Dean’s note

The spring issue of the College of Liberal Arts and Sciences (CLAS) Magazine celebrates change. First, former Dean and Vice Provost Robert E. Page Jr. has left us to become ASU’s provost and Foundation Chair of Life Sciences. In addition, I have been appointed interim dean of the College of Liberal Arts and Sciences.

Change is also reflected in this issue as we expand our programs and the ways we share and distribute information, both locally and internationally, through our new iPad app. More interactive content, audio, video and photography, including Instagram, can be downloaded here: http://bit.ly/OYqAbw

This issue of the magazine asks: How can one person change the world? Nelson Mandela, Steve Jobs and Malala Yousafzai have spent much of their lives looking for ways to make a difference in the way people interact with one another across the globe. They alone have made dramatic changes. Our college offers pivotal direction and mentorship to all those working to locate their interests, their careers and to see the world in new ways – through education, scientific enterprise, social justice and creative approaches to language, literature and the human experience.

Join undergraduate changemakers and Mastercard Foundation Scholars Allen Kawanzaruwa and Rumbidzai Mugaro from Zimbabwe, or walk the path of ancient humans in Ethiopia with graduate student John Rowan and the Afar people. Find out how a marching band can help psychologists better understand social relationships, or how Douglas Granger’s analysis of saliva can shape training for the military and nurses preparing for combat. Dig deeper into the ruins of Teotihuacan with George Cowgill. Experience medical treatments as they are born in the laboratories of Edson Scholars, come to grips with the history of race in the classrooms of Rudy Guevarra Jr. or explore urban sustainability in ASU’s Global Classroom in Germany.

Please help us support our students and faculty as they reimagine the future and translate the diversity of the human experience to our nation and the world – or just cheer for ASU in 23 languages. It’s all here in the College of Liberal Arts and Sciences at ASU.

Patrick J. Kenney
Interim Dean of the College of Liberal Arts and Sciences

On the cover:
Female Figurine
Central Mexico, Teotihuacan
AD 200 - 400
Ceramic
On loan from Denver Art Museum, anonymous gift

Photo: Jacob Sahertian
### Contents

<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>02</td>
<td>Dean’s note (inside front cover)</td>
</tr>
<tr>
<td>06</td>
<td>Local solutions from a Global Classroom</td>
</tr>
<tr>
<td>06</td>
<td>Teotihuacan resurrected</td>
</tr>
<tr>
<td>10</td>
<td>New institute research on STRESS</td>
</tr>
<tr>
<td>13</td>
<td>Marching to the beat of the same drum?</td>
</tr>
<tr>
<td>15</td>
<td>Rudy Guevarra: mixed race and beyond</td>
</tr>
<tr>
<td>19</td>
<td>Club Oceania</td>
</tr>
<tr>
<td>21</td>
<td>Edson Scholars innovate the future</td>
</tr>
<tr>
<td>25</td>
<td>Excavating Afar</td>
</tr>
<tr>
<td>27</td>
<td>1GPaleoanthropology</td>
</tr>
<tr>
<td>31</td>
<td>Calculating their future</td>
</tr>
</tbody>
</table>

---

**Contact us!**

We are interested in connecting with CLAS alumni, emeriti and students. If you would like to suggest a topic or contribute an article, please contact the managing editor [margaret.coulombe@asu.edu](mailto:margaret.coulombe@asu.edu). Manuscripts should be less than 1,000 words, photos should be high resolution and submissions should include all pertinent contact information. You can email or snail mail the content to Margaret Coulombe, CLAS Magazine, P.O. Box 876505, Tempe, AZ 85287-6505.

To learn about the many ways that you can support the college and ASU, please visit the ASU Foundation website: [secure.asufoundation.org/giving](http://secure.asufoundation.org/giving). Contact [william.kavan@asu.edu](mailto:william.kavan@asu.edu) or call 480.965.3391.

We reserve the right to edit all submissions.

© Copyright 2014 College of Liberal Arts and Sciences
Local **solutions** from a Global Classroom: Reflections on a cultural exchange

By Sean Cohmer

The invasion occurred in Tempe around mid-September. Under sunny skies and exceptionally warm Sonoran heat, a small contingent of Germans, the first cohort of students from Leuphana University in Lüneburg, Germany, arrived in Sun Devil territory. The 20 students and their American counterparts are part of a three semesters-long course which uses videoconferencing to bring together two classrooms, worlds apart, into one collaborative learning environment known as the Global Classroom.

September marked the first occasion where the German students could interact with their ASU counterparts in person and form up their transnational research teams to develop and start their “green” research projects.
Have you seen or heard the phrase “Think Globally, Act Locally?” It is a condensed version of the longer quotation from Wendell Berry, a Kentucky farmer who for the journal “Resurgence & Ecologist” titled an essay “Global Problems, Local Solutions.” The Global Classroom is a reflection of the sentiment that we can think about sustainability at the abstract, global level, but solutions to large global problems need to be small, simple and need to work in a local context. The subject matter of the class, most generally, aims to answer the question: “Are sustainable cities a contradiction in terms?”

Over the next two weeks, the teams of students developed a research prospectus or plan, as they traveled across Arizona to see how urbanists, philosophers and sustainability sciences defined structural environments. Visits ranged from green communities to the aesthetics of Frank Lloyd Wright, each designed to help guide their activities and research.

Staging a classroom across an ocean and time zones presented unique challenges for both students and faculty. The first order of business, organizers felt, should be to give the visiting students a sense of what a desert city and Arizona State University have to offer. A tour of the campus included the Memorial Union, Computing Commons, Global Institute of Sustainability and the Life Sciences Buildings. A lunch followed at the University Club, hosted by Brian Smith, director of the School of Life Sciences; Robert E. Page Jr., provost of ASU; Chris Boone, dean of the School of Sustainability and President’s Professor Manfred Laubichler, director of the Global Classroom.

Reflecting on the visit, Leuphana student Hannah Trampe noted, “Although we had been working together for roughly half a year we had no bond that tied us together. Seeing each other on a screen left us with a vague image, with pixelated faces, but not with real people. They were two-dimensional. All of that changed drastically in those two weeks and this in itself is the greatest success we could achieve.”

Small groups of Global Classroom students from ASU planned four evening events, away from the instructors, in addition to the intensive schedule coordinated by Postdoctoral Fellow Guido Caniglia, an exuberant and animated Italian ASU researcher for the project. All the activities were geared to build personal relationships to support the team members once they were apart.

