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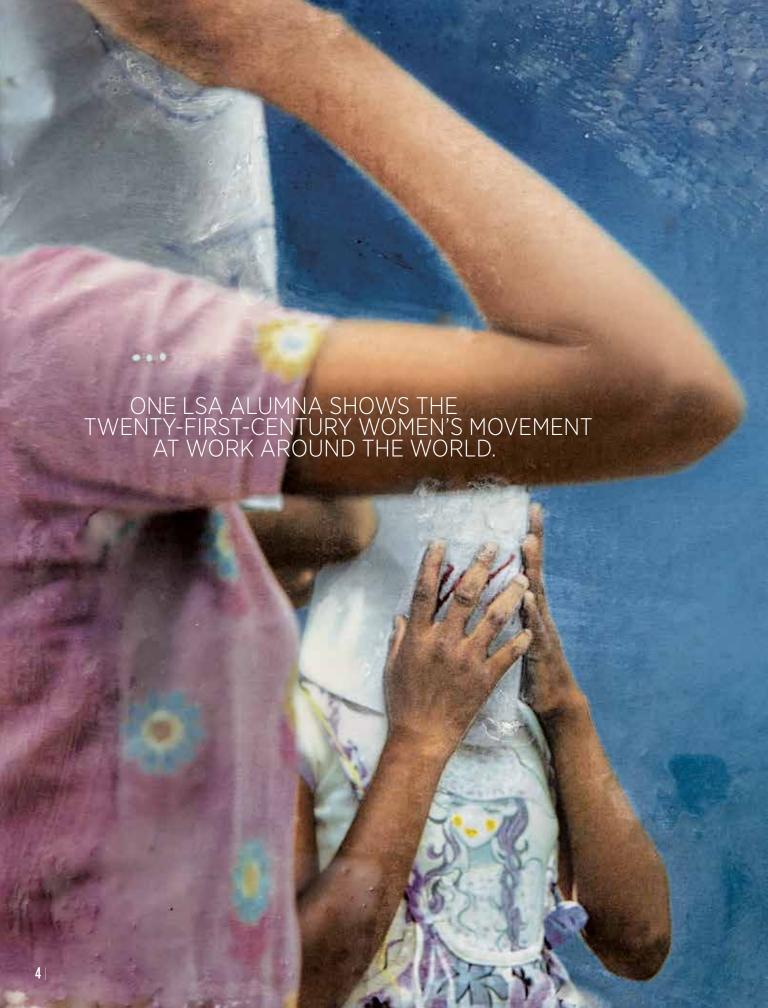


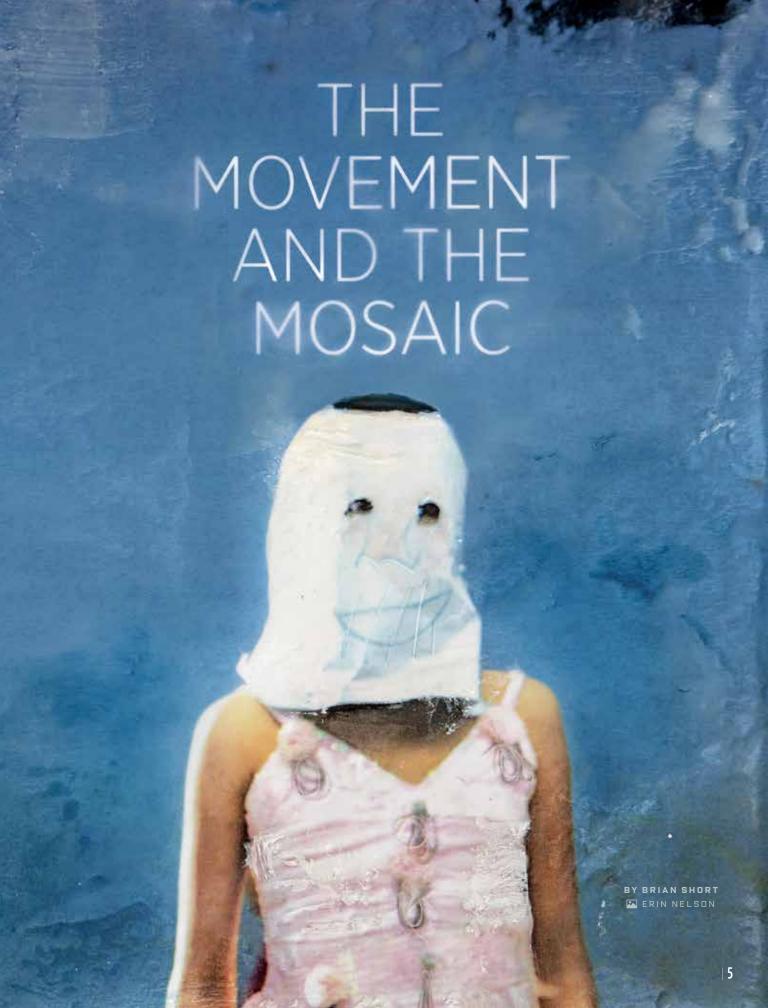
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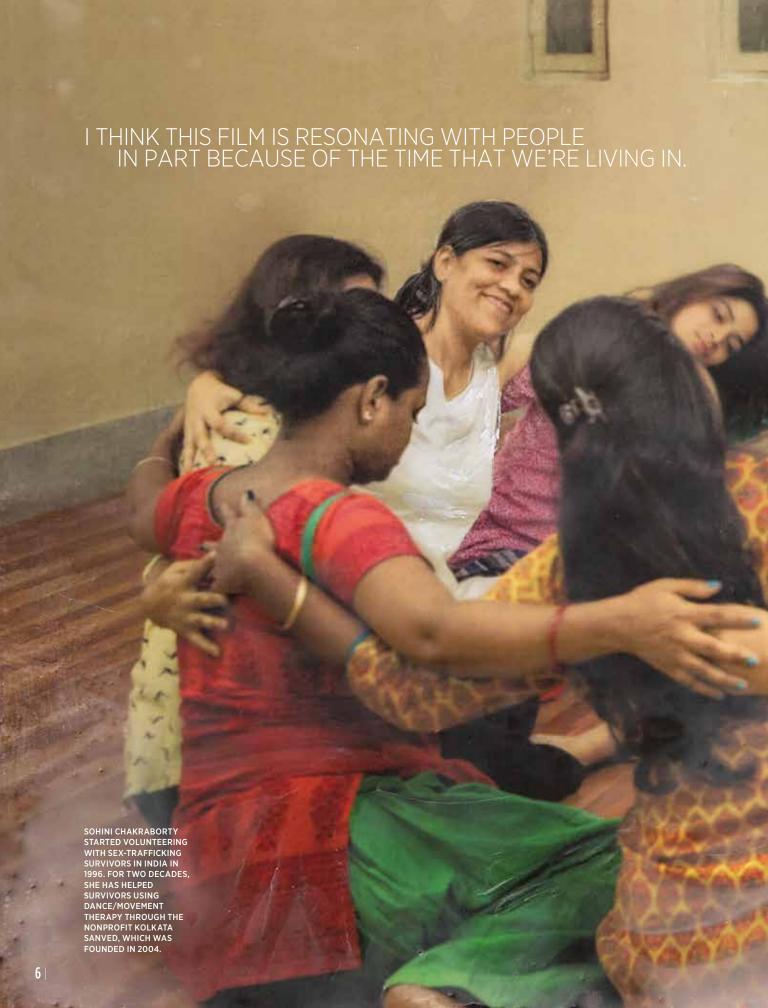




Cover Illustration by Nick Lu









tearing the paper in half.

The dance class takes place in the HASUS Shelter Home, which houses girls who have been rescued from sex trafficking or child abuse. A few days before this class was filmed, one of the girls from the shelter hung herself, and the dancers' mixture of stillness and anger in the therapy session speaks to the welter of betrayal, camaraderie, and catharsis the girls could be feeling. The scene is a sobering reminder that the consequences of gender-based violence don't just live on in the bodies and minds of survivors but in the silences of those who are no longer present to testify.

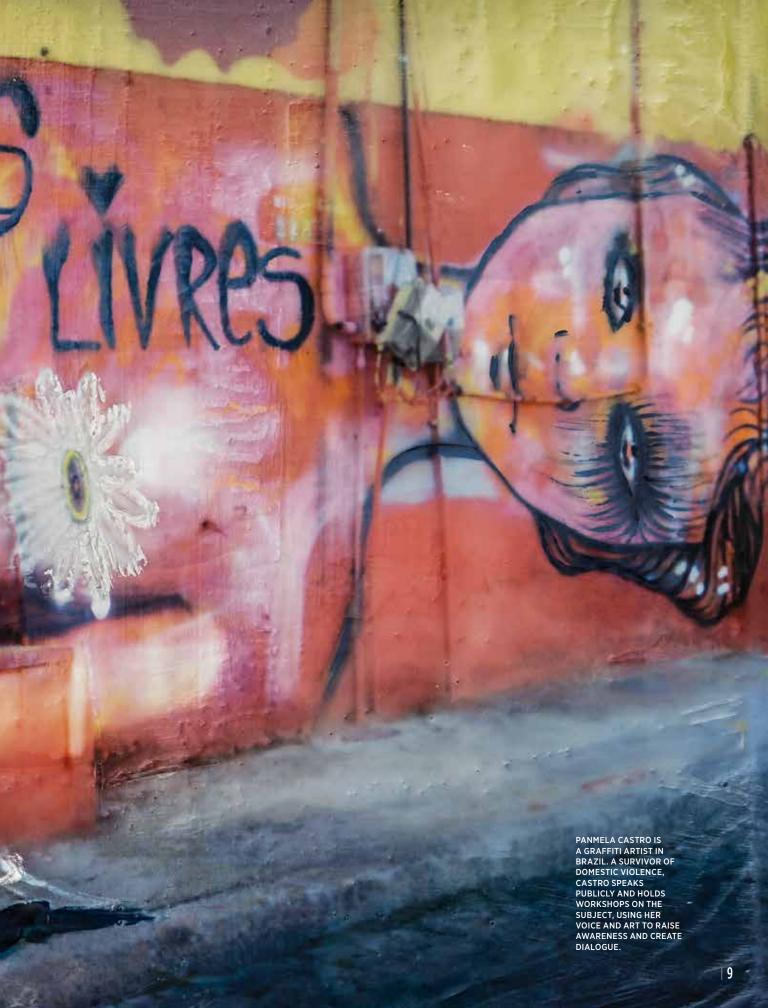
"I was thinking that maybe I am responsible, maybe the entire process doesn't work properly," Chakraborty says of her emotional response to the news of the girl's death. "But it's part of the entire process. The process has successes, and the process has risks. It's a challenge, and it creates an impact. But it's not something that we [in the class] hide, we share it."

