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Can you find the black squirrel? Send in your answer and you will be entered into a drawing!

## Announcing New Student Scholarships

### Richard S. Meindl Distinguished Scholars

Each year, one anthropology master's student will be honored with this award in recognition of the student's outstanding academic contributions and achievements.

Professor Richard S. Meindl served as Chair of the Department of Anthropology from 1991-2015 and continues to serve in teaching and administrative roles. His colleagues and former students created this annual student award in 2022 in recognition of Professor Meindl's lasting contributions to anthropology education at Kent State University and beyond.



### Richard L. Crossman and Fern Crossman Storer Scholarship

Each year, two undergraduate students will receive a \$500.00 scholarship in recognition of their academic and research excellence.

Fern Crossman Storer (1921-2020) earned a Bachelor's degree in Anthropology from Kent State University in 1970. The generosity of Fern and her husband will benefit our students for years to come.



Lowry Hall, with Moulton Hall in Distance — Women's Dormitories, Kent State University, Kent, Ohio



## A Message from the Chair



Dr. Mary Ann Raghanti

**“Appreciation is a wonderful thing. It makes what is excellent in others belong to us as well.” ~Voltaire**

I am always delighted to report on the excellence in every member of this department, and, of course, stake my claim through my deep and endless appreciation. We’ve had another year of great successes- for our students, faculty, and department as a whole. As usual, there are more stories than will fit into a reasonable newsletter, but (as usual) that didn’t stop me from trying to squeeze in as much as I could!

I invite you to own this excellence as well!



Mary Ann Raghanti, Professor and Chair, advising one of the older graduate students (above). Lowry Hall looking spectacular this fall (below)



Follow us on Twitter!

@AnthroKentState

@KSUExArchLab



This is not the black squirrel you’re looking for



## Dr. Aldo Cimino's Groundbreaking Study on Fraternity Hazing

By Jim Maxwell



Hazing, or the process of abusing new or potential group members, has been a significant safety concern for decades at universities, so much that Ohio recently passed a revised anti-hazing law. While acknowledging that hazing goes too far at times, some fraternity members believe these rituals are necessary to develop group solidarity, and historically, many social scientists have endorsed this concept. Yet most hazing groups are highly secretive and do not allow outsiders to observe their practices, making real-world systematic studies of this hypothesis nearly non-existent. In a novel report published in the journal *Evolution and Human Behavior*, Kent State University assistant professor of anthropology, Aldo Cimino, Ph.D., and his co-author, Benjamin Thomas, Ph.D., an industrial and organizational psychologist at The University of Texas

at Austin, are tackling this century-old question by testing the relationship between hazing severity and group solidarity. They tracked six groups of U.S. fraternity inductees over 10 weeks and asked them to complete an anonymous survey at five time points. The assessment measured ratings of the harshness and fun of their induction and solidarity. "Our results provide little support for common models of solidarity and suggest that hazing may not be the social glue it has long been assumed to be," Cimino said. "In our data, what appeared to be driving solidarity was having fun." If hazing affects solidarity in a negative manner, then what purpose might it serve? One alternative that Cimino pointed out was that hazing might select out less-committed inductees, and he hopes that future studies will allow researchers to disentangle these issues and continue to unpack the nature of hazing.

To read more, visit [www.sciencedirect.com/science/article/pii/S1090513822000423?dgcid=author](http://www.sciencedirect.com/science/article/pii/S1090513822000423?dgcid=author).



## FIVE EXPERIMENTAL ARCHAEOLOGY GRADUATES EARN FULL RIDES TO GRAD SCHOOLS

By Jim Maxwell



Above: Anna Mika (left) and Dan Wilcox (right).  
Below: Ashley Rutkoski

**Anna Mika, BS '19, MA '22** was accepted to the University of Cambridge, UK and was named one of their 25 Harding Distinguished Postgraduate Scholars. "This scholarship provides outstanding PhD students with life-changing opportunities to research and study at the University of Cambridge". Anna will be working under Dr. Alistair Key who specializes in Paleolithic Archaeology.

