SAAAnthroQuest The Newsletter of The Leakey Foundation

The Importance of Long-term Research Sites

SUSAN PERRY, DIRECTOR, LOMAS BARBUDAL MONKEY PROJECT; PROFESSOR, UCLA; LEAKEY GRANTEE

Louis Leakey realized that information about the lives of extant primate species was necessary to interpret the human fossil record. His decision to launch Jane Goodall, Dian Fossey and Biruté Galdikas on their long-term studies of great apes was critical in the formation of Western field primatology. Findings by these pioneers, and those inspired by them, have provided the data for comparative analyses of human evolution. Great apes share traits with humans via homology (shared ancestry), but more distantly related primates have much to teach us when they resemble humans via convergent evolution. For example, capuchins have independently evolved many features shared with humans and chimps, such as enormous brains, omnivory, complex politics, and coalitionary lethal aggression.

Most, if not all, of today's long-term primatology projects owe their origins and/or continued existence to the support of The Leakey Foundation. These include the seven most successful long-term studies of African great apes: Bossou in Guinea, Taï in Cote d'Ivoire, Gombe and Mahale in Tanzania, Virunga in Rwanda, and Budongo and Kibale in Uganda. Since 1960, Louis Leakey and The Leakey Foundation have funded over 80 grants to these sites totaling over \$900,000.



Capuchins Miffin and Rafiki demonstrating handsniffing behavior. Photo: Chelsea Holman

Ouestions about the evolution of behavioral and life history strategies, and about the impact of rare but important events (e.g. droughts) on population dynamics, can only be addressed in long-term studies of multiple generations of individually recognized animals whose genealogies are known. Often, things are not as they first appear! For example, during the first two years of research at our capuchin monkey site Lomas Barbudal, matings were distributed equitably across all adult and juvenile males. There was no mate guarding, and all males participated in defense of the group. Thus, we assumed that reproductive success was also equitable. We were shocked when genetic paternity data eventually revealed that the

alpha male sires over 90% of all offspring, at least until his daughters reach sexual maturity. Father-daughter pairs almost never breed. So, as an alpha male's tenure progresses, sometimes up to its 17th year, his subordinate male allies have increasing opportunities to breed with his female descendants. Long-term monitoring of populations such as the Gombe and Taï Forest chimpanzees and the Lomas Barbudal capuchins has yielded important findings about social traditions. Behavior patterns that short-term observations would report as species-typical sometimes turn out to be innovations that spread through social networks, generating cultural variation between populations.

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

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Letter from the President

The Leakey Foundation's mission is to increase scientific knowledge, education, and public understanding of human origins, evolution, behavior, and survival. To achieve this mission we fund through our endowment almost \$1 million in grants each year to researchers in the lab and the field observing our fellow primates and digging up fossil evidence of our past. We also fund students from developing countries seeking advanced degrees through our Baldwin Fellowship program. If the endowment were larger, we could fund even more.

We are also engaged in educating the public on what researchers have discovered. Each month we partner with the Baumann Foundation in an innovative series of lectures here in San Francisco called Being Human. We explore human behavior at Public Works, a nightclub in the Mission District, complete with food and drinks. These events have been so popular, we've had lines of people stretching down the block, hoping to get in!

Our Origin Stories podcast has reached over 46,000 listeners since it launched in April of 2015. We cover such topics as examining how babies learn or discussing why we are the only cooking ape. Episode three even includes the voice of the late Louis Leakey explaining why he sent Jane Goodall to observe the chimpanzees. Our podcast along with our blog and our newly updated website are helping The Leakey Foundation tell the story of the science we fund while connecting new audiences to the fascinating work our grantees are doing.

Our Leakey Foundation museum lectures at this country's great science museums informs the general public on why we need to learn who we are and why we have evolved as we have.



Our September 2016 symposium on survival at Harvard University, in partnership with NOVA Science and WGBH, will elucidate what we need to do now so that we will survive as a species in the future.

All this important work requires support. Two very generous donors have offered a million dollar challenge grant to The Leakey Foundation. If we can raise a million dollars by the end of August 2016, these generous donors will match every dollar. We need your help to raise the funds. If you give \$1,000, it will become \$2,000. If you give \$5,000, it will become \$10,000. When we fund this science, we learn who we are and why we behave as we do. This helps us find the critical information we need to manage the future.

Just remember, we raised a million dollars in 1975 when Trustee Robert Beck made the same challenge. If we could do it then, surely with your help we can do the same today!

Camilla Smith President, The Leakey Foundation

MILLION DOLLAR CHALLENGE

Your support makes a difference!