Chakraborty's work using dance therapy to help girls exploited in sex trafficking and child abuse cases is just one of four narratives in the film *Little Stones*, which was written, directed, and produced by LSA alumna Sophia Kruz (A.B. 2011). The stories also address domestic violence, genital mutilation, and poverty. In all four, art and cultural production are used to empower people through education, personal expression, and truth-telling.

The title for the film comes from a quote by the suffragist Alice Paul, who said, "I always feel the movement is a sort of mosaic. Each of us puts in one little stone."

"I think this film is resonating with people in part because of the time that we're living in," Kruz says. "This is in many ways a really difficult moment, and I think people are really moved to take action right now. Especially women."









"WE'RE NOT JUST TALKING ABOUT TERRIBLE PROBLEMS WITH NO END IN SIGHT," KRUZ SAYS.

it's illegal and because it's considered personal and private. In India, we were interviewing young girls who had been rescued from sex trafficking, and having a woman behind the camera, I think, made them more comfortable, also."

But finding a female cinematographer wasn't easy. All of the cinematographers Kruz knew through her work at PBS were men, as were her cinematographer friends from school. Kruz's boss put her in contact with some producers in Los Angeles who connected Kruz with Meena Singh, a woman who had a lot of experience with television and feature films, but not with documentaries.

"This was her first entry into documentary, and I think it shaped her a lot," says Kruz. "Meena rolled with the grueling travel schedules and the small budget, and she was great at handling all of the extreme shooting environments that we were in. She was such a great creative collaborator, and together we were able to make and finish the film."

After principal photography was complete, Kruz was selected as a visiting social activist fellow at U-M's Center for the Education of Women. Because of that support, she was able to leave her job at Detroit Public Television and put together a rough cut of the film. The center also introduced Kruz to faculty at U-M's School of Education, who helped her develop educational materials for the film. Then, in March of last year, the film made its debut.

Since then, it has won a slew of awards around the world, including recognition from the Philadelphia Jewish Film Festival, the Vail Film Festival, the Female Eye Film Festival, the Zonta Film Festival, the Docutah Film Festival, and the Impact Doc Awards.

The film has also inspired viewers to use art to make change around issues

that mattered to them. Following an Ann Arbor screening of the film, 100 high school students from Ann Arbor and Detroit participated in a workshop in Liberty Plaza using poster design and spoken word poetry to advocate for social change. And activists in Bend, Oregon, held a four-day series of art workshops preceded by a sold-out screening of the film.

"Events like the one in Oregon are a dream," Kruz says. "As a filmmaker, you go work on something for four or more years, and you're just hoping that it resonates with audiences. Then people show up and not only respond, but they are inspired to take action themselves. That kind of thing is so rewarding."

Kruz is still working full time supporting the film and has speaking engagements and screenings scheduled through the first part of 2018. (The film will be available from iTunes in July.) She also dedicates time to Driftseed, a nonprofit Kruz co-founded with *Little Stones* cinematographer Meena Singh and attorney Ankita Singh, whose mission is to use education, outreach, and documentary storytelling to improve the lives of girls and women.

"Art is a great access point," Kruz says.
"It's a great way to engage new people in a dialogue and to get people excited. We're not just talking about terrible problems with no end in sight. I think we can really offer people some solutions."











by Susan Hutton 🔼 Nick Lu

IT OFTEN SEEMS LIKE DEMOCRATS AND REPUBLICANS CAN'T AGREE ABOUT ANYTHING. ONE LSA COURSE HELPED STUDENTS FROM ACROSS THE POLITICAL SPECTRUM MOVE BEYOND PARTISANSHIP AND FOCUS THEIR ATTENTION ON SOLVING THE PROBLEMS EVERYONE CAN SEE.



the gulf between Republicans and Democrats has widened. As Democrats have moved further left, Republicans have responded by moving further right. In 1994, a Pew report found that 64 percent of Republicans were more conservative than the median Democrat. By 2014, they found that number had climbed to 92 percent.

"PEOPLE KNOW ME FOR BEING BILIN-GUAL," SAYS ARTHUR LUPIA, THE HAL R. VARIAN COLLEGIATE PROFESSOR OF POLITICAL SCIENCE. "I AM FLUENT IN BOTH DEMOCRAT AND REPUBLICAN."

Like many adults who achieve bilingual fluency, Lupia started learning both languages at a young age. "My parents got divorced when I was very young. I spent the winters in Buffalo and the summers in El Paso, Texas. One side of my family is quite liberal. The other side usually has Fox News on in the background. So, for me, bipartisanship is not just an interesting topic," he says, laughing, "it is a survival skill."

Bipartisanship has helped to guide Lupia in life, and it's one of the principles behind his research, too. Lupia studies persuasion, examining the way people make decisions and the way they manage complex information — all topics that affect our growing political divide. One subject that has particularly piqued his recent interest is the way in which researchers can benefit society.

"I am really driven by quality-of-life questions," says Lupia. "What can we do to improve the quality of life for people around us? There aren't easy solutions, which makes me want to get all hands on deck. And it is hard to get people to work together if you're telling half of them that they're stupid."

Stop Taking Sides

By their nature, political parties don't typically see things the same way. Over the last 50 years,

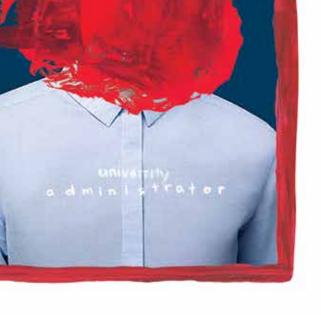
It's a discouraging trend, and it made Lupia wonder what would happen if people shifted their focus away from their differences and toward the challenges and aspirations that all of them recognize.

"I really wasn't sure how many problems we could find that members of both parties agreed on," Lupia admits. "I looked at the best available data to see if there were problems that both 80 percent of Republicans and 80 percent of Democrats recognize. My pitch to U-M leadership was, we're in a swing state and we're at this amazing public university. What if our campus focused on the big problems that the political parties and the news media are ignoring because they are busy emphasizing conflict instead?"

Lupia's pitch led to an undergraduate course called "Beyond Partisanship." For the class, Lupia found four things which Democrats and Republicans could agree were problems, and he found speakers from both sides of the aisle who would come to campus to speak about them. The issues were opioids, housing security, making life better for Michigan, and encouraging public service. Students in the class were charged with figuring out what they could do on these topics to improve quality of life for the diverse communities of people the University of Michigan seeks to serve.

THE NOTION THAT PEOPLE IN DIFFERENT **POLITICAL PARTIES** ARE AT ODDS ON **EVERY ISSUE IS** AN ILLUSION -**SOMETIMES IT JUST TAKES A LITTLE** WORK TO BE ABLE

TO SEE THINGS FROM ANOTHER PERSPECTIVE.





dentist













































The Great Beyond

The "Beyond Partisanship" class comprised two separate groups of students: a group of 40 advanced political science students who met twice per week, and a group of 140 students who met to hear the four guest speakers talk about their experiences working on issues using a bipartisan approach.

The guest speakers each focused on a specific topic. U.S. Representative Debbie Dingell (D-Michigan) talked to the students about the opioid crisis. Beth Myers, a GOP strategist who led campaigns for Mitt Romney and Paul Ryan, focused on homelessness and housing security. Former U.S. Representative Brian Baird (D-Washington) talked about how to inspire people to commit to public service. Craig Ruff and Bill Rustem from Public Sector Consultants, who come from opposite sides of the political spectrum themselves and have worked for multiple Republican governors, focused on how to improve the quality of life for people in Michigan.

For each of the four topics, Lupia and the graduate students that he works with identified 40 stakeholder roles. With opioids, for example, the stakeholder roles included addicts and their families, faith leaders working with addicts, doctors, community leaders, and politicians. Using software developed by Ford School of Public Policy Professor Elisabeth Gerber and U-M's Office of Academic Innovation, the class randomly assigned these stakeholder roles to each of the 40 students in the advanced class without regard to gender or political persuasion. That meant students had to learn and understand other people's points of view well enough to champion them.

Once the students knew their roles, Lupia ran the class as if it were a 90-minute focus group, and each student had to represent and advocate for the role they had been assigned. In the opioid scenario, for example, a student who had been assigned to portray a local politician explained her thoughts about a proposed policy. "And I'd say, 'Well, that's interesting, because that's the same thing this faith leader or counselor has been doing," Lupia explains, "which helped students realize how much different people had in common and how to use that knowledge to make progress solving very difficult problems."

"It's easy to get passionate about your perspective and not empathize with someone else's beliefs," explains junior Romaer Chopra. "The class made us look at the same issue from different angles and ask, 'How would the other side think about this? What's their perspective?"

"It is hard to be assigned a specific role from a political point of view that isn't yours," LSA senior Max Rysztak says. "You have to really think through that perspective and get out of your own mindset to understand what this hypothetical person wants. It takes the politics out of policy and gets you away from thinking it's a zero-sum game. I wouldn't say I've changed my mind about my own principles and beliefs, but I've definitely learned how to work with other people.

"The course pushes us to get out of ourselves," continues Rysztak, "to recognize our partisanship, and then to go beyond that."

Uncommon Ground

When people argue about politics, they often become self-referential. People tend to focus on winning the argument instead of thinking about how to work together to help others. Lupia was looking for a different approach that would lead to better outcomes.

"If you ever want to build a coalition around an idea, particularly with people who don't agree with each other at first," Lupia says, "it's important conversationally to lay out a welcome mat. In class, we focused on questions like: Can we all see this vulnerable population? Can our friends on the Right and our friends on the Left see that these people are in trouble? Do we all agree that this is a problem? If so, what can we do about it?"

As the students learned the nuances that make these issues so difficult to solve, they also learned to build surprising and effective coalitions. In the opioid example, the students heard their classmates speak as stakeholders who had first-hand experience with addiction or who had lost a son or a cousin to an overdose. They heard their peers advocate for different treatment models and law enforcement strategies. "The students were using the simulation to crowdsource a knowledge base of different ways people can look at these issues," Lupia explains. "And then they used that knowledge base to develop original solutions.

"As a result, everyone in the advanced class had



IT TURNS OUT THAT REPUBLICANS, DEMOCRATS, AND INDEPENDENTS HAVE THE SAME POLICY PRIORITIES ON SEVERAL ISSUES. TRANSPORTATION AND DRUG ADDICTION HAVE RISEN IN IMPORTANCE FOR ALL GROUPS WHILE ECONOMIC PROBLEMS HAVE FALLEN AWAY.

a deep understanding of each of the issues," Lupia continues. "These simulations typically happened a few days before the guest speakers arrived and addressed that topic. When the guests arrived, the students asked very thoughtful and constructive questions as a result of their crowdsourcing."

