Dear Friend of the Institute of Human Origins

Welcome to the new Institute of Human Origins end-of-year letter! For new and old friends, we hope that this adds format more “flavor” to news of IHO’s advances in the science and research of our origins.

Your support of the Institute of Human Origins is essential to our success!

We are grateful to the many of you who have helped support IHO’s programs through annual gifts, direct support of our field research, or participation in one of our wonderful international tour programs. Our scientific accomplishments would not have been possible without the help of generous donors who help put our teams in the field, analyze the discoveries, and disseminate new knowledge to the public. While we are fortunate to have the strong backing of ASU for our faculty and facilities, our programs rely on the generosity of donors whose passion for the study of human origins creates the strong “public-private partnership” we enjoy with the university.

Please consider the opportunities that your end-of-the-year gift will provide for future discovery and innovative research and join us in our quest for human origins by supporting IHO with your generous charitable gift. Enclosed please find the Gift/Pledge Form for your convenience. Or, you can go to IHO’s website at iho.asu.edu/support/supportIHO to give securely online.

As we move into 2014, look for news about IHO’s expanded research agenda and events marking the 40-year milestone of the discovery of “Lucy.”

I thank you in advance for your support and look forward to hearing from you.

Best wishes for the New Year,

William H. Kimbel PhD
Director
Virginia M. Ullman Professor of Natural History and the Environment
IHO researchers Chris Campisano and Kaye Reed are leaders in the Hominin Sites and Paleolakes Drilling Project, a multinational research effort that will extract drilled long-cores of continuous, high-resolution paleoenvironmental records from five ancient lake beds in Kenya and Ethiopia. Researchers are collecting samples spanning the last four million years of human evolution to understand how changing environments reflected the pathways of human evolution, which can help us understand why and how our distant ancestors evolved. The international team has been awarded nearly $10 million from NSF and International Continental Scientific Drilling Program funding.

Ledi-Geraru, Ethiopia, field seasons in 2012 and 2013, directed by Kaye Reed and Chris Campisano, resulted in several new and exciting fossil and archaeological finds in the > 2.4 Ma time period that is otherwise rarely preserved in the Afar. This research is critical for understanding the paleoenvironmental context related to the fate of Australopithecus afarensis and the origins of subsequent hominin species.

Curtis Marean continues to direct the SACP4 project based on the southern coast of South Africa. The caves and surrounding environment are providing answers to questions about the earliest use of microblade stone tools, fire for heat treatment in making the stone tools, and shells and ochre for ceremony or adornment from 120,000 to 50,000 years ago. In 2013, Marean and postdoctoral researcher Erich Fisher reported on fieldwork in a totally new and unexplored coastal environment on the east coast of South Africa. Marean is supporting efforts to gain “World Heritage Site” status for the Mossel Bay caves and environment.

Major Faculty Publications
IHO scientists are at the forefront of their fields for science and in publishing research. During 2012–2013, two major books were published by IHO scientists, and IHO research was featured on the cover of the prestigious journal Nature.
Selected Publications and Continuing Research

IHO Director William Kimbel and University of Chicago colleague Callum Ross convened a three-day workshop at ASU on Reconstructing Dietary Adaptations in Human Evolution. Twenty experts from universities from the U.S., Europe, and Kuwait met to exchange information and ideas for working across disciplines to solve outstanding questions about diet reconstruction and human evolution.

Kimbel and Kaye Reed were coauthors on two papers in Proceedings of the National Academy of Science detailing the early history of hominin dietary preference from the point of view of the isotopic signature of ingested plant foods. These include, for the first time, Australopithecus afarensis from Hadar. The papers show that A. afarensis was among the earliest hominin species to significantly expand its dietary resource breadth to include plants found typically in relatively open environments.

Kimbel was invited by the journal Nature to critically comment on newly published research on the recently described hominin species Australopithecus sediba from South Africa. The article, “Hesitation on hominin history,” was published in the News and Views section of the journal.

Kim Hill is currently studying marine coastal foraging patterns in southern Africa and their importance in the expansion of Homo sapiens out of Africa.