For a limited time, your donation will be doubled up to one million dollars! Help us increase our funding for scientific research and educational outreach. See page 15 to join the challenge.

or visit leakeyfoundation.org/million

CANwith Camilla Smith

MEREDITH JOHNSON, COMMUNICATIONS MANAGER



amilla Smith was elected President of The Leakey Foundation in December 2014 and began serving in September 2015. She has been involved with The Leakey Foundation since the mid 1970s and has served as Chair of the Communications Committee and as Vice President. We sat down with Camilla at her San Francisco office to learn more about her history with The Leakey Foundation, her thoughts on human evolution, and her goals as president.

Q: How did you first get involved with The Leakey Foundation?

A: My husband George and I were friends with a couple where the wife's mother, Fran Muir, was on The Leakey Foundation board. When they heard we were moving to San Francisco they said "Oh boy, you should look up the Foundation." So we went to one of the lectures, and we loved it. We started supporting the organization right away, and we have been involved ever since.

Q: What interested you about those early lectures?

A: I think the question "What is it to be human?" is really the question. It is so fascinating to hear all about the research as it's happening because it's a story that keeps changing as we find more fossils, get better dating and do more studies. And now we have DNA information that's adding to what we know. It's incredibly interesting. I have even learned that I am 3.2% Neanderthal, which to me is just so exciting.

Q: Have you always been interested in human evolution?

A: Not really, I was an English major in college, but I've always been interested in why humans do what we do. Why are we religious? Why do we love art and music? These things really make us different. And when I connected with people through The Leakey Foundation who were investigating these questions scientifically, it was exciting.

Q: What do you want to achieve as President?

A: I come from a family of educators. I think part of what we're supposed to do in this life is to learn things and to pass them on. This is a very human thing. Education has been my passion at the Foundation from the beginning. I support education in all forms. I'm involved with a lot of organizations like National Public Radio, the San Francisco Conservatory of Music, the San Francisco Public Library, and Teacher's College, and with all of these organizations, the reason I'm there is education. The same is true with The Leakey Foundation.

We've made such progress in science, and we need to get the information out to the general public. A few years ago, we did a presentation for teachers at the American Museum of Natural History with Nina Jablonski, which was very powerful. It gave teachers a way of understanding themselves and the way their different skin colors evolved, and that gave them a new way to talk about skin color with their students. The teachers sitting next to me said "I've never felt so empowered about my skin color." Once you understand the mechanisms and why skin evolved the way it did, it changes the way you see skin color in a deep way. Knowledge is power, and if you learn the basic biological steps of evolution, that frees you, and it changes the way you see the world.

Q: What would you say to people who are interested in getting more involved with The Leakey Foundation?

A: I would say it's really fun! I would also say that we are supporting research into the most important question there is. It borders on all aspects of human life, how we behave, our bodies, everything. If we support this research, and if we can get that information out to everybody, I believe it can really help people. Also, I love the people I work with. I find a lot in common with the scientists and the other people who are on the board. They are people who are interested in ideas and in learning. I'm involved with lots of different organizations, but I find that this board has the most interesting people on it. If you want to be around people who are curious and who are sharing ideas, this is the place to be.

Awarded Grants Fall 2015

Behavioral

Corinne Yvonne Ackermann, Université de Neuchâtel Social bonds and oxytocin in wild juvenile chimpanzees (Pan troglodytes)

Alexis Amann, City University of New York Female counterstrategies to male sexual coercion in Ethiopian Hamadryas baboons

Joseph Feldblum, Duke University
The benefits of male relationships in the Gombe chimpanzees

Marian Hamilton, University of New Mexico Assessing philopatry and range size with strontium isotopes

Katharine Jack, Tulane University
Making an alpha male: Socioendocrinology of dominance in
male whitefaced capuchin monkeys (Cebus capucinus)

Cheryl Knott, Boston University
Diet quality and fiber digestion in wild Bornean orangutans

Meagan Rubel, University of Pennsylvania Effect of diet and parasites on the gut metagenomics of environmentally diverse Africans Stephanie Spehar, University of Wisconsin Oshkosh The orangutans of Wehea: Adaptation to an extreme environment

Kaitlin Wellens, The George Washington University Maternal effects on juvenile chimpanzee social behavior and physiological stress

Paleoanthropology

Abdeljalil Bouzouggar, University of Oxford A coastal corridor route for earliest Homo sapiens dispersal into Northwest Africa

Timothy Campbell, Texas A&M University Paleoenvironmental reconstruction of Sterkfontein and Swartkrans using rodent postcrania

Yonatan Sahle Chemere, University of Tübingen The archaeology of anatomically modern humans from Halibee, Ethiopia

Jamie Clark, University of Alaska Fairbanks Early Upper Paleolithic hunting strategies at Mughr el Hamamah, Jordan

Dorothée Drucker, University of Tübingen Isotopes, diet and human adaptation in a Mediterranean context

Erin Franks, University of Notre Dame Regional and hierarchical assessment of cranial plasticity and dietary adaptation

Genevieve Housman, Arizona State University Assessment of DNA methylation patterns in primate skeletal tissues