The Michigan Initiative

The highly partisan wave that's moved through the country has left ripples at U-M, too. Just as learning to collaborate with people from across the political spectrum is essential in Washington, D.C., it also feels important to improve the campus climate at U-M — especially after the 2016 presidential election.

"There was this monumental event, this election, that felt like the biggest one in something like 30 years," says Romaer Chopra, "and we were here on a huge college campus that had an equally huge divide. It's really hard to facilitate that kind of conversation, but it is important for us to do it at U-M. It's relevant to everyone on campus, and I really want to be part of that conversation. This class felt like a way to start."

LSA junior Danielle Jahnke found that the class not only helped to initiate conversations across the political divide, but it helped to start conversations that could include people in different kinds of places. Jahnke, who comes from Michigan's Upper Peninsula, says, "A lot of proposals can only target communities with access. Opioids are also a prominent issue in places like my hometown, so I wanted to make something that could work as well in Marquette as it would in Washtenaw County."

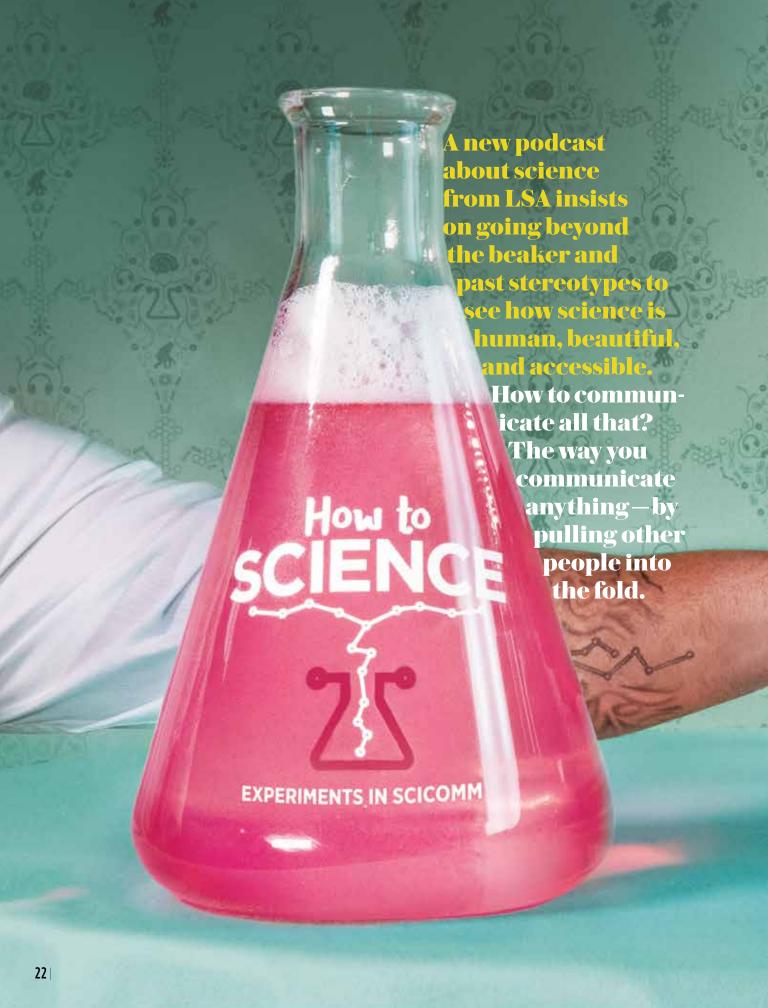
Jahnke feels the process of creating these proposals is transferable to other issues, too. "I also have a real focus on preventing sexual violence, which is another non-partisan issue. It has helped me think about creating and conveying a message more effectively."

Lupia sees the class as the first step in what he calls the Michigan Initiative, which creates systems and structures that will bring people from all political parties to work on problems together.

"By the end of the semester," he continues, "everyone in that room was part of a plan to work on these problems, and not just in a dreamlike way. They all had something they could walk out of the classroom and actually do right here on campus. Sure, there's room for blue-sky stuff and if someone won the lottery and all that, but that's not the way we're thinking about it.

"Throughout the semester," Lupia says, "we had a mantra. It's not about tomorrow, it's about today. It's not about somebody else, it's about you and me right now." ■

■ Watch a video about the "Beyond Partisanship" class at myumi.ch/Isabeyondparty.





"Some people know what it's like to communicate something well.

But all of us know what failed communication feels like."

Groans of agreement all around. We're sitting in the recording studio at WCBN-FM, the campus radio station, in the basement of the Student Activities Building on campus. It's an unlikely spot for these four researchers. Vinyl records and CDs crowd the shelves that teeter against all walls. Stickers decorate every available surface in the studio lobby. Hand-scrawled graffiti covers the table where the scientists adjust their headphones, microphones inches away from their lips.

The group is recording a follow-up conversation to the first season of the How to Science podcast. In the studio are three of the scientists from the show-LSA Professors Tim McKay and Trisha Wittkopp, along with Ph.D. student Abby Lamb - and LSA Professor Monica Dus, the host. As the co-producer, I'm recording the discussion on the other side of the glass partition that separates the recording studio from the production room, fiddling with knobs on the soundboard. I find myself lowering the volume when the group's laughter bursts through the speakers and dialing up the sound as their voices return to a thoughtfully quiet register.

Each episode in the first season of the podcast puts listeners in a room with Dus and one guest scientist to sit in on a casual conversation. Each scientist shares how they've wound their way through life to the lab, the beauty they see in nature, and their excitement about research. The podcast provides a peek under their lab coats, revealing that scientists are humans, not robots. A surprising number of them are the first in their family to graduate from college.



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"When it works, I
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They're funny, self-deprecating, and have real lives outside the lab.

The format of *How to Science* is rare. Most often, TV series, news segments, documentaries, and popular podcasts are produced and hosted by journalists. In our case, podcast host Monica Dus is a scientist on the U-M faculty who researches feeding behavior, obesity, and the brain. I have a Ph.D. (2012) from LSA's Department of Ecology and Evolutionary Biology (EEB) and spin records as a DJ for a weekly late-night radio show on WCBN. Dus and I had been talking about podcasts separately





with various folks across campus until a colleague connected us. Not long after, our brainstorms turned into a project vision, which then became concrete plans for an audio series.

Since then, we've produced the first season of the podcast, which includes stories from a geneticist who celebrates lab accomplishments with donuts and champagne; a grad student who questioned her creationist background and became an evolutionary biologist; a professor who points out the difference between science and magic; a neuroscientist who developed a fascination with the human brain while she was still an art student working with autistic people; and a certified forklift operator who now has decades of experience in astrophysics research.

Today, we've assembled these scientists in the studio to get more personal about trying — and sometimes failing—to talk with people about what we care about. In this case: science.

INSIDE THE BROWNIE BOX

"I didn't try hard enough to invite conversation with the audience that I was actually trying to reach. Instead, I became this person that they would go home and dismiss," says Tim McKay about a foiled attempt to share his thrills about the origin of our universe with a set of public talks that he called "How We Know the Big Bang Really Happened." McKay teaches and does research in LSA's Departments of Physics and Astronomy, along with the School of Education, and founded U-M's Digital Innovation Greenhouse.

"I came across as not wanting to have a conversation with them and only wanting to insist that I know the truth about this. And they can either accept it or not.

"It felt like a real failure."

But what does success even look like? Take a box of brownie mix as a thought experiment.



Imagine the back of the box: A table of nutritional information crowds the cardboard. The print is small enough so that all the multisyllabic chemical names fit in the allotted space. In an example attributed to Van Jones, former President Obama's Special Advisor for Green Jobs, the back of a brownie box looks just like how scientists most often talk to people: bland, fact-obsessed, far removed from what's actually exciting about what's in the box.

The front of the brownie mix, though, can hardly fit a giant image of a gooey, delicious, baked brownie. That's the access point that actually resonates with people and pulls the brownie mix off the grocery shelf and into someone's shopping cart.

Communication success is the conversion of information to enjoyment: the front of the box.

"There is nothing deeply special about communicating science," McKay said during an event last year about scicomm—that's short for "science communication"—which was hosted by U-M's Office of Academic Innovation and U-M's Researchers Expanding Lay-Audience Teaching and Engagement (RELATE) group.

In other words, similar values and successes apply whether you are giving a talk about the Big Bang, your aunt is explaining her woodworking hobby, or a couple is joking around on their first date.

And none of it is easy.

JARGON JARGOFF

Communicating honestly about complex things takes work. It also takes longer than you expect. It's uncomfortable. You have to be willing to make mistakes, lean into the pain, and keep trying until you get better.

For LSA Professor Meghan Duffy, the discomfort is temporary and sometimes part of the fun. Writing on her



"I think it's important to let people in—to part the curtains of our world in the lab and have people take a peek."

blog, here's how she remembers preparing a talk that she eventually gave to a national audience of tens of thousands of people:

"Monday afternoon, I let the kids play at the park after school, pulled out my index cards, and gave my talk to the flagpole. I then walked around the playground giving it over and over. At one point, a dad showed up with his kid. When I finished that run through the talk, I sheepishly explained that I had a big talk on Saturday and was practicing as much as I could. Fortunately, he acted like it was totally normal for someone to be standing at the park giving a talk about basic research to playground equipment."

Better to work the kinks out in front of a flagpole instead of a news camera, she'd say.

Duffy, a faculty member in EEB who also participated in last year's scicomm teach-out, says, "I think one mistake scientists make when trying to communicate is not trying in the first place, perhaps assuming that their work is too complex to relate to public audiences.

"The flip side of this is true, too," she adds. "Non-scientists assuming that they shouldn't engage in a conversation because they won't be able to understand."

For Abby Lamb, a Ph.D. student in LSA's Department of Molecular, Cellular, and Developmental Biology (MCDB), the chance to connect with people is worth too much to pass up over anxiety about getting things wrong. "There's a payoff," she says. "When I feel like a conversation about science is going well, it is far more exciting than any other topic for me. I'm like, 'Yes! I've nailed it!"

McKay says, "When another individual looks you in the eye and is excited by what you're talking about, it's super powerful, as a primate and social animal, to have that happen."

Dus agrees. "For me with scicomm, it's about connecting and building bridges. Rather than passing on expertise or giving facts, it's more about putting myself out there as a human."

