



ANTHROQUEST

**THE LEAKEY FOUNDATION
NEWSLETTER**

**Volume 46 Issue 2
February 2022**

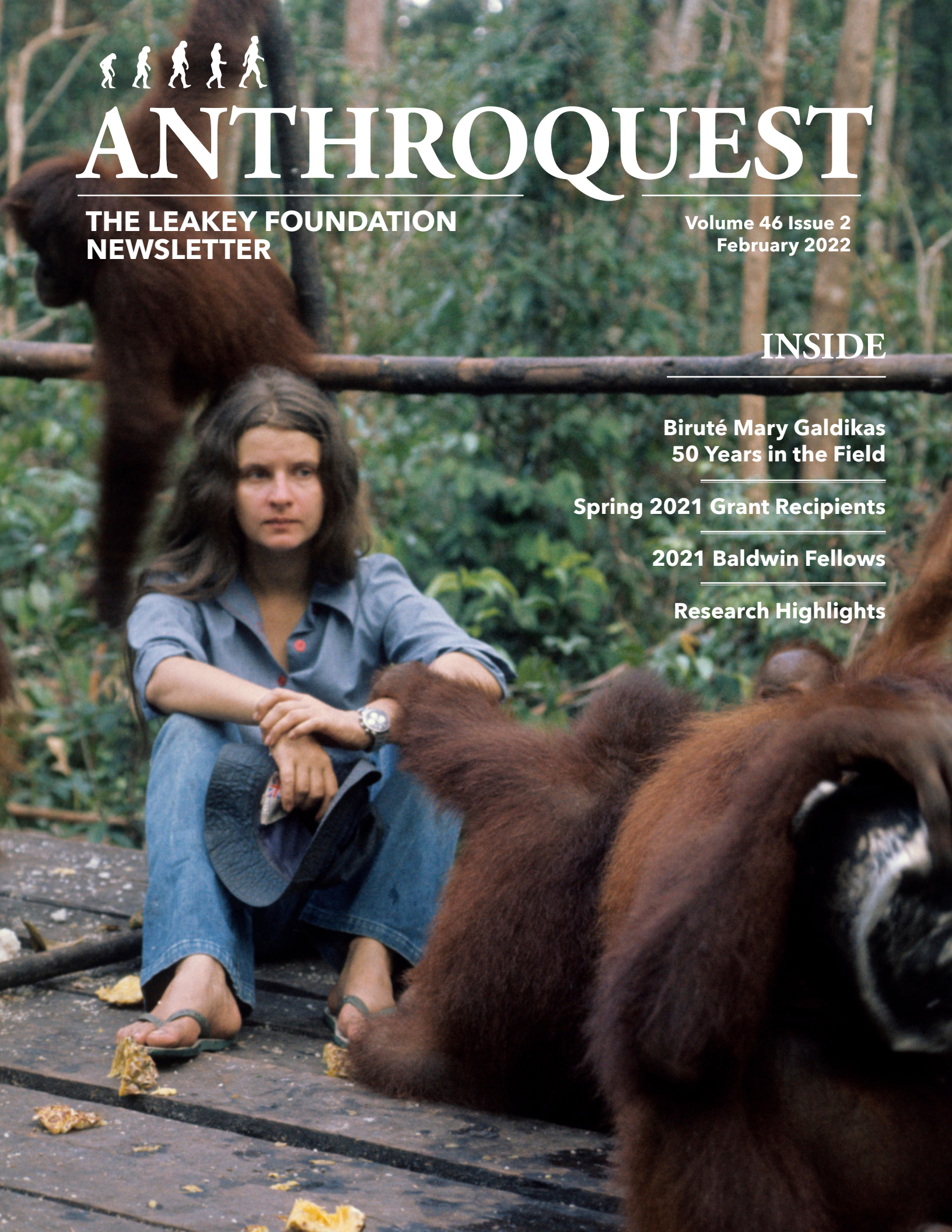
INSIDE

**Biruté Mary Galdikas
50 Years in the Field**

Spring 2021 Grant Recipients

2021 Baldwin Fellows

Research Highlights



About the cover:

Biruté Mary Galdikas began her study of wild orangutans in November 1971.

The cover image shows her with rehabilitated ex-captive orangutans at Camp Leakey in Central Kalimantan, Borneo, in the 1970s.

Alamy.com



THE LEAKEY FOUNDATION

BOARD OF TRUSTEES

Gordon P. Getty
Chairman

Jeanne Newman
President

Nina L. Carroll
Alice Corning
Don Dana
Elise Brown Ersoy
J. Michael Gallagher
Erica Brown Gaddis
Billy Getty
Henry Gilbert
Duggan Jensen
Mark Jordan
Chester T. Kamin
Matthew Kaser
Dana Lajoie
Julie M. LaNasa
Jorge Leis
Anne Maggioncalda
Diana McSherry
Camilla M. Smith
Michael Smith
Naoma Tate

SCIENTIFIC EXECUTIVE COMMITTEE

Dr. John Fleagle
Co-chair

Dr. John Mitani
Co-chair

Dr. Zeray Alemseged
Dr. Brenda Bradley
Dr. Craig Feibel
Dr. Kristen Hawkes
Dr. Nina Jablonski
Dr. Richard Klein
Dr. Steven Kuhn
Dr. Meave Leakey
Dr. Daniel Lieberman
Dr. John Mitani
Dr. Martin Muller
Dr. Tom Plummer
Dr. Robert Seyfarth
Dr. Joan Silk
Dr. Anne Stone
Dr. Christian Tryon
Dr. Carol Ward

Dr. Alexander Harcourt
Emeritus

STAFF

Sharal Camisa
Executive Director

H. Gregory
Program Officer

Arielle Johnson
Education and Events Manager

Meredith Johnson
Communications Director

Rachel Roberts
Finance Manager

Brandon Upchurch
Grants Analyst

*AnthroQuest is a publication of
The Leakey Foundation.*

*Contact us at info@leakeyfoundation.org
if you would like to update your mailing
information.*

I come from a long line of not-quite scientists: ardent armchair chemists, biologists, and anthropologists. My pets as a child were freshwater turtles and lab mice from a school project that, to my mother's dismay, exponentially multiplied over one summer. I dogeared my collection of pocket Golden Guides to science. My favorites were *Reptiles*, *Insects*, and, portentously, *Fossils*. I opted to take four years of high school Latin over the infinitely more popular French and Italian because Latin would be useful in a scientific career.

Life had other plans for me. I followed a non-scientific path. Soon after university and relocation to San Francisco in 1968, I joined the California Academy of Sciences as a docent, work that satisfied my science craving and gave me a forum for my questions that multiplied like mice. So many of those questions involved human evolution, a curiosity remnant from that little pocket guide to fossils.

After one of many Leakey Foundation lectures we attended together, Camilla Smith invited me to join her at The Leakey Foundation. As I look back on nearly twenty years on the Board of Trustees, it is with wonder. Not only at the joy of every single one of those years of involvement and the extraordinary leaps of knowledge begun by Louis and Mary Leakey's work, but by the boundless possibility of what's to come. This is an incomparable time to witness the explosion of research in paleoanthropology.

The Leakey Foundation's commitment to supporting anthropologists is fierce and unbreakable, of course. That's what we do. But there's more. For every child, young to not-so-young-at-all, who loves a mouse or a book about things that come from the earth, we have a message: "Dig." Not necessarily literally. Perhaps it's digging through specimen boxes or papers or digital archives or asking questions of an Academy of Sciences docent.

Above:
President Jeanne Newman during a Leakey Foundation Fellows Tour of India in 2017.



Maybe it's just digging into your curiosity about the evidence of the human past found buried beneath the earth.

Changing climate and genetic bottlenecks over millennia hastened the decline of many early hominins. But our species adapted and spread all over a complicated and challenging Earth. That's simply remarkable. If the central question about human evolution is how did *Homo sapiens* proliferate so rapidly when earlier hominins disappeared or were subsumed into our species, the answer might tell us how we move onward and upward. Today many of us carry a small percentage of Neanderthal or Denisovan DNA in our genomes. They're not merely fossils of lost species; they're living chromosomes. It's an existential question: What can we learn from increasing our scientific knowledge and understanding of human evolution to ensure our survival?

How lucky is it that the little girl from Cleveland with her books and mice is part of that conversation now? I answer that with a single, joyful, not-quite-scientific word. Immeasurably.