Gary Schwartz is continuing a series of projects to map the chewing surfaces of molars—primate, human, and ancient fossil teeth—with geographic information systems or GIS software. He aims to quantify how certain aspects of the chewing surface change as teeth wear throughout life.

Reed cofounded the Southwestern Association of Biological Anthropologists (SWABA) with colleagues at The University of Arizona, Glendale Community College, and Midwestern University. The first meeting was attended by more than 50 faculty and students from five southwestern states.

Research affiliates Rob Boyd and Joan Silk have organized a lecture series—the Evolution of Social Complexity—that continues through the end of the academic year. Lectures primarily take place on Wednesdays at noon on the ASU Tempe campus. If you are interested in attending, see the IHO website homepage for more information (aho.asu.edu).

IHO research affiliate Jay Kelley was one of the researchers on an international team that published the discovery of a six-million-year-old skull of a juvenile ape in Yunnan, China, in the Chinese Science Bulletin.

More information on research and publications can be found at the IHO website: iho.asu.edu.
awards and students

Kaye Reed was one of three ASU faculty members to be recognized as an outstanding mentor by the Faculty Women’s Association at ASU for 2013.

During the past year, two IHO-affiliated graduate students in the School of Human Evolution and Social Change graduated with doctoral degrees in anthropology. Samantha Russak, who spent a year in Issa, Tanzania, collecting data on the environment of chimpanzees, presented her dissertation on the “Ecological role of dry-habitat chimpanzees (Pan troglodytes) at Issa, Ugalla, Tanzania” (Kaye Reed, advisor).

Thierra Nalley’s dissertation was on the “Positional behaviors and the neck: A comparative analysis of the cervical vertebrae of living primates and fossil hominids” (Bill Kimbel, advisor). Thierra has taken a postdoctoral position at the California Academy of Sciences to work with IHO international research affiliate Zeresenay Alemseged.

Three IHO-affiliated graduate students have now benefited from the Elizabeth H. Harmon Research Endowment. Terry Ritzman, Amy Shapiro, and Ben Schoville received funding for travel to the field and to research labs to move their dissertation research forward. Frank and Judy Harmon established the scholarship in memory of their daughter Elizabeth, who earned her PhD at ASU with advisor Bill Kimbel in 2005.

IHO-affiliated students are the backbone of IHO’s educational outreach, providing support for presentations to elementary through college-aged students, participating in the ASU School of Earth and Space Exploration day of science outreach and the Night of the Open Door, and writing about their field experiences for IHO’s blog—Notes from the Field (asuiho.wordpress.com).

outreach

The IHO Travel Program—Exploring Time Expeditions—completed a tour of the French paleolithic cave art in September. A cruise to the Galápagos islands, led by IHO Director Bill Kimbel and ASU Origins Project Director Lawrence Krauss, is coming up in June 2014. New trips to Teotihuacan (Mexico), led by School of Human Evolution and Social Change Professor Ben Nelson and IHO Founding Director Don Johanson, and Indonesia (Jakarta, Java, and Borneo), led by Johanson, are in the planning stages. If you are interested in either trip, please email Julie Russ (jruss@asu.edu) to get on the reserved list. Both trips will fill up quickly, so reserve your spot early!

The new IHO brochure and annual report can be viewed online through the IHO website (iho.asu.edu/publications/annualreport). The brochure highlights the latest IHO science and provides an overview of the people and places involved in our research.

Phoenix-area residents may have seen the news article in the Arizona Republic about an exhibition of IHO’s archival materials in the ASU Hayden Library during March 2013. The Legacy Project exhibition was the public outreach portion of an effort to ensure that the physical documents that trace IHO’s impact on the science of paleoanthropology will be preserved far into the future.

If you would like to visit the IHO office and lab, come to the Night of the Open Door on Saturday evening, March 1, 2014. See the “Lucy” skeleton cast and learn about paleoanthropology from IHO-affiliated graduate students.

We hope to bring you more exciting news in the near future about breaking science, an expanded research agenda, and new events and opportunities to attend lectures. Please make sure your email is up-to-date by emailing Julie Russ (jruss@asu.edu) to stay informed and to receive IHO’s new electronic newsletter.