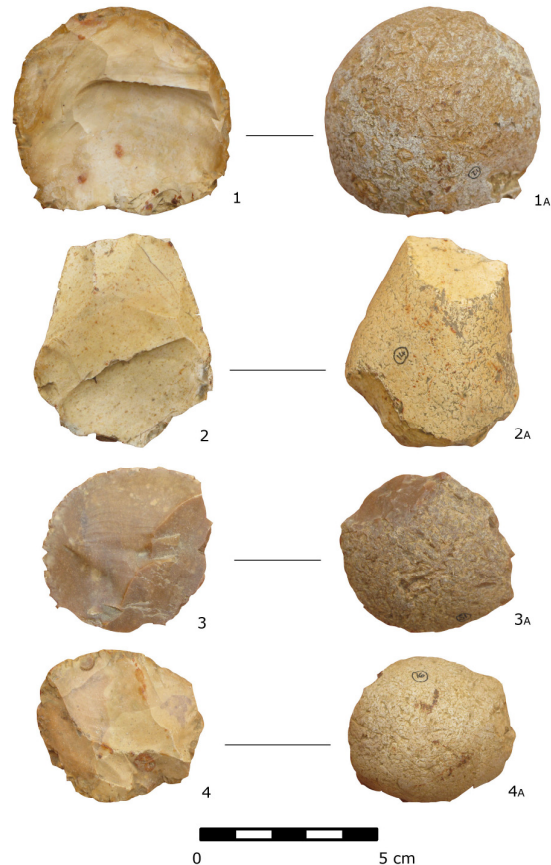


Fig.3. Carapia. Some examples of *Kombewa* cores.

We should always keep in mind that the *Kombewa* production, in these cases of study, is connected to a surface exploitation like *Levallois*, so, the choice of use a flake, as a support for the *débitage*, could be linked, not much to the morphology of the *Kombewa* product itself (two convex surfaces that intersect themselves and, then, they create a sharp edges more functional) but, instead, could be linked to the convexities presence already ready that let produce *Levallois* flakes without any kind of significant preparation of the core. This behaviour could reveal an intentionality by the knapper that want to save up and exploit the raw material in his hands, in the best way possible. Understandably, producing big and thick *Kombewa* flakes, it's possible to exploit totally the raw material potentiality to obtain *Levallois* flakes both without put in shape the core, preparing the right convexity, and without waste raw material for the put in shape.

In the 4 sites analyzed, it was noticed a tight connection between *débitage Levallois* and flakes-core; here's why there is a higher frequency of recurrent *débitage Levallois* as regards the "lineal"-preferential: it's about the only core from Riparo Tagliente (recurrent unidirectional), the 15 cores on 19 of Carapia (8 cores recurrent unidirectional, 3 cores recurrent bidirectional, 1 core recurrent orthogonal, 3 cores recurrent centripetal, 4 cores are preferential) and the 3 cores on 4 of Podere Camponi (2 cores recurrent unidirectional and 1 cores recurrent centripetal). For the site of Fossato Conca d'Oro we should make another speech, because, only one of the 3 cores recovered was classified as a *Levallois* core for point on flake, the other 2 are simple core on flake non-*Levallois*.

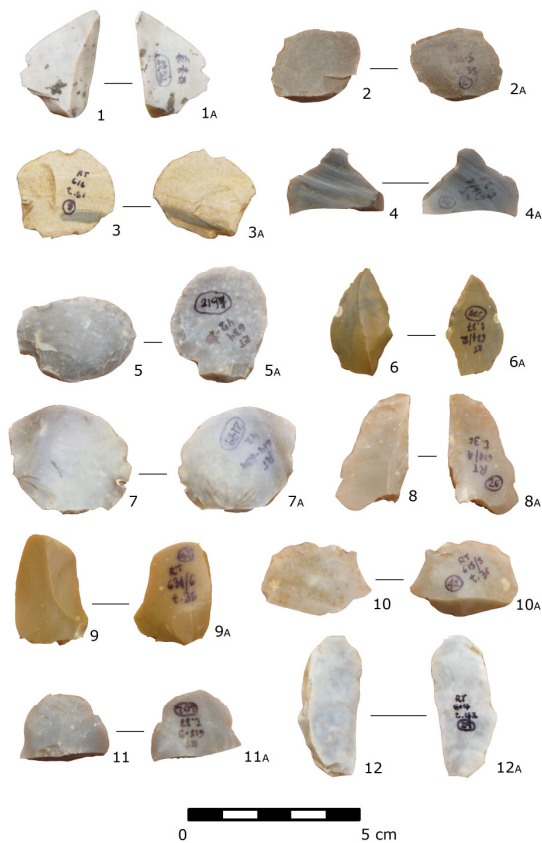


Fig.4. Riparo Tagliente. Some examples of *Kombewa* flakes.