Jeanne Newman
President
The Leakey Foundation



Dr. Biruté Mary Galdikas: Guardian Angel of Orangutans

Dr. Patricia Wright
Professor of Anthropology
Stony Brook University

Executive Director,
Centre ValBio, Madagascar
and the Institute for the Conservation of
Tropical Environments

Above:
Biruté Mary Galdikas paddles a long wooden boat through dense vegetation in the Bornean forest.

Opposite: Dr. Galdikas writing field notes at her desk with two ex-captive infant orangutans.

Photos in this story courtesy of Orangutan Foundation International.

Fifty years ago, Biruté Mary Galdikas arrived at Tanjung Puting in Borneo and changed our understanding of orangutans.

In 1971 rainforest stretched from shore to shore in the third largest island in the world, and orangutans, Asia's largest ape, roamed those forests. Nothing much was known about these giant red apes in the wild. Biruté, a Canadian from Toronto, earning a doctorate in anthropology at UCLA, had a passion for learning about them. When Louis Leakey gave a lecture at UCLA, Biruté met with him afterward and convinced him that she was capable and motivated

enough to be the first woman to study orangutans in nature.

With support from The Leakey Foundation and National Geographic, she and her first husband, Rod Brindamour, journeyed to central Borneo to begin her observations. Biruté founded Camp Leakey as a basecamp to study orangutans and there she inspired thousands of Earthwatchers and students to study primates and wildlife. She trained Indonesian students and worked with Dayak communities.







Early on, Biruté realized that orangutans were threatened, and she began to take in orphans to save them from poachers. Her rehabilitation program was one of the first of its kind. As the infant orangutans grew to adulthood, Biruté released them into the forest to travel and forage independently, and she observed their behavior. Biruté discovered that orangutans primarily eat fruit, and have an interbirth interval of eight years—the longest of any primate. She learned that males grow to be twice the size of females, with large inflated facial cheek pads that emphasize their status. Males roam alone, snacking on fruits, bellowing their might, and searching for females in estrus to romance. Females live with their offspring in a smaller home range. Biruté has discovered that the tree-dwelling orangutans spend as much as half the day on the ground. Adult males can reach five feet tall and weigh up to 300 pounds. The four-foot-tall females weigh about half as much. Subadult males, without large cheek pads, sometimes rape females, and females try to avoid those males. At night orangutans build nests of leaves and sticks to sleep comfortably high in the canopy. When it rains, the red apes hold up broad leaves like umbrellas as protection against the wet. Biruté has shared her knowledge of orangutans in four books and numerous papers.

Biruté founded the Orangutan Foundation International in 1986 and developed it into a strong fundraising arm with a home office in Los Angeles.

A drone's eye view of the dock at Camp Leakey.

Along with her successful research station, she also helped establish Tanjung Puting

Photo: Orangutan Foundation International

National Park, a one-million-acre reserve in central Kalimantan. Today, the Indonesian government manages the park with help from her Orangutan Foundation International (OFI). As part of OFI's conservation program, it has purchased several hundred acres of peat swamp forest and partnered with a Dayak village to manage 1,000 more acres.

Fifty years after she first went to Borneo, Biruté continues to defend orangutans and their habitat and teach at Simon Fraser University in British Columbia, Canada, where she spends half her time. Biruté has maintained a residence in Indonesia, married Pak Bohap, a Dayak tribal leader and rice farmer, and has three grown children, two sons Pauli, and Fred and one daughter Jane. Her second husband of 35 years helps manage her conservation efforts.



Dr. Biruté Mary Galdikas on the porch at Camp Leakey with a rehabilitated ex-captive orangutan in 2015.

Photo: Orangutan Foundation International

Bornean rain forests are among the most ecologically diverse forests in the world, with over 15,000 types of plants, more than 600 species of birds, and multitudes of unique mammals, including

orangutans, proboscis monkeys, gibbons, tarsiers, clouded leopards, binturongs, and pygmy elephants. However, this rainforest and its wildlife are now endangered. Early challenges included gold mining, hunting and logging for precious hardwoods. Today the biggest threat is oil palm, an economically lucrative cash crop.

Eight kilometers north of Camp Leakey are massive palm oil plantations, monotypic orchards extending hundreds of kilometers, replacing the rainforest habitat necessary for orangutans to survive. As the palm oil plantations expand, orangutans are often killed by workers. Biruté has challenged the timber exploiters and the oil palm plantation owners and defended the lives of the orangutans. Her bravery and steady strategic conservation are to be admired. Biruté doesn't give up. She has won many battles, but the war continues.

Over the years, Biruté Mary Galdikas has received 19 Leakey Foundation grants, won many awards and prizes including Indonesia's Hero for the Earth Award, the United Nations Global 500 Award, the Elizabeth II Commemorative Medal, and the Sierra Club Chico Mendes Award. In 1995, Galdikas was made an Officer of the Order of Canada. In 1997 Biruté won the Tyler Prize for Environmental Achievement.

Biruté has been very successful at educating the world about orangutans. She has appeared on the cover of *National Geographic* and was featured in part of "30 Years of National Geographic Specials, a TV documentary in 1995. More recently, Biruté starred in the 3D IMAX documentary film, *Born to be Wild 3D* (2011), and *She Walks With Apes*, a CBC TV documentary (2019). Millions of people have learned to love orangutans because of Biruté Mary Galdikas.

The experience of visiting Tanjung Puting and Camp Leakey was magical when I visited in 1996. As I approached the dock located in the Java Sea, an older juvenile orangutan began rubbing her arm with soap and then she gleefully sucked the suds off the hair of her arm.



My dream of seeing orangutans up close had come true. I startled as a hairy red baby climbed into my arms. The warmth of that cuddle went straight to my heart. I walked toward the house, where there were orangutans climbing in the trees, sitting on the chairs on the porch and banging on the roof. The orangutans were well adapted to the human environment. This rainforest was incredibly tall, way over 100 feet and we slogged in our rubber boots through the forest. It was so hot and humid my eyelids were sweating. At dawn the melodic whoops of the gibbons filled the air, but I only saw a fleeting glimpse of one brachiating away from us. And then I heard the impressive deep roar of the long call of the adult male orangutan.

Dr. Biruté Mary Galdikas has taught us much about our close relatives, the orangutans. As a Leakey Foundation grant recipient for many decades, she has been able to continue saving orphan orangutans and protecting Tanjung Puting National Park. Biruté has endeared our orange cousins to us, and is doing all she can to meet the challenges of conserving them into the future. ❖

Above: Orangutans eating fruit on one of the platforms at Camp Leakey.

Photo: Orangutan Foundation International

Want to hear Dr. Galdikas tell her story in her own words and listen to sounds from the forest?

Point your phone camera at the code to listen to our *Origin Stories* podcast!

leakeyfoundation.org/originstories



Notes From the Field: The Gunung Palung Orangutan Project

In the 50 years since Dr. Biruté Mary Galdikas began her pioneering work, new generations of scientists have followed in her footsteps to establish orangutan research projects across Borneo and Sumatra.

Thanks to our donors, The Leakey Foundation has awarded nearly 100 grants to support orangutan field research.

Dr. Cheryl Knott

*Professor of Anthropology and Biology,
Boston University*

*Executive Director, Gunung Palung
Orangutan Conservation Program
and Gunung Palung Orangutan Project*

At the onset of the COVID-19 pandemic, the Gunung Palung Orangutan Project was faced with increased financial burdens, and decreased funding. Thanks to the Primate Research Fund, the Cabang Panti Research Station, our nexus for all field research activities in the heart of Gunung Palung National Park, West Kalimantan, Indonesia, has remained fully operational throughout the pandemic.

The Leakey Foundation has continued to understand and value the importance of long-term research projects such as the Gunung Palung Orangutan Project, which has been running since 1994. Since its start, the Gunung Palung Orangutan Project has been at the forefront of great ape research and the Leakey Foundation has been one of our steadfast supporters. As one of a very small number of long-term orangutan research projects, our team has contributed significantly to scientific knowledge of this critically endangered great ape.

Opposite:

Members of the Gunung Palung Orangutan Project jump for joy on receiving news of their Leakey Foundation Primate Research Fund grant.

Long-term field projects are especially critical for understanding apes with long lifespans like the orangutan. This type of long-term research allows us to ask questions about orangutan growth, development, reproduction and health.