ASU students were creative in their event choices. The first was a campus-wide team scavenger hunt. The event began with Mexican food, a novelty for the German students, provided by students at the Memorial Union on ASU’s Tempe campus. Then, the German-American teams were asked to complete a series of tasks, for example: “Ask a stranger to define the word bodacious” or “Reenact a zombie attack in a public place.” One German student said afterward, “It really felt like we were a group of good friends.”

Student-planned events were held at the Civic Space Park next to the ASU Downtown Phoenix campus and Tempe Beach Park by Tempe Town Lake, to help the German students see how even a city described by Andrew Ross as “the World’s Least Sustainable City” is worth saving.

“It was really cool to see the Germans here in Phoenix enjoying a fun time at the park, even though the city tour nearly made them want to go back to Germany to get away from this heat,” said ASU sustainability major Jesus Chavez. “This event hopefully helped change their perspective on viewing the city as a complete desert with no interesting areas and urban vibrancy.”

The final social event was a pool party at the Vista Del Sol apartment complex on the southeast corner of Tempe campus. Leuphana student Anne Missall shared her thoughts, thus: “While some swam in the pool or waded in the Jacuzzi, others played volleyball in a sand filled court just alongside the pool...the entire event was very relaxed and some of us even went on after the pool party was finished.”

Classroom activities offered a broad range of intellectual experiences as well. Leuphana and ASU student teams met twice a week at the School of Life Sciences new Active Learning Classroom. There, teams worked to
focus their not-yet-defined project on one driving research question and to put into place a process for working effectively as a trans-national research group. Leuphana students also attended an ASU biology and society course developed by President’s Professor, Manfred Laubichler, a larger-than-life, bearded Austrian, whose talks centered on concepts surrounding cities to fuel conversation and project development.

Travel to a series of urban communities, past and present, was central to expanding students' understandings about what cities and sustainable approaches can be. Led by Laubichler and the rest of the ASU instructor team, which included sustainability professor Armin Wiek, May Tag Professor Ben Minteer and Regents' Professor Jane Maienschein, students journeyed to Northern Arizona. The first stop was Arcosanti, an idealized community envisioned and erected by Paolo Soleri in the 1970s. This visit helped students appreciate Soleri's struggle to design a sustainable community on the northern edge of Phoenix. By way of Sedona for some sightseeing, the group then spent an evening in downtown Flagstaff, which offered a contrast to the big city sprawl and heat of Phoenix, as well proffering new views on cultures and lifestyles in the West.

With support from Hopi educator Ramson Lomatewama, the German and American students also explored the Museum of Northern Arizona, learned about Native American culture and then ventured north to the Wupatki National Monument. The adobe ruins of the pueblos of the ancient inhabitants, who lived in the barren rocky terrain for thousands of years, were scattered across an arid landscape punctuated by gusts of wind at tropical storm force, including a land-based geological blowhole. On the way back to Tempe, instructors and students sat down for a nice dinner in Flagstaff where they sang “Happy Birthday” in English and the Leuphana students introduced us to “Wie schön, dass du geboren bist” in German, which translates roughly to “How nice that you were born” in English.
Instructors hoped students would come away with a balanced perspective of what defines Phoenix and the West, so also included the Gateway District; a site of both abandonment and hope for researchers interested in sustainable development. Students additionally toured Combine Studios and the vibrant Roosevelt Row art district in Phoenix, the Desert Botanical Garden, the Heard Museum in downtown Phoenix and Taliesin West, Frank Lloyd Wright’s home and teaching studio in Scottsdale.

After two weeks of intensive planning together, the ASU-Leuphana student teams presented a draft of their research prospectus to instructors and fellow students at the Phoenix Zoo. Student projects included an examination of local parks and the perceived values they hold for local stakeholders, a critique of local responses and perceptions to influenza outbreaks, and a close look at the role of retrofitting for growing and shrinking cities. After one final gathering together, the students then bid farewell until March 2014, when ASU students would rejoin their research teams in-person in Lüneburg to present their finished research results.

The Global Classroom was developed with funding from the Mercator Foundation as a pilot test of traditional teacher-student roles; to advance new, blended approaches to curriculum and teaching; and redefine the rules tying interdisciplinary liberal arts and sciences education to “place.”

“A number of reform-minded institutions are watching the ASU team's progress with interest,” said Laubichler, who also directs ASU’s Center for Social Dynamics and Complexity and is the associate director of the ASU Origins Project. He has identified and met with other potential partners in Germany, Netherlands and Israel. “If this approach works,” he said, “ASU also might extend the model to build new types of educational connections between the United States and China.”

“Our hope is that as we teach about sustainability, conservation biology, science, humanities and culture, we have students from Europe, South America, China and the U.S. all talking together,” said Provost Robert E. Page Jr. “There would be differing views and the sharing of those views might allow students to develop solutions to challenges that none could have conceived of individually.”

In addition to ASU faculty members, German faculty mentors include Daniel Lang, a professor of transdisciplinary sustainability research, Volker Kirchberg, a professor of distribution and organization in applied cultural sciences and doctoral student-instructors Beatrice John and Leonie Bellina from Leuphana University.

Sean Cohmer is a graduate teaching associate for the Global Classroom project. This piece was excerpted in part from reflections written by students from both ASU and Leuphana, who engaged in, thought about and afterward created blog entries about their experiences. Additional support for this unique classroom was offered by Postdoctoral Fellow Guido Caniglia, Teaching Associate Tamsin Connell and staff from the Center for Biology and Society, Andrea Cottrell and Jessica Ranney. Special thanks to Shascha Spoun, the president of Leuphana University and the late Yehuda Elkan, president and rector emeritus of the Central European University.

“...Seeing each other on a screen left us with a vague image, with pixelated faces, but not with real people. They were two-dimensional. All of that changed drastically in those two weeks and this in itself is the greatest success we could achieve.”

-Hannah Trampe, Leuphana student
Unearthing a legacy:

Teotihuacan resurrected

By Anthony Costello
Arizona State University’s School of Human Evolution and Social Change launched the long awaited exhibit “City Life: Experiencing the World of Teotihuacan” on Oct. 11, 2013, using a unique display method that mixes new technology and traditional museum display methods to provide a new and innovative museum experience.

The first hint that this display holds more than expected are the scents and sounds. Entertainment of the five senses is core to this recreation of the ancient city of Teotihuacan. Richard Toon, director of the school’s museum studies program and associate research professor, described the multisensory approach. “The idea is to be fully immersed without actually being there,” said Toon.