**Dan Wilcox, MA '22** will pursue his PhD at the University of Albany under the tutelage of Dr. Christopher Wolff who studies prehistoric coastal people and their ecosystems.

**Ashley Rutkoski, MA '19** was accepted with full funding to the University of Florida. For her doctoral work, she will explore Mississippian ceramic assemblages while working in the Florida Natural History Museum. She is working with Dr. Neill Wallis who is also the Associate Curator of Florida Archaeology at the museum.



Left: Nicholas Gala

**Nicholas Gala, BS '22** received not one, but two fellowships to the University of Tulsa. He will be studying with Dr. Briggs Buchanan, an archaeological statistician.

**Grace Conrad, BS '22** is pursuing her graduate degree at The Ohio State University and got an early start in the summer as a field supervisor at an Ohio State site in Anderson Township, near Cincinnati.



Right: Grace Conrad



For the full story, including videos of each student, go to <https://www.kent.edu/cas/news/five-kent-state-experimental-archaeology-graduates-earn-full-rides-grad-schools>



### Faces: Human Head Anatomy with a Forensic Art Focus

Faces, an art and anatomy course, was developed for Florence, Italy by Linda Spurlock. Students learn how the finest Renaissance artists taught themselves anatomy from cadaver dissection, and the class visits an osteology lab at the University of Florence, and an anatomy museum. Through drawing and sculpting exercises skull morphology and facial muscles are explored. The final assignment is to sketch faces from photographs of skulls, using anatomical knowledge and techniques of forensic facial approximation art.

Summer 2022 was the fourth time this course was taught, and it has become very popular.



*Above: Students sculpt the face of a skull and an ear. They will be drawing an ear in a profile sketch on the last two days of class. Sculpting ears aids in understanding their seemingly complex shape.*

*Right: To learn more about the muscles of facial expression and chewing, students sculpt them onto a plastic skull cast.*



*A student's frontal and profile sketch of a man based on photographs of his skull, completed using forensic art guidelines and with tissue depth information provided.*

### Forensic Archaeology Field School

The Forensic Archaeology Field School, developed by Linda Spurlock, provides students with a very authentic experience. In this 'mock crime scene' course they survey to locate clandestine (hidden) graves, learn to document and carefully excavate skeletons, and analyze the bones and associated artifacts in the lab. The difficulties finding purposely hidden graves, the smells of decomposed mammalian carcasses, the trauma on the bones...are all very real. We use pig carcasses, not humans, that is the main difference. Students identify sharp and blunt force trauma, gunshot wounds, and other injuries. Since the pig bones are from immature animals, they provide a wealth of information about juvenile osteology, a topic not readily available for study in most labs. Since the skeletons are complete or nearly complete (depending on the backstory sometimes parts are cut off) they are ideal for comparative mammalian osteology.

*In a few intense weeks the students learn to excavate skeletons, and they do a very professional job. Later, from their analyses, they make creative and intelligent interpretations about the crime scene as a whole, as they collaborate with other teams.*



*Students excavating a complex burial feature (a pit containing an articulated skeleton) within a formal test unit. They are using techniques that are applicable to prehistoric and historic archaeological sites.*



# Anthropology in Ireland



Above: Dr. Bebber at Giant's Causeway.  
Right: Dr. Eren (far right) with their students. Below: Students at Giant's Causeway.

In May of 2022 Drs. Bebber and Eren led a study abroad course, *The Archaeology of Ireland*. Fourteen students spent ten days immersed in the rich history of Ireland. The trip included visits to the famous Neolithic passage tombs of Newgrange and Knowth, as well as sites from the Bronze Age, Celtic, Viking, and later historic periods. Students were able to explore the city of Dublin and experience traditional Irish culture via restaurants, pubs, music venues, shops, and other cultural locations, including castles, museums, and Giant's Causeway.



**TRIVIA Question**

The black squirrel is Kent State's unofficial mascot. You may have heard that it was introduced to campus in the 1960s from Canada. What year was the black squirrel brought to campus and how many were brought here?