OUT OF THE BOX

Communication strengthens a community. Success in scicomm, and in communication generally, expands the posse of people who care about science. Growth happens with two-way

RIGHT) Illustrations by Lisa Haney

exchanges and engagement far more than it does with one-way transmission. Successful connections find common ground for constructive discussion, rather than a dissatisfying impasse between stubborn beliefs.

Some scientists pine for this kind of two-way communication. "When it works, I feel like I'm not alone anymore," Dus says.

"Usually, when you're studying something, only 20 people and two other labs will read your paper and know all the details," she continues. "Even though it's a big community, science is very isolating, in a way. I think it's important to let people in—to part the curtains of our world in the lab and have people take a peek.

"When you get to share something, it doesn't feel so lonely. You feel like you're part of a community that's getting larger."

When Abby Lamb hits her mark, "the person has follow-up questions. They actually seem to be leaning in and finding corollaries to their life," she says. "It's clear that the conversation doesn't become a monologue."

And the best sign of success: The conversation recruits more people, whose ears have perked up and who want to be in on the discussion, too.

"I don't think I appreciated the reach and the audience that it would have," Trisha Wittkopp admits about the *How* to *Science* podcast episode that she recorded with Dus.

In that episode, the first in the series, MCDB and EEB Professor Wittkopp mentions that her lab celebrates research accomplishments by sharing donuts. Bigger accomplishments, they celebrate with champagne. Soon after we posted the episode, researchers overseas tweeted about how they've adopted the now famous tradition of the "Donut Result." A thread of messages followed, in a debate over whether it's

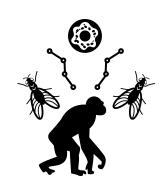
even possible to find good donuts in Portugal.

"That took me aback a little bit," says Wittkopp.

"Anytime you're interacting with someone around a shared point of joy, it's a good feeling," she says.

All four scientists lean toward each other in agreement. They've settled into their seats enough that they've forgotten they're in a studio. This means I need to stay vigilant about the volume;

Growth happens with two-way exchanges and engagement far more than it does with one-way transmission.



I'd rather work with the dials than interrupt their conversation to move a squeaky boom arm closer to their nose. Their discussion has strayed from scripted questions, their thoughts sliding into the conversation like ingredients folding into batter.

And then all at once, our hour around the microphones is up. The scientists in the studio turn in surprise when I reluctantly clear my throat in their headphones to let them know. We need to make way quickly for a radio show that's coming in to broadcast live in a few minutes. The next folks are milling around in the lobby, waiting patiently for their chance to set up in the studio.

We carve out our last bit of time to rehash what each scientist aimed to get out of their experience on the podcast. Did they have something in mind that they wanted to be sure to communicate? A certain tone they wanted to get across? What were their personal goals?

"I really want people to get to know scientists," says Dus, "and learn how to science."

McKay likes the chance to experiment with podcasting—a completely different mode of communication than his familiar channels.

Lamb admits in her episode of the podcast that she often thinks about getting more involved in scicomm so she can help put people at ease about complex and even controversial concepts. "I'd like to find a way to share with people without making them feel threatened or pushed," she says.

Wittkopp speaks up just before we leave the studio. "My hope, more than my goal," she says, "is that by sharing my experiences, I may inspire someone, or make science seem more accessible to someone who might not have realized it was possible for them.

"The goal is to have a positive impact on others." ■

The Rise and Fall of Mercury

Naturalists 100 years ago didn't know their specimen collections would record a history of pollution. But birds in LSA's Museum of Zoology preserved clues that show what we otherwise could've missed: Toxic mercury has increasingly plagued our environment and our diet for decades. Recently, an alumna successfully fought to stop its spread.



F SOMEONE SAYS you're "mad as a hatter," blame it all on mercury poisoning. From the mid-18th century into the 1950s, craftspeople who made fancy hats often would line their products with felt, a material they created by applying the silvery metal mercury—a naturally occurring element that is liquid at room temperature and easily evaporates—to animal pelts. Their frequent exposure to mercury vapors gave hatters tremors, vision loss, social anxiety, delirium, hallucinations, and other symptoms.

In the 1950s, mercury was showing up everywhere. American and European manufacturers put mercury in thermometers, fluorescent light bulbs, thermostats, cosmetics, batteries, electrical switches, blood pressure cuffs, and even "silver" dental fillings. Mercury tainted the smoke from coal-fired power plants. Factories leaked mercury while making chemicals and plastics. Through leaks, broken thermometers, and landfill waste, mercury escaped from our products into the environment.

Toxic mercury has increased in the environment over time—we know this partly because of the birds in the research collection at the University of Michigan Museum of Zoology (UMMZ).

For a recent study, Canadian researchers visited the UMMZ and other museums across the United States looking for ivory gulls that curators had added to collections as far back as 1877. The researchers turned to museum collections because, in the wild, ivory gulls are rare. In Canada, their numbers have dropped by more than 80 percent since the 1980s, which makes collecting them for research neither easy nor advisable.

The researchers plucked feathers from the museum gulls and extracted the mercury trapped inside them. In birds that lived between 1877 and 2007, their feathers' mercury concentrations showed a whopping 45-fold increase — meaning that for 130 years, the gulls' mercury levels had risen an average of 1.6 percent each year.

In another mercury study, two scientists from U-M's School of Public Health plucked feathers from yellow-billed loons at the UMMZ and elsewhere. In these birds, toxic mercury concentrations had doubled since 1845.

Getting a bead on mercury levels is important because the substance is so debilitating. Mercury pollution is no good for birds. The toxin causes problems with breeding, egg hatching, and chick health in some species. And of course, the neurotoxin is no good for humans, either. It drives adults insane while destroying their bodies, and it's especially toxic to young kids and growing fetuses.

Mercury also is a global pollutant. When the element goes airborne, it blows around the world with wind currents, sometimes contaminating places far from its origin, falling back to Earth in dust, rain, and snow.

All this bad news could put a frown on the staunchest optimist. But not LSA Biological Station alumna Linda Greer, director of the health program at the Natural Resources Defense Council (NRDC). She has fought against all odds to stop the spread of toxic mercury.

A CURE FOR MERCURY

Greer spent five summers at the University of Michigan Biological Station (UMBS) in the 1970s. As a 19-year-old undergraduate coming to UMBS from another university, she was the youngest student at camp her first summer. She was studying French at the time, but UMBS got her hooked on science. She returned as a graduate student, then as a researcher, and later to teach. Last year she served as its interim director.

In 1991, Greer began a major project with the NRDC to reduce the negative health effects of pollutants. She tackled this huge project by homing in on a single pollutant, which would make her

"REVIEWING THE BIGGEST CONTAMINANTS IN FOOD, I EXPECTED TO FIND A PESTICIDE. BUT

I DISCOVERED THAT ACTUALLY, THE BIGGEST POLLUTANT WAS MERCURY IN FISH."

goal more manageable. "I was doing a review of the biggest pollutants in air, water, food, and shelter, because with so many chemicals out there, it pays to work on the ones that matter the most among 80,000 chemicals in commerce," Greer said.

"Reviewing the biggest contaminants in food, I expected to find a pesticide. But I discovered that, actually, the biggest pollutant was mercury in fish."

Greer quickly realized that the mercury problem was an international one. The United States phased out excessive mercury use once people realized its dangers, and manufacturers also developed cheaper and better technology that made reducing mercury use easier. But factories had a lot of mercury on their hands that they wanted to get rid of, and the most popular solution was

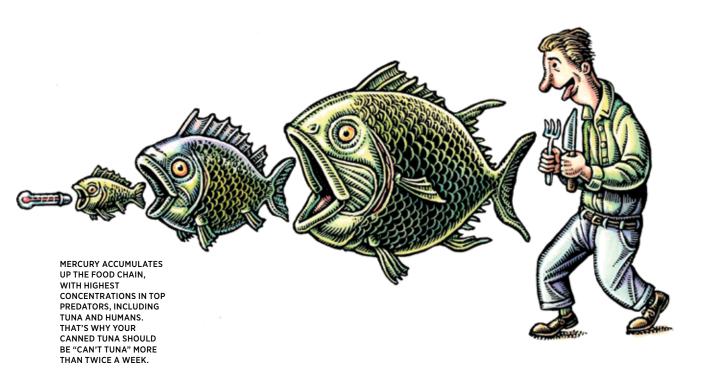
to recycle the offensive material by offloading it to developing countries.

But people didn't realize the tradeoff involved in handing off excess mercury for use in other countries. Greer described it as "basically shipping mercury halfway around the world to have it come right back at us as air pollution."

Greer targeted the global mercury trade as the most efficient way to have the biggest positive impact on the problem. Her massive but achievable goal was to get the United States to stop sellEquipped with information from Greer and the NRDC, Obama teamed up with a Republican senator from Alaska to push a bill through the Senate that proposed a ban on mercury exports from the United States. A Maine congressman got the ball rolling in the House of Representatives, and the bill was signed into law in 2007.

Starting in 2010, Greer and her colleagues worked with the United Nations and more than 100 countries to write and agree on an international treaty to reduce the use and release of mercury around the world. For each session of negotiations, Greer said, "We spent one week in a very formal setting with a group of mostly strangers to deliberate the value of a legally binding treaty to reduce mercury pollution across the world."

The treaty negotiations began the way most people might picture a big international meeting: A diverse assortment of people seated quietly at



ing its surplus mercury to other countries around the world.

Her job got easier when then-Senator Barack Obama reached out to the NRDC. When he served as a senator, Obama got the *Chicago Tribune* every day, and he read an article about mercury pollution in the Great Lakes. Obama's team got in touch with Greer and said, "The senator would like to do something about the problem of mercury in fish; do you have any ideas?"

long desks wearing translator earpieces. But toward the end of each session, Greer said, "It's just like cramming for finals or something. The last day, people aren't ready, and it's literally an all-nighter. People haven't eaten. It's just like college."

After three years of negotiations, 128 countries signed the binding international treaty about mercury in 2013. They agreed to restrict global trade, establish air emission controls, phase out extraction from mines, and otherwise address the problem in tangible ways.

"The treaty sets in motion everything that needs to happen," says Greer, but noticeable environmental improvements will take time. "Our watersheds are saturated with mercury from all the years of pollution, even after we turned off the spigot." ■

On the Radio

LSA alumnus Robert Yoon puts a face — and voice — to journalism.

LSA ALUMNUS ROBERT Yoon (A.B. 1995) wants people to know two things. First, that journalism isn't a dirty word. And second, that journalists can be pretty different.

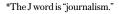
A longtime political journalist and researcher, Yoon has worked on five presidential campaign cycles and 30 different presidential debates, producing work that has been recognized with two Emmy Awards, a Peabody Award, and other accolades. He was CNN's director of political research before the prestigious Knight-Wallace Fellowship brought him back to Ann Arbor, giving him time to think about what he wants to do next in his career.