A key feature of the exhibit is the offering of replica clay figurines handcrafted by Mesa Community College students. The pieces were molded and fired in a dirt pit at ASU’s Deer Valley Rock Art Center, using the traditional methods that the people of Teotihuacan used to create their own pottery and figurines. Attendees to the museum are allowed to physically handle these near-exact representative figurines and pottery.

“There is a desire to encounter the real object, a human need for interaction that this exhibition does a good job of satisfying,” said Toon. The exhibit, constructed by graduate students in museum studies in the School of Human Evolution and Social Change, is designed to appeal to a broad community and convey the relevance of Teotihuacan’s rich history and societal structure compared to modern society.

Professor Emeritus and supervisor of an ASU-managed archaeological center in Mesoamerica, Professor George Cowgill described the exhibit as a stage for more than artifacts. “This exhibit doesn’t just focus on rare, precious things,” said Cowgill, who physically scoped out the size of the pre-Aztec city in 1964, “We’re looking at the whole city. Including the rich and poor, so we represent what the city was really like.”

Cowgill has spent more than 40 years researching the ancient city and its people. One of his most surprising discoveries was the unearthing of 200 sacrificial bodies in one of the pyramids with his colleagues, he says. “It’s one
of the most eye catching things I’ve been involved with. We already knew there would be bodies, but that was more than we expected.”

And Cowgill’s work isn’t over just yet. “We have evidence of people living outside the city that has yet to be excavated,” said Cowgill. “It runs the gamut from the most expensive to the extremely impoverished.”

Part of the Teotihuacan exhibit was arranged to reflect some of the Mayan apartment living styles. “The exhibit is about the common people and we want to show how they lived,” said museum studies Graduate Student Brian Asdell. The exhibit also features a timeline of various styles used throughout Teotihuacan’s history along one of the exhibition’s walls. Asdell noted that the sounds piped into this area of the exhibit were recorded in Teotihuacan, including native bird calls and thunderstorms.

The exhibit is not only a showcase for the school, but offers museum studies graduate students like Asdell feedback from audiences vital for the exhibit’s future. “It should be a place for experimentation; a training opportunity for our students,” said Toon.

Judy Newland, director of the exhibit innovation lab, says that she also relies on the dedication and time put into the exhibit by the school’s graduate students: “It’s a complicated exhibit; we depend on our students to put this on.”

It took 10 years to develop the exhibit; obtaining artifacts for the exhibit proved a lengthy process that Toon realizes could pose a problem to expanding the exhibit to other venues.

To circumvent this issue in the future, Toon devised a simple, effective concept for the exhibit. “I call it a ‘traveling concept’ so some of the content can be taken to another museum and they supplement it with their own content,” said Toon. The following months after the opening of the exhibit are crucial in turning the ASU showcase into a traveling museum. Toon hopes that his concept proves to be useful for the development of other exhibits in the future. “We have a series of exhibits coming along,” said Toon “including an exhibit on forensic anthropology.”

ASU is the leading U.S. institution in ongoing research at Teotihuacan, notes Cowgill, and the museum exhibit offered significant understanding about Teotihuacan’s unique size, as the capital of the largest empire of its time in Mesoamerica. “I was 60 when I was hired by ASU,” said Cowgill. “To join a university with a strong archaeology group within the anthropology department was a milestone for me.”
“The scholarship gave me encouragement. It helped me to realize I was able to do something good, and I am very grateful for that chance.”

Carlos Morales
Biochemistry Ph.D., researching cancer in children
New institute expands real-world application of research on STRESS

By Margaret Coulombe

Professor Doug Granger relocated his academic programs from Johns Hopkins University to Arizona State University this summer to create the new Interdisciplinary Institute for Salivary Bioscience Research.

“ASU is the right place, and this is the right time for the creation of the new institute,” says Granger. “The University is very problem-solution focused, the boundaries between disciplines have been reorganized to encourage innovation, and its leadership is driving toward goals that will make a difference in people’s lives. These new themes at ASU closely parallel my scientific training and approach over the past 25 years, and fit well with our goals for the field of salivary bioscience.”

Granger is a psychoneuroendocrinologist who uses measurements he pioneered in saliva to study the interface between biology, behavior and social context. The network of partners that he has attracted is vast – the collaborative numbers in the hundreds worldwide, including scientists and clinicians in the military, hospitals, zoos and scores of research institutions.

One link between all of the studies is the use of the analysis of salivary biomarkers and analytes, such as cortisol and alpha-amylase, to measure stress.

“To build momentum in this new field has meant that a community of scholars had to emerge from their individual laboratories and tinkering with ‘homemade’ tools to foster a collaborative effort across disciplines, with standard protocols and standardized reagents and measures,” said Granger.
To help foster this change, Granger’s efforts include building networks of collaborative teams from a wide range of specializations; creating companies, such as Salimetrics salimetrics.com, to manufacture and provide reagents and collection devices; establishing laboratory-based service centers at multiple academic institutions and conducting training workshops around the globe.

The research topics vary widely – from studies of infants to the elderly, to pets and animals in captivity. At question might be how children in adversity or poverty develop. What is it about biological variation that makes people resilient or at risk? What happens to elderly caregivers over time or conflict between couples as they navigate a touchy topic?

The advantages of using a method that is minimally invasive is multifaceted, Granger points out. First, researchers can analyze variation in biological systems in the context of everyday life. Also, participants are less impacted by the study process itself – since no needles are involved. This allows the research to become more agile and more adaptable and has fostered a rapid rise in information gathering and application of new understanding to a myriad of systems – from animal reproduction to psychology, human disease and treatments.

One place that research from institute partners is already being applied to real-world situations is through their work with U.S. military service members.

Granger and institute partners worked with nurses at Fort Lewis in Washington to understand how nurses are able to physiologically regulate in complex, chaotic situations and what most affects decisions they make about triage and treatment in combat rescue situations.

Navigating a simulated combat scenario, nurses encounter smells, noises, explosions and test casualties – all significant situational stressors. Data collected from analyzing saliva for stress biomarkers revealed that the amount of stress reactivity that the nurses were experiencing was related to how many mistakes they made during triage and treatment of simulated combat causalities.

Salivary bioscience is emerging as a scientific field and so far its integration into social, behavioral and health sciences has proven pivotal. Scaled against the meaningful events and connections in people’s lives, over time the institute could change the face of what we understand about each other and how we manage some of the most stressful times of our lives.
Marching to the beat of the same drum?