As it's well-known, *débitage Levallois* corresponds to progressive surface exploitation steps of the core. The adopted procedure for the initial put on shape of the core and, afterwards, at the beginning of every new exploitation sequence, of the lateral and distal convexities intended to contain the presence of a detach plane

for each *Levallois* flake produced, is strictly linked to the nature of the artefacts required (Boëda, 1994). The flake/s sought is/are, therefore, produced at volume's own expense delimited by a *Levallois* preparation surface globally convex and at striking platform's own expense defined by his intersection with a peripheral or partial detach plane, tilted about 65° on the *Levallois* plane. This setting-up is intended to enable the control (direction, position, preparation) of the fracture front, that shift under the *Levallois* surface, at the time that it's teed off with the striker. It's natural, then, state that in *Kombewa* range are better, under a point of view of surface exploitation like *Levallois*, marked lateral convexities rather than distal convexities less marked that appeared more convenient for a *débitage* "lineal"-preferential.

Conclusions

The main aim of this work was to analyze the all lithic material attribute to a *Kombewa* method recovered from the 4 site of Middle Palaeolithic of Riparo Tagliente, Carapia, Podere Camponi and Fossato Conca d'Oro, in order to define the real involvement of *débitage Kombewa*.

The limit to handle this work was the collecting method of the lithic material coming from those 3 surface sites that had influenced the final results. Certainly all that was influenced by different subjective factors, as well as all that was limited by the complex morphology of the different collecting areas that, probably, have highlighted the materials in an inhomogeneous way. Afterwards, the post-depositional phenomena have modified part of the lithic materials coming from some sites, perplexing, then, their interpretation.

The analysis have involved, not only the complex of the lithic materials, in order to recover all the *Kombewa* artefacts, but also the raw material whereby the artefacts were produced, their conservation, the different *débitage* used, the exploitation intensity and the geological-palaeo-environmental framework of each single site.

All the achieved data were sufficient, because they have allowed to state the non-intentionality of the *Kombewa* production. *Débitage Kombewa* appear to be, in these sites, a secondary *chaîne opératoire*, present with percentages not so much considerable in all 4

sites, even if we should not forget that the flakes coming from a *débitage* like this are identifiable only if they conserve a ventral face remain of the flake-core, as assured many times in this work.

The exploitation of these big flakes could be sporadic, introduced exclusively in case that, during the first steps of the cortex removal, was produced a flake of remarkable dimensions, and it was finalized to the maximum exploitation of the raw material. However, we cannot be sure about this, because it's not possible make a discrimination between a big flake, obtained intentionally to be used as a core, and a flake obtained non-intentionally. We should bear in mind, moreover, that, if we want, we could remove all the cortex obtaining just small flakes to not waste raw material and, then, it's also possible that the production of big flakes was intentional.

Without taking account of the cases which the flake-core is used for a *débitage Levallois*, thanks to the presence of the necessary convexities, in general, *débitage Kombewa* is led in a semi-centripetal way (completed in centripetal direction using only the half edge of the flake as a striking platform) starting from the butt of the flake-core, round about the ventral face of the flake-core.

The products of the *débitage* are, generally, roundish/oval; they have dimensions rather modest, with the exception of a very few cases wherein flakes slightly laminar were obtained; the products were detached from a single striking platform that, initially, corresponds to the butt of the flake-core and as moves towards the edges of the flake-core.

The cores are characterized by an unipolar *débitage*, seldom bipolar, starting from the longer edge of the flake. We think we cannot talking of an *amincissement* phenomenon, seeing that the core seams to have been abandoned afterwards the flakes detach.

A variation of this method, starting from a big flake/cap, is the one that puts to use the ventral face of the flake-core as a striking platform (Mode 4: Tixier & Turq, 1999): the *débitage* leads to the achievement of flakes of average dimensions, often corticated, with width and length similar and it's led according to a *turnante* way along the all perimeter of the flake-core. This phenomenon is probably undervalued because, in cases wherein the production proceeds after the total removal of the ventral face of the flake-core, the products are not

anymore recognized as “*Kombewa*” and the core is not anymore recognized as a flake.

The economic choice is often made on the basis of the morphology of the flake used as a core, rather than in basis of the raw material: mainly, caps characterized by a significant thickness will be useful, so as to have a good striking platform, without having to run into particularly complex operations of preparation, and to have a moderate amount of raw material to be exploit as much as they like.