Our research has also enabled us to understand and monitor orangutan population size and habitat use – knowledge which is crucial for informing conservation decisions and the work we do to preserve wild orangutans and their habitat.

Over the last 26 years, we have conducted more than 88,800 cumulative hours of orangutan observation. We've followed over 200 individual orangutans, tagged more than 50,000 trees and lianas within the study area, collected data on over 70,000 orangutan feeding bouts, weighed and measured 2,102 food samples and analyzed the nutrient content of 218 plant foods. With support from The Leakey Foundation, during the pandemic we have been able to continue data collection, increase our sample sizes, and observe orangutans through additional growth stages, including during their critical juvenile development.

In 2021, we observed several unusual and rare events, thanks to a continuous researcher presence. Of special note, our team followed a flanged male orangutan as he constructed a nest in which he died a natural death, and observed an adult female orangutan as she interacted with

a Bornean slow loris. These were unique events which we had never seen before in over 25 years of orangutan research at this site.

Because of our continued presence at the site, made possible by The Leakey Foundation, we were able to host seven Indonesian undergraduate women to conduct senior thesis research as well as provide the infrastructure for one Indonesian master's student. Additionally, the upkeep of the station and research project has enabled post-undergraduate and graduate students to be able to continue planning field research, which will take place once COVID-19 conditions are safe and international travel to Indonesia is permitted again. Had this not been the case, four US-based graduate students would have had to come up with alternate dissertation topics, rather than studying the wild orangutans of Gunung Palung.

The Gunung Palung Orangutan Project is grateful for The Leakey Foundation's support in continuing our study, allowing our long-term project to continue to investigate physiological and ecological processes and the ways in which they impact wildlife and their conservation status. ❖



Spring 2021 Grant Recipients

Behavioral Research

William Aguado, Rutgers University: *Interactions of plant secondary metabolites, nutrients, and physiology in orangutans*

Rachel Bell, University of Massachusetts, Amherst: *Impacts of anthropogenic disturbance on lemur microbiota in southwest Madagascar*

Cristian Capelli, Università di Parma: *The Y chromosome evolutionary history of the genus Papio*

Inez Derkx and Cecilia Padilla Iglesias, University of Zurich: *Socioecology of hunter-gatherer social structure and implications for cumulative culture*

Ivo Jacobs, Lund University: *The origins of hominin fire use: Japanese macaques as living models*

Stephanie Poindexter, State University of New York at Buffalo: *Re-evaluating the origins of primate pair-living through movement synchrony*

Axelle Kamanzi Shimwa, George Washington University: *Variation in acquisition of dietary independence in Virunga mountain gorillas*

Kristen Tuosto, George Washington University: *Skeletal impacts of early life adversity in Amboseli baboons*

Sarie Van Belle, University of Texas at Austin: *Information transmission between groups: Vocal indicators of group-level resource-holding potential and motivation in black howlers*

Rachel Voyt, University of Texas at Austin: *Female reproductive variation in a wild, cooperatively breeding callitrichine primate*

Above:

Axelle Kamanzi Shimwa collecting behavioral data from mountain gorillas in Volcanoes National Park in Rwanda.

Photo: Veronica Vecellio,
Dian Fossey Gorilla Fund



William Aguado



Rachel Bell



Christian Capelli



Ivo Jacobs



Stephanie Poindexter



Sarie Van Belle and Elsa Barrios



Chalachew Seyoum conducting field research in the Afar Region of Ethiopia.

Paleoanthropology

Reed Coil, Nazarbayev University: *Neanderthal and modern human spatial behavior in the Southern Caucasus*

Elham Ghasidian, Neanderthal Museum Southern Caspian Corridor: *A biogeographical hominin expansion route*

Elliot Greiner, University of Michigan: *Mammalian paleoecology of the Tugen Hills succession, Baringo Basin, Kenya*

Kieran McNulty, University of Minnesota: *New excavations at Meswa Bridge, Kenya*

Rafael Mora, Universitat Autònoma de Barcelona: *Paleoanthropological, paleodemographic, paleogenomic, and cultural foundations from the Late Upper Paleolithic in the Southeastern Pre-Pyrenees*

Abay Namen, University of Tübingen: *Lithic technology and raw material variability in the Inner Asian Mountain Corridor of Kazakhstan*

Agazi Negash, Addis Ababa University: *The emergence of modern human behavior: An obsidian geochemical perspective*

Zeljko Rezek, Max Planck Institute for Evolutionary Anthropology: *Human use of the Saharan Nile landscape in the MSA*

Mohamed Sahnouni, Centro Nacional de Investigación sobre la Evolución Humana: *Continuation of new investigations at the Hominin site of Tighennif, Algeria: Study of Homo erectus behavior and adaptation*

Chalachew Seyoum, University of Missouri: *Preliminary Paleoanthropological expedition in the Kibish Formation, southern Ethiopia*

Marcelo Tejedor, Instituto Patagónico de Geología y Paleontología: *Dietary reconstruction of the Miocene primates from Patagonia using dental microwear and stable isotope analyses*

Elizabeth Velliky, University of Bergen: *Reconstructing past ochre-scapes in South Africa (ROSA)*

Alexander Mackay, University of Wollongong: *The organization of Still Bay technology in southern Africa*

Kira Westaway, Macquarie University: *Unearthing giants; post-cranial evidence of Gigantopithecus blacki in southern China*

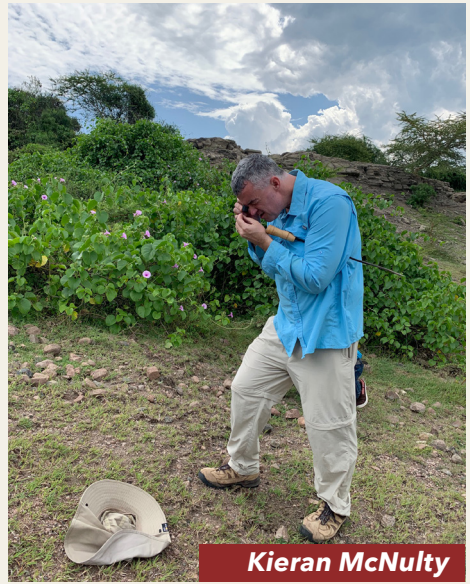
Ismail Ziani, University of Las Palmas de Gran Canaria: *Plant use by the early Homo sapiens in North Africa*



Reed Coil



Elham Ghasidian



Kieran McNulty



Rafael Mora



Abay Namen



Mohamed Sahnouni



Marcelo Tejedor



Kira Westaway



Ismail Ziani



2021 Baldwin Fellow Charles Kivasu Maingi observing mangabeys in the Tana River Forest.

2021 Baldwin Fellows

The Leakey Foundation's prestigious Baldwin Fellowship program advances science by supporting aspiring researchers worldwide. With the help of our donors, The Leakey Foundation awards Baldwin Fellowships to outstanding graduate students from countries with limited opportunities for advanced education in the study of human origins. This program provides essential support to young scholars and helps launch their careers.

The Franklin Mosher Baldwin Memorial Fellowship program began in 1978. Since then, Baldwin Fellows such as Berhane Asfaw, Job Kibii, Mzalendo Kibunja, Jackson Njau, Agazi Negash, Emma Mbua, and Fredrick Manthi (to name only a few) have gone on to have distinguished careers as leaders in their fields.



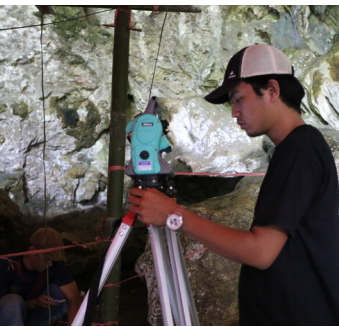
Pamela Akaku Achieng is a PhD student from Kenya. She studied at the University of Nairobi and the University of Witwatersrand. She also attended the Koobi Fora and Turkana Basin Institute field schools, where she trained in ecology, geology, archaeology, vertebrate paleontology, paleoecology, and human evolution. Pamela is pursuing a PhD at Rovira i Virgili University in Spain. Her work focuses on the relationships between fauna and hominins during the Paleolithic at Olduvai Gorge in Tanzania. She is also interested in subsistence strategies, site formation processes, and paleoenvironmental reconstruction. After her PhD, Pamela plans to establish a career in Kenya and help train African students in archaeology and anthropology.