Back in Ann Arbor, Yoon ran into WCBN's general manager, LSA junior Jason Young, by chance, and the two started talking about Yoon doing a show on the student-run station. Young suggested a public affairs program. Yoon was particularly interested in journalism as a topic, especially given current conversations about the media.

Yoon's show, *The J Word**, featured nationally recognized reporters and anchors such as Judy Woodruff, Bernard Shaw, and Candy Crowley, as well as local journalists – including the outgoing editor-in-chief of the *Michigan Daily* and writers from U-M's humor newspaper, the *Every Three Weekly*. A conversation with radio journalists explored getting good tape in the field, and a roundtable with international journalists

"I'VE ALWAYS LOVED THE IDEA OF RECORDING PEOPLE'S STORIES

AND LIFE EXPERIENCES FOR FUTURE GENERATIONS TO LEARN FROM."







LIGHTNING ROUND!

Robert Yoon, the host of *The J Word*, likes to ask his guests some very specific questions. We put a few of those questions back to the man himself.

Where's home?

Washington, D.C.

What brought you to journalism?

I was always interested in politics and news, growing up in the D.C. area. I followed the networks and local stations the way other kids followed baseball. I also had a great teacher in high school, Mr. Keegan, who really got me interested in journalism.

Are you an introvert or extrovert?

I'm an introvert who occasionally will go out and pretend to be an extrovert in short, controlled bursts.

Online or hard copy?

As a researcher and data guy, I like being able to access and search through materials online, but for old-fashioned reading, I prefer hard copy. Reading books on tablets is awful for doing research because you usually can't cite specific page numbers because they often change from device to device.

Soda or pop?

I say soda, but I love to hear people say pop.

Who are your journalism role models?

I've been really lucky to have worked with some of the best in the business at CNN, especial Bernard Shaw and Judy Woodruff, who both did me huge favors by being early guests on my show. Candy Crowley is one of the best writers in the business and maybe the most hilarious, and Dana Bash might be the hardest working.

What advice do you have for aspiring journalists?

Take good notes.





cataloged the mortal threats they face around the world from gangsters and corrupt governments.

"There are a lot of different types of journalists, and in many ways their jobs are very similar, but they can also be very different," Yoon says. "Deciding who the guests were each week was one of the best and also most stressful aspects of doing the show.

(LEFT) SCENES FROM
INSIDE THE WCBN
STUDIO. CURIOUS
LISTENERS CAN FIND
BACK EPISODES OF
ROBERT YOON'S SHOW
THE J WORD ON WCBN'S
SOUNDCLOUD ARCHIVE.

"I've had a great experience as a Knight-Wallace Fellow," Yoon says. "Since I've been here, I've studied coding, Korean language and history, and video and audio production, which are all things that I'd never have time to focus on with the demands of daily journalism. And the program allows me the flexibility to tweak and adjust my professional development goals and also tackle unexpected projects like *The J Word*."

Yoon will remain in Ann Arbor next year as the Howard R. Marsh Visiting Professor of Journalism in the Department of Communications, and he is hopeful that the show's voice and perspective will continue after his fellowship year ends.

"I would love to continue the show next year because there are still a lot of great journalists I'd like to interview," Yoon says. "I have to focus first though on developing courses that are worthy of the university and its students. But I've always loved the idea of recording people's stories and life experiences for future generations to learn from, and that's something I'd like to continue."

Imagined
Communities



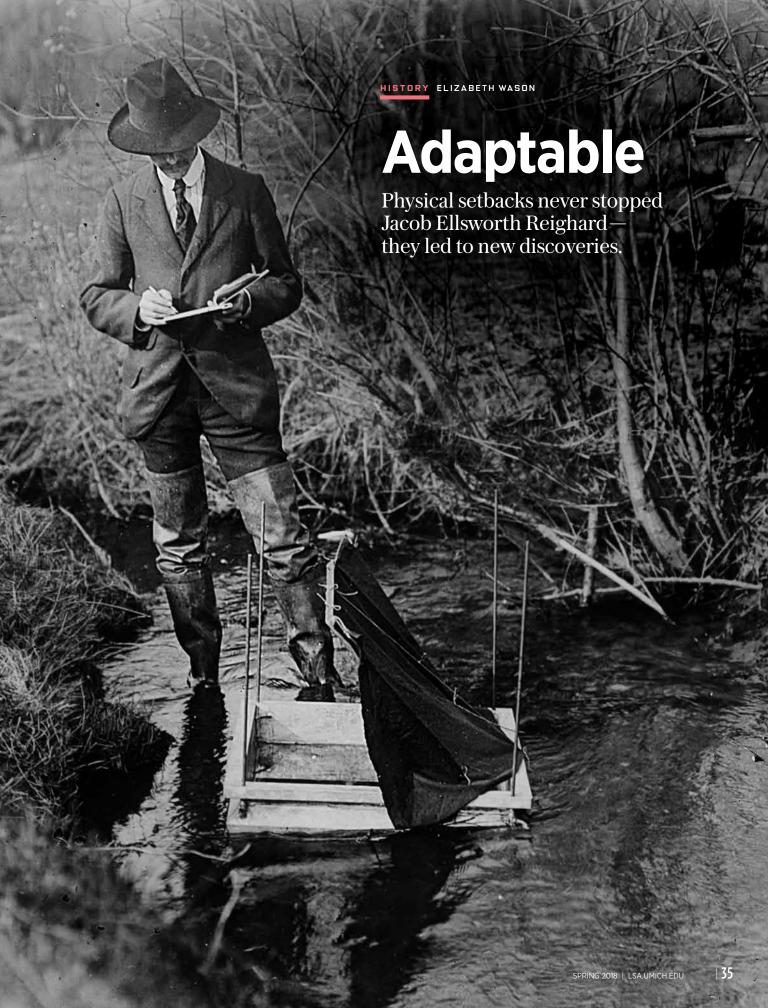
Listening In: Radio and the American Imagination, the 2004 book by Catherine Neafie Kellogg Professor and Arthur F. Thurnau Professor of Communication Studies Susan Douglas, explores radio from its very earliest days. Exploring ideas from the dawn of wireless telegraphy to the multi-station monopolies of today's corporate-driven media markets, Listening In gives a snapshot of a century of transformation driven through people's eardrums, changes that invaded Americans' inner landscapes.

"Unlike other major technologies — automobiles, airplanes, or trains — that move us from one place to another," Douglas writes, "radio has worked most powerfully inside our heads, helping us create internal maps of the world and our place in

it, urging us to construct imagined communities to which we do, or do not, belong."

And now that podcasts are increasing in popularity, they might be the successor in some ways to the forces that worked through and around radio. Revisiting her earlier work, Douglas wonders about that connection.

"I remember when Pod Save America came to the Michigan Theater, the place was packed with young people," Douglas says. "I think they had to put on an additional show because the first one sold out. Various of these podcasts have formed new imagined communities. And because they aren't broadcast over the airwaves, they can use language that can make them seem particularly genuine and authentic."



ROFESSOR JACOB ELLSWORTH Reighard (A.B. 1882, Sc.D. Hon. 1936) conducted research in his campus laboratory until his eyesight started to go. When the strain became too much, Reighard moved his work outdoors, studying fish mostly in Midwestern lakes and streams, but also farther afield in coral reefs off the coast of Florida.

Out on the water, Reighard became an expert photographer. He was most active in the early 1900s, when wildlife photography was very new and very difficult. Back then, most photo shoots involved transporting animals to convenient indoor aquariums. But Reighard sorely wanted to get pictures of fish in their natural habitat, "not by taking them from their native haunts and placing them in artificial containers."

Carrying a camera into the field was the first challenge. Some of his cameras were three feet long on each side, Reighard said, and "so unwieldy that a vehicle of some sort is needed to carry them." One of his cameras "was so heavy that it required three men to handle it easily in air."

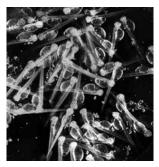
And, of course, he had to make sure that water didn't damage the equipment. Of the two possibilities he saw for taking underwater photos—either creating a waterproof camera or locking an air-safe camera in a watertight box—Reighard opted to

dunk the cameras he already had in a watertight metal box that he was happy to build.

Reighard loved spending time inventing and constructing contraptions for his work. Trial and error was important. He needed two hours to take a dozen underwater photos. Between shots, he

REIGHARD WAS ONE OF THE FIRST TO STUDY FISH AS THEY BEHAVED IN NATURAL ENVIRONMENTS, RATHER THAN STUDYING DEAD FISH IN THE LAB. HE ALSO FOUND METHODS OF PHOTOGRAPHING FISH EMBRYOS.





EVEN REIGHARD'S MURKY, FLAT-LOOKING UNDERWATER PHOTOS WERE VALUABLE TO HIM. HE'D SAY THEY CAPTURED THE UNDERWATER WORLD AS THE NAKED EYE OF A NATURALIST SEES IT.

had to lift his heavy apparatus out of the water, unscrew the watertight box, remove the camera, slide out the glass plate that held the negative image, and reassemble everything for the next photograph. And that time estimate probably didn't account for idiosyncratic wait times while frantic fish grew comfortable with the distracting human photographer in their midst.

Reighard worked with U-M's Department of Zoology, noting at one point that he was the longest-serving professor at the university aside from one other faculty member. Starting as a professor in the 1880s, he became director of the Museum of Zoology and the Zoological Laboratory in 1894. He headed the lab for more than 30 years.

Reighard somehow found the time and expertise to co-write a book called *Anatomy of the Cat*, published in 1901, though he spent nearly all his time researching fish. He had a role in establishing what is now the U.S. Fish and Wildlife Service outpost in Ann Arbor, and he helped found the Michigan Academy of Science, Arts, and Letters, serving as its president in 1900. He also helped get the U-M Biological Station up and running as its first director from 1909 to 1914.

The source of Reighard's health issues has been lost to time, but we know that vision trouble forced him away from microscopes and into the water. And, later, a progressive deafness led him to a completely different field of study: lip-reading. From 1924 onward, he researched and published mostly about how to interpret spoken language by watching lip and mouth movements.



REIGHARD PUT HIS FISH-ING POLE AWAY IN LATER LIFE: "INTIMATE KNOWL-EDGE OF THE BEAUTIFUL INTERIOR INTRICACIES OF ANIMALS HAS BROUGHT A RELUCTANCE TO DIS-TURB THEM, EVEN BY IMPALING A WORM."

