



Tatianna Griffin



Derek Boyd



Graduate Students Rise to Meet the Challenges

Acts of racial violence and the global COVID-19 pandemic shook the nation in 2020. In addition to these societal and healthcare crises, the economic fallout of the pandemic has increased precarity among graduate students nationally. Members of the Anthropology Graduate Student Association (AGSA) rose to meet these challenges and strengthen the UT anthropology department.

In late spring, AGSA Diversity Representatives **Tatianna Griffin** and **Derek Boyd** spearheaded efforts to craft an antiracism statement that asserts the department's commitment to building a "welcoming, inclusive, supportive, and equitable space for BIPOC (Black, Indigenous, and People of Color) communities." The statement, approved by a vote of the faculty, appears in full on the anthropology website (anthropology.utk.edu). Griffin and Boyd also became founding members of the department's new Diversity and Inclusion Council. In one of the council's first actions, they created and distributed a departmental climate survey to all graduate students and advocated for workshops for faculty and students that will promote learning and conversation about practices and behaviors that can result in unequal treatment based on race, ability, or gender. These conversations, which began in December, will lead to new understandings and foster a more inclusive and equitable environment.

Under the leadership of the officers and board of AGSA, students are actively seeking solutions to the financial hardships of graduate student life, which have been made worse by the pandemic. In addition to working with campus governance structures and the union in advocating for increases in wages and benefits, AGSA members have taken the lead in supporting students' basic needs. Starting in fall 2020, they partnered with the Undergraduate Anthropology Association (UAA) to set up a food pantry in a common room on the fourth floor of Strong Hall. Stocked by regular contributions from each group and from the faculty and staff, the pantry is open to all students in need.

"During one of our monthly AGSA meetings, we began talking about how we had raised enough in dues to begin lessening the financial burden that many students face in some small way," said Rebecca Webster, AGSA president. "We decided a food pantry would be the best way to support all students with the funds we have. AGSA and UAA both donate \$25 a month to stock the pantry."

In addition to creating the food pantry, about 25 grad students participated in a "happiness exchange" last fall, organized by AGSA Social Chair Kelley Cross. COVID made it hard to have social events in person, so AGSA matched participants with a partner with whom they meet for Zoom conversations and to exchange small gifts. Through this project, students are combatting isolation and building stronger connections.



BARBARA HEATH
Professor and Head

Working Together

I began my new position as department head in August, having served on the faculty since 2006. I am grateful for all of the support and encouragement that my colleagues have shared during what has been a challenging year for faculty, staff, and students at UT and across the country.

With the outbreak of COVID-19 in March, UT moved all courses online in the space of a week, implemented travel restrictions, curtailed access to campus labs, the libraries, and other on-campus spaces, cancelled graduation ceremonies, off-campus summer programs and in-person interviews, and began to create the infrastructure for combatting the spread of the disease within our community. These changes, although necessary and prudent, have had a profound effect on research, teaching, and learning. By fall, the department had been transformed both physically and psychically. Staff, with the help of an ad-hoc group of faculty, moved furniture in classrooms and hallways into temporary storage to accommodate social distancing requirements, posted signage, and purchased and distributed PPE; instructors pioneered new classroom technologies that allow us to teach more effectively in this new pandemic world; and we collectively reached out to undergraduate and graduate students to find out how they were coping and what they needed to succeed.

Despite being physically distant, in some ways this year the department has become a more cooperative and caring place, facing head-on not only the coronavirus pandemic, but the need for each of us to work together to address the social pandemic of racism and to strengthen the department as an equitable learning community based on respect. The recent losses of our colleagues Rebecca Klenk, a cultural anthropologist, and Randy Pearce, a dentist and forensic odontologist, have also brought many of us together to mourn their passing.

Even in the midst of these extraordinary challenges, we continue our mission of research, teaching, and service. The department is undergoing a period of rapid growth. The addition of undergraduate concentrations in forensics and disasters, displacement, and human rights (DDHR), coupled with broader societal factors that underscore the relevance of anthropological knowledge in today's world, have resulted in an impressive 47.5% increase in majors over the last two years. Growing numbers of students are also taking advantage of the DDHR graduate certificate.

