

Oxford  
Radiocarbon  
Accelerator Unit  
Research Laboratory for Archaeology  
6 Keble Road, Oxford OX1 3QJ, England  
Tel: ++44-(0) 1865-273939

P17588

OxA-15555

35540 ± 260

$\delta^{13}\text{C} = -24.9$  per mil

QAP 01/03 Issue 2 13/12/1999

Acknowledged

### SAMPLE SUBMISSION FORM

Please provide as much information as possible for each sample submitted. It will greatly help us in publishing dates rapidly if we have the full information required for publication.

If you are submitting a series of samples, there is no need to write in repeat information for each one, but please do not overlook specific stratigraphic details (pages 2 & 3).

Suggested name for sample series: EFCHEd North East Black Sea Project

Your reference no: EFD5C513 (1 sample)

Name and location of site: Kostenki 12, Voronezh region

Country: Russia

Latitude: ca. 51° 23.43' N

Longitude: ca. 39° 02.09' E

(Greenwich meridian)

Grid reference (specify grid):

Type of material: very fine charcoal, but may include some small fragments of burnt bone.

Any specific identification (please indicate as precisely as possible): too fragmentary to tell

Family:

Genus:

Species:

For bone, type (e.g. femur): fragment of rib or long bone

Collector's name: M. V. Anikovitch

Date of excavation: July-August 2004

Sender's name: Dr R A Housley

Sender's signature:

Address:  
Department of Archaeology  
University of Glasgow  
Gregory Building  
Lilybank Gardens  
Glasgow G12 8QQ

Tel: 0141 330 6873

email: [r.housley@archaeology.gla.ac.uk](mailto:r.housley@archaeology.gla.ac.uk)

Submission date: October 2005

Is the sample primarily:

archaeological

geological

other

- 
- |                           |     |  |                          |
|---------------------------|-----|--|--------------------------|
| Was the sample            | (a) | sealed in a recognisable horizon                 | <input type="checkbox"/> |
|                           | (b) | sealed in a localised feature, e.g. grave or pit | <input type="checkbox"/> |
|                           | (c) | other  | <input type="checkbox"/> |
| Is this information known | (a) | beyond reasonable doubt                          | <input type="checkbox"/> |
|                           | (b) | with some possible doubt                         | <input type="checkbox"/> |
|                           | (c) | with major doubt                                 | <input type="checkbox"/> |
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**Certainty of Association**

(please tick one box)

- Full certainty: the sample came from the artefact itself, e.g. wagon wheel, bone pommel of dagger
- High probability: there is a direct functional relationship between the sample and archaeological finds, e.g. coffin dates finds in grave, carbonised grain in rubbish pit dates sherds, charcoal dates urn
- Probability: the functional relationship is not demonstrable but the quantity of organic material and size of fragments argue in favour or it, e.g. charcoal concentration in a rubbish pit or occupation layer
- Reasonable possibility: as above, but the fragments are small and scattered, e.g. 'dark earth' in an occupation layer, charcoal fragments in a grave
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**Sample age in relation to burial / discard** (please tick one box)

Samples are generally **older** than their contexts:

- The difference in date is so small as to be negligible (less than 20 years); e.g. twigs, grain, leather, bone, outermost tree rings.
- The time difference can amount to several decades (over 20, less than 100 years), e.g. charcoal from short-lived wood species, outermost rings from long-lived wood species, objects which might have a long period of use.
- The time difference may amount to centuries, e.g. charcoal from long-lived wood species possibly subject to re-use.
- The nature of the dated organic material is not precisely known, e.g. samples consisting of 'dark earth', 'ash', 'soil'.
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Note: the sections above drawn from: Waterbolk, H.T. (1971) *Proc. Prehist. Soc.* 37(2), 15-33

## Named stages

Local archaeological name, e.g. Maglemosian: none, but industry is pre-Streletskian

General archaeological name, e.g. Mesolithic: Initial Upper Palaeolithic (i.e. before the Early Upper Palaeolithic)

Local geological unit, e.g. Larmudiac Beds: NA

General geological name, e.g. Late Glacial: Late Pleistocene – mostly likely OIS 3

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## Stratigraphic and environmental details: (if none, write 'none')

Please give details of sample locations (including detailed site drawings on a separate sheet), describing horizons and other features relevant to sample position and condition.

Please mention possible contamination, rootlets, intrusions, disturbances, humic acids, carbonates, calcareous or volcanic environment, nearness to water table, nearness to surface, etc.

Sample N9 (EFD5C513) was taken from geological layer 14 at Kostenki 12 and is associated with cultural horizon IV. The lithic industry comes from a layer that is older than the usual Streletskian EUP industry associated with cultural horizons II and III on the site. There are no existing age determinations from this layer however there are 3 IRSL measurements from the layer immediately below where this sample was taken (see attached stratigraphic figure). One existing radiocarbon result is known from layer 12, cultural horizon III, and this has given a date of around 36 280 +360 / -350 uncal BP (no lab number available).

**Important note: as there is only one sample from this layer, please attempt to date it even though the quantity of charcoal is very small.**

Optional checklist:

Sector:

layer, sub-layer: geological layer 14, cultural horizon IV

feature:

phase of site: Initial Upper Palaeolithic (i.e. pre- EUP)

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## Sender's comment on submission:

(i.e. comment on what date is intended to demonstrate, designed to hold good regardless of specific results)

The samples from this site are being dated in order to ascertain whether there is significant age overlap between the latest Middle Palaeolithic Neanderthal activity and the earliest Upper Palaeolithic anatomically modern human presence in southern Russia. The lower levels at Kostenki 12 and 14 probably represent the earliest Upper Palaeolithic in Russia and the presence of the Y5 Campanian Ignimbrite tephra (39.3 ka BP), the Laschamp magnetic excursion, and IRSL measurements on Kostenki 12 (made by Steve Foreman) provide a further opportunity to analyse the age offset between <sup>14</sup>C and a calendrical-based chronology. The lowermost levels of the site do not have existing <sup>14</sup>C ages hence the decision to take AMS samples from layers 12, 14, and 18.

### Sample collection and treatment

How was the sample collected? During the excavation process in 2004  
(surface, trench, section, etc.)

How has it been stored? Polythene bag  
(nature of container, etc.)

Have preservatives, fungicides, etc., been used? No

If so, please give details of any chemical treatments, identifying chemicals used.  
Not applicable

Was sample wet or dry when collected? Slightly damp

If wet, how was it dried? Air dried

Can the entire sample be used for dating? Yes

Has this or a related sample also been sent to another laboratory? No

If so, please give Laboratory and date numbers

See enclosed sheet for existing  $^{14}\text{C}$  and IRSL dates.

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### Relevant publications

(In format: Author, initials, year, title, **Journal** (Publisher), volume, pages)

Anikovitch, M. V. (2000) The Initial Stage of the Upper Palaeolithic in Eastern Europe. *Stratum plus*. Kishinev I, 11-30 (in Russian).

Sinitsyn, A. A. (2001) The most ancient sites in the context of the Initial Upper Palaeolithic of northern Eurasia. The chronology of the Aurignacian and of the Transitional Technocomplexes: dating, stratigraphies, cultural implications. Proceedings of Symposium 6.1 of the XIVth Congress of the UISPP, University of Liege, Belgium.