# **QUATERNARY RESEARCH**

# EDITOR Alan R. Gillespie

## ASSOCIATE EDITORS

Patricia M. Anderson Tracy T. Furutani Eric J. Steig

# **BOOK REVIEW EDITOR**

Bax R. Barton

## MANAGING EDITOR

Susan W. Rasmussen

Quaternary Research Center Box 35 1360 University of Washington Seattle, Washington 98195-1360

#### **EDITORS EMERITI**

A. L. Washburn Stephen C. Porter

#### EDITORIAL ADVISORY BOARD

THURE E. CERLING

University of Utah Terrestrial Geochemistry and Cosmogenic Isotopes

JOHN DODSON

University of Western Australia Quaternary Environmental Change and Vegetation History: Australia, China, New Zealand, and Pacific Islands

YEHOUDA ENZEL

Hebrew University

Quaternary Geology and Geomorphology:

Arid Lands

DONALD K. GRAYSON

University of Washington

Archaeology and Vertebrate Paleontology: North America and Western Europe

RICHARD G. KLEIN

Stanford University

Archaeology and Vertebrate Paleontology:

Africa

NICHOLAS LANCASTER

Desert Research Institute

Quaternary Geology and Geomorphology: Africa, Southwestern United States,

Desert Regions

SOCORRO LOZANO-GARCIA

Universidad Nacional Autónoma de México

Sediment and Ice-core Studies:

Tropical America

MILAN J. PAVICH

U. S. Geological Survey

Quaternary Soils: Southeastern, Mid-Continent and Southwestern United States

JIM ROSE

University of London

Terrestrial Palaeoenvironments and Stratigraphy: Britain and Europe

NICHOLAS J. SHACKLETON

University of Cambridge Quaternary Oceanography

DAVID E. SUGDEN

University of Edinburgh

Glacial Geomorphology and Landscape Evolution: Antarctica, Iceland, Northwest

Europe and Patagonia

ANDREI A. VELICHKO

Russian Academy of Sciences Geography and Geomorphology:

Northern Eurasia

KENNETH L. VEROSUB

University of California

Paleoclimatology: China, Russia, Antarctica,

and North America

CATHY L. WHITLOCK

University of Oregon

Paleoecology and Vegetation History:

North and South America

LIPING ZHOU

Peking University

Loess, Geochronology, and Geomorphology:

Central Asia, East Asia

#### Quaternary Research is the research journal for the American Quaternary Association

Cover photo. Cut and polished section, 15 mm across, of gravel with adhering pedogenic carbonate (inverted from growth position) from a Wind River (Wyoming) terrace. Section shows some complexities of carbonate accumulation, including unconformities (lower center) and partial recrystallization associated with local uranium loss (cloudy area on lower right), emphasizing the need to select small dating samples in a known micro-stratigraphic context. See related article by Sharp et al. in this issue.