

Edited by Wendy Carruthers and Vanessa Straker

Copy dates for Items for the Newsletter may be submitted by e-mail or on disk. Newsletter: 20th of the following months - January / April / July / October. Short typed manuscripts can be sent to Wendy Carruthers.

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AEA website <http://www.envarch.net/>

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EDITORIAL

We apologise for the delay in sending out this Newsletter and draw to your attention several December deadlines - for membership renewal (see below) and for the Food in History and Paleopedology conferences.

There are two major AEA conferences in 2013. The spring conference in April will be a joint meeting with UK Archaeological Sciences held in Cardiff, UK. The autumn conference in September will be in Kiel, Germany.

We are pleased to include a piece on the *Environmental Archaeology investigations at the London Olympic Park* by Michael Grant and Chris Stevens and would be glad to receive other such syntheses – please contact the Editors if you would like to contribute. Many thanks also to Lee Broderick for a report on the AEA Conference in Reading; we would be glad to publish summaries of other conferences.

NEWS FROM THE COMMITTEE

MEMBERSHIP RENEWALS

The time is fast approaching to **renew your AEA membership!** A renewal form for 2013 is printed at the end of the Newsletter. You do not need to complete this if you have already arranged to pay your membership fee by standing order. Please remember to let the Membership Secretary know if your contact details have changed. Those with existing standing orders are reminded to check that the amount they are paying is correct.

We are delighted to announce that there will be no change in the membership fee, which remains at **£38 for waged** and **£28 for students/unwaged**. In addition, there is no postage charge for overseas members.

Members are asked to submit their payment on time (**by end of December 2012**), as reminders from the Membership Secretary are time-consuming.

UK members – Standing Order: If you do not already have one and would like to set up a standing order to renew your membership automatically each year, please contact the AEA Treasurer (Jacqui Huntley: Jacqui.Huntley@english-heritage.org.uk) for further information and a standing order form. The first payment should be made for 1st January 2013. When you have received the form from the AEA Treasurer, please complete and return the form **no later than 15th December 2012**.

Eurozone members – IBAN payment: If you are living in the Eurozone, you may be interested in paying AEA membership fees using the IBAN (International Bank Account Number) electronic transfer system. With this system, an AEA member can go to their local bank and transfer money to an AEA account for a small fee. The AEA has set up a bank account in the Republic of Ireland to enable payment of membership fees using this method. Your bank's charge for payment will vary, depending on the bank and country, but the fee should be low (for example, some banks in the Republic of Ireland charge around €0.75 – check your local bank for their rates). AEA membership fees for IBAN transfers are: **€50 waged** and **€37 student/unwaged**. If you would like to use this method of payment, please contact the Membership Secretary (Ruth Pelling: membership@envarch.net) for further information.

Non-UK members – Payment by Visa can be made by non-UK members only. For reasons of security, the AEA do not hold members' Visa details. Members using this method of payment must therefore confirm payment each year, providing their payment details each time. Credit card details **should not be sent via email**. If you would like to use this method of payment, please complete the membership form at the end of the Newsletter.

Membership Secretary:

Dr Ruth Pelling,
English Heritage, Fort Cumberland, Fort Cumberland Road, Eastney, Portsmouth, Hampshire PO4 9LD, UK
Email: membership@envarch.net

SUMMARY OF THE AGM, 10th NOVEMBER 2012, UNIVERSITY OF READING, UK

The annual general meeting was held during the autumn conference in Reading. The meeting kicked off with a report on the Committee's activities, and included the Treasurer's report and announcements of the 2012 John Evans Prize winners, and the election of new committee members. The meeting is summarised below.

1. REPORT ON THE COMMITTEE'S ACTIVITIES

CONFERENCES AND MEETINGS UPDATE

Conference Officer: Rebecca Nicholson

Past meetings

The 2011 autumn meeting in Amsterdam was organised by Maaïke Groot and Daphne Lentjes, (VU University), Jørn Zeiler (Archaeobone) and Laura Kooistra (BIAX Consult). It was reported in Newsletter 114. Proceedings are currently being prepared for publication.

The student focussed spring meeting *New Trends in Environmental Archaeology*, was held at University of Plymouth, 21st April 2012. The meeting was organised by AEA Student Representatives Marta Perez and Lisa Lodwick, AEA Publicity Officer Richard Madgwick, and Wendy Howard (University of Exeter), and was reported in Newsletter 116. The papers had a diverse scope and were presented by colleagues from across Europe, supported by student conference bursaries totalling £194, and £378 conference support. **The winner of the conference prize was Jennifer Jones (Cardiff University)** for a poster entitled *Isotopes and old bones: Using an integrated approach towards understanding trends in marine subsistence through time in the North Atlantic Islands*.

The 2012 autumn meeting at the University of Reading, reported in this newsletter, was organised by Robin Bendrey, Sarah Elliott, Wendy Matthews, Amy Richardson and Jade Whitlam, assisted by several volunteers. The meeting was supported by conference bursaries totalling £600, distributed between post-graduate students, a self employed colleague and a colleague travelling from eastern Europe. **The winner of the conference prize was Sarah Kneen (University of Manchester)**, for a poster entitled *Environmental change and human impact across the Mesolithic-Neolithic transition of NW Europe: new data from March Hill, N. England*.

Forthcoming meetings

The **2013 spring meeting, *Environmental and Archaeological Science***, will be held as a joint meeting with UK Archaeological Sciences, at Cardiff University on 11th-14th April 2013 (<http://www.cardiff.ac.uk/share/newsandevents/events/archaeology/ukas-2013.html>). The conference organisers

are Penny Bickle, Dani Hofmann, Jane Henderson, Paul Nicholson, Rebecca Nicholson, Richard Madgwick, Yiota Manti, Steve Mills, Jacqui Mulville, Dave Watkinson and Tim Young. One day will be focussed on environmental archaeology in the commercial world, with a reduced day rate for AEA members. **Abstracts are invited by the 18th December 2012**

The **2013 autumn meeting, *Social space and environment: landscape reconstruction in environmental archaeology***, will be held 27-29th September 2013 at the University of Kiel. The conference is being organised by Wiebke Kirleis, Walter Dörfler, Johannes Müller, Mara Weinelt (Institute of Prehistoric and Protohistoric Archaeology/Graduate School "Human Development in Landscapes") and Ingmar Unkel (Institute for Ecosystem Research/Graduate School "Human Development in Landscapes"). The conference abstract can be found in this Newsletter.

JOURNAL UPDATE

Co-ordinating editor: Ingrid Mainland

The Association's journal, *Environmental Archaeology*, has undergone several changes this year, which has seen another slight increase in institutional subscribers and allows us to announce an **increase to three issues a year from 2013**. Volume 18 (2013) will include two general issues and a special issue *Bioarchaeological Research on Animal Dung: Possibilities and Limitations*.

The editorial board has also seen changes with two associate editors, **Professor Kevin Edwards** (Aberdeen) and **Professor Glynis Jones** (Sheffield), and the book review editor, **Dr Umberto Albarella** (Sheffield), stepping down in 2012. The AEA thanked them for all their support and efforts over the years. We have welcomed three new associate editors this year: **Dr David Smith** (Birmingham), **Prof. Martyn Waller** (Kingston) and, as deputy editor, **Dr Tim Mighall** (Aberdeen). **Dr Ed Scofield** (Aberdeen) has joined the board as Book Review Editor. We look forward to working with the new editorial board members over the coming year and thank all board members for contributing to the success of the journal.

NEWSLETTER UPDATE

Co-ordinating editors: Wendy Caruthers and Vanessa Straker

We plan to review the content and format of the Newsletter in the coming year, so will shortly be contacting members for feedback and comment via a message by JISC mail. The Newsletter is published quarterly and includes a bibliography compiled by James Greig. We welcome members' contributions to the Newsletter and thank the co-ordinating editors and contributors over the past 12 months.

DISCUSSION LISTS UPDATE

Jiscmail manager: Professor Paul Davis

The AEA is grateful to Paul Davis for managing our two email lists:

aea@jiscmail.ac.uk is a moderated list, which is intended for AEA related information only; env-arch@jiscmail.ac.uk is our discussion list, open to mailing from any member about any environmental archaeology related notice or discussion, for example job adverts, etc. Members can opt out of this list with instructions at the bottom of every email sent.

MEMBERSHIP UPDATE

Membership Secretary: Ruth Pelling

As of 25th October 2012 the AEA had 302 fully paid up members and eight honorary members. Fully paid membership is slightly lower than this time last year. Members were reminded of subscription payment options (see above), and it was announced that the Treasurer has been working towards providing an online payment system, which we hope will be in place shortly. Members will be informed once online payment is available and are asked to ensure that their 2013 subscriptions have been paid by the end of December 2012. The membership secretary can be contacted through membership@envarch.net

AEA AWARDS

During 2012 the AEA has launched two new membership award initiatives, each of which will be awarded for a three year period:

Award 1 – Individual Award

Full 3 year individual AEA Membership awarded to an environmental archaeologist who has demonstrated commitment to the discipline, but whose circumstances have not enabled them to either join the organisation or to remain as a member. The recipient will act as a local correspondent and submit articles to the Newsletter each year. No country or level of career development is excluded.