By Margaret Coulombe

A
n intriguing new study at Arizona State University is exploring linkages between social networks within organization, behavior and hormones. Conducted with ASU’s Marching Band, the research is led by Serena Weren, a doctoral student in instrumental conducting; Olga Kornienko, an assistant research professor in the T. Denny School of Social and Family Dynamics; Gary Hill, a professor and director of ensembles in the Herberger Institute for
Design and the Arts; and Douglas Granger, Foundation Professor of Psychology and director of the Interdisciplinary Institute for Salivary Biosciences Research (IISBR) in the College of Liberal Arts and Sciences.

This interdisciplinary team is looking at how social structure and relationships are related to hormones and how these bio-behavioral relationships change over time. The project is funded by a Herberger Seed Grant and a donation from Salimetrics, LLC salimetrics.com.

“The study takes advantage of using saliva as a specimen to collect information about biological variation from a large group of individuals simultaneously,” says Granger. “To the best of our knowledge, this has not been done on this scale before. The study is groundbreaking because it integrates salivary bioscience and social network analysis.”

How is a marching band ideal for this? If you think about a band, it is highly organized and structured in sections: a hierarchy punctuated by woodwinds, brasses, baritones, souzas and drums. The affinity within each group is high and the whole is ordered and working in concert, so to speak.

“The marching band offers a unique sample to study how both social and performance-based relationships are developed while working toward a common performance goal,” explains Kornienko.

Data collection with more than 200 students at a band practice is a lesson in well-orchestrated chaos. Stations are established for each musical section. Kornienko heads up the station for the trombones, handing out clear, standardized collection vials and instructions to a gaggle of brass-bearing instrumentalists.

“It’s hard to collect [saliva] on a hot day,” shares Olga, while students laugh, eye the tubes and each other.

Some students break into small groups to spit with vigor. Others drool over tubes, depending on a gravity feed. Still others crouch in the grass, vials cupped from view – but all are having a field day with the experience.

“I’m only halfway there, and it’s full of bubbles,” one student complains. “Oh, dude! I’m so close. C’mon spit. Get in there,” spouts another.

For those suffering dry mouth, there are suggestions to titillate the taste buds to get the saliva rolling. “Imagine a really good meal,” Weren suggests to one struggling spitter.

“Don’t worry about it,” offers another study leader in a calming voice, much like a meditation tape. “Yes…let it just flow.”

“Social network analyses like these allow us to map out complex social systems,” says Kornienko. “We’re particularly interested in how position in the social structure and the nature of social ties are associated with levels of hormones linked to social dominance – testosterone, and social inhibition – cortisol.”

It’s possible that this information will reveal bio-behavioral clues as to why some groups function as a cohesive unit and others as just a bunch of individuals with their own personal agendas. If this basic research is successful, the findings may advance our understanding of sport teams, business organizations, military battalions and even classrooms.
When you meet history professor Rudy Guevarra Jr., the first thing that strikes you is his warmth; the second is the energy that he brings to students and his research in comparative ethnic studies and mixed race identities.

Guevarra's parents are Mexican and Filipino, but he calls himself Mexipino, reflecting the rich, multiethnic mélange of cultures that he was born and raised in. In addition, the Samoan, Chamorro, Mexican, Filipino, Tongan, Native Hawaiian, as well as African American and Southeast Asian populations in San Diego formed a potent blend of cultural experience where he grew up. Being exposed to Pacific Island cultures shaped his life in good ways, he says; though his early life experiences also challenged mainstream norms.
“I was a homeboy. I was involved in gangs and got into trouble when I was younger,” said Guevarra. Ultimately, what helped him change were the people who saw his potential. He thought more and more about his parents and their sacrifices and wanted to honor them. He also had teachers who helped him see other possibilities in life. “They said, ‘If you get your act together you’d be a great teacher.’ They recognized things in me that I didn’t see, planting little seeds along the way to support my path.”

Ironically, history was his least favorite subject. “It’s funny now because I am a historian right?” Guevarra said, “But I think it’s because I rarely saw my people represented in the history books. Our ethnic and cultural histories were relegated to a side bar or glossed over completely.

The shift in his view on history first came in the form of his high school teacher. “Mrs. Edler taught an American Government and History course, but she taught it from an African-American perspective,” said Guevarra. “It really opened my eyes to thinking about other possibilities and asking questions. What did my people contribute? What did they do?”

These questions are now also central to how Guevarra approaches his own courses, including Filipino American, Pacific Islander, Comparative Chicano/Filipino/Mexipino and Mixed Race Experiences, and Race and Ethnic Relations in Hawai‘i as part of the Asian Pacific American Studies program in the School of Social Transformation.

For example, on the first day of his Pacific Islander Experience course students are asked to share their genealogy: Who am I? Who are my peoples? What brought me to this place, here in Ariz.?

“I get some students who chant their genealogy in Hawaiian and others in Diné (Navajo),” said Guevarra. “We have rich cultural interactions, but there are also students who are like, ‘Oh, I’m just white. I don’t know what to share.’ It inspires them to learn more about their own background and ancestors.”

“We empower students to ask questions. There is excitement as each of us learns, comes together to appreciate and see each other as more than just classmates. Having alternative perspectives is also important for the understanding of the complexity of our country and its issue with race and mixed race,” said Guevarra. “This is what I try to foster and instill in my classrooms.”

“When I went to college, I was rough, unpolished. I didn’t really know what I was getting into but I was determined to pursue higher education. I rolled onto campus in a lowrider Monte Carlo and all around me were Mercedes-Benzes and BMWs” Guevarra said with a laugh. “Over the years it was my mentors and fellow students – my “hui” – that were life changing. They made me want to be a better person and it set the foundation for what I do now with my own students.”

Undergraduate student Josalyn “Jewel” Savea took Guevarra’s mixed race seminar because she is Samoan and her partner is Mexican. Savea changed her major from speech pathology to Asian Pacific American Studies last year because she wanted to be part of a movement to expand the Pacific Islander experience within Asian Pacific American Studies and work to help Pacific Islanders in higher education. “One of the strongest messages that I gained from the class is how paramount identity is; more importantly, how identity influences our roles in society, the issues that mixed race people face every day and how those issues are revealed in my own life.”

Understanding the mix of cultures and identities across cultural boundaries, geographical barriers and oceans is central to Guevarra’s research as well as his teaching. The author of several books, his most recent book-in-progress, “Aloha Compadre: Latina/os in Hawai‘i, 1832-2010,” examines the migration of Latina/os to Oceania (the Pacific).