Jean Jacques Jaeger, Centre National de la Recherche Scientifique Searching for early evolution of African anthropoids in Myanmar

Julie Lesnik, Wayne State University An evaluation of termite-associated hydrocarbon signatures as an influence on prey selectivity and an ecological signal for chimpanzees and Olduvai hominins

Fredrick Manthi, University of Utah Investigation of Middle Pleistocene sites in the Turkana Basin, Kenya

> Kathryn Ranhorn, The George Washington University New approaches to the archaeology of modern human origins

Sileshi Semaw, Centro Nacional de Investigación sobre la Evolución Humana Investigating Middle Stone Age archaeology and an associated hominin at Gona, Afar, Ethiopia

Warren Sharp, Berkeley Geochronology Center Age and paleoenvironment of the Ysterfontein 1 Site, South Africa

Krishna Veeramah, Stony Brook University Validating novel mutations in a whole genome sequenced gibbon quartet





Read more about Kaitlin Wellens' research in the Grantee Spotlight on Page 14!





Read more about these grantees online! leakeyfoundation.org/ blog

Director's [ry: cev Foundation

t the Annual Board of Trustees Meeting, I began my Executive Director's report with a story Dr. Chet Sherwood shared with me only a few days earlier during our visit to the George Washington University (GWU.) He explained how grateful he was to have received his first-ever professional grant from the Foundation in 2001 for \$5,500. He then explained that in the last few years, he has secured over \$2 million from funding institutions, including NSF and NIH, to conduct cutting edge research in areas of brain studies.

For me this anecdote exemplified the beauty of the Foundation's efforts to provide "venture capital" to

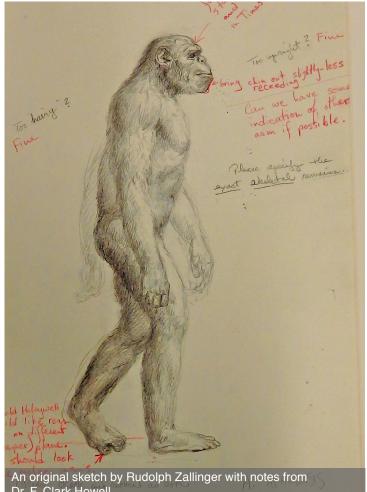
early career scientists. In many cases, we offered that first bundle of money to finish their dissertation or start a risky new field project, projects that many larger funding institutions don't prioritize. Since the Foundation was established, we have awarded these small yet vitally significant grants to GWU researchers, totaling over \$240,000. For many Leakey grantees, that first grant was the spark that ignited their careers.

The Leakey Foundation held its Annual Board of Trustees Meeting at the Smithsonian Institution's National Museum of Natural History on September 26, 2015. This was the fortieth anniversary of the Foundation's first board meeting in DC. Along with our meeting, we were invited to spend a full day enjoying the museum thanks to Curator and Professor Rick Potts. Our day began with early morning access to the newly renovated Human Origins Hall. Dr. Potts also facilitated a special presentation with Dr. Josh Bell, the curator of ethnology, and Dr. Gwyn Isaac, curator of North America. Along with a presentation by Dr. Potts on the ongoing coring project at Olorgesailie, the Foundation was treated to a broad array of fascinating anthropological research.

Our day at the Smithsonian ended with a viewing of the original illustrations by Rudolph Zallinger from F. Clark Howell's book Early Man. These images would evolve into The Leakey Foundation's logo and were truly inspiring to see up close. The drawings included red pencil marks from Dr. Howell, encouraging Zallinger to add "more hair" or make one figure's face "less aggressive." (Visit our website to learn more about the Foundation's logo.)



The Leakey Foundation staff and board of trustees at the National Geographic headquarters.



Dr. F. Clark Howell

Goes to Washington



Leakey grantee Dr. Chet Sherwood with a collection of primate brains in his lab at the George Washington University.

During our three-day visit to the Capitol, we met great scientific minds, journalists and patrons of human origins research. One such visit included a warm welcome from Jarl Mohn, the president and CEO of National Public Radio. While at NPR, our group enjoyed a science desk panel that was organized for our group by

Anne Gudenkauf, the head of NPR's Science Desk, and Alison Richards, the deputy supervising senior editor for the Science Desk. Joined by science correspondents Joe Palca and Christopher Joyce, they shared with us the inside-scoop on how to take a story from a scientific journal, read by academics, to creating a story accessible to a mass audience. Adam Cole joined the panel to discuss the ways new media is being used by NPR to reach an even larger audience online.

