



A Quarterly Review of World Archaeology

Edited by Martin Carver

Research

Stone forts in Late Neolithic China

Chickens arrive in Africa

A republic at Tlaxcallan

Why do early artists draw eyes?

The Staffordshire hoard – fame or fiasco?

Method

Carbon-dating the Palaeolithic

Finding the children



March 2011

Number 327

Volume 85

ANTIQUITY

Project Gallery

A White Horse from the air

The LIEPPEC project: lidar and more

Debate

The fall of Phaethon

ISSN 0003 598X

Antiquity is an international peer-reviewed journal of archaeological research that aims to communicate the most significant new discoveries, theory, method and cultural resource issues rapidly and in plain language to practicing archaeologists everywhere.

The *Antiquity* website provides access to all the articles published in *Antiquity* since 1927, together with the Project Gallery, a free access addition to the journal providing news on ongoing projects from around the world. Find us at <http://antiquity.ac.uk>.

Antiquity was founded in 1927 by O.G.S. Crawford and is owned by the Antiquity Trust, a registered charity. The Trustees of the Antiquity Trust are **Warwick Bray, Barry Cunliffe, Anthony Harding, Paul Mellars, Colin Renfrew, Stephen Shennan, Graeme Barker and Chris Gosden.**

The Directors of Antiquity Publications Ltd., owned by the Antiquity Trust and responsible for producing *Antiquity*, are **Chris Evans, Roger Guthrie, Martin Millett, Nicky Milner, Cameron Petrie, Mike Pitts and Andrew Rogerson.**

Antiquity is edited at the Department of Archaeology, University of York, UK (Head: Julian Richards).

Antiquity is published quarterly in March, June, September and December.

Editor:

Martin Carver

Editorial Manager:

Jo Tozer

Reviews Editor:

Madeleine Hummler

Editorial address:

Antiquity, King's Manor,

York YO1 7EP

Tel/Fax: +44 (0) 1904 433994

Email: editor@antiquity.ac.uk

Website: <http://antiquity.ac.uk>

Advertising enquiries to:

Jo Tozer

(assistant@antiquity.ac.uk)

Design:

Barry Perks (www.yo-yo.uk.com)

Production management by:

Portland Press Limited

Composition by:

Aptara Inc., New Delhi, India

Printed by:

Charlesworth Press, Wakefield

Correspondents

Sarah Allan sarah.allan@dartmouth.edu, Dartmouth University, USA (China)
Irina Arzhenseva arzhantseva@rambler.ru, Russian Academy of Sciences, Russia (Russia)

Paul Bahn pgbahn@anlabyrd.karoo.co.uk (Europe)

Xingcan Chen chen.xingcan10@gmail.com, Chinese Academy of Social Sciences, Beijing (China)

Robin Coningham pvc.ssh@durham.ac.uk, University of Durham, UK (Asia)

Tim Darvill tdarvill@bournemouth.ac.uk, University of Bournemouth,

UK (Europe)

Margarita Diaz-Andreu m.diaz-andreu@durham.ac.uk, University of Durham, UK (Iberia)

Junko Habu habu@sscl.berkeley.edu, UC Berkeley, USA (Japan)

Charles Higham charles.higham@stonebow.otago.ac.nz, University of Otago,

New Zealand (Asia)

Stephen Houston stephen_houston@brown.edu, Brown University,

USA (Mesoamerica)

Timothy Insoll tim.insoll@manchester.ac.uk, University of Manchester, UK (Arabia/Islam)

Nicholas James nj218@cam.ac.uk, University of Cambridge, UK (Exhibitions)

Matthew Johnson m.h.johnson@soton.ac.uk, University of Southampton,

UK (Theory)

Simon Kaner s.kaner@sainsbury-institute.org, Sainsbury Institute for the Study of Japanese Arts and Cultures, UK (Japan)

Susan Keech McIntosh skmci@rice.edu, Rice University, USA (Africa)