Award 2 – Organisational/Institutional Award

One hard copy of each edition of *Environmental Archaeology* for three calendar years, to be placed in an institutional library/organisation, which will benefit students studying environmental archaeology. The recipient organisation will act as a local correspondent and submit articles to the newsletter each year.

We were delighted to announce that the first Individual Award has been offered to **Mr Jimoh Ganiya Adedeji**, a Geoarchaeologist from Nigeria. The award will run from January 2013 to December 2015. We welcome Jimoh to the AEA and look forward to reading his contributions in forthcoming Newsletters. The committee continues to welcome nominations for the Organisational/Institutional Award.

PUBLICITY UPDATE

Publicity Officer: Richard Madgwick

By the end of the year, 2012 will see a total of nine AEA seminars, more than presented in previous years. Attendance is free. The last two seminars of 2012 are:

- **George Wilcox** (CNRS) *The adoption of cultivation at the end of the Pleistocene and the beginning of the Holocene in southwest Asia the plant repertoire of the modern hermit's basket*. 30th November 17.00, University of Oxford
- **Eva Panagiotakopulu** (University of Edinburgh) *Living with humans - Holocene introductions, invasions and the palaeoecology of insect assemblages*. 11th December 13.00, University of Sheffield

WEBSITE UPDATE

Website Officer: James Morris

The position of Website Officer has been brought into the Committee during 2012. 2013 will see a redesign of the AEA's website (www.envarch.net) with increased functionality. The Association also has a Facebook page, managed by the Publicity Officer and Student Representatives (Marta Perez and Lisa Lodwick for 2012). The Facebook page has increased in popularity throughout the year and can be found by searching for 'Association for Environmental Archaeology'.

2. JOHN EVANS DISSERTATION PRIZE

The winners of the 2012 John Evans Dissertation Prize were announced, with both prizes being awarded to University of Reading students. Their abstracts can be found in this newsletter. Congratulations to both winners!

2012 Undergraduate Award:

Kirsten Barr, University of Reading '*Bronze Age Ungulate Footprint-Tracks of the Severn Estuary: Species and Age Identification and an Interpretation of Husbandry Practices*'.

2012 Post-graduate Award:

Amanda D Wynne, Reading University (MSc Geoarchaeology), '*Palaeoenvironmental Impact of Medieval Colonisation and Expansion at Radzyń Chełmiński, North-Central Poland*'.

3. TREASURER'S REPORT

Treasurer: Jacqui Huntley

Sterling and Euro subscriptions were up again in 2011 and the book income was up, although it is not profit making. The moderately large book payment to the Euro account expected in 2011 was not, however submitted until 2012. The term deposit earns a little interest, which will show at the end of term. Overall finances are up from last year, so we do not need to consider raising subscriptions this year.

The accounts were accepted at the AGM

Accounts to End Dec 2011 (Sterling Account)

Assets at start of year	2010	2011
Bank – current account	£12,618.50	£11,962.98
Bank – savings account	£18,776.48	£18,785.88
Total assets at start of year	£31,394.98	£30,748.86

Income	2010	2011
Subscriptions	£10,265.25	£12,238.25
Books inc. journal back numbers	£889.00	£2,601.45
Interest earned	£9.40	£4.66
Fraud attempts	£1,570.00	-
Maney Royalties and Editorial income	-	£1,566.11*
<i>Income sub-total</i>	£12,731.28	£16,410.47
Initial total assets excluding books in stock	£44,128.63	£47,159.33

*Maney Royalties cover two years

Expenditure	2010	2011
Office stationery, stamps, poster	-	£113.75
Credit card charges	£113.42	£166.18
Web page	-	£1,000.00
Journal production and postage (inc. back numbers)	£9,100.00	£9,100.00
Committee meeting travel related	£251.55	£550.95
Book purchase	£1,632.20	£1,937.50
AEA Seminars	£12.92	-
Conference support	-	£125.00
Conference prizes	£530.00	-
Standard bank charges	£169.68	£138.79
Fraud attempt	£1,570.00	-
Subscriptions reimburse (duplicate standing order)	-	£38.00
<i>Expenditure subtotal</i>	£13,379.77	£13,170.17
Total assets minus expenditure	£30,748.86	£33,989.16

End of Year	2010	2011
Bank – current account	£11,962.98	£13,989.16
Bank – savings account	£18,785.88	-
Term Deposit	-	£20,000.00
	£30,748.86	£33,989.16

Accounts to End Dec 2011 (Euro Account)

		2010	2011
Assets at start of year	Bank – current account = total assets	€4,156.61	€6037.73
Income	Books	€207.13	€1,341.94
	Subscriptions	€1,919.00	€1,960.54
	<i>Income sub-total</i>	€2,126.13	€3,302.48
	Initial total assets	€6,282.74	€9,340.21
Expenditure	Postage	-	-€11.85
	Standard bank charges	-€22.69	-€23.34
	Committee expenses	-€222.32	-€401.83
	<i>Expenditure subtotal</i>	-€245.01	-€437.02
	Total assets minus expenditure	€6,037.73	€8,903.19
End of Year	Bank – current account = total assets	€6,037.73	€8,903.19

4. ELECTION OF NEW COMMITTEE MEMBERS

The terms of office of two Ordinary Members (Zoe Hazell and Ellen Hambleton) and one Student Representative (Marta Perez) concluded at the AGM. Elections for Treasurer, three Ordinary Members and one Student Representative were held, taking into account all received proxy votes and the elected candidates were:

As Ordinary Member – Alexandra Livarda, Don O'Meara and Sarah Viner-Daniels;
As Student Representative – Jade Whitlam.

The current committee structure is as follows: elected term in []
Dr Robin Bendrey (University of Reading, England) [2010-2014]
Dr Emily Forster (University of Sheffield, England) [2010-2014]
Dr Andy Howard (University of Birmingham, England) – Chair [2009-2013]
Jacqui Huntley (English Heritage, England) – Treasurer [2011-2015]
Dr Alexandra Livarda (University of Nottingham) [2012-2016]
Lisa Lodwick (University of Oxford, England) – Student Representative [2011-2013]

Dr Richard Madgwick (University of Bournemouth, England) – Publicity Officer [2011-2015]
Dr Preston Miracle (University of Cambridge, England) [2010-2014]
Dr James Morris (MoLA, London, England) – Website Officer [2011-2015]
Dr Rebecca Nicholson (Oxford Archaeology, England) – Conference Officer [2009-2013]
Mr Don O’Meara (Wardell-Armstrong Archaeology, England) [2012-2016]
Dr Ruth Pelling (English Heritage, England) – Membership Secretary [2009-2013]
Dr Hannah Russ (University of Sheffield, England) [2011-2015]
Dr Sarah Viner-Daniels (University of Sheffield) [2012-2016]
Jade Whitlam (University of Reading) – Student Representative [2012-2014]
Dr Fay Worley (English Heritage, England) – Secretary [2010-2014]
Dr Jørn Zeiler (ArchaeoBone, Netherlands) [2009-2013]

CO-OPTED COMMITTEE MEMBERS

Wendy Carruthers (Llantrisant, Wales) – Co-editor of the Newsletter
Prof Paul Davies (Bath Spa University, England) – JISC-mail Manager
Dr Ingrid Mainland (UHI, Orkney, Scotland) – Co-ordinating Editor of the Journal
Vanessa Straker (English Heritage, England) – Co-editor of the Newsletter

Outgoing and current committee members were thanked for all their hard work throughout the year and their terms of office.

5. ANY OTHER BUSINESS

Attending members raised two comments. Firstly, that the committee is heavily biased towards English members. While this is the case, the committee, as always, welcomes nominations for members from any country and utilises video-conferencing to facilitate contributions from committee members who cannot travel to the meeting. The second comment was a suggestion that the AEA may want to exploit Twitter. This will be considered by the committee.

JOHN EVANS DISSERTATION PRIZE WINNERS 2012

Undergraduate

Kirsten Barr

Department of Ancient History and Archaeology, University Of Reading

Bronze Age Ungulate Footprint-Tracks of the Severn Estuary: Species and Age Identification and an Interpretation of Husbandry Practices

Abstract

The significance of prehistoric animal footprint-tracks is often overlooked in favour of physical remains such as bones, resulting in very limited investigation into prehistoric animal footprints, with intensive investigation occurring in a few areas, such as the Severn Estuary and Liverpool Bay. Animal footprint-tracks are the very signature of that animal, a finger print, if you will, documenting the exact sedimentary layer the animal was present upon, enabling an interpretation not just into the species of the animal, but the possible husbandry practices performed upon a site. Footprint-tracks are also one of the best forms of evidence for the seasonality of a site. This dissertation examines the Bronze Age ungulate footprint-tracks from the site of Goldcliff East, the Severn Estuary, arguing that footprint-tracks from modern day domesticated animals can be used as a parallel against the prehistoric data as a reliable resource to assign a species and age to the prehistoric footprints. The Goldcliff East data is compared against a sample of Redwick data to evaluate if the same age and species of animal was present at both sites. From these data sets, an interpretation into seasonal occupation, herd structure and animal husbandry practices can be made. This evidence leads to a conclusion about dairy farming in prehistory, a fairly controversial matter.