During our visit at GWU, Dr. Bernard Wood organized an interactive program at the Center for the Advanced Study of Human Paleobiology. Two dozen scholars offered insights into their innovative research by allowing us to visit "stations" set-up throughout their state-of-the-art laboratories. The highlights from our visit are too numerous to list, but here are a few: Shannon McFarlin shared information about the Mountain Gorilla Skeletal Project, displaying a selection of skeletons from the mountain gorillas observed by Dian Fossey. Dr. McFarlin shared examples of questions that can be pursued using these skeletons (e.g., examining relationships between male body size and reproductive success). Laura Reyes, a graduate student in the field of evolutionary neuroscience, displayed chimpanzee brain sections under the microscope.





(L to R) Jennifer Gomersall and Mark Jordan with Dr. Bernard Wood in his lab at the George Washington University.

Her dissertation research focuses on the evolution of the brain region involved in the use and manufacture of tool-use and tool-making. In the stone age archaeology lab, graduate student Jonathan Reeves gave a demonstration of aerial photography models of archaeological sites based on drone and kite imagery to show how archaeologists use these models to understand patterns of artifact variation on ancient landscapes.

The Foundation also returned to the National Geographic Society,

where forty years earlier the President of National Geographic and Leakey Foundation Trustee Dr. Melvin Payne presided over a scientific conference cosponsored by both institutions along with the Smithsonian and the Consortium of Universities of Washington DC. Eleven speakers participated, including luminaries like Mary Leakey, Raymond Dart, and Jane Goodall. On the evening of September 25, 2015, our esteemed speakers included Dr. Spencer Wells and Paula Apsell, senior executive producer of NOVA.

An additional component of all Foundation travels include school outreach. Nine GWU graduate students and postdoctoral researchers visited two public schools. Together, we offered 13 presentations to 220 6th grade students and 80 high school students.

While these GWU graduate students and postdocs have not yet received a grant from The Leakey Foundation, I believe we will hear their names again as they chart their own careers, becoming the next leaders in the study of human origins. And it is my sincere hope that The Leakey Foundation will be the spark to ignite their careers.

NinaJablonski & CarolWard Join The Scientific Executive Committee

H. GREGORY, PROGRAM ASSOCIATE

The Leakey Foundation would not be able to accomplish its mission without the generous participation of our Scientific Executive Committee (SEC). This interdisciplinary group of outstanding scientists provides our Board of Trustees with recommendations on grant funding as well as guidance for our outreach and educational programs. We are pleased to announce that two new scientists have recently joined our SEC. We welcome Nina Jablonski and Carol Ward to The Leakey Foundation family.

ina Jablonski is a biological anthropologist, paleobiologist, and fivetime Leakey Grantee. Her research focuses on the evolutionary history Old World monkeys, the evolution of bipedalism, the evolution of human skin and skin pigmentation in the human lineage, and the evolution of environments and mammalian faunas of East Asia. Dr. Jablonski is currently Evan Pugh



University Professor of Anthropology at Penn State and has held positions at the University of Hong Kong, the University of Western Australia, and the California Academy of Sciences in San Francisco. She has published two single-authored books including her most recent, *Living Color: The Biological and Social Meaning of Skin Color.*

"I received my first grant from The Leakey Foundation when I was a graduate student 35 years ago, working on the anatomy and evolution of fossil and living Theropithecus monkeys. Without that financial support, I would not have been able to complete the research for my PhD, and my life and career would have been entirely different. Service on the Scientific Executive Committee of The Leakey Foundation gives me the wonderful and gratifying opportunity to repay something of the enormous debt that I owe to the organization that launched and sustained my early research career."



arol Ward is Director of Anatomical Sciences in the Department of Pathology and Anatomical Science at the University of Missouri School of Medicine. She teaches anatomy to underand graduate graduate students. She studies the evolution of apes and early hominins by taking a mechanical approach to the interpretation of the postcranial skeleton in order to reconstruct the behavior of

these animals. She is also involved in paleontological fieldwork in Kenya as part of the West Turkana Paleontology Project. Ward is a Leakey Foundation grantee, receiving her first grant as a PhD student. She has been a lecturer in our Speaker Series and was the featured guest in the first episode of The Leakey Foundation podcast Origin Stories, where she discusses bipedalism in our early ancestors.

"I'm so pleased to join the Leakey Foundation team. My research program would not be where it is without the trustees and staff of the Foundation over the years. I am honored to be part of an organization that has such a positive impact on our understanding of human evolution, and especially on the careers of younger colleagues and those from developing countries. This will be fun!

JoinTeamLeakey!

Join Team Leakey to help raise money for scientific research and outreach. **Don't walk, run** to sign up for Team Leakey and join us at the 2016 San Francisco Marathon on July 31, 2016!

leakeyfoundation.org/teamleakey



"Humans have always run to help each other. Two million years ago we ran to hunt and provision each other with sustaining food; today we run to raise funds for charities, to promote fitness, and to build community. It really is true that we run to make the world a better place."

