Use-wear analysis of a Mesolithic assemblage: the Mourre de Sève rock shelter (Sorgues-Vaucluse)

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Key words
- South France
- Mesolithic
- Use wear
- Castelnovian
- Sauveterrian

Summary
This research concerns the characterisation of the economy of a Mesolithic settlement from Southern France. The Mourre de Sève site is a rock shelter located close to the Rhône and Ouvèze confluence and it represents the exploitation of a riverine environment by hunter-gatherers. The latest excavations, in 1994 and 1997, dated the site using AMS to the Sauveterrian and the Castelnovian periods. The Castelnovian lithic industry from the top levels of the site constitutes one of the few blade and trapeze complexes of the region between the Alps and the Pyrenees. In this article we discuss the results of use-wear analysis carried on the lithic artefacts from the recent excavations. The results of this analysis are linked to multidisciplinary studies of the archaeological material to characterize the economy of the site. The findings suggest continuity in economy type from the Sauveterrian to the Castelnovian occupations.

Riassunto
Questa ricerca concerne la caratterizzazione dell’economia di un sito mesolitico nel sud della Francia. Mourre de Sève è un riparo sotto roccia collocato non lontano dalla confluenza dei fiumi Rhône e Ouvèze e rappresenta l’occupazione di un ambiente umido da parte di cacciatori raccoglitori. Gli scavi più recenti, svolti tra il 1994 e il 1997, hanno datato il sito (AMS) ai periodi Sauveterriano e Castelnoviano. L’industria mesolitica, dei livelli più alti della stratigrafia, rappresenta uno dei pochi esempi di industrie a lame e trapezi della regione situata tra le Alpi e i Pirenei. In questo articolo sono state discusse le informazioni relative all’analisi funzionale effettuate sui materiali litici rinvenuti durante gli scavi. L’esito delle nostre analisi sembra suggerire una continuità nel tipo di economia dalle occupazioni sauveterriere a quelle castelnoviane.

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**Introduction**

This paper presents the result of use-wear analysis carried out at the site of Mourre de Sève (Sorgues-Vaucluse). The site is composed of several Mesolithic occupations, which show similarity in lithic production and homogeneity in environmental exploitation, from the Sauveterrian to the Castelnovian period. The aim of this research is to better understand the technical system and function of the site during Mesolithic through a functional analysis of stone tools.

**Study area**

The Mourre de Sève (Sorgues, Vaucluse) rock shelter is located close to the confluence of Rhône-Ouvèze Rivers in the Comtat plain region of Southern France (Fig. 1). The site is located under an overhanging cliff at 80 m a.s.l., and faces north. During Mesolithic period this area was characterized by a riverine environment and was situated in the meso-mediterranean vegetation belt, with the predominance of Quercus cf forests.

**The stratigraphy**

During the first excavation, in the 1950’s, several occupations dating to the Mesolithic and Neolithic were discovered (Paccard & Marcq 1993). Limited field notes were found about the site stratigraphy from this excavation, and the data was published in 1993 (Paccard & Marcq). The latest excavations (Binder 1994 and 1997), in 1994 and 1997, revealed different Mesolithic occupations and they found a small undisturbed area between E2 and E3 squares (Fig. 2). The deposit of this area cut a Miocene molasses layer next to a big block fallen from the cliff. In this part of the site, it was possible to recognize and to date, by AMS analysis, three Castelnovian occupations between 6650 and 6200 cal BC. The basal level contained some Sauveterrian remains, probably mixed with Castelnovian artifacts, which is dated between 7540 and 7420 cal BC. (Binder & Sénépart 2004).

Outside of this area, the sediment contained Neolithic and Mesolithic artefacts. However, the sediment was disturbed, making it impossible to distinguish any discrete occupations. For this reason, the functional analysis was applied mostly on lithic artefacts coming from the E2 and E3 squares.

**Environment and economy**

The anthropological analysis run by S. Thébault (Binder & Sénépart 2004) showed the presence of a forested environment during the Mesolithic period. Quercus cf, pubescens, Acer sp., Ulmus sp. and Rosaceae sp. characterized the forest and the presence of Populus sp. and Salix sp. indicated a riverine environment nearby the site.

