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Radiocarbon
Accelerator Unit
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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: EFD5C505 - EFD5C512 (8 samples – including alternates)

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 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: summer 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: Streletskian

General archaeological name, e.g. Mesolithic: 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 N1-N8 (EFD5C505 to EFD5C512) all originate from geological layer 12 at Kostenki 12 and are associated with cultural horizon III. The lithic industry has been described as Streletskian and is Early Upper Palaeolithic in age (in ^{14}C terms probably 33-37 uncalibrated ka BP). 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). See attached stratigraphic profile with existing ^{14}C and IRSL measurements.

Important note: as one ^{14}C date already exists for cultural horizon III there is no need to date more than 2 of these samples. Select the two most promising looking samples and attempt dating before deciding whether to prepare more samples from this group. Unless widely disparate results are obtained, there is probably no justification for making more than a couple of new age determinations from this lithological layer.

Optional checklist:

Sector:

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

feature:

phase of site: Streletskian (Early 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 Initial 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 ^{14}C and a calendrical-based chronology. The lowermost levels of the site do not have existing ^{14}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}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.