no. 27 Winter/Spring 2013

AnthroQuest

The Newsletter of The Leakey Foundation

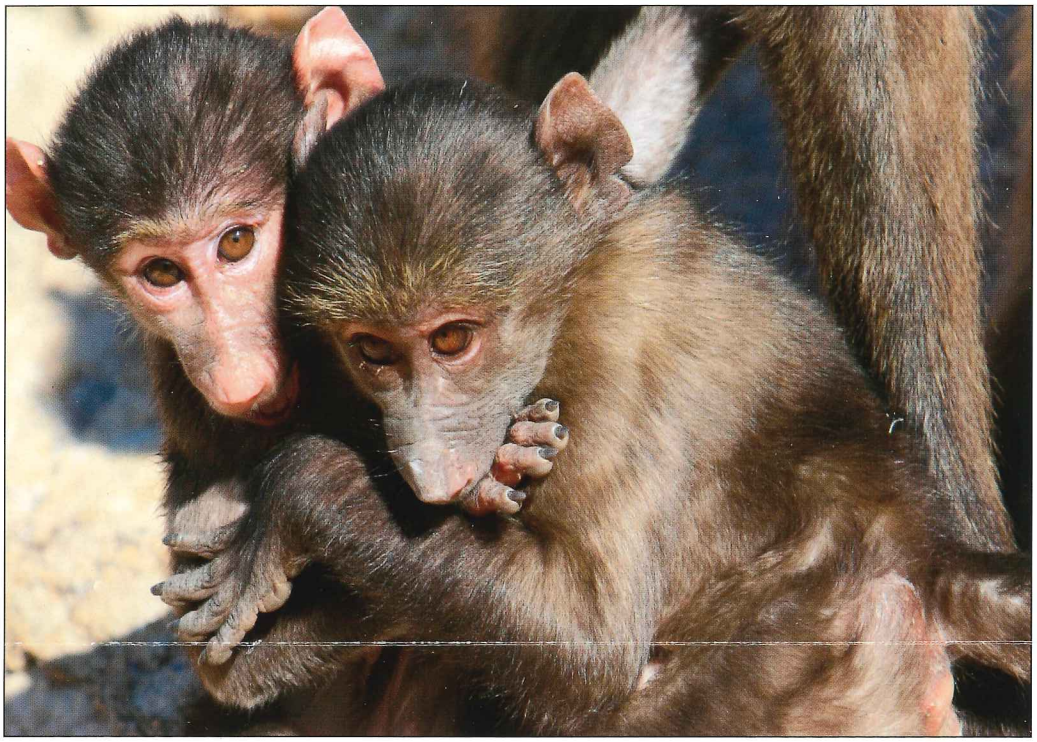
A Problem with Personality

by Dr. Alecia J. Carter
Cambridge University, UK
Leakey Grantee, 2009

I put the stuffed puff adder on a game trail between two food trees, move about five meters away, and do my best impression of acting nonchalant while awaiting an unsuspecting baboon to walk past. Cholera, a sub-adult male baboon in "L troop", casually jumps out of the tree and wanders along the well-worn path. He's alone! This is great; my video camera[1] is trained on him, he has to see the snake, he's going to be so shocked!

But Cholera just walks around the snake, pausing only briefly to look at it while he takes a thorn out of his foot. Not only is this anticlimactic, with no tail-flagging or teeth-baring as can occur when a baboon sees a snake in the wild, but it doesn't fit my hypothesis at all. I have a problem. A problem with personality.

Thanks to a grant from The Leakey Foundation, I was in Namibia with the Zoological Society of London's Tsaobis Baboon Project tying to figure out why some baboons act differently to other baboons. I say 'trying to' because, as it turns out, quantifying how individuals are different from one another isn't as straightforward as it seems.



Two infant baboons at play. © A.J. Carter

My goal was to understand how an individual's social environment may facilitate differences in individual's behaviour – to understand why there is such variation in primate personalities, and by extension why we social humans may behave so differently to one another. To do that, I first had to show how individuals were different, and in this case I was trying to show differences in boldness.

There are a number of 'tried and tested' ways of measuring boldness, and I was trying three of them. As in the case of the puff adder presentation, you can elicit a brief startle response, and measure how an individual deals with a minor threat. Or you can subjectively rate them, by getting observers familiar with the individuals to score how bold they think they are. Or you can give them something novel, and measure how they react to it.

I had recently done this novel object test with Cholera, and had presented to him a hard-boiled egg, which I had dyed red with food dye. His reaction was classically 'shy'; while he was willing to interact

[continued on page 10]

The mission of The Leakey Foundation is to increase scientific knowledge, education, and public understanding of human origins, evolution, behavior, and survival.