Members of the department continue to shine as award-winning educators and nationally and internationally-recognized student achievers, leaders within the profession, and recipients of prestigious research grants. I have summarized many of our accomplishments below, and others appear in greater detail in the online version of the newsletter, but I would like to take this opportunity to highlight just a few.

- Professor **Dawnie Steadman** was named a Chancellor's Professor, the highest lifetime honor that can be accorded to a member of the faculty, which recognizes extraordinary scholarly accomplishment as well as a record of excellence in teaching and service to the university. She also received the Dr. William M. Bass Professorship in the Department of Anthropology and the Forensic Anthropology Center, established through a generous donation by Joseph M. and Rebecca H. Haskins. The award is based on excellence in research and teaching in the field of forensic anthropology.
- Associate Professor **Ben Auerbach's** co-edited volume, *The Evolutionary Biology of the Human Pelvis: An Integrative Approach*, was published by Cambridge University Press.
- Professor **Alex Bentley**, Associate Professors Garriy Shteynberg (psychology), and Jonathan Garthoff (philosophy), received the College of Arts and Sciences Award for Interdisciplinary Collaborative Scholarship and Research in 2019 for their work on collective learning and its impact on collective identities, social norms, and strategic cooperation.
- **Hera Jay Brown** ('18) was named a 2020 Rhodes Scholar.
- **Clare Remy** was one of five UT undergraduate students to receive a prestigious Goldwater Scholarship.

Looking ahead, 2022 will mark the department's 75th anniversary and the 50th anniversary of granting graduate degrees. Soon we will begin planning ways to celebrate these important milestones. If you have stories that you would like to share of your time at UT, I would love to hear from you. I look forward to welcoming you back to campus post-pandemic. Until then, please stay safe and well.



Visit us online anthropology.utk.edu
for more news and events.

Understanding Foodways

Kandace Hollenbach, assistant professor, is working with undergraduate major **Hattie Ruleman** on her senior honor's thesis, which focuses on extracting, identifying, and analyzing carbonized plant remains from samples excavated from roughly 2,500-year-old archaeological deposits at UT's Cherokee Farm campus. Hollenbach taught a field school at Cherokee Farm during the 2018 and 2019 May mini-terms. The project is part of her larger research effort to understand the transition from foraging (gathering) to farming in the Midsouth region, which includes East Tennessee.

Hollenbach specializes in paleoethnobotany, the study of ancient plant remains. Her work sheds light on the foodways of past peoples, which include the ways people procure, produce, process, cook, share, consume, store, and discard foods. These practices are tied to social and ecological opportunities and constraints. Understanding foodways helps to clarify the relationships of people within and between households, with neighbors, and with plants, animals, and other resources in the landscape.

Approximately 4,000 years ago, people in the Midsouth stopped relying solely on wild fruits, seeds, and nuts foraged from floodplains and upland forests. They began cultivating a suite of plants and domesticated at least five of them, including squash, sunflower, and chenopod (a northern cousin of quinoa). During this transition, peoples' relationships with the landscape, and their mobility, also shifted, as early farmers invested resources in cultivated plots. By about 3,000 years ago, their increased investment led to a more sedentary lifestyle and changing relationships with neighbors, who no longer had access to (at least some) plants growing in those plots. The deposits at Cherokee Farm are related to these increased investments in floodplain cultivation.

In her work, Ruleman has identified chenopod and maygrass seeds in the samples, in addition to hickory nuts, acorns, and grape seeds. Later deposits, dating to about 800 years ago, indicate a shift to maize farming and use of wild rice. In modern foraging groups around the world, women are the primary gatherers, and this was probably true in the past. Hollenbach's research places the decisions of past women at the forefront of her research. Among early foragers, women may have decided when to move camp to take advantage of ripening fruits, seeds, and/or nuts at particular places on the landscape. Given their roles as gatherers, women likely became the first farmers in the eastern United States. The transition from foraging to farming likely led to changing relationships between women and men.

Despite these important shifts in how groups interacted with the landscape, their neighbors, and within their households, few archaeologists have examined the consequences of the shift to farming in the Midsouth. Hollenbach's work with Ruleman and other students is helping to change our understanding of the social and ecological consequences of the transition from foraging to farming.



