Stanford



Richard Klein

Anne T. and Robert M. Bass Professor in the School of Humanities and Sciences and Professor of Anthropology and of Biology, Emeritus

Curriculum Vitae available Online

CONTACT INFORMATION

- **Mobile phone**

  Richard G. Klein

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Bio

BIO

Richard G. Klein researches the archeological and fossil evidence for the evolution of human behavior. He has done fieldwork in Spain and especially in South Africa, where he has excavated ancient sites and analyzed the excavated materials since 1969. He has focused on the behavioral changes that allowed anatomically modern Africans to spread to Eurasia about 50,000 years ago, where they swamped or replaced the Neanderthals and other non-modern Eurasians.

After earning his undergraduate degree from the University of Michigan, Mr. Klein went to the University of Chicago to pursue his M.A. and Ph.D. degrees. Following receipt of his doctorate, he taught at the University of Wisconsin-Milwaukee, Northwestern University, the University of Washington, and for 20 years at the University of Chicago. He came to Stanford from Chicago in 1993.

Mr. Klein has served on numerous editorial and advisory boards, he has edited The Journal of Archaeological Science since 1981, and he co-chairs the Grants Committee of the L.S.B. Leakey Foundation. He is a member of the American Academy of Arts and Sciences and of the National Academy of Sciences.

ACADEMIC APPOINTMENTS

- Emeritus Faculty, Acad Council, Anthropology

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Co-Chair, Leakey Foundation Science and Grants Committee (1995 - present)
- Member, American Association of Physical Anthropologists (1966 - present)
- Editor, Journal of Archaeological Science (1981 - present)
- Member, National Academy of Sciences (2003 - present)
- Fellow, American Academy of Arts and Sciences (1992 - present)

PROFESSIONAL EDUCATION

- Ph. D., University of Chicago , Anthropology (1966)
- M. A., University of Chicago , Anthropology (1964)
- B. A., University of Michgain , Anthropology (1962)

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

My primary interest is in the co-evolution of anatomy and behavior in human evolution. My research is mainly on ancient animal remains as indicators of early human ability to make a living. I have analyzed more than 100 assemblages of animal fossils, primarily from southern African archaeological sites dating between 700,000 years ago and the historic present. I am currently directing excavations at a site 70 km NNW of Cape Town that dates from the Last Interglacial interval, between roughly 115,000 and 70,000 years ago. The animal remains show that the inhabitants exploited coastal resources much less efficiently than people who occupied the same coast during Present Interglacial (Holocene). The change in foraging efficiency probably occurred about 50,000 years ago and it helps explain the simultaneous expansion of anatomically modern humans from Africa to Eurasia, where they replaced the Neanderthals and other non-modern Eurasians.

PROJECTS

- Modern Human Origins - Stanford University and the Iziko Museum of South Africa

Teaching

COURSES

2023-24

- Data Analysis for Quantitative Research: ANTHRO 116, ANTHRO 216 (Aut)

Publications

PUBLICATIONS

- **Profile of Svante Pääbo: 2022 Nobel laureate in physiologyor medicine.** *Proceedings of the National Academy of Sciences of the United States of America*
  Klein, R. G.
  2023; 120 (1): e2217025119
- **Mammoths and Neanderthals in the Thames Valley: Excavations at Stanton Harcourt, Oxfordshire (Book Review)** *JOURNAL OF ANTHROPOLOGICAL RESEARCH*
  Book Review Authored by: Klein, R. G.
  2022; 78 (2): 223-224
- **VISITS TO A CLIFF CAVE AMIDST CLIMATE CHANGE: THE ARCHAEOLOGY OF SPRING CAVE, WEST COAST OF SOUTH AFRICA** *SOUTH AFRICAN ARCHAEOLOGICAL BULLETIN*
  Jerardino, A., Halkett, D., Klein, R., Girten, K.
  2021; 76 (215): 109-124
- **Middle Stone Age marine resource exploitation at Ysterfontein 1 rockshelter, South Africa.** *Proceedings of the National Academy of Sciences of the United States of America*
  Klein, R. G.
  2021; 118 (31)
- **A fossil history of southern African land mammals (Book Review)** *SOUTH AFRICAN JOURNAL OF SCIENCE*
  Book Review Authored by: Klein, R. G.
  2020; 116 (1-2)
- **Population structure and the evolution of Homo sapiens in Africa.** *Evolutionary anthropology*
  Klein, R. G.
  2019
- **Who We Are and How We Got Here: Ancient DNA and the New Science of the Human Past (Book Review)** *CURRENT ANTHROPOLOGY*
  Book Review Authored by: Linderholm, A., Horsburgh, K., Vander Linden, M., Klein, R. G., Bandelt, H., Kirch, P. V.