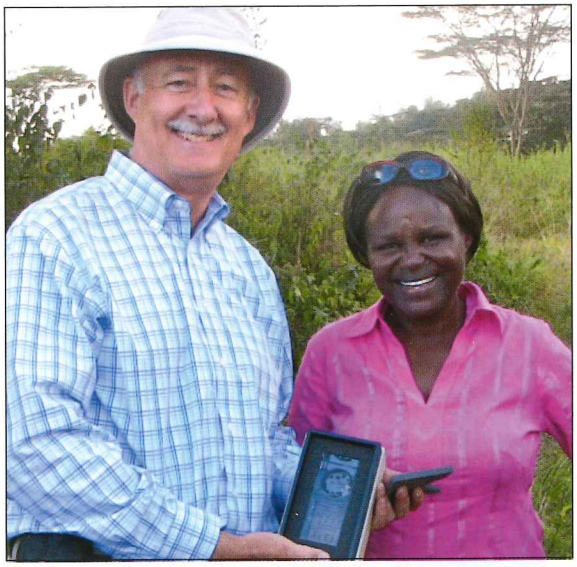
INSIDE

Dear Friends of The Leakey Foundation,

A new year is upon us again. Looking back on 2012, The Leakey Foundation has much to celebrate. During the past year...

- $699,579 was awarded to fund 52 research grants
- $34,000 in Baldwin Fellowships was awarded to 3 African students
- 6 public lectures and the symposium "The Female in Evolution" were offered
- 11 high schools were visited by Leakey speakers and the Foundation held 1 teaching workshop for more than 300 teachers

These accomplishments are only made possible with the support from individuals like you.



Don Dana presents a token of appreciation, from the Foundation, to Dr. Emma Mbua at her site. © The Leakey Foundation

One of the great pleasures of being the President of The Leakey Foundation is the camaraderie. Since joining the Foundation in 2000 as a Fellow, I've had the pleasure to meet and spend time with many members of The Leakey Foundation family, some of whom have been donors of the Foundation for over 25 years.

In September, some of us traveled to Kenya for a week-long expedition emphasizing human origins in East Africa. Our group was provided a VIP experience: gaining special access to a soon to be published 3 million year old site, outside of Nairobi, that features evidence of early humans; and receiving private tours of the research laboratories and original fossils in the "Bone Room" of the National Museums of Kenya. Even the meals were special, offering opportunities for intimate conversations with the scientists making headline-grabbing discoveries such as Drs. Richard Leakey, Emma Mbua and Fredrick Manthi.

A highlight of the expedition was a private tour of a site south of Mt. Olorgesailie where Smithsonian Curator Rick Potts and his team showed us how they are are drilling a 300 meter-deep core into an ancient lake to unravel the climate mysteries of the last 600 thousand years to understand the impact of climate change on human origins. We also found the time to meet with experts on wildlife, native cultures, and politics, including former member of Kenya's Parliament, Philip Leakey. Our group saw the science of human origins up close, learned about the dramatically beautiful wildlife and varied cultures of Kenya, while developing a stronger camaraderie. All who participated in this expedition had a memorable time, and I hope you will join us on our next journey.

Let me close by again expressing my gratitude to the many donors, Fellows, Trustees, SEC Members, grantees, reviewers, partners and staff that make up The Leakey Foundation family. Together we are building on our storied past to build an even brighter future.

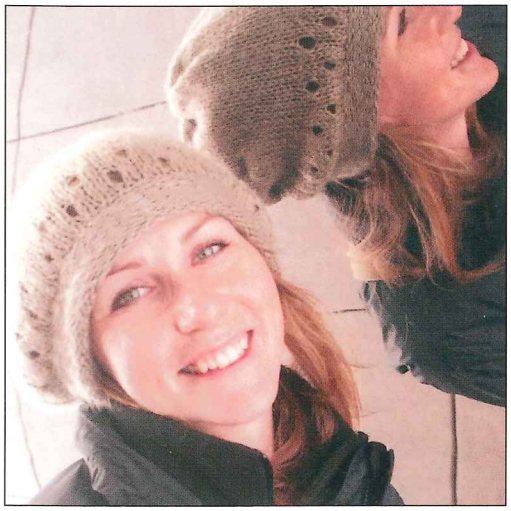
Warmly,

Don Dana
President, Board of Trustees

Below: Visiting Potts at Olorgesailie. © The Leakey Foundation

Grantee Spotlight: Holly Dunsworth

by Beth Green
Communications Director, The Leakey Foundation



Dr. Holly Dunsworth
Assistant Professor of Anthropology
University of Rhode Island

In 2003, Holly Dunsworth's career was kick-started by The Leakey Foundation with a grant to study the ontogeny and functional anatomy of the fossil ape *Proconsul*. Along with his colleagues, her doctoral advisor Alan Walker discovered several fossil primates with well-preserved legs and feet at the Kaswanga Primate Site on Rusinga Island, Kenya. These fossils were as she says, "waiting there quietly in the Nairobi museum, just dying to be studied."

