

Supplementary Information 3:

Metadata for SI 1 & 2 (SI_1_Shouldered_points.csv and SI_2_Anosovka_points.csv)

Accompanies: Reynolds, N., Germonpré, M., Bessudnov, A. A. & Sablin, M. V. The Late Gravettian site of Kostënki 21 Layer III, Russia: a chronocultural reassessment based on a new interpretation of the significance of intra-site spatial patterning. *Journal of Paleolithic Archaeology*, 2019.

SI_1_Shouldered_points.csv (encoding: UTF-8; field delimiter: “,”)

This table provides data on shouldered points from the assemblages of Kostënki 21-III and Gagarino. See main article for criteria used for inclusion.

Attribute name	Data type	Unit	Description
<u>ID</u>	text		Unique identifier for artefact
<u>Assemblage</u>	text (categorical)		Assemblage (Kostenki 21-III; Gagarino)
<u>Date of study</u>	date		Date of study of material in YYYY-MM-DD format
<u>Collection location</u>	text (categorical)		Location of material studied, as follows: IIMK: Institute for the History of Material Culture, Saint Petersburg; SHM: State Historical Museum, Moscow; MAE: Peter the Great Museum of Archaeology and Ethnography, Saint Petersburg
<u>Box description</u>	text (descriptive)		Description of box in which material is held
<u>Label1</u> <u>Label2</u> <u>Label3</u>	text (descriptive)		Written labels on lithic. Additional observations given in square brackets; “?” means writing is illegible. “[d]”, “[p]” and “[both]” refer to distal, proximal and both fragments respectively (where artefacts have been refitted). <u>Label1</u> : usually excavation code <u>Label2</u> : usually square number of find <u>Label3</u> : usually curatorial information
<u>Flint colour</u>	text (descriptive)		Description of colour of flint (disregarding patina) where visible
<u>Patination</u>	text (categorical)		Description of degree of patination of flint, in following categories: None; Light; Medium; Heavy.
<u>Fragment</u>	text (categorical)		Description of artefact according to following categories; distal, medial and proximal descriptors relate to <i>blank</i> orientation. Distal : distal fragment/refitted fragments Medial : medial fragment/refitted fragments Proximal : proximal fragment/refitted fragments Entire : unbroken artefact (may have suffered small breaks to tip etc.) Refitted entire : broken and refitted entire artefact (may have suffered small breaks to tip etc.)
<u>Reversed orientation</u>	text (boolean)		Description of whether the orientation of the point matches the orientation of the blank n : pointed end of artefact is found at distal end of

			blank y: pointed end of artefact is found at proximal end of blank
<u>Length</u>	numerical	mm	Length of artefact along longest axis (NB: may not exactly equal sum of <u>Limbe length</u> , <u>Curve length</u> and <u>Stem length</u> field values)
<u>Limbe length</u>	numerical	mm	Length of <i>limbe</i> along longest axis, where measurable in its entirety (see Fig. S1, below)
<u>Break of tip</u>	text (boolean)		Where value = “y”, the pointed tip of the artefact has been broken off (but the break is small, so it does not affect classification of artefact in <u>Fragment</u> field, above)
<u>Curve length</u>	numerical	mm	Length of curved part of shoulder along longest axis of artefact, where measurable in its entirety (see Fig. S1, below)
<u>Stem length</u>	numerical	mm	Length of stem along longest axis, where measurable in its entirety (see Fig. S1, below)
<u>Limbe width</u>	numerical	mm	Maximum width of <i>limbe</i> , where measurable in its entirety (see Fig. S1, below)
<u>Stem width</u>	numerical	mm	Maximum width of stem, where measurable in its entirety (see Fig. S1, below)
<u>Thickness</u>	numerical	mm	Maximum thickness of artefact
<u>Bulb</u>	text (categorical)		Description of state of bulb of percussion (where proximal end of artefact, with respect to blank, is present) Present: Bulb is present and has not been removed by retouch Partly removed: Bulb is present, <50% removed by retouch Mostly removed: Bulb is present, >50% removed by retouch Removed: Bulb has been removed by retouch Broken: Small break of proximal end has removed bulb Broken/removed: Unclear whether bulb removed by retouch or by small break
<u>Butt</u>	text (categorical)		Description of state of butt (where proximal end of artefact, with respect to blank, is present) Linear; Plain; Plain, abraded; Punctiform: descriptions of butt morphology (following Inizan <i>et al.</i> 1999: 134) Removed: Butt has been removed by retouch Broken/removed: Unclear whether butt removed by retouch or by small break Indeterminate: Indeterminate butt type
<u>Cran lateralisation</u>	text (categorical)		Description of lateralisation of <i>cran</i> (with respect to artefact orientation; i.e. taking pointed end of artefact as distal end). Left: <i>Cran</i> located on left edge of artefact Right: <i>Cran</i> located on right edge of artefact Both: <i>Crans</i> located on both edges of artefact (i.e. stemmed, rather than shouldered, point)
<u>Cran retouch</u>	text (categorical)		Description of retouch forming <i>cran</i> , as follows: Abrupt backing