2018; 59 (5): 655–62

- **Arrival routes of first Americans uncertain Response** *SCIENCE*
  Braje, T. J., Rick, T. C., Dillehay, T. D., Erlandson, J. M., Klein, R. G.
  2018; 359 (6381): 1225
- **Finding the first Americans.** *Science (New York, N.Y.)*
  Braje, T. J., Dillehay, T. D., Erlandson, J. M., Klein, R. G., Rick, T. C.
  2017; 358 (6363): 592-594
- **Francis H. Brown (1943-2017) IN MEMORIAM** *EVOLUTIONARY ANTHROPOLOGY*
  Cerling, T. E., Klein, R.
  2017; 26 (6): 245–48
- **Counting and miscounting sheep: genetic evidence for pervasive misclassification of wild fauna as domestic stock** *SOUTHERN AFRICAN HUMANITIES*
  Horsburgh, K., Moreno-Mayar, J., Klein, R. G.
  2017; 30: 53–69
- **Shellfishing and human evolution** *JOURNAL OF ANTHROPOLOGICAL ARCHAEOLOGY*
  Klein, R. G., Bird, D. W.
  2016; 44: 198-205
- **Issues in human evolution.** *Proceedings of the National Academy of Sciences of the United States of America*
  Klein, R. G.
  2016; 113 (23): 6345-7
- **Shellfishing and Human Evolution** *Journal of Anthropological Archaeology*
  Klein, R. G., Bird, D. W.
  2016; 44: 198-205
- **Issues in Human Evolution** *Proceedings of the National Academy of Sciences*
  Klein, R. G.
  2016; 113: 6345-6347
- **The Middle and Later Stone Age faunal remains from Diepkloof Rock Shelter, Western Cape, South Africa** *JOURNAL OF ARCHAEOLOGICAL SCIENCE*
  Steele, T. E., Klein, R. G.
  2013; 40 (9): 3453-3462
- **Archaeological shellfish size and later human evolution in Africa** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
  Klein, R. G., Steele, T. E.
  2013; 110 (27): 10910-10915
- **Stable carbon isotopes and human evolution.** *Proceedings of the National Academy of Sciences of the United States of America*
  Klein, R. G.
  2013; 110 (26): 10470-10472
- **An early date for cattle from Namaqualand, South Africa: implications for the origins of herding in southern Africa** *ANTIQUITY*
  Orton, J., Mitchell, P., Klein, R., Steele, T., Horsburgh, K. A.
  2013; 87 (335): 108-120
- **Two Holocene rock shelter deposits from the Knersvlakte, southern Namaqualand, South Africa** *SOUTHERN AFRICAN HUMANITIES*
  Orton, J., Klein, R. G., MacKay, A., Schwortz, S., Steele, T. E.
  2011; 23: 109-150
- **Preface to the special issue-Early-Middle Pleistocene Palaeoenvironment in the Levant** *JOURNAL OF HUMAN EVOLUTION*
  Klein, R.
  2011; 60 (4): 319-319