Find the answer on the last page

# The Mark F. Seeman Endowed Fund for Archaeological Research

The Mark F. Seeman Fund for Archaeological Research was used to support research collaborations and to support a research trip to the University of Cambridge.



**Trip to the University of Cambridge** Drs. Bebber and Eren traveled to Cambridge University to collaborate with archaeologist Dr. Alastair Key at the British Antarctic survey. Together, these three archaeologists and their colleagues in archaeology and geology are proposing new ways to understand controversial archaeological sites around the world.

*Left: Archaeologists using equipment in a lab on a rock. Right: Drs. Bebber, Key, and Eren teach penguins about experimental archaeology techniques. The penguins provided feedback on how to best use fecal materials in cold climates.*



**Dr. John Whittaker (Grinnell College, IA)** visited the Kent State University Experimental Archaeology Laboratory in the spring, for atlatl spear-throwing with Dr. Bebber and flintknapping with Dr. Eren. This visit subsequently helped shape research projects by both Kent State archaeologists. Dr. Whittaker also spoke with several of the graduate and undergraduate students.

*Above: Dr. Metin Eren (left) and Dr. John Whittaker (right) in the experimental archaeology laboratory at KSU  
Right: Dr. Whittaker and students throw spears at a nonliving target using atlatls.*

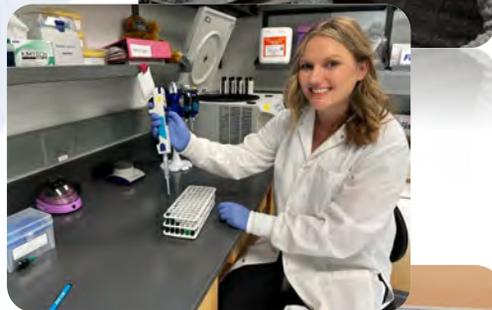


# Our Endowed Fund for Doctoral Student Research

There were five recipients of the 2021-2022 Research Awards from the Endowed Fund for Doctoral Student Research



**Cody Ruiz, PhD candidate; Dr. Anthony Tosi, Advisor:** "Thanks to the BMS PhD Award, I was able to purchase DNA quantitation kits necessary for my research into the evolution of the rhesus and long-tailed macaque Y-chromosome. For this particular project, I am investigating how the number of gene copies differ between the two species and their hybrids, and this type of analysis requires that all my DNA samples be accurately quantified to the nanogram!"



**Emilee Hart, PhD candidate; Dr. Rafaela Takeshita, Advisor:** "It is well understood that dominance in cooperatively breeding species can be stressful, but how do these stress levels interact with energetic balance and does dominance provide an advantage? This project aims to measure thyroid hormones in female Japanese macaques across different reproductive states in their breeding and birthing season to determine how much stress, dominance rank, and reproductive status can affect the expected seasonal metabolic changes."



**Danielle Jones, PhD candidate; Dr. Mary Ann Raghanti, Advisor:** "My award funded my project titled "Monoamine oxidase-B expression in the human, chimpanzee, and macaque brain throughout development and aging". I am testing whether the enzyme monoamine oxidase-B is elevated in humans compared to chimps and macaques. While levels of this enzyme are known to increase throughout life, especially high levels in humans may help explain our susceptibility to neurodegenerative disease. The project will be complete by the spring 2023 semester and will be included in my dissertation."



**Rose Leach, PhD candidate; Dr. Owen Lovejoy, Advisor:** "My dissertation research is centered around a comparative primate study examining acetylcholine levels in the femur. The award generously supported this project by helping fund the acquisition of bone samples for analysis."



