

**8**



# **Catalogue**

by

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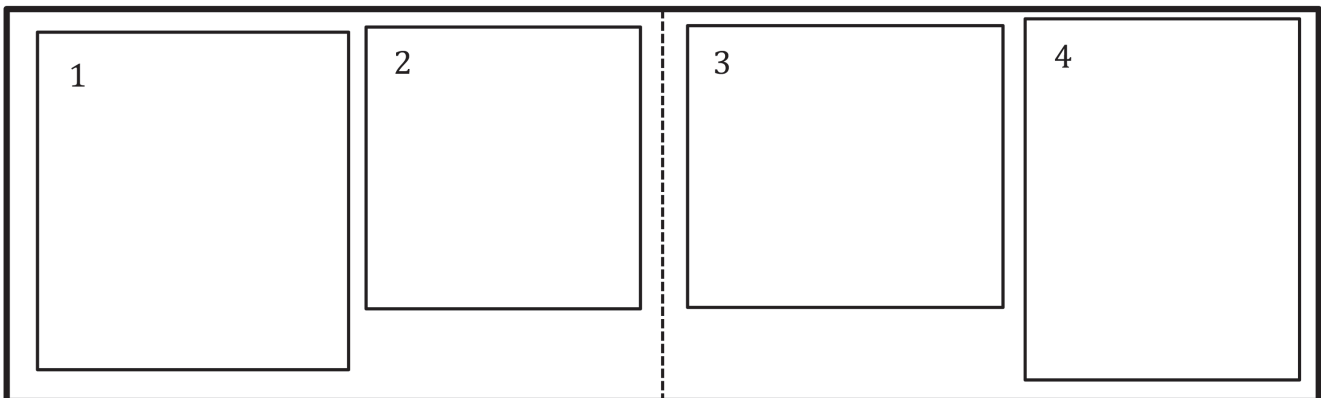
### Catalogue legend

This catalogue includes all the lithic artefacts found at the Solana del Bepo mine up to year 2015. They come from different sources: the Vilaseca collection (n 72), those recovered by the territorial archaeologist of Lleida, Josep Gallart (n 9), and one deposited in the Centre for Falset Studies (n 1). All these pieces, except the last, are today kept in the Salvador Vila-

seca Museum of Archaeology in Reus. The catalogue consists of 82 index cards in landscape format, each containing a description of their main technological features and, in some cases, a drawing of the artefact (*technological documentation*, numbers 1 and 2). In the second half of the index card, a different kind of *photographic documentation* is shown (*photographic documentation*, numbers 3 and 4):

Technological documentation

Photographic documentation



## Technological documentation (1)

### Inventory number:

The inventory number is preceded by BEP-, referring to the archaeological site of La Solana del Bepo. The inventory numbers are organised from lowest to highest. In the case of the pieces belonging to the Vilaseca collection, the numbers are the same as those used to record them in the Salvador Vilaseca Museum of Archaeology in Reus. The nine pieces provided by Josep Gallart, from more recent visits to the site, are numbered BEP-N01 to BEP-N09. Finally the artefact belonging to the Centre for Falset Studies is identified as CEF-SN.

### Lithology:

Rock type, based on macroscopic observation and in some cases on thin section analysis.

### Weight:

In grams (g).

### Dimensions:

Length, width and thickness in millimetres (mm).

### Preservation:

Preservation of the piece, taking into account that it is divided into three parts (1/3, 2/3, 3/3). If the piece is not completely preserved, the missing part is mentioned.

### Artefact type:

In the case of picks, together with the name of the artefact type, the type of blank (massive or flat) has also been specified, in order to provide information on metric proportions.

### Plan view:

Morphological aspect of the piece viewed zenithally on obverse or reverse. The pieces can therefore be triangular, semi-circular, oval, circular, trapezoidal, rectangular or irregular. In the case of picks, when the active front is laterally displaced from the main axis of the artefact, they are defined as "asymmetrical".

### Longitudinal and transversal section:

The longitudinal section crosses the artefact on its longest axis, while the transversal section crosses its width. Both sections consist of two morphologies, one related to the obverse and the other to the reverse. Each of the four morphological axes can be described as convex, straight or concave.

### Manufacturing evidence:

Information related to the manufacturing process of the artefact prior to use. It takes into account six faces for each artefact (obverse, reverse, upper, lower, left and right). The manufacturing evidence can be described as knapping, pecking or polishing.

### Hafting evidence:

Localisation (body/heel), extension (1/4 to 4/4; in the last case we are dealing with perimetral grooves) and type of hafting evidence (notch/groove) are specified.

### Active surface:

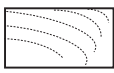
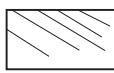

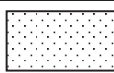

Metric data for the active front are provided (length in the case of picks; area in the rest of the cases), as well as morphology (U, V or asymmetrical, in the case of picks) and the manner in which the wear is manifested, taking into account traces of percussion and/or abrasion.

Cases in which poor preservation makes it impossible to describe specific technological aspects have been recorded as "not observable".

## Technological documentation (2)

This part includes a drawing of the piece (if there is one). Unless otherwise indicated, the drawings are by the authors and follow the DIN technical drawing standards described in Risch 2002: 37-51. Thus, the pieces were rotated following DIN rotation principles. Where the drawing is by Antoni Llussà, his name is indicated at the bottom right. In this case, the rotation of the piece varies slightly with respect to ours.

### Drawing legend:

	Knapping
	Striations
	Pecking
	Smoothing
	Broken surface or surface covered by carbonate

## Photographic documentation (3)

All the pieces were photographed on their obverse and reverse. Similarly to the drawings, the rotation of the piece was based on the DIN standard. Usually, the first view shows the obverse, followed by the reverse view. Photographs of the lateral faces or even the artefact ends were added in exceptional cases where they provide additional information. We have tried to maintain the same scale for all the pieces, although it was necessary to reduce the large pieces to a smaller scale.

## Photographic documentation (4)

The photographs appearing in this part of the catalogue correspond to specific analytical sections of the study, such as the functional analysis of artefacts and the thin section petrographic analysis of raw materials. Most of the pictures were taken under 10-80x and show details of the wear traces observed on the artefact's surfaces. The boxes on the artefact pictures indicate the point at which the detailed

photograph was taken. Numbers are provided for both detailed pictures and boxes when more than one picture is shown.

Pictures taken under the petrographic microscope (>100x) have been included in 10 cases. These are identified in the lower right-hand part of the picture

with the words "thin section". The samples for thin section analysis were taken from fragmented pieces, using fracture planes and thus minimising any morphological alteration to them. After completing this study, the thin sections were given to the Salvador Vilaseca Museum of Archaeology in Reus for future research.

**Inventory number:** BEP-3061

**Lithology:** Porphyry

**Weight:** 1453 g

**Dimensions:** 163x75x58 mm

**Preservation:** Complete

**Artefact type:** Pointed pick of massive constitution.

**Plan view:** Trapezoidal.

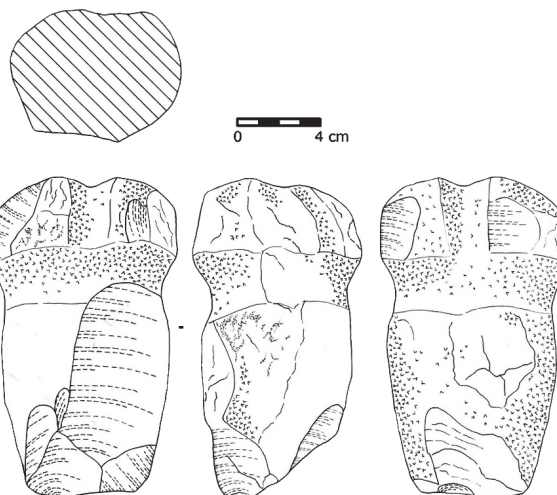
**Longitudinal section:** Convex-convex.

**Transversal section:** Convex-convex.

**Manufacturing evidence:** All passive surfaces, except the right surface, have been transformed by pecking. In addition, the proximal part shows evidence of knapping and the left surface has been abraded.

**Hafting evidence:** 3/4 on the proximal third (groove on the obverse, reverse and left) and the heel (here the groove is connected to the perimetral groove both on the obverse and the reverse).

**Active surface:** 47 mm; U-morphology; rounding and fractures (one affecting part of the perimetral groove).



**Inventory number:** BEP-3199

**Lithology:** Porphyry

**Weight:** 1567 g

**Dimensions:** 243x105x45 mm

**Preservation:** 2/3

**Artefact type:** Pointed pick of flat constitution, from which the proximal end is missing.

**Plan view:** Triangular.

**Longitudinal section:** Convex-straight.

**Transversal section:** Convex-straight.

**Manufacturing evidence:** All the preserved passive surfaces have been transformed by knapping, pecking and/or polishing. The edges of the fracture plane located on the heel have been retouched through knapping.

**Hafting evidences:** 4/4 (perimetral groove, although on the reverse it can be only intuited).

**Active surface:** 5 mm; V-morphology; rounding and glossy polish.

**Inventory number:** BEP-4275-1

**Lithology:** Rock affected by contact metamorphism

**Weight:** 1209 g

**Dimensions:** 235x110x49 mm

**Preservation:** Complete

**Artefact type:** Pointed pick of flat constitution.

**Plan view:** Triangular.

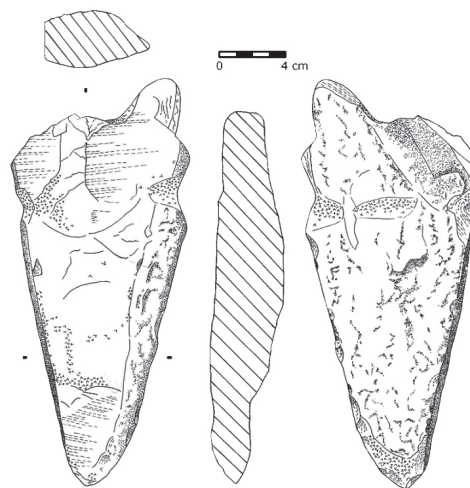
**Longitudinal section:** Convex-straight.

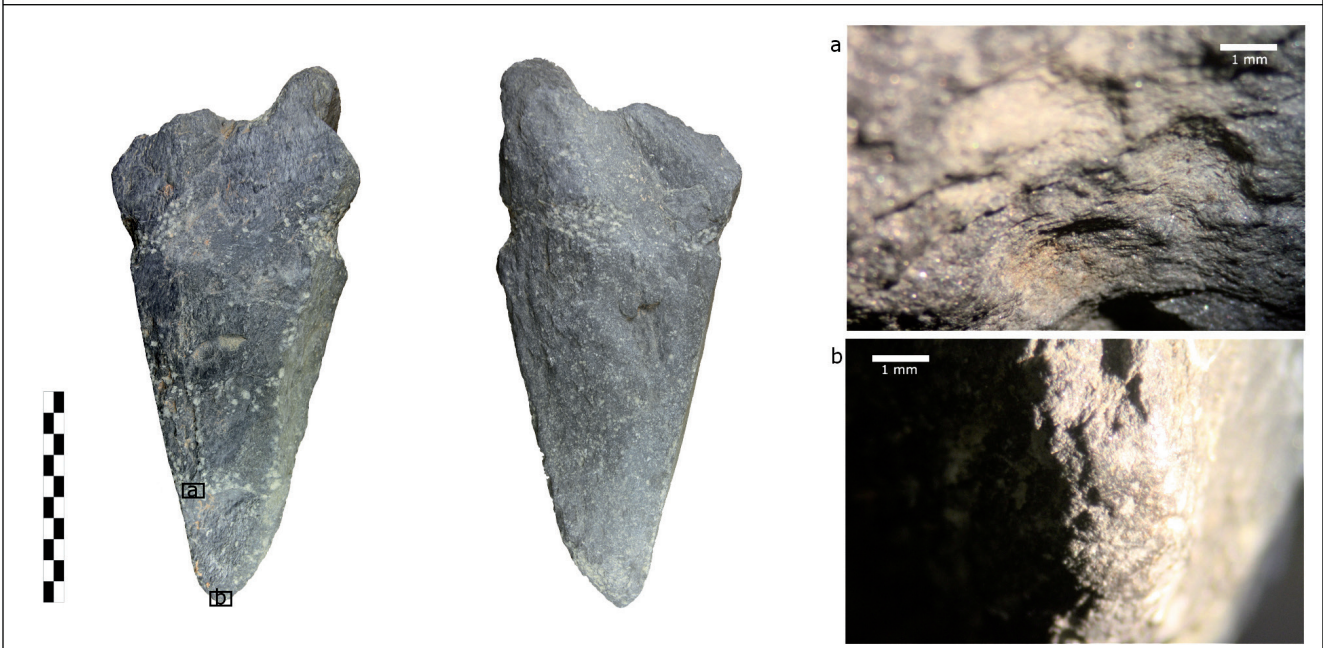
**Transversal section:** Convex-convex.

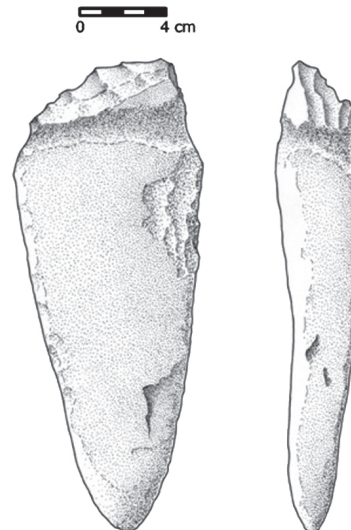
**Manufacturing evidence:** Knapping and pecking on the obverse and the right surface; pecking on the reverse and the left surface.

**Hafting evidence:** 4/4 on the proximal third (groove slightly developed on the obverse and reverse; lateral notches) and heel (notch).

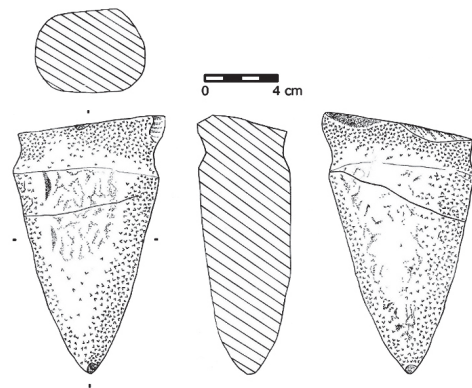
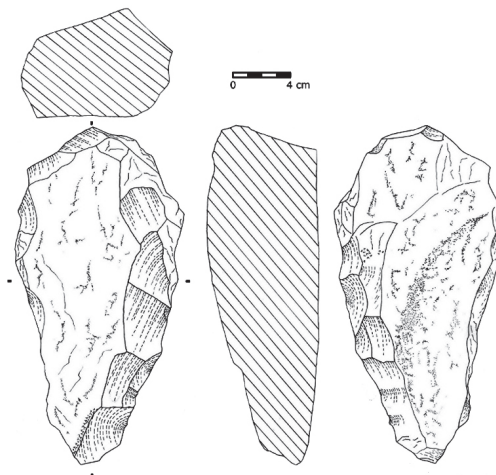
**Active surface:** 12 mm; V-morphology; relatively fresh appearance, although the most exposed area is rounded.