Doug Kennett dkennett@oregon.uoregon.edu, University of Oregon, USA

(North America)

Ludmila Koryakova ludmila.koryakova@usu.ru, Ural State University, Russia

(Russia)

Kevin Lane kevin.lane@cantab.net, Freie Universität Berlin, Germany

(South America)

Genevieve Luescher g.luescher@bluewin.ch (Europe)

Naoko Matsumoto naoko_m@cc.okayama-u.ac.jp, Okayama University, Japan (Japan)

Peter Mitchell peter.mitchell@st-hughs.ox.ac.uk, University of Oxford, UK (Africa)

Edgar Peltenburg e.peltenburg@ed.ac.uk, Edinburgh University, UK (South-west Asia & Eastern Mediterranean)

Julian Richards jdr1@york.ac.uk, University of York, UK (Information Science)

Martin Rundkvist martin.rundkvist@gmail.com (Scandinavia)

Christophe Sand christophe.sand@gouv.nc, New Caledonia Museum,

New Caledonia (Oceania)

Nathan Schlanger nathan.schlanger@inrap.fr, Institut national de recherches archéologiques preventives, France (Europe)

Robert Sharer rsharer@sas.upenn.edu, University of Pennsylvania Museum, USA

(Mesoamerica)

Alison Sheridan a.sheridan@nms.ac.uk, National Museums of Scotland, UK (Europe)

Claire Smith claire.smith@flinders.edu.au, Flinders University, Australia

(Australasia)

Laurajane Smith laurajane.smith@anu.edu.au, The Australian National University, Australia (CRM)

© Antiquity Publications 2011.
All rights reserved; no part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise without either the prior written permission of the Publishers or a license permitting restricted copying issued in the UK by the Copyright Licensing Agency Ltd, 90 Tottenham Court Road, London W1P 9JP or in the USA by the Copyright Clearance Center, 27 Congress Street, Salem, MA 01970, USA.

Periodicals Postage Paid at Rahway, NJ.

US agent: Mercury International, 365 Blair Road, Avenel, NJ 07001.

Postmaster: Address changes to *Antiquity*, Mercury International, 365 Blair Road, Avenel, NJ 07001.

ANTIQUITY

Volume 85

Number 327

March 2011

Editorial	5
Research	
Sanzuodian: the structure, function and social significance of the earliest stone fortified sites in China	11
Gideon Shelach, Kate Raphael & Yitzhak Jaffe	
Human sacrifice and intentional corpse preservation in the Royal Cemetery of Ur	27
Aubrey Baadsgaard, Janet Monge, Samantha Cox & Richard L. Zettler	
Long distance exchange in the Central European Neolithic: Hungary to the Baltic	43
Agnieszka Czekaj-Zastawny, Jacek Kabaciński & Thomas Terberger	
Grey waters bright with Neolithic argonauts? Maritime connections and the Mesolithic–Neolithic transition within the ‘western seaways’ of Britain, c. 5000–3500 BC	59
Duncan Garrow & Fraser Sturt	
Exploring the Mesolithic and Neolithic transition in Croatia through isotopic investigations	73
E. Lightfoot, B. Boneva, P.T. Miracle, M. Šlaus & T.C. O’Connell	
The eyes have it: human perception and anthropomorphic faces in world rock art	87
Ben Watson	
Early Holocene pottery in the Western Desert of Egypt: new data from Nabta Playa	99
Maciej Jórdeczka, Halina Królik, Mirosław Masojć & Romuald Schild	
Horses for the dead: funerary foodways in Bronze Age Kazakhstan	116
Alan K. Outram, Natalie A. Stear, Alexei Kasparov, Emma Usmanova, Victor Varfolomeev & Richard P. Evershed	
Paul Jacobsthal’s <i>Early Celtic Art</i>, his anonymous co-author, and National Socialism: new evidence from the archives	129
Sally Crawford & Katharina Ulmschneider	
Early evidence for chickens at Iron Age Kirikongo (c. AD 100–1450), Burkina Faso	142
Stephen A. Dueppen	
Tomb 100 at Cabezo Lucero: new light on goldworking in fourth-century BC Iberia	158
Alicia Perea & Barbara Armbruster	
Tlaxcallan: the archaeology of an ancient republic in the New World	172
Lane F. Fargher, Richard E. Blanton, Verenice Y. Heredia Espinoza, John Millhauser, Nezahualcoyotl Xiuhtecutli & Lisa Overholtzer	
An archaeology of salt production in Fiji	187
David V. Burley, Karine Taché, Margaret Purser & Ratu Jone Balenaivalu	