Postgraduate

Amanda D Wynne

Department of Archaeology, University of Reading

Palaeoenvironmental Impact of Medieval Colonisation and Expansion at Radzyń Chełmiński, North-Central Poland

Abstract

The Teutonic Order colonisation of Prussia during the Prussian Crusade was accompanied by numerous social and economical changes throughout the thirteenth and fourteenth centuries AD. Principal among these was population re-settlement and agricultural intensification in colonised areas (Urban 1980), which provided key resources for the continuation of crusading efforts. The late medieval period is understudied in north Poland in

terms of anthropogenic impact on the environment, with research focused instead on climate changes and multi-proxy indicators of fluctuations in hydrology (e.g. De Vleeschouwer *et al.* 2009, Lamentowicz *et al.* 2008). This deficit is being addressed through the Ecology of Crusading project, with preliminary work (e.g. Brown & Pluskowski 2011) showing promising evidence for environmental modification associated with the colonisation of the Teutonic Order.

To address the impact of the Teutonic Order colonisation at Radzyń Chełmiński a program of coring within the adjacent lake basin was carried out. Pollen, charcoal, magnetic susceptibility, loss on ignition and multi-element composition were investigated. It was hypothesised that the Order's colonisation of Radzyń represented a watershed moment in landscape development, followed by agricultural intensification and increased pollutant input into the lake. The results do suggest increasing disturbance and anthropogenic activity within the late medieval period, however, radiocarbon dating is not a precise enough chronological control to isolate the appropriate horizons. A preliminary tephra assessment demonstrated potential horizons within the sediment sequence which could be used to refine the chronology.

[Continuing our catch-up with past prize winners:]

JOHN EVANS DISSERTATION PRIZE WINNER 2011

Postgraduate

Andrea K. Thompson

Département d'Anthropologie Université de Montréal, Montréal

A Zooarchaeological Analysis of a Late Dorset Faunal Assemblage from the KcFs-2 Site (Nunavik, Quebec).

Abstract

This thesis presents a zooarchaeological analysis of a faunal assemblage from a Dorset site (KcFs-2) on the Nuvuk Islands in the Canadian Arctic. The faunal data was analyzed through the application of bone density and economic utility indices and bivariate statistical tests. A brief taphonomic study was also undertaken, showing that the assemblage was not heavily affected taphonomically. The faunal analysis revealed a generalized subsistence strategy with an intensified focus on marine mammal exploitation, specifically ringed seals. The predominance of immature ringed seals exposed through the study indicates an abundance of marine resources in the northern Hudson Bay and Hudson Strait regions during the period under study, which correlates well with existing studies concerning Late Palaeoeskimo economy. Occupation of the KcFs-2 site occurred in the Late Dorset period of Nunavik (1500-800 B.P.) and is defined on a multi-seasonal level, from late winter through summer. Analyses of the organic artefact assemblage (harpoon heads and sculpted objects) served to confirm the relative dating of the site and aided in the definition of the cultural affiliation of the inhabitants of the KcFs-2 site.

Key-words: Late Dorset, Nunavik, zooarchaeology, palaeoeskimo, maritime subsistence economy.

Résumé

Ce mémoire consiste en une analyse zooarchéologique d'un assemblage faunique provenant d'un site Dorsétien des Îles Nuvuk dans l'Arctique canadien. Les données fauniques ont été analysées statistiquement en appliquant des indices d'utilité économique et des indices de densité des os. Une étude concernant le niveau de conservation de l'assemblage a révélé peu d'évidence de modification taphonomique des spécimens. Les analyses fauniques ont permis d'identifier une stratégie de subsistance généraliste et basée sur l'exploitation de mammifères marins, surtout des phoques annelés, pratiquée par les occupants du site de KcFs-2. Une prédominance d'individus immatures (phoques annelés) dans l'assemblage indique une abondance de ressources marines dans les régions du nord de la Baie d'Hudson et du détroit d'Hudson au moment de l'occupation, ce qui est aussi manifeste dans des études antérieures concernant les économies des peuples du Paléoesquimaux tardif pour la période donnée. L'occupation du site de KcFs-2 s'est produite durant la période du Dorsétien récent au Nunavik (1500-800 B.P.), et la séquence est définie comme ayant été multi-saisonnière (de l'hiver à l'été). L'analyse des produits de l'industrie osseuse (têtes d'harpons et sculptures en ivoire) a permis de confirmer l'affiliation culturelle des occupants.

Mots-clés: Dorsétien récent, Nunavik, zooarchéologie, Paléoesquimaux, économie de subsistance maritime.

CONFERENCES AND MEETINGS

WAC-7 Seventh World Archaeological Congress Amman, Jordan, January 14th – 18th 2013

Theme: Sustenance: Foodways, Subsistence
(<http://wac7.worldarchaeologicalcongress.org/>)

Session: Cultural Biogeography of Plants and Animals – The Archaeology of Exotica

Session organisers: Naomi Sykes, Alexandra Livarda, Richard Madgwick, and Greger Larson

The rise of global trade has dramatically increased the number of exotic plants and animals that have become established outside their natural range. Today, this is an important ecological, economic and political issue; however, it is not a recent phenomenon: people have radically influenced the fate of species for millennia. Geneticists, archaeologists and other social scientists are beginning to recognise that exotic species are a valuable source of cultural information: they are a direct record of human behaviour and thought, charting population movements, trade patterns, environmental impact and even shifts in worldview. As such the study of species introductions can address some of the highest-profile issues in archaeology and history: e.g. diaspora, culture-contact and the structure and ideology of past societies. This session welcomes papers from scholars who are examining the timing and circumstances of exotic plant and animal diffusion. We are particularly keen to receive submissions that take an integrated approach, employing a combination of traditional and scientific techniques (e.g. genetics, isotopic analyses, geometric morphometrics) to reconstruct the cultural biogeography of plants and animals.

Session 286: Integrated analytical approaches to investigating ancient diets

Session conveners: Dr Lisa-Marie Shillito and Dr Oliver Craig BioArCh, Department of Archaeology, University of York, United Kingdom

Reconstructing ancient diet is a key focus in archaeology that has been approached using a very diverse range of methods. Archaeobotany, zooarchaeology, isotopic analysis of human bone, organic residue analysis of pottery, dental calculus and microwear, coprolite analysis - all of these areas of specialisation have approached the question of diet. Each provides a different type of dietary information, both in terms of the type of food being studied, and the spatial and temporal resolution of the data. In order to fully understand past diets and the wider questions to which dietary studies can contribute, an integrated approach is proposed which combines these different lines of evidence.

THE ARCHAEOLOGY OF FOOD AND WARFARE CONFERENCE

February 7th-9th 2013, Department of Anthropology, University of California, Santa Barbara

Organised by

Amber Van Derwarker (vanderwarker@anth.ucsb.edu) and Gregory D. Wilson (gdwilson@anth.ucsb.edu)

CHARCOAL RESEARCH IN ITALY

Sponsored by the British School at Rome and the McDonald Institute for Archaeological Research, Cambridge

BSR Seminar Room: *Thurs 7 March, 2013*

Languages: English and Italian

A one-day informal workshop for researchers working in the field of charcoal research (or related fields) in Italy. Organised by R. Veal, University of Cambridge, assisted by Mariarosaria Vairo, Università di Salento. No charge for participants, but please send an RSVP (for catering purposes) to robyn.veal@sydney.edu.au

From 8.45 am Coffee and registration

9.15 am. Welcome to BSR, introductory remarks J Kostylo, asst director, BSR

9.30 am. Program outline: Robyn Veal.

9.45 am. Informal discussion 'Issues in Italian Charcoal Research.'

(a) VEAL: Identification resolution of oaks, hornbeams and maples in Campania: a place to start the discussion (20 minutes)

(b) Open discussion on the standards used in international nomenclature for wood and the limitations to identification in charcoal, and the practices in Italy – what they are, how they differ, and why.

10.45am Coffee break.

11.15am Special Speaker: TBC in English and/or Italian.

'The place of Pollen Analysis in Interpreting Charcoal Results.' How charcoal specialists should read a pollen study: scope, scale, positive uses and pitfalls.

30-40 mins plus discussion

12.15pm. Resources for Charcoal Identification.

Published Atlases, Online atlases, and their accuracies and inaccuracies. The goal is to provide young researchers with an awareness of all available resources (internationally) and their limits, and ultimately to draw up a comprehensive list for general distribution. This will be a preliminary discussion.

12.45pm. Discussion on the formation of an Italian Charcoal Interest Group to possibly operate loosely in tandem with, and along the model of the UK group, under the aegis of the Environmental Archaeology Association.

1.15pm. Lunch Pannini, fruit, coffee/tea and water.

FUEL AND FIRE IN THE ANCIENT ROMAN WORLD **British School at Rome and Finnish Institute of Rome, March 8-9, 2013**

Fuel is an area of research within studies of the ancient economy and the ancient environment that is relatively new. The size of the Roman fuel economy in the Mediterranean must have been large as fuel was required every day for domestic cooking and heating, and to fuel most industries. This colloquium will employ a multi-disciplinary approach incorporating researchers with a variety of backgrounds from archaeology, science, history, technology and ethnography. We seek to define and expand the current state of research in the chaîne opératoire of industrial and domestic production technologies that utilised fuel, and to establish a fresh blueprint for examining the ancient fuel economy.