Photos by Jacob Reighard, originally published 1909

"I went into it at first on account of deafness, then became interested in studying methods of teaching," Reighard wrote in a letter. "As a zoologist, I am not expert in psychology or phonetics or the teaching of languages," but Reighard worked hard at his new discipline "with the help of my experience as a scientific man, a lip-reader, and a user of the scientific method."

In his personal notes, Reighard mourned the disconnect that he felt as a result of deafness: "The great loss is that of conversation [and] an exchange of thought."

He went to a special school in Denver for about a year in 1923 to learn lip-reading for himself and, he said, "came to a keen realization of its value to the adult deafened."

One of the things he realized was that lip-reading is tough. Many sounds look exactly the same when pronounced; up to 75 percent of lip movements are ambiguous. Think about the spoken sentence, "There was a bad man at the bat," particularly the words "bad," "bat," and "man." Without context clues in the conversation, a lip-reader would be lost among those indistinguishable words, not to mention others like "mad," "pan," and "banned." Letters like T, D, N, and L disappear with a hidden tongue; and H, K, C, and NG give barely any visual clues at all.

But Reighard also learned that lip-reading had big possibilities. He recognized the need to focus on "training of mind – far more than eye." He advocated for university courses in lip-reading, and in 1926, he organized a class — one of the first of its kind in the United States — at an Ypsilanti college.

Throughout the years, Reighard spent much of his time in lake cottages that he and his faculty pals bought and shared. "The cottages not far away are out of sight, and, for me, out of hearing. There is the wilderness effect," he said, that comforted him.

"[T] he suggestion might be offered to other hard-of-hearing persons that this sort of experience tends to build up a feeling of self-reliance," he said. "To be master for a while of a bit of self-created wilderness, to make one's self comfortable in it, fosters a self-confidence that the hard-of-hearing need."

After retiring from a long and colorful career at U-M, Reighard died at the age of 81 in 1942. ■

\$195 Can Change Your Life

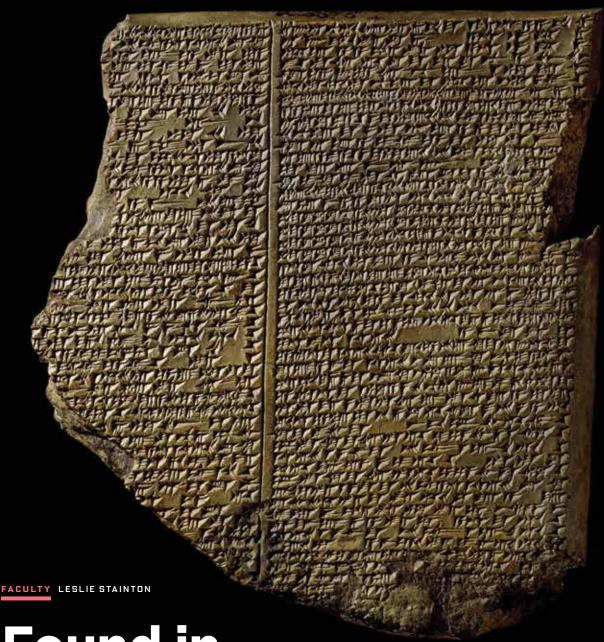
AS EVERYONE WHO has one knows, to get a passport you have to follow a bunch of fussy steps. First, you need a picture that shows you with a neutral expression and both of your eyes open. Then you have to complete the application, which is long, and photocopy both sides of your official ID. You also have to get your hands on your original birth certificate and figure out what getting your passport will cost. And then you get to go to the post office and wait to send the whole kit and caboodle off.

Starting in fall 2018, the LSA Passport Scholarship Program will streamline this process for all first-year, Pell Grant-eligible LSA students—and pay for the passports, too. First, \$195 is deposited in their accounts, which the students use to get a money order. Then the students bring it, a completed passport application, and their birth certificate to Weiser Hall, where they also get their photos taken. There, they sit down with a U.S. passport officer who answers all their questions, checks over the application, and sends it off to be processed.

The program not only removes the financial barrier, says Katherine Weathers, LSA scholarship senior manager, it works to remove the psychological barriers, also. Trusting is the hardest part of the process, Weathers says. Some students wonder if the program is real. Many students ask her if they'll really get their birth certificates back. But a few weeks later, when the passports arrive, the students are ready and eager to talk about filling them with stamps.

This summer a student from Bark River, Michigan, is planning to go to the European Union Summer Program in Amsterdam. A student from Flint who dreams of joining Doctors Without Borders is on her way to Vietnam. And hundreds of other LSA students who now have new passports, too, are thinking about places they might go.

And for students who have never been out of the country—and who may have wondered if they would ever get a chance to go—that \$195 donation really goes a long way. ■



Found in Translation

Once thought to be mere decoration, ancient cuneiform script has become the gateway to an extraordinary world—one whose secrets LSA's Jay Crisostomo is working to bring to the public at large.

T iI ca

ABLETS LOOM LARGE in Jay Crisostomo's life. There's the iPad Pro he uses to check his Twitter feed and to communicate with colleagues around the world. And then there are the more-than-3,000-year-old clay tablets that are his obsession.

The tablets – cuneiform texts primarily from modern-day Iran, Iraq, and Syria – detail the history and culture of ancient Mesopotamia. Cuneiform is the world's earliest writing system, and Crisostomo, an assistant professor in LSA's Department of Near Eastern Studies, has been unraveling its secrets since he went from seminary to graduate school to get a Ph.D. in Assyriology.

It was Crisostomo's early dream of becoming a Protestant pastor that led to his interest in the ancient world. As a teen growing up in Wisconsin, he learned ancient Hebrew to better understand the Bible. Soon

he wanted to know more about the region between the Tigris and Euphrates rivers known as Mesopotamia, a civilization dating back to at least 3400 BCE. What Crisostomo learned fired his imagination, and from that point on he was hooked.

Now Crisostomo uses twenty-first-century technology to bring others into that world. Fluent in ancient Sumerian and Akkadian as well as cuneiform, the writing system scribes used to record those lan-

guages in soft clay with reed pens, Crisostomo wants to address what he thinks has been "a real failure in our field—the ability to communicate what's so exciting about it." Crisostomo shares new developments in Assyriology on Twitter, and he's part of a massive online project aimed at publishing the entire corpus of known cuneiform texts—as many as a half-million—in searchable digital editions.

The Open Richly Annotated Cuneiform Corpus (ORACC) features both transliterations and translations in English of ancient Mesopotamian writings with links to glossaries for individual words. The idea is to make this material accessible to anyone who wants it—whether they're a cuneiform expert, a historian, or a schoolteacher. It's a huge leap from the days when Assyriologists published their work in untranslated print editions accessible only to other scholars.

TWEETS FROM 3400 BCE

Click on a link in ORACC's huge database, and you can find ancient Mesopotamians buying and selling real estate, shaping public policy, exploring mathematics, and rhapsodizing about love and sex. Crisostomo admits there are times when he reads one of these texts and thinks, "Someone could have just tweeted that." Countless inscriptions by rulers, for instance, "basically just boast about how big their 'nuclear button' is — I went into this city, I slaughtered hundreds of thousands of people—that sort of thing."

Of all the skills Crisostomo brings to the field, perhaps the most admirable is his ability to conceptualize the long-ago world of Mesopotamia,

says Assyriologist Niek Veldhuis, who advised Crisostomo at the University of California, Berkeley. "It's always an enormous challenge," Veldhuis reflects. "You have to cross this enormous gap of 2,000 to 3,000 years. Simply translating the texts is only a first step. The second step is thinking about what it really was that people were saying or trying to do by writing this tablet. Jay has made wonderful progress in doing that."

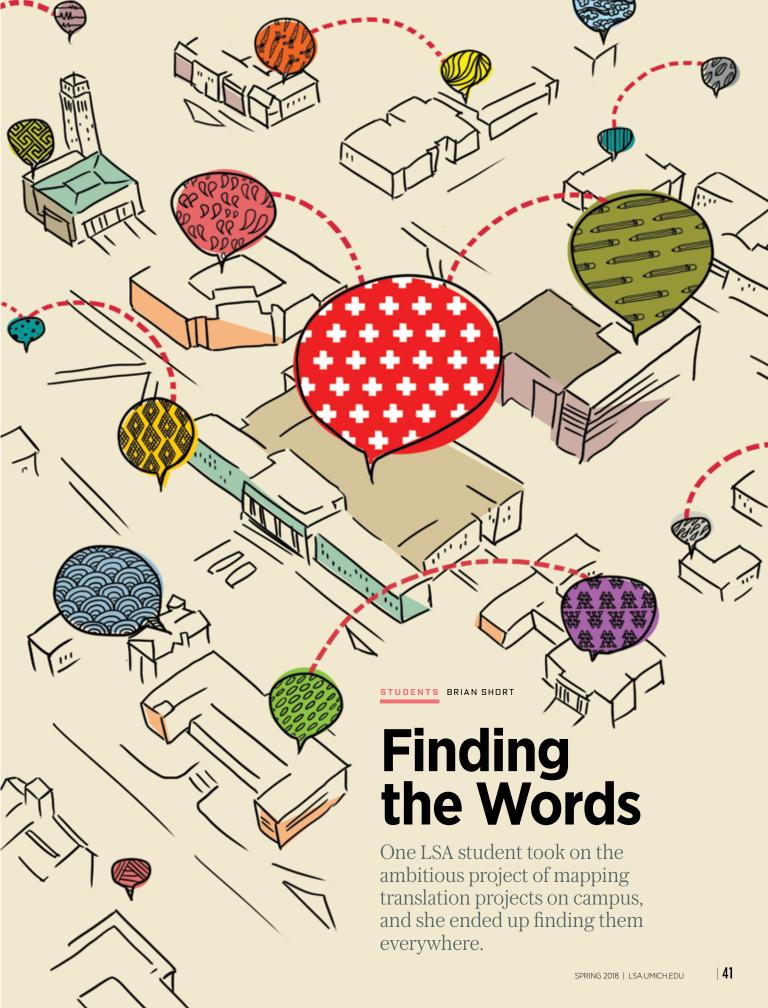
The one-time seminary student concedes that in some ways he has come full

IT'S ALWAYS AN ENORMOUS CHALLENGE. YOU HAVE TO CROSS THIS ENORMOUS GAP OF 2,000 TO 3,000 YEARS. SIMPLY TRANSLATING THE TEXTS IS ONLY A FIRST STEP.

circle. "When I wanted to be a pastor," Crisostomo recalls, "what I loved about it was the research and the teaching—the ability to sit down with an ancient text, read it, think about it, interpret it, and then go and tell people about it. As a teacher now, that's exactly what I do."