Kandace Hollenbach



Hattie Ruleman



NEWS FROM THE

Forensic Anthropology Center

The **Forensic Anthropology Center** (FAC) is working on multiple interdisciplinary collaborative projects that focus on locating missing individuals, estimating how long they have been deceased, and interpreting trauma.

One team is working in forests, terrain that typically hinders recoveries of human remains due to the density of ground cover that hides visual clues to their locations. By identifying the ways in which human decomposition affects plants growing in close proximity, and how these effects might be detected through changes in plant growth, spectral characteristics of their leaves, and other biochemical changes, the research teams seek to turn trees from foes to allies. The project is equipping drones to fly over forested areas with arrays of sensors that detect subtle, localized changes within forest canopies that can be used to detect the presence of human remains. The results will be of immense value in using plants to aid in forensic recovery. The team is led by anthropology faculty members **Amy Mundorff** and **Dawnie Steadman**, Neal Stewart of the University of Tennessee Institute of Agriculture Department of Plant Sciences, and includes other faculty and staff within these departments and with the Department of Biosystems Engineering and Soil Science and the Department of Food Science. It is funded by the Department of Defense and USDA Hatch grants.



Two projects funded by the National Institute of Justice tackle some of the most difficult problems in forensic anthropology – estimating how long individuals have been deceased (postmortem interval) and interpreting trauma after burning.

The first project examines how medications in the body impact decomposition rates by studying the drug effects on insects and microbes that feed on the body. Current methods of postmortem interval estimation will need to be modified if it is found that drugs increase or decrease insect development rates. This team is led by Dawnie Steadman, Shawn Campagna from the chemistry department, and Jennifer DeBruyn from the Department of Biosystems Engineering and Soil Science.

The second project is developing a protocol by which blunt force injuries sustained at the time of death can be discriminated from fractures produced by burning. Fire is often used to cover up a crime and the damage to the body can be extensive. This study, led by **Giovanna Vidoli** and **Joanne Devlin**, with assistance from colleagues in the Tickle College of Engineering, uses radiography and microscopic techniques to help characterize fractures that are due to blunt force trauma and those created by burning.

Another project, funded through a graduate student-faculty research award, seeks to more accurately predict the probable location of drowning victims and others whose remains are moved by the flow of water. Working with faculty mentor Dawnie Steadman and Nicole McFarlane from the engineering college, **Karli Palmer** will create “smart” manikins that can be placed in natural bodies of water and tracked for hours or days while collecting quantifiable, replicable data on their movement. Knox County Rescue is also assisting with the field testing. This project will indicate which variables impact the movement of human remains in water and will allow for more accurate predictive models for recovery. In addition, the manikin may serve as a prototype that could be used by future investigators seeking to find missing persons. The ability to narrow down the search area would increase investigators’ chances of success in locating the remains and reduce the labor and resources required.

While training was certainly impacted by COVID-19 this year, the FAC created a new partnership with the Mexican government to train their investigators tasked to locate and recover human remains from mass graves throughout Mexico, many of whom are civilians killed by drug cartels. In addition, Giovanna Vidoli was invited by the International Committee of the Red Cross to go to Mexico to assist with in-country training. Further, Joanne Devlin and Giovanna Vidoli were invited to attend the first half of the FBI Emergency Response Training.



Amy Mundorff



Dawnie Steadman



Giovanna Vidoli

The Human-Animal Relationship

The department welcomed Assistant Professor **Anneke Janzen** to our faculty in fall 2019. Janzen holds a PhD in anthropology from the University of California, Santa Cruz. She joined us after completing post-doctoral appointments at the Cotsen Institute of Archaeology at the University of California, Los Angeles, and the Max Planck Institute for the Science of Human History in Jena, Germany. She remains a research affiliate of both institutions.

Janzen specializes in zooarchaeology, exploring the relationships between people and animals in the past. A major focus of her work has been discovering how the practice of herding spread across Africa (c. 5000 to 2000 BP), and how early herders in Kenya, Tanzania, and Zambia used the landscape and managed their domestic animals. She also studies the effects of colonialism and the introduction of domesticated herd animals on the diets of indigenous and colonizing people and on the environment of North America. Her findings appear in highly respected journals including *Palaeogeography*, *Palaeoclimatology*, *Palaeoecology*, *Journal of Archaeological Science*, *Proceedings of the National Academy of Sciences of the United States of America*, and *Quaternary Science Reviews*, among others.

