

When Europe was covered by ice and ash:

Environmental hazards and human survival during the last 100,000 years

The British Museum, London

6th to 8th June, 2013

This three-day meeting will explore the links between abrupt environmental change and human dispersal and development during the Middle and Upper Palaeolithic periods. It constitutes the *Finale Event* of the **RESET Consortium Project** (<http://c14.arch.ox.ac.uk/reset/>), funded by the *Natural Environment Research Council*. The RESET team, in association with many collaborators in Europe and beyond, has been testing the degree to which non-visible volcanic ash layers ('cryptotephra') can refine the chronology of important environmental and archaeological events during the past 100,000 years. At the core of the RESET strategy has been the construction of a 'tephra lattice', the main tool employed for synchronising events. The principal outcomes of the RESET project will be presented over the course of the three days, the aim being to take stock on what we understand about the links between humans and abrupt environmental change over the period of interest. To widen the perspective and debate beyond the lens of RESET, several invited Guest Speakers will offer tangential views on the subject, and the meeting will close with an *Open Forum* on issues aired during the meeting, and a forward look.

The meeting has two components, an **Open Science Meeting** (Thursday 6 and Friday 7 June), intended for research scientists, and a **Public-Engagement-with-Science Day** (Saturday 8 June), aimed at students and interested adults. Posters relevant to the meeting's theme will be welcome, but with prior agreement.

RESET Science Meeting (6th-7th June)

Thursday 6th June

1. CONTEXT and GOALS

0930-0945: *Welcome address:* John Lowe (RHUL & RESET)
Chair: Mark Pollard (Oxford & RESET)

0945-1010: Dorte Dahl Jensen (Niels Bohr Institute, Copenhagen)
The environmental backdrop to RESET

1010-1035: Giovanni Orsi (Osservatorio Vesuviano, INGV)
The volcanic backdrop to RESET

1035-1100: Francesco d'Errico (Université Bordeaux 1)
The archaeological backdrop to RESET

Coffee

1130-1150: John Lowe (RHUL & RESET)
Conception and aims of the RESET project

2. TOOLS DEVELOPED BY RESET

- 1150-1210: Emma Tomlinson (Trinity, Dublin & RESET)
Determining source of key tephra layers
- 1210-1230: Victoria Smith (Oxford & RESET)
Building the tephra lattice
- 1230-1250: Chris Bronk Ramsey (Oxford & RESET), Rupert Housley (RHUL & RESET)
Age model development and RESET data-base
- 1250-1300: DISCUSSION

Lunch

- 1400-1430: Poster session

3. CASE STUDIES – ARCHAEOLOGICAL PERSPECTIVE

- 1430-1435: Nick Barton (Oxford & RESET) Introducer & Chair
- 1435-1450: Dustin White (NHM, Oxford & Southampton, & RESET)
Archaeological contexts and sampling strategies in RESET
- 1450-1510: Rupert Housley (RHUL & RESET), Victoria Cullen (Oxford & RESET)
Discoveries and uses of tephra layers in archaeological sites
- 1510-1530: William Davies (Southampton & RESET)
Case studies: linking archaeological to terrestrial and marine archives using tephra isochrons
- 1530-1545: DISCUSSION

Tea

- 1615-1700: Posters

Friday 7th June

4. CASE STUDIES - ENVIRONMENTAL SYNCHRONISATION

- 0930-0935: Simon Blockley (RHUL & RESET) Introducer & Chair
- 0935-0955: Andrew Roberts (ANU, Canberra & RESET)
The oceanographic perspective
- 0955-1015: Paul Albert (RHUL & RESET)
Key tephra isochrons; major struts of the lattice
- 1015-1035: Ian Matthews (RHUL), Anna Bourne (Swansea University)
Prospects for marine-land correlations

1035-1055: Mark Hardiman (RHUL & RESET)
Testing age-depth models using tephrochronology

1055-1110: DISCUSSION

Coffee

5. FUTURE POTENTIAL

1140-1145: Martin Menzies (RHUL & RESET) Introducer & Chair

1145-1205: Christine Lane (Oxford & RESET)
Tephra layers as high precision isochrons: realising the potential

1205-1225: Sabine Wulf (GFZ Potsdam)
Prospects for adding to the tephra isochron record