Mariam Bundala is a University of Calgary PhD student from Tanzania. She is studying how environmental change has impacted human evolution. For her PhD project, she is analyzing phytoliths from some of the most important Middle Pleistocene sequences in East Africa. Her research will contribute to our knowledge of the evolution of *Homo sapiens* in Africa. After earning her doctorate, she intends to return to her position as an assistant lecturer in the Department of Archaeology and Heritage Studies at the University of Dar es Salaam where she is the only woman on the academic staff.



Alex Chege is a PhD student at Stony Brook University in New York. Originally from Kenya, Alex attended the University of Western Australia. After working with an international team of research scientists at Operation Wallacea in the Calakmul Biosphere Reserve in Mexico, Alex joined the Institute of Primate Research and the Karura Forest Association as a research assistant in their black-and-white colobus monkey conservation project. His mentors are Dr. Richard Leakey and Dr. Catherine Markham. His dissertation is on primate adaptations to coastal habitats in Kenya, where primates have been observed foraging on marine resources. After his PhD, Alex intends to continue research in primate behavioral ecology and evolution with hopes of collaborating with international groups inside and outside of Kenya.



I Made Agus Julianto is an Indonesian citizen born and raised on the island of Bali. He studied archaeology at Udayana University, where he learned Indonesian prehistory, excavation methods, stone tool and ceramic analysis, paleoanthropology, paleogeography, and maritime archaeology. He also participated in research at Liang Bua, the limestone cave on the island of Flores, where *Homo floresiensis* was discovered. Agus is a first-year student in the Master of Science in Archaeological Science program at Lakehead University in Thunder Bay, Canada. His advisor is Dr. Matthew Tocheri. For his thesis research, he will explore and analyze spatial data from Liang Bua. After earning his degree, he hopes to work as a researcher at either the Division Conservation and Archaeometry at the Indonesian National Research Centre for Archaeology in Jakarta or as an instructor of archaeology or prehistory at an Indonesian university.



Tewabe Negash Kassaw is a PhD student from Ethiopia. His desire to learn about prehistoric life and the evolution of our ancestors developed during his undergraduate and master's education at Addis Ababa University. After earning his master's degree, he worked as an archaeology curator at the National Museum of Ethiopia. Tewabe is pursuing his PhD at Colorado State University with Dr. Michael Pante as his advisor. His research will focus on the context of the extinction of *Australopithecus* and the origin of the genus *Homo*. His goal is to become a research scientist in Ethiopia at either the Center for Human Origins of Addis Ababa University or the Authority for Conservation of Cultural Heritage.



Charles Kivasu Maingi is a PhD student at Rutgers University. He earned his undergraduate and master's degree from the University of Nairobi, with an emphasis on conservation. Charles worked as a research assistant on the Tana River Mangabey Nutrition Ecology and Conservation Project in Kenya, led by Dr. Stan Kivai, at the National Museums of Kenya. His PhD research will focus on primate social behavior and stress levels. His career goals are to lead and manage primatological programs in Kenya and share knowledge about primates and evolution with the public. After earning his PhD, he plans to return to Kenya to work in primatology as a researcher and educator.



Winfred Wambui Mbogo is a graduate student at Stony Brook University who earned her undergraduate degree in anthropology at the University of Nairobi. In 2019, she joined the Turkana Basin Institute as the field school resident director. Immersion in the field environment increased her understanding of human evolution and ignited her passion for paleoanthropology. For her research project, she will study the evolution of the anthropoid inner ear with Prof. Fred Spoor from the Natural History Museum, London. After completing her degree, she plans to return to Kenya to do field-based research in the Turkana Basin.



Venanzio Njuguna Munyaka graduated from the University of Eldoret, Kenya, and worked as an intern in the Palynology and Paleobotany Section of the Earth Sciences Department at the National Museums of Kenya. During his internship, he applied pollen, diatom, and phytolith analyses to both modern and fossil collections to reconstruct environments through time. He attended the 2019 Koobi Fora Training and Research Program, an international 6-week program jointly administered by the George Washington University and the National Museums of Kenya. Venanzio will pursue his master's degree at Baylor University with Dr. Daniel Peppe as his advisor. He will study fossil leaves from the Koru region in western Kenya. His goals include working at the National Museum of Kenya and helping other young Kenyans students develop careers in human evolution research.



Bright Adu Yeboah is from the village of Boabeng, a rural community in Central Ghana. He graduated from the University of Energy and Natural Resources (UENR) in Sunyani and earned a master's degree from the University of Calgary. Bright was a teaching and research assistant at the Ecotourism, Recreation, and Hospitality department at UENR. He also volunteered at the Boabeng-Fiema Monkey Sanctuary (BFMS), where he became interested in primatology. He was a field assistant in an international field school program at the BFMS, hosted by the University of Calgary in Canada. Bright is a PhD student at the University of Texas, San Antonio, with Dr. Eva Wikberg as his advisor. His career goal is to become a lecturer at the University of Energy and Natural Resources in Ghana, which will allow him to train the next generations of researchers in biological anthropology.

The Joan Cogswell Donner Field School Scholarship



**When field school is nearby, but out of your reach...
The Leakey Foundation can help!**

Field school is a crucial step in the journey to becoming a scientist. However, the cost of attending field school is often unaffordable for students from the countries where field schools are located.

The Joan Cogswell Donner Field School Scholarship provides grants of up to \$2,000 towards tuition and expenses.

This program helps students access the hands-on field science training they need to start their career.

Applications are open year-round.

Please help us spread the word about this funding opportunity.

leakeyfoundation.org/fieldschool



A Virtual Travel Series Funds Emergency Primate Research Grants

By Sharal Camisa Smith
Executive Director

Where did you travel last summer? Did it require hiking boots and a passport? This past summer, some of our most dedicated patrons “traveled” off the beaten path to explore fascinating field research sites... from the comfort of their homes.

During this three-part virtual program, Leakey Foundation grantees were our online “tour guides” in Argentina, Saudi Arabia, and primate research sites in Indonesia and across Africa. We met experts who have lived and worked for decades in these remote areas of the world, and we received insider access to exotic places that most people never get to visit.

Facing page: A pair of owl monkeys look down from the trees at Dr. Fernandez-Duque's Owl Monkey Project research site in Argentina.

Dr. Eduardo Fernandez-Duque and Dr. Claudia Vaggia welcome virtual travelers with a traditional gourd of yerba mate.

We developed the Summer Travel Series to be an immersive experience, surrounding the participants with the rich culture of each location and the extraordinary scientific research The Leakey Foundation funded in each country. The programs were available to the first 85 registrants, and those who made a “First-Class” donation of \$250 received care packages with treats from the countries they “visited.” Care packages included Argentine wine and a jar of dulce de leche, nuts and figs from Saudi Arabia, Indonesian chocolate, and berbere spice from Ethiopia.



This virtual travel series was a fundraiser for The Leakey Foundation's Primate Research Fund to help provide emergency funding to long-term primatology research projects. Primate Research Fund grants keep community members employed and allow for continuity in data collection during emergencies or gaps in funding that threaten the project's survival. During the COVID-19 pandemic, the need for these grants has risen dramatically. Our summer travelers stepped up to fill the need.



For our first adventure, we “traveled” to the verdant jungles of Argentina to celebrate the 25th anniversary of the Owl Monkey Project with Dr. Eduardo Fernandez-Duque and Dr. Claudia Valeggia. Before the travelers met Dr. Fernandez-Duque and Dr. Valeggia and shared a traditional gourd of yerba mate around the campfire, Argentine guitarist Dr. Guillermo Garcia performed a live concert of tango and classical Argentine folk music.

During the COVID-19 pandemic, the need for Primate Research Fund grants has risen dramatically.

Our summer travelers stepped up to fill the need.



Above: Dr. Michael Petraglia holds a trained falcon during one of his research trips to Saudi Arabia.

Point your phone camera at the code to visit our website and sign up for the Summer Travel Series announcement list!



Our next journey took us to Saudi Arabia. The experience began with a master falconer from West Coast Falconry, who introduced us to two live falcons and told the group about the fascinating history of falconry in Saudi Arabia. Then Leakey Foundation grantee Dr. Michael Petraglia led us on a virtual tour, sharing the exciting discoveries he and his team have made in the Arabian peninsula. We explored the earliest known archaeological sites in the region, including the site where his team discovered 120,000-year-old fossil human footprints along a lakeshore that has long-since turned to desert. The ever-building evidence for close connections between climate change and the early human occupation of Arabia provided context to understand the environmental challenges we may face in the future.

