

The First Humans

Vertebrate Paleobiology and Paleoanthropology Series

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The First Humans - Origin and Early Evolution of the Genus *Homo*

Contributions from the Third Stony Brook
Human Evolution Symposium and Workshop
October 3 - October 7, 2006

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Preface

There are some issues in human paleontology that seem to be timeless. Most deal with the origin and early evolution of our own genus – something about which we should care. Some of these issues pertain to taxonomy and systematics. How many species of *Homo* were there in the Pliocene and Pleistocene? How do we identify the earliest members the genus *Homo*? If there is more than one Plio-Pleistocene species, how do they relate to one another, and where and when did they evolve? Other issues relate to questions about body size, proportions and the functional adaptations of the locomotor skeleton. When did the human postcranial “Bauplan” evolve, and for what reasons? What behaviors (and what behavioral limitations) can be inferred from the postcranial bones that have been attributed to *Homo habilis* and *Homo erectus*?

Still other issues relate to growth, development and life history strategies, and the biological and archeological evidence for diet and behavior in early *Homo*. It is often argued that dietary change played an important role in the origin and early evolution of our genus, with stone tools opening up scavenging and hunting opportunities that would have added meat protein to the diet of *Homo*. Still other issues relate to the environmental and climatic context in which this genus evolved. Were there global or pan-African climatic events that relate to the appearance and/or extinction of *Homo* species, and if so, can they be tied to the appearance or disappearance of these species in any meaningful way? Did *Homo* species live in environments that differed from those inhabited by earlier hominins, and can any general trends through time be inferred from paleontological and isotopic evidence?

The announcement, over 4 decades ago, of the fossil remains of *Homo habilis* from Olduvai Gorge by Louis Leakey, Phillip Tobias, and John Napier marked a number of major changes in our knowledge and interpretation of human evolution. We have certainly come a long way since the early 1960s towards appreciating the origin of our genus. New finds and analyses have provided some critical information, and have, at the same time, led to new questions. Still, there remain a significant number of unresolved issues. This is the way it should be, and what one expects. Although some of the questions appear to be the same as before, new techniques and interpretations have opened up other avenues of enquiry and have led to new questions for which answers can hopefully be found.

In an effort to update, address and hopefully synthesize our current understanding of this preeminently significant development in human evolution, we organized the Third Stony Brook Human Evolution Symposium and Workshop in 2006. An international group of acknowledged experts in their respective fields assembled for 5 days of discussion and debate on a wide range of topics related to the origin of the genus *Homo*. This volume is the result of those activities. The chapters they have contributed to it represent what we know, and what knowledge we still wish for in the quest to understand the evolution of the first humans.

The workshop was sponsored by Stony Brook University and the Turkana Basin Institute. Many people and organizations made it possible, including the Office of the Provost of Stony Brook University, the Wenner-Gren Foundation, and generous contributions from David and Maureen Acker, Ed and Frances Barlow, Bill and Kathy Cleary, Charles and Ursula Massoud, Allan and Diana Rothstein, Jim and Marilyn Simons, and Kay Harrigan Woods. The success of

the symposium and workshop owes much to the tireless efforts of Elizabeth Wilson, Christopher Gilbert, Danielle Royer, Matthew Sisk and Ian Wallace.

The chapters in this volume underwent formal peer-review, and we would like to take this opportunity to thank our colleagues who gave so freely of their time and expert opinion to assist in this process. We also thank Eric Delson, senior co-editor of the Vertebrate Paleontology and Paleoanthropology Series, for his support, assistance and encouragement in bringing this volume to publication. Robert Foley, Marta Lahr and the other faculty, staff and students at the Leverhulme Center for Human Evolutionary Studies, The University of Cambridge, graciously provided Fred Grine with accommodation and support over the 2007–2008 academic year while he was on sabbatical, and during the height of his editorial work on this volume.

Stony Brook University

Frederick E. Grine
John G. Fleagle
Richard E. Leakey

Contents

Part I Retrospectives and Theoretical Perspectives

- 1 **Early Humans: Of Whom Do We Speak?**..... 3
Richard E. Leakey
- 2 ***Homo habilis* – A Premature Discovery: Remembered
by One of Its Founding Fathers, 42 Years Later** 7
Phillip V. Tobias
- 3 **Where Does the Genus *Homo* Begin,
and How Would We Know?** 17
Bernard A. Wood

Part II Craniodental Perspectives on Taxonomy and Systematics

- 4 **The Origin of *Homo*** 31
William H. Kimbel
- 5 **Comparisons of Early Pleistocene Skulls from East Africa
and the Georgian Caucasus: Evidence Bearing on the Origin
and Systematics of Genus *Homo*** 39
G. Philip Rightmire and David Lordkipanidze
- 6 **Phenetic Affinities of Plio-Pleistocene *Homo* Fossils
from South Africa: Molar Cusp Proportions** 49
Frederick E. Grine, Heather F. Smith, Christopher P. Heesy
and Emma J. Smith

Part III Postcranial Perspectives on Locomotion and Adaptation

- 7 **Evolution of the Hominin Shoulder: Early *Homo*** 65
Susan G. Larson
- 8 **Brains, Brawn, and the Evolution of Human Endurance
Running Capabilities** 77
Daniel E. Lieberman, Dennis M. Bramble,
David A. Raichlen and John J. Shea
- 9 **Interlimb Proportions in Humans and Fossil Hominins:
Variability and Scaling** 93
William L. Jungers

Part IV Perspectives on Development, Diet and Behavior

- 10 Growth and Development of the Nariokotome Youth, KNM-WT 15000** 101
M. Christopher Dean and B. Holly Smith
- 11 Dental Evidence for Diets of Early *Homo*** 121
Peter S. Ungar and Robert S. Scott
- 12 Origins and Adaptations of Early *Homo*: What Archeology Tells Us** 135
Hélène Roche, Robert J. Blumenschine and John J. Shea

Part V Environmental and Ecological Perspectives

- 13 Plio-Pleistocene East African Pulsed Climate Variability and Its Influence on Early Human Evolution**..... 151
Mark A. Maslin and Martin H. Trauth
- 14 Tracking Ecological Change in Relation to the Emergence of *Homo* Near the Plio-Pleistocene Boundary** 159
Kaye E. Reed and Samantha M. Russak
- 15 Ecology of Plio-Pleistocene Mammals in the Omo–Turkana Basin and the Emergence of *Homo***..... 173
René Bobe and Meave G. Leakey
- 16 Biogeochemical Evidence for the Environments of Early *Homo* in South Africa** 185
Matt Sponheimer and Julia A. Lee-Thorp

Part VI Summary Perspective on the Workshop

- 17 The First Humans: A Summary Perspective on the Origin and Early Evolution of the Genus *Homo*** 197
Frederick E. Grine and John G. Fleagle
- Subject Index**..... 209
- Specimen Index** 215
- Site/Locality Index** 217

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