1225-1245: Siwan Davies (Swansea University)
Prospects for linking to Greenland ice-core records

1245-1300: DISCUSSION

Lunch

6. APPRAISAL & LEGACY

1400-1405: Chris Stringer (NHM, London & RESET) Introducer & Chair

1405-1430: Simon Blockley (RHUL & RESET), Clive Gamble (Southampton & RESET)
Key RESET outcomes and issues

1430-1450: Jean-Jacques Hublin (Max Planck Inst., Leipzig)
A palaeanthropologist's perspective on future potential

1450-1510: Chronis Tzedakis (UCL)
A palaeoecologist's perspective on future potential

Tea

1540-1700: *Open Forum*
Chair: Mike Walker (U. Wales, Lampeter)
Commentary: Chris Turney (University of New South Wales)

1700-1715: Wrap-up remarks from the members of the RESET International Advisory Panel
Clive Oppenheimer (Cambridge University)
Jorgen-Peder Steffensen (Niels Bohr Inst., Copenhagen)
Martin Street (Zentralmuseum Neuwied)
Barbara Wohlfarth (Stockholm University)

1730: **WINE RECEPTION**

Our Explosive Past

How humans survived catastrophe

Saturday, 8th June 2013

Over the past 100,000 years, Neanderthals and then modern humans survived abrupt changes in climate and massive volcanic explosions in Europe. Did adverse conditions eventually lead to Neanderthal extinction and how did modern humans survive? Come and meet the scientists engaged in piecing together our fascinating prehistory. Learn about the climate record locked in the Greenland polar ice cap, the discovery of invisible volcanic ash particles transported thousands of kilometers from origin, the changing behaviour and technological advantages of the human invaders who displaced the Neanderthals, and how they survived the throes of environmental turmoil.

- | | | |
|------------|---|---|
| 0930-0945: | Welcome and introduction | John Lowe (Royal Holloway University of London) |
| 0945-1015: | Humans in Europe. | Chris Stringer (Natural History Museum) |
| 1015-1030: | <i>Open Forum</i> | |
| 1030-1100: | The Greenland ice core records. | Jorgen Peder Steffensen (Niels Bohr Institute, Copenhagen) |
| 1100-1130: | <i>Coffee & posters</i> | |
| 1130-1200: | Large explosive volcanic eruptions. | Clive Oppenheimer (Cambridge University) |
| 1200-1215: | <i>Open Forum</i> | |
| 1215-1300: | Meet the Experts | |
| | <i>Lunch</i> | |
| 1400-1430: | Human evolution | Alice Roberts (Broadcaster; University of Birmingham) |
| 1430-1445: | <i>Open Forum</i> | |
| 1445-1515: | <i>Tea</i> | |
| 1515-1700: | Displays, Activities & Meet the Experts | |
| | <ul style="list-style-type: none">• Hominid stone tools and other artefacts• Demonstration of stone tool manufacture• Hominid fossils and anatomy• Section of frozen ice core• Film of deep coring into polar ice caps• Volcanic eruptions (film)• Visible volcanic ash layers• Extraction of cryptotephra (non-visible volcanic glass) from sediments• Microscopic examination of example cryptotephra volcanic ash shards• How tephra shards are 'fingerprinted'• How the global climate system works• Key environmental records• How environmental and archaeological records are dated precisely• Links to the concurrent Pompeii exhibition | |

When Europe was covered by ice and ash: *Environmental hazards and human survival during the last 100,000 years*

The British Museum, London
6th to 8th June, 2013

Registration Form

Conference fees include coffees, teas, lunches and wine reception for those attending on June 7th

Name.....

email.....

Institutional affiliation or address.....

I would like to attend the full conference for £70

I would like to attend on June 6th and 7th for £50

I would like to attend on June 8th only for £25

I would like vegan lunches

I would like gluten-free lunches

I enclose a cheque for £..... made payable to **“The British Museum”**

I would like to display a poster entitled.....

.....

Please send by email a short abstract to: nashton@thebritishmuseum.ac.uk

Please return the form with cheque by **Monday April 15th** to:

Nick Ashton (RESET Conference), British Museum, Department of Prehistory & Europe, Franks House, 56 Orsman Road, London N1 5QJ