Dear Friends and Alumni,

2015 was marked by change in the department. Professor John McCullough retired and is now an Emeritus Professor. Professor Dennis O’Rourke, who will also have Emeritus status at the U, accepted a Distinguished Professorship at the University of Kansas. We will miss seeing them on a daily basis. More recently, Audrey Grisham joined the department as our new Administrative Officer.

I am sure you will enjoy this season’s Newsletter. You will see that our faculty and students have been up to some very interesting and exciting research. The electronic version of this Newsletter provides links for further reading. If you received a printed newsletter, you can find an electronic copy on the department website http://anthro.utah.edu/ and links are provided there as well.

I hope that 2016 brings good health and happiness to you and yours.

Best wishes, Leslie

ANCIENT BABIES BOOST BERING LAND BRIDGE LAYOVER

DNA links many Native Americans to infants in Alaskan grave

University of Utah scientists deciphered maternal genetic material from two babies buried together at an Alaskan campsite 11,500 years ago. They found the infants had different mothers and were the northernmost known kin to two lineages of Native Americans found farther south throughout North and South America. Anthropology professor Dennis O’Rourke was the senior author of the paper, working with PhD student Justin Tackney and U of U Geneticists. By showing that both genetic lineages lived so far north so long ago, the study supports the “Beringian standstill model.” It says that Native Americans descended from people who migrated from Asia to Beringia – the vast Bering land bridge that once linked Siberia and Alaska – and then spent up to 10,000 years in Beringia before moving rapidly into the Americas beginning at least 15,000 years ago.

Read the full article: http://unews.utah.edu/ancient-babies-boost-bering-land-bridge-layover/

Photo Credit: Lee J. Siegel, University of Utah
Professor O’Rourke and Justin Tackney
Farewell to Professor Dennis O’Rourke

On December 3rd, faculty, staff, students, colleagues and friends gathered for a reception held in Professor O’Rourke’s honor, bidding him a fond farewell as he begins a new chapter in his life. Professor O’Rourke is headed to Kansas, where he has accepted a Foundation Distinguished Professorship at the University of Kansas, beginning January 2016.

Professor O’Rourke is leaving the University of Utah after 37 years of service, research, mentorship, and teaching. Arriving in 1978, he was appointed full Professorship in 1994. In that time he has twice served as Chair of the Department of Anthropology, he was appointed an Associate Dean of the College of Behavioral Sciences, a co-Chair and Executive on the University’s Institutional Review Board, and he has served on over 35 committees at the University, College, or Department level including as the Director of Graduate Studies and as the Chair of the Curriculum Committee for Anthropology. Outside of the University, Dr. O’Rourke has been Program Director for Physical Anthropology at the National Science Foundation, President of the American Association of Physical Anthropologists, President of the American Association of Anthropological Geneticists, elected fellow at the American Association for the Advancement of Science, a board member for the National Science Foundation International Polar Year Social Science Panel, and is currently serving on the National NAGPRA Review Committee and on Section H of the American Association for the Advancement of Science. Dr. O’Rourke has been awarded many honors, including the Rufus Wood Leigh Lecturer and University Professor here at the University of Utah, and the Gabriel W. Lasker Service Award from the American Association of Physical Anthropologists.

While at the University of Utah, Dr. O’Rourke wrote and edited 2 books, and has authored over 20 book chapters, and been an author of over 40 publications in such esteemed journals as Science, Proceedings of the National Academy of Sciences, American Journal of Physical Anthropology, Current Biology, and Human Biology. He has been Editor-in-Chief of Human Biology and long served as an Editor for the American Journal of Physical Anthropology. He is currently on the editorial board for PLoS ONE, Cambridge University Press, Alaska Journal of Anthropology, and PaleoAmerica.