Few faunal remains were recovered during the recent excavation (Binder 1994). A small sample of bones of wild boar (n=1), deer (n=3) and roe deer (n=6) showed evidence for hunting activities. The scariness of mammal remains is contrasted with the high number of fish and turtle (Emys orbicularis) remains recovered from the site. The former was represented by fish of varying sizes and in particular by a large quantity of eel remains, all of them headless. Fishing was a very common activity during the Mesolithic and evidence can be found at other sites from the Provence and Languedoc region, including the Sauveterrian site of Fontbrégoua (Salernes) (Courtin 1975), the Castelnovian site of La Font de Pigeons (Châteauneuf-les-Martigues) (Courtin et al. 1985) and at the Mesolithic site of La Baume de Montclus (Binder & Sénépart 2004, Rozoy 1978). As well, turtles were a common part hunter-gatherers’ diet from these regions, as witnessed at the sites of de Chinchon.
Two notched blades come from the Sauveterrian layers and edges. In this group of artefacts there are three notched blades. The bladelets, and elongated flakes with retouch or irregular scarring on the end-scraper is present. The rest of the tools are composed by blades, tools (Tab. 1). Among the material analysed in this research, only one of small flakes.

Some of the cores were produced by soft hammer percussion. And 10 mm width. Aside this kind of, other laminar blanks débitage were produced by pressure flaking (Binder et al. 2013). The notched blades of Mourre de Sève have one notch (Fig. 3 n.1), or multiple notches (Fig.3 n.7), created by a semi-abrupt retouch. All notched blades have some fractures (on the distal or/proximal part), but they do not affect the notches.

The projectiles group is composed of geometrics and hypermicroliths. The former are emblematic of Castelnovian deposits, while the latter are typical of microlamellaire Sauveterian complexes. Their presence all along the Mesolithic stratigraphy (Tab. 2) characterizes this industry (Binder 1994). The same association of Sauveterian hypermicroliths and Castelnovian industries is present at Châteauneuf (Binder & Courtin 1987). The recovery of these two projectile types at Mourre de Sève confirms that their association is not the result of mixed industries, but that they regularly occur together (Binder 2000). The absence of these tools from Marq’s excavation could have resulted from the use of a large screen size to sieve deposits (Binder 1994).

The production of geometrics occurs at the site evidenced by the high percentage of microburins in the assemblage (Binder & Sénépart 2004). Symmetrical and asymmetrical trapezes come from the Mesolithic levels of the entire site. Finally, techno-typological analysis (Binder 1994; Binder & Sénépart 2004) confirms the Mesolithic production of projectiles in the disturbed areas of the site (Tab.2).

The technological characteristics of the Castelnovian assemblage place the Mourre de Sève series within the Rhodianian aspects of the Castelnovian (Binder 2000). This industry is characterized by: production of prismatic and regular blades made by pressure, notched blades, use of non-retouched blades and flakes, several types of projectiles (triangles and trapezes) and flat and inverse retouch on small truncations.

Methods

The analysis employs Semenov’s method (Semenov, 1964) using a stereomicroscope (Olympus SZH magnification from x0.74 to x64) (Tringham 1974) illuminated by a fibre-optic light source and an illuminated reflective light microscope (Leica DMLM magnification from...
Fig. 3 - Tools from Sauveterrian (n° 1, 2, 3, 4 and 13) and Castelnovian levels (n° 5, 6, 7, 8, 9, 10, 11, 12) displaying use-wear. Drawings (1, 3, 6, 7, 11, 12) D. Binder and (4, 5, 8, 9, 10, 13) C. De Stefanis. / Strumenti con trace d’uso provenienti dagli strati Sauveterriani (n° 1, 2, 3, 4 e 13) e Castelnoviani (n° 5, 6, 7, 8, 9, 10, 11, 12). Disegni (1, 3, 6, 7, 11, 12) D. Binder e (4, 5, 8, 9, 10, 13) C. De Stefanis.
Fig. 4 - Hide working: 1) Working on dry hide: transversal and longitudinal coarse striations cover a low linked dull polish. 2) Higher linked polish than the former with thin transversal striations and a high degree of edge rounding. Photos n. 3 (proximal left edge of the tool n. 2 Fig. 3) and 4 (UA on the tool n.3 Fig. 3) show two UA scraping on a damper hide and showing a highly linked and less pitted polish, with thin striations. The photo n. 3 shows a higher degree of rounding. 5) Quadrangular feathered and stepped scars, perpendicular to the edge, show a transversal action on a medium hard material. 6) Domed polish, with rare and fine striations, shows a transversal action on wood. The polish is interrupted by micro stepped scars. / Lavoro sulla pelle: 1) grosse strie trasversali e longitudinali coprono una politura opaca a trama larga. 2) Politura a trama più stretta della prima, con strie fini e forte smussamento dei bordi. 3) Le foto 3 (bordo sinistro prossimale del disegno Fig. 3.2) e 4 (UA sullo strumento in Fig. 3.3) mostrano due UA che hanno raschiato una pelle più umida e mostrano una politura a trama più stretta, con meno buchi e strie fini. La foto n. 3 presenta un più alto grado di smussamento. 5) Sbrecchiature quadrangolari a terminazione “feather” e “step”, perpendicolari al bordo mostrano un’azione trasversale su un material medio duro. 6) Politura “domed”, con strie rare e fini, mostra un’azione trasversale su legno. La politura è interrotta da micro sbreccature.
The use-wear analysis showed that hide working is the most common action used on hide, vegetal, and minerals. In spite of the high percent of post-depositional alterations, the functional analysis allowed us to identify several different tasks on hide, vegetal, and minerals.