“What people don’t know is that Latina/os form approximately 10 percent of Hawai‘i’s population or that Mexicans were in the islands long before Asian migrants, such as the Japanese, Chinese and Koreans,” said Guevarra. “Mexicans arrived in 1832 at the invitation of the King Kamehameha III, whose father Kamehameha I had received a gift of cattle from Captain George Vancouver.”
To help the cattle flourish, Kamehameha I had placed a kapu or taboo to prevent their slaughter. Within two generations they were destroying taro patches, the lives of the people and native plants and animals, prompting King Kamehameha III to send a request to California, which at the time was part of Mexico, for vaqueros to come teach Native Hawaiians how to control the cattle population. These Mexican Indios and mestizos taught their Native Hawaiian counterparts to be cowboys and thus was born the Hawaiian paniolo.

“There is a very visible presence of Mexicans in Hawai’i early on. For those that stayed, the king provided them with land, they married Hawaiian women, adopted Hawaiian names and became Hawaiianized-Mexicans. With them came their guitars and eventually the Hawaiians created their own distinct sound, now known as slack-key guitar music,” said Guevarra “This cultural mix had a very positive effect on both groups... remember this was 50 years before there was an American cowboy on the scene.”

This legacy of connection between Mexicans and Hawaiians grew through the 20th century. Puerto Rican immigrants arrived in 1900 to work on Hawai’i’s sugar plantations. Their participation with other immigrant groups and Native Hawaiians forged a “Local” culture, with Pidgin English as one of the more visible cultural records of this blending. More recently, Mexican and Central American workers have helped bolster the pineapple, coffee and macadamia nut industries. Latina/os also arrived via the U.S. military. In addition to redefining the notions of borders – to include oceans – Guevarra is also examining Hawai’i’s portrayal by early sociologists and boosters as a racial paradise. Aloha, a Hawaiian term which embodies love, affection, peace and compassion, is core to the Hawaiian culture. However, there are also underlying racial and ethnic tensions that exists, said Guevarra. “Tourism has been very good at hiding these tensions and promoting this idea of an aloha spirit, but even that is challenged by increasing immigration, shifting labor hierarchies and influx of peoples and attitudes transplanted from the mainland. These issues also create tension with locals and Native Hawaiians on the islands.”

“It’s an interesting time and I really think there’s a great, complex story to be told. I hope that people can rethink the Latina/o experience and interethnic relations in a broader, comparative way through my work,” said Guevarra.

Once he’s completed “Aloha Compadre,” Guevarra hopes to expand his studies to Aotearoa (New Zealand) and eventually create an interactive digital archive that is a repository of Latina/o experiences, migration routes and oral histories in the Pacific for scholars, teachers, students and the general public.

“The oral histories that I use and gather, including music... they are central to the story, breathing life into the narrative that I’m weaving together,” said Guevarra.

Arizona State University has offered Guevarra the perfect recipe for success: “The College of Liberal Arts and Sciences has been a place where all these things have been made possible. To my knowledge no one else is doing this kind of work in Arizona and I’m able to pursue great opportunities, to teach innovative courses and work with great students. I love my colleagues. They are like family, which has been key to me wanting to be here.”

“I feel very fortunate. I get paid to do what I love and you can’t ask for anything more. It’s a great feeling to wake up in the morning looking forward to going to work,” said Guevarra.
You might not realize it, but there is a bit of the Pacific Islands on the Arizona State campus. Formed in 2011, Club Oceania offers a cultural grounding and community for undergraduate students of Polynesian background from the U.S. and abroad.

“Oceania creates a home away from home,” says Jewel Savea, vice president of Club Oceania and undergraduate student majoring in Asian Pacific American Studies. “The club also creates a special place where our bonds are strengthened – not just by our similarities, but through an understanding of our differences.”

Student-centric activities include traditional dance, chants and performances, in addition to hikes, blood drives, barbecues and other experiences.

One of the favorite performances for members is preparing for and dancing for the annual Aloha Festival at Tempe Town Lake Beach Park each spring.

“Just before dress rehearsal, everyone gathers to make their costumes and put together accessories. We eat bread with cocoa while we pull out hot glue guns and some of the boys jam on the ukulele. It’s a beautiful bonding experience for all of us,” said Savea. “On stage is where we show what we’ve worked so hard on all year. This is where we’re proud to show everyone where we came from, why we are relevant, but mostly we want to share who we are.”
Who they are often involves correcting misconceptions about island culture and its art forms.

“Often, during our Tongan numbers, people are thrown off by the costumes and the teki in our hair. Most of the jokes that we hear come from ignorance about Polynesian cultures and what Polynesian dance is supposed to look like. Many people have their Hawaiian tourist goggles on,” explains Savea.

“So often what was cultural storytelling has become commodified, as a novelty, such as the hula,” notes Rudy Guevarra, Jr., Club Oceania’s faculty advisor and professor in ASU’s School of Social Transformation. “Most people don’t understand its cultural significance or the struggles to maintain it, in the face of colonialism.”

“Doing the hula and surfing were at one time actually considered acts of resistance. Pursuing these cultural arts is actually carrying forward these students’ genealogies,” says Guevarra.

“Oft times there is an assumption that if something isn’t written, then it doesn’t count. But for people of color and indigenous communities, archives are very broad,” Guevarra points out. “Think about someone who is chosen to recite oral histories or genealogies. They’re reciting thousands of years of history. Photographs, art, dances, music and songs all carry historical and cultural pieces of information and expression.”

It is small communities like Oceania that offer students the space to have this cultural grounding, to anchor themselves, share and see their own stories reflected in the accomplishments of the wider ASU community. To find out more about Club Oceania (asu.orgsync.com/org/oceania)
Crystal-clear spring water turns blood red, warding off would-be drinkers. Fog disappears from glass surfaces, clearing the way for unobstructed views.

“How we do it?” said Nicole Herbots, professor emerita of physics at ASU. “We can’t tell you.”

But they aren’t illusions – Herbots and her team are one of two groups of ASU natural sciences students and colleagues who are making magic real through projects that could help millions across the globe.

The innovative projects are a part of the Edson Student Entrepreneur Initiative, which selects students and provides them with funding, mentorship and office space to develop innovative ideas and launch viable businesses.
Making Water Flat
Herbots points at a glass plate sitting over a bowl of heated water, where fog should form. It’s clear.

“We’re changing the way the surface interacts with the molecules at the nanoscale,” Herbots said. “We force a surface to interact with the water so it doesn’t form a drop. It forms a sheet.”