Janzen’s expertise in stable isotope analysis and zooarchaeology by mass spectrometry (ZooMS) adds cutting-edge, minimally destructive chemical and biomolecular methods of identification and analysis to the department’s longstanding strengths in zooarchaeological research based on skeletal anatomy. Carbon stable isotope analysis of animal remains provides information about the plants that animals ate while they were alive, while strontium stable isotopes contribute to our understanding of human and animal mobility. ZooMS allows researchers to identify bones, based on peptide-fingerprinting of collagen, that are too fragmentary or too similar for standard methods of skeletal identification.



Anneke Janzen



Steven Lautzenheiser

Modern Human Movement

This fall, we welcomed **Steven Lautzenheiser**, who received his PhD from the University of Washington in 2019, as a lecturer in biological anthropology. In addition to teaching the introductory course in biological anthropology, Lautzenheiser is also teaching undergraduate and graduate courses on evolutionary biology, primates and primate evolution, and human paleontology.

Lautzenheiser’s research combines anthropological and engineering theories and mathematical modeling in order to understand how modern humans came to move the way that we do. Bipedalism, or walking upright, is a central part of our evolutionary story. The fossil record of the extinct members of the human lineage preserves evidence of

alterations in the structure of the foot, suggesting that how our ancestors moved across the landscape changed over time. Understanding these differences requires careful study of the relationship between how the foot interacts with the ground and the size and shape of the bones that enable that interaction. Lautzenheiser measured the ground reaction forces on the feet of volunteers in the laboratory as they walked in a straight line and as they changed direction while walking, and then modeled how these forces contributed to the shape of the talus (ankle bone). He found that not only does changing direction affect the ground reaction force applied to the foot, but that the orientation of the foot affects how these forces pass through it. By increasing our understanding of the biomechanics of the foot and ankle of modern humans, his research helps us to understand the fossil record better.

New Post Docs



Tamar Shirinian received her PhD from Duke University in 2016 and completed a postdoctoral appointment at Milsaps College before coming to UT. Shirinian's research focuses on social movements and revolutions, environmental anthropology, feminist and queer anthropology, transnationalism, and psychological anthropology. Her current work examines diversity, inclusion, and difference within the context of disasters and conflict, with a more recent focus on institutional logics. She looks at how ethnic, racial, and sexual differences affect access to mental health care and how the health care system is structured. Shirinian

is working with Research Librarian Donna Braquet and others to collect, preserve, and share oral histories of LGBTQ+ people who live, or have lived, in East Tennessee.



Roger Begrich holds a PhD in anthropology from Johns Hopkins University. Much of his ethnographic work has been conducted in India. He engages global concerns relating to medical and political anthropology, critical legal studies, and Indigenous/Native Studies. Begrich's work combines an ethnographic analysis of the relations between indigeneity and sovereignty with a comparative discussion of substance use among marginalized populations. His work in India examines the effects of global racial capitalism and (internal) settler colonialism on tribal displacement. Begrich also researches global aging and the use of multiple

medications among individuals in aging populations. He has begun research in India on how bodies and selves, as well as social relations, are increasingly mediated by pharmaceuticals and neoliberal forms of elderly care.



Simon Carrignon joined the department as a postdoctoral research fellow in 2019. He received his PhD in 2019 from the Universitat Pompeu Fabra in Barcelona, Spain. He specializes in building computer models that help us to understand how social interactions between individuals and groups can impact global changes. Carrignon has worked with archaeologists, historians, biologists, psychologists, and ecologists. He is currently working with Alex Bentley, professor of anthropology, on social interactions at the age of online social media. He is also working with Bentley and Nina Fefferman, professor in the

Department of Ecology and Evolutionary Biology, on understanding how the spread of socially acquired behaviors can impact the spread of COVID-19. This work can also be used to explore the impact of viruses and other disease-causing agents on the evolution of ancient human societies at larger scales. While at UT, he has also been working outside of the department with epidemiologists and researchers in information science.