The Sauveterrian level

The Sauveterrian layer contains 57 lithic artefacts. Six are projectiles and none displays use or impact wear. The rest of the blanks are composed by flakes or blades/bladelets and among them five tools shows use-wear on eight used areas (UA): one related to wood working, five to hide processing and two to activities on medium-hard material (Tab. 4 and Fig. 3).

The use-wear analysis showed that hide working is the most represented task during this occupation. Four different blanks with five UA are used (a cortical flakes, two regular blades and a twisted blade). Three UA out of five are un-retouched (Fig.3 n. 2, 4 and 13).

The shape of their used edges does not show the same characteristics and the edge angles varies between 35° and 85°. All the UA blanks are composed by flakes or blades/bladelets and among them five UA are used (a cortical flakes, two regular blades and a twisted blade). Three UA out of five are un-retouched (Fig.3 n. 2, 4 and 13).

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The shape of their used edges does not show the same characteristics and the edge angles varies between 35° and 85°. All the UA show a weak or medium degree of wear development and none is resharpened.

It is possible to distinguish several stages of humidity of the hide, thanks to the degree of linkage of the polishes and their brightness (Vaughan 1985). Scraping is the most common action used with hide working. It is identified on 4 UA, and only one edge shows a double action (longitudinal and transversal) (Tab.5). Two of these UA display a dull and rough polish linked to the hide working. The first UA conserve a higher linked polish than the former, with thin striations, a high degree of rounding and a pitted aspect (Fig. 3 n. 2, 4 and Fig.4 n. 1). According to these features, it is linked to a softening task on a medium dry hide. The former UA shows a double action on dry hide on the distal right edge, which has coarser striations and a low linked and dull polish (Fig. 3 n. 2 and Fig. 4 n. 1). On the same tool, another UA is located on the opposite edge. This edge worked a damper hide, which created a highly linked and less pitted polish,

linked to the butchering activities were found, despite the presence of faunal and fish remains.

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Fig. 5 - 1) The end limit of the retouch cuts the dull, rough and pitted polish of the hide. Some spots of a flat and shiny alteration cover the hide polish. Photos 2) and 3) show a dull and pitted polish, with a rough aspect and numerous striations. A flat rounding is visible on photo n. 3, and a rounding on photo n. 2. 4) Soft mineral working. A rounded edge displays a linked polish covered by numerous longitudinal striations of different dimensions and coarseness. 5) Quadrangular scars, with step terminations and oblique directions, produced by the contact with a medium-hard material. 6) Domed polish with slight transversal undulations and fine striations shows the transversal motion on soft wood. / Limite del ritocco che ha interrotto la politura della pelle. Alcune macchie di una politura d’alterazione piatta e brillante coprono le tracce della pelle. Foto 2) e 3) mostrano una politura opaca e bucherellata, con un aspetto rugoso e numerose strie. Uno smussamento piatto è visibile sulla foto n. 3, e uno smussamento arrotondato sulla foto n. 2. 4) Lavoro su un minerale tenero. Un bordo smussato mostra una politura a trama unita coperta da numerose strie di diverse dimensioni. 5) Sbrecchiature quadrangolari, a terminazione “step” e direzione obliqua, prodotte dal contatto con un materiale medio-duro. 6) Politura “domed” con leggere ondulazioni trasversali e strie fini testimoniano un gesto trasversale su un legno morbido.
with thin striations (Fig. 4 n. 3 and n. 4). This side of the tool has red colorant residues, which covers the dorsal and the ventral surfaces (Fig. 3 n. 2). If this UA was linked to a transversal action on a red mineral material it would have left coarser striations on the edge. For these reasons it is not possible to link the presence of red colorant to a mineral working. At the same time no glue residues are found and chemical analysis cannot link the red residues to the presence of mastic.

