

Oxford Radiocarbon

Accelerator Unit

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

P16813

OxA-14762

50 000 ± 1200

$\delta^{13}\text{C} = -24.4$ 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: EFD4C071

Name and location of site: Navalishenskaya, Sochi region, Krasnodar district

Country: Russia

Latitude: 43° 33.188' N

Longitude: 39° 55.857'E

(Greenwich meridian)

Grid reference (specify grid):

Type of material: charcoal and/or burnt bone

Any specific identification (please indicate as precisely as possible):

Family:

Genus:

Species:

For bone, type (eg femur):

Collector's name: R. A. Housley

Date of excavation: 8 July 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: April 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

General archaeological name, e.g. Mesolithic: 'Denticulate Mousterian' / Middle 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.

Sample comes from an black ashy layer that lies at the base of layer 4, which is a light brown loam with rubble. See attached plan and section. At the base of layers 3, 4 and 5 are ashy lenses associated with a very sparse 'Denticulate Mousterian' tool assemblage. Cave bear dominates the faunal record. Layers 1, 1a and 2 have Upper Palaeolithic tools. The aim of this sample is to provide age cross-validation with OSL sample EFD4L051 (from the lower part of layer 4). It will also provide a *terminus ante quem* for OSL sample EFD4L052 (from the ashy layer at the base of layer 5).

The area is limestone and so the deposits are highly calcareous. The rubble in layers 4 and 5 is especially corroded, and sometimes covered in a phosphate crust. It probably represents exfoliation from the roof and walls. Ash probably comprises very fine burnt bone and charcoal.

Optional checklist:

Sector:

layer, sublayer: black ashy horizon at the base of layer 4

feature

phase of site: one of three phases of Mousterian occupation

Sender's comment on submission:

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

This sample is being dated in order to cross-validate OSL sample EFD4L051 (which was taken from the lower part of layer 4) and which is being dated in the SUERC laboratory in East Kilbride. The ¹⁴C date should also provide a *terminus ante quem* for OSL sample EFD4L052 (taken from the ashy layer at the base of layer 5). It is likely that layers 3, 4 and 5 represent one, possibly more, interstadial events within OIS 3 (c.59-25 cal ka BP). Poverty of occupation evidence suggests that the cave saw only brief visits by cave bear hunters. An age in the 40-60 ka BP range is a possibility.

Sample collection and treatment

How was the sample collected ? From a cleaned vertical section
(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 ? OSL samples are with SUERC

If so, please give Laboratory and date numbers

SUERC samples EFD4L047 – EFD4L052, no date numbers as the samples are currently undergoing OSL analysis

Relevant publications

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

Liubin, V.P., 1989, The Palaeolithic of the Caucasus (in Russian), in *Paleolit Kavkaza I Severnoi Azii* (ed. P.I. Boriskovskii), 7-142, Leningrad: Nauka.

Tchistiakov, D.A., 1996, *Mousterian sites of the North East part of the Black Sea Region* (in Russian), St. Petersburg: Evropeiskiy Dom.