While in Nairobi, working on those fossils for her dissertation, Dunsworth was able to spark a return to Rusinga Island fossil sites after they'd been left mostly unworked since the mid-1980s. She and her colleagues Kieran McNulty, William Harcourt-Smith, Daniel Peppe, and Thomas Lehmann, among others, began this project thanks to initial funds from The Leakey Foundation. This seed money enabled them to earn a larger three-year grant from the National Science Foundation.

Their project strives to explain the paleo-environmental contexts of the fossil primates from the sites on Rusinga Island and its neighbor Mfangano Island. As part of this endeavor they are resolving the geology of the region to put the many fossil-bearing layers in relative context with one another and with sites in other locales.

They are also characterizing the floral and faunal communities that the fossil primates lived and died in. Using the latest, high-resolution, GPS technology they're able to collect fossils from the erosional surface and from excavations in useful ways that distinguish different depositional or geological events. As Dunsworth explains, "This is crucial since we're interested in getting not just a clear snapshot of the variation during one particular instance in evolutionary time, but we're also interested in seeing evolutionary change over time. We now can do both. Before this technology was available, fossils were lumped together by site, which time-averages them, rendering them far less useful to science."

The team is employing taphonomic methods to reconstruct depositional environments of the fossil organisms and re-date known fossil-bearing sediments and distinguish new ones. They are also reconstructing past environments with: fossil leaf morphology; isotopes from fossil tooth enamel; and microwear patterns on fossil teeth. All of which adds to the understanding of the paleobiology of the spectacular fossil organisms preserved at the sites; from insects, to trees, to primates.

New and exciting field projects in the region, some funded by The Leakey Foundation, continue to spin-off from this initiative. Dunsworth says, "Ultimately we will have a wonderful, much clearer picture of the evolutionary history of the fossil primates, including *Proconsul*, that evolved there."

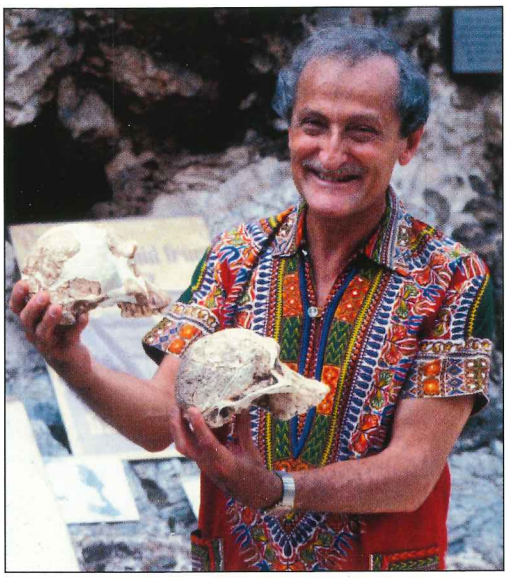
Learn more about the ongoing project in Rusinga. Watch a video, made by the American Museum of Natural History, online here: http://bit.ly/rusinga

Read more about Dunsworth's research online: leakeyfoundation.org/dunsworth

Holly Dunsworth in the field. © H. Dunsworth

Phillip Vallentine Tobias

1925–2012



Phillip V. Tobias. © Frederick Grine

June 7, 2012 witnessed the passing of Phillip Vallentine Tobias, internationally renowned scholar, educator and activist. His name will be forever synonymous with the most famous of the hominin fossils discovered by Louis and Mary Leakey at Olduvai Gorge, Tanzania, and with the excavations that have been conducted continuously since 1966 at the fossil site Sterkfontein, South Africa. As an academic, he was dedicated, perseverant and caring, having served the University of the Witwatersrand in his native South Africa for close to seven decades. It is difficult to imagine that many others can lay claim to such loyalty.

The year 1925 was doubly auspicious not only for South Africa, but also for global science. On February 7th of that year, Raymond Dart announced in *Nature* the new fossil "Man-Ape" from South Africa, *Australopithecus africanus*. Later that year, October 14th, Phillip was born; he was known on occasion to speculate that he was conceived the day that Dart's fossil was discovered. Whether or not this is accurate, Tobias would come to enjoy an ongoing relationship with Dart and *Australopithecus*.

Phillip was fascinated by Natural History from a young age. His wolf-cub scout leader introduced him to osteology and anatomy, and his interests in zoology and archeology grew from frequent visits to the Durban Natural History Museum while a teenager.

Phillip's interest in science, however, was catalyzed by the premature death from diabetes of his older sister and only sibling, Valerie. Phillip was 15 at the time, and neither his family doctor nor anyone else in South Africa seemed to be suitably knowledgeable in genetics to be able to explain to him why his maternal grandmother had also died of the disease while he and his mother were both free from the condition. He resolved to become the first South African to be able to explain this.

