# Radiocarbon

An International Journal of Cosmogenic Isotope Research

VOLUME 56 / NUMBER 3 / 2014



## In This Issue:

Kutschera et al., "EVIDENCE FOR EARLY HUMAN PRESENCE AT HIGH ALTITUDES IN THE ÖTZTAL ALPS (AUSTRIA/ITALY)"

#### 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. © 2014 by the Arizona Board of Regents on behalf of the University of Arizona. All rights reserved.

Subscription rate (2014): \$315.00 (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: copyright ©2014 Edge of the Map, Inc., www.EdgeOfTheMapInc.com. Image courtesy of Walter Kutschera.

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 56, Nr 3, 2014

### **CONTENTS**

EDITORIAL BOARD
ARTICLES
Passing of the Last of the Three Who Established <sup>14</sup> C Dating: A Historical Footnote <i>R E Taylor</i>
Evidence for Early Human Presence at High Altitudes in the Ötztal Alps (Austria/Italy)  Walter Kutschera, Gernot Patzelt, Eva Maria Wild, Barbara Haas-Jettmar, Werner Kofler,  Andreas Lippert, Klaus Oeggl, Edwin Pak, Alfred Priller, Peter Steier,  Notburga Wahlmüller-Oeggl, Alexander Zanesco
The Copper Age Mound Necropolis in Salve, Lecce, Italy: Radiocarbon Dating Results on Charcoals, Bones, Cremated Bones, and Pottery  Gianluca Quarta, Ida Tiberi, Marco Rossi, Giorgia Aprile, Eugenia Braione, Marisa D'Elia,  Elettra Ingravallo, Lucio Calcagnile
Radiocarbon Dating of Dutch Mortars Made from Burned Shells Alf Lindroos, Edwin Orsel, Jan Heinemeier, Jan-Olof Lill, Kristian Gunnelius
A Simple and Effective Removal Procedure of Synthetic Resins to Obtain Accurate Radiocarbon Dates of Restored Artworks  M.E. Fedi, L. Caforio, L. Liccioli, P. A. Mandò, A. Salvini, F. Taccetti
A Model for Calculating Freshwater Reservoir Offsets on AMS-Dated Charred, Encrusted Cooking Residues Formed from Varying Resources  John P Hart
Freshwater Reservoir Offsets Investigated through Paired Human-Faunal <sup>14</sup> C Dating and Stable Carbon and Nitrogen Isotope Analysis at Lake Baikal, Siberia  *Rick J Schulting, Christopher Bronk Ramsey, Vladimir I Bazaliiskii, Olga I Goriunova, Andrzej Weber
Compound-Specific <sup>14</sup> C Dating of IODP Expedition 318 Core U1357A Obtained off the Wilkes Land Coast, Antarctica  Masako Yamane, Yusuke Yokoyama, Yosuke Miyairi, Hisami Suga, Hiroyuki Matsuzaki, Robert B Dunbar, Naohiko Ohkouchi
AMS <sup>14</sup> C Chronology and Ceramic Sequences of Early Farmers in the Eastern Adriatic Sarah B McClure, Emil Podrug, Andrew M T Moore, Brendan J Culleton, Douglas J Kennett
Revised Moche Chronology Based on Bayesian Models of Reliable Radiocarbon Dates  Michele L Koons, Bridget A Alex
Questioning Postclassic Continuity at Baking Pot, Belize, Using Direct AMS <sup>14</sup> C Dating of Human Burials  Julie 4 Hoggarth Brendan I Culleton Jaime I 4we Douglas I Kennett

	yesian Chronology for Postclassic and Colonial Occupation at Xaltocan, Mexico erholtzer
Prehispanio	or Radiocarbon Chronological Assessment of Ceramic Styles: An Example from the Northwestern Argentina  Greco, Valeria Palamarczuk
China	ution in Atmospheric and Aquatic Environments around Qinshan Nuclear Power Plant,  ng Wang, Dan Hu, Hong Xu, Qiuju Guo
Rivers (NI	rements of Dissolved Inorganic and Organic Carbon in Qinghai Lake and Inflowing E Tibet, Qinghai Plateau), China II, G S Burr, W Zhou, P Cheng, S H Song, A G Leonard, L Cheng, Z S An
Late Holoc	rganic Carbon Burial in a Floodplain Lake of the Lower Yellow River Area during the zene g Yu, Chunhai Li, Xuexiang Chen, Guiyun Jin, Hui Fang
Beryllium	tte Signals of Lake Hovsgol, Mongolia, over the Last 19,000 Years Using Authigenic Isotopes ii, Kyeong Ja Kim, Daekyo Cheong, Yong Ha Kim
F S Buss	on Dating of Late Pleistocene Marine Shells from the Southern North Sea schers, F P Wesselingh, R H Kars, M Versluijs-Helder, J Wallinga, J H A Bosch, er, K G J Nierop, T Meijer, F P M Bunnik, H De Wolf
	g Isotope Ratios and Nuclide Concentrations for <i>In Situ</i> Cosmogenic <sup>14</sup> C Analyses <i>Hippe, Nathaniel A Lifton</i>
	ral Examination of <sup>14</sup> CO <sub>2</sub> Chamber Methodologies for Sampling at the Soil Surface <i>Egan, Nick Nickerson, Claire Phillips, Dave Risk</i>
Fusa Mi	n of the Cosmic-Ray Event in AD 993–994 by Using a Japanese Hinoki Tree iyake, Kimiaki Masuda, Masataka Hakozaki, Toshio Nakamura, Fuyuki Tokanai, o Kato, Katsuhiko Kimura, Takumi Mitsutani
	in Radiocarbon Dates in Middle Pleniglacial Wood from Kurtak (Central Siberia) serts, F Damblon, N Drozdov, V Checha, J van der Plicht
	of the Method for Measuring <sup>14</sup> C in Combustion Gases only, A Smoliński, M Wysocka
DATE LIST	7
Canada	on Dates of Late Quaternary Megafauna and Botanical Remains from Central Alberta,  wher N Jass, Alwynne B Beaudoin