In our final Travel Series Salon on August 26, all three of our scientific tour guides talked about the emergency funding they received from The Leakey Foundation. Dr. Takeshi Furuichi told us about his work at the first-ever site for the ecological and behavioral study of bonobos, established in 1973. Dr. Jill Pruetz introduced our group to the savanna-dwelling chimpanzees she

studies at a site called Fongoli in Senegal. Dr. Caroline Schuppli guided us through the Suaq Balimbing forest in Indonesia where she studies how young Sumatran orangutans learn new skills as they grow.

Many of The Leakey Foundation's Summer Travel Series participants enjoyed the journeys while wearing slippers, and the only passport they needed was a Zoom password. No one suffered from jet lag. After each virtual tour, they were ready for their next adventure.

I hope you will join us for the next online Summer Travel Series!

Visit leakeyfoundation.org/travel22 and sign up to be notified when the 2022 destinations and scientific "tour guides" are announced. ❖



"During the pandemic we could not travel to the field and we could not get pure research funding without researchers being present.

The Leakey Foundation made it possible to pay field assistants and send Congolese scientists to keep our 50-year bonobo study going."

*-Dr. Takeshi Furuichi
Kyoto University*

Thank you for supporting the Primate Research Fund!

When long-term studies face emergencies or funding gaps, the Primate Research Fund is here to help.

We asked for support in 2021, and our generous donors gave **\$504,562** to make sure the Primate Research Fund has the resources necessary to meet the need.

A special note of gratitude goes to Anne and Jeff Maggioncalda and the Ann and Gordon Getty Foundation for their generous support of this important program.



Dr. Briana Pobiner Wins New Science Communication Award

At The Leakey Foundation, we have always believed that science communication is vitally important. In 2021, we partnered with the American Association of Biological Anthropologists to recognize the importance and urgency of promoting scientific literacy and fostering understanding of the evolution of human beings and their living and fossil relatives.

In April 2021, Dr. Briana Pobiner was named as the first recipient of The Leakey Foundation and AABA Communication and Outreach Award in Honor of Camilla M. Smith. The

award was named for Camilla Smith, the immediate past president of The Leakey Foundation and a passionate advocate for education and science literacy.

*Above:
Dr. Briana Pobiner teaches
young library visitors about
human evolution.*

Dr. Pobiner leads education initiatives at the Smithsonian's National Museum of Natural History Human Origins Program. She is also a research professor in the Center for the Advanced Study of Human Paleobiology at the George Washington University.

In addition, Dr. Pobiner is a paleoanthropologist whose research centers on meat-eating and the evolution of human diets. She has done fieldwork and studied fossil collections in Kenya, Tanzania, South Africa, Indonesia, Romania, and the US.

We spoke with her about the award, her approach to science communication, and some of her educational projects.

Q: What does this award mean to you?

A: I'm so honored to have been nominated for this award and to receive it! It's heartening to see that public engagement and outreach are being valued and rewarded in this way. But it takes a village to do this; I don't do it on my own. In reality, I share this award with the teachers, students, volunteers, my scientist and educator colleagues, and so many others.

Q: What is your approach to communicating about human evolution, given that in the United States, it can be a sensitive and controversial topic?

At the Smithsonian, we seek to go beyond the conflict mode of thinking about the relationship of science and society, particularly science and religion. We work to foster inclusive dialogue on these topics. We want to be sensitive and aware of cultural differences, and we want to be welcoming to all audiences. We are also interested in dispelling misconceptions, such as the idea that all evolutionary scientists are atheists or anti-religion, or are somehow trying to disprove the existence of God, or on the other side, that all people of faith are anti-evolution and that acceptance of evolution necessitates the abandonment of faith.

Addressing and dispelling these misconceptions is an integral part of our communication efforts. What we don't do is what we know doesn't work in science communication and that's the information deficit model. That model assumes that the reason that someone doesn't accept science is because they just don't know enough of it. So if you throw more scientific information at them, they will love science. There's a lot of great data out there from science communication

studies that say that it doesn't work. It's not just about understanding the science. It goes deeper than that.

**We are all
so much more alike
than we are
different.**

Q: What do you love about communicating with the public on the topic of human evolution?

A: This is a tough question to answer because there are so many things! It's the time depth of the human family tree and the weird fact that *Homo sapiens* are now the only human species on the

planet because multiple species walked the earth for much of our prehistory. It's the fact that our species almost went extinct less than 100,000 years ago. It's the important messages of our deep unity coupled with our much more recent, but still beautiful and celebration-worthy, diversity – and that our outward diversity represents such a tiny part of our genome. We are all so much more alike than we are different.

In my research on the evolution of human diets, I love communicating how many lines of evidence we have to study this! Hominin fossils, archaeology, isotopes, modern experiments, and more. And that every single specimen tells a story. I can hold a broken bit of a million-year-old fossil antelope leg bone in my hand, and if that fossil has butchery marks from a stone-tool-wielding hominin on it? It's direct evidence of behavior in my hand. And when I have an entire assemblage to study? Then I can discuss which body parts or species of prey animals hominins butchered (and didn't). I can almost get into their heads to see what choices they were making about what to eat. It's just so cool.



Q: Can you tell us about some of the outreach projects you're most proud of?

A: Definitely! I'm leading an education research project right now funded by the National Science Foundation that is studying the teaching and learning of evolution in introductory biology classrooms in Alabama high schools. We've developed a curriculum unit that includes human examples of evolution and one that does not, so we can see how these different approaches affect students' understanding and acceptance of evolution. We've also developed a resource that provides teachers with strategies for creating supportive learning environments

Watching kids get excited about science and think, "Hey, I could do that when I grow up!"... makes it all worth it.

that facilitate an understanding of evolution while also being sensitive to religious and cultural apprehensions to learning about it.

We were all set to do our final year of the project with nearly 40 Alabama teachers when COVID hit.

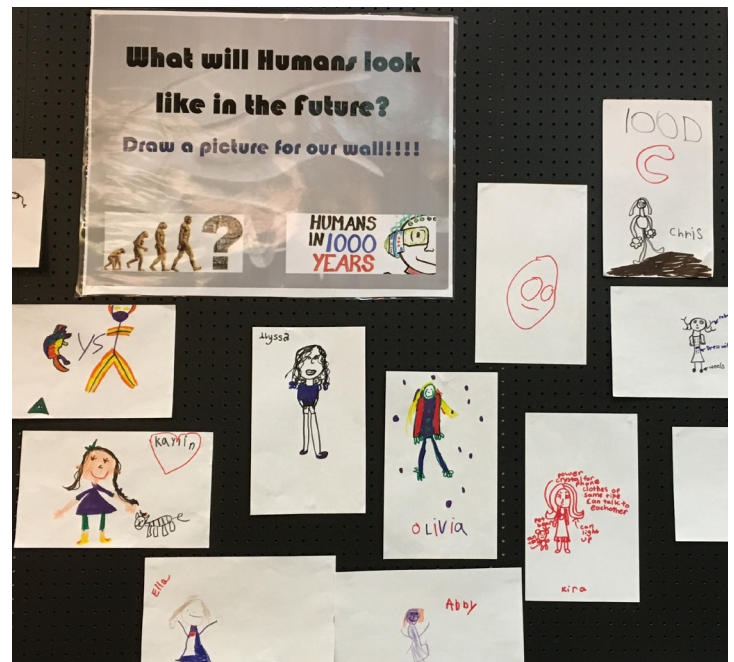
I'm also part of the team that put together a traveling exhibit on human evolution called *Exploring Human Origins: What Does It Mean To Be Human?* Since so many people won't have the opportunity to visit our permanent Hall of Human Origins at the Smithsonian's National Museum of Natural History, we partnered with the American Library Association to bring the exhibit to 19 public libraries across the US.



Above: Children participating in a "cave painting" art activity during the Smithsonian's traveling human origins exhibit.

Right: Children from the same school imagine what humans will look like in the future.

Facing page: Dr. Pobiner guides high school students through a lab exercise using casts of fossil skulls.



A small team of us traveled with the exhibit between 2015 and 2017, and we participated in multiple events at each library. We talked with people in different communities about their thoughts and perceptions of human evolution and promoted models of interaction between science and religion beyond the traditional "conflict" model. The experience was both enjoyable and eye-opening. These outreach projects take a lot of time and energy, but they are so rewarding. Watching kids get excited about science and think, "Hey, I could do that when I grow up!" Watching adults contemplate human evolution in new, less fearful ways makes it all worth it. ❖

Point your phone camera at the code to watch Dr. Pobiner's Leakey Foundation lecture "Engaging with Public Audiences on Human Evolution."