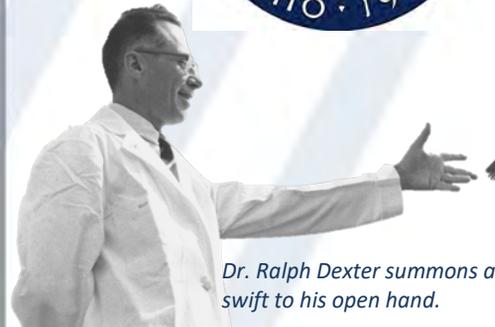
**Heather Lawrentz, PhD candidate; Dr. Owen Lovejoy, Advisor:** "My Dissertation research involves the development and function of the longitudinal interosseous carpometacarpal ligaments supporting the wrist during primate locomotion. The award was used to fund my admission to a grant writing workshop, which will help me write a competitive proposal and, ultimately, obtain a variety of primate hands for dissection."



# Of interest: The Chimney Swift\*

(*Chaetura palegica*)

\*This story is taken from a sign I found on Haymaker Parkway.  
I imagine that many parts are factual, maybe even the entirety.



*Dr. Ralph Dexter summons a swift to his open hand.*

“The presence of the swift on the University seal is due to Dr. Ralph Dexter, a professor of Biological Sciences, who studied swifts for decades. Swifts nested in the air shafts of Kent, Merrill, and Franklin Halls, as well as the Administrative Building.

In 1960, Kent State selected the swift for the University seal because, as Dexter noted, ‘It is the most common bird on campus. It always moves forward and never perches from sunrise to sunset,’ a spirited symbol of forward progress and leadership.”



Swifts use their sticky saliva to ‘glue’ their nests together and to affix them to chimney walls.



They are nicknamed ‘flying cigars’ (probably because they look like cigars with wings. Not a particularly creative nickname...).



Flight speed: up to 150 mph – the second fastest bird in Ohio (the sign did not mention which is the fastest, but you can Google that).



Swifts do everything in the air- eating, drinking, bathing – and only land to nest or rest. Their Family name, Apodidae, means ‘without feet’, referencing their extremely short legs and small feet. [A fact that was not included on the sign is that they apparently cannot stand, perch, or walk on land (according to Columbus Audobon). Noodle on that for a while...]



Chimney swifts are typically 4.5-6 inches long with a wingspan of 11-12 inches.



Chimney swifts are monogamous and mate for life (this fact was not on the sign, but I figured Lovejoy would want to know, so I Googled that for you).



Swifts eat up to 12,000 insects a day. They eat spiders, mosquitoes, biting flies, and more.



*Freestanding chimney on Haymaker Parkway. “With the demolition of the former police station which swifts used as a roosting site, this structure serves as a new home for swifts in Kent.”*



The Anthropology Department's research connections in Japan are humming again. Prior to the COVID lockdown, the department received an NSF-IRES grant (PIs Tosi, Raghanti, Meindl, Lovejoy) to support summer internships at Kyoto University for 18 graduate students. Unfortunately, travel restrictions prevented the 2020, 2021, and 2022 cohorts from this opportunity. With international travel fully reopened, we are looking forward to sending our first group of IRES students to Japan next June where they will perform various studies in primate biology.

We have also recently renewed our MOU with Kyoto University for another five years. Our primary partner within the university, the Primate Research Institute, has adopted a new name: the Center for the Evolutionary Origins of Human Behavior (EHUB). Some faculty moved from the EHUB campus in Inuyama City (where the animals are housed) to the main campus in Kyoto. Our collaborations in primate neuroscience, genetics, morphology, and cognition will continue at both locations.

Connections with additional Japanese institutions were forged last summer via the lab groups of our U.S. collaborators. Dr. Tosi shepherded the development of three successful fellowship applications to the Japan Society for the Promotion of Science (JSPS) for the graduate students of our colleagues outside Kent State. One student examined molecular responses to malarial infection at the International Institute for Zoonosis Control, Hokkaido University; a second studied primate behavior at the Japan Monkey Centre; and the third investigated chimpanzee cognition at EHUB. With JSPS support, these students were able to receive entry visas for summer 2022. These fellowships indeed benefited our broader research network, but they also opened future research doorways for *Kent State* graduate students at additional sites in Japan.