Tobias with long-time colleagues and friends, Louis & Mary Leakey.

In 1944, following his schooling in Durban and Bloemfontein, Phillip enrolled in the Medical School of the University of the Witwatersrand (Wits), in Johannesburg. Two years later, he obtained a BSc with dual majors in Histology and Physiology, and the following year a BSc Honours in Histology. In 1950 he was awarded the Bachelor of Medicine, Bachelor of Surgery degree (equivalent to the MD degree in the US). It was as an undergraduate student at Wits that Phillip first encountered his future mentor, Raymond Dart. Dart was, at the time, the Head of the Department of Anatomy. In 1959, upon Dart's retiremnet, Phillip assumed the role, a position he held until 1990.

In 1948, Phillip was elected President of the National Union of South African Students. The first of the Apartheid Laws followed soon thereafter. Phillip immediately launched a campaign in opposition to enforced segregation and the restriction of academic freedom at universities; the protest he helped organize at Wits in 1957 was one of the earliest official protests against the Apartheid policies of the government. Phillip's activism followed into the scientific vein, with his

In Memoriam

by Dr. Frederick E. Grine
Stony Brook University

publication in 1954 of a scientific article decrying the basis of racial classification.

The year 1959 also witnessed his entry into hominin paleontology at the most prestigious level imaginable to any 34-year-old. That was the year that Louis and Mary Leakey discovered in Bed I of Olduvai Gorge the truly spectacular cranium they dubbed *Zinjanthropus boisei*. They were quick to recognize that it was this young anatomist to whom they wanted to entrust the description and analysis of their fossil. The invitation took place on the banks of the Congo River. Recounting the story in a public lecture in 2006 at Stony Brook University, Phillip related that he "nearly subsided into the mud with astonishment at their generous offer." It was a career-changing invitation, for, until then, he had been working principally on the biological anthropology of the San and Tonga peoples of Botswana and Zambia. It was an invitation that set his feet into the mud and firmly into the world of fossils.

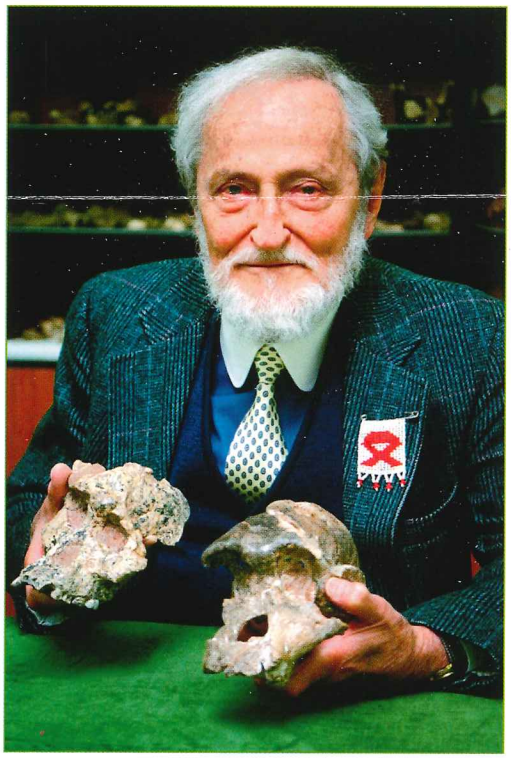
Thus began a lengthy collaboration with the Leakeys, which saw Phillip entrusted with nearly every hominin fossil they discovered in Tanzania and Kenya. His meticulous description and analysis of their 1959 discovery resulted in the publication of a lengthy monograph in 1967 entitled "The Cranium and Maxillary Dentition of *Australopithecus (Zinjanthropus) boisei*." It was largely, but not solely on the basis of this work that Phillip was awarded the D.Sc. degree by Wits University in 1967. Other fossils from Olduvai Gorge differed quite dramatically from the large-toothed *Zinjanthropus* cranium, and these formed the basis for another new species. This one, being much more closely related to humans, was dubbed *Homo habilis* by Louis Leakey, Phillip Tobias and John Napier in 1964. These fossils were treated to a similarly exhaustive, two volume monograph "The Skulls, Endocasts and Teeth of *Homo habilis*" published in 1991.

Phillip Tobias is best known for his work on early hominin evolution, and for much of his career he directed excavations at the site of Sterkfontein. Between 1966 and 1993, his team recovered over 500 hominin fossils from this ancient repository. Most have been attributed to Dart's species *Australopithecus africanus*, but efforts were doubly rewarded in 1976 with the discovery of a partial cranium that he recognized as belonging to our own genus, *Homo*. The fossil came from deposits of a slightly younger age than those that had yielded the famous skull of "Mrs. Ples" to Robert Broom, and Phillip was inclined to include it in *Homo habilis*. Phillip compiled an astonishing record of publications relating to human evolution. In addition to the monographs on the fossils from Olduvai Gorge, he authored or co-authored approximately 400 peer-reviewed journal articles in the field.