Sessions will encompass:

- 1) The science and history of fuel (both raw wood and charcoal fuel). Questions shall include whether raw wood or charcoal fuel were used, in what quantities, and for which types of activity.
- 2) Kiln-based industries, such as pottery, glass and metal production, and their technology with respect to fuel will be examined. Archaeological and ethnographic studies will be complemented by scientific analyses to examine kiln temperatures and different types of fuels used.
- 3) The urban use of fuel, in particular, the preparation of food and heating of rooms and baths, as well as the use of food as fuel (for example, of olive oil consumption for lighting).

Papers will be presented at the Sainsbury Lecture Theatre, at the British School at Rome on Friday 8th and at the Villa Lante, the Finnish Institute of Rome, on Saturday morning of the 9th March, 2013. Open discussion will be encouraged after each session and will form an integral part of this conference, which will be open to the public and free of charge. William V Harris (Columbia) will give the keynote address at 6pm, Thursday 8th March at the BSR.

Organised by: Dr Robyn Veal (University of Cambridge), Dr Victoria Leitch (University of Leicester), and sponsored by the British School at Rome and the Oxford Roman Economy Project. For more information contact: robyn.veal@sydney.edu.au or victoriamleitch@googlemail.com. A link will soon be available on the BSR website with a full list of speakers and program details: www.bsr.ac.uk/news/coming-up.

PLOUGHING AHEAD: TECHNOLOGICAL, SOCIO-ECONOMIC AND ENVIRONMENTAL DEVELOPMENTS IN OLD WORLD PLOUGHING

One-day colloquium at Rewley House, University of Oxford, Friday 15th March 2013

The first call for papers is now open for a one-day colloquium to discuss recent research into pre-industrial tillage methods. There has been limited synthetic research in recent years on the use of different tillage methods in antiquity, despite their importance for the study of past agricultural practices and their social implications. It is hoped that this conference will bring together scholars with varying backgrounds and levels of experience, representing a range of historical, archaeological and environmental disciplines.

We would like to invite abstract submissions within, but not restricted to, the following fields of research:

1. Landscapes & settlements
2. Documentary & iconographic history
3. Artefactual archaeology
4. Environmental archaeology
5. Ethnography
6. Soil science

Papers will each be allocated 20 minutes, followed by time for discussion. Abstracts should be no longer than 200 words and submitted by e-mail. The deadline is Friday 7th December.

We hope to be able to offer some financial support for Postgraduate students (TBC). Please enquire for further details.

Organisers: Mark McKerracher and Lisa Lodwick (School of Archaeology, University of Oxford)

Website: <http://farmingunearthed.wordpress.com/ploughing/>

Contact: ploughing.ahead@gmail.com

This event is generously supported by the Meyerstein Fund (School of Archaeology, University of Oxford) and the British Agricultural History Society.

EUROPEAN GEOSCIENCES UNION, GENERAL ASSEMBLY 2013

07 – 12 April 2013, Vienna, Austria

GM4.6/SSS10.13

Where earth scientists meet Cleopatra: Geoarchaeology of rocks, sediments, soils and climate

Convener: Sjoerd Kluiving; Co-Conveners: Max Engel, Andy Howard, Matthieu Ghilardi, Vanessa Heyvaert, Kosmas Pavlopoulos, Helmut Brückner

Modern research into geoarchaeology can be described as the interaction between modern humans, our ancestors and the physical environment and as a discipline it is strongly rooted in the earth sciences. Early case studies from the geographical nuclei of human evolution and socio-technical advances in the circum-Mediterranean helped to characterise both the timing and scale of anthropogenic influence on natural sedimentary environments, the intensity of associated geomorphological processes as well as the wider impact on ecosystems. However, whilst landscape change attributed to human impact is recorded on a range of temporal scales during the Holocene epoch, the spatial evidence for change is still rather limited. Furthermore, the impacts of extreme events on ancient societies and landscapes, as well as human response are under-researched themes.

For this session, we invite case studies of human-environment interactions undertaken at any spatial scale and time period (i.e. early prehistory through to the historic archaeological period). We would particularly welcome interdisciplinary contributions that link cultural archaeological approaches (including anthropology and historical geography) with those from the geoarchaeological sciences (i.e., geomorphology, environmental archaeology, palaeoclimatology, geophysics, sedimentology, bioarchaeology, geoecology, soil science, hydrology, geochemistry and archaeometry). We would also welcome papers focused on methodological approaches and advancements (e.g. in the fields of predictive modelling, airborne remote sensing, radiometric dating and isotope studies etc.). We intend to select the best abstracts for the production of special volumes of peer reviewed journals.

Further details at: <http://meetingorganizer.copernicus.org/EGU2013/session/12210>

AEA 2013 SPRING MEETING, 11-14TH APRIL, CARDIFF, UK

A joint meeting with UK Archaeological Sciences

The Primary aim of this conference is to promote collaboration and dialogue between archaeological scientists and highlight the synergy of environmental archaeological research by hosting a joint conference. One day of the conference will focus on archaeological science in environmental archaeology and individual day rates will be available to allow a broad spectrum of participants to attend.

First Call for Papers - Abstract submission deadline 17th December 2012
Please send proposals for papers and posters to UKAS2013@cardiff.ac.uk

Themes

The organising committee invites oral and poster presentations from all areas of archaeological and environmental science but particularly around the themes of:

- materials, technologies and skills
- landscape and climate
- lifeways and subsistence
- populations, relations and descent
- heritage science
- archaeological science in the commercial world

Abstract Guidelines

Abstracts should be sent as text documents (preferably word format) by 15th December 2012. Please include a title, complete name(s) of author(s), affiliation(s), and full postal and email addresses. Abstracts should be a maximum of 200 words and contain a clear description of the topic of the presentation.

Structure

The conference programme will start with a public archaeological science event and reception and then devote three days to presentations and discussions. Further details will also be posted on the Archaeology and Conservation, University of Cardiff website

[University of Cardiff archaeology website](http://www.cardiff.ac.uk/archaeology)

We will be pleased to respond to informal enquires (to be directed to the email address UKAS2013@cardiff.ac.uk)

Conference organisers: Penny Bickle, Dani Hofmann, Jane Henderson, Paul Nicholson, Rebecca Nicholson, Richard Madgwick, Yiota Manti, Steve Mills, Jacqui Mulville, Dave Watkinson, Tim Young. c/o Archaeology, Cardiff University, Humanities Building, CF10 2TN.



THE SECOND INTERNATIONAL WORKSHOP OF PEDOANTHROLOGY

18TH-19TH April 2013, Kiel, Germany

Improving the link between charcoal analysis and geosciences – towards a Geoanthracology?

First circular. Deadline for registration: 15th February 2013

Organization committee

Oliver Nelle (ÖSF, GS "Human development in landscape", CAU Kiel, Germany)

Brigitte Talon (IMBE-University Paul Cézanne, France)

Yasmin Dannath (ÖSF, GS "Human development in landscape", CAU Kiel, Germany)

Vincent Robin (ÖSF, GS "Human development in landscape", CAU Kiel, Germany)

In June 2010, the first International Workshop of Pedoanthracology took place in Aix-en-Provence: "Pedoanthracology and environmental studies" (<http://pedoanthracoworkshop.free.fr>). At this meeting, researchers active in the analysis of charcoals in a soil/soil sediment context met for presentations and discussions, the results of which are published soon in a special issue of *Quaternary International*. To continue, we invite for the Second International Workshop of Pedoanthracology, at the Kiel University, in Germany, in next spring.

One of the important issues of discussion during the first workshop was the connection between the geosciences and the palaeobotanical approach which is the charcoal analysis. We reached the conclusion that this connection is crucial for pedoanthracology. Indeed, it appears crucial to use soil / soil sediment description and stratigraphical context to interpret the soil / soil sediment charcoal assemblages. On the other hand, it equally appears important to have insights about the vegetation cover to interpret data sets about soil history. In other words, for both disciplinary scientists, the geoscientist and the pedoanthracologist, it is very useful to combine the abiotic and biotic data set to improve the global palaeo-environmental reconstruction. However, so far a standard combination of both geoscience and charcoal analysis (which would lead to a "Geoanthracology") does not exist. Several issues of this crucial connection remain to be discussed, and may be detailed and probably improved, to name but a few:

- What data from soil formation and / or soil sediment accumulation histories are necessary to interpret charcoal assemblages?
- What sampling strategy is needed to combine both soil and charcoal analysis?
- What the analysis of charcoal assemblages from soil / soil sediment can/should provide to geosciences analysis?

Every contribution dealing with the combination of geosciences and charcoal analysis are warmly welcome to this second International Workshop of Pedoanthracology: "Improving the link between charcoal analysis and geosciences - towards a geoanthracology?"