Crisostomo likes to remind his students that by studying the ancient Middle East they can get "a good sense of the world beyond the United States and the world beyond Europe." Studying Mesopotamia helps make the region seem less foreign, and that's a good thing, Crisostomo says.

He hopes his students find his subject as exhilarating as he does. But more than that, he hopes they understand the tremendous diversity of people who have contributed to the project of human civilization. That, Crisostomo insists, may be the "most important, most relevant aspect of what I do." ■



gaden understood language could bring people together. Alangaden's parents were from different parts of India; her mother's family spoke Konkani and her father's family spoke Malayalam. Alangaden's mother also spoke Portuguese—a common language for people in the area she grew up in, since Portugal had colonized parts of South Asia. And when Alangaden and her brother spoke English at school and with each other, they added another language to the mix.

"Because we spoke so many languages, we had a lot of moments of casual translation around the house," Alangaden says. "Especially with my parents and grandparents, we would often be in one language for one conversation and then suddenly we'd switch to another."

When Alangaden arrived at U-M, she embraced her history and interest in languages by majoring in linguistics and minoring in translation studies.

"One of the things that makes translation studies at U-M distinctive is that it's a very interdisciplinary model for understanding translation," says Yopie Prins, the Irene Butter Collegiate Professor of English and Comparative Literature and the chair of LSA's Department of Comparative Literature, which oversees the minor in translation studies. "Integrating theory and practice is really important to our department at every level of the curriculum—in our research and our practice, in our graduate-level classes, and in our undergraduate courses. Our faculty are very committed as teachers and translators to thinking critically about translation."

"WE HAD A LOT OF MOMENTS OF CASUAL TRANSLATION AROUND THE HOUSE. ESPECIALLY WITH MY PARENTS AND GRANDPARENTS, WE WOULD OFTEN BE IN ONE LANGUAGE FOR ONE CONVERSATION AND THEN SUDDENLY WE'D SWITCH TO ANOTHER."

Launched in 2014, the minor in translation studies teaches students to understand the textures and nuances of words in context. The program gives students like Alangaden the opportunity to study formal and scholarly translations of prose and poetry and to explore the theory and practice of creating translations that map the meanings of words from different languages across each other.

Students who minor in translation studies have to do a final capstone project before they finish. Most students do a formal translation of poetry or prose from a foreign language into English. Alangaden had planned to do the same—she even had a few Portuguese and Brazilian writers picked out that she wanted to work on—when her advisor made a suggestion.

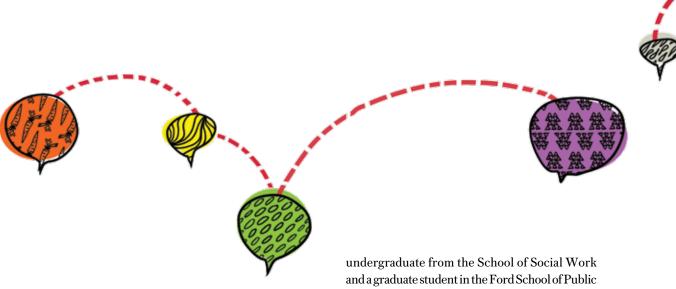
"Professor Prins, my advisor, suggested that I consider doing something broader that would feed more of my interests," Alangaden says. She opted to make her capstone into a survey of big and small translation projects across campus.

To begin, Alangaden spoke with students who were running their own projects. One was translating German prisoner-of-war documents. Another was an accredited interpreter for Michigan Medicine — helping people with limited English speak to their doctors and nurses. She also made sure to check out some of the larger, more established translation projects around campus, including sitting in on editorial meetings for the academic publication *Absinthe: A Journal of World Literature in Translation*.

And Alangaden got to interview participants in probably the most visible translation event on campus, LSA's annual Translate-a-Thon.

READY, SET, TRANSLATE

The Translate-a-Thon, a collaboration between LSA's Language Resource Center and the Department of Comparative Literature, featured more than 128 participants this year. (The first event, in 2013, had 48.) Over the course of three days, undergraduates, graduate students, and faculty participants translate material from nonprofit organizations and community partners, sometimes into English and sometimes from English into something else.



The event has produced translations for local nonprofits, such as Food Gatherers, Ozone House, Safe House, and Recycle Ann Arbor. It translated World War II-era postcards and propaganda for the Blavatnik Archive, a nonprofit foundation that preserves and disseminates materials pertaining to twentieth-century Jewish and world history. But the Translate-a-Thon doesn't just serve organizations.

"One year we worked with a local family who had adopted a child from China," says Julie Evershed, director of LSA's Language Resource Center. "They had received this beautiful diary of their child's life in the adoption agency prior to coming to America, but it was all in Chinese. And so we had our volunteers work on translating it so that this Ann Arbor family could have a personal record of their son and share it with him, and that was really, really great."

"Another thing that's great about the Translatea-Thon is that we can integrate our international students, who can sometimes feel isolated or lonely at U-M," says Silke-Maria Weineck, a professor of German studies and comparative literature and a former chair of the Department of Comparative Literature. "It can sometimes be difficult being a non-native speaker here. But the Translatea-Thon is a chance for everybody to realize that being a native speaker of a language other than English is actually an asset, an amazing resource. The event builds community in that way, too."

Alangaden attended the Translate-a-Thon, including a session run by staff from LSA's Opportunity Hub on how to explain one's translation experience in professional terms for future employers. Alangaden also interviewed two participants—an Policy—and added their thoughts to her project.

The more she explored, the more Alangaden found translation all around her. In professors explaining complicated material, in doctors deciphering medical jargon for their patients, in multilingual friends illuminating cultural forces and foreign ideas for their classmates. And Alangaden hopes that as more people sign up for programs like the minor in translation studies, awareness of the power of translation can grow.

"The biggest thing I took away from this project was that translation could be anything and could happen anywhere," Alangaden says. "We often have this very specific idea of what translation means, that it's this formal process of choosing a word and then finding its exact copy in another language, and it all goes on from there. And I think translation is just so much bigger than that."

"Restating content in a different form is a critical skill in the twenty-first century," says Weineck. "Translation is at the heart of de-escalating international conflicts, and it's also at the heart of explaining science to the general public. I personally believe that translation is nothing less than the condition of possibility of all progress."

"Even if it's intra-language - just translating from jargony English into conversational language - translation is one of those key skills that people don't think about but that they should appreciate more and more," Alangaden says. "At least, I know I'm going to." ■



Rethinking Autism

LSA Professor Melanie Yergeau wants you to forget everything you think you know about autism.

ENGLISH LANGUAGE AND Literature Assistant Professor Melanie Yergeau's book *Authoring Autism* aims to turn the page on the stereotypes and assumptions people make about autistic individuals, hoping to convince readers to consider autism as an identity rather than an impairment. Yergeau is autistic, and she knows that her view challenges the historical perspective on autism. Yergeau addressed the historical view of autism and autistic people directly during a lecture in February, where she stood before a projection of a quote from American-Norwegian clinical psychologist Ole Ivar Lovaas:

"You see, you start pretty much from scratch when you work with an autistic child," Lovaas writes. "You have a person in the physical sense—they have hair, a nose and a mouth—but they are not people in the psychological sense... You have the raw materials, but you have to build a person."

Yergeau read the quote aloud, then explained the consequences of this thinking. "Violence is a

steady part of my book," she told the crowd. "Fitting children with electroshock backpacks in the name of therapy. Spraying children in the face with vinegar in the name of therapy. Strapping children into four-point positions for days in the name of therapy. Suggesting that killing children is among the best form of therapy—most especially for families."

The past is dark. But there is hope, Yergeau says, that as the stories and views, the perspectives and policies touching on autistic people are expanded to actually include autistic people in their creation, things can improve. "I believe in autistic futures," she writes, "in autistic people's cunning expertise in rhetorical landscapes that would otherwise render us inhuman."

MORE ACCESSIBLE, MORE WELCOMING

Many people believe autism's primary impairments involve social interaction and communication—conditions that are, at their base, fundamental to human experience. If autistic people cannot understand other people's thoughts and feelings, then why would a doctor believe what an autistic patient has to say? In such a situation, Yergeau says, "I am literally unbelievable and unreliable." There is nothing, Yergeau says, essential to the human experience that perceptions of autism don't touch.

Yergeau's work as a researcher and advocate is fighting to change that. Her research includes work on pedagogical diversity, online accessibility,







"THE PAST IS DARK. BUT THERE IS HOPE, YERGAU SAYS, THAT AS THE PERSPECTIVES AND POLICIES TOUCHING ON AUTISTIC PEOPLE ARE EXPANDED TO INCLUDE AUTISTIC PEOPLE IN THEIR CREATION, THINGS CAN IMPROVE."

autism studies, and disability studies, and she has also served on the boards of the Autistic Self Advocacy Network as well as that of the Autism National Committee. Her blog, autistext.com, elaborates on matters of rhetoric, autistic culture, and technology, and contains information on her academic work and her experiences as an activist, both of which Yergeau hopes will improve lives and clarify perceptions around autism.

And Yergeau's work shapes how she approaches the classroom environment. In the classroom, she integrates a variety of multimedia into her courses, always taking students' diverse and dynamic learning styles into account. "I routinely ask, in what ways can I create a more accessible, welcoming learning environment, one that values and encourages multiple modes and methods of expression rather than suppresses them?"

When speaking about their experiences in Yergeau's classroom, her students have nothing but praise. "She's a person whose name should be out there. She does so much in the community," one student said. Another student, taking his second class with her, spoke to the education he has received and why he chose to return. "She relates autism to many different forms of disability," he said. "She helped me realize how we silence disabled communities without even realizing it."



The census has always distinguished black and brown people from monolithic whites, slicing and dicing them into racial and ethnic categories whose meanings change over time. Characterizing race depends on whatever political ideas are currently in favor, and it has affected how we think about race itself. Now, 50 years after interracial marriage became legal, taboos against interracial relationships continue to fade, and the percentage of Americans who see themselves coming from multiple racial backgrounds is rapidly rising-all of which raises the snarly issue of who we think belongs to what race.

Arnold Ho, assistant professor of organizational studies and psychology, has made this the focus of his research. "I think we need to consider the history of how Americans have categorized and perceived people with multiracial backgrounds as we think about the implications a growing multiracial population might have for race relations and racial inequality."

SKIN DEEP

Biologically, the concept of race is bunk. There is more genetic variation within a single race than there is between races, Ho says. "The boundaries are not nearly as sharp as people think."

Though its biology may be baseless, the social reality of race is absolutely true. For centuries, skin color has justified cruelty and systematic discrimination. But as the number of multiracial people increases and people start to appear more racially ambiguous, perhaps we'll find ourselves living in a post-racial society. Or perhaps we'll develop an entirely different kind of inequality altogether.