Upon Phillip's passing, Jacob Zuma the President of South Africa, released a statement of condolences in which he wrote "We have lost a renowned scientist, a scholar and a unique human being. Our country remains eternally proud of his work." Phillip will be missed by all in the paleoanthropological community, and especially so in South Africa.

As a final salute, it is perhaps fitting to employ isiZulu, the most widely spoken home language in his native South Africa and his birthplace of KwaZulu-Natal:

"Hamba kahle Phillip."



Phillip Vallentine Tobias 1925 - 2012

To read the original *Nature* paper by Tobias and Napier (published in 1964), and the 1982 Reflection of Discovery, written by Tobias, please visit our webpage: leakeyfoundation.org/tobias.

Awarded Grants

SPRING 2012

Behavioral

Ms. Marcela Benitez, University of Michigan
Are gelada loud calls sexually-selected signals?

Dr. J. Colette Berbesque, University of Roehampton
Bioarchaeology of a contemporary hunter-gatherer population – the Hadza

Ms. Irene Godoy, University of California, Los Angeles
Mechanisms of Inbreeding Avoidance in Cebus capucinus

Dr. Jeremy Koster, University of Cincinnati
Experimental research on fishing strategies among indigenous Nicaraguan forager-farmers

Dr. Julia Ostner, University of Göttingen
Social, ecological and reproductive stress in wild female Assamese macaques

Dr. Brigitte Pakendorf, Université Lumière Lyon 2
Investigating the prehistory of southern African hunter-gatherers with Y-chromosome sequences

Ms. Su-Jen Roberts, Columbia University
Intrasexual competition and male reproduction in wild blue monkeys

Dr. Anne Russon, York University
Ranging and diet in East Bornean orangutans

Mr. Isaac Schamberg, University of Pennsylvania
Vocal communication in wild bonobos (DRC)

Dr. Larissa Swedell, Queens College-CUNY
The adaptive value of social bonds in a multilevel society

Dr. Sarie Van Belle
Universidad Nacional Autonoma de Mexico
Social and genetic factors mediating collective action in Alouatta pigra

Dr. Dietmar Zinner, German Primate Center
Gene flow dynamics in the West African baboon contact zone

Paleoanthropology

Dr. Harold Dibble, University of Pennsylvania
New excavations at the site of La Ferrassie (France)

Dr. Joseph Ferraro, Baylor University
Paleoanthropological research at Marsabit Road, Chalbi Basin, northern Kenya

Dr. John Fleagle, Stony Brook University
Human evolution in the Kibish formation, southern Ethiopia

Dr. Avi Gopher, Institute of Archaeology
Excavating a 420-300 kyr new hall at Qesem Cave, Israel

Dr. Yohannes Haile-Selassie
Cleveland Museum of Natural History
The paleobiology and paleoecology of KSD-VP-1/1: the earliest partial skeleton of Australopithecus afarensis

Dr. William Harcourt-Smith, Lehman , CUNY/AMNH
Excavation and analysis of hominin foot prints from Ngare Sero, Tanzania

Dr. John Hoffecker, University of Colorado at Boulder
New research at the early Upper Paleolithic site Mira, Ukraine

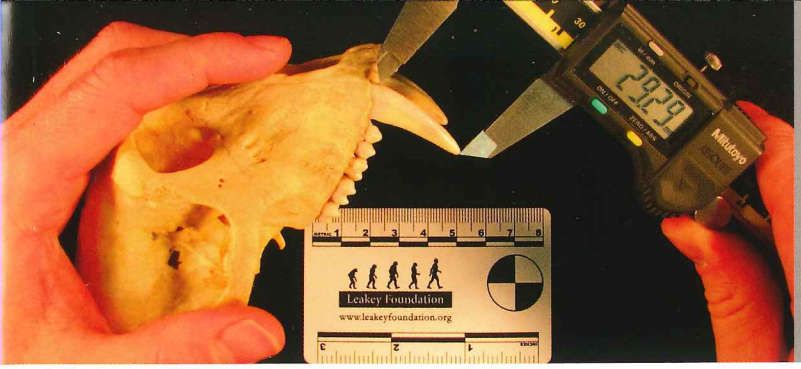
Dr. Emma Mbua, National Museums of Kenya
Highland fauna from new Pliocene site near Nairobi, Kenya

Mr. Philip R. Nigst, University of Cambridge
Exploring the Middle and Upper Paleolithic of western Ukraine

Dr. Daniel Peppe, Baylor University
Paleoenvironment reconstruction of the Early Miocene of Rusinga Island, Kenya

Dr. Tanya Smith, President and Fellows of Harvard College
Tooth eruption and life history in living champanzees

Dr. Dietrich Stout, Emory University
Understanding late Acheulean knapping skill and its cognitive implications