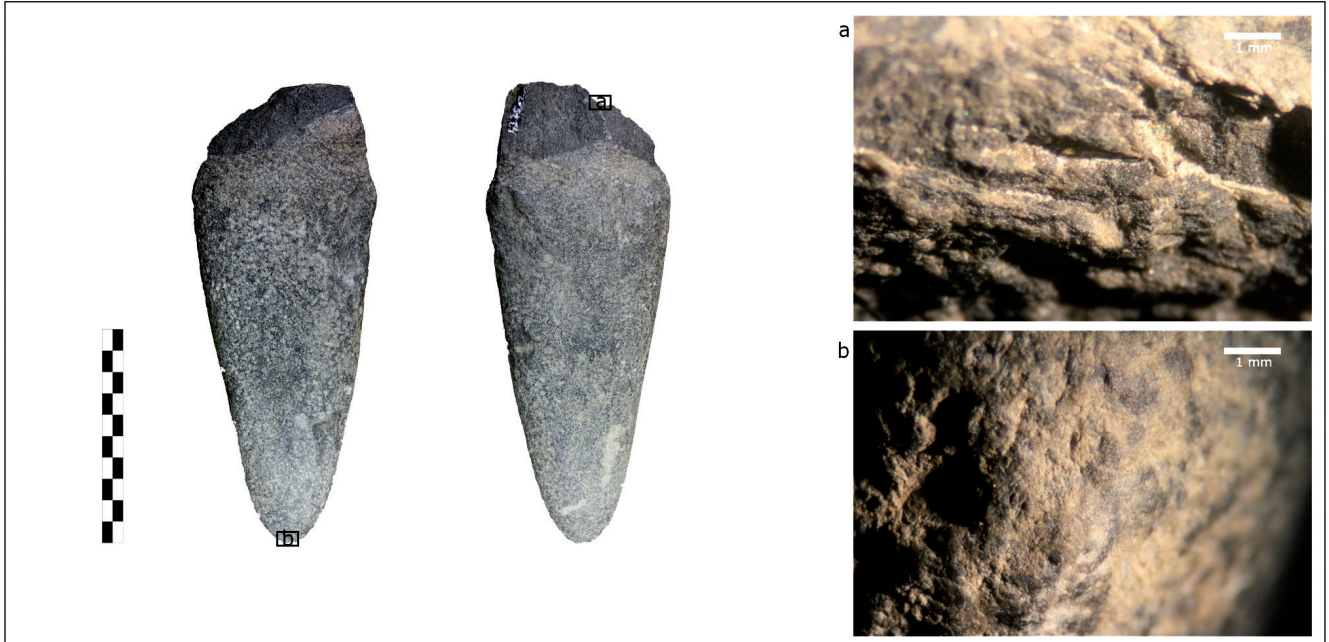


**Inventory number:** BEP-4275-2**Lithology:** Rock affected by contact metamorphism**Weight:** 824 g**Dimensions:** 210x84x34 mm**Preservation:** Complete**Artefact type:** Pointed pick of flat constitution, from which the proximal end is missing; reused as an abradar.**Plan view:** Triangular.**Longitudinal section:** Convex-concave.**Transversal section:** Convex-straight.**Manufacturing evidence:** All remaining passive surfaces have been transformed by pecking and the right-hand surface also shows signs of knapping.**Hafting evidence:** 4/4 on the proximal third (perimetral). Not observable on the proximal part.**Active surface:** (pick) 5 mm; V-morphology; rounding and small fractures; (abradar) 59x21 mm (obverse) and 138x58 mm (reverse) mm. The abraded surface covers part of the groove on the reverse, so that it can be said that the artefact was first used as a pick and then as an abradar.

Drawing: Antoni Llussà

**Inventory number:** BEP-4275-3**Lithology:** Rock affected by contact metamorphism**Weight:** 713 g**Dimensions:** 140x83x53 mm**Preservation:** Complete**Artefact type:** Pointed pick of massive constitution (distal end of a fractured pick being newly manufactured).**Plan view:** Triangular.**Longitudinal section:** Straight-convex.**Transversal section:** Straight-convex.**Manufacturing evidence:** The obverse, reverse and lateral surfaces have been transformed by pecking and in some cases by abrasion. Along the edge of the ancient fracture plane some small extractions that have been partly retouched by abrasion can be made out.**Hafting evidence:** 4/4 (perimetral groove).**Active surface:** 10 mm; V-morphology; fresh appearance although the most exposed area shows rounding and a few small conchoidal fractures.**Inventory number:** BEP-4275-4**Lithology:** Porphyritic granodiorite**Weight:** 2554 g**Dimensions:** 238x117x82 mm**Preservation:** Complete**Artefact type:** Preform of a pointed pick of massive constitution in the manufacturing process.**Plan view:** Triangular asymmetrical.**Longitudinal section:** Straight-straight.**Transversal section:** Straight-concave.**Manufacturing evidence:** The whole outline (proximal, distal, right and left surfaces) has been knapped.**Hafting evidence:** None.**Active surface:** The active surface is unused; it is a vertex with V-morphology, formed by the convergence of 4 surfaces.





**Inventory number:** BEP-4275-5

**Lithology:** Porphyry

**Weight:** 3666 g

**Dimensions:** 245x132x86 mm

**Preservation:** Complete

**Artefact type:** Preform of a pointed pick of massive constitution in the manufacturing process.

**Plan view:** Triangular asymmetrical.

**Longitudinal section:** Straight-convex.

**Transversal section:** Straight-convex.

**Manufacturing evidence:** Reverse and right surfaces have been retouched by knapping.

**Hafting evidence:** None.

**Active surface:** 53 mm; V-morphology; some step fractures located on the periphery of the active surface show that it has been slightly used.

**Inventory number:** BEP-4275-6

**Lithology:** Porphyritic granodiorite

**Weight:** 951 g

**Dimensions:** 110x84x78 mm

**Preservation:** Complete

**Artefact type:** Abrader.

**Plan view:** Semicircular.

**Longitudinal section:** Convex-straight.

**Transversal section:** Convex-convex.

**Manufacturing evidence:** Polished area on the left surface, perhaps due to handling (hand polishing).

**Hafting evidence:** None.

**Active surface:** Abraded area of 88x67 mm on the right surface. Its convex morphology and the absence of striations suggest abrasive contact with a material of low to medium hardness.

**Inventory number:** BEP-4275-7

**Lithology:** Porphyry

**Weight:** 548 g

**Dimensions:** 103x81x52 mm

**Preservation:** 1/3

**Artefact type:** Distal fragment of a pointed pick of massive constitution.

**Plan view:** Triangular.

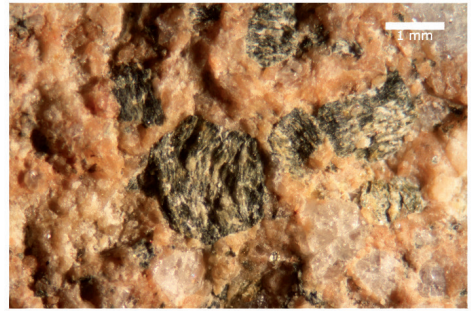
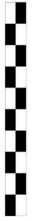
**Longitudinal section:** Straight-straight.

**Transversal section:** Convex-straight.

**Manufacturing evidence:** Pecking on obverse, reverse and both lateral surfaces; the right surface is also slightly affected by knapping.

**Hafting evidence:** Not observable.

**Active surface:** 30 mm; V-morphology; rounding and small conchoidal fractures spreading radially from the most exposed point.



**Inventory number:** BEP-4275-8

**Lithology:** Porphyry

**Weight:** 1288 g

**Dimensions:** 173x93x53 mm

**Preservation:** 2/3

**Artefact type:** Possible pick of flat constitution from which the distal end is missing.

**Plan view:** Triangular tendency.

**Longitudinal section:** Convex-concave.

**Transversal section:** Convex-straight.

**Manufacturing evidence:** The obverse, the proximal and both lateral surfaces have been transformed by pecking and the proximal and the lateral surfaces show signs of knapping.

**Hafting evidence:** 3/4 on the proximal third (notches on the obverse and lateral surfaces) and the heel (notch).

**Active surface:** Not observable, although some step fractures can be seen coming from the active surface, which has not been preserved.

**Inventory number:** BEP-4275-9

**Lithology:** Porphyritic granodiorite

**Weight:** 1023 g

**Dimensions:** 130x90x67 mm

**Preservation:** 1/3

**Artefact type:** Medial fragment of an undefined artefact. May be a preform.

**Plan view:** Triangular tendency.

**Longitudinal section:** Straight-straight.

**Transversal section:** Straight-straight.

**Manufacturing evidence:** Not observable.

**Hafting evidence:** The only transformation evidence observed is related to hafting. These are notches located at the intersection of the obverse and the right surface, the obverse and the left surface, the reverse and the left surface and the reverse and the right surface.

**Active surface:** Not observable.

**Inventory number:** BEP-4275-10

**Lithology:** Knotted slate

**Weight:** 1468 g

**Dimensions:** 175x125x42 mm

**Preservation:** 2/3

**Artefact type:** Possibly a pick of flat constitution from which the distal end is missing.

**Plan view:** Triangular tendency.

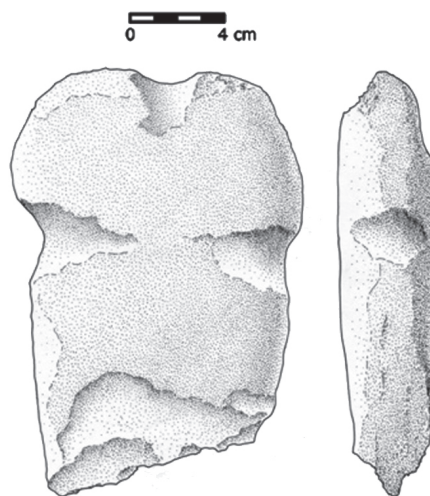
**Longitudinal section:** Straight-straight.

**Transversal section:** Convex-straight.

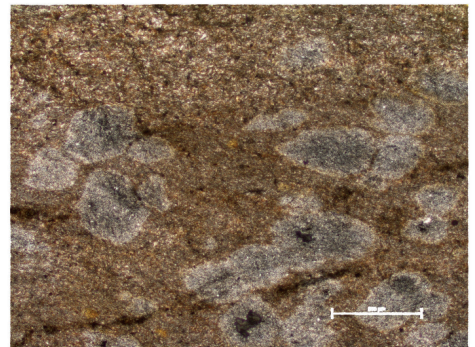
**Manufacturing evidence:** The obverse has been prepared by pecking and abrasion, while the proximal, right and left surfaces show knapping and pecking.

**Hafting evidence:** 3/4 on the proximal third (slightly developed groove on obverse; notches on lateral surfaces) and the heel (notch).

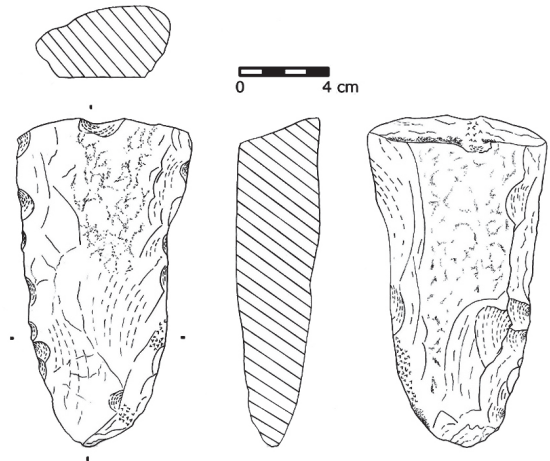
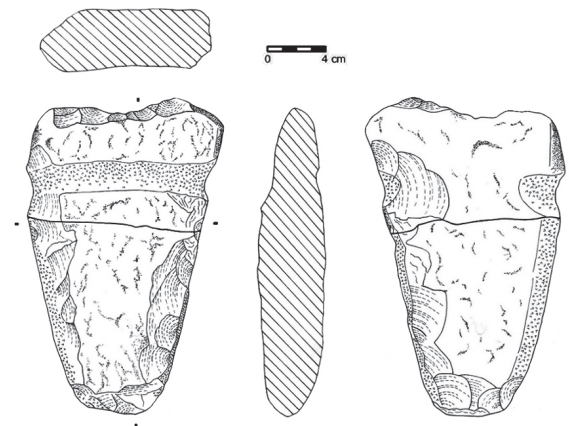
**Active surface:** Not observable.

