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

QAP 01/03 Issue 2 13/12/1999

P17593	
OxA-X-2158-17	
24820 ± 130	
δ^{13}C= -22.1 per mil	
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: EFD5C518

Name and location of site: Malaya Vorontsovskaya, Sochi region, Krasnodar district

Country: Russia

Latitude: 43º 37.765' N Longitude: 39º 54.738'E (Greenwich meridian)

Grid reference (specify grid):

Type of material: charcoal (and possibly some burnt bone)

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

Family: Genus: Species:

For bone, type (e.g. femur):

Collector's name: V. P. Liubin Date of excavation: 1965

Sender's name: Dr R A Housley
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

Sender's signature:

Submission date: October 2005

Is the sample primarily:

archaeological ☐ geological ☐ other ☐

Was the sample (a) sealed in a recognisable horizon ☐

(b) sealed in a localised feature, e.g. grave or pit ☐

(c) other ☐

Is this information known (a) beyond reasonable doubt ☐

(b) with some possible doubt ☐

(c) with major doubt ☐

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 ☐

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'. ☐

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: Mousterian

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 layer 2a (dark brownish-green lumpy loam) in excavation square E2 and is associated with a Middle Palaeolithic tool assemblage that is described as either 'Denticulate Mousterian' or 'Typical Mousterian' with many denticulates. Cave bear dominates the faunal assemblage - the only other relatively frequent species is the Caucasian Tur (*Capra caucasica*). Based on cave pollen it is believed that layer 2a corresponds to an interstadial warm event with deciduous woodland (beech, hornbeam, oak) and no coniferous species.

The area is limestone and so the deposits are highly calcareous. The condition of the bone from this site is very poor. The charcoal is very fine and is scattered in the deposit.

Optional checklist:

Sector: square E2

layer, sub-layer: 2a

feature

phase of site: Mousterian

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

An existing low collagen bone sample from layer 3 at Malaya Vorontsovskaya has given an AMS date of 43 400 ± 1500 uncal BP (OxA-14725). The sample listed here comes from the overlying layer (2a) and is being dated in order to provide a *terminus ante quem* for the aforementioned result and to cross-validate OSL samples EFD4L073 (from layer 2) and EFD4L074 (from the upper part of layer 3). Poverty of occupation evidence suggests that the cave saw only brief visits by cave bear hunters in the Middle Palaeolithic. An age in the 30-45 ka BP range is a possibility. The sample consists of fine charcoal from a layer and so the association between the cultural event and the age of the material is not all that secure.

Sample collection and treatment

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

How has it been stored? Originally in a glass bottle, transferred to a polythene bag in 2005
(nature of container, etc.)

Have preservatives, fungicides, etc., been used? Unknown, but extremely unlikely

If so, please give details of any chemical treatments, identifying chemicals used.

Was sample wet or dry when collected? Presumably slightly damp

If wet, how was it dried? Probably 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 EFD4L073 – EFD4L076, no date numbers as the samples are currently undergoing OSL analysis

There are three existing 14C dates:

(1) LE-700: 14 100 ± 100 BP, on charcoal from a hearth in layer 1 in section K-L-M
(2) GR-6031: 35 680 ± 480 BP, on burnt bone from a hearth in layer 3 in section F-R-Z
(3) OxA-14725: 43 400 ± 1500 BP, on low collagen bone in layer 3

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.