Herbots and teammates Clarizza Watson, a chemical engineer with her MBA, and Ajjya Acharya, a graduate researcher with a degree in biochemistry and genetics, are developing ways to prevent fogging on microscopic surgical tools and cameras, sport lenses and vehicles with their patents for VitreOX, VitreSport and VitreShield.

Doctors have to repetitively clean microscopic lenses during surgery, and the process can be “highly disruptive to the rhythm of the operation,” causing a loss of view that can lead to unintentional injury to the patient, according to Dr. Eric Culbertson, a general surgeon and plastic surgery fellow at UCLA.

“The ability to apply an anti-fog solution to the lens at the beginning of the case, and maintain a condensation-free view for the entire operation or with very few reapplications would be very beneficial to laparoscopic surgeons,” Culbertson said.

Watson added that the removal of the microscope during surgery exposes the open wound to oxygen, creating more scar tissue in patients. The method their team uses could cut down on surgery time and its lasting effects.

“It means shorter surgery time for the surgeon, shorter surgery time for the patient, less infection, less scarring,” Herbots said. “It’s not just good for everybody, it also has an economic impact, on the medical side, on the pain and suffering side and the cost of procedure.”

Herbots, Watson and Acharya explain their innovation like this: fogging on a surface consists of three-dimensional droplets at the molecular level in the form of round beads, which disperse light and restrict visibility.

The beads interact and stick to each other instead of the surface, which forms fog. The team has found a way to both temporarily and permanently change the way those molecules interact with a surface so they appear uniform and flat, like a sheet of water, allowing transparency.

Currently, the technology is commercialized and sold to manufacturers in the non-medical field.

Acharya is working on taking it a step further – he is developing a method to repel blood droplets on microscopes as well.

However the team, with the help of Edson and other incubator programs, has expanded their potential market by patenting and working on products applicable to sports and vehicle safety.
Magic tablet
While doing research in Guatemala, Maddie Sands realized people in small, rural towns drank contaminated water even after being informed of the danger of germs and microbes.

“There was a real disconnect with ‘the water in front of me doesn’t have germs and microbes’ because the water looks clean,” Sands said.

Sands, a master’s student in global health, who studied anthropology as an honors undergraduate, traveled to Guatemala on two research trips with colleagues.

“You see that people get sick, but we also got sick,” Sands said. “There were days when we were both in bed. That was where the idea came from – there needs to be a way to easily detect contaminated water.”

Sands said water could be sent off for testing, but the results wouldn’t come back for weeks, and by that time, those who drank it could already suffer its effects.

Sands, who is also a pre-health student at ASU, took the problem to Nisarg Patel, Joe Yun, Hyder Hussain and Ryan Muller, fellow students she met through her science classes.

“We want to help those in developing countries who don’t have a way to test for contaminated water so we can treat the water and cut down on water-borne diseases such as childhood diarrhea,” Sands said.

Most existing biosensors are too large, expensive or require electronic machinery that requires extensive technical expertise, rendering them unsuitable for people in developing countries, said Patel, a double major in molecular biosciences and biotechnology and political science.

“So our solution is to use the power of synthetic biology to solve that problem by creating a cheap, portable biosensor that can detect any source of water at any time,” Patel said.

Each sensor is based on a genetic code for a protein that detects a different type of bacteria. Patel said the code could be swapped out in order to get the proteins necessary to detect various kinds of infectious bacteria like E. coli, Salmonella and bacteria that cause cholera.
Sands said Edson is helping them branch out to market the product to backpackers, the military, the meat industry and hospitals to aid in paying for the non-profit side of getting the tablets into the hands of those who need them the most.

**The Edson Network**
The Edson Student Entrepreneur Initiative functions like an incubator for the largely interdisciplinary teams by mentoring, shepherding and training them to launch businesses with their products.

“A lot of people have great ideas, and they try to start a company from the university but what do you do next?” Watson, the VitreOx chemical engineer said. “Edson has provided the framework for us. There’s always someone to talk to. I think when you are pursuing business you start feeling alone. The most important thing was the support network to get your foot in the door.”

Each year, up to 20 ventures are selected for up to $20,000 in funding for their projects. They are given office space at ASU SkySong, which provides a professional setting for early stage entrepreneurs, local and international businesses. Each team is provided coaching through a team of mentors.

Other types of ventures include products dealing with kitchenware, wheelchairs, an application to reduce food waste and mechanical spray pollen for farmers. Edson is open for all students across ASU to apply.

“We always say we don’t want a team of all business or all engineers,” said Tracy Lea, venture manager at ASU SkySong in Scottsdale, Ariz. “Wherever you have a weakness, figure out where you’re lacking and fill the gap.”

Patel said Edson and the university have been helpful to his team: “We’ve been able to get support from Edson Innovation Challenge, the College of Liberal Arts and Sciences as well as the School of Life Sciences in order to turn our idea into a reality, and we’re really thankful for the support they have given us through funding, mentorship as well as resources to turn it from just something in the lab to something we can take to the real-world because that’s what we really strive to do.”

---

HydroGene Biotechnologies team members (left to right): Nisarg Patel, K. Hyder Hussain and Ryan Muller
Photo: Jacob Mayfield
The Institute for Human Origins has worked with the Afar people in Ethiopia for decades. That relationship is part of the reason why our earliest hominin ancestor, also known as Lucy, was given the scientific name, Australopithecus afarensis. A naming that honors the Afar region where her bones were discovered, and the nomadic, pastoralist Afar people who helped support the research that revealed her to the world.

“It put the Afar on the map,” said an Afar elder to Professor Kaye Reed, a paleoecologist who researches fossil mammal communities in both South and East Africa, along with living primate communities. This sentiment is echoed by Professor Donald Johanson in his
book, “From Lucy to Language.” “The Afar take great pride in Lucy and some” he writes, “believe that the first human was Lucy … all humanity is descended from the Afars.”

However, though Ethiopia is rich in fossils, it is also one of the world’s poorest countries. Working at research field sites is one of the only sources of income that the Afar have. An individual’s status is rooted in the numbers of goats, sheep, or camels they own, but money is used when resources cannot be obtained through trade.

“When we go to the field we hire Afar,” said John Rowan, a graduate student and part of Reed’s research team. “We get granted research permits from the national government. The Afar team members are there to act as interpreters and liaisons between us and the local people.”