- Daniel Lieberman Harvard University



Kamin, Maggioncalda & Wells Join The Foundation's Board of Trustees

SHARAL CAMISA, EXECUTIVE DIRECTOR



CHESTER T. KAMIN Elected September 2015

Chet Kamin is a retired Partner of the national law firm of Jenner & Block, where he was a business trial lawyer for 45 years. He was chair of Jenner & Block's litigation department and is a fellow of the prestigious American College

of Trial Lawyers. He was lead counsel in antitrust litigation that figured centrally in the breakup of AT&T, among many other nationally significant cases.

Mr. Kamin was active in court reform efforts and bar association activities, including service to indigent clients. He currently serves as vice chair of the Board of Trustees of Columbia College Chicago, a 10,000-student private arts college, and as a trustee of the Ryan Opera Center, the apprentice program of Lyric Opera of Chicago.

Kamin's 20-year interest in evolutionary biology has involved extensive reading and primate safaris in Uganda and Tanzania with Richard Wrangham, Steven Pinker, Bill Wirthlin and others. He and his wife Nancy also traveled to South Africa in 2015 with The Leakey Foundation. Chet joined The Leakey Foundation Board to support its mission of science and education and to continue to learn.



ANNE MAGGIONCALDA Elected December 2015

Anne Maggioncalda received her PhD in biological anthropology and anatomy from Duke University in 1995, focusing her research on the evolution of reproductive strategies in male orangutans. She retired several years ago to

become a full-time mother after teaching at the University of California, San Francisco, and Stanford Medical Schools, as well as in the human biology program at Stanford University.

Dr. Maggioncalda is married to Jeff Maggioncalda, the former president and CEO of Financial Engines, Inc., and they are the parents of three daughters. She and Jeff are interested in the growing issue of income inequality, and they work with several universities to provide program and financial support for first generation students. The support of free speech and National Public Radio are also important to them.

Dr. Maggioncalda established the Nacey Maggioncalda Foundation that supports primate research and conservation. In early 2016, Dr. Maggioncalda announced that the Nacey Maggioncalda Foundation would join forces with The Leakey Foundation to increase primate research funding and reach a broader, and more international, scientific audience.

Dr. Maggioncalda wrote about joining The Leakey Foundation leadership and merging her Foundation with The Leakey Foundation: "I am very excited about returning to primatology. However, rather than conducting my own research, I look forward to supporting the work of graduate students and other colleagues."



SPENCER WELLS
Elected December 2015

Spencer Wells is a geneticist, anthropologist, author and entrepreneur. For over a decade, he was an explorer-in-residence at the National Geographic Society and director of the Genographic Project that collected and analyzed DNA

samples from hundreds of thousands of people around the world in order to decipher how our ancestors populated the planet.

Dr. Wells graduated Phi Beta Kappa from the University of Texas at Austin, received his PhD from Harvard University and conducted postdoctoral work at Stanford and Oxford. He has appeared in numerous documentary films and is the author of three books, *The Journey of Man, Deep Ancestry and Pandora's Seed*. His fieldwork has taken him to more than 100 countries.

Dr. Wells lives in Austin, Texas, with his fiancée, Holly Morse, where he is the owner of the iconic blues club Antone's.

From the Archive: a Portrait of Louis Leakey

In November 1970, at a party hosted by the Isotope Foundation in Los Angeles, Robert Beck (a founding trustee of The Leakey Foundation) commissioned Alvin Gittins to paint a portrait of Louis Leakey. Gittins took the commission after completing his portrait of Haile Selassie, emperor of Ethiopia. The portrait of Louis Leakey, Leakey's linen jacket, photos of the presentation of the portrait, and the transcript of this conversation are all housed in The Leakey Foundation archives.

Excerpts taken from a conversation with artist Alvin Gittins, recorded in December, 1975:

met with Louis in his office at the Museum in Nairobi to discuss the way he should be painted. I felt that since his world reputation was that of a man in the field

collecting important archeological information, it would be most fitting to picture him in his field clothes. In any case, he made it quite clear that as of now, he was no longer a field archeologist. His life, for the most part, was concerned with offices, telephones, travel, lectures and so on. He was determined, therefore, to be painted in his tan pantsuit.

But in the middle of the discussion he felt he ought to consult Mary about it. And so.

by long distance radio-telephone, he pursued the matter with Mary, who was down at Olduvai Gorge at the time. (The radiotelephone was a recent addition at Olduvai for use in case of emergency.) Clearly, Mary was not giving Louis much help or encouragement in making a decision, judging from his side of the conversation.

Louis Leakey's linen jacket from The

Leakey Foundation Archives.

In any event, Louis stayed with his early decision to be painted in his tan linen morning jacket, which he customarily wore when he gave daytime lectures. He said, "We'll have to give it some color. I'll wear the shirt Tita (Caldwell) gave me." He thought he should also wear a tie, so I was invited to go out to his home at Langata (a residential suburb of Nairobi) and picked a bright red one.

