A New Framework for the Upper Paleolithic of Eastern Europe

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European Society for the Study of Human Evolution
21 – 22 September 2012
Bordeaux
The chronology of the early Gravettian in Eastern Europe
Early Gravettian sites in Eastern Europe
Layer 2

32,413 ± 649 cal BP
(GrN-10509)

Rogachev 1957: 52, fig. 23
Layer II/2

32,429 ± 519 cal BP
(GrA-20033)

Mira
Layer 6-1

35,933 ± 392 cal BP (GrA-37938)

Layer 6-2

39,602 ± 928 cal BP (GrA-40485)

Buran-Kaya III

Prat et al. 2011: fig. 7

Prat et al. 2011: fig. 4
The Ahmarian in Eastern Europe
Mezmaiskaya Cave
Mezmaiskaya Cave, Layer 1C

Golovanova et al. 2010: fig. 1

~38,000–37,000 cal BP
Kostenki 14, Layer IVb

~44,000–42,000 cal BP

adapted from A. A. Sinitsyn
Proto-Gravettian

Early Gravettian

CI tephra 40,000 cal BP

Proto-Gravettian
Kostenki 1, Layer III
Kostenki 14, ash
Chulek I
Kamennomostskaya Cave
Syuren’ I

Aurignacian sites in Eastern Europe: 40,000–30,000 cal BP
Landscape Archaeology of the East European Plain
Efimenko\(^1\) proposed cultural stratigraphy for Kostenki-Borshchevo in 1928, using classificatory units defined in SW France

<table>
<thead>
<tr>
<th>Site/Layer</th>
<th>Industry</th>
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</thead>
<tbody>
<tr>
<td>Borshchevo 2, upper</td>
<td>Late Magdalenian</td>
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<tr>
<td>Borshchevo 2, lower</td>
<td>Middle Magdalenian</td>
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<td>Kostenki 2/Kostenki 3</td>
<td>Early Magdalenian</td>
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<td>Kostenki 1, Layer I</td>
<td>Early Solutrean</td>
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<td>Borshchevo 1</td>
<td>Late Aurignacian</td>
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\(^1\)Ефименко, П. П. (1928) Некоторые итоги изучения палеолита СССР. Человек 1: 52–56.
Rogachev and others subsequently defined local archaeological cultures at Kostenki-Borshchevo that were not recognized outside the central East European Plain . . .

streletskaya

spitsynskaya

gorodtsovskaya
the landscape of the East European Plain differs significantly from that of SW France, and natural shelters are almost entirely absent on the central plain . . .
EUP sites on the East European Plain

- Kostenki-Borschchevo
- Sungir'
- Kulychivka
- Biryuch'ya Balka
- Mira
- Molodova 5
- Korman' 4
- Mamontova Kur'ya Byzovaya
Kostenki-Borshchevo contains an “EUP landscape” comprising various sites, including both habitation areas and functionally-specialized sites where large mammals were killed and/or butchered.
Soil micromorphology indicates spring activity associated with formation of the “humic beds” and EUP occupations (Holliday et al. 2007)
Kostenki 14   Layer II

- horse NISP = 1500
- all skeletal parts represented
- green breakage of long-bone shafts
- percussion marks on long-bone shafts
- cut marks on long-bones, ribs, other elements
- anatomical groups of foot bones and vertebrae
Kostenki 1  Layer V

- mammoth NISP = 517
- MNI = 1 adult mammoth
- most skeletal elements represented
- cut/gouge marks on some bones

[Image of mammoth bone with cut marks]

2004 trench

[Diagram of 2004 trench]
artifacts associated with evidence for large mammal kill-butcherery at Kostenki

Kostenki 1 Layer V

Kostenki 14 Layer II

Kostenki 12 Layer III
the “Clovis landscape” in the San Pedro Valley (SE Arizona) provides an analog to the EUP landscape at Kostenki . . .
at Murray Springs, kill-butchery locations are situated near a campsite.

multiple bison kill-butchery location

mammoth butchery location

Clovis campsite
Murray Springs contains the same types of tools found in association with large-mammal butchery at Kostenki . . .
the pattern observed at Kostenki is also evident at other EUP sites on the East European Plain, such as Mira, Layer I

- horse NISP = 72%
- most skeletal parts represented
- green breakage of long-bone shafts
- percussion and cut marks on bones
- anatomical groups of bones

from V. B. Stepanchuk
“archaic” or “Mousteroid” forms also found in later UP sites

Kostenki I Layer I

Efimenko 1958
The problem of the Initial Upper Paleolithic of Eastern Europe
Initial Upper Paleolithic sites of Eastern Europe?

- Kulychivka
- Zvanovka
- Shlyakh

Molodova 5
Korman’ 4
Shlyakh Layer 8 contains an industry similar to the Emiran and dating to ~45,000 cal BP

45,700±3000 (OxA-8307)
46,300±3100 (OxA-8306)

from Nekhoroshev 1999: 143, fig.21
A new framework for the Upper Paleolithic of Eastern Europe
<table>
<thead>
<tr>
<th>Years cal BP</th>
<th>INDUSTRY</th>
<th>Caucasus Mountains</th>
<th>Crimea</th>
<th>Southwest Plain</th>
<th>Central Plain</th>
</tr>
</thead>
<tbody>
<tr>
<td>20,000 – 12,000 cal BP</td>
<td>Epi-Gravettian</td>
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<tr>
<td>30,000 – 20,000 cal BP</td>
<td>Late Gravettian (formerly “Eastern Gravettian”)</td>
<td></td>
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<td>Molodova 5-VII</td>
<td>Kostenki 1-I Avdeev Zaraisk</td>
</tr>
<tr>
<td>40,000 – 30,000 cal BP</td>
<td>Early Gravettian/Eastern Aurignacian?</td>
<td>Mezmaiskaya Cave-1C</td>
<td>Buran-Kaya III</td>
<td></td>
<td>Kostenki 8-II Mira II/2 Shlyakh-</td>
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<tr>
<td>42,000 – 40,000 cal BP</td>
<td>Proto-Gravettian</td>
<td>Ortvale Klde-4d</td>
<td></td>
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<td>Kostenki 14-IVb Kostenki 17-II</td>
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Mikhail Vasilyevich Anikovich (1947–2012)