Samuel Muteti Awarded 2021 Francis H. Brown African Scholarship

By Dani Burlison

As a young boy growing up in rural Kenya, Leakey Foundation grantee Samuel Muteti's interest in fossils started early. During his school holidays, he visited his father who worked as a field assistant and lab technician at the National Museums of Kenya. Muteti toured the museum exhibitions and watched his father and his colleagues conduct fossil preparation. This piqued his curiosity about how to differentiate rocks from fossil bones, which at the time looked the same to him.

After those early experiences, he completed high school at the age of 19, and he was unsure of what to do next, as his father could not afford to pay for his tertiary education.

Having noticed his interest in fossils, Muteti's father introduced him to Dr. Meave Leakey who was then the head of the paleontology section at the National Museums of Kenya. Dr. Leakey invited him to join her crew as a field assistant in Lothagam, a Plio-pleistocene fossil site in West Turkana. He worked with

Leakey's team for over four months. Soon after, he was hired by the museum. It was during this field work that his passion for biological anthropology was ignited.

Today, Muteti is a doctoral candidate at the University of Minnesota where he says his collaborations focusing on early Miocene sites in Kenya with Professor Kieran McNulty have greatly influenced his focus of research on the middle Miocene of western Kenya. The Miocene is a geological epoch that spans around 5 million to 23 million years ago, and Muteti hopes his research will fill gaps in the record of this time period.

“Despite the large number of Miocene fossils in the collection at the National Museums of Kenya, none of the staff working on it has the necessary training to deal with the curatorial issues of such a collection. Thus my resolve to take up a career on the Miocene, and specifically on the origin and evolution of the earliest hominoid in the middle of the western Kenya.”



In 2021, Samuel Muteti was awarded a Francis H. Brown African Scholarship from The Leakey Foundation. Muteti's work represents an important first step in the long-term research program to document ecological and geochronological contexts of early crown hominoid diversity in the Nyanza Rift in Kenya.

His project, supported by the Francis H. Brown African Scholarship, will compare fossil fauna among project sites and assess the taxonomic relationships of the crown hominoids from the Nyanza Rift. His findings will contribute significant information and bridge the gap between the early and late Miocene which have received a huge amount of attention in the region.

"The specific aims outlined here may not fully resolve issues surrounding the earliest crown apes," says Muteti, "but contribute necessary and significant advancements toward achieving that resolution."

Researchers often face obstacles in their field work, and Muteti's plans have been impacted by the extraordinary challenges of the pandemic. His project involves a multidisciplinary approach with various experts from different institutions around the United States. Coordinating schedules across time zones, travel restrictions due to COVID-19, and the dangers of new variants have all impacted the project.

On a more personal note, he speaks to the additional challenges of balancing family life with research.

"It's especially difficult when we have to be separated on different continents for many months, and having to remotely deal with complications that come with nursing a sickly aging parent and high school-going teenagers," he says.

Yet, Muteti's paleoanthropological field work is something he's treasured since first discovering his love of biological anthropology. His dream is to complete his professional training, attain a doctorate degree and subsequently plan, design, and lead his own research team. In addition to taking steps to achieve this dream, discovering several new specimens has been a highlight for him—particularly his discovery of a fossil fish that was named after him, *Sindacharax mutetii*.

"My dissertation research funded by The Leakey Foundation is a first step in a long-term research project in the middle Miocene of western Kenya and an addition to the small number of Kenyan professionals in this field despite the great wealth of fossils in the country," he says. "The Leakey Foundation awards propel me to achieving my dreams." ❖

Opposite page:
Samuel Muteti (right) with advisor Kieran McNulty at Rusinga. Photo: Lauren Michel

Above: Muteti discusses excavation discoveries with Minnesota undergraduate Monica Msechu at Rusinga. Photo: Kieran McNulty



The Next Generation of Leakey Foundation Leaders

By Sharal Camisa Smith
Executive Director

At The Leakey Foundation, legacy is important. The science we fund can take generations of researchers to carry out. Our namesakes, Louis and Mary Leakey, famously involved their family in their work. Their granddaughter Louise Leakey continues in their footsteps.

Many of our grantees receive their first professional funding from the Foundation, and then decades later, their graduate students apply for their first grant.

Above:
*Erica Brown Gaddis (L) and
Elise Brown Ersoy (R) in 1988 in
Turkana, Kenya.*

*They are pointing to a fossil fish
nest that was named after their
father (*Piscichnus brownii*) by
Dr. Craig Feibel in 1987.*

Our three newest board members represent the second generation of family involvement with The Leakey Foundation. They are the daughters of two beloved members of Foundation leadership who helped shape the organization in profound ways. Life Trustee Mr. Bill Richards joined the Board in 1984 and skilfully managed the Foundation's investments for decades. Much of our financial success and stability stems from his professional expertise. His daughter Mrs. Dana Lajoie joined the board in May 2021.

Dana Lajoie has been fascinated with human history and origins from a very young age. In a school report at six years old, she stated her career aspirations as “mother, teacher, and anthropologist.” One should expect no less from Bill Richards' daughter. She grew up steeped in tales of science and prehistory, and she visited Africa for the first time at age 12. She spent time at Koobi Fora and toured the fossil vault at the National Museums of Kenya with Richard Leakey. These were formative experiences in her life.

Mrs. Lajoie earned her BFA in ceramics and art education from the University of Colorado. After starting and running a successful ceramics business, she returned to school for a masters degree in marketing. She had a career in internet strategy and oversaw online marketing programs for many companies. She is also proud to have been a part of an early overhaul of The Leakey Foundation website.

Dr. Frank Brown was a cherished member of our leadership beginning in the early 1990s until his passing a few years ago. He served as co-chair of the Scientific Executive Committee, and his kindness, scholarship, and generosity shaped our organization in a deep way.

“During his 50 years of research in Kenya and Ethiopia, my father found friendship and family in the African communities in which he worked,” said Francis Brown's daughter, Erica Brown Gaddis. “He personally helped many secondary, university, and graduate students achieve their educational dreams. He helped many others by encouraging them to follow their hearts and by helping them

financially. He had a genuine love and respect for the people of East Africa.” His dedication to increasing opportunities for African researchers led to the creation of the Francis H. Brown African Scholarship Fund.

Frank Brown's daughters, Mrs. Elise Brown Ersoy and Dr. Erica Brown Gaddis joined the board in September 2021.

Mrs. Brown Ersoy earned a Master of Applied Science in natural resource Management from James Cook university and a Bachelor of Science in environmental studies from the University of Utah. She serves on the California Energy Commission in the Energy Generation Research Office working on renewable integration issues at the distribution level.

Dr. Brown Gaddis is the director of the Utah Department of Environmental Quality, Division of Water Quality in Salt Lake City. She received a Ph.D. in natural resources with an emphasis on water resources from the University of Vermont, Burlington, and a M.S. in Environmental Science and Policy at the Central European University, Budapest, Hungary where she was a Fulbright Scholar.

These three women bring a unique perspective to the organization, having grown up with the Foundation as part of their family lives. We appreciate them bringing their expertise and fresh ideas to The Leakey Foundation, and we hope their involvement is as fulfilling for them as it has been for their fathers. ❖



The more we understand our past, the more we can understand ourselves. I am also interested in continuing my father's legacy in the field of human origins, equity for Africans in science, and geology.

-Elise Brown Ersoy



I am interested in understanding what makes us human and how environments have shaped our species. This provides great insight into how we can best adapt to a changing environment in the future.

-Erica Brown Gaddis



When a single human faces a crisis, we look at history, we look at genetics, and we look at the environment in an effort to help that individual persevere in the most positive way possible. I believe that that same methodology should be applied to our species, and the species' of our close relatives, to push us all forward into the most productive future.

-Dana Lajoie



Continued

2021 Impact Highlights

59
Research
Grants Awarded

\$1,000,000+
in science funding was distributed.

Although some grantees had to delay projects due to the pandemic, they can still count on our funding!



11
Baldwin
Fellowships



1,180,000
downloads of our award-winning
Origin Stories podcast.