I was not in the least bit happy about this because I still had this vision in my mind of painting him in a field suit, holding



some artifact he had taken out of the ground. Finally, he agreed to hold a large hand axe. His glasses, characteristically perched back on his brow, had to be part of it too. Since his hip surgery in 1968 made standing a source of fatigue and pain, there was no question about it; he must be seated for the

portrait. I suggested that his cane should be in the portrait, but NO, he didn't want that!

The chair, which Louis selected, was a rocking chair, which, I believe, his mother had brought across the sea in 1902 from England to East Africa. Louis was terribly proud of it. He refused to sit back and relax in it during the work sessions. He was always on the edge of the chair leaning toward you, telling you about something... All I had to do was pose a question, and on he would go- with great animation and humor. He was the most engaging 'subject' I ever had. He was a walking encyclopedia and shared his views on everything-nature, children, politics, literature, drama. Never afraid to state just what he thought about something, he just let it roll right out. And of course this made for very enjoyable and memorable sessions. In fact, so willing had he been to sit until every bit of my work had been completed, despite the great cost to himself in terms of time, effort and pain, he was literally surprised and disappointed when we got to the last sitting."

Leakey Foundation: The Early Years In Memory of Robert Moodey KATYLEAKEY



Leakey Foundation co-founder Robert Moodey was born in 1924 and passed away on September 14, 2015. He is survived by his sons Jim and John Moodey, and his daughter Katy Leakey who married Philip Leakey, son of Mary and Louis. Robert Moodey's legacy lives on in the thriving Foundation he started nearly fifty years ago and which continues to fund exciting advances in the public understanding of human origins.

he tall, ruggedly handsome and ever curious Allen O'Brien made friends wherever he went. So it was no surprise that upon meeting a fiercely intelligent, ebullient man with white hair and piercing blues eyes in an elevator, they became fast friends. It was between floors in a Nairobi hotel that the friendship between Allen O'Brien and Louis Leakey ignited.

Allen's first call upon his return to California was to his close friend, my father Robert Moodey. Never one to waste words or time Allen succinctly stated, "We have to start a foundation to support this remarkable man's work!" This was enough to get my father excited and committed. While my father had no experience in starting a foundation, he was well versed in building organizations, so the two of them rounded up a group who together founded the L. S. B. Leakey Foundation, as it was originally named.

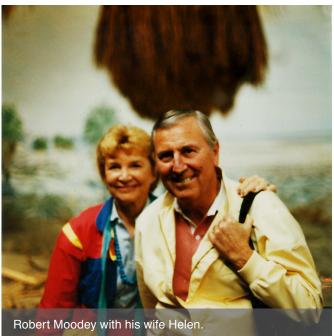
As with most embryonic endeavors the early days were hectic, exciting, busy and messy. Our house, picture a shoe box on end, was three

stories, the top one being nothing more than a twelve foot square room with a large dining table and bench seats, a front deck looking out to the bay in Newport Beach and a small back deck behind. A navy officer in WWII, my father dubbed this level 'the wheelhouse.' It didn't take long for the table to become littered with papers, rolodexes, books, casts of fossils and old bones. Phones were installed and it became such a hive of activity that Louis dubbed it Nairobi West.

As the hectic days extended past dark and through the weekends more and more people were joining out of curiosity, interest or passion for the project. It took early founding trustee Joan Travis to bring things under control and add a semblance of order to the chaos. Many evenings were spent around that large dining table with founders, donors, and scientists discussing human origins, archeology, history and fading cultures.

There were trips to Washington D.C. to meet with National Geographic's Melville Grosvenor to discuss how the two organizations would work together. I remember heated phone conversations between the Foundation and Geographic about funding, control and turf wars. There were family dynamics within the Leakey clan that brought far more than the Foundation had bargained for, but through it all the vision was clear and the passion only grew with each new challenge.

In the late 1960's the public was electrified by the latest anthropological discoveries and accompanying theories regarding our ancestry and origins and Louis was at the forefront, a pied piper of science, with his magnetic charm and magical ability to educate people young and old. It was against this backdrop that the foundation flourished, grew and finally outgrew our humble wheelhouse. The Foundation's operations



eventually moved to Oakland and then San Francisco, but the dinner table conversations, the hosting of scientists from around the world, and the expanding conversations in the wheelhouse have continued on for many years. § § §

"Long Term Research Sites" continued from page 1



Because we collect baseline data over long periods of time, we can evaluate the impact of ecological and political changes on primate populations. The long-term presence of researchers in the communities in which we conduct our research enables solid grassroots conservation and environmental education programs. We often have longer institutional memories than the park service staff, which undergoes frequent personnel shifts. Our regular presence in the forest positions us to detect fires, poachers, deforestation, problematic electrical wires, and other environmental degradation. Our connections with the local community and foreign organizations enable us to conduct collaborative conservation activities such as treeplanting days. The infrastructure and community relations established by long-term sites make them a useful home base for short-term investigators and nature documentary makers, and superb training grounds for young investigators. The Lomas Barbudal Monkey Project (LMBP) has hosted 146 researchers from 18 countries, 61 of whom have proceeded to graduate school. Long-term primatology projects often provide the critical training needed to empower local citizens to manage their wildlife effectively. For example, the Ngogo Chimpanzee Project has funded and trained three Ugandan graduate students from Makerere University.