The partnership with Kyoto University, NSF-IRES grant, and three recent JSPS awards have caught the attention of representatives of the Japanese government. In March, Mr. Taichi Kaneshiro, the Counsellor of Education at the Japanese Embassy, visited Kent State and kindly met with Drs. Tosi and Takeshita to hear our ideas for expanding scientific exchange between the U.S. and Japan. In February, Ms. Ai Matsunaga, representative from the Japanese Ministry of Education, Culture, Sports, Science and Technology (MEXT), visited us in Anthropology to learn more about our department and our research connections with Japan. We will keep in contact with our new friends and hope to find even more international opportunities for Kent State faculty and students.



*Mr. Taichi Kaneshiro, Counsellor of Education at the Japanese Embassy (center) with Drs. Tosi and Takeshita (left and right).)*



*Ms. Ai Matsunaga, representative from the Japanese Ministry of Education, Culture, Sports, Science and Technology (left), with Dr. Tosi and his children, Miyo and Taizo.*





## Congratulations to Recent M.A. and Ph.D. Graduates!



**Dexter Zirkle, PhD '22** New diagnostics for bipedality: The hominin ilium displays landmarks of a modified growth trajectory (Lovejoy)

**Megan Muniak, MA '22** Determining which anatomical regions of the face are most important for facial recognition (Spurlock)

**Anna Mika, MA '22** What makes the cut: The influence of form on clovis knife cutting efficiency (Eren)

**Daniel Wilcox, MA '22** Understanding the shift from soapstone to pottery in eastern North America during the Late Archaic and Early Woodland Period: An experimental approach (Bebber)



## Dr. Mary Ann Raghanti elected AAAS Fellow

**Mary Ann Raghanti, Ph.D.**, a biological anthropology professor and chairperson in Kent State University's Department of Anthropology, in the College of Arts and Sciences, has been elected a Fellow of the American Association for the Advancement of Science (AAAS), the world's largest general scientific society and publisher of the journal *Science*

Members are awarded this honor by AAAS because of their efforts to advance science applications that are deemed scientifically or socially distinguished. The 2021 class of AAAS Fellows includes 564 scientists, engineers and innovators spanning 24 scientific disciplines. Raghanti is being specifically recognized for her unique and distinguished contributions to biological anthropology and our knowledge and understanding of the origin and evolution of human and primate behavior.

At Kent State, Raghanti joins Marilyn Norconk, Ph.D., and C. Owen Lovejoy, Ph.D. (both in Anthropology), Jonathan V. Selinger, Ph.D. (Physics and the Advanced Materials and Liquid Crystal Institute), Michael Lehman, Ph.D. (Biological Sciences), and David Riccio, Ph.D. (Psychological Sciences) as elected AAAS Fellows.

The new AAAS Fellows received an official certificate and a gold and blue rosette pin to commemorate their election (representing science and engineering, respectively).



*Dr. Raghanti, above, was also the subject of a book chapter titled 'Persistence' in Ashutosh Nandeshwar's new book, Soar. Note: the faculty voted unanimously that this be included in this year's newsletter. The Chair, in her wisdom, always honors her faculty's wishes, but is deeply embarrassed, and so buried this in a picture caption...*



# MEMORIAL

## William H. Kimbel, Ph.D. '86

~Contributed by Bernard Wood, PhD, University Professor of Human Origins at The George Washington University



William (Bill) Kimbel (1954 – 2022), the Virginia M. Ullman Professor of Natural History and the Environment in the School of Human Evolution and Social Change at Arizona State University, died at a hospice near his home in Phoenix, Arizona, on the 17<sup>th</sup> of April, 2022, after a courageous three-year struggle with abdominal cancer. His career was an impressive combination of field work and thoughtful and influential analysis of the hominin fossil record. While most of his field work was focused in Ethiopia at Hadar, he also worked elsewhere in Africa, in the Near East and in China. A lifelong interest in the history of paleoanthropology was based on a first-hand knowledge of the primary literature: the history of ideas mattered to him. A natural—but sensibly reluctant—administrator, Kimbel's stewardship of the Institute of Human Origins saw its growth and consolidation as the foremost center for multidisciplinary research focusing on human origins writ large. Kimbel was a charismatic teacher, a generous mentor and a valued collaborator, all of which contributed to the widespread admiration and affection accorded to him across the paleoanthropological community.