			Abrupt to semi-abrupt backing Semi-abrupt backing
<u>Distal retouch</u>	text (descriptive)		Description of retouch on artefact <i>limbe</i> , following definitions given by Inizan et al. (1999). In this study, some retouch on the <i>limbe</i> was required for acceptance of an artefact as a shouldered point.
<u>Distal retouch length</u>	text (numerical/ descriptive)		Length of edge (measured from tip) bearing retouch, where this was measurable from the tip (in mm) <i>or</i> “full length of <i>limbe</i> ” where there was retouch along all of the <i>limbe</i> or visible part of the <i>limbe</i> .
<u>Other retouch</u>	text (descriptive)		Notes on any other retouch visible on the artefact.
<u>Notes</u>	text (descriptive)		Any other observations.
<u>Photo</u>	text		Where a letter is given, refers to corresponding photo in Figure 8 of the article that this data accompanies.

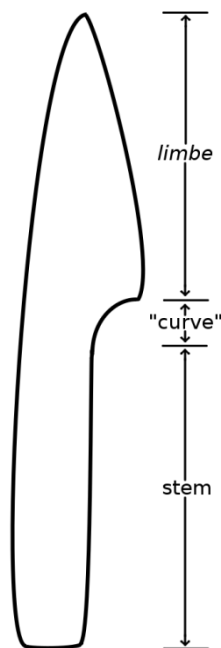


Fig. S1: Schematic of *limbe*, “*curve*” and *stem* of shouldered points.

SI_2_Anosovka_points.csv (encoding: UTF-8; field delimiter: “,”)

This table provides data on Anosovka points from the assemblages of Kostěnki 21-III and Kostěnki 11-II. See main article for criteria used for inclusion.

Attribute name	Data type	Unit	Description
<u>ID</u>	text		Unique identifier for artefact
<u>Assemblage</u>	text		Assemblage: Kostenki 21-III; Kostenki 11-II

	(categorical)		
<u>Date of study</u>	date		Date of study of material in YYYY-MM-DD format
<u>Collection location</u>	text (categorical)		Location of material studied, as follows: IIMK: Institute for the History of Material Culture, Saint Petersburg; KM: Kostënki State Archaeological Museum-Reserve, Voronezh Oblast
<u>Box description</u>	text (descriptive)		Description of box in which material is held
<u>Label1</u> <u>Label2</u> <u>Label3</u>	text (descriptive)		Written labels on lithic. “?” means writing is illegible. <u>Label1</u> : usually excavation code <u>Label2</u> : usually square number of find <u>Label3</u> : usually curatorial information
<u>Flint colour</u>	text (descriptive)		Description of colour of flint (disregarding patina) where visible
<u>Patination</u>	text (categorical)		Description of degree of patination of flint, in following categories: None ; Light ; Medium ; Heavy
<u>Fragment</u>	text (categorical)		Description of artefact according to following categories; distal and proximal descriptors relate to <i>blank</i> orientation Distal : distal fragment Medial : medial fragment Proximal : proximal fragment Entire : unbroken artefact (may have suffered small breaks to tip etc.)
<u>Reversed orientation</u>	text (categorical)		Description of whether the orientation of the point matches the orientation of the blank n : pointed end of artefact is found at distal end of blank y : pointed end of artefact is found at proximal end of blank
<u>Length</u>	numerical	mm	Length of artefact along longest axis, where measurable in its entirety
<u>Break of tip</u>	text (categorical)		Where value = “y”, the pointed tip of the artefact has been broken off (but the break is small, so it does not affect classification of artefact in <u>Fragment</u> field, above)
<u>Width</u>	numerical	mm	Maximum width of artefact, where measurable in its entirety
<u>Thickness</u>	numerical	mm	Maximum thickness of artefact, where measurable in its entirety
<u>Bulb</u>	text (categorical)		Description of state of bulb of percussion (where proximal end of artefact, with respect to blank, is present) Present : Bulb is present and has not been removed by retouch Partly removed : Bulb is present, <50% removed by retouch Mostly removed : Bulb is present, >50% removed by retouch Removed : Bulb has been removed by retouch
<u>Butt</u>	text (categorical)		Description of state of butt (where proximal end of artefact, with respect to blank, is present) Facetted ; Linear ; Plain ; Punctiform : descriptions

			of butt morphology (following Inizan <i>et al.</i> 1999: 134) Removed: Butt has been removed by retouch
<u>Backing lateralisation</u>	text (categorical)		Description of lateralisation of backing of artefact (with respect to artefact orientation; i.e. taking the pointed end of artefact as the distal end). Left: backing located on left edge of artefact Right: backing located on right edge of artefact
<u>Base description</u>	text (descriptive)		Description of base of artefact (i.e. the non-pointed end)
<u>Other retouch</u>	text (descriptive)		Notes on any other retouch visible on the artefact.
<u>Notes</u>	text (descriptive)		Any other observations.
<u>Photo</u>	text		Where a letter is given, refers to corresponding photo in Figure 9 of the article that this data accompanies.