Behavioral

Dr. Zanna Clay, Emory Univeristy
Vocal communication in wild bonobos: insights into language evolution

Mr. Jan Gogarten, McGill University
Determining the physiological and behavioral predictors of primate parasites

Mr James Herrera, SUNY/Stonybrook University
The evolution of lemur communities in a rainforest in Madagascar

Dr. Barry Hewlett, Washington State University
Demography, subsistence, and culture of the Shabu hunter-gatherers of SW Ethiopia

Dr. Jean-Baptiste Leca, University of Lethbridge
Non-conceptive sexuality in Japanese macaques: Developmental, physiological, and cultural/genetic approaches

Dr. Bonaventura Majolo, University of Lincoln (UK)
The effect of inter-group competition on intra-group social behavior in Barbary macaques

Dr. Herman Pontzer, Hunter College
Hominoid daily energy expenditure

Dr. Leila Porter, Northern Illinois University
Fitness benefits of cooperative behavior in Bolivian saddleback tamarins

Dr. Kevin Potts, Augsburg College
Nutritional ecology of chimpanzees at Ngogo, Kibale National Park, Uganda

Mr. Samuel Urlacher, Harvard University
Childhood energetics: growth, immune function, and tradeoffs in Amazonia

Dr. Bridget Waller, University of Portsmouth (UK)
Adaptive function of facial displays in crested macaques

Ms. Agata Maria Wollnik, University of Stiring
Communicative roles of pelage colouration in a sexually dichromatic primate

Paleoanthropology

Mr. Brian Addison, Harvard College
Trabecular bone and impact resistance in the hominin heel

Mr. Scott Blumenthal
The Graduate Center, City University of New York
Reconstructing modern and ancient environments in East Africa with isotopes

Ms. Stephanie Carnation, Stony Brook University
Phylogenetic reconstruction of the Colobinae: A total evidence approach

Ms. Kimberly Congdon, University of Missouri
Grasping pressures and phalangeal curvature in primates: An experimental in vivo approach

Dr. Jeremy DeSilva, Boston University
The midtarsal break and locomotor diversity in early hominins

Dr. Asier Gomez Olivencia, University of Cambridge
CT-scanning of the vertebral column and thorax of Regourdou1 Neandertal

Ms. Kirsten Jenkins, University of Minnesota
Taphonomy of Rusinga Island

Dr. Marie-Claude Jolly-Saad
University Paris Ouest Nanterre - La Défense
Fossil wood from the Middle Awash and Omo hominid sites

Dr. Josephine Joordens, Leiden University
A cyclostratigraphic framework for hominin fossils from the Turkana Basin

Dr. Carolina Mallol, Universidad de La Laguna
Neandertal fire technology

Dr. Frederick Manthi, National Museums of Kenya
A further investigation of the Nariokotome Member, Nachukui Formation, Kenya

Dr. María Martinon-Torres, CENIEH (Spain)
Micro-CT study of the Pleistocene human fossil teeth from Atapuerca

Dr. Michael Rogers,Southern Connecticut State University
Continued investigations into the Oldowan-Acheulian transition at Gona, Ethiopia

The 2012 Annual Leakey Foundation Dinner and Auction

by Sharal Camisa
Director, The Leakey Foundation

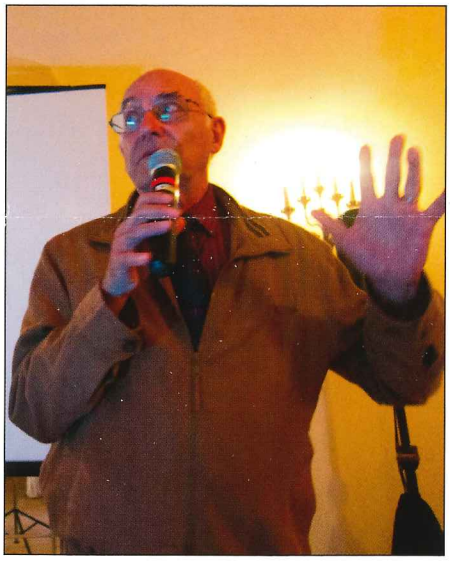
At the Foundation's Annual Dinner and Auction on April 27, world renown pre-historian Dr. Jean Clottes discussed the role of women in the creation of rock art and its ceremonies. His lively talk with photos and stories helped to set the stage for the *Female in Evolution* symposium that took place the following day.