~Contributed by Owen Lovejoy

Bill was one of the first graduates of our PhD program through the School of Biomedical Sciences. He completed his doctoral dissertation, "Cranial morphology of *Australopithecus afarensis*: A comparative phylogenetic study" officially under Owen Lovejoy, whose contribution was largely asking brutal biomechanical questions about the cranium as a "free body." However, Bill's undying love for the cranium meant that his principal advisor was always Steve Ward. Much of his early understanding of evolutionary theory came from Lowell Orr who frequently jostled with Lovejoy over various issues of selection versus adaptationism—Bill was often the (good natured) victim of these bouts. Bill and Bruce Latimer completed the human gross anatomy sequence at NEOUCOM largely under the direction of Steve while at the same time working most days in the CMNH lab on fossil specimens collected at Hadar with Don Johanson, whom he followed into the field along with Latimer. Their work was pivotal in the excavation and recovery of A.L.333—the "first family site," which served as the capstone year of three wildly successful field seasons at Hadar (Lucy appeared during the second). Bill was a superb cranial morphologist who always understood the importance of Le Gros Clark's "total morphological pattern." His loss represents an enormous deficit to the field of biological anthropology, and as an unusually warm and graceful friend and colleague of most of the members of the Kent State clade (sorry, Bill, I couldn't resist).



## Alumni Spotlight: Melanie McCollum, Ph.D. '95



Our feature program graduate for this issue is Dr. Melanie McCollum, who is currently Professor and Director of the Division of Human Anatomy at Michigan State University. Dr. Melanie McCollum received her PhD in Biological Anthropology (School of Biomedical Sciences) from Kent State University in 1995. An early signal of her future success was provided by her receipt of the David B. Smith Graduate Fellowship for Outstanding Scholarship and Research during her tenure at Kent State. Her primary professional focus has since been medical education, specializing in human gross and developmental anatomy, as well as in human evolution concentrating on human facial and dental structure during the past 6 million years. One of her principal discoveries has been that the structure of the palate in early hominids is not dictated by mechanical forces but instead by intricate details of the innerworkings of the genomics of the bones of the skull and face, an observation which has been published widely including Science. Her academic career, which has featured 18 years of medical gross anatomy instruction, has included appointments in anatomy and facial surgery at Case Western Reserve University School of Medicine, the Mercer University School of Medicine, Macon Georgia, and the Medical School of the University of Virginia. There she was appointed Associate Professor of Medical Education in 2006, and served as Course Director of Human Gross Anatomy. Her efforts yielded new directions and oversight to the undergraduate medical curriculum, for which she has received numerous teaching awards and membership in the school's Academy of Distinguished Educators, as well as receipt of the Mulholland Award for Teaching



Excellence in the Foundations of Medicine. These led to her recruitment by Michigan State University in 2014 where she was appointed Professor and Director of Anatomy in the Division of Radiology. At MSU she now oversees gross anatomy instruction in two large medical schools (College of Osteopathic Medicine and School of Human Medicine), as well general anatomy instruction in a wide variety of other programs including veterinary science, nursing, physical therapy, and the training of physician's assistants. She has continually pioneered in the redesign and modification of human anatomy teaching in medical education, which ultimately led to her election to participate in the Harvard-Macy Scholar Program for Educators at Harvard Medical School, Boston, MA. She has published widely in both the practice of medical education and in the evolution of the human face and postcranium.

TRIVIA ANSWER  
10 squirrels in 1961

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TO  
KENT STATE

If you would like to make a donation to one of the research or scholarship funds, visit our website to follow the link to make a donation or contact David Grober at [dgrober@kent.edu](mailto:dgrober@kent.edu) or 330-672-5297