Many long-term field researchers become advocates for the health, education and welfare of the human communities



surrounding their research sites. The Kibale Chimpanzee Project in Uganda, is a good example: 18 years ago, it established a side branch of the project that provides conservation/health education and health support for 10,000 children in 14 government primary schools within 5 km of Kibale National Park. The project's Kibale Mobile Clinic brings health care to the broader community near the park. Wilberforce Okeka, an occasional research assistant of Marina Cords, founded the Kakamega Environmental Education Program, and Cords' research project funded the construction of 3 classroom buildings for this project. The LBMP regularly conducts environmental education events at public schools in Costa Rica and the US.

Long-term field sites require continuous funding to pay the salaries of local field assistants who can maintain the integrity of demographic records, as well as to maintain the infrastructure and protect the animals from poaching and other threats. Unfortunately, funding for basic natural history research is scarce, short-term, and focused more on "transformative" quick studies than on long-term monitoring. The Leakey Foundation is almost unique in its appreciation of the importance of these projects, and it has saved many a primatology project (and probably many wild primate populations) from an untimely end by providing "gap" funding between major federal grants.





April 23-May 2, 2016, The Leakey Foundation will be holding an online auction featuring a collection of anthropology-related items as well as a few pieces of beautiful art and jewelry.

Don't miss out on this opportunity to pick up a new treasure or two while directly benefitting our Baldwin Fellowship program, which helps provide training for students from developing countries.

Sign up for our email newsletter and get the latest updates on the auction at: **leakeyfoundation.org**.

Being Human



his past October The Leakey Foundation and partner the Baumann Foundation launched a new series of monthly hands-on lectures called Being Human at San Francisco hotspot Public Works. Each month we've mixed short talks from great minds with fun hands-on experiments, drinks, food, conversation, and storytelling to investigate different aspects of our evolution, our behavior, and the human experience. Dr. Robert Sapolsky helped us kick off the series as part of the 2015 Bay Area Science Festival, a two week long event celebrating science with over fifty events reaching over 80,000 people. Following Dr. Sapolsky's talk on stress, we recorded a live episode of Mother Jones' Inquiring Minds podcast, featuring questions from the audience and moderated by Indre Viskontas. We finished off 2015 with U.C. Berkeley cognitive psychologist Dr. Alison Gopnik discussing what early learning tells us about the mind.

Being Human began 2016 with an event that was half comedy show and half scientific lecture, featuring the comedy of scientist turned comedian Dr. Tim Lee and UCLA's Dr. Greg Bryant who spoke about his research on the evolutionary origins of laughter.

One unique highlight of each event has been our use of a combination of hands-on experiments with live online audience polling to create on the spot data that is analyzed on the stage. To demonstrate how voice affects sexual selection, Pennsylvania State University anthropologist Dr. David Puts played recordings of men's voices at different pitches so that audience members could vote for the most attractive one or the one most likely one to win a fight. U.C. Berkeley cognitive psychologist Dr. Tania Lombrozo challenged audience



members to discern the difference between explained and described learning by studying fictional alien artifacts (see photo above.)

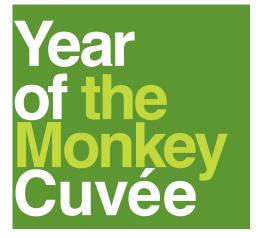
The Leakey Foundation and the Baumann Foundation look forward to our next event on April 19 entitled "Earth's Tipping Point" featuring Dr. Elizabeth A. Hadly on humanity's impact on the Earth's resources throughout our evolution.



Our friends at Iron Horse Vineyards have created a special, limited edition "Year of the Monkey" cuvée, and a portion of the proceeds from the sale of this sparkling wine benefits The Leakey Foundation!

Only 300 cases of this vintage have been bottled! Get yours today and help The Leakey Foundation support research and conservation of wild monkeys around the world!

leakeyfoundation.org/monkey



Grantee Spotlight: Jamie Clark

Jamie Clark, University of Alaska Fairbanks, was awarded a Leakey Foundation Research Grant during our Fall 2015 cycle for her project entitled "Early Upper Paleolithic hunting strategies at Mughr el-Hamamah, Jordan."



nderstanding the reasons behind the success and spread of our species relative to archaic humans such as the Neanderthals is a major focus of research within paleoanthropology. A significant amount of research has centered on the Levant due to its potential as a corridor for population expansion out of Africa. Not only does the region preserve a number of sites associated with the Early Upper Paleolithic, but it also preserves a rich record of Neanderthal occupation.