The work of a medium hardness material is represented by a longitudinal and a transversal action on two different UA located on two tools, which also display hide polish (Fig. 3 n. 3 and 13, and Fig. 4 n. 5). Both areas show only macro-wears, which consist of quadrangular feathered and stepped scars. On one UA they are oriented perpendicular to the edge indicating transversal action and on the other UA they are oblique suggesting longitudinal motion.

The last task recorded within Sauveterrian occupation is a transversal activity on wood, located on a notch of a blade (Fig. 3 n. 1). The ventral face is the contact surface and it worked with an angle of about 45°. On this face, some quadrangular hinged and stepped scars indicate contact with a flexible and medium hard material. A domed polished with rare and fine striations suggests contact with a medium hard plant, like wood (Fig. 4 n. 6). The rest of the blank do not have other used areas but, the surface shows a lot of alterations, which could have removed the use-wear.

The Castelnovian levels

The Castelnovian lithic industry counts 132 artefacts, among them nine displays traces of hide, plant, mineral, medium material and a medium hard material working (11 UA) (Tab. 4). Seven projectiles come from these levels and three have diagnostic impact wear.

Hide working (Tab. 6) is represented by seven UA on six tools (Fig. 3), with a non-standardized shape. Furthermore, the used edges have different morphologies and most of their edges (five UA) are retouched to create angles between 55° and 90°. The majority of the used edges have a slight or medium rounding and only one is resharpended (Fig. 3.6 and Fig. 5 n. 1). According to the use-wear features, the worked hides were dry or medium dry. Indeed, the edges displays a dull and pitted polish with a rough aspect and numerous longitudal striations caused by an abrasive material. In the second group, the edges displays a slightly developed flat rounding and a thin abrasive striation.

Among the tools used on hide processing, two show a second use. One of them is a medium material which produced scars and a slight rounding on the edge of a blade (Fig. 3 n.6). The other tool bears another UA which was used for a longitudinal motion on a soft mineral (Fig. 3 n. 5). The edge displays a slight rounding, which covers the marginal macro-traces, and a red mineral residue on part of the edge and spots on the inner surface. A linked micro polish covers the marginal part of the edge. The polish is characterized by numerous longitudinal striations of different dimensions and coarseness (Fig. 5 n. 4).

Only the distal fragment of an end-scraper comes from E2 and E3 squares of the site and no use-wear is found on its scra- per edge (Fig. 3 n. 12). However, the endscaper has macro-wear produced by contact with a medium-hard material (Fig. 5 n. 5) on the left edge.

In the Castelnovian levels, a notched blade shows the only wear linked to plant working (Fig. 3 n.7). A domed polish is localized on the distal ventral bevel of the notch. Slight undulations and fine striations show the transversal motion, with the ventral face as the contact surface (Fig. 5 n. 6). According to the localization and the characteristics of the use-wears, this UA scraped a soft wood with a high working angle.

Projectiles

The use-wear analysis on projectiles concerns 56 artefacts (Tab. 7 and 8); 20 hyper-microliths and 36 trapezes. Without experimental experience on this particular task, we base the functional analysis on the result of other projectile experiments (Chesnaux 2014 and 2006; Crombé 2001; Fischer et al. 1984; Philibert 2002; Plisson 1986; Gasmin 1991). Some experiments on trampling alteration on microliths (Chesnau op. cit.) demonstrated that these phenomena could produce fractures similar to the impact traces, and according to the dimensions of the armatures, these scars could have several lengths. For these reasons and the small size of the projectiles analyzed, this study defines diagnostic impact fractures (DIF) as, fractures longer than 2 mm with either a burin like fracture, "en charnière" fractures, bending

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**Table 6 - Characteristics of use-wear of hide working identified on the Castelnovian lithic industry of Mourre de Sève:**