Halszka Glowaka, a graduate student who worked at Hadar, agrees that “there is a strong connection. The young guys tend to be the sons of men who used to work with the project.”

Chalachew Seyoum is a native Ethiopian and an institute graduate student who participated in many of the paleontological research groups in the Afar region as well as in the Omo valley. Chalachew argues that while it is good that the Afar are hired, their position has not changed for almost 40 years. He said, “They are still daily laborers. They are not going to school and they do not have access to clean water or clinics.”

When applying for funding, most grant foundations ask how your work will benefit local communities. Chalachew believes that more should be done – something lasting, not only advancing science, but also improving the local people’s lives.

As a small start, Chalachew and others, with the support of the institute’s director William Kimbel, built a marker in the location Lucy was found – a source of pride for the local people.

“I was the one to articulate the words written on the marker,” said Chalachew. “I knew that it was going to change things.”

“Since that marker was built, I saw Ethiopian TV went there and aired it to the public!” said Chalachew. “I carried stones and faced the challenge and I did it.”

“That makes me feel really great, not about myself, but about contributing something for the local people,” he said “I am sure this will open opportunities for tourism. I am hopeful that other research projects will follow this example and do the same.”

This next generation of leaders holds the promise of being not only leaders in paleoanthropological research, but changemakers who can transform the lives of the Ethiopian people who support them.
Paleoanthropology: The Next Generation

By Susanne Daly

An imposing wild impala antelope skull with spiraling horns rests before a rainbow spine of books that spans vertebrate paleontology, zoology, evolution and biogeography. A bookshelf can reveal much about a person, and this could not be truer of John Rowan.

Rowan is an evolutionary anthropology graduate student in the School of Human Evolution and Social Change and an affiliated student with the Institute of Human Origins. A research center of the College of Liberal Arts and Sciences, the institute is most famous for its paleoanthropologists, such as Professor Donald Johanson, who discovered our earliest hominin ancestor Lucy. However, Rowan is the first to tell you he is absolutely not a paleoanthropologist.

He argues, “I am a vertebrate paleontologist,” and yet, his research is vital to understanding the evolution of the human lineage.

“I’m working on fossil antelopes and what they can tell us about early environments of human evolution,” explains Rowan. “While it may seem far-fetched, the mammals surrounding early hominins can tell us quite a bit about the ecological conditions and selection pressures faced by our earliest ancestors.”

“The habitat-specificity of antelopes provides insights into the tempo and mode of evolutionary processes in a mammalian group that overlaps with the hominin lineage in body size, dietary and habitat preference, and geographic distribution,” says Rowan. “These features can help us understand why we see certain patterns and trends in the human fossil record.”

Rowan’s adamant self-definition as a vertebrate paleontologist might be a result of him not wanting to limit himself to one animal or one track of thinking. Prior to
ASU graduate student John Rowan examines fossil-bearing sediments at the Ledi-Geraru Project’s encampment in Hadar, Ethiopia. Photo: Kaye Reed
Rowan’s advisor is President’s Professor Kaye Reed, a paleoecologist who researches fossil mammal communities in both South and East Africa, along with living primate communities. Reed has also been instrumental in opening the field of vertebrate paleontology to women nationally, one reason for her selection for the 2013 outstanding mentor award by ASU’s Faculty Women’s Association.

“Kaye is outstanding in that not only is she easy to talk to, but she is a great teacher and friend. She makes every topic interesting and is full of ideas, but she can also be really critical and poke holes in ideas so that you go back and revise what you thought you knew,” says Rowan.

Past and Present
To take a step back into our own human past, Rowan and Reed travel to the Ethiopian fossil site of Hadar, which dates from about 3.5 to 2.9 million years ago (Ma). Hadar is famous for being the home of Lucy, a small adult female hominin dated to 3.2 Ma, discovered by Professor Donald Johanson in 1974.

Their efforts are part of the Ledi-Geraru Research project, founded by Reed, Ramon Arrowsmith of ASU’s School of Earth and Space Exploration and the late Charlie Lockwood in 2002. After years of surveys, this project launched its first collecting season in 2012, Rowan’s first year at ASU.

Finding fossils is a tricky business. Fossil-bearing sediments here are structured or stratified much like a multi-layer cake, cut through by rivers and wind erosion over the ages. Lucy was found in the lower portion of the formation, where the oldest sediments are – the youngest regions are at the top.

However, a large chunk of the Hadar fossil record, dating between 2.9 and 2.7 Ma, is missing – a result of tectonic reorganization in the Afar region over the last few million years. To make matters worse, the sediments above this missing record have proved to hold fewer fossils than those of the older Hadar deposits. It isn’t until much later in time that, in sediments dating to 2.3 Ma, researchers located more hominin fossils. Amazingly, these fossils are not of Australopithecus, but instead belong to the earliest member of our own genus, Homo, as represented by a complete upper jawbone.

So where did this early human come from? With such a vital time period missing from Hadar, the exact nature of the origin of our genus is still in question, says Rowan.

“It’s proving to be pretty exciting. We’re addressing fundamental questions in human evolution about what happened to A. afarensis. Does it really disappear from the fossil record at 2.9 Ma?” says Rowan. “It looks like it, but we really don’t know if that is an artifact of preservation or if it does actually disappear… or go extinct.”

“It’s exciting to be one of the project’s paleontologists. There are tons of things that can be addressed from sediments at this time period,” says Rowan, “I can’t wait to find out what this window into the past will reveal to us about the origins of our own lineage.”
Calculating their future:  
Mastercard Foundation math scholars change communities

By Margaret Coulombe

Sometimes you are inspired by the struggles that you go through; sometimes by a mentor and sometimes your forward movement is simply built into who you want to become. In the case of mathematics scholar Allen Kawanzaruwa, one of nine Mastercard Foundation Scholars studying in the College of Liberal Arts and Sciences, change came early in the form of a worker’s strike in his hometown of Harare, Zimbabwe. “My father is a glazier. He lost his job,” said Allen, handsome face creased with a magnetic grin. “He started to sell things. My mother started to sell things and I’d go to grade school, then come home, take out a cooler and sell popsicles to help the family.”

“When you sell popsicles, people tell you, ‘look, you’re a business man.’ It made me start thinking: What am I going to do? So I said then, ‘Okay. I will start to study after selling popsicles’,” said Kawanzaruwa. His studies began at 11 p.m. and lasted into the early morning, often 3 a.m.