The Staffordshire (Ogley Hay) hoard	
The find, the context, the problems	201
Recovery of a treasure	202
Kevin Leahy, Roger Bland, Della Hooke, Alex Jones & Elisabeth Okasha	
Problems of interpretation	221
Leslie Webster, Christopher Sparey-Green, Patrick Périn & Catherine Hills	
The best we can do?	230
Martin Carver	

Method

European Middle and Upper Palaeolithic radiocarbon dates are often older than they look: problems with previous dates and some remedies	235
Thomas Higham	
Representing children in excavated cemeteries: the intrinsic preservation factors	250
Marija Djurić, Ksenija Djukić, Petar Milovanović, Aleksa Janović & Petar Milenković	
Application of sky-view factor for the visualisation of historic landscape features in lidar-derived relief models	263
Žiga Kokalj, Klemen Zakšek & Kristof Oštir	

Debate

Response to ‘The fall of Phaethon: a Greco-Roman geomyth preserves the memory of a meteorite impact in Bavaria (south-east Germany)’ by Rappenglück <i>et al.</i> (<i>Antiquity</i> 84)	274
Gerhard Doppler, Erwin Geiss, Ernst Kroemer & Robert Traidl	
Reply to Doppler <i>et al.</i> ‘Response to “The fall of Phaethon: a Greco-Roman geomyth preserves the memory of a meteorite impact in Bavaria (south-east Germany) (<i>Antiquity</i> 84)”’	278
Barbara Rappenglück, Michael A. Rappenglück, Kord Ernstson, Werner Mayer, Andreas Neumair, Dirk Sudhaus & Ioannis Liritzis	
Maya milestone	281
N. James	

Reviews

Review articles	
European rock art: arti-facts and fancies JOHN COLES reviewing	284
<i>Representations and communications: creating an archaeological matrix of late prehistoric rock art</i> Åsa C. Fredell, Kristian Kristiansen & Felipe Criado Boado	
<i>Arkeologisk Rapport 7, Vitlycke Museum. Stiftelsen för dokumentation av Bohusläns hällristningar: Tossene socken [Foundations for the documentation of Bohusläns rock carvings: parish of Tossene]</i> L. Bengtsson (ed.)	
<i>Documentation and registration of rock art in Tanum / Dokumentation och registrering av hällristningar i Tanum. No. 3: Kalleby, Finntorp, Ryk</i> Gerhard Milstreu & Henning Prøhl (ed.)	

Complex societies in Japan: archaeology, history and mythology SIMON KANER **288**
reviewing

Himiko and Japan's elusive chiefdom of Yamatai: archaeology, history, and mythology
J. Edward Kidder, Jr.

Archaeology, society and identity in modern Japan Koji Mizoguchi

State formation in Japan: emergence of a 4th-century ruling elite Gina L. Barnes

South American perspectives KEVIN LANE reviewing **291**

Handbook of South American archaeology Helaine Silverman & William H. Isbell (ed.)

La arqueología y la etnohistoria: un encuentro andino John R. Topic (ed.)