<table>
<thead>
<tr>
<th>UA</th>
<th>ACTION</th>
<th>CONTACT ANGLE</th>
<th>HUMIDITY OF THE HIDE</th>
<th>ABRASIVE</th>
<th>Rounding</th>
<th>DEGREE OF ROUNING</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Scraping</td>
<td>45°-60°</td>
<td>Medium</td>
<td>Fine</td>
<td>Rounded</td>
<td>Low</td>
</tr>
<tr>
<td>2</td>
<td>Scraping</td>
<td>45°-60°</td>
<td>-</td>
<td>Coarse</td>
<td>Rounded</td>
<td>High</td>
</tr>
<tr>
<td>3</td>
<td>Scraping and cutting</td>
<td>60°-80°</td>
<td>Dry</td>
<td>Coarse</td>
<td>Flat</td>
<td>High</td>
</tr>
<tr>
<td>4</td>
<td>Scraping</td>
<td>30°-40°</td>
<td>Medium</td>
<td>Fine</td>
<td>Flat</td>
<td>Low</td>
</tr>
<tr>
<td>5</td>
<td>Scraping</td>
<td>30°-45°</td>
<td>Dry</td>
<td>Corse</td>
<td>Flat</td>
<td>Low</td>
</tr>
<tr>
<td>6</td>
<td>Cutting</td>
<td>-</td>
<td>Medium</td>
<td>Fine</td>
<td>-</td>
<td>Low</td>
</tr>
<tr>
<td>7</td>
<td>Scraping</td>
<td>30°-40°</td>
<td>-</td>
<td>Fine</td>
<td>Flat</td>
<td>High</td>
</tr>
</tbody>
</table>
Fig. 6 - Projectiles with DIF and MLIT of Mourre de Sève. 1) Axial bending step fracture. 2) DIF “en charnière” and MLIT on the ventral face of the bladelet. 3) Axial bending step fracture on the large point. 4) DIF “en charnière” on the large point. 5) “En charnière” fracture on the unretouched edge of a trapeze fragment. 6) Cone fractures coming from the large base to the small one, covering part of the truncation. 7) Cone and bending with hinge and step terminations fractures on the unretouched edge of the trapeze. Drawings (1, 2, 3, 6, 7) D. Binder and (4, 5) C. De Stefanis. / Armature con DIF e MLIT del sito di Mourre de Sève. 1) Frattura assiale “bending step”; 2) DIF “en charnière” e MLIT sulla faccia ventrale della lamella. 3) Frattura assiale “bending step” sulla punta. 5) Frattura “en charnière” su un lato non ritoccatò del frammento di trapezio. 6) Frattura a “cone” proveniente dalla grande base e diretta verso la piccola base del trapezio, copre parte della troncatura. 7) Fratture “cone” e “bending” a terminazioni “hinge” e “step” sul lato non ritoccato del trapezio. Disegni (1, 2, 3, 6, 7) D. Binder e (4, 5) C. De Stefanis.
or cone fracture with a feather, step or hinge termination, the associated spin-off and microscopic linear impact trace (MLIT).

The hyper-microlith group was composed by baked bladelets, points, and micro-triangles. This set showed DIF only on two backed bladelets (Tab. 7).

According to the terminology proposed by Fisher, Vemming and Rasmussen (1984), one DIF is a step bending fracture 5 mm long (Fig. 6 n.1) and the other one is an “en charnière” fracture 3 mm long (Fig. 6 n.2) (Plisson & Geneste 1986). The latter also displays a MLIT on the edge, caused by the contact with a hard material (Fig. 6 n.2). Among the rest of microliths, 16 (80 %) show fracture coming from the large base to the small one, covering part of the truncation (Fig. 6 n 6). In this case, the trapezes were hafted as transverse arrowhead, with the big base at the tip of the arrow. On the small base of the projectile there are snap fractures, which could be caused by the recoil on the shaft.

As shown in table 8, most of trapezes have snap fractures on the points and several scars on the bases, all less than 2 mm length. Experiments on this type of projectiles, as transversal arrowhead (Gassin 1991), showed that breakages and scars on the bases of trapezes could be produced by impact. In our archaeological sample this kind of fractures are present on 10 trapezes, but only one of them displays fractures longer than 2 mm and could be considered a DIF (Fig. 6 n 7).

**Discussion and conclusions**

The use-wear analysis carried on lithic industry of E2 and E3 squares confirms continuity in economy type from the Sauveterian to the Castelnovian occupations. These complexes show the predominance of irregular blanks used as tools: blades or flakes, with several edge morphologies (47 % of UA were retouched), and cortex remains (Fig. 3).