OPEN WORKSHOP: SOCIO-ENVIRONMENTAL DYNAMICS OVER THE LAST 12,000 YEARS: THE CREATION OF LANDSCAPES III

15th - 18th of April, 2013, Kiel University

Graduate School "Human Development in Landscapes"

This workshop aims to bring together researchers from different disciplines to discuss the interaction between physical and social landscapes as the most profound process that catalyses human activities in space and time; and the interplay of environments, social relationships, material culture, population dynamics, and human perceptions of socio-environmental change.

In its third edition the single sessions will cover aspects of Palaeolithic, Mesolithic, Neolithic, Bronze and Iron Age studies as well as aspects of Greek and Roman history. Further sessions will deal with diachronic approaches or methodological questions concerning, for example, data management.

We invite researchers to participate in any of the 15 sessions and send their abstracts in English by the **4th of January, 2013**. The Graduate School will offer travel grants for outstanding abstracts submitted by doctoral students.

You can find further information about the Call for Abstracts and the sessions on the attachments or under: <http://www.workshop-gshdl.uni-kiel.de/>

--Johannes Müller

-- Rhina Colunge-Peters, M.A. Christian-Albrechts-Universität zu Kiel
Graduate School "Human Development in Landscapes" Leibnizstr. 3 24118, Kiel Germany

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www.ecosystems.uni-kiel.de

FOOD IN HISTORY: ANGLO-AMERICAN CONFERENCE 2013

11-12 July 2013, Senate House, London, UK

CALL FOR PAPERS NOW OPEN

From famine to feast, from grain riots to TV cookery programmes, dieting to domesticity, food features in almost every aspect of human societies since prehistoric times. At its annual summer conference in 2013 the Institute of Historical Research aims to showcase the best of current scholarly writing, research and debate on the subject. Our plenary lecturers include Ken Albala, Susanne Freidberg, Cormac O'Grada and Steven Shapin. The conference will include a publishers' book fair, policy forum, film screenings and a historic food recreation event. Bursaries will be available enabling postgraduate students to attend.

Panel proposals (three papers each plus chair) and individual paper proposals are invited on topics across the full range of food history from ancient to contemporary times, and from all areas of the world: for example: food technology and regulation; global foods and the globalisation of food trade; migration and culinary culture; restaurants; food religion and status; diet and nutrition; individual commodities; agriculture, distribution and markets; retail, advertising and consumption. Early career researchers are particularly encouraged to participate.

Please send your proposal to Foodinhistory@lon.ac.uk by **15 December 2012**. The finalised conference programme will be published in January 2013.

PALEOPEDOLOGY

XIIIth International Symposium and Field Workshop on Paleopedology (ISFWP)

10-15 August, 2013, Kursk & Voronezh regions, Russia

First Announcement

GENERAL INFORMATION AND TASKS

Conference venue (for academic sessions August 12, 13): Kursk State University

<http://www.kursksu.ru/pages/foreign>

Official language: English

IMPORTANT DATES

December 31, 2012 - preliminary registration for scientific sessions and field tours via conference site paleopedology.msu.ru/paleopedology2013 (number of participants of field excursions is limited).

January 15, 2013 - 2nd Circular (according to pre-registration)

March 31, 2013 - registration, abstracts submission, and payments (banking details will be announced in the second circular) have to be completed

CONTACTS

e-mail: paleopedology2013@gmail.com Dr. Maria Bronnikova, secretary of the Organizing Committee

fax: +7-495-959 00 33

Please visit the conference website paleopedology.msu.ru/paleopedology2013 for detail information and updates.

AEA AUTUMN MEETING 2013 27TH - 29TH SEPTEMBER, KIEL UNIVERSITY

Social space and environment: landscape reconstruction in environmental archaeology

Environmental archaeology is expanding beyond a collection of analytical approaches used to reconstruct palaeo-environments. A more holistic approach is evolving that integrates the reconstruction of landscapes at the interface of the natural environment and anthropogenic social space. This conference will explore how environmental dynamics and cultural processes shape the natural landscape, and how the shaped environment informs the configuration of human social terrains. Next to the organic and inorganic physical conditions, social values and individual as well as societal knowledge are increasingly recognised as the impetus for past landscape formation. The focus on monuments as landmarks that visualise social spaces in Northern European megalithic societies is one example for an integrated research design that links analyses of social differentiation with research on changing environmental conditions: Here, ritual spaces can be separated from economic spaces. Past human activity has led to the establishment of increasingly diverse habitats for wild and

domestic plants, animals, and for man; the new physical habitats influenced societal knowledge and possibly stimulated technical innovations. The application of agriculture, as human-environment interaction, is one expression of the establishment, maintenance and reproduction of social relations. Thus, the environmental settings influence the range of social practices. From this given examples, we would like to open the stage for presentations on integrative environmental-archaeological research, to address questions such as:

What are the underlying processes for the environmental dynamics and the cultural processes that influence the shaping of landscapes in space and time? Are complex societies developing in a social frame, independent from environments? How far do the natural settings predefine decisions of ancient societies? How do we identify complex societal structures and can we trace the individual in the bio-archaeological record?

We invite, in particular, papers that explore different lines of evidence, integrating the analysis and interpretation of bio-archaeological proxies with the reconstruction of social space; the latter including, besides functional interpretations of ancient economies, the embedding of ancient ideological concepts or values in individuals and societies.

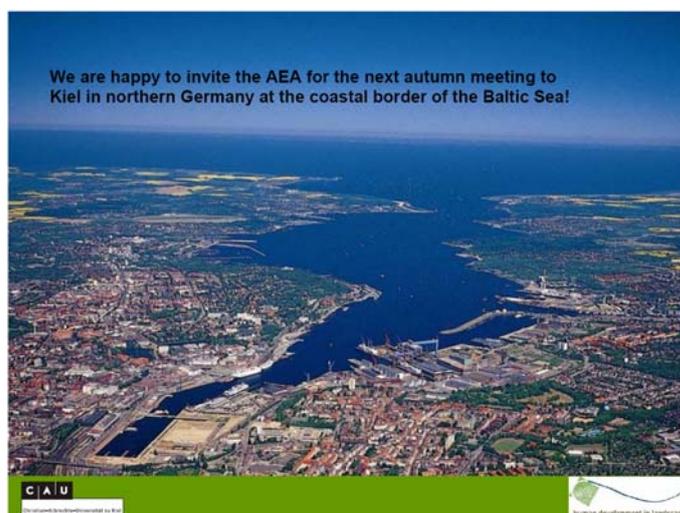
Possible Sessions:

1. Social space in farming communities
2. Social consequences of pollution and environmental restrictions
3. Novel methods and proxies to assess societal and environmental change
4. Modelling ancient landscapes: Natural, social, and economic factors on human behaviour and the development of social groups

Further information on abstract submissions and the respective forms are available on the workshop website: www.workshop-gshdl.uni-kiel.de

Organising committee:

Wiebke Kirleis, Walter Dörfler, Johannes Müller, Mara Weinelt
Institute of Prehistoric and Protohistoric Archaeology/Graduate School Human Development in Landscapes and
Ingmar Unkel, Institute for Ecosystem Research/ Graduate School Human Development in Landscapes



UNIVERSITY OF LIVERPOOL: EARLIEST VILLAGE SOCIETIES RESEARCH GROUP

School of Histories, Languages and Culture, Department of Archaeology, Classics and Egyptology

2012-13 Spring Term Seminar Series

All seminars take place in **SEMINAR ROOM M202** of the **HARTLEY BUILDING**, Brownlow St., Liverpool L69 3GS and are open to everyone • Seminars run from **5.00-6.30pm** including time for discussion • Visitors are advised to arrive at the Hartley Building **by 4.45pm** as the main doors are locked by security at 5.00pm • For directions and parking please refer to University of Liverpool maps @ <http://www.liv.ac.uk/maps/> • For further information please contact Ceren Kabukcu (ckabukcu@liv.ac.uk) or Maxime Brami (maxime.brami@noos.fr)

28 January (Monday)	The evolution of Africa's domestic cattle: evidence from complete mitochondrial genomes of modern and archaeological specimens <i>K. Ann Horsburgh (University of Otago, New Zealand)</i>
29 January (Tuesday)	New perspectives on Near Eastern agricultural origins <i>Melinda Zeder (Smithsonian Institution, US)</i>
7 February (Thursday)	Forager-farmer cultural change in southeast Europe <i>Dušan Borić (Cardiff University, UK)</i>
28 February (Thursday)	Of secret stores and garden magic: recent archaeobotanical work at Çatalhöyük <i>Amy Bogaard (University of Oxford, UK)</i>
7 March (Thursday)	Households and social change in Iron Age Europe <i>Leo Webley (University of Leicester, UK)</i>
20 March (Wednesday)	Re-thinking structured deposition; 'ritual' and 'everyday' practice in prehistoric Britain <i>Duncan Garrow (Liverpool University, UK)</i>
18 April (Thursday)	Hunter-gatherer information exchange strategies and environmental change in late Epipalaeolithic and early Neolithic Southwest Asia <i>Eleni Asouti (Liverpool University, UK)</i>
1 May (Wednesday)	Two different roads to domestication? Caprine and cattle management (13,000–5,000 BC cal) in the Konya Plain of Central Anatolia: what can carbon and nitrogen isotopes tell us? <i>Caroline Middleton (Liverpool University, UK)</i>
7 May (Tuesday)	Some preliminary thoughts about the late Mesolithic structures excavated recently at Lunt Meadows, Sefton <i>Ron Cowell (Liverpool Museum, UK)</i>