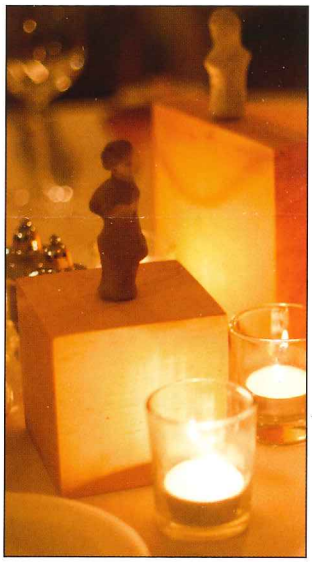
The annual dinner is an exciting opportunity for our most ardent supporters to meet and participate in the excitement of science up close. Guests meet the individuals making the discoveries, and they have the opportunity to have fun raising funds for additional meritorious projects. For the seventh year we hosted silent and live auctions with specially selected items. The auction earnings bear no administrative burden, so 100% of the proceeds fund these projects. This year we raised over $20,000.

The 2012 auction proved to be more important because the number of grant proposals received by the Foundation during that session had increased dramatically. Typically, the Foundation receives 60-80 grant proposals per session; in spring we received 107 requests for funds, most of them worthy of our support. As universities and institutions cut back on funding of human origins research, the generosity of auction attendees makes an enormous impact on science.

Special details delighted guests including the centerpieces on each table. The figurines or "kiln goddesses" from potter and Leakey Foundation Trustee Alice Corning represented the type of spectacular Venus statues found at important pre-history sites like Willendorf and Brassempouy. Even the auction paddles featured the limestone bas-relief of the Venus of Laussel.

If you are interested in attending the 2013 Annual Dinner and Auction, please visit the membership section on our website or contact the Foundation office.





Clockwise from top: Paddy Moore displays a Turkana Boy skull cast at the live auction; some of the kiln goddesses made by Trustee Alice Corning; Dr. Harcourt, during the live auction; Dr. Jean Clottes speaks to the evening's guests about cave art. © The Leakey Foundation

Symposium: The Female in Evolution

by Sharal Camisa
Director, The Leakey Foundation

Symposium participants (left to right): Dr. Robert Martin, Dr. Robert Seyfarth, Dr. Kristen Hawkes, Dr. Leslie Aiello, Dr. Jean Clottes, Dr. Daniel Lieberman, Dr. Dean Falk, Dr. Kelly Stewart, Dr. Dorothy Cheney, Dr. Rebecca Bird, Dr. Jill Pruetz, Dr. Brooke Scelza and Dr. Adrienne Zihlman
Photo © The Leakey Foundation

A human female is born, lives her life, and dies within the span of a few decades, but the shape of her life has been strongly influenced by 50 million years of primate evolution. How the individual female plays out the stages of her life, through the lens of evolution, was the theme of The Leakey Foundation's Symposium, *The Female in Evolution*, held on April 28, at the California Academy of Sciences.

Moderated by Dr. Kelly Stewart, leading scholars discussed the female experience in the context of the research areas funded by the Foundation: paleoanthropology; behavior; and modern hunter-gatherer societies.

Why Females? Up until the 1970s, females had been largely invisible in the reconstruction of early human evolution, and their activities were passively portrayed. Many facets of women's lives have been ignored in preference to a narrower focus. The Leakey Foundation understands that the story of females within the evolutionary timeline has much more to offer to our understanding our species survival.

Since 1968, the Foundation has promoted scientific research and the role of women in science, while also facilitating access to education and occupational integration. Many of the leading female experts in the study of human evolution received their first grant from The Leakey Foundation.

However, It was not until 1975 that many of the models and ideas set forth about females were analyzed and challenged. Much of the time it was female scientists, including symposium keynote speaker Dr. Adrienne Zihlman, who were challenging these ideas. By the mid-1970s, there was great energy for new perspectives and hypotheses on females in evolution, due to changing world-views, sociopolitical factors, historical circumstances and changing attitudes of the interpreters.

The goal of human evolution research is to reconstruct how humans lived in the past, which may help our species better navigate the challenges that we will face tomorrow. Both as objects of study and as researchers, females have occupied a low profile in the study of human origins. This symposium demonstrated females as fundamental to the evolution of the species.

While taking part in this symposium, several participants also visited four Bay Area schools as part of *Leakey Learning Expeditions*; a free program for schools which fosters scientific curiosity and prepares students to be discerning and motivated learners. In addition to attending the day-long public symposium free of charge, Bay Area community college students and teachers were offered a brown-bag session with Dr. Zihlman.

To view the symposium and to see special *Dig Deeper* interviews with symposium participants, visit our YouTube channel.

These programs were sponsored through the generosity of Jean and Ray Auel, Gordon and Ann Getty, Wells Fargo Bank, and the California Academy of Sciences.

A Problem with Personality

[continued from page 1]

Baboon infant with mother. © A.J. Carter

with the egg –picking it up, smelling it, pulling it to pieces– he refused to put it in his mouth and eat it. But his reaction to the snake was 'bold'. He wasn't bothered by it at all! And all of my volunteers rated him as shy, without having seen either of these experiments. This was an unexpected conundrum – one of these ways of measuring boldness was not actually measuring boldness at all!