Most of the used edges are still sharp and only one displays re-sharpening (Fig. 5). Their low exploitation confirms a constant supply of flint.

The majority of UA show use-wear on hide working (63 %) throughout the occupations. The variation in hide humidity and the contact angle indicates several stages of hide processing (Tab 5 and 6). At the same time, the presence of cutting activities means that the hide is also transformed on the site into other items such as clothing. Although hide working is the most represented activity, no specialized hide working tools are present among the analyzed sample. For these activities irregular flakes and blades are used, with no evidence for hafting and mostly with low development of rounding and traces. The only end-scraper in our sample does not display hide polish and the 14 coming from Marcq’s excavation are not analyzed. This difference of end-scrapers numbers could be linked to a spatial organization of the craft or to several occupations with different functions and activities. Unfortunately we have not enough data to understand the reasons of this spatial distribution.

In both occupations, the plant working is evidenced by two notched blades (Fig. 3 n° 1 and 7). The bevel of the notches shows a transversal activity on wood, which suggests a specialized craft for the transformation of this material. Their presence during Castelnovian and Sauveterian occupations could suggest that these kind of tools are not specific only for Capsian and Castelnovian periods.

The hunting activities are indicated by the presence of DIF and MLIT on six projectiles (10 %). Four geometrics displays impact traces showing 2 types of arrow tips. The first is an asymmetrical trapeze with a large straight truncation and a small concave truncation used as a transverse arrowhead, with the large point as the tip of the arrow. The second is a symmetrical trapeze hafted as transverse arrowhead, with the large base at the tip of the arrow. Two backed bladelets show DIF and MLIT, but it is not possible to define their position on the shaft (point or barb). The sample analyzed here presents high variability in arrowhead type and possible hafting, but additional use-wear studies are needed to understand if this variability could be related to the hunted prey, the type of bows used, or to cultural factors.

The absence of butchering tasks is surprising, especially compared to the presence of numerous faunal remains. This lack of traces could be attributed to the high presence of alterations on stone tools, which could have removed some use-wear traces or confused their interpretations (Van Gijn 1986). For eel processing, the inhabitants of the site could be butchering off-site. In fact, processing the remains of this species, no heads were found and it is probable that this kind of prey was processed on the fishing site.

Tab. 7 - Results of the functional analysis on microliths of Mourre de Sève. Each microlith type is presented with a number: 1-unilaterally backed bladelet, 2-bilaterally backed bladelet, 3-micro-triangle, 4-point “de Chaville”. / Risultati delle analisi funzionali sui microliti di Mourre de Sève. Ogni numero corrisponde a una tipologia di microlito: 1-lamella a dorso, 2-lamella a doppio dorso, 3-micro triangoli, 4-punta della Chaville.

<table>
<thead>
<tr>
<th>EXCAVATION (E2-E3 squares)</th>
<th>TYPE</th>
<th>PRESERVED</th>
<th>DIF</th>
<th>MLIT</th>
</tr>
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<tbody>
<tr>
<td>Binder (E2-E3 squares)</td>
<td>1 Mesial</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>2 Intact</td>
<td>x</td>
<td></td>
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<tr>
<td>2 Proximal</td>
<td>x</td>
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<tr>
<td>2 Distal</td>
<td>x</td>
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<td></td>
</tr>
<tr>
<td>2 Meso-Distal</td>
<td>x</td>
<td></td>
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</tr>
<tr>
<td>2 Meso-Proximal</td>
<td>x</td>
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In summary, the function and the economy of the site does not change during several Mesolithic occupations. The same kinds of raw material and blanks are chosen to be used: irregular flakes and blades for domestic activities and unspecialized crafts, and the regular blades to produce geometrics and notched blades. The sample shows a low variability of activities and worked materials. Among them, hide is the most represented, however only expedient tools are used for this task. The use-wear study, combined to other multidisciplinary analysis, suggests a non-specialized function of the Mourre de Sève site, with brief occupations, due to the small assemblage size. The site seems to be linked to a network of the sites targeted towards the exploitation of different environmental resources with the region (fish and faunal resources, a forested environment, and lithic raw materials). To confirm this hypothesis additional use-wear research on other Mesolithic sites of the region will be needed.

Aknowledgements

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References


