

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

P17589 – P17592

OxA

see inside

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Acknowledged

QAP 01/03 Issue 2 13/12/1999

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: EFD5C514 - EFD5C517 (4 samples – including alternates) – only 3 samples dated

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: mostly fine charcoal, but some include 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

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"/>

Certainty of Association

(please tick one box)

Full certainty: the sample came from the artefact itself, e.g. wagon wheel, bone pommel of dagger	<input type="checkbox"/>
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	<input type="checkbox"/>
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	<input type="checkbox"/>
Reasonable possibility: as above, but the fragments are small and scattered, e.g. 'dark earth' in an occupation layer, charcoal fragments in a grave	<input type="checkbox"/>

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.	<input type="checkbox"/>
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.	<input type="checkbox"/>
The time difference may amount to centuries, e.g. charcoal from long-lived wood species possibly subject to re-use.	<input type="checkbox"/>
The nature of the dated organic material is not precisely known, e.g. samples consisting of 'dark earth', 'ash', 'soil'.	<input type="checkbox"/>

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

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.

Samples N10-N13 (EFD5C514 to EFD5C517) all originate from geological layer 18 at Kostenki 12 and are associated with cultural horizon V. The lithic industry associated with layer 18 is poorly defined at present. Here are no existing radiocarbon results from the site below layer 12. One IRSL measurement (by Steve Foreman) suggests layer 18 may date from around the 44-45 ka time period, whilst another IRSL result from the underlying layer indicates deposition around 50-53 ka. The site therefore provides a good opportunity to compare two dating methodologies. See attached stratigraphic profile for details of the existing ¹⁴C and IRSL measurements.

Important note: there is no need to date all four of these samples. Probably best to select the two, or three, most promising ones for dating. If these succeed and give reasonably consistent determinations then do not bother with the other(s). But if widely disparate results are obtained then it may be worthwhile to run the remaining sample(s) from this layer.

Optional checklist:

Sector:

layer, sub-layer: geological layer 12, cultural horizon III

feature:

phase of site: Initial Upper Palaeolithic

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 ¹⁴C and a calendrical-based chronology. The lowermost levels of the site do not have existing ¹⁴C 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}C and IRSL dates.

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.