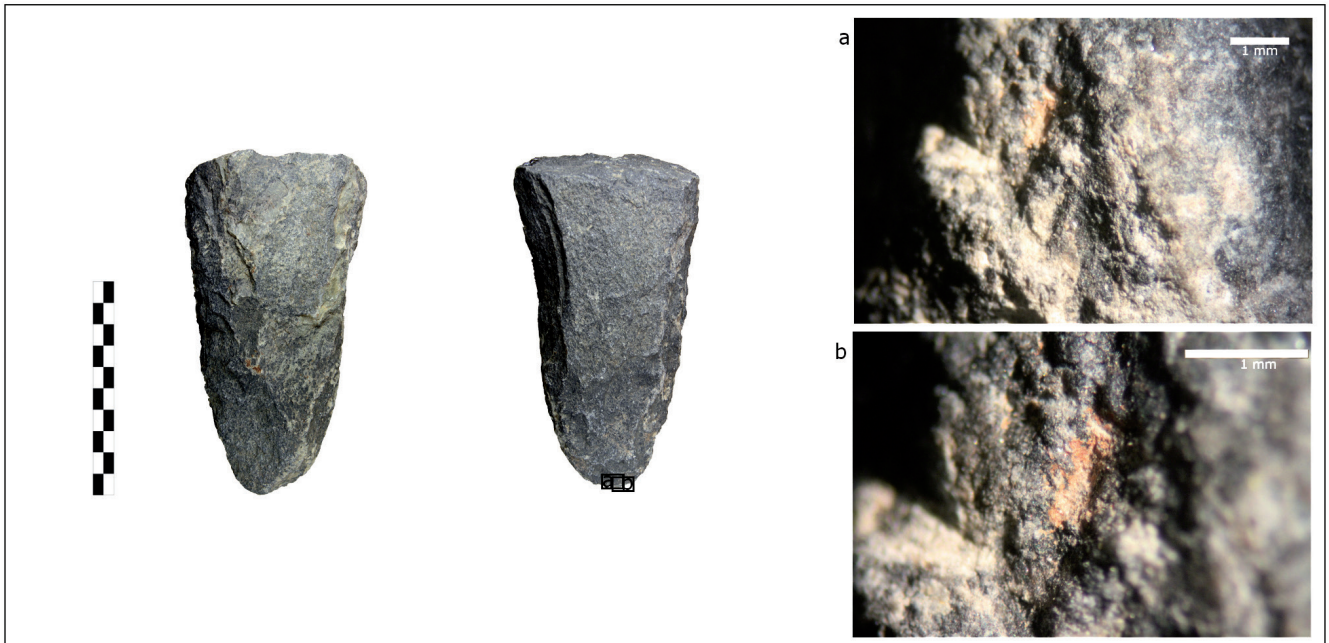


Drawing: Antoni Llussà



Thin section

**Inventory number:** BEP-4275-11**Lithology:** Rock affected by contact metamorphism**Weight:** 711 g**Dimensions:** 148x81x40 mm**Preservation:** Complete**Artefact type:** Pointed pick of flat constitution (distal part fractured in the process of being transformed)**Plan view:** Triangular.**Longitudinal section:** Convex-straight.**Transversal section:** Convex-straight.**Manufacturing evidence:** All surfaces have been transformed by knapping and/or pecking. In addition, the ancient fracture plane remaining on the proximal end has been smoothed by abrasion.**Hafting evidence:** On the heel (notch).**Active surface:** 60 mm; U-morphology; rounding.**Inventory number:** BEP-4275-12**Lithology:** Porphyry (?)**Weight:** 1838 g**Dimensions:** 192x114x62 mm**Preservation:** Complete**Artefact type:** Pointed pick of massive constitution.**Plan view:** Triangular.**Longitudinal section:** Convex-convex.**Transversal section:** Convex-convex.**Manufacturing evidence:** The proximal end has been knapped; the right and left surfaces appear pecked and knapped/pecked, respectively.**Hafting evidence:** 4/4 on the proximal third (perimetral groove) and heel (notch).**Active surfaces:** 85 mm; U-morphology; intensively used, showing rounding, striations, scratches and fractures (conchoidal, as well as stepped).**Inventory number:** BEP-4275-13/-33**Lithology:** Conglomeratic sandstone**Weight:** 1744 g**Dimensions:** 235x128x48 mm**Preservation:** Complete**Artefact type:** Pick of flat constitution (preform).**Plan view:** Triangular tendency.**Longitudinal section:** Straight-straight.**Transversal section:** Straight-straight.**Manufacturing evidence:** Knapping on proximal and distal ends, as well as on lateral surfaces; pecking on distal end and lateral surfaces.**Hafting evidence:** 3/4 on the proximal third (groove on obverse and lateral notches) and the heel (notch).**Active surface:** No use wear traces observable; the pick shows only evidence of preparation.



**Inventory number:** BEP-4275-14

**Lithology:** Sandstone

**Weight:** 1656 g

**Dimensions:** 168x108x56 mm

**Preservation:** 2/3

**Artefact type:** Possible pick of massive constitution, from which the distal end is missing. It was prepared on a tabular blank.

**Plan view:** Rectangular tendency.

**Longitudinal section:** Convex-straight.

**Transversal section:** Straight-convex.

**Manufacturing evidence:** The reverse and the proximal surface have been transformed by knapping.

**Hafting evidence:** 4/4 on the proximal end (groove on obverse and reverse; notches on lateral surfaces) and heel (notch).

**Active surface:** Not observable.

**Inventory number:** BEP-4275-15

**Lithology:** Porphyry

**Weight:** 1389 g

**Dimensions:** 188x100x50 mm

**Preservation:** 2/3

**Artefact type:** Possible pick of flat constitution from which the distal end is missing (in the process of being transformed?).

**Plan view:** Triangular tendency.

**Longitudinal section:** Irregular-convex.

**Transversal section:** Irregular-convex.

**Manufacturing evidence:** Both lateral surfaces have been transformed by knapping.

**Hafting evidence:** 2/4 on the proximal third (lateral notches) and the heel (notch).

**Active surface:** Not observable.

**Inventory number:** BEP-4275-16

**Lithology:** Rock affected by contact metamorphism

**Weight:** 644 g

**Dimensions:** 147x96x33 mm

**Preservation:** 1/3

**Artefact type:** Distal fragment of a pointed pick of flat constitution.

**Plan view:** Triangular tendency.

**Longitudinal section:** Not observable.

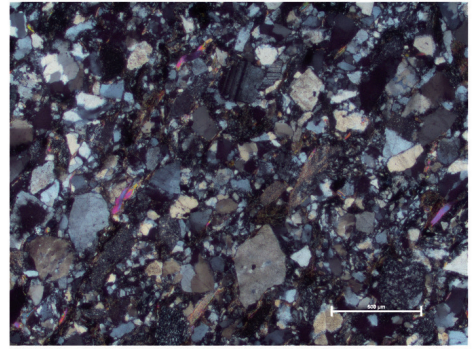
**Transversal section:** Not observable.

**Manufacturing evidence:** Among the preserved surfaces, the most highly transformed is the right one.

**Hafting evidence:** 3/3 (groove) on the fractured proximal third.

**Active surface:** 70 mm; U-morphology (?); rounding, striations and conchoidal, as well as step fractures.





Thin section



**Inventory number:** BEP-4275-17

**Lithology:** Porphyry

**Weight:** 1658 g

**Dimensions:** 166x84x70 mm

**Preservation:** 2/3

**Artefact type:** Possible pick of massive constitution without the distal end.

**Plan view:** Triangular tendency.

**Longitudinal section:** Convex-straight.

**Transversal section:** Convex-convex.

**Manufacturing evidence:** The obverse and the proximal and lateral surfaces have been transformed by pecking; in addition, the right surface shows evidence of abrasion.

**Hafting evidence:** 4/4 on the proximal third (perimetral groove) and heel (crossed groove connecting with the perimetral groove).

**Active surface:** Not observable.

**Inventory number:** BEP-4275-18

**Lithology:** Sandstone

**Weight:** 935 g

**Dimensions:** 148x98x43 mm

**Preservation:** 2/3

**Artefact type:** Possible pick without its distal end.

**Plan view:** Triangular tendency and asymmetrical.

**Longitudinal section:** Convex-straight.

**Transversal section:** Concave-convex.

**Manufacturing evidence:** No evidence of transformation prior to use has been observed, apart from hafting evidence.

**Hafting evidence:** 2/4 on the proximal third (lateral notches) and heel (notch).

**Active surface:** Not observable, although a large part of the obverse is covered by a step fracture coming from the active surface.

**Inventory number:** BEP-4275-19

**Lithology:** Rock affected by contact metamorphism

**Weight:** 836 g

**Dimensions:** 207x71x39 mm

**Preservation:** 1/3

**Artefact type:** Bevelled pick of flat constitution from which the right part is missing.

**Plan view:** Not observable.

**Longitudinal section:** Straight-straight.

**Transversal section:** Straight-straight.

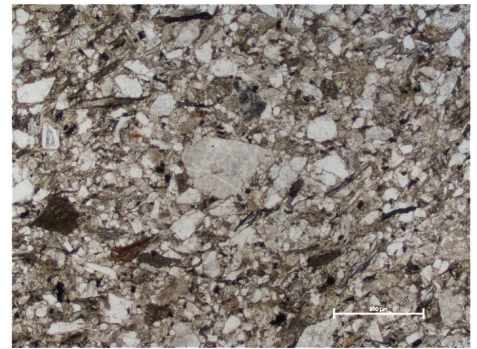
**Manufacturing section:** The obverse and reverse have been transformed by abrasion and/or pecking, while the proximal end has been knapped. The fracture plane located on the right surface was beginning to be regularised through knapping after the break.

**Hafting evidence:** 3/3 on the proximal third (groove on the obverse, the reverse and the left surface).

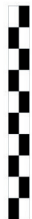
**Active surface:** The active surface is intensively transformed due to several conchoidal and step fractures. Only the remains of the ancient percussion surface are preserved, showing its bevelled morphology.



Drawing: Antoni Llussà



Thin section



**Inventory number:** BEP-4275-20

**Lithology:** Rock affected by contact metamorphism

**Weight:** 1405 g

**Dimensions:** 181x110x47 mm

**Preservation:** Complete

**Artefact type:** Bevelled pick of flat constitution.

**Plan view:** Trapezoidal tendency.

**Longitudinal section:** Straight-straight.

**Transversal section:** Straight-straight.

**Manufacturing evidence:** The most intensively transformed surface is the proximal one (heel), showing several extraction negatives and pecking.

**Hafting evidence:** 4/4 on the proximal third (groove on obverse and reverse and lateral notches) and the heel (notch).

**Active surface:** 62 mm; U-morphology; rounding and step fractures.

**Inventory number:** BEP-4275-21

**Lithology:** Porphyry

**Weight:** 1384 g

**Dimensions:** 168x76x68 mm

**Preservation:** 2/3

**Artefact type:** Possible pick of massive constitution from which the distal end is missing.

**Plan view:** Triangular tendency.

**Longitudinal section:** Straight-straight.

**Transversal section:** Convex-straight.

**Manufacturing evidence:** Pecking appears on the obverse, the reverse and both lateral surfaces; the proximal and right surfaces have been knapped.

**Hafting evidence:** 4/4 on the proximal third (perimetral groove) and butt (groove and lateral notches).

**Active surface:** Not observable.

**Inventory number:** BEP-4275-22

**Lithology:** Porphyry

**Weight:** 1468 g

**Dimensions:** 185x88x60 mm

**Preservation:** Complete

**Type of artefact:** Bevelled pick of massive constitution.

**Planta:** Rectangular.

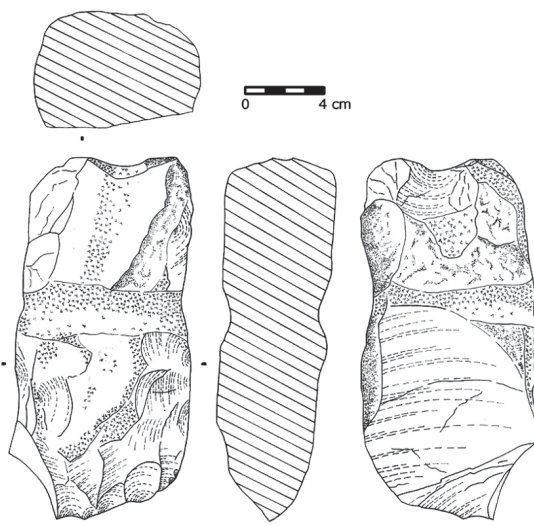
**Longitudinal section:** Straight-straight.

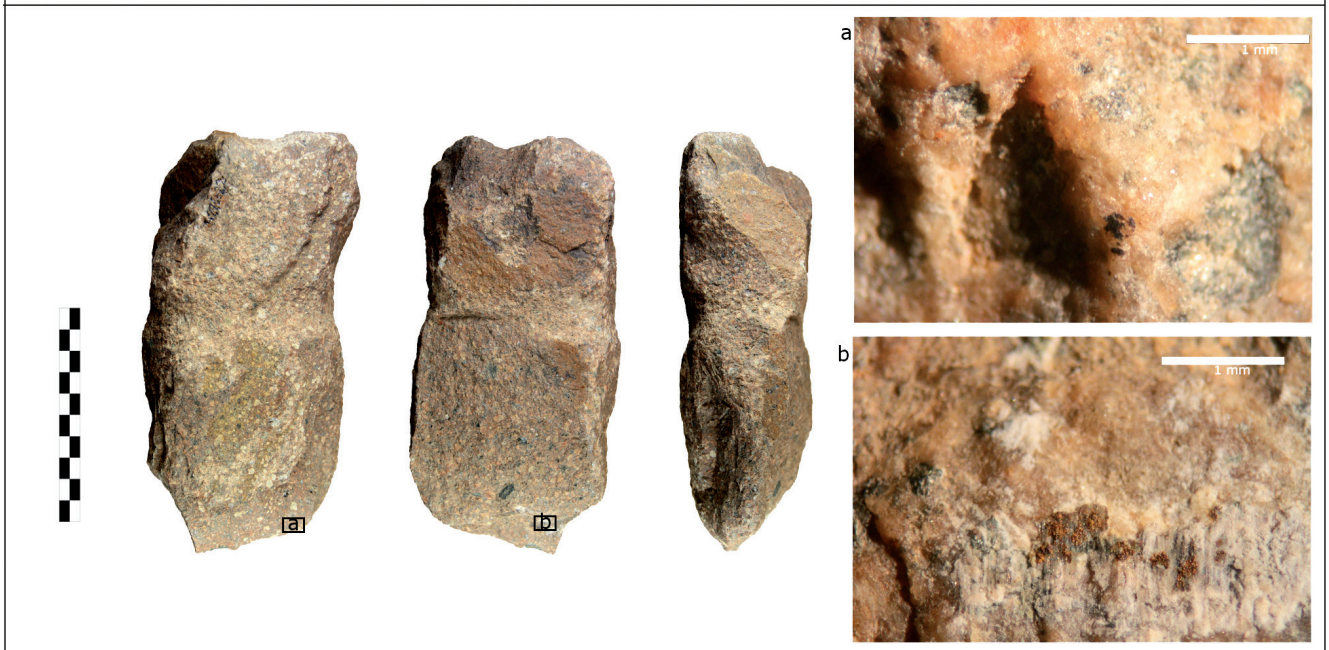
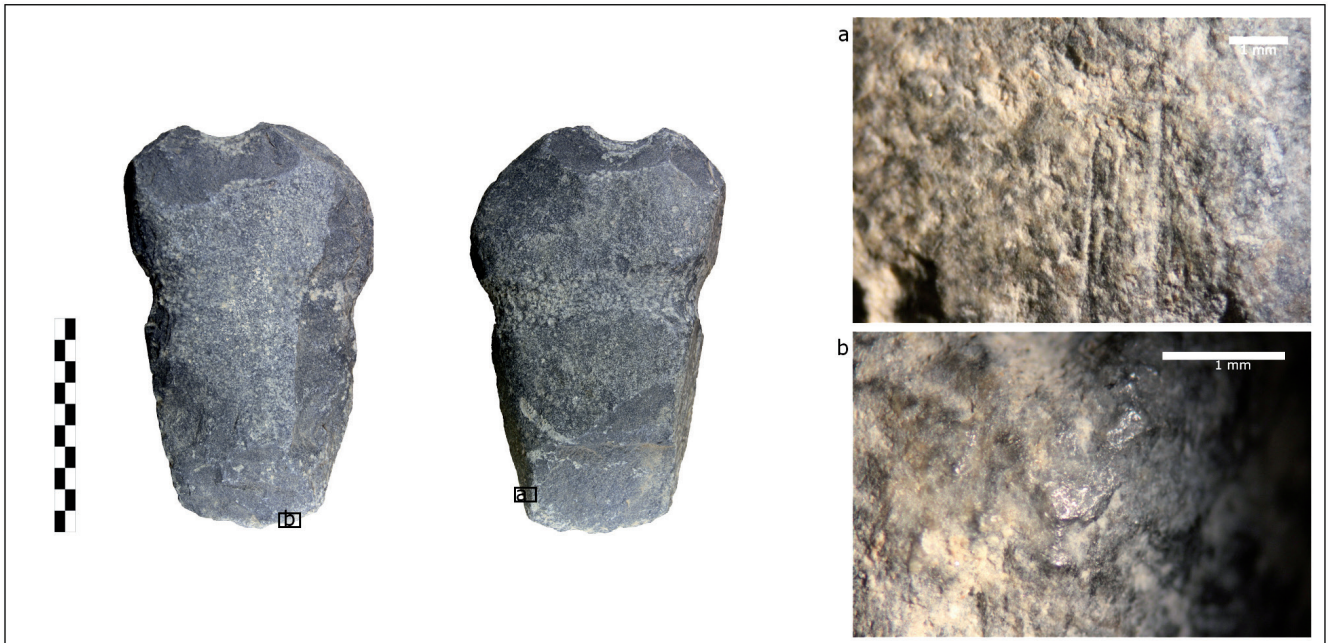
**Transversal section:** Straight-straight.