Rumbidzai Mugaro is from Mutare, Zimbabwe, near the border with Mozambique. She found her inspiration through her family and competition. She attended a boarding high school, specializing in math, physics and chemistry her last two years. She became one of the four students taking an advanced course, rare for most girls – Further Mathematics. Mugaro was one of the few, if not the only girl, in her school’s history of more than 100 years to take Further Mathematics and you get a clear picture of what drives Rumbi or Rose, as she prefers to be called by those who have difficulties in saying Rumbidzai.

“I would tell my siblings, ‘I’m going to break whatever records you had in school, I’m going to beat all of you, including you too dad!’” she laughed, acknowledging that she believed a bigger part of her brain had come from her father’s side. “My family backed me up, supported me and made me feel like everything was achievable.”

“I also had teachers in high school that believed in me and put pressure on me just so I would realize my full potential. I felt like I didn’t believe in myself as much as others believed in me, so that pressure was good for me,” said Mugaro.
Mugaro is pursuing her bachelor’s in actuarial sciences at ASU. She is also pursuing business and economics minors. She and Kawanzaruwa were chosen from more than 700 outstanding students from sub-Saharan Africa through the United States Achiever’s Program, said Jennifer Rode, a coordinator for the Mastercard Foundation Scholars Program at ASU. Rode works directly with the scholars once they are in the U.S. She advises them on whatever their needs are – academic, social, physical, health and wellness. But not tutoring, Rode said.

“They’re all a lot smarter than I am, so no tutoring!” Rode stated. “I just make sure our students take advantage of the vast resources already offered here on campus – The Writer’s Center, The Tutoring Center – and particularly for international students.”

Rode also encourages students to talk to professors, one of the many new concepts that international students from Africa face: “Professors are demigods there.”

“The academic structure is also different in Africa, usually built along French or British educational models. It’s often hard for students to see how courses, attendance or even exams throughout the semester count toward their GPA here,” said Rode. “Sometimes it’s also the first time they’ve used an online component to a class. If there is a big difference from their home culture or if they are introverted it can be very difficult to fit in, to integrate.”

“The cultural differences were the biggest changes for me,” said Kawanzaruwa. “People here are open about anything. It’s very different. Some things that we don’t do in public in Zim, like public affection. Police can arrest you in Zim! Also being open to LGBT, gays, lesbians, people don’t do it there. This was a life changing moment for me coming here. This is a really good thing.”

“We check in with the students, but we also challenge them to think about their careers,” said Rode. “We ask, ‘What kinds of projects are you doing?’ We focus on community service. There is huge value placed on ‘give back, go back’.”

“We are recruiting the future leaders of Africa. That really is the end goal here with the scholars program,” said Rode. “I think the students we have and those that will come in the next two years will be changemakers in Africa. I have never stopped being surprised by their ideas, their creativity, their motivation to improve their communities back home and the love that they have for their countries. I really enjoy and feel privileged and honored to be to be working with all of them.”

Their passion for math and this “go back, give back” mentality fuels the choices and career dreams of both Kawanzaruwa and Mugaro.

“I plan to work in the actuarial field,” said Mugaro. “Zimbabwe is not very economically stable and is facing a critical shortage of qualified and experienced insurance personnel. Among the scarce professionals are actuaries.”

Training to be an actuary is thorough and it takes many years of hard work to qualify. Mugaro believes that making wise business decisions would help Zimbabwe to prosper and bring about positive change.

“You can deal with the financial impact of risk and uncertainty and mathematically evaluate the likelihood of events and quantify the contingent outcomes in order to minimize losses, both emotional and financial, associated with uncertain undesirable events,” she said. “It’s all about risk management and while I won’t bring lots of change by myself, I can bring something with me to contribute to companies and the economic development of my country.”

“Apart from this, I am interested in gender equality. I feel like most of the women in my country lack motivation to do something outstanding even though we are equally capable, I would love to do something that pushes them to their extreme capabilities, a support group maybe, with high achieving women who have made it in their own lives” added Mugaro. “I am motivated by the quote: ‘There is no female mind. The brain is not an organ of sex. Might as well speak of a female liver,’ by Charlotte Perkins Gilman. With some level of support and motivation, women can
be as competitive too. I am a living testimony of that.”

“Coming here has meant everything. I've been given an opportunity to go back and help my family, and my country. Coming here I discovered new things,” Kawanzaruwa said. “I will likely be changing majors, because I love computers and programming. In Zim, they don't give you that chance to explore. If you choose a major or degree, you're stuck in that field.”

“We need engineers and computer programmers,” said Kawanzaruwa. “Many people who come here don't go back. I don’t know why they don’t, but we need them. We need human resources, if not, where do we get them from, we need to fight that brain drain. This is how we will move forward. I want to start my own business, as a friend of mine in Zim has done. Weekends, he invites people into his café from orphanages and elsewhere and teaches them to use computers. Something like this I'd like to do.”

Both Kawanzaruwa and Mugaro mentor those in the second cohort of the Mastercard Foundation Scholars Program at ASU, including Gershon Apeteh (Ghana, W. P. Carey School of Business), Gloria Vheremu (Zimbabwe, W. P. Carey School of Business) and Nokwanda Ramatheko (South Africa, College of Liberal Arts and Sciences, Urban Planning).

While coming to Arizona State has offered them the support and training to make a difference when they go back to their home countries, Mugaro and Kawanzaruwa expressed that there are personal challenges.

“Coming to the US makes you view life in a different way. You become open minded about many things. At times I feel like I am already detached from my friends. I just hope people will not look at me differently when I go back home, like I have changed in a bad way, especially my friends and those who I was close to in high school, those that I can't relate to in the same way,” said Mugaro.

“Wow. I've changed a lot. The way I look at things is different than when I was there,” said Kawanzaruwa. “When I go back, my mindset is completely different from everyone around me. People there don’t have that kind of exposure.”

“I'm scared of that … I'm really scared of that,” Kawanzaruwa added softly.

Both students feel like they've also left their mark in Arizona, including opening fellow students' minds about who Africans are as a people.

“The problem is that people think that because you are from Africa and you are poor, you are dull, you aren't smart,” said Kawanzaruwa. “There are some people who have great minds. I remind people when I talk to them that things are different when you have everything. There is someone who doesn't have that. Think of that.”

“I will not solve all of Africa's problems alone, but my dream is to make changes today and have those changes benefit my country in the long run,” said Mugaro. “In light of this, there is a saying that keeps reminding me of the need to assist others: The only time you look down on someone is when you are helping them up.”
Cheer for ASU in 23 languages. **Go ASU!**

international.clas.asu.edu