

Oxford  
Radiocarbon

Accelerator Unit

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

P16823

OxA-14726

38 780 ± 360

$\delta^{13}\text{C} = -22.8$  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: EFD4C436

Name and location of site: Kabazi V, western Crimea

Country: Ukraine

Latitude: 44° 50.228' N

Longitude: 34° 01.979'E

(Greenwich meridian)

Grid reference (specify grid):

Type of material: charcoal

Any specific identification (please indicate as precisely as possible): Indeterminate, too fine to determine

Family:

Genus:

Species:

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

Collector's name: A. I. Yevtushenko

Date of excavation: 2003

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: 10th May 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
- 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: Staroselian

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

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

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

The charcoal sample comes from an ash covered living floor in square 7B (i.e. 7v), within archaeological horizon III/5-3B1, which is located in lithological (geological) layer 12 [lower] on the site of Kabazi V. It is bracketed by OSL samples EFD4L261, which is associated with archaeological horizon III/4 (593 cm depth in square 6B), and EFD4L262, which comes from archaeological horizon III/5-3 (625 cm depth in square 6B). The sample is associated with a Mousterian stone tool industry that has been described as Staroselian (i.e. non-Levallois, with 5-10% bifacial tools). For an analogous sample from a slightly higher cultural horizon, see EFD4C435.

The area is limestone and so the deposits are highly calcareous.

Optional checklist:

Sector: square 7B

layer, sub-layer: sample is from archaeological horizon III/5-3B1, and is situated in lithological (geological) layer 12 [lower]

feature: none

phase of site: Middle Palaeolithic layer III/5-3B1

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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 purpose of this charcoal sample, like EFD4C435, is to provide age control for the two OSL samples that bracket it, as well as giving some indication of the chronological depth to the Middle Palaeolithic occupation. The sample is associated with genuine living floors consisting of traces of ash and clusters of artefacts and faunal remains. There is a good probability that the charcoal relates to the occupation. Given the likely age of the sample, >40-50 ka BP, a possible 'old wood effect' would have a marginal influence on the result.

## Sample collection and treatment

How was the sample collected ? Removed during excavation of living floors in 2003  
(surface, trench, section, etc.)

How has it been stored ? film camera container  
(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 ? 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 sample EFD4L261 and EFD4L262: no lab or date numbers as the sample is currently undergoing OSL analysis. For other dating evidence – ESR and U-series – see the cited publications

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## Relevant publications

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

McKinney, C.R., 1998, Uranium series dating of enamel, dentine, and bone from Kabazi II, Starosele, Kabazi V, and Gabo, in *The Middle Palaeolithic of the Western Crimea*, Volume 1 (Eds. Marks, A.E., and Chabai, V.P.), 341-353, Liège: ERAUL 84.

Rink, W.J., Lee, H-K., Rees-Jones, J., and Goodger, K.A., 1998, Electron spin resonance (ESR) and mass spectrometric U-series (MSUS) dating of teeth in Crimean Palaeolithic sites: Starosele, Kabazi II and Kabazi V, in *The Middle Palaeolithic of the Western Crimea*, Volume 1 (Eds. Marks, A.E., and Chabai, V.P.), 323-340, Liège: ERAUL 84.

Yevtushenko, A.I., 1998, Kabazi V: Introduction and excavations, in *The Middle Palaeolithic of the Western Crimea*, Volume 1 (Eds. Marks, A.E., and Chabai, V.P.), 273-285, Liège: ERAUL 84.