**Manufacturing evidence:** The obverse appears slightly retouched by pecking, while the lateral surfaces show pecking and/or knapping.

**Hafting evidence:** 4/4 on the proximal third (perimetral groove) and heel (groove connecting with the perimetral groove on the obverse).

**Active surface:** 73 mm; U-morphology, asymmetrical; conchoidal fractures on the obverse surface juxtaposed along the edge; step fractures on the reverse.





**Inventory number:** BEP-4275-23

**Lithology:** Rock affected by contact metamorphism

**Weight:** 805 g

**Dimensions:** 123x98x54 mm

**Preservation:** 1/3

**Artefact type:** Possible pick of flat constitution from which the distal end is missing.

**Plan view:** Triangular tendency.

**Longitudinal section:** Straight-straight.

**Transversal section:** Convex-straight.

**Manufacturing evidence:** The clearest evidence of preparation before use is shown on the left surface through knapping and pecking.

**Hafting evidence:** 4/4 on the proximal third (perimetral groove) and heel (notch).

**Active surface:** Not observable, although the artefact has been affected by a large extraction of abrupt morphology (step fracture) coming from the active surface and reaching the perimetral groove.

**Inventory number:** BEP-4275-24

**Lithology:** Hornfelsic slate

**Weight:** 1132 g

**Dimensions:** 135x86x68 mm

**Preservation:** 2/3

**Artefact type:** Possible pick of massive constitution from which the distal part is missing.

**Plan view:** Triangular tendency.

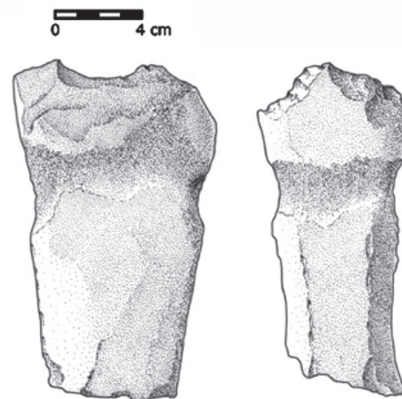
**Longitudinal section:** Concave-straight.

**Transversal section:** Straight-straight.

**Manufacturing evidence:** The obverse, reverse and proximal surface have been transformed, first by knapping and then by abrasion.

**Hafting evidence:** 4/4 on the proximal third (perimetral groove) and the butt (2 grooves, one of them lateral).

**Active surface:** Not observable.



Drawing: Antoni Llussà

**Inventory number:** BEP-4275-25

**Lithology:** Rock affected by contact metamorphism

**Weight:** 795 g

**Dimensions:** 165x90x40 mm

**Preservation:** Complete

**Artefact type:** Bevelled pick of flat constitution.

**Plan view:** Trapezoidal, asymmetrical.

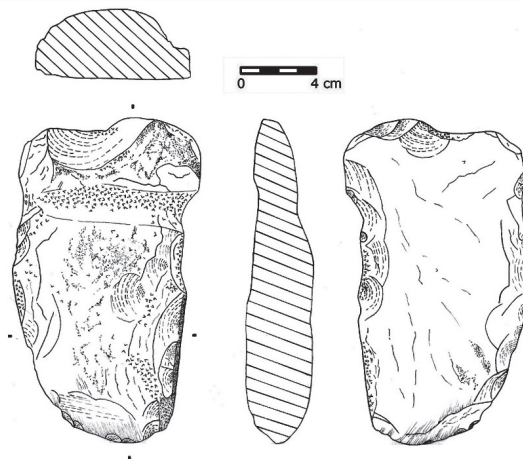
**Longitudinal section:** Convex-straight.

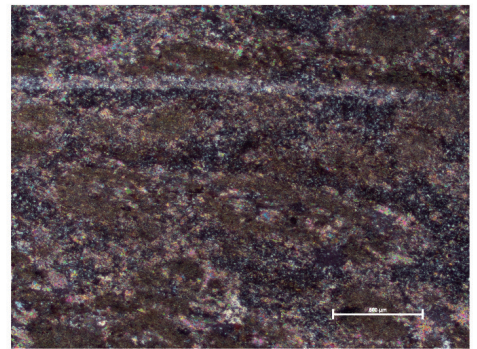
**Transversal section:** Convex-straight.

**Manufacturing evidence:** Pecking and polishing on the obverse; knapping and pecking on the lateral surfaces.

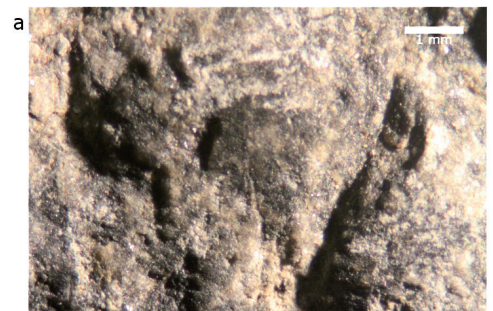
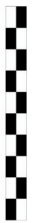
**Hafting evidence:** 3/4 on the proximal third (groove on the obverse and lateral notches); heel (notch).

**Active surface:** 49 mm; U-morphology, asymmetrical; rounding, striations and bifacial scratches.





Thin section



**Inventory number:** BEP-4275-26

**Lithology:** Sandstone

**Weight:** 958 g

**Dimensions:** 143x97x52 mm

**Preservation:** 2/3

**Artefact type:** Possible pointed pick from which the distal end is missing.

**Plan view:** Triangular tendency.

**Longitudinal section:** Convex-concave.

**Transversal section:** Convex-straight.

**Manufacturing evidence:** The reverse has been transformed by abrasion, the proximal surface shows evidence of knapping and pecking and the left surface has been knapped and abraded.

**Hafting evidence:** 4/4 on the proximal third (groove on obverse and reverse and lateral notches) and the heel (notch).

**Active surface:** Not observable.

**Inventory number:** BEP-4275-27

**Lithology:** Quartz diorite porphyry

**Weight:** 1594 g

**Dimensions:** 165x98x70 mm

**Preservation:** Complete

**Artefact type:** Pointed pick of massive constitution.

**Plan view:** Triangular.

**Longitudinal section:** Convex-straight.

**Transversal section:** Convex-convex.

**Manufacturing evidence:** All surfaces have been transformed prior to use, the obverse and reverse through knapping and abrasion; the right and left surfaces through knapping and pecking.

**Hafting evidence:** 4/4 on the proximal third (perimetral groove) and heel (groove connecting with the perimetral groove on the obverse).

**Active surface:** 45 mm; U-morphology; rounding.

**Inventory number:** BEP-4275-28

**Lithology:** Granodiorite

**Weight:** 1252 g

**Dimensions:** 165x108x44 mm

**Preservation:** 2/3

**Artefact type:** Possible pick of flat constitution from which the distal end is missing.

**Plan view:** Not observable.

**Longitudinal section:** Straight-straight.

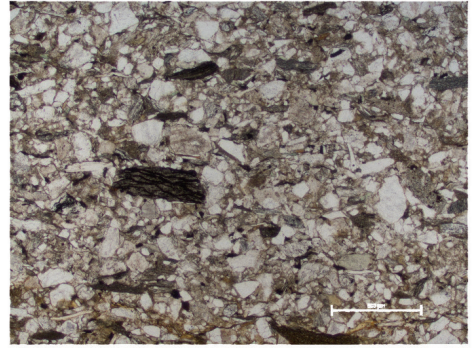
**Transversal section:** Straight-straight.

**Manufacturing evidence:** Knapping on the proximal and lateral surfaces; in addition, the lateral surfaces show pecking.

**Hafting evidence:** 2/4 on the proximal third (lateral notches).

**Active surface:** Not observable.





Thin section



**Inventory number:** BEP-4275-29

**Lithology:** Porphyry

**Weight:** 1169 g

**Dimensions:** 146x81x70 mm

**Preservation:** 2/3

**Artefact type:** Possible pick of massive constitution from which the distal end is missing.

**Plan view:** Triangular tendency.

**Longitudinal section:** Convex-straight.

**Transversal section:** Convex-convex.

**Manufacturing evidence:** The obverse, reverse and both lateral surfaces are covered by pecking.

**Hafting evidence:** 4/4 on the proximal third (perimetral groove) and heel (groove).

**Active surface:** Not observable, although step fractures coming from the active surface can be observed.

**Inventory number:** BEP-4275-30

**Lithology:** Rock affected by contact metamorphism

**Weight:** 1352 g

**Dimensions:** 184x87x53 mm

**Preservation:** Complete

**Artefact type:** Pick of massive constitution.

**Plan view:** Trapezoidal.

**Longitudinal section:** Convex-straight.

**Transversal section:** Convex-convex.

**Manufacturing evidence:** The reverse and lateral surfaces have been retouched by knapping and/or pecking.

**Hafting evidence:** 3/4 on proximal third (groove on the reverse and lateral notches) and the heel (notch).

**Active surface:** 42 mm; U-morphology, asymmetrical; rounding, striations and conchoidal and step fractures.

**Inventory number:** BEP-4275-31

**Lithology:** Porphyry

**Weight:** 1336 g

**Dimensions:** 170x100x56 mm

**Preservation:** Complete

**Artefact type:** Bevelled pick of flat constitution.

**Plan view:** Trapezoidal asymmetrical.

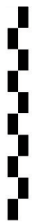
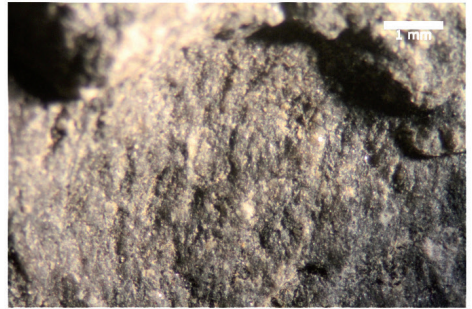
**Longitudinal section:** Straight-convex.

**Transversal section:** Straight-straight.

**Manufacturing evidence:** The reverse has been polished, the proximal surface shows pecking and both lateral surfaces show pecking and knapping respectively.

**Hafting evidence:** 2/4 on the proximal third (lateral notches).

**Active surface:** 56 mm; U-morphology; rounding (blunt surface) and fractures (one of them is a step fracture that reaches the upper third of the artefact).



**Inventory number:** BEP-4275-32

**Lithology:** Porphyry

**Weight:** 2253 g

**Dimensions:** 178x108x77 mm

**Preservation:** 2/3

**Artefact type:** Possible pick of massive constitution from which the distal end is missing.

**Plan view:** Triangular.

**Longitudinal section:** Convex-straight.

**Transversal section:** Convex-convex.

**Manufacturing evidence:** Pecking and abrasion on the obverse; knapping on the proximal and right surfaces; pecking on the left surface.

**Hafting evidence:** 3/4 on the proximal third (groove on obverse, reverse and left surfaces) and heel (oblique groove with respect to the transversal groove located on the proximal third).

**Active surface:** Not observable.

**Inventory number:** BEP-4275-34

**Lithology:** Granite

**Weight:** 550 g

**Dimensions:** 109x96x41 mm

**Preservation:** 1/3

**Artefact type:** Distal fragment of a possible pick of flat constitution (preform).

**Plan view:** Triangular tendency.

**Longitudinal section:** Straight-straight.

**Transversal section:** Straight-concave.

**Manufacturing evidence:** Knapping and pecking on the distal and lateral surfaces; in addition, both lateral surfaces have been transformed by abrasion.

**Hafting evidence:** No evidence of hafting.

**Active surface:** Fresh or slightly used surface; U-morphology, asymmetrical; small conchoidal fractures.

**Inventory number:** BEP-4275-35

**Lithology:** Porphyry

**Weight:** 1111 g

**Dimensions:** 145x82x66 mm

**Preservation:** Complete

**Artefact type:** Pointed pick of massive constitution.

**Plan view:** Triangular.

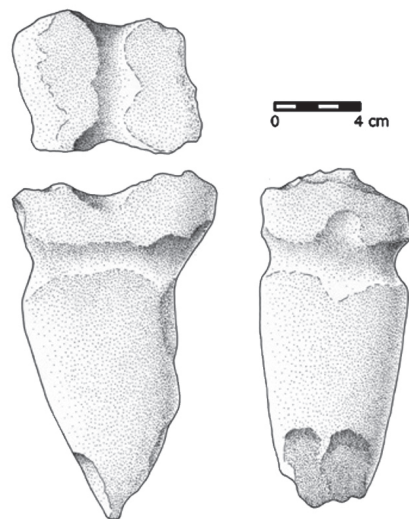
**Longitudinal section:** Straight-convex.