Since the observer ratings agreed with the novel object responses[2], I was probably on the money there, but what about the startle responses? This type of test is frequently used to measure boldness in animals. But if I wasn't measuring boldness with the snake experiments, what was I measuring? In a recent paper in *Animal Behaviour*[3], my colleagues and I proposed that the snake experiments capture a baboon's anxiety. At least, we think it does.

I had made the mistake of labelling two different traits with the same label; what is known in psychology as a 'jingle fallacy'. This is not to be confused with a 'jangle fallacy', where two different labels are given to the same personality trait. This finding may have far-reaching implications for understanding behavioural variation. Animal personality research may unknowingly suffer from many jingle-jangle fallacies, as few studies currently use multiple methods to measure the same trait.

How many other studies out there have inadvertently made the same mistake as I did? And what does this mean for comparing 'boldness' across species? While these questions remain to be answered, my current research is getting back on track, and I'm looking into the effects of baboon's boldness and anxiety on their social environment.

And as for Cholera's shy-but-calm personality, it seems to be paying off for him. He recently transferred from one of our study troops to the other one, and has befriended a bold-but-anxious female. And he's overly protective of his new baby, who takes after his bold mother.

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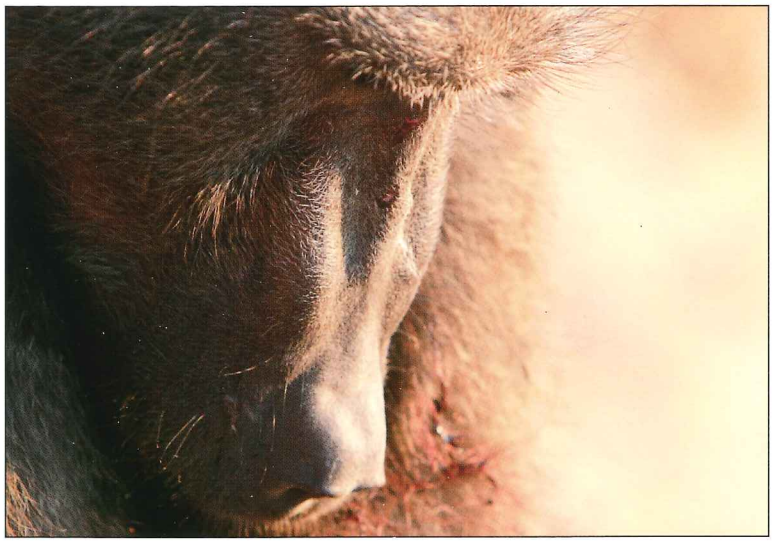
[1]For videos of these experiments online:

http://bit.ly/cartersnake (snake)

http://bit.ly/carterfood (novel food)

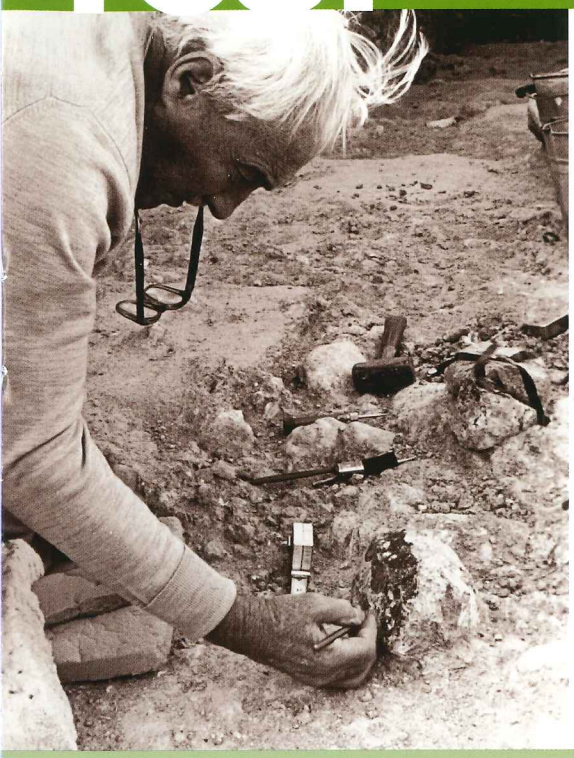
[2]Carter, AJ, HH Marshall, R Heinsohn, G Cowlishaw. 2012. Evaluating animal personalities: do observer assessments and experimental tests of boldness measure the same thing? Behavioural Ecology and Sociobiology 66: 153-160.

[3]Carter, AJ, HH Marshall, R Heinsohn, G Cowlishaw. (2012). How not to measure boldness: novel object and antipredator responses are not the same in wild baboons. Animal Behaviour 84: 603-609.



Sub-adult, male study subject, Cholera, naps in the warm sun. © A.J. Carter

Yes! I want to support the work of The Leakey Foundation.



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