Book reviews

David Lewis-Williams *Conceiving God: the cognitive origin and evolution of religion* **294**
TIMOTHY INSOLL

Leo S. Klejn *Novaia Arkheologiya (kriticheskii analiz teoreticheskogo napravleniia v arkheologii Zapada)* NIKOLAY KRADIN **295**

Martin Carver *Archaeological investigation* HARRY FOKKENS **296**

Graham Connah *Writing about archaeology* MARTIN CARVER **297**

Eric H. Cline (ed.) *The Oxford handbook of the Bronze Age Aegean* JOHN BENNET **298**

Roger Matthews & Claudia Glatz (ed.) *At empire's edge: Project Paphlagonia — regional survey in north-central Turkey* STUART BLAYLOCK **300**

Stuart Blaylock *Tille Höyük 3. The Iron Age: introduction, stratification and architecture* A. TUBA ÖKSE **301**

Stephen Quirke *Hidden hands: Egyptian workforces in Petrie excavation archives, 1880–1924* NATHAN SCHLANGER **302**

William Y. Adams with Nettie K. Adams *Qasr Ibrim: the earlier medieval period* DAVID W. PHILLIPSON **303**

José R. Oliver *Caciques and cemi idols: the web spun by Taíno rulers between Hispaniola and Puerto Rico* SAMUEL M. WILSON **305**

Julian Bowsher & Pat Miller *The Rose and the Globe — playhouses of Shakespeare's Bankside, Southwark: excavations 1988–90* JEAN WILSON **306**

New Book Chronicle **308**
Madeleine Hummler

On the website (<http://antiquity.ac.uk>)

Conservation and camouflage of the White Horse of Kilburn, North Yorkshire: an air photographic story, Tara-Jane Sutcliffe

The LIEPPEC project: using lidar for the study of long term landscape change, Catherine Fruchart, Clement Laplaige, Rachel Opitz & Laure Nuninger

Safavid dovescotes near Isfahan, Mohammad Reza Pourjafar, Mohammad Reza Leyliani, Farid Khodarahmi & Farhang Khademi Nadooshan

Maitland's 'Mesa' reassessed: a late prehistoric cemetery in the eastern Badia, Jordan, Yorke M. Rowan, Gary O. Rollefson & Morag Kersel

Elephants, humans and ecology during the nineteenth-century East African caravan trade: a bioarchaeological study, Ashley N. Coutu

Archaeology and cultural heritage in Cameroon: the case of the DGB sites, Jean-Marie Datouang Djoussou

Interaction in local perspective: material practice at Diouboye, Senegal (c. AD 500–1000), Cameron D. Gokee

Human and cattle trampling experiments in Malawi to understand macrofracture formation on Stone Age hunting weaponry, Justin Pargeter

Casting a shadow on Neolithic Jericho, Roy Liran & Ran Barkai

Tracking Early Humans in coastal western India: the Gujarat Palaeoanthropology project, August G. Costa, P. Ajithprasad & Bhanu Sharma

Tin sources and settlement in the Bronze Age of south-eastern Europe: a pilot study from western Serbia, H. Arthur Bankoff, Slobodan Mitrović, Radivoje Arsić, Rebecca Boger, Vojislav Filipović, Andrea Huska & Wayne Powell

Exploring the Mesolithic and Neolithic transition in Croatia through isotopic investigations (supplementary material), E. Lightfoot, B. Boneva, P.T. Miracle, M. Šlaus & T.C. O'Connell

Water resources in the Bronze Age villages (terramare) of the north Italian Po plain: recent investigation at Terramara Santa Rosa di Poviglio, Mauro Cremaschi & Chiara Pizzi

Bird stencils in Arnhem Land do not provide evidence of climate change: response to Taçon *et al.* (2010), Donald C. Franklin & Judit K. Szabo

A bird in the hand: response to Franklin and Szabo, Paul S.C. Taçon, Michelle Langley, Sally K. May, Ronald Lamilami, Wayne Brennan & Daryl Wesley

The Iceman is a burial: new remarks, Gian Luigi Carancini & Tommaso Mattioli

New theory on the death and ritual deposition of the Iceman, Renato Fasolo

Archaeology's crossroad; working together or striding apart, David Connolly