**Transversal section:** Straight-convex.

**Manufacturing evidence:** The obverse and both lateral surfaces have been transformed by pecking; the proximal end has been prepared by knapping.

**Hafting evidence:** 4/4 on the proximal third (perimetral groove) and the heel (groove).

**Active surface:** 2 mm; V-morphology (formed by the convergence of two large extractions, one of them reaching part of the perimetral groove); rounding and conchoidal fractures.



Drawing: Antoni Llussà



**Inventory number:** BEP-4275-36

**Lithology:** Rock affected by contact metamorphism

**Weight:** 418 g

**Dimensions:** 78x77x37 mm

**Preservation:** 1/3

**Artefact type:** Medial fragment of an indetermined artefact (bevelled artefact or broken pick?).

**Plan view:** Not observable.

**Longitudinal section:** Straight-convex.

**Transversal section:** Convex-convex.

**Manufacturing evidence:** Pecking on the obverse, the reverse and both lateral surfaces; in addition, the reverse has been transformed by abrasion.

**Hafting evidence:** Not observable.

**Active surface:** Not observable.

**Inventory number:** BEP-4275-37

**Lithology:** Porphyritic granodiorite

**Weight:** 990 g

**Dimensions:** 147x108x49 mm

**Preservation:** Complete

**Artefact type:** Pointed pick of flat constitution.

**Plan view:** Triangular.

**Longitudinal section:** Straight-straight.

**Transversal section:** Straight-concave.

**Manufacturing evidence:** Both lateral surfaces have been transformed by pecking-abrasion and knapping-pecking respectively.

**Hafting evidence:** Not observable.

**Active surface:** 34 mm; U-morphology, asymmetrical; fractures.

**Inventory number:** BEP-4275-38

**Lithology:** Rock affected by contact metamorphism

**Weight:** 838 g

**Dimensions:** 209x116x23 mm

**Preservation:** Complete

**Artefact type:** Discoidal artefact of flat constitution and indetermined function.

**Plan view:** Oval.

**Longitudinal section:** Straight-straight.

**Transversal section:** Straight-convex.

**Manufacturing evidence:** The upper, right and left contours of the flat blank have been retouched by knapping.

**Hafting evidence:** 2/4 on the medial part (notches on the lateral surfaces).

**Active surface:** The lower half of the artefact is covered by one large negative (step fracture) coming from the distal end and extending to the notch located on the right surface.



**Inventory number:** BEP-4275-39

**Lithology:** Granodiorite

**Weight:** 1138 g

**Dimensions:** 153x105x50 mm

**Preservation:** 1/3

**Artefact type:** Medial fragment of a possible pick of flat constitution from which the distal end is missing.

**Plan view:** Triangular tendency.

**Longitudinal section:** Straight-straight.

**Transversal section:** Straight-straight.

**Manufacturing evidence:** Both lateral surfaces have been retouched by pecking.

**Hafting evidence:** 4/4 on the proximal third (possible perimetral groove through which a transversal fracture extended).

**Active surface:** Not observable.

**Inventory number:** BEP-4275-40

**Lithology:** Conglomerate

**Weight:** 1568 g

**Dimensions:** 185x78x68 mm

**Preservation:** 1/3

**Artefact type:** Medial fragment of a possible pick of massive constitution.

**Plan view:** Triangular tendency.

**Longitudinal section:** Straight-straight.

**Transversal section:** Convex-straight.

**Manufacturing evidence:** The obverse has been pecked and abraded; both lateral surfaces have been transformed by knapping and knapping/pecking, respectively.

**Hafting evidence:** The artefact shows on its proximal third a groove on the obverse and a notch on the left surface. On the reverse no evidence of hafting can be made out.

**Active surface:** Not observable.

**Inventory number:** BEP-4275-41

**Lithology:** Granodiorite

**Weight:** 3582 g

**Dimensions:** 133x173x98 mm

**Preservation:** 1/3

**Artefact type:** Fragment of a grinding slab.

**Plan view:** Not observable.

**Longitudinal section:** Straight-straight.

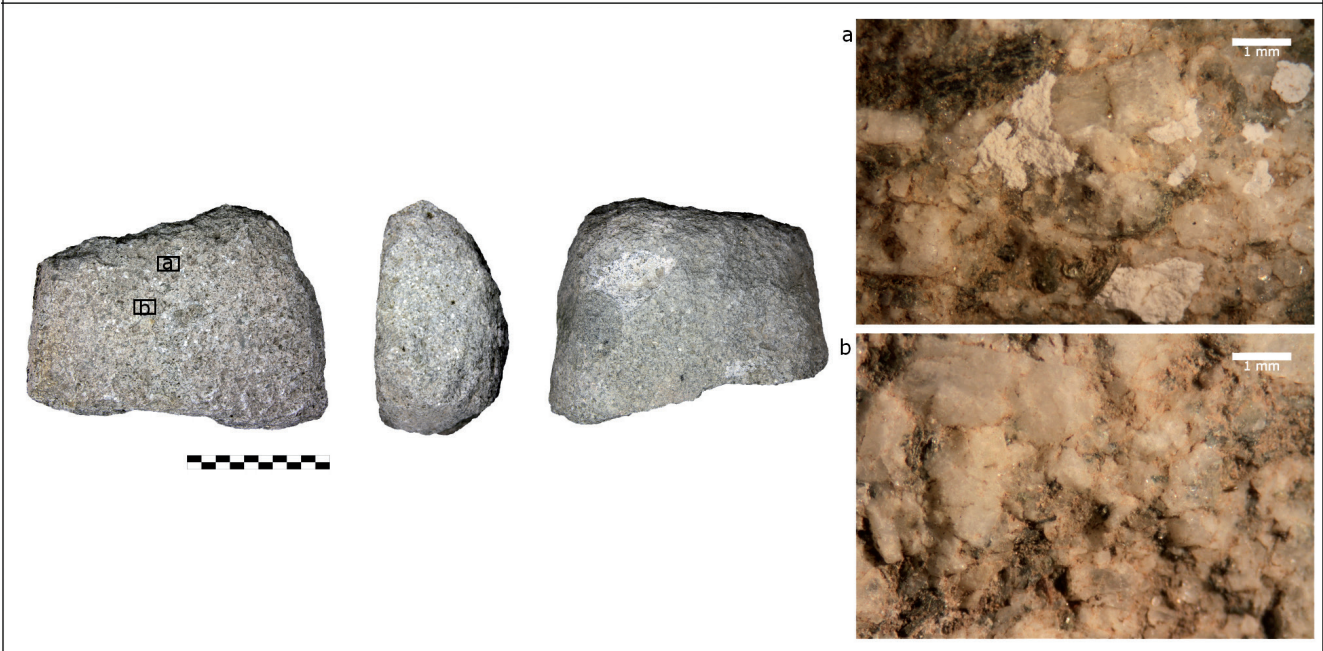
**Transversal section:** Convex-convex.

**Manufacturing evidence:** The proximal and both lateral surfaces of the grinding stone have been transformed by knapping.

**Hafting evidence:** Artefact without hafting evidence.

**Active surface:** The active surface of the artefact is located on the obverse, showing a totally levelled topography typical of grinding implements.





**Inventory number:** BEP-4275-42

**Lithology:** Granodiorite

**Weight:** 592 g

**Dimensions:** 70x111x54 mm

**Preservation:** 1/3

**Artefact type:** Possible pick of flat constitution in which the medial and distal parts are missing.

**Plan view:** Not observable.

**Longitudinal section:** Not observable-convex.

**Transversal section:** Not observable-convex.

**Manufacturing evidence:** Knapping on the obverse, the reverse and the proximal end; pecking on both lateral surfaces.

**Hafting evidence:** 4/4 on the proximal third (perimetral groove) and the heel (groove connected with the perimetral groove).

**Active surface:** Not observable.

**Inventory number:** BEP-4275-43

**Lithology:** Rock affected by contact metamorphism

**Weight:** 1295 g

**Dimensions:** 168x81x62 mm

**Preservation:** 2/3

**Artefact type:** Possible pointed pick of massive constitution from which the distal end is missing.

**Plan view:** Triangular tendency.

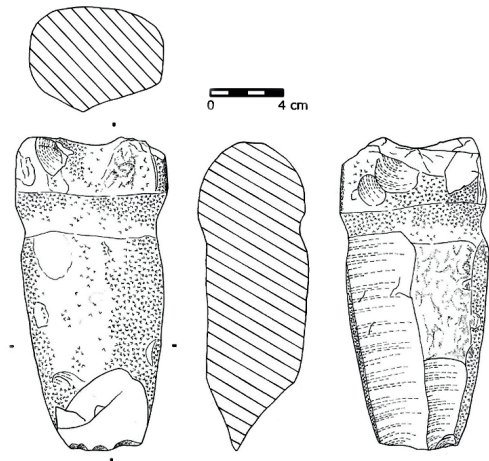
**Longitudinal section:** Convex-concave.

**Transversal section:** Convex-straight.

**Manufacturing evidence:** Passive surfaces intensively transformed prior to work (pecking on the obverse and both lateral surfaces).

**Hafting evidence:** 4/4 on the proximal third (perimetral groove) and the heel (slight hollow-notch).

**Active surface:** The active surface is affected by two large negatives (conchoidal and step fractures) due to use. The most recent one reaches the proximal third, splitting part of the groove on the reverse.



**Inventory number:** BEP-4275-44

**Lithology:** Porphyry

**Weight:** 1669 g

**Dimensions:** 177x113x59 mm

**Preservation:** 1/3

**Artefact type:** Possible pick in which the proximal and a large portion of the distal part are missing. Flat constitution.

**Plan view:** Triangular tendency, asymmetrical.

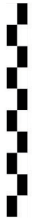
**Longitudinal section:** Straight-convex.

**Transversal section:** Straight-convex.

**Manufacturing evidence:** The lateral borders have been modified by abrasion and/or pecking.

**Hafting evidence:** Not observable.

**Active surface:** Not observable.



**Inventory number:** BEP-4275-45

**Lithology:** Porphyry

**Weight:** 1022 g

**Dimensions:** 118x90x64 mm

**Preservation:** 1/3

**Artefact type:** Possible pick of massive constitution, from which the distal end is missing.

**Plan view:** Not observable.

**Longitudinal section:** Straight-straight.

**Transversal section:** Straight-straight.

**Manufacturing evidence:** Knapping on the proximal and both lateral surfaces.

**Hafting evidence:** 4/4 on the proximal third (perimetral groove) and the heel (notch).

**Active surface:** Not observable, although the distal ends of two negatives are still preserved, affecting the obverse and the reverse.

**Inventory number:** BEP-4275-46/-50

**Lithology:** Porphyritic granodiorite

**Weight:** 2906 g

**Dimensions:** 381x85x73 mm

**Preservation:** Complete

**Artefact type:** Pointed pick. The longest specimen in the assemblage, although it is broken into two pieces; the lower part has been retouched after the break.

**Plan view:** Triangular-elongated.

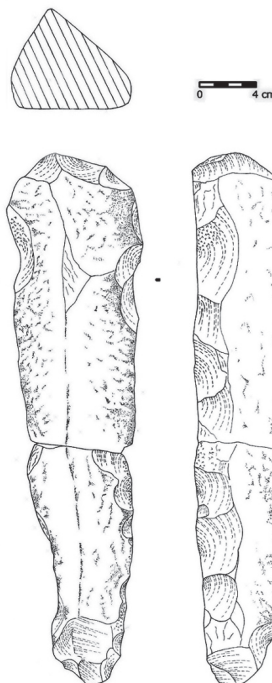
**Longitudinal section:** Convex-straight.

**Transversal section:** Convex-straight.

**Manufacturing evidence:** Both lateral edges have been retouched through knapping and pecking, the obverse shows pecking and the proximal surface is knapped.

**Hafting evidence:** Both pieces show more or less developed hafting devices. The upper half has been provided by lateral notches on the proximal third. The lower piece shows two notches in each of the lateral surfaces and, at the same level, a slight hollow on the obverse which has been prepared by pecking. In addition, a small notch can be observed on the upper part of the fracture plane. All this evidence could be related to a new hafting device, installed after the break of the long pick.

**Active surface:** 64 mm; U-morphology, asymmetrical; mainly conchoidal extractions.



**Inventory number:** BEP-4275-47

**Lithology:** Porphyry

**Weight:** 1568 g

**Dimensions:** 175x88x73 mm

**Preservation:** 2/3

**Artefact type:** Possible pick of massive constitution from which the distal part is missing (preform?).

**Plan view:** Triangular tendency.

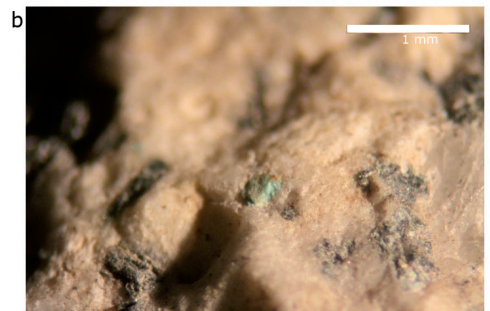
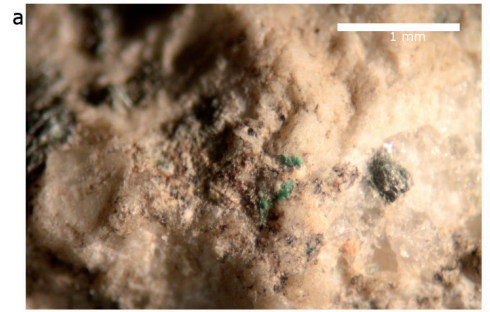
**Longitudinal section:** Convex-straight.

**Transversal section:** Convex-straight.

**Manufacturing evidence:** Knapping on the obverse, reverse, proximal and left surfaces; pecking on the right and left surfaces.

**Hafting evidence:** 1/4 on the proximal third (notch on the left surface).

**Active surface:** Not observable.



**Inventory number:** BEP-4275-48

**Lithology:** Porphyry

**Weight:** 784 g

**Dimensions:** 185x63x41 mm

**Preservation:** Complete

**Artefact type:** Pointed pick of flat constitution.

**Plan view:** Triangular asymmetrical.

**Longitudinal section:** Straight-concave.

**Transversal section:** Straight-straight.

**Manufacturing evidence:** The proximal and right and left surfaces have been transformed by knapping and the proximal surface also shows pecking.

