



Sara Wingert | Anthropology Alumni Highlight

When Sara Wingert first arrived at Kutztown University, she never pictured herself digging up ancient objects across the world. Now graduated and well into her career as an experimental archaeologist, she can't imagine doing any other type of work. Her field involves reconstructing and testing artifacts to provide new insights into how tools, weapons, and more were used in medieval society. In one such experiment, Sara made several crucibles from different materials and tested them to see which could withstand the most heat. "Understanding the ratio of the [materials] versus the clay helps us understand things that we pick up when we're digging structures [with metal objects]," she says.

Sara says she owes her passion for archaeology to KU's anthropology program. "Dr. Newlander helped me with my capstone to do an experimental project, which lit my fire a bit," she says. The project involved testing the damage signatures of wood-tipped, fire-hardened, and stone-tipped arrows on animal bones to better understand the significance of perishable projectiles in prehistoric times, something she felt was not explored enough in the archaeological record. This experiment was the beginning of a lifelong interest in experimental archaeology.

Sara carried her passion with her to University College Dublin, where she



earned her MSc in Experimental Archaeology and Material Culture. She conducted her master's thesis research on loaded dice and their significance in medieval Europe. Through the course of her research, she not only learned how to physically make the various types of dice, but also how gambling was perceived as a crime during that time period, especially due to how often individuals used loaded dice to cheat. Learning about the historical significance of artifacts is something she kept at the forefront of her mind during her own archaeological digs.

"My first site was medieval/post-medieval," she says. "I was there for roughly eight months. It was right next to Dublin Castle and one block away from St. Patrick's Cathedral." Sara joined the dig toward the end of the project, but that didn't stop her from discovering exciting historical objects. "There were a lot of well-preserved artifacts. We found whole leather shoes from the 1100s, full swords that were bent, and a full wooden arrow shaft that was over a foot long." Findings like these are fascinating to her because she recognizes they were once meaningful to the lives of people in the past.

With her first dig being such a massive project, Sara was nervous about how well she would be able to apply what she learned in her studies to her field work. "It was really intimidating," she says, "but everyone there was so nice. There were people from all over the whole world and at different skill levels." She says the experience allowed her to use her knowledge from class in a practical setting. "When you're actually down there and you're digging, muddy, and cold...it's a lot different. It's a lot more fulfilling when you finally find an artifact."

While in Ireland, Sara was involved in two other digs, although she says she didn't find as many significant objects. "That's what you normally get with archaeology," she says. "You get one or two artifacts in this

multiple-month project." She's currently back in Pennsylvania working with Newell, Tereska and McKay Engineering, where she conducts what she calls "phase one" archaeology. Her work involves surveying areas that may hold historical significance. She and her team conduct small digs to see if anything interesting is present. If there is a definite presence of materials to be excavated, they will conduct larger digs, much like the ones Sara participated in during her time in Ireland.

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While Sara enjoys the work she's currently doing, she recalls and misses her time at KU. "The friendships I made here, they mean so much," she says. She's thankful to KU for providing a foundational knowledge of her field, as well as providing her with the resources to succeed academically. Faculty members like Dr. Newlander and Dr. Schlegel helped guide her toward what she wanted to do with her life. "Everyone inspired me, helped me, or pushed me in some way or another."

In giving advice to prospective KU first-year students, Sara says to always keep an open mind. When she came to KU, she struggled to find her major until the Career Development Center introduced her to the anthropology program. "I wouldn't have fallen into it if I wasn't steered a little bit in that direction," she says. "If you don't keep an open mind, you'll have a harder time finding what your calling is or what your passion will be."



Dr. Robert Martin | Geography Emeritus Highlight

Speaking about the importance of geography, Dr. Robert Martin, professor emeritus, says, “Everything is located in space in some way.” He believes geography applies to many aspects of life, but especially transportation. Whether someone is picking out the best spot to put a new store or searching for routes to move products along, geography is always part of the equation. “We all live in it. We might as well try to understand it.”

Dr. Martin’s research primarily focuses on transportation, which is all about navigating the space between locations.

“Transportation exists because there’s a supply one place and a demand someplace else. If you have to get [something] from ‘A’ to ‘B’ to ship it to ‘C,’ [then] that becomes a purely geographical problem.” With the current supply chain issue, he believes that questions of transportation are more important than ever. An understanding of the geographical concepts surrounding why “things get stuck in the system” of transportation will help resolve the supply chain issue.

People often navigate transportation through geographic information systems (GIS). “If you pull out your phone and pull up a mapping [app], you are using data

from a GIS,” Dr. Martin says. He says that GIS instruments have changed the way geographers map transportation routes. “When I started as a graduate student, all our mapping was done manually. It was pen and ink... That was very time-consuming. Today, of course, with computers, we [can] build routes in a few seconds.”

Because of the high utilization of GIS in modern geography, classes focused on GIS were his favorite to teach at KU. As a part of one of those classes, Dr. Martin recalls when a handicapped student of his used a GIS to map out the safest and most efficient routes for other handicapped KU students to navigate obstacles. Dr. Martin says it is a great example of how GIS relates to real-world problems.

Student research and engagement in class is what Dr. Martin remembers most fondly about his time teaching at KU. “My favorite memories are when students in class would suddenly connect and understand exactly what I was communicating to them,” he says. “[When] they would take those ideas and apply them to their own research... those were the best times.”

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Although he retired from teaching in 2014, Dr. Martin remains involved in his field of study by keeping up with the latest GIS software and conducting more geographical research. One current project he’s working on is a long-term study of street railways in the U.S., more commonly known as trolleying systems. He’s building a database that showcases where the railways are located. He’s also exploring how the systems have changed over time, from wagons being drawn by horses to trolleys being powered by electricity. He’s also



building a geographic database for the 55+ community near the city of Emmaus, where he lives, that includes the locations of houses, streets, water lines, and sewer lines.

In addition to his research-based projects, Dr. Martin also crafts model planes, a passion he’s enjoyed exploring in his retirement. He says his background in building GIS models has helped him with the mentality needed for building model planes. Just as geographers assemble small amounts of locational data in a GIS to create a larger representation of reality, Dr. Martin carefully assembles small bits and pieces to create one large model airplane. He’s currently building a model of a twin boom P-38 Lightning plane from the second World War as well as a class C competition model.

Dr. Martin’s approach to building model planes is just one way he applies his field of study to his outside passions, which is why he believes geography is central to life. Whether someone uses a mapping app to get to their job, searches the internet for a new place to eat, or looks for new locations to expand their business, they are a part of the world of geography. “Geographers are always involved with what’s going on out there,” he says. “[Geography] applies to all aspects of life.”

Congratulations, May graduates!

Every class, exam, and essay has built up to this. You have worked endlessly to achieve success. Your graduation has arrived, and we in the CLAS Dean’s Office congratulate and celebrate you. We’re proud of your accomplishments and your perseverance in reaching your goals. We can’t wait to see what the future holds for you. We know you will demonstrate the same drive and strength you’ve showcased throughout your time at KU to continue doing amazing things. Congratulations, and thank you for making our college a brighter place.