5
Primate
Research Fund
Grants

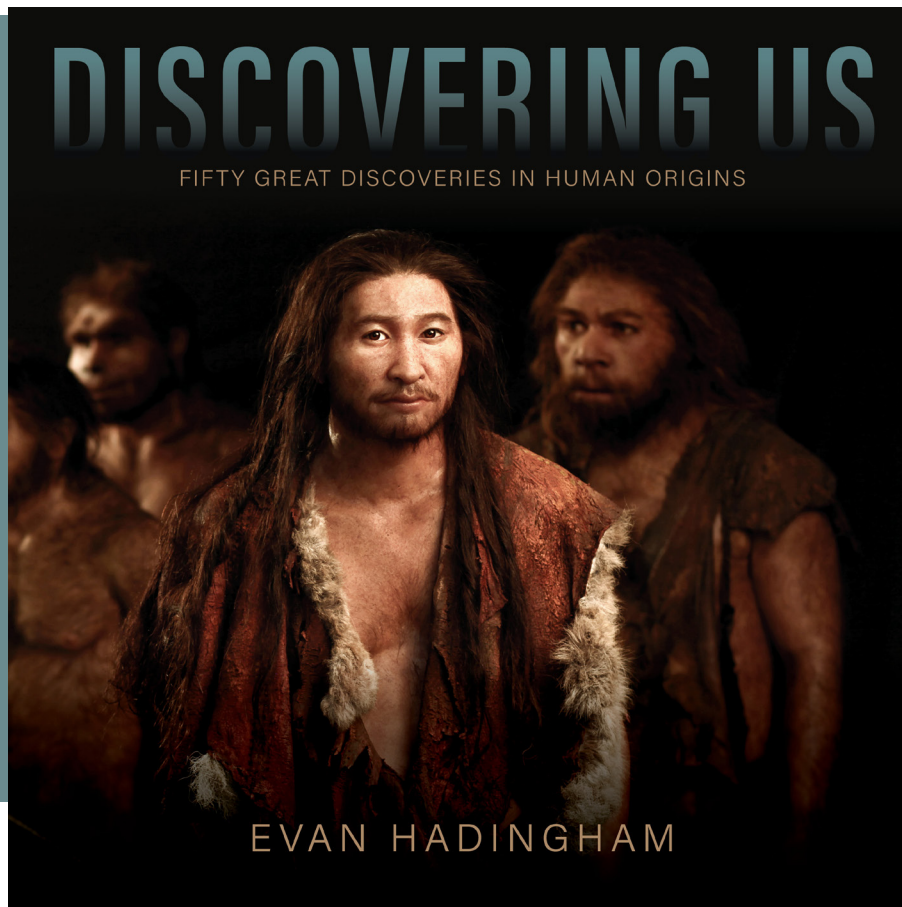


47,800
views of our *Lunch Break Science*
web series.



Thank you for supporting The Leakey Foundation.

No other nonprofit in the world invests in human origins research and outreach like we do. We can't do it without you.



The Search for our Origins

Over the past 50 years, researchers have made extraordinary discoveries that help us understand who we are, where we came from, and what makes us human. *Discovering Us: 50 Great Discoveries in Human Origins* is a new book from The Leakey Foundation and Signature Books that brings our shared history to life and tells the stories behind 50 of the most important human origins discoveries ever made.

Illustrated with stunning full-color photographs, this book celebrates the thrilling fossil finds, groundbreaking primate behavior observations, and important scientific work of Leakey Foundation researchers.

Discovering Us was written by Evan Hadingham, Senior Science Editor of the PBS NOVA series. His books on archaeology include *Circles and Standing Stones*, *Secrets of the Ice Age*, *Early Man and the Cosmos*, and *Lines to the Mountain Gods*. His feature articles have appeared in *National Geographic*, *Smithsonian*, *The Atlantic*, *Discover*, and elsewhere. ❖

Opposite page:
Researchers at Gona in the Afar Region of Ethiopia where some of the oldest stone tools were discovered.

Photo: Dr. Sileshi Semaw



“This is a powerful and breathtaking collection of fifty tales of discovery.”

—Ira Flatow, host of *Science Friday*

“*Discovering Us* will enrich how you think about humanity’s past, present, and future.”

—Daniel E. Lieberman, Harvard University

“This highly readable and beautifully illustrated retrospective sums up how far we have come in knowing ourselves.”

—Ian Tattersall, American Museum of Natural History

“Informative and thought-provoking, this celebratory book is hard to put down.”

—Virginia Morell, Author

Ancestral Passions: The Leakey Family and the Quest for Humankind’s Beginnings

Discovering Us
is available
now!

*Purchase **Discovering Us** at your local bookseller or point your phone camera at the code to purchase from bookshop.org.*

*10% of your purchase will benefit **The Leakey Foundation**.*



The Enigma of the Lion Man

By Evan Hadingham
Senior Science Editor, PBS NOVA

*Author of
Discovering Us: 50 Great Discoveries
in Human Origins*

One of the world's oldest masterpieces of prehistoric sculpture, the ivory statuette known as the Lion Man is also one of the most enigmatic. Laboriously hewn from a mammoth tusk around 40,000 years ago, the hybrid creature appears to be standing on its toes, its back and shoulders arched tensely as if waiting to spring into action.

From the neck up, it is unmistakably a cave lion, a formidable extinct Ice Age beast, now extinct, that was bigger than today's African lion. From the shoulders down, it is unambiguously human, complete with a navel and particularly realistic calves, ankles and feet. According to archaeologist Jill Cook, the one-foot-tall statuette is "powerful, mysterious and from a world beyond ordinary nature. He is the oldest known representation of a being that does not exist in physical form but symbolizes ideas about the supernatural."

The survival of this statuette is little short of a miracle, as was its reconstruction from hundreds of ivory fragments over the course of half a century.



Half-lion, half-human, the Lion Man statuette from Germany's Stadel Cave was carved from mammoth ivory some 40,000 years ago.

Photo: Yvonne Mühleis

© State Office for Cultural Heritage Baden-Wuerttemberg/Museum Ulm

The story begins on 25th August 1939, one week before the outbreak of World War II. Prehistorian Robert Wetzel had just received his military call-up papers and he and a colleague were scrambling to finish their final day of digging at Stadel Cave near the Danube River in southwest Germany. In a dark chamber at the back of the cave, they came across the ivory shards, then—not knowing when, or if, they'd be able to return—they backfilled their excavation with the dirt they'd just dug up before hastily retreating with their find.

For three decades, the pieces of the statuette lay neglected in a cigar box in the city of Ulm's museum until archaeologist Joachim Hahn began studying finds from the cave in 1969. He started the marathon process by gluing together more than 200 pieces of ivory, and, after a few days, he recognized the figure he was assembling as a hybrid of beast and human, although what kind of beast was not clear. After fresh reconstruction efforts in the 1980s, enough of the head emerged to reveal its identity as a lion. In 2009, archaeologist Claus-Joachim Kind systematically reexcavated the cave. "It was a huge surprise," he says, when he discovered nearly 600 more ivory scraps in the backfill dirt left behind by Wetzel. It took two more years to solve the immense challenge of restoring the statuette to the state we see today.

The original carvers of the figurine expended equally impressive effort. A recent experiment using replica stone tools of the period suggests that it must have taken some 400 hours to hew the figure from the tough mammoth ivory. This was clearly an extraordinary undertaking for anyone living in a hunting community, and implies that the figure embodied special social and symbolic significance.

In 2002, archaeologist Nicholas Conard found a "Little Lion Man"—a similar ivory figure, but only an inch high—at the cave of Hohle Fells, 25 miles from Stadel. The recurrence of the Lion Man motif suggests it may be connected with a widespread myth—perhaps the transformation of humans into animal spirits that is a central preoccupation of shamanism, often considered to be humanity's most ancient strand of religious belief. Other intriguing beast-men hybrids are depicted in painted Ice Age cave art, such as a striking figure of a man-bison from Chauvet, and a celebrated "birdman" figure at Lascaux. These painted images are located in dark, secluded parts of the caves; similarly, northern-facing Stadel Cave receives little light, and the recess where Lion Man was discovered contained no tools or other signs of regular occupation. This raises the possibility that all these symbols could mark the site of some type of rite or celebration.