The Forensic Anthropology Center welcomed our new Haslam postdoctoral fellow, **Charity Owings**, who is a forensic entomologist. She earned a PhD in biology from Indiana University-Purdue University Indianapolis. Owings is currently characterizing the insect biodiversity at the Anthropology Research Facility, and her overall research aims to refine time since death estimations using various arthropods. She grew up reading Professor Bass's books and always dreamed of working at the body farm one day. Now that dream has come true, she could not be happier and more at home in the anthropology department.

DDHR Program Working Papers Series

The Disasters, Displacement, and Human Rights (DDHR) Program is now accepting submissions to a new working papers series. Envisioned primarily as a vehicle for UT graduate students and faculty to share their academic work as it is being prepared for final publication, the series is the brainchild of Raja Swamy, assistant professor of anthropology. It will provide an opportunity for authors to receive feedback on their work and to disseminate it widely to an audience of scholars interested in themes relating to disasters, displacement, structural violence, human rights, and social justice.

When pandemic travel and gathering restrictions are lifted, the series will become an important part of the biennial DDHR conference, enabling conference attendees to develop papers for formal publication. The submissions portal can be found at

anthropology.utk.edu/working-paper-series.



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Spotlight on Staff

After a nearly 40-year career at UT, **Pam Poe** retired in January 2020. She began work in the basement of Neyland Stadium as one of five administrative staff and remembers Professor Bill Bass, the department head for many years, telling her on her first day "We're moving to Strong Hall." That prediction took 36 years to become reality, during which time she was promoted into each administrative position in anthropology until becoming business manager, the linchpin of the department. During her career, she was central to the growth of the department, working with faculty and staff to transform the Anthropology Research Facility from a shed in the woods behind UT Medical Center into an internationally recognized center for forensic research; supporting faculty in teaching, grant writing, and budgeting; mentoring staff; and helping generations of undergraduate and graduate students. She retired just a month before the pandemic began to spread and admits that this year has not been what she envisioned. Still, she is enjoying the time she spends with her grandchildren and the flexibility that her new schedule allows. One of her favorite parts of her job was getting to know faculty and students and watching their children grow up. She values the many friendships that she formed over the years.

When Poe joined the department in 1981, **Charlene Weaver** had already been a staff member for more than three years. She left UT in 1987 to raise her family. When her youngest son started kindergarten in 1994, she returned to the department and resumed working closely with faculty on grants and contracts. Last fall, in anticipation of Poe's retirement, Weaver was hired as the new business manager. COVID-19 has affected all aspects of her job this year and has required flexibility and creativity in learning new skills and transforming her work habits and schedule to meet the challenges of the pandemic. Like Poe, she is crucial to the success and the spirit of the department. We are glad to welcome Weaver into her new role. She looks forward to a return to normalcy, when she can spend her days within the bustle of students, faculty, and staff, and see alumni and friends of the department who she has come to know over her many years in anthropology.

Chris Maguire moved from upstate New York to Knoxville in late 2016 with her husband for a change and the great weather—no snow! She started working for UT in the Department of Public Health in February of 2017 and moved to the anthropology department in March 2020 as an accounting coordinator. She works closely with the faculty and graduate students in developing and submitting grant applications and in grant administration. She is currently working on her BIS online at UTM with just a few classes to go, so is both a full-time staff member and a part time student at the University of Tennessee.



Charlene Weaver

Pam Poe



Chris Maguire

In Memoriam

Rebecca Klenk passed away November 15, 2020, after battling pancreatic cancer. Her 20-year career at the university included teaching in several interdisciplinary programs, including Global Studies, Asian Studies, and Women, Gender and Sexuality Studies and the Department of Anthropology, which became her academic home department. Klenk was a remarkable teacher. Her warmth and friendship enriched all of our lives.

Professor J. Randall "Randy" Pearce passed away on December 25, 2020, from complications due to COVID-19. Pearce graduated from UT and obtained a doctorate of dental surgery from the University of Tennessee Health Science School. He was also a forensic odontologist and served at the World Trade Center after the 9/11 terrorist attacks as part of the Disaster Mortuary Operational Response Team (DMORT). Pearce trained law enforcement officers in forensic odontology at the Forensic Anthropology Center and was always a favorite instructor. He will be greatly missed.

Department of Anthropology

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