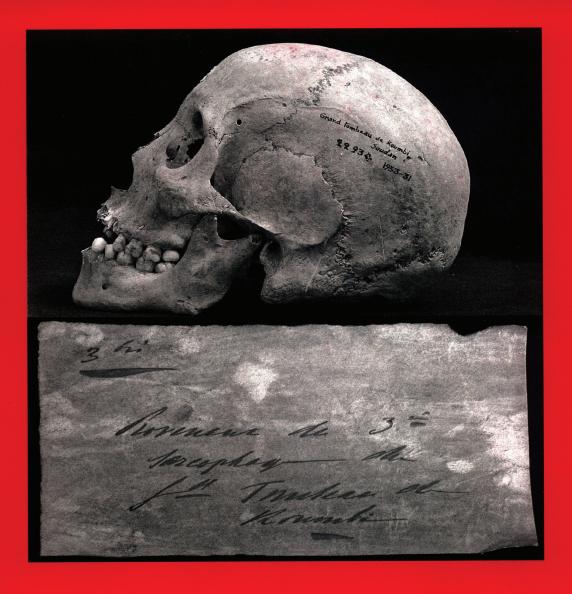
## Radiocarbon

An International Journal of Cosmogenic Isotope Research

VOLUME 57 / NUMBER 1 / 2015

ISSN: 0033-8222



In this issue: C Capel et al. "The End of a Hundred-Year-Old Archaeological Riddle: First Dating of the Columns Tomb of Kumbi Saleh (Mauritania)"

## RADIOCARBON

An International Journal of Cosmogenic Isotope Research

Editor: A J T JULL

Associate Editors: J Warren Beck, George S Burr, and Gregory W L Hodgins

Managing Editor: Mark E McClure

Published by Department of Geosciences The University of Arizona

Published four times a year at The University of Arizona, Tucson, AZ 85712-1201, USA. © 2015 by the Arizona Board of Regents on behalf of the University of Arizona. All rights reserved.

Subscription rate (2014): \$365.00 (institutions), \$140.00 (individuals). Foreign postage is extra. A complete price list, including proceedings of international conferences, special publications and back issues, appears in the back pages of this issue. Advertising rates available upon request, or see www.radiocarbon.org/adrates.html.

Missing issues will be replaced without charge only if claim is made within three months (six months for India, New Zealand, and Australia) after the publication date. Claims for missing issues will not be honored if non-delivery results from failure by the subscriber to notify the Journal of an address change.

Authors: See our "Information for Authors" document at www.radiocarbon.org/Authors/ for guidelines on manuscript submission and format. All correspondence and manuscripts should be addressed to the Managing Editor, RADIOCARBON, Department of Geosciences, The University of Arizona, 4717 East Fort Lowell Road, Tucson, AZ 85712-1201 USA. Tel.: +1 520 881-0857; Fax: +1 520 881-0554; Email: editor@radiocarbon.org.

List of laboratories. Our comprehensive list of laboratories is published annually, and is also available at www.radiocarbon.org/Info/lablist.html. We ask all laboratory directors to provide their laboratory code designation, as well as current telephone and fax numbers, and email addresses. Changes in names or addresses, additions or deletions should be reported to the managing editor. Conventional and AMS laboratories are arranged in alphabetical order by country, and we include laboratories listed by code designation.

RADIOCARBON on the World Wide Web: http://www.radiocarbon.org/

Cover design: Radiocarbon.

Image courtesy of Chloé Capel, from the Capel et al. article in this issue.

RADIOCARBON is indexed and/or abstracted by the following sources: Anthropological Index; Anthropological Literature; Art and Archaeology Technical Abstracts; Bibliography and Index of Geology (GeoRef); British Archaeological Bibliography; Chemical Abstracts; Chemistry Citation Index; Current Advances in Ecological and Environmental Sciences; Current Contents (ISI); FRANCIS (Institut de l'Information Scientifique et Technique – CNRS); Geographical Abstracts; Geological Abstracts; Oceanographic Literature Review; Science Citation Index; Social Sciences Citation Index.