Thanks to Rosa M Poch for sending the following link:

INTERNATIONAL UNION OF SOIL SCIENCES
Commission 1.1: Soil Morphology and Micromorphology
October Newsletter

http://www.loess.umcs.lublin.pl/newsletter_october%202012.pdf

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Chair IUSS - Commission 1.1. Soil Morphology and Micromorphology
Spanish Journal of Soil Science - Editor-In-Chief

CONFERENCE REPORT

33rd AEA Conference: *Environmental Archaeologies of Neolithisation*, 9th - 12th November, Reading, UK

Following the globetrotting of the 2010 (Kyoto, Japan) and 2011 (Amsterdam, The Netherlands) AEA conferences, this year the main annual event returned to the UK, at the University of Reading. The event was organised by Robin Bendrey, Sarah Elliott, Wendy Matthews, Amy Richardson and Jade Whitlam and thanks to their careful attention to detail and industriousness, as well as a small army of indefatigable volunteers, proceedings ran smoothly throughout. The conference was very well attended with well in excess of 100 delegates from throughout the UK and Europe as well as from as far afield as Israel, Canada and the USA. The theme was 'Environmental Archaeologies of Neolithisation' and this incorporated a characteristically broad range of research spanning the world from China to Ireland and from Tanzania to the Shetlands.

The conference began on Friday evening with a warm welcome by the University of Reading organisers and volunteers before proceedings were formally begun with a keynote address from Jean-Denis Vigne. Jean-Denis introduced to us the peculiarities of research into the Neolithisation of Cyprus – in many ways foreshadowing a lot of the subsequent presentations by touching on a variety of problems and approaches to the subject which show the island to be a veritable microcosm of the wider debate. In particular, he outlined his own research which focuses upon inland, as opposed to the more studied coastal, sites, illustrating a gap in the chronology and suggesting indigenous domestication events as well as transportation of some livestock and commensals. Possible evidence for early dairying on the island generated a great deal of discussion at the end. A wine reception followed this presentation, allowing delegates to digest and talk over all of this whilst catching up with old friends against the background of a photographic exhibition by Michaël Thevenin of work carried out amongst Kurdish transhumant pastoralists. An informal visit to an Indian restaurant, arranged by the conference organisers helped carry this convivial atmosphere on long after the formal reception had to close.

Saturday morning's first session started with a paper by Anna Belfer-Cohen, *et al.*, where they presented research into the location of sites in the Epipalaeolithic Levant which suggested that environmental degradation led to the abandonment of marginal zones, bringing about a greater concentration of people in larger sites which in places were agglomerations of several smaller (earlier) ones. Steven Mithen and Bill Finlayson then showed how environmental evidence remains important in interpreting the Neolithisation process, suggesting that the water levels were crucial to the inhabitants of the PPNA site WF16 in Southern Jordan, and so to how we should interpret the site. Roger Matthews, *et al.*, then presented the initial findings from the Central Zagros Archaeological Project, outlining how a variety of new techniques are being implemented to understand how this region contributed to the development of the Neolithisation process in Asia. The final paper of this session was presented by M. Birkenfeld and A.N. Goring-Morris, who discussed territoriality in the PPNB Levant; GIS analysis suggests that identifying the agricultural potential of an area – soil type and water-availability – is crucial to identifying and understanding sites of this date in the Levant.

The second session began with a paper by Hengameh Ilkhani and Alexandra Livarda examining archaeobotanical remains from the Neolithic and Chalcolithic site of Tape Sialk in Iran. Michael W. Gregg and Greg F. Slater then presented the findings of their research into ceramic use in Hotu and Belt Caves in Northern Iran, suggesting that the adoption of ceramic technology by indigenous hunter-gatherer groups may have facilitated the development of nomadic pastoralism. Linking this session with the first, Douglas Baird then moved beyond discussions of placing people in the environment to begin to look at how they lived in their environment, suggesting that in many places in Central Anatolia crop cultivation presented a complementary, rather than replacement, food source for existing hunter-gatherer communities. Claudio Ottoni, *et al.*, then examined the movement of ideas and people between Anatolia and Europe through genetic analysis of pig remains, demonstrating that pigs were domesticated early on in Anatolia and thence spread to Europe but that by the Bronze Age most pigs found in Anatolia were of European ancestry.

After lunch, Jessica Pearson discussed stable isotope evidence for dietary changes between the Epipalaeolithic and Neolithic in Anatolia, suggesting a shift to a more meat-based diet in later periods in the Konya basin. Caroline Middleton then presented a related paper discussing domestication in the Konya basin: isotopic evidence suggests that early caprines consumed in the area were wild whereas those from later periods exhibited raised nitrogen levels consistent with general prolonged stress or with specific management practices such as foddering or restricted pasturing. Diverting our attention away from developments in the Near East, Yijie Zhuang then presented preliminary findings from his work examining the Neolithisation process in North China; geoarchaeology suggests that several different land management practices were utilised in the same region in the early Neolithic but that these became homogenised as time went on: a case of early experimentation and later consolidation. Lee G. Broderick, *et al.*, then discussed the spread of Pastoral Neolithic peoples in Sub-Saharan Africa: preliminary results from an on-going project in Tanzania suggest that a disease-free corridor along the rift valley may have been important for the spread of domestic livestock to Southern Africa.

Following coffee our scrutiny was moved gradually northwards: Victoria Taylor reported on her work on the Late Pleistocene and Early Holocene shell middens at Taforalt (Grotte des Pigeons) in Morocco which identifies a shift to a broader dietary base around 13,000BP characterised by an increase in land snail consumption; she linked this with a moister environment and a corresponding cultural change which saw a rise in the number of burials. Directing the conference across the Mediterranean and into Europe, Kristina Penezić presented her work examining environmental change at Vinča – Belo brdo in Serbia. Welmoud Out, Kristi Hänninen and Caroline Vermeeren then offered us a reappraisal of identifying woodland management through age and diameter analysis of archaeologically recovered wood: extensive experimental work suggests multiple lines of evidence are required; the diameter is only of any help when it is greater than 2cm and it is never possible to distinguish coppicing from pollarding. Julie Hamilton, *et al.*, then presented the results of their project examining diet and subsistence in the early Neolithic of Central Europe through isotopic analysis: this suggests that there were a variety of dietary differences in populations relating to sex, burial rites, etc. but there was also a general trend showing more meat consumption in the west.

Saturday was brought to a close with the AGM, at which the issue of international representation and promotion provided the greatest discussion, and then the conference dinner; held at Zero Degrees in Reading town centre.

Sunday morning commenced with a series of presentations focussing on the Neolithic in Iberia. Joan Bernabeu Aubán, *et al.*, outlined what several decades' worth of research into the environmental archaeology of the Western Mediterranean European coast is beginning to tell us about Mesolithic-Neolithic interaction in the region. Mònica Aguilera, *et al.*, then elaborated further on this region by explaining that C¹³ analysis is demonstrating that, in contrast to the mechanisms of Neolithisation in the Near East presented the previous morning, adoption of agriculture in Iberia was culturally driven; this was suggested on the basis of growing conditions which were wetter than the modern climate in the area but not as wet as would be expected if irrigation had taken place. Maria João Valente and António Faustino Carvalho then shifted our attention to livestock in the peninsula, presenting a review of zooarchaeological data from the Neolithic and Chalcolithic in Portugal. Moving inland, Ferran Antolín, *et al.*, presented research from the Early Neolithic lakeshore site of La Draga (Spain); exceptional preservation at this site has allowed the research team to identify a broad subsistence strategy in which all of the principle domestic animals were present among 51 identified species whilst naked wheat was the most important of several cereal crops present.

After the coffee break the attention focused on the Neolithic in the British Isles, where it was to remain for the rest of the day. Steven Mithen and Karen Wicks began this session by presenting a newly recalibrated timeline for the Mesolithic-Neolithic transition in the Hebrides following Bayesian modelling which suggests that Oronsay may be a site on the cusp of this transition; they also introduced Storckaig, an inland Mesolithic site identified during recent fieldwork on Islay. Dale Serjeantson then presented the results of the recent English Heritage review of zooarchaeological data from Neolithic Southern Britain; such a medium as the twenty minute conference presentation could barely do justice to the enormosity of this review and, although highlighting that fish and birds do appear to be genuinely absent rather than simply not recovered, that wild mammals are also very rare (as are goats, but they are definitely present at fourteen sites), that cattle dominate (except at Runnymede) and that Coneybury remains anomalous, Dale emphasised that the full report was now available from the EH website. Rob Batchelor, *et al.*, then examined another persistent riddle of Neolithic Britain by looking at the latest evidence into the causes of the elm decline and noting that it predates major settlement. Developing the earlier allusion to Runnymede, Sarah Viner then presented research into cattle and pig exploitation in early Neolithic Britain, suggesting that there was more control of pig husbandry there than at other sites. This emphasised her main point which was that human-animal relationships varied from site to site, especially in pigs, but that there was no evidence for local domestication of either species.