**Hafting evidence:** 2/4 on the proximal third (lateral notches) and the heel (notch).

**Active surface:** 69 mm; V-morphology, asymmetrical; rounding and striations.

**Inventory number:** BEP-4275-49

**Lithology:** Sandstone

**Weight:** 692 g

**Dimensions:** 136x84x47 mm

**Preservation:** 2/3

**Artefact type:** Bevelled pick of flat constitution from which the proximal end is missing.

**Plan view:** Irregular.

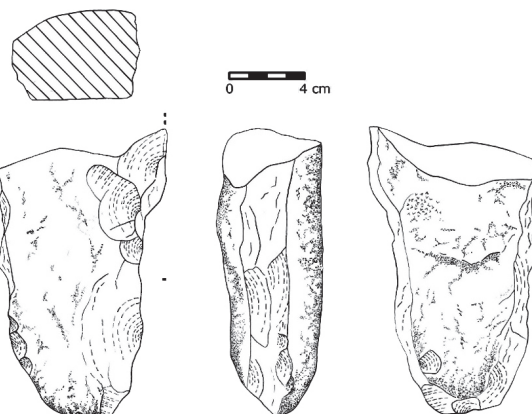
**Longitudinal section:** Convex/concave-convex/concave.

**Transversal section:** Convex-straight.

**Manufacturing evidence:** All preserved passive surfaces (obverse, reverse, right and left) were prepared prior to use by knapping and/or pecking; the obverse and reverse have also been polished.

**Hafting evidence:** Not observable.

**Active surface:** 34 mm; U-morphology; rounding and conchoidal and step fractures. The right surface of the artefact is an old fracture plane formed by the detachment of a large negative from the active surface. Afterwards the fracture plane was regularised and removed through knapping.



**Inventory number:** BEP-4275-51

**Lithology:** Granodiorite

**Weight:** 1120 g

**Dimensions:** 174x90x57 mm

**Preservation:** 2/3

**Artefact type:** Possible pick of flat constitution from which the distal part is missing.

**Plan view:** Triangular tendency, asymmetrical.

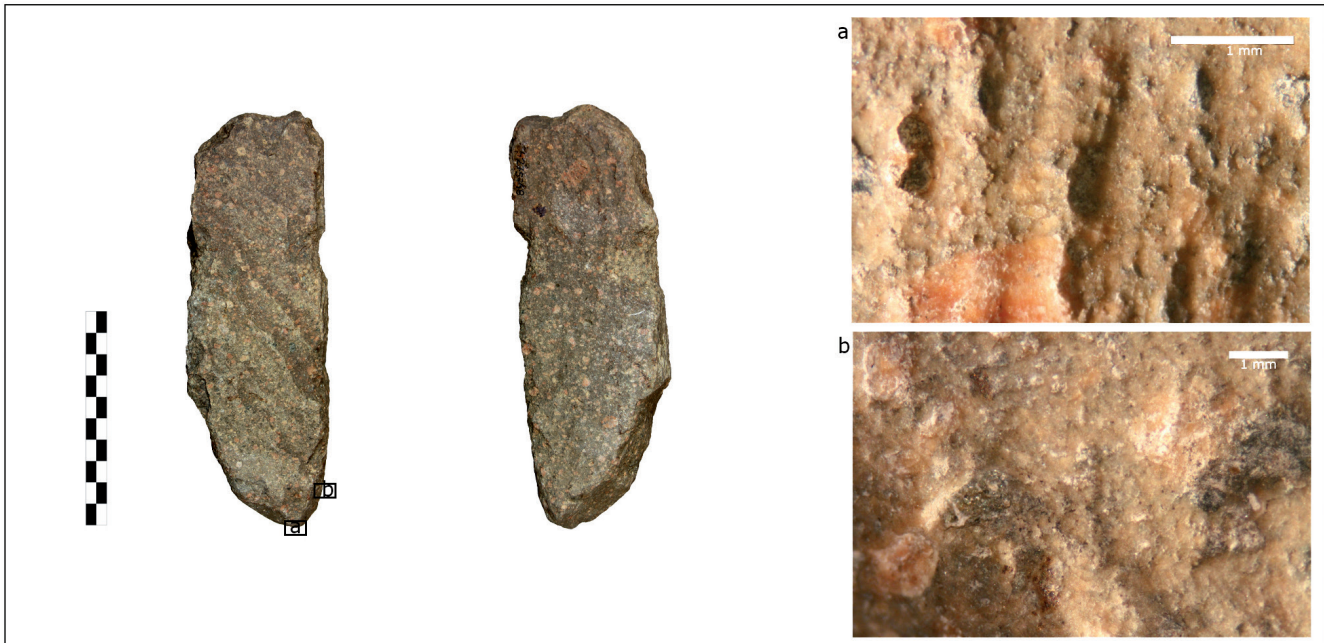
**Longitudinal section:** Straight-straight.

**Transversal section:** Sharp edge-straight.

**Manufacturing evidence:** The proximal surface has been transformed by pecking and both lateral surfaces show knapping and pecking.

**Hafting evidence:** 3/4 on the proximal third (notches on the sharp edge of the obverse and on both lateral surfaces) and the heel (notch).

**Active surface:** Not observable.



**Inventory number:** BEP-4275-52

**Lithology:** Porphyritic granodiorite

**Weight:** 1074 g

**Dimensions:** 151x86x60 mm

**Preservation:** 1/3

**Artefact type:** Possible pick of massive constitution from which the distal part is missing.

**Plan view:** Not observable.

**Longitudinal section:** Straight-straight.

**Transversal section:** Sharp edge-straight.

**Manufacturing evidence:** Knapping on the proximal and both lateral surfaces.

**Hafting evidence:** 3/4 probably on the proximal third (notches on the obverse and on both lateral surfaces).

**Active surface:** Not observable.

**Inventory number:** BEP-4275-53

**Lithology:** Sandstone

**Weight:** 985 g

**Dimensions:** 177x70x63 mm

**Preservation:** 2/3

**Artefact type:** Possible pick of massive constitution from which a large part of the active surface (distal end) is missing.

**Plan view:** Triangular tendency.

**Longitudinal section:** Convex-concave.

**Transversal section:** Convex-straight.

**Manufacturing evidence:** The obverse has been retouched by pecking on its lower part; the lateral surfaces show evidence of knapping.

**Hafting evidence:** 2/4 on the proximal third (notches are limited to two of the four lateral corners of the artefact) and the heel (notch).

**Active surface:** Not observable.

**Inventory number:** BEP-4275-54

**Lithology:** Rock affected by contact metamorphism

**Weight:** 344 g

**Dimensions:** 90x72x33 mm

**Preservation:** 1/3

**Artefact type:** Possible bevelled artefact (axe/adze?) from which the distal end is missing; in the process of being transformed (preform).

**Plan view:** Not observable.

**Longitudinal section:** Straight-convex.

**Transversal section:** Straight-straight.

**Manufacturing evidence:** The obverse and the reverse show evidence of pecking, especially on both hollows located in the central part of each of the surfaces. The artefact has been slightly abraded in the area close to the upper edge. Moreover, the lateral surfaces have been retouched by pecking.

**Hafting evidence:** No evidence of hafting.

**Active surface:** 76 mm; the slight polishing near the "cutting edge" and the (still) high frequency of pecking in this area suggest that it could be a preform for a bevelled artefact.





**Inventory number:** BEP-4275-55

**Lithology:** Porphyritic granodiorite

**Weight:** 926 g

**Dimensions:** 150x80x63 mm

**Preservation:** 1/3

**Artefact type:** Fragment of a possible pick of massive constitution.

**Plan view:** Triangular tendency.

**Longitudinal section:** Straight-not observable.

**Transversal section:** Straight-not observable.

**Manufacturing evidence:** The only surfaces preserved are natural.

**Hafting evidence:** The artefact does not show clear evidence of hafting devices. Only on the intersection between the obverse and the left surface can a superficial notch be observed that could be related to hafting.

**Active surface:** Not observable.

**Inventory number:** BEP-4275-56

**Lithology:** Slate

**Weight:** 904 g

**Dimensions:** 250x83x28 mm

**Preservation:** Complete

**Artefact type:** Pointed pick of flat constitution.

**Plan view:** Trapezoidal asymmetrical.

**Longitudinal section:** Convex-straight.

**Transversal section:** Convex-convex.

**Manufacturing evidence:** The piece does not show evidence of transformation prior to use.

**Hafting evidence:** 2/4 on the proximal third (lateral notches).

**Active surface:** 25 mm; U-morphology, asymmetrical; rounding and step fractures.

**Inventory number:** BEP-4275-57

**Lithology:** Flint

**Weight:** 147 g

**Dimensions:** 62x52x40 mm

**Preservation:** Complete

**Artefact type:** Hammer stone.

**Plan view:** Circular-irregular.

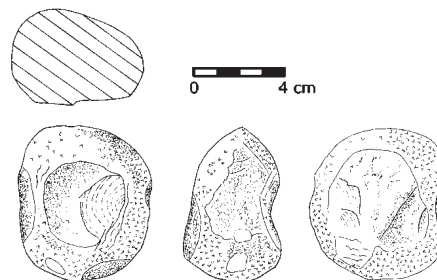
**Longitudinal section:** Straight-concave.

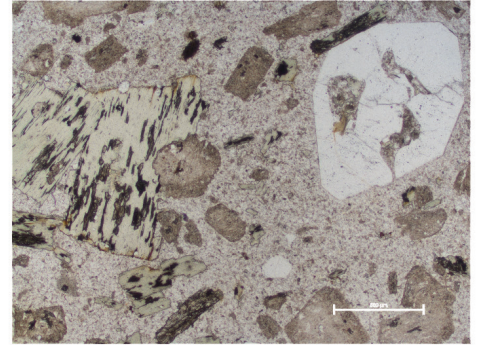
**Transversal section:** Concave-straight/concave.

**Manufacturing evidence:** The piece does not show any evidence of preparation prior to use.

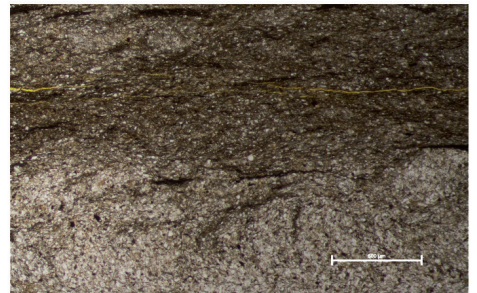
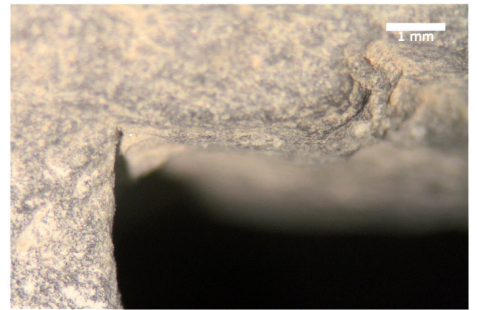
**Hafting evidence:** The piece does not show any evidence of hafting.

**Active surface:** The used surface is a perimetral facet covering the contour of the artefact. It is covered by pecking and step fractures, the most recent located along the borders of the facet. The type of use-wear suggests the artefact was involved in knapping/retouching.





Thin section



Thin section



**Inventory number:** BEP-4275-58

**Lithology:** Rock affected by contact metamorphism

**Weight:** 372 g

**Dimensions:** 87x58x55 mm

**Preservation:** 1/3

**Artefact type:** Possible pick in which the medial and distal parts are missing (reused fragment).

**Plan view:** Not observable.

**Longitudinal section:** Straight-not observable.

**Transversal section:** Straight-convex.

**Manufacturing evidence:** The piece does not show any clear evidence of preparation prior to use.

**Hafting evidence:** 4/4 (groove, especially marked on the corners) and the heel (notch).

**Active surface:** Not observable.

**Inventory number:** BEP-4275-59

**Lithology:** Limestone

**Weight:** 733 g

**Dimensions:** 134x133x53 mm

**Preservation:** Complete

**Artefact type:** Slightly rounded clast (cobble).

**Plan view:** Irregular.

**Longitudinal section:** Irregular-straight.

**Transversal section:** Convex-straight.

**Manufacturing evidence:** The piece does not show any evidence of preparation prior to use.

**Hafting evidence:** The piece does not show any evidence of hafting.

**Active surface:** The piece does not show any evidence of use.

**Inventory number:** BEP-4275-60

**Lithology:** Sandstone

**Weight:** 625 g

**Dimensions:** 128x100x37 mm

**Preservation:** Complete

**Artefact type:** Rubber.

**Plan view:** Oval.

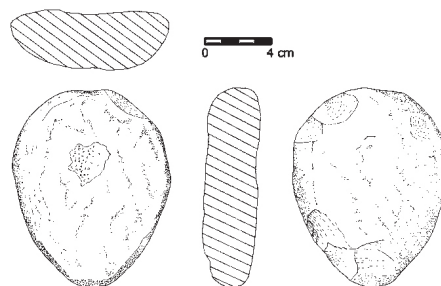
**Longitudinal section:** Straight/concave-straight.

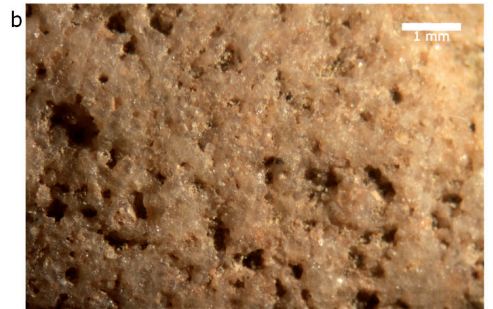
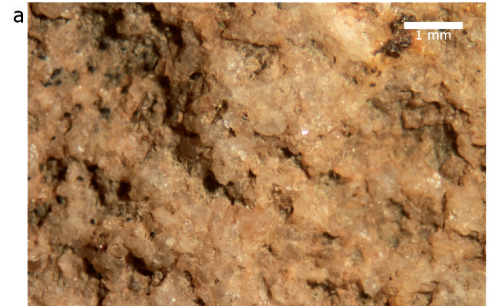
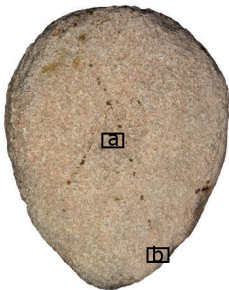
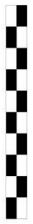
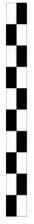
**Transversal section:** Straight/concave-convex.