He has taught 12 courses here on topics including Biological Anthropology, Research Methods, and Grant Preparation. He has been a prolific grant writer and recipient, which has allowed him to support many Anthropology graduate students directly, as well as run a state-of-the-art Ancient DNA clean room facility in the Stewart Building. He has been an advisor to scores of graduate students, many of whom are active and successful in the fields of Biological Anthropology, Anthropological Genetics, and Genetic Epidemiology today, and he is universally appreciated by the graduate student body.

We suspect that his valuable contributions to anthropology, and academia in general, will continue at the University of Kansas and we wish him all the best for the future.
What’s Burning Got to do With it?

Where fires are common, primatologists have often observed their subjects using burned areas in novel and unexpected ways. However, without quantitative data to compare the foraging behavior of primates in burned and unburned areas, researchers were left to wonder, “What’s fire got to do with it?” Using systematic behavioral observations from a population of South African vervet monkeys, Herzog and colleagues evaluated differences in food availability and energetics before and after controlled burns. Results suggest that burning improves encounters with important foods such as bugs, new shoots, and gum. At the proximate level, these foraging benefits enable vervets to exploit savanna habitats. From an evolutionary perspective, these results may serve as a foundation for hypotheses regarding the evolution of fire-use in our own lineage.

Article authors: Post Docs, Nicole M. Herzog and Christopher H. Parker, PhD Student Earl R. Keefe and Distinguished Anthropology Professor, Kristen Hawkes.

The full article in American Journal of Physical Anthropology can be found at: http://onlinelibrary.wiley.com/doi/10.1002/ajpa.22885/full
For years, students in the Classic Maya class have been asking Rick Paine for a field trip to Copan. This summer Rick will lead a trip exploring Maya culture, past and present, through Continuing Education’s Go Learn travel program. The trip will include three Classic Maya sites: Tikal, Copan, and Yaxha, as well as visits to contemporary Maya towns around Lake Atitlan, Chichicastenango and Antigua. Atitlan is surrounded by volcanoes and Maya villages, and is one of the most beautiful lakes in the world. Chichicastenango has been a market center since pre-Columbian times. It is a fascinating place to experience the blending of traditional Maya religion with Catholicism. Expect to see Maya Shamans performing rituals on the church threshold (or even in the aisle) as the Catholic priest gives his sermon inside. Chichicastenango also has the greatest indigenous craft market in all Central America. Antigua was the capital of the Spanish colonies in Central America until the early 18th century, when the capital was moved after a series of earthquakes. It is now a gem of colonial architecture in a beautiful setting. Copan, Tikal and Yaxha are among the greatest, and most beautiful Classic Maya sites. The trip will be a wonderful blend of exploring archeological ruins, experiencing the rainforest, and the fascinating culture of the Maya.

Anyone interested should Email Dr. Paine at r.r.paine@gmail.com or visit the Go Learn site at: https://continue.utah.edu/golearn/guatemala16
The article examines how reputations for competency and pro-sociality affect cooperation in two Latin American communities (Dominica and Peru). The behavioral correlates of each reputation domain, are reviewed, in addition to how each reputation domain leads to different kinds of benefits in society. The paper also analyzes how leadership emerges at the intersection of both reputations - people who are both competent and highly prosocial tend to become leaders and get more benefits compared to people who are low in one or both reputations.

Read the full release: [http://rstb.royalsocietypublishing.org/content/370/1683/20150009](http://rstb.royalsocietypublishing.org/content/370/1683/20150009)
A Genetic Disorder Explained

Hemochromatosis is a common genetic disorder in Utah affecting mostly those of British or Scandinavian heritage. More iron is allowed to be ingested among those who carry the gene, producing, in a small percentage, iron overload, associated with disorders of the heart, joints, pancreas, liver and kidneys. Deleterious genes should be uncommon, which piqued the interest of Professor Emeritus John McCullough.