- **The abundance of eland, buffalo, and wild pigs in Middle and Later Stone Age sites** *JOURNAL OF HUMAN EVOLUTION*
  Weaver, T. D., Steele, T. E., Klein, R. G.
  2011; 60 (3): 309-314
- **HILARY JOHN DEACON 1936-2010 In Memoriam** *SOUTH AFRICAN ARCHAEOLOGICAL BULLETIN*
  Klein, R. G.
  2010; 65 (191): 109-110
- **Comment on the Paleoenvironment of Ardipithecus ramidus** *SCIENCE*
  Cerling, T. E., Levin, N. E., Quade, J., Wynn, J. G., Fox, D. L., Kingston, J. D., Klein, R. G., Brown, F. H.
  2010; 328 (5982)
- **A Howiesons Poort tradition of engraving ostrich eggshell containers dated to 60,000 years ago at Diepkloof Rock Shelter, South Africa** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
  Texier, P., Porraz, G., Parkington, J., Rigaud, J., Poggenpoel, C., Miller, C., Tribolo, C., Cartwright, C., Coudenneau, A., Klein, R., Steele, T., Verna, C.
  2010; 107 (14): 6180-6185
- **Morphometric identification of bovid metapodials to genus and implications for taxon-free habitat reconstruction** *JOURNAL OF ARCHAEOLOGICAL SCIENCE*
  Klein, R. G., Franciscus, R. G., Steele, T. E.
  2010; 37 (2): 389-401
- **Darwin and the recent African origin of modern humans** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
  Klein, R. G.
  2009; 106 (38): 16007-16009
- **MOGAPELWA: ARCHAEOLOGY PALAEOENVIRONMENT AND ORAL TRADITIONS AT LAKE NGAMI, BOTSWANA** *SOUTH AFRICAN ARCHAEOLOGICAL BULLETIN*
  Robbins, L. H., Campbell, A. C., Murphy, M. L., Brook, G. A., Mabuse, A. A., Hitchcock, R. K., Babutsi, G., Mmolawa, M., Stewart, K. M., Steele, T. E., Klein, R. G., Appleton, C. C.
  2009; 64 (189): 13-32
- **The Human Career: Human Biological and Cultural Origins**
  Klein, R. G.
  University of Chicago Press.2009
- **Out of Africa and the Evolution of Human Behavior** *EVOLUTIONARY ANTHROPOLOGY*
  Klein, R. G.
  2008; 17 (6): 267-281
- **Intertidal shellfish use during the Middle and Later Stone Age of South Africa** *ARCHAEOFAUNA*
  Steele, T. E., Klein, R. G.
  2008; 17: 63-76
- **Going strong, and growing** *JOURNAL OF ARCHAEOLOGICAL SCIENCE*
  Rehren, T., Grattan, J., Klein, R. G.
  2008; 35 (2): 213-213
- **Obituary - F. Clark Howell (1925-2007)** *JOURNAL OF ARCHAEOLOGICAL SCIENCE*
  Klein, R. G., Butzer, K. W.
  2007; 34 (9): 1552-1553
- **The mammalian fauna associated with an archaic hominin skullcap and later Acheulean artifacts at Elandsfontein, Western Cape Province, South Africa** *JOURNAL OF HUMAN EVOLUTION*
  Klein, R. G., Avery, G., Cruz-Uribe, K., Steele, T. E.
  2007; 52 (2): 164-186
- **The Ysterfontein 1 Middle Stone Age site, South Africa, and early human exploitation of coastal resources** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*

Klein, R. G., Avery, G., Cruz-Uribe, K., Halkett, D., Parkington, J. E., Steele, T., Volman, T. P., Yates, R.
2004; 101 (16): 5708-5715

- **Paleoanthropology. Whither the Neanderthals?** *Science*
  Klein, R. G.
  2003; 299 (5612): 1525-1527
- **Whither the Neanderthals?** *SCIENCE*
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  2003; 299 (5612): 1525-1527