## Radiocarbon

Vol 57, Nr 1, 2015

## **CONTENTS**

EDITORIAL BOARD	
LETTER FROM THE EDITOR	
ARTICLES	
Matching Dendrochronological Dates with the Southern Hemisphere <sup>14</sup> C Bomb Curve to Confirm Annual Tree Rings in <i>Pseudolmedia rigida</i> from Bolivia  Laia Andreu-Hayles, Guaciara M Santos, David A Herrera-Ramírez, Javier Martin-Fernández, Daniel Ruiz-Carrascal, Tatiana E Boza-Espinoza, Alfredo F Fuentes, Peter M Jørgensen	
Radiocarbon Dates from the Highland Jar and Coffin Burial Site of Phnom Khnang Peung, Cardamom Mountains, Cambodia  Nancy Beavan, Derek Hamilton, Tep Sokha, Kerry Sayle	1
New AMS <sup>14</sup> C Dates for Human Remains from Stone Age Sites in the Iron Gates Reach of the Danube, Southeast Europe  Clive Bonsall, Rastko Vasić, Adina Boroneanţ, Mirjana Roksandic, Andrei Soficaru, Kathleen McSweeney, Anna Evatt, Ülle Aguraiuja, Catriona Pickard, Vesna Dimitrijević, Thomas Higham, Derek Hamilton, Gordon Cook	3
The Tempo of Bronze Age Barrow Use: Modeling the Ebb and Flow in Monumental Funerary Landscapes  Quentin P J Bourgeois, David R Fontijn	4
The End of a Hundred-Year-Old Archaeological Riddle: First Dating of the Columns Tomb of Kumbi Saleh (Mauritania)  Chloé Capel, Antoine Zazzo, Jean-François Saliège, Jean Polet	6
Absolute Dating of the Late Bronze to Iron Age Transition and the Appearance of Philistine Culture in Qubur el-Walaydah, Southern Levant  Yotam Asscher, Gunnar Lehmann, Steven A Rosen, Steve Weiner, Elisabetta Boaretto	7
Age and Thermal Stability of Particulate Organic Matter Fractions Indicate the Presence of Black Carbon in Soil  Jens Leifeld, Maria Heiling, Irka Hajdas	9
Ultra-Small Graphitization Reactors for Ultra-Microscale <sup>14</sup> C Analysis at the National Ocean Sciences Accelerator Mass Spectrometry (NOSAMS) Facility  Sunita R Shah Walter, Alan R Gagnon, Mark L Roberts, Ann P McNichol,  Mary C Lardie Gaylord, Elizabeth Klein	10
Comparison of Large and Ultra-Small $\Delta^{14}$ C Measurements in Core Top Benthic Foraminifera from the Okhotsk Sea $L$ D Keigwin, A R Gagnon	12
Planktic and Benthic <sup>14</sup> C Reservoir Ages for Three Ocean Basins, Calibrated by a Suite of <sup>14</sup> C Plateaus in the Glacial-to-Deglacial Suigetsu Atmospheric <sup>14</sup> C Record <i>Michael Sarnthein, Sven Balmer, Pieter M Grootes, Manfred Mudelsee.</i>	12

Rana Baydoun, Omar El Samad, Bilal Nsouli, Ghassan Younes	
<sup>14</sup> C Dating of the Lime Burial of Cova de Na Dent (Mallorca, Spain): Optimization of the Sample Preparation and Limitations of the Method Mark Van Strydonck, Roald Hayen, Mathieu Boudin, Tess van den Brande, Magdalena Salas Burguera, Damià Ramis, Herlinde Borms, Guy De Mulder	
Comparative Dendrochronological and <sup>14</sup> C Dating of 15th Century Russian Icon  Konstantin Voronin, Andrey Dolgikh, Vladimir Matskovsky, Alexander Cherkinsky,  Vadim Skripkin, Alexander Alexandrovskiy	
DATE LISTS	
Radiocarbon Dating the Late Upper Paleolithic of Cantabrian Spain: El Mirón Cave Date List IV Lawrence Guy Straus, Manuel R González Morales, Thomas Higham, Michael Richards, Sahra Talamo	
AMS Radiocarbon Dates for Pleistocene Fauna from the American Northeast  Matthew T Boulanger, Gregory D Lattanzi, David C Parris, Michael J O'Brien, R Lee Lyman	
COMMENTS AND REPLIES	
Assessing the Age of Wild Lungfish: Comments on James et al. (2010)  Anne Kemp.	
Updated Methods to Age the Australian Lungfish: Reply to Kemp (2015)  Stewart J Fallon, Andrew McDougall, Tom Espinoza, David T Roberts, Steven Brooks,  Peter Kind	