Read the full article from Wayne State University Press here: http://www.bioone.org/doi/abs/10.13110/humanbiology.87.1.0039

Archaeological Survey of Red Butte Canyon

In September, Anthropology students with the University of Utah Archaeological Center undertook a survey to explore the human history and prehistory of Red Butte Canyon. In collaboration with the US Forest Service and funded by the Friends of Red Butte Creek and the Global Change and Sustainability Center, the project was the first U-led archaeological investigation in the area. Students gained hands-on training in archaeological methods under the direction of experienced graduate students Kate Magargal, Erik Martin, Ashley Parker and Post-Doctoral Fellow Christopher Parker. Undergraduate anthropology students, Savanna Agardy, Anna Roberts, Brock James, Anastasia Rath and Will Rath have been analyzing the finds throughout the semester and will present the results during Utah Archaeology Month in May 2016.
Have you ever heard a howler monkey howl?

Male howler monkeys make deep and boisterous calls to attract mates and scare off the competition and the deepest-pitched sounds may come at cost. Professor Leslie Knapp and her colleagues were interested in these howls, not only because they’re so loud but because their depth and pitch can vary dramatically between species and individuals. Senior author and University of Utah primatologist Leslie Knapp and an international team of scientists studied ten species of howler monkeys and they revealed the untold story of the sacrifices male howler monkeys make when facing competition for mates in a recent paper published in the journal *Current Biology*.

This research required visits to museums throughout the U.S. and Europe to obtain measurements of hyoid bones, the U-shaped bone in the throat that encases the vocal chamber and dictates the pitch of the howler monkey’s call. Recorded vocalizations among different howler monkey species in Central and South America were also required. Additionally, information about the monkey’s social group size, body weight, skull length and even testicle size of monkeys was collected. The goal: to discern what features might correlate with the sound of a howler monkeys calls.

They found that there are a number of sexual trade-offs when it comes to howling. First, male hyoid bones are three to eight times bigger than female hyoid bones, which explains why male howls are so much louder than female howls. The male monkeys with the deepest- and lowest-pitched howls give the impression of having a much bigger body than they actually have. Male howler monkeys weigh 20 pounds or less, but the deepest vocalizations compare to what might be made by tigers or red deer.

The sexual trade-offs don’t end with voices, however. Male monkeys with larger hyoids, which make lower-pitched calls, have smaller testicles and tend to live in isolation with a community of a few females. Males with smaller hyoids have bigger testes and live in groups where they compete with other suitors for female mates. So, male howler monkey howls are valuable, at least in part, for scaring off the competition and for attracting potential mates. Read more about this research in the New York Times or the Salt Lake Tribune.


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**Photo Credit:** Carolyn M. Crockett
Howler monkeys of the species *Alouatta arctoidea*

**Photo Credit:** Marianna Rano
A mother and baby of the howler monkey species *Alouatta caraya*
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**RECENTLY AWARDED GRANTS!**

Professor Shane Macfarlan received a Faculty Incentive Seed Grant ($32,443) for his research in Baja California Sur, Mexico. Project Title: Oasiana-Ranchero Culture and Aridland Spring Water Management in Baja California Sur, Mexico. In this project he is examining: 1) the factors that shape the distribution of environmental knowledge amongst a community of Oasis Ranchers; and 2) how property rights affect the relationship between environmental knowledge and oasis water quality.

Along with three co-PIs, Professor Dennis O’Rourke just received a new grant from the Arctic Social Science program at NSF entitled ‘Collaborative Research: Birnirk Prehistory and the Emergence of Inupiaq Culture in Northwestern Alaska, Archaeological and Anthropological Perspectives.’ The co-investigators are Claire Alix (lead PI) from the Sorbonne and University of Alaska, Fairbanks, Nancy Bigelow, also from UAF, and Owen Mason, Geoarch, Inc. and University of Colorado Institute for Arctic and Alpine Research, and Shelby Anderson, Portland State University. It is a three year project encompassing archaeology, geomorphology, culture history and genetics of the Birnirk cultural horizon on Cape Espenberg, Seward Peninsula, AK.