References

- Arzarello M., 2003 – *Contributo allo studio del comportamento tecno-economico dell'uomo di Neanderthal: l'industria litica della serie musteriana del Riparo Tagliente (Stallavena di Grezzana, Verona, Italia)*. Tesi di Dottorato, Università degli Studi di Ferrara.
- Arzarello M., Peretto C., 2001 – *Considerazioni sulle caratteristiche tecno-economiche dell'industria litica musteriana dei tagli 40-42 del Riparo Tagliente (Grezzana-Verona)*. Bollettino del Museo Civico di Storia Naturale di Verona, vol. 25, Verona. pp. 95-104.
- Balout L., 1967 – *Procédés d'analyse et questions de terminologie dans l'étude des ensembles industriels du Paléolithique inférieur en Afrique du Nord*. Background to Evolution in Africa. Bishop W.W. & Clark J.D. Eds., The University of Chicago Press, Chicago. pp. 701-735.
- Balout L., Biberson P., Tixier J., 1967 – *L'Acheuléen de Ternifine (Algérie), gisement de l'Atlanthrope*. L'Anthropologie, tome 71, n° 3-4, Paris. pp. 217-237.
- Bartolomei G., Broglio A., Cattani L., Cremaschi M., Guerreschi A., Mantovani E., Peretto C., Sala B., 1982 – *I depositi würmiani del Riparo Tagliente*. Annali dell'Università di Ferrara (Nuova Serie), vol. III/4, Ferrara. pp. 61-105.
- Bartolomei G., Cattani L., Cremaschi M., Favero V., Paganelli A., 1984 – *L'evoluzione dell'ambiente nel Quaternario*. Il Veneto nell'antichità. Preistoria e Protostoria. Banca Popolare di Verona, Verona. pp. 43-141.
- Boëda È., 1993 – *Le débitage discoïde et le débitage Levallois récurrent centripète*. Bulletin de la Société Préhistorique Française, tome 90, vol. 6, Paris. pp. 392-404.
- Boëda È., 1994 – *Le Concept Levallois: variabilité des méthodes*. (ed.) Monographie du C.R.A., vol. 9, CNRS, Paris.
- Bordes F., 1975 – *Le gisement du Pech de l'Azé IV : note préliminaire*. Bulletin de la Société Préhistorique Française, tome 72, C.R.S.M., Paris. pp. 293-308.

- Dauvois M., 1981 – *De la simultanéité des concepts Kombewa et Levallois dans l'Acheuléen du Maghreb et du Sahara nord-occidental*. In: Roubet C., Hugot H.J., Souville G. – *Préhistoire Africaine. Mélanges offerts au Doyen Lionel Balout*. Editions A.D.P.F., Paris. pp. 313-321.
- Nadgauda T., 2008 – *Comparative study of the lithic assemblages from the sites of La Garde (France) and Podere Camponi (Italy)*. Tesi di Master Erasmus Mundus, Università degli Studi di Ferrara.
- Owen W.E., 1938 – *The Kombewa Culture, Kenya colony*. Man. A monthly record of anthropological science, published by The Royal Anthropological Institute, vol. 38, n° 218, London. pp. 203-205.
- Owen W.E., 1939 – *An amateur field collector in Kavirondo*. Journal of the Royal African Society, vol. 38, n° 151, London. pp. 220-226.
- Prisma F., 2007 – *Paleolitico della Basilicata: approccio tecno-economico applicato ad una collezione proveniente da una raccolta di superficie*. Tesi di Laurea Specialistica, Università degli Studi di Ferrara.
- Thun Hohenstein U., 2001 – *Strategie di sussistenza e comportamento dell'uomo di Neanderthal. Analisi archeozoologica dei livelli musteriani del Riparo Tagliente, Grotta della Ghiacciaia (Italia) e Abric Romani (Spagna)*. Tesi di Dottorato, Università degli Studi di Ferrara.
- Tixier J., 1957 – *Le hachereau dans l'Acheuléen nord-africain: notes typologiques*. Actes du Congrès Préhistorique de France, XVe session, Poitiers – Angoulême. pp. 914-923.
- Tixier J., Turq A., 1999 – *Kombewa et alii*. Paléo, vol. 11, Paris. pp. 135-143.
- Tixier J., Inizan M.L., Dauvois M., Roche H., 1980 – *Préhistoire de la pierre taillée 1. Terminologie et technologie*. Antibes, Cercle de Recherches et d'Etudes Préhistorique. CREP, Nanterre. p. 120.
- Travaglini L., 2008 – *Approccio tecnologico all'insieme litico del Paleolitico medio di Carapia (Ravenna)*. Tesi di Laurea Specialistica, Università degli Studi di Ferrara.