Although uniquely impressive, the Lion Man is one of many finds that testify to an extraordinary flowering of creativity among the first wave of modern humans to settle in the Danube region around 40,000 years ago. In addition to Little Lion Man, exquisite miniature ivory animals, their surfaces polished to a shine by constant handling, have been found at Hohle Fells as well as two other caves close by. In 2008, Conard's team found the so called "Venus of Hohle Fells," the world's oldest female figurine, her ample proportions as striking as the austere pose of the Lion Man. They also unearthed a delicate flute perforated with five finger holes, the most complete of several such instruments from the local caves, all of them intricately crafted from mammoth ivory tusks or the wing bones of swans or vultures.

When modern flautists play an accurate copy of the Hohle Fels flute, they produce haunting notes that suggest well-developed musical expertise. Unlike the Lion Man at Stadel, the flutes and miniature animals were found mixed in with everyday refuse rather than in an apparently special setting.

While these objects are the world's first evidence of musical instruments and figurative sculpture, they are anything but primitive. Instead, they were clearly part of a complex, fully developed world of symbolic communication, expressing feelings and beliefs that are recognizable today, even if their exact meanings ultimately remain elusive. ❖

Above:
Remains of an ivory sculpture from the Aurignacian (three little fragments in the image) lie on display next to a copy of the 'Venus vom Hohle Fels' at the state museum for prehistory in Halle/Saale, Germany.

Photo: Alamy

Spring Calendar



Family Education Event - Virtual

All About Chimpanzees

Dr. Zarin Machanda and Dr. Alex Rosati

April 2 • 11 am Pacific / 2 pm Eastern

What does it mean to be a chimpanzee? How do they think and solve problems? Learn answers to these questions and more in the first of our new interactive virtual events for families with children ages 5-10.

Meet two real scientists, explore the world of chimpanzees, and learn how to say "hello" like chimps do!

Different

GENDER THROUGH THE
EYES OF A PRIMATOLOGIST

Frans de Waal



Speaker Series on Human Origins - Hybrid

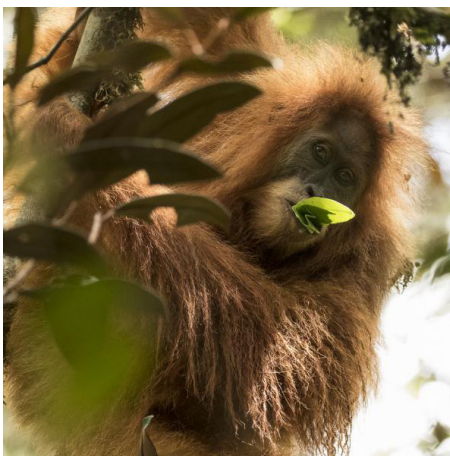
Different

Dr. Frans de Waal

April 6:30 pm Pacific / 9:30 pm Eastern

Renowned primatologist Dr. Frans de Waal gives a thought-provoking lecture on the origins of sex and gender. This hybrid event will be held in-person at the Commonwealth Club in San Francisco and simultaneously livestreamed online.

Space is very limited for the in-person program. Get your tickets now!



Family Education Event - Virtual

What Do Apes and Monkeys Eat?

Dr. Erin Vogel and Dr. Jessica Rothman

April 2 • 11 am Pacific / 2 pm Eastern

What does an orangutan munch on when it's time for a snack? How do they find food in the forest? Do monkeys share? Learn this and more in the second of our new series of virtual events for families with young children.

Join top primatologists to explore what apes and monkeys eat and learn how their daily diet is different from ours.

Visit leakeyfoundation.org/events for details and registration information!

LUNCH BREAK SCIENCE

Lunch Break Science is The Leakey Foundation's live-streamed web series, hosted by Arielle Johnson.

This show features interviews with Leakey Foundation grantees and short talks about their research. Viewers who watch *Lunch Break Science* live can join in by submitting questions during the episode.

**Watch Lunch Break Science
Every 1st and 3rd Thursday at
11 am Pacific / 2 pm Eastern**

March 17

Meet primatologist Dr. Kelly Stewart and learn about her fascinating career working with mountain gorillas in Rwanda. She also discusses primate conservation and why she's matching donations to The Leakey Foundation through the month of March!



April 7

Meet Leakey Foundation Baldwin Fellow Dr. Onja Razafindratzima and learn about the complex interactions between lemurs and their environments.

April 21

Join us for a special Earth Day episode to meet Dr. Erin Vogel and learn about conservation, orangutan diets, nutrition, and adaptation.

Subscribe to our YouTube channel!

Point your phone camera at the code for a special Lunch Break Science playlist.



LEAKEY FOUNDATION-FUNDED RESEARCH HIGHLIGHTS



Researchers unravel Laetoli footprint mystery

The oldest unequivocal evidence of upright walking in the human lineage are footprints discovered at Laetoli, Tanzania in 1978, by Mary Leakey and her team. The bipedal trackways date to 3.7 million years ago. Another set of mysterious footprints was partially excavated at nearby Site A in 1976 but these tracks were dismissed as possibly being made by a bear. With support from The Leakey Foundation, a re-excavation of the Site A footprints at Laetoli and a detailed comparative analysis reveal that the footprints were made by a bipedal hominin, not a bear. Additionally, the researchers found that these prints were not made by *Australopithecus afarensis*—the species responsible for making the prints uncovered by Mary Leakey in 1978. These findings were reported in *Nature*.



Risky food-finding strategy could be the key to human success

A new Leakey Foundation-supported study published in *Science* shows that early human foragers and farmers adopted an inefficient high-risk, high-reward strategy to find food. They spent more energy in pursuit of food than their great ape cousins, but brought home more calorie-rich meals that could be shared with the rest of their group. This strategy allowed some to rest or tackle other tasks while food was being acquired.

To find out how humans obtained this extra energy, researchers compared the energy budgets of wild gorillas, chimpanzees and orangutans with that of populations of Hadza hunter-gatherers in Tanzania, and Tsimane forager-horticulturalists in Bolivia.



The hidden extinction

Thirty million years ago, over 60 percent of all mammals in Africa and the Arabian Peninsula went extinct. The extent of their extinction went undetected by scientists until now. The extinction event occurred during a time period marked by dramatic climate change when the Earth cooled, ice sheets expanded, and forests changed to grasslands. Scientists knew that this caused a mass extinction across what is now Europe and Asia, but they thought African mammals survived the changes. A Leakey Foundation-supported study in *Communications Biology* found that despite their warmer environment, African mammals were just as affected as those from Europe and Asia.

Your support made this work possible! Help uncover more of the human story.
Donate today!



What can you buy for \$84?

**You can buy a new sweater, have dinner at a restaurant...
or you can become a Leakey Foundation Fellow
and invest in important scientific discoveries.**

If you donate \$84 each month for one year, you will become a Leakey Foundation Fellow and join an exclusive community of scientific patrons. As a Fellow you will receive access to private programs that connect you with researchers and their work like never before.

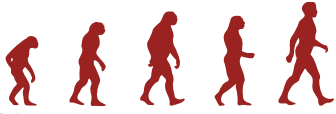
Become a Fellow and feel good knowing that your steady support will help researchers as they seek answers to the big questions about what it means to be human.

**Your impact will be doubled by a generous benefactor
who will match your monthly donations.**

Visit leakeyfoundation.org/fellows and become a Leakey Foundation Fellow today!

**Donate now. Your monthly gifts will be matched!
leakeyfoundation.org/fellows**





THE LEAKEY FOUNDATION

1003B O'Reilly Avenue
San Francisco, CA 94129

Upcoming Leakey Foundation Events



Family Education Event - Virtual

All About Chimpanzees - with Dr. Zarin Machanda and Dr. Alex Rosati
April 2 at 11 am Pacific / 2 pm Eastern

Explore the world of chimpanzees in the first of our new virtual educational events for families with children ages 5-10.



Speaker Series on Human Origins - Hybrid

Different - with Dr. Frans de Waal
April 5 at 6:30 pm Pacific / 9:30 pm Eastern

Renowned primatologist Dr. Frans de Waal gives a thought-provoking lecture on the origins of sex and gender. This hybrid event will be held at the Commonwealth Club in San Francisco and livestreamed simultaneously online.



Annual Fellows Reception Honoring William Richards - In-person

May 6
Special guest speaker to be announced soon

This private program is a benefit available only to Leakey Foundation Fellows. Donate at the Fellows level to receive an invitation to this exclusive event.

Visit leakeyfoundation.org/fellows to become a Fellow today!

Learn more at leakeyfoundation.org/live!