**Manufacturing section:** On the reverse a central hollow can be observed covered by polishing and superficial pecking. The lower surface has also been transformed by pecking.

**Hafting evidence:** The artefact does not show any evidence of hafting.

**Active surface:** The active grinding surface measures 114x82 mm; the central hollow measures 33x26 mm.





**Inventory number:** BEP-4275-61

**Lithology:** Sandstone

**Weight:** 254 g

**Dimensions:** 133x77x23mm

**Preservation:** 1/3

**Artefact type:** Fragment of a natural cobble that could have served as raw material.

**Plan view:** Not observable.

**Longitudinal section:** Straight-not observable.

**Transversal section:** Straight-not observable.

**Manufacturing evidence:** The piece does not show any evidence whatsoever of transformation.

**Hafting evidence:** The piece does not show any evidence of hafting.

**Active surface:** The piece does not appear to have any used surfaces.

**Inventory number:** BEP-4275-62

**Lithology:** Granodiorite

**Weight:** 3475 g

**Dimensions:** 235x169x60 mm

**Preservation:** Complete

**Artefact type:** Grinding slab.

**Plan view:** Oval.

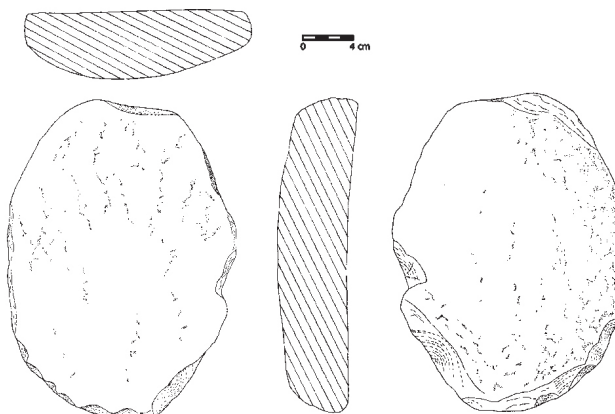
**Longitudinal section:** Concave-convex.

**Transversal section:** Straight-convex.

**Manufacturing evidence:** The reverse shows pecking and abrasion; the contour (proximal, distal and both lateral surfaces) has been knapped.

**Hafting evidence:** Piece without hafting evidence.

**Active surface:** The grinding surface measures 228x162 mm.



**Inventory number:** BEP-4275-63

**Lithology:** Dolomite

**Weight:** 3307 g

**Dimensions:** 314x146x52 mm

**Preservation:** 1/3

**Artefact type:** Stone plate fragment.

**Plan view:** Irregular.

**Longitudinal section:** Straight-straight.

**Transversal section:** Straight-concave.

**Manufacturing evidence:** The piece does not show any evidence of preparation.

**Hafting evidence:** The piece does not show any evidence of hafting.

**Active surface:** The piece does not show any evidence of use.



**Inventory number:** BEP-4275-64

**Lithology:** Quartz diorite porphyry

**Weight:** 6000 g

**Dimensions:** 320x177x64 mm

**Preservation:** Complete

**Artefact type:** Stone slab.

**Plan view:** Trapezoidal.

**Longitudinal section:** Concave-straight.

**Transversal section:** Straight-straight.

**Manufacturing evidence:** The piece does not show any evidence of preparation prior to use.

**Hafting evidence:** The piece does not show any evidence of hafting.

**Active surface:** The active surface shows evidence of abrasion measuring 245x157 mm.

**Inventory number:** BEP-4276

**Lithology:** Porphyritic granodiorite

**Weight:** 951 g

**Dimensions:** 163x88x79 mm

**Preservation:** 2/3

**Artefact type:** Possible pick of massive constitution from which the distal end is missing.

**Plan view:** Triangular tendency.

**Longitudinal section:** Straight-straight.

**Transversal section:** Convex-straight.

**Manufacturing evidence:** The obverse, the proximal surface and both lateral surfaces show pecking; in addition, the obverse and the left surface have been transformed by abrasion.

**Hafting evidence:** 4/4 on the proximal third (perimetral groove) and the heel (groove connected on the obverse with the perimetral groove).

**Active surfaces:** Not observable.

**Inventory number:** BEP-4277

**Lithology:** Porphyry

**Weight:** 1583 g

**Dimensions:** 189x75x70 mm

**Preservation:** 2/3

**Artefact type:** Pointed pick of massive constitution from which the proximal end is missing.

**Plan view:** Triangular asymmetrical.

**Longitudinal section:** Convex-straight.

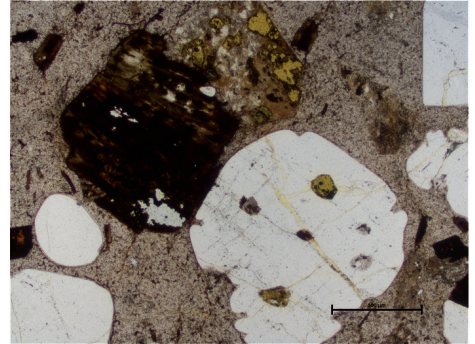
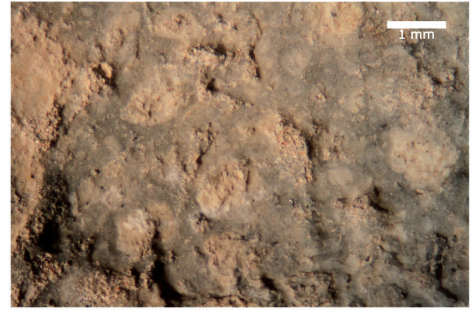
**Transversal section:** Convex-straight.

**Manufacturing evidence:** The obverse has been retouched by pecking and abrasion; the lateral surfaces show knapping and pecking, respectively.

**Hafting evidence:** 4/4 on the proximal third (perimetral groove); the heel is not preserved.

**Active surface:** 20 mm; U-morphology, asymmetrical; rounding and fractures.





**Inventory number:** BEP-4278

**Lithology:** Rock affected by contact metamorphism

**Weight:** 983 g

**Dimensions:** 163x75x58 mm

**Preservation:** Complete

**Artefact type:** Pointed pick of massive constitution.

**Plan view:** Triangular.

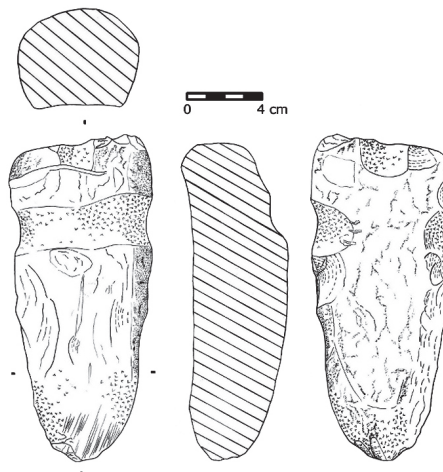
**Longitudinal section:** Convex-convex.

**Transversal section:** Convex-straight.

**Manufacturing evidence:** The obverse, the reverse, both lateral surfaces and the proximal surface have been prepared by knapping and/or pecking.

**Hafting evidence:** 3/4 on the proximal third (more or less developed groove on the obverse and the reverse and both lateral surfaces) and the heel (groove connected with the perimetral groove).

**Active surface:** 35 mm; U-morphology; rounding, striations and chipping extending radially from the centre (the most exposed point of the active surface).



**Inventory number:** BEP-4765

**Lithology:** Siliciclastic limestone

**Weight:** 913 g

**Dimensions:** 110x95x64 mm

**Preservation:** Complete

**Artefact type:** Percussor.

**Plan view:** Circular.

**Longitudinal section:** Concave-concave.

**Transversal section:** Concave-convex.

**Manufacturing evidence:** The piece does not show any evidence of preparation prior to use.

**Hafting evidence:** The piece does not show any evidence of hafting.

**Active surface:** The used surface constitutes a perimetral facet extending all over the contours without interruption. This facet is covered by more or less superficial pecking and step fractures. The latter appear on the periphery of the facet.

**Inventory number:** BEP-4766

**Lithology:** Granodiorite

**Weight:** 1265 g

**Dimensions:** 155x85x76 mm

**Preservation:** Complete

**Artefact type:** Pointed pick of massive constitution.

**Plan view:** Triangular.

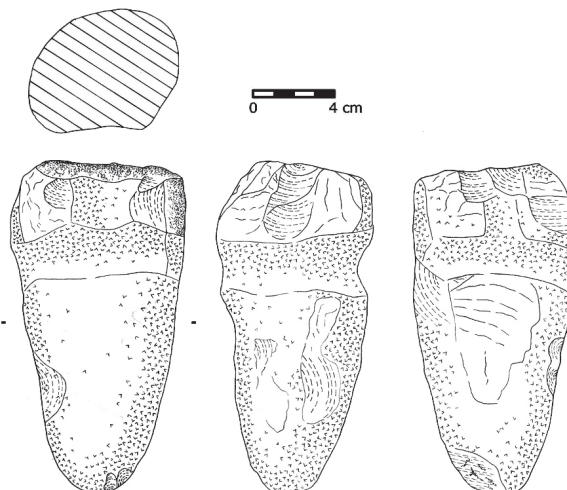
**Longitudinal section:** Convex-concave.

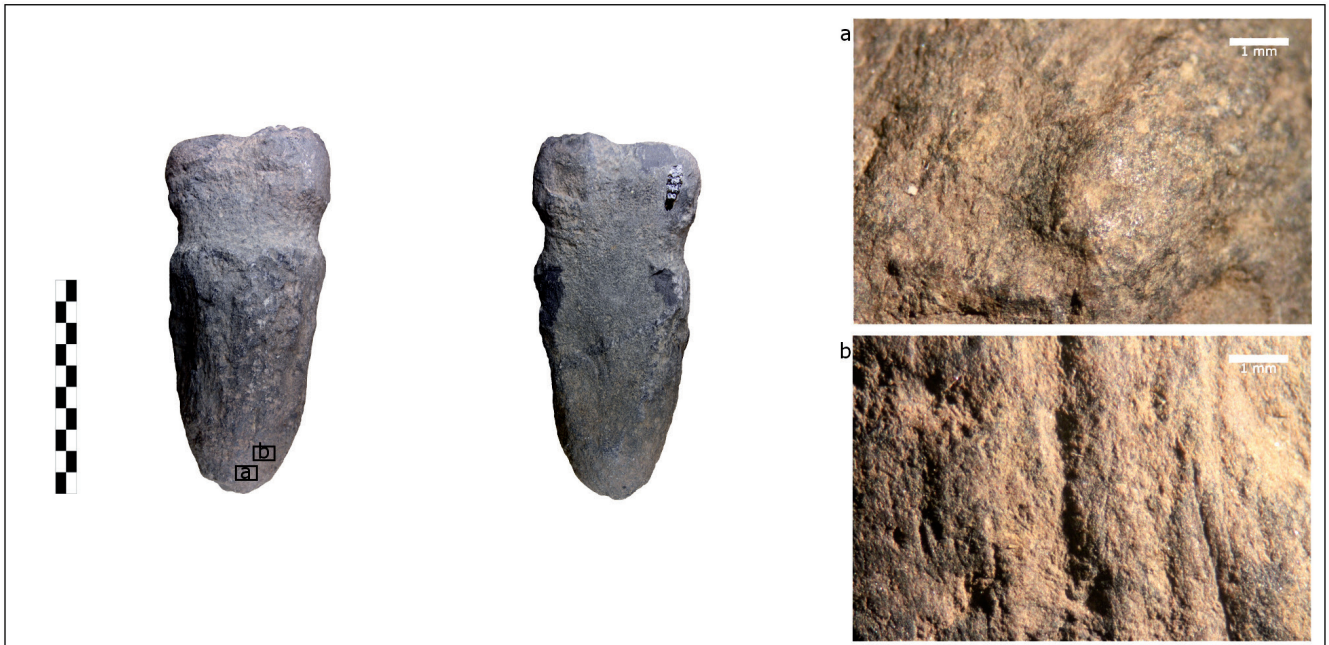
**Transversal section:** Convex-straight.

**Manufacturing evidence:** All but one of the surfaces (the proximal) have been transformed. The obverse shows pecking, the reverse knapping, the right surface knapping and pecking and the left surface shows abrasion, pecking and knapping.

**Hafting evidence:** 3/4 on the proximal third (groove on the obverse, reverse and left surface) and the heel (groove connected with the groove of the proximal third).

**Active surface:** 70 mm; U-morphology; rounding.





**Inventory number:** BEP-5898

**Lithology:** Rock affected by contact metamorphism

**Weight:** 1940 g

**Dimensions:** 226x109x54 mm

**Preservation:** Complete

**Artefact type:** Pointed pick of flat constitution.

**Plan view:** Triangular.

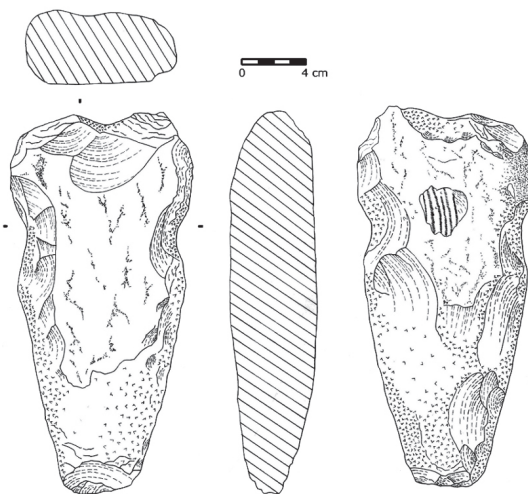
**Longitudinal section:** Straight-straight.

**Transversal section:** Straight-straight.

**Manufacturing evidence:** Knapping on the proximal and both lateral surfaces; pecking on the obverse and both lateral surfaces.

**Hafting evidence:** 2/4 on the proximal surface (lateral notches) and the heel (notch). The pick shows a hollow in the central part of the obverse covered by scratches and pecking, which could be related to the hafting device of the artefact.