Mark Robinson began the first session of the afternoon by suggesting that Neolithic woodland clearance in Britain was small-scale and showed evidence for "Vera" cycles. Fay Worley then presented the results of zooarchaeological analysis from the recent excavations at Marden Henge: one feature, in particular, showed evidence for a rapid accumulation of cattle and pig bones exhibiting signs of standardised carcass preparation which may have originated from a single event. Diverting our attention to the more famous monument in that World Heritage Site complex, Gill Campbell, *et al.*, outlined how environmental archaeology had helped to inform interpretive displays for the new Stonehenge visitor centre. M. Jane Bunting, *et al.*, then outlined a new Bayesian modelling approach to dating the Neolithisation of Ireland through pollen data and also pointed out that here an increase in plantago occurs synchronously with the elm decline.

After the break, Jessica Smyth and Richard P. Evershed presented data from lipid analysis of ceramics showing that dairying formed a part of the earliest Neolithic in Ireland. Rebecca Nicholson, Fay Worley and Nigel Melton then presented analysis of a Mesolithic shell midden in Shetland which showed evidence for continuity of use into the earliest part of the Neolithic, showing evidence for domestic livestock alongside hunting. Michelle Farrell and M. Jane Bunting then detailed approaches to reconstructing the Neolithic landscapes of Orkney through pollen analysis and suggested that pine forests were present to some degree on the islands throughout the period. In the final presentation of the day, Nicolas P. Branch, *et al.*, brought our attention back to the Mediterranean, where work in several cave sites in the Northern Apennines continues to raise as many questions as it provides answers about the developments of transhumant pastoralism and forest farming.

The conference ended there for most delegates but those who had managed to book an extra day off work were treated to a tour of Avebury World Heritage Site by Richard Bradley on the Monday.

The 33rd conference at Reading, with its theme of 'Environmental Archaeologies of Neolithisation' provided not only an opportunity to see how environmental archaeology is informing debates about the Neolithisation process around the world, but also to see how it is generating a more nuanced understanding: breaking this widespread phenomenon down into several different regional events which happened at different times, in different ways, for different reasons. Most notable in this respect were the contrasts between Near Eastern and Western European debates, focusing on the relevant importance of cultural and environmental factors in initial adoption; presentations on research in China and Africa showed us that the process can vary even within a region and that even at the earliest stage food production does not always equal sedentariness or even crops. Indeed, their keynote speech at the beginning of the conference outlined many of these features on one small island!

Lee G. Broderick (University of York)

Thanks to Michael James Grant and Chris J Stevens, Wessex Archaeology, for the following article:

ILLUMINATING THE HIDDEN SECRETS OF THE LONDON OLYMPIC PARK: SIGNIFICANCE OF THE ENVIRONMENTAL ARCHAEOLOGY INVESTIGATIONS

In the lead up to the London 2012 Olympic and Paralympic Games the history of the Olympic Park was carefully investigated through a comprehensive programme of cultural heritage works and one of Britain's largest archaeological excavation programmes to be undertaken in recent years. Between 2005 and 2009 archaeological works (desk-based assessments, evaluation and mitigation excavations, and built heritage recording) were undertaken within the Olympic Park by Museum of London Archaeology Service (MoLAS, now MoLA) and Pre-Construct Archaeology working as a joint venture (MoLAS-PCA), and RPS Planning and Development and AOC Archaeology Group. Geoarchaeological work and site-wide assessment was carried out by Wessex Archaeology in 2009, who also undertook the analysis and dissemination of the results of the fieldwork beginning in May 2010. The results of all these phases of investigation comprise a number of publications, including a popular book, an academic monograph and web-based resources.

The work, which provided a rare opportunity to examine such a wide area of the Lea Valley in some detail, had a very strong emphasis on the investigation of landscape development. It was undertaken in conjunction with an extensive programme of radiocarbon dating and geoarchaeological and palaeoenvironmental analyses from over 32 deep trenches across the 246 ha site. The examination of cores from over 5,000 boreholes produced evidence for landscape and environment from the pre-Holocene onwards, enabling a deposit model of the sub-surface sediments to be created and the prehistoric surface topography to be mapped. This identified the courses of the major palaeochannels, as well as probable areas of wetland and higher, drier, ground suitable for occupation (Figure 1).

The results from each of these trenches, often multi-period, have been compiled into a single narrative for the entire area spanning the last 14,000 years from the end of the last ice age to the Victorian period. This has allowed variations in vegetation cover, floodplain development and changes in land-use to be identified spatially and temporally (Figure 2). An example is the differentiation between cereals and wetland grasses within the pollen record of large grass (Poaceae). Within the wetland sequences, the increase in the pollen of large Poaceae (>33µm diameter) was found to be derived from *in situ* grasses, notably sweet-grasses (*Glyceria*-type). This was independently corroborated by the presence of *Glyceria* seeds and the beetle *Notaris acridulus* (L.) which is often found on *Glyceria maxima* (reed sweet-grass) and other *Glyceria* species. In trenches where settlements were identified, notably Trench 9, cereal-type pollen grains coincided with the macroscopic remains of barley, emmer and spelt wheat. The differentiation between cereals and wetland grasses confirms the findings of Waller and Grant (2012) in the Middle Thames Estuary, and highlights the need for more careful separation of large Poaceae pollen grains at coastal and floodplain sites.

The investigations also highlighted differences in the radiocarbon dating protocols followed across the site by providing a comparison between dating sediment fractions (bulk sediment) and identified plant macrofossil remains (such as seeds). This demonstrated that the former method was often providing arbitrary age estimates, resulting from the incorporation of reworked older sediments within the alluvium, or contamination by younger root penetration. This has demonstrated the need for careful consideration of the sample taphonomy and origin, the site context and geomorphology, and the reasons for undertaking a programme of dating. The environmental archaeology contained within some trenches was found to be of regional and/or national importance. Trench 118 revealed evidence of clear riverine influence in the form of a series of channel incisions dating to the Late Pleistocene, Neolithic, Bronze Age, and the Romano-British and medieval periods. Of particular note was a series of Neolithic worked timbers on the edge of one of these channels indicating a small

timber structure. Four radiocarbon dates on these posts estimated construction around 3640–3520 cal BC which was given added significance by the recovery of a finely made 220mm long thin-butted flint axe head, and sherds of Early Neolithic pottery from the same trench.

Within Trench 9, located beneath the Aquatics Centre, a later Bronze Age and Iron Age settlement was found situated on a gravel promontory on the edge of the main palaeochannel. There was evidence in the Iron Age that increases in local flooding forced settlement back from the river's edge and eventually from the valley floor altogether. The settlement yielded good assemblages of waterlogged and charred plant material along with animal bones. Of particular interest was the presence of a skeleton of a 1–2 year old goat placed in a pit close to the terminal of a Middle Iron Age roundhouse gully, which suggested a special significance associated with its burial.

Trench 56, located on the western edge of the Olympic Stadium, contained a wattle-lined pit with an assemblage dominated by cereal remains, in particular grains and chaff elements of emmer (Figure 3). Radiocarbon dates obtained on both the charred emmer chaff and grain provided dates of cal AD 1010–1160 (SUERC-36288, 970±30 BP) and cal AD 980–1160 (SUERC-34943, 985±35 BP). More typical of the period was the relatively high number of grains and rachis fragments of free-threshing wheat (*Triticum turgidum/aestivum* sp.), along with a few grains and rachis fragments of barley. Free-threshing wheat, rye and barley are the most common cereals recovered from charred assemblages in southern England in the Saxon and medieval periods. While emmer has been recovered from a number of Early and Middle Saxon deposits (Pelling and Robinson 2000; Pelling 2003), it is usually indicative of earlier periods. The deposit from Trench 56 is therefore very significant, providing incontrovertible evidence for the consumption of emmer, and potentially also its cultivation, as late as the 11th–12th centuries AD.

On the edge of the River Lea, Trench 72 yielded a high concentration (78% total land pollen) of hemp (*Cannabis sativa*) pollen at the base of Romano-British deposits. Hemp is an important economic plant with a variety of uses, including in textile and rope production. To free bast fibres from the surrounding tissue the stems would be 'retted' by immersion in a stream or pond for a number of days, leading to the shedding of large amounts of pollen within the water body. The high pollen percentage recorded, therefore, is a result of this form of processing. No hemp seeds were found in the associated sediments, although this is a common occurrence in records from other retting sites in the Britain and Europe and may be evidence that predominantly male (pollen producing) plants were used for fibre production rather than the female (seed producing) plant. Hemp is often regarded as not being an economic plant in the Britain until the Saxon period. However the high percentage of hemp pollen from Romano-British deposits in this trench seem to imply that hemp retting was being undertaken in this area during the early Romano-British period and coincide with Romano-British finds of hemp seeds at sites such as Skeldergate, York (Hall *et al.* 1980), and at New Fresh Wharf, London (Willcox 1977).

This article provides just a taste of some of the more unusual and significant findings from the Olympic Park archaeological excavations and analysis, of which full details can be found in the academic monograph (Powell *et al.* 2012b). What these investigations have shown is that regeneration in this part of east London is not a new phenomenon, but is simply the latest of a series of transformations, from the last Ice Age to the modern day, each of which has fundamentally changed the character of the valley, and left their own legacy imprinted for future generations (including the archaeologists) to uncover and learn from. The London 2012 Olympic and Paralympic Games have provided an opportunity to examine and understand these changes, to place the new park in its historical context, and as such they have provided their own lasting legacy.