The site of Mughr el-Hamamah (MHM, Jordan) is one of only a few sites in the southern Levant that both dates to the initial stages of the Early Upper Paleolithic (EUP; 45-39 ka cal BP) and has extensive faunal preservation. The site thus offers a unique opportunity to explore questions relating to human subsistence and land-scape use during a critical period in the later expansion of our species from Africa into Eurasia.

Our project has two primary components: zooarchaeological analysis (to be conducted by Jamie Clark) and isotopic analysis (to be conducted by Gideon Hartman, co-PI). Zooarchaeological work will focus on the analysis of the large assemblage of identifiable bones (~11,000 specimens). Stable isotope work will focus on the analysis of carbon and oxygen isotopic data deriving from the tooth enamel from two key prey species: gazelle and fallow deer. We will combine these datasets in order to address three

distinct issues: First, to explore the hypothesis that EUP populations had a wider diet breadth than their Middle Paleolithic (MP) counterparts. Second, to reconstruct environmental conditions in the eastern Jordan Valley. Finally, we will develop a model of landscape use and subsistence strategies that will provide a baseline for comparison with site that pre- and post-date the EUP, allowing for new insights into variation in the adaptive strategies of MP and UP populations in the region.



Grantee Spotlight: Kaitlin Wellens

Kaitlin Wellens, a PhD candidate from the George Washington University, was awarded a Leakey Foundation Research Grant during our Fall 2015 cycle for her project entitled "Maternal effects on juvenile chimpanzee social behavior and physiological stress."

others can have a tremendous impact on various aspects of their offspring's early development, includ-

ing behavior, stress responses, cognition, and even gene expression. While the importance of mothers on infant development has been studied in various species, less is known about how mothers influence their offspring post weaning. The question of maternal effects beyond infancy is particularly interesting when considering human and nonhuman primates, as both experience extended periods of development and thus close associations

with mothers long after infancy. Juvenescence, the period between nutritional independence and sexual maturation, may be especially important, as it is hypothesized to be an influential period of social development in primates.

pact on various In order to address this gap, I am integrating extensive behavioral, physiological, and demographic data from the wild chimpanzees at Gombe National Park, Tanzania to investigate how chimpanzee mothers influence their juvenile off-

Tanzania to investigate how chimpanzee mothers influence their juvenile off-spring's social behavior and associated stress responses. Specifically, I am exploring how early maternal attachment, maternal rank, and maternal proximity relate to how frequently and with whom juveniles socialize with as well as the stress levels associated with these social interactions. By conducting this study in chimpanzees, one of our

closest living relatives, I hope to shed an important comparative light on the evolution of an extended association with mothers and how this influences social development.



Origin Stories: The Leakey Foundation Podcast



Origin Stories is a podcast about the big questions: What makes us human? What are the biological and evolutionary forces behind our

behavior and our emotions? Why do we look and act the way we do? How are our everyday lives, our health and our relationships shaped by evolution? Origin Stories explores these questions using a uniquely human tool...storytelling.

Origin Stories launched in April 2015 as a pilot project and was immedi-

ately listed as a "New and Noteworthy" podcast on the iTunes Store. In the first few days it reached number five on the iTunes podcast-rating chart in the natural science category. The show has earned 50 five-star reviews like this one from listener 'katerann':

"I love this podcast! It makes anthropology accessible, fun to listen to, and incredibly thought provoking. Of course, it's also very educational. A very well done and interesting show!"

Origin Stories has featured fascinating stories from researchers such as Jane Goodall, Robert Seyfarth,

Dorothy Cheney, Robert Sapolsky, Carol Ward, Chalachew Seyoum, Richard Wrangham, and Rachel Carmody. The current season of Origin Stories is funded in part by support from the Being Human initiative, a joint initiative of The Leakey Foundation and the Baumann Foundation. As part of this program, our podcast will be looking at modern life from an evolutionary perspective with stories about fear, aggression, and empathy. We will also share recordings of our monthly Being Human events, so if you can't attend in person, you can listen on Origin Stories.



Subscribe to Origin Stories on iTunes or on your preferred podcast app. You can also listen to past episodes at leakeyfoundation.org/originstories

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04/19

SAN FRANCISCO Elizabeth Hadly

Being Human: Earth's Tipping Point Public Works

leakeyfoundation.org/beinghuman

Upcoming Being Human Events 05/17, 06/21 & 07/28



05/03

NEW YORK CITY William Harcourt-Smith "The Curious Case of Homo naledi" California Academy of Sciences calacademy.org

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NEW!

PODCASTOrigin Stories

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