**Active surface:** 39 mm; U-morphology; step fractures.



**Inventory number:** BEP-5899

**Lithology:** Granodioritic porphyry

**Weight:** 1765 g

**Dimensions:** 191x99x72 mm

**Preservation:** Complete

**Artefact type:** Pointed pick of massive constitution.

**Plan view:** Triangular.

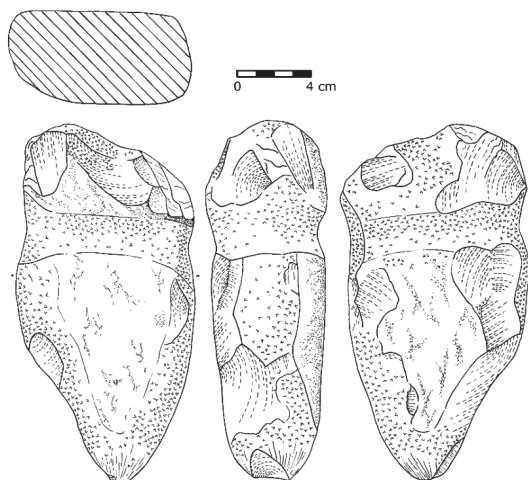
**Longitudinal section:** Convex-straight.

**Transversal section:** Convex-straight.

**Manufacturing evidence:** Knapping on the proximal surface and pecking on both lateral surfaces.

**Hafting evidence:** 4/4 on the proximal third (perimetral groove) and the heel (groove).

**Active surface:** 67 mm; V-morphology; rounding with glossy polish, striations and conchoidal fractures.



**Inventory number:** BEP-14975

**Lithology:** Granodiorite

**Weight:** 1361 g

**Dimensions:** 165x93x57 mm

**Preservation:** Complet

**Artefact type:** Pointed pick of massive constitution.

**Plan view:** Triangular.

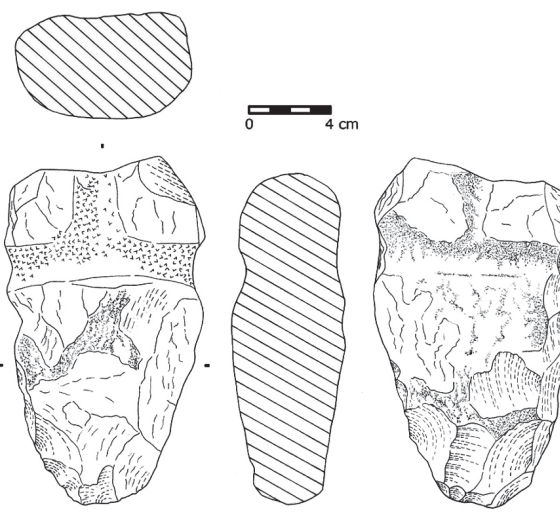
**Longitudinal section:** Straight-convex.

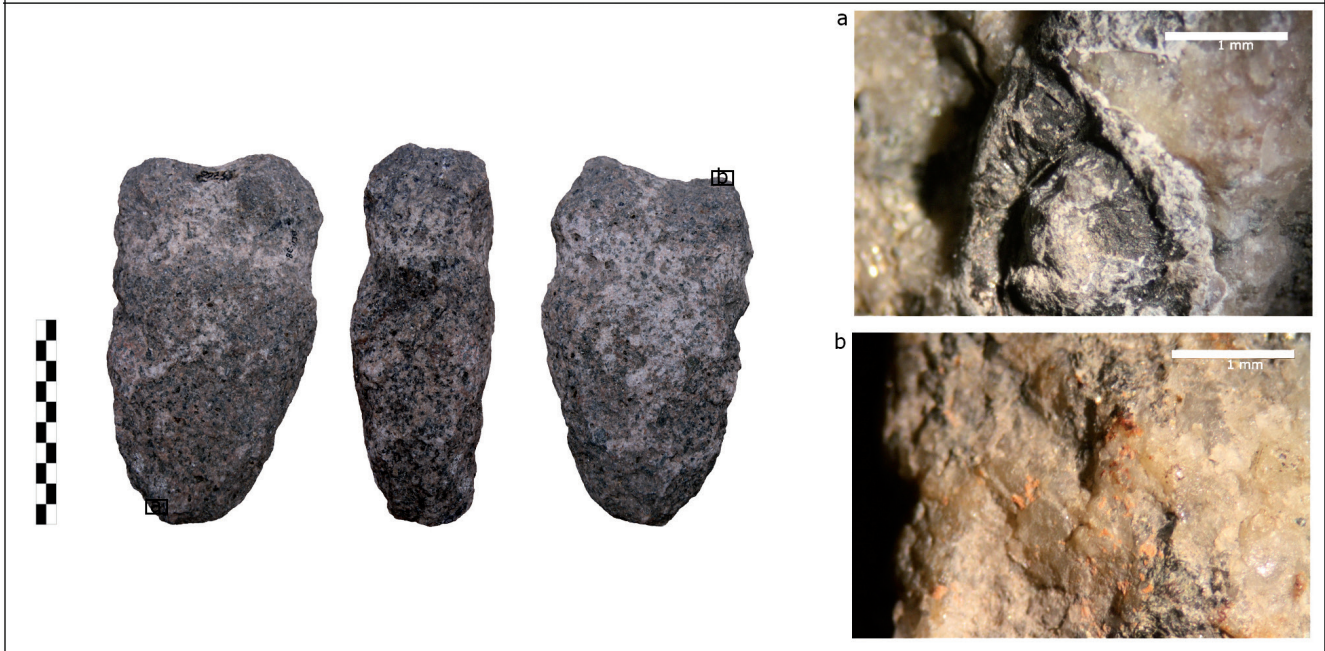
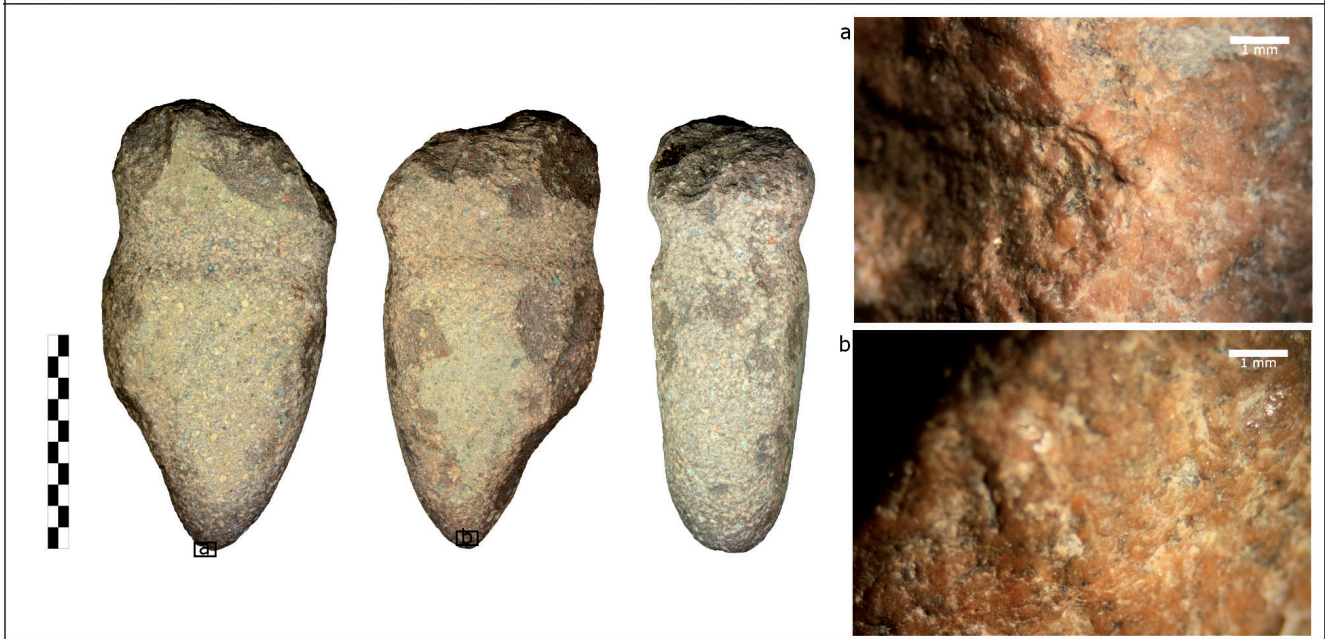
**Transversal section:** Straight-convex.

**Manufacturing evidence:** All the surfaces have been transformed by knapping and in addition the obverse, the reverse and the left surface show abrasion.

**Hafting evidence:** 4/4 on the proximal third (perimetral groove) and the heel (groove connected with the perimetral groove of the obverse, as well as the reverse).

**Active surface:** 32 mm; U-morphology; rounding and conchoidal and step fractures.





**Inventory number:** BEP-N01

**Lithology:** Porphyry

**Weight:** 1808 g

**Dimensions:** 175x104x73 mm

**Preservation:** Complete

**Artefact type:** Pick of massive constitution.

**Plan view:** Trapezoidal.

**Longitudinal section:** Straight-straight.

**Transversal section:** Straight-convex.

**Manufacturing evidence:** Knapping on the reverse, the proximal and both lateral surfaces.

**Hafting evidence:** 4/4 on the proximal third (perimetral groove) and the heel (notch).

**Active surface:** 52 mm; U-morphology; conchoidal and step fractures (the largest one reaches the groove located on the reverse).

**Inventory number:** BEP-N02

**Lithology:** Conglomerate

**Weight:** 309 g

**Dimensions:** 105x84x25 mm

**Preservation:** 1/3

**Artefact type:** Fragment of a possible pick.

**Plan view:** Not observable.

**Longitudinal section:** Straight-not observable.

**Transversal section:** Straight-not observable.

**Manufacturing evidence:** The preserved surfaces do not show any evidence of transformation.

**Hafting evidence:** 1/1 (groove on the obverse) and the heel (notch?).

**Active surface:** Not observable.

**Inventory number:** BEP-N03

**Lithology:** Porphyry

**Weight:** 1378 g

**Dimensions:** 157x100x70 mm

**Preservation:** 1/3

**Artefact type:** Fragment of a pick.

**Plan view:** Triangular tendency.

**Longitudinal section:** Straight-irregular.

**Transversal section:** Straight-broken.

**Manufacturing evidence:** The right surface has been transformed by knapping.

**Hafting evidence:** Not observable.

**Active surface:** 110 mm; U-morphology (?); active surface severely affected by conchoidal and step fractures.



**Inventory number:** BEP-N04

**Lithology:** Rock affected by contact metamorphism

**Weight:** 130 g

**Dimensions:** 44x97x27 mm

**Preservation:** 1/3

**Artefact type:** Proximal fragment of a possible pick.

**Plan view:** Not observable.

**Longitudinal section:** Not observable.

**Transversal section:** Straight-not observable.

**Manufacturing evidence:** Among the two surfaces preserved, the one on the obverse has been transformed by knapping.

**Hafting evidence:** Not observable on the proximal third; heel (groove).

**Active surface:** Not observable.

**Inventory number:** BEP-N05

**Lithology:** Conglomerate

**Weight:** 390 g

**Dimensions:** 123x70x33 mm

**Preservation:** 1/3

**Artefact type:** Proximal fragment of a pick.

**Plan view:** Triangular tendency.

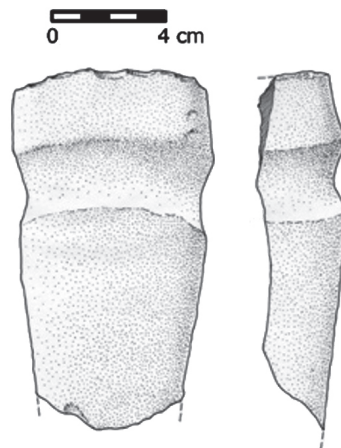
**Longitudinal section:** Straight-not observable.

**Transversal section:** Convex-not observable.

**Manufacturing evidence:** The obverse has been retouched by pecking.

**Hafting evidence:** 3/3 on the proximal third (groove) and the heel (notch).

**Active surface:** Not observable.



Drawing: Antoni Llussà

**Inventory number:** BEP-N06

**Lithology:** Granite

**Weight:** 265 g

**Dimensions:** 90x74x36 mm

**Preservation:** 1/3

**Artefact type:** Distal fragment of a pick with an asymmetrical active surface.

**Plan view:** Triangular tendency.

**Longitudinal section:** Straight-not observable.

**Transversal section:** Convex-convex.

**Manufacturing evidence:** Knapping and pecking on the obverse and pecking on the left surface.

**Hafting evidence:** Not observable.

**Active surface:** 34 mm; U-morphology, asymmetrical; rounding and conchoidal fractures.





**Inventory number:** BEP-N07

**Lithology:** Granite

**Weight:** 300 g

**Dimensions:** 81x66x56 mm

**Preservation:** 1/3

**Artefact type:** Distal fragment of a pick of massive constitution.

**Plan view:** Triangular tendency.

**Longitudinal section:** Straight-convex.

**Transversal section:** Straight-convex.

**Manufacturing evidence:** Abrasion and pecking on the reverse and both lateral surfaces.

**Hafting evidence:** Not observable.

**Active surface:** 73 mm; V-morphology; small conchoidal fractures, striations and scratches.

**Inventory number:** BEP-N08

**Lithology:** Sandstone

**Weight:** 181 g

**Dimensions:** 87x34x55 mm

**Preservation:** 1/3

**Artefact type:** Distal fragment of a pointed reused pick.

**Plan view:** Triangular tendency.

**Longitudinal section:** Concave-convex.

**Transversal section:** Straight-convex.

**Manufacturing evidence:** Pecking on the reverse and on both lateral surfaces.

**Hafting evidence:** Not observable.

**Active surface:** 15 mm; V-morphology, asymmetrical; rounding on the borders of the old fracture plane.

**Inventory number:** BEP-N09

**Lithology:** Porphyry

**Weight:** 123 g

**Dimensions:** 68x50x40 mm

**Preservation:** 1/3

**Artefact type:** Distal fragment of a pointed pick.

**Plan view:** Triangular tendency.

**Longitudinal section:** Convex-convex.

**Transversal section:** Convex-convex.

**Manufacturing evidence:** Pecking on the obverse, the reverse and both lateral surfaces.

**Hafting evidence:** Not observable.

**Active surface:** 57 mm; V-morphology; rounding and striations.



**Inventory number:** CEF-SN

**Lithology:** Granite

**Weight:** 872 g

**Dimensions:** 155x86x82 mm

**Preservation:** Complete

**Artefact type:** Pointed pick of massive constitution.

**Plan view:** Triangular.

**Longitudinal section:** Convex-convex.

**Transversal section:** Convex-convex.

**Manufacturing evidence:** Polish and pecking on the obverse, the reverse and the left surface; pecking and knapping on the right surface and knapping on the proximal surface.

**Hafting evidence:** 4/4 on the proximal third (perimetral groove, developed on the obverse, reverse and both lateral surfaces) and the heel.

**Active surface:** 37 mm; U-morphology; mainly conchoidal fractures, the largest of which extends as far as the perimetral groove on the obverse.