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Powell, A.B., 2012a. *Renewing the Past: Unearthing the history of the Olympic Park site*. Wessex Archaeology, Salisbury

Powell, A.B., 2012b. *By River, Fields and Factories: The Making of the Lower Lea Valley – archaeological and cultural heritage investigations on the site of the London 2012 Olympic Games and Paralympic Games*. Wessex Archaeology, Salisbury

London 2012 Learning Legacy Website:

<http://learninglegacy.independent.gov.uk/themes/archaeology/index.php>

<http://learninglegacy.independent.gov.uk/books/>

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identifications), Dana Challinor (wood charcoal) and Nicola Mulhall (WA; extraction of molluscs, wood and sediment sampling and recording). Illustrations are by Karen Nichols and Kitty Foster (WA).

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Figures 1-3 are on pages 21-23

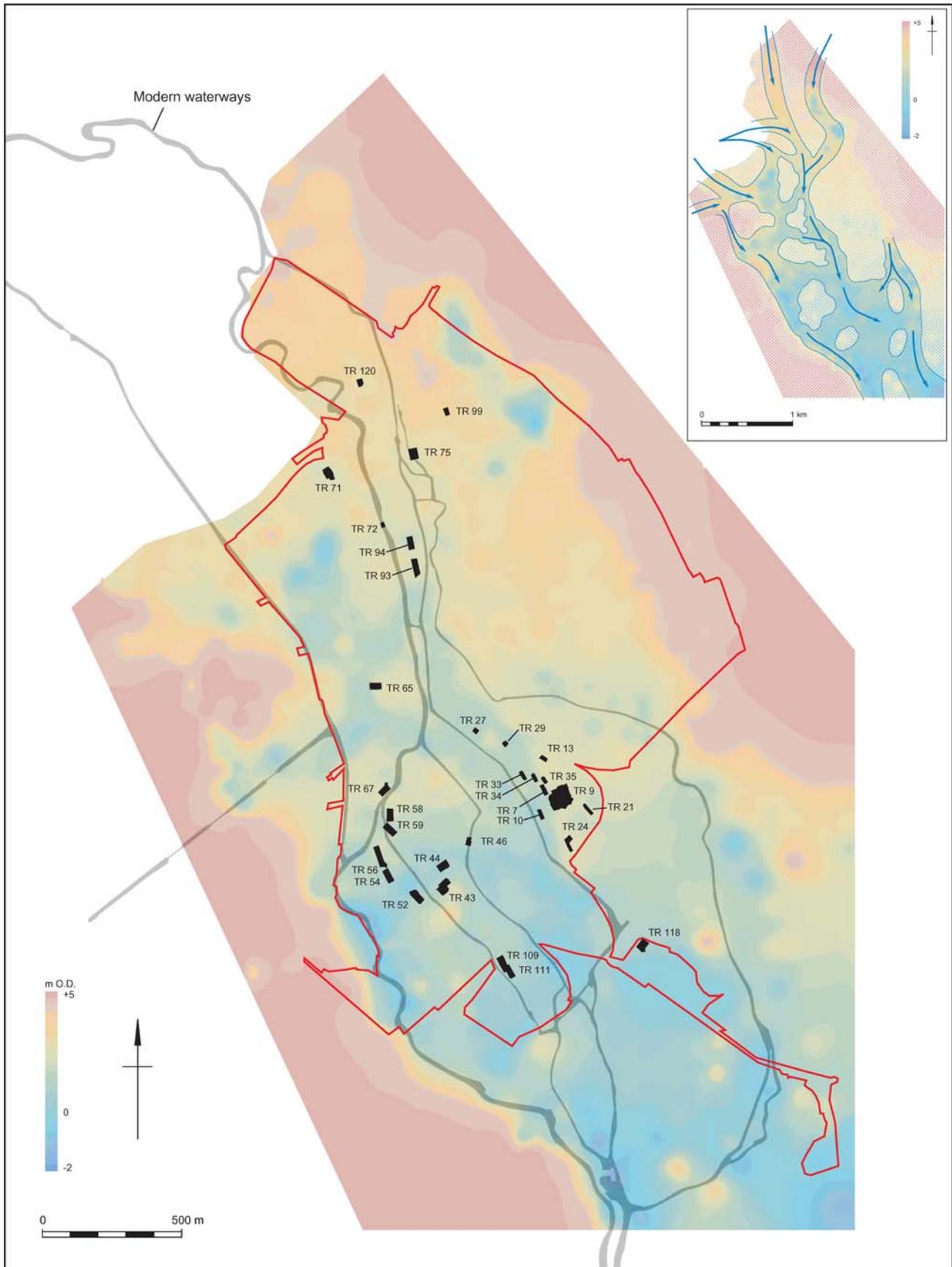


Figure 1: Topography of the underlying gravel deposits, showing channel areas existent by the Late Pleistocene/ Early Holocene and the location of the trenches from which environmental sequences were analysed. Olympic Park outline shown in red

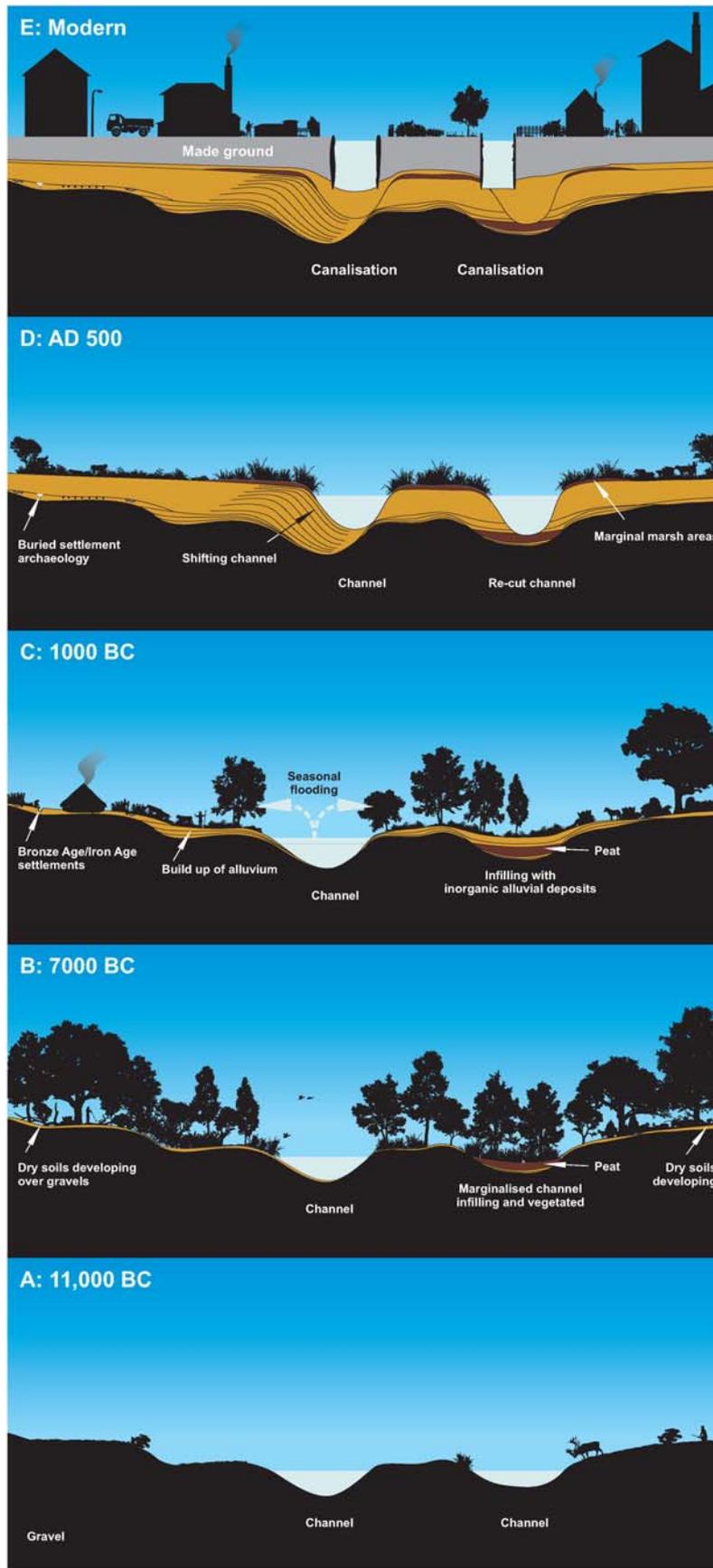


Figure 2: General development of the landscape of the Olympic Park site through time, showing the main features of sedimentation, vegetation and land-use occurring during the: (A) Late Pleistocene, (B) Mesolithic, (C) Bronze Age, (D) Saxon and (E) post-medieval periods



Figure 3: Charred glumes and spikelets of emmer wheat (*Triticum dicoccum*) from an early medieval pit in Trench 56

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