The Psychology of Inequality Lab, Ho's research group, investigates these kinds of questions. Research in this field is known as hypodescent: hypo, meaning lower, and descent, as in de**Professor Arnold Ho's initial study** of multiracial categorization didn't examine the relation between social attitudes and hypodescent. But building on his early research, Ho found that white participants who opposed racial equality were more likely to categorize black-white people as black—especially when they were exposed to statistics that suggested a threat to the existing racial hierarchy. "When white participants who are relatively opposed to equality perceived that blacks are gaining and whites are losing," says Ho, "those were the conditions where we saw this bias in categorization the most."

scendants or lineage. And Ho's research has consistently found there is a tendency to associate multiracial people with their minority background rather than their white heritage.

In one study, participants were presented with faces on a computer screen. They were told that each time they pressed the "continue" button, the face currently on the screen would morph slightly—in one-percent increments—into a different race. They were told to keep pressing continue until the exact moment they felt that the person on the screen had become a member of a different race.

When participants morph a white face into a black or an Asian face, Ho says, "as soon as the face is 40–45 percent minority, our participants say that the person is a minority person."

However, when the process is reversed and participants morph a black or an Asian face into a white face, participants don't think the face is white until its facial features are almost 70 percent white.

"The threshold for being seen as a member of the majority group is much higher than for the minority group," Ho says.

LINKED FATE

Until this point, research in the field of hypodescent had primarily focused on white participants. ("By definition," says Ho, "majority members are simply easier to find.") But Ho wanted to know whether non-white participants would categorize multiracial people differently. It turns out, they, too, grouped multiracial people more with their non-white lineage, but their underlying reasons were different.

"Black people identified black-white people as black because they were more likely to feel a sense of what we call linked fate. A feeling of 'we're in it together,' that what happens to one group has implications for what happens to another," Ho says.

"That was really interesting for us," he continues. "Across seven studies that included more than 3,400 African American research participants, we found the same bias, but with a completely different underlying motive."

Historically, hypodescent has been considered an exclusionary belief because the research focused on the way it developed and how the majority group perceived it. "But with this new research, we're showing how it could be inclusionary, and not just driven by the motivation to keep groups separate," says Ho. "Our findings show that depending on one's own racial group membership in a minority or majority group, the motivations underlying hypodescent may be completely

opposite in

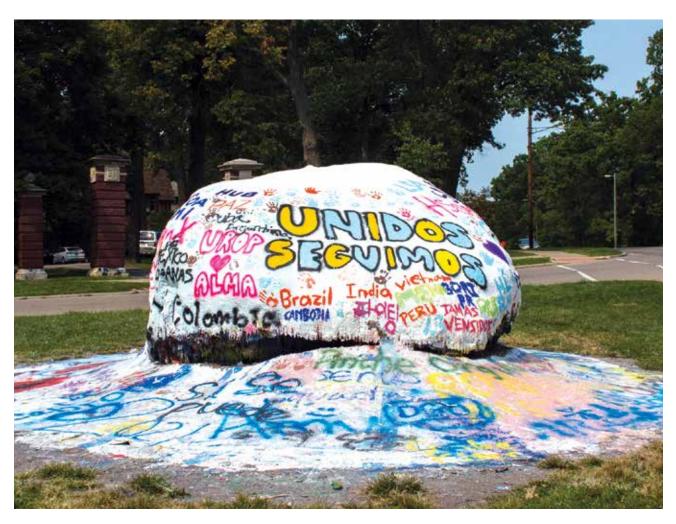
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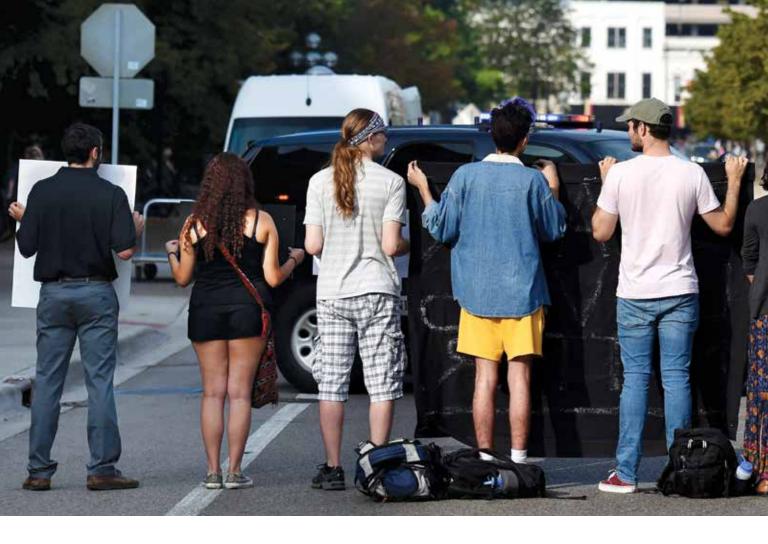






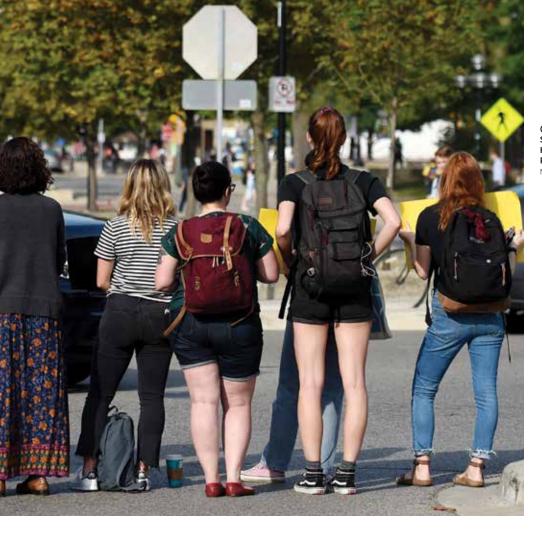
WHEN RACIST POSTERS APPEARED ON CAMPUS, STUDENTS RESPONDED WITH THEIR OWN FLYERS CONDEMNING HATE. WHEN RACIST GRAFFITI APPEARED ON THE ROCK, STUDENTS PAINTED THEIR OWN INCLUSIVE MESSAGE OVER IT (above). WHEN WHITE SUPREMACIST RICHARD SPENCER ANNOUNCED A PLAN TO TRY TO RENT SPACE ON CAMPUS—AN EFFORT THAT HAS NOW BEEN CANCELED—SOME STUDENT GROUPS ANNOUNCED A WEEK OF PROTEST AND ACTIVISM (top left). THE CONVERSATION AROUND FREE SPEECH ON COLLEGE CAMPUSES WAS IMPORTANT ENOUGH TO PROMPT NPR'S 1A WITH JOSHUA JOHNSON (bottom left) TO HOLD AN EVENT IN ANN ARBOR ON THE TOPIC.

(TOP LEFT) Melanie Maxwell/Ann Arbor News; (BOTTOM LEFT) Alice Liu/The Michigan Daily; (ABOVE) Claire Meingast/The Michigan Daily



(Right) U-M STUDENT DANA
GREENE JR., WHO HELD AN ALLDAY KNEEL-IN ON THE DIAG ON
SEPTEMBER 25, 2017, SHAKES
HANDS WITH U-M PROVOST AND
EXECUTIVE VICE PRESIDENT
FOR ACADEMIC AFFAIRS MARTIN
PHILBERT. INSPIRED BY NFL
GUARTERBACK COLIN KAEPERNICK
AND OTHERS, GREENE SPENT
ALL DAY WITH HIS KNEES TO THE
GROUND—ALTERNATING KNEES
EVERY 15 MINUTES—TO PROTEST
RACISM AND TO BRING ATTENTION
TO ISSUES FACING AFRICAN
AMERICANS IN ANN ARBOR
AND AROUND THE NATION.
Melanie Maxwell/Ann Arbor News





(Left and below) PROTESTERS SING AND STOP TRAFFIC FOR AN HOUR ON SEPTEMBER 25, 2017, AS PART OF AN ANTI-RACISM ACTION. Melanie Maxwell/Ann Arbor News





What were you wearing?

"The first time I was wearing jeans and a blue t-shirt. The next time, years later, I was wearing jeans and a blue t-shirt. I wear blue sometimes when I kickbox or when I need to be assertive. Even today I am wearing blue, because they don't get to take my voice, my favorite color, or my ability to say no and mean it. These are mine."

(Right) IMAGES AND TEXT FROM THE "WHAT WERE YOU WEARING?" EXHIBIT AT THE UNIVERSITY OF MICHIGAN MUSEUM OF ART. THE EXHIBIT, ORGANIZED BY U-M'S HEFORSHE GROUP, WAS HELD IN DECEMBER TO DISPEL MYTHS ABOUT SEXUAL ASSAULT AND BRING ATTENTION TO GENDERBASED VIOLENCE.

Photo by Levi Stroud

What were you wearing?

"A cute mini-dress. I loved it the moment I saw it. I had some killer heels, too. I just wanted to have a good time that night, look cute, and hang with my sisters. He kept getting me shots, over and over again. The next thing I remember is crawling around on the floor looking for that stupid dress."









(Above) STUDENTS PARTICIPATE
IN A DISCUSSION MODERATED
BY WELISTEN, A STUDENT-RUN,
STUDENT-FOUNDED GROUP
THAT ENCOURAGES STUDENTS
TO ENGAGE IN DIRECT, CIVIL
DIALOGUE WITH PEOPLE WHO
HOLD POLITICAL VIEWS THAT
ARE DIFFERENT FROM — AND
SOMETIMES OPPOSED TO —
THEIR OWN. Photos by Liz DeCamp



AND THE HOME OF THE LSA OPPORTUNITY HUB

The LSA Building is going through a major renovation so that in 2019, it will open its doors as a reimagined work, study, and learning space—giving the College of Literature, Science, and the Arts a brand new front door right in the heart of campus.

Take a flythrough of the plans for the new space at

myumi.ch/lsahubflythrough



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The Welcome **Desk**

One LSA student works to help imperiled people in Athens.

"I THINK IT was my first week working at the NGO," says LSA senior Stavroula Kyriazis of her internship last summer, "when a little boy, maybe eight years old, came in. I asked what I could do for him, and he said, 'I need home.' I explained about the housing application, and he just kept saying 'I need home, I need home, I need home.' It was the only English that he knew."

Kyriazis interned in Athens, Greece, at Solidarity Now, a social service organization that has created open-to-all solidarity centers across Greece that work to offer support to anyone who asks, includ-



ment of Classical Studies. "Students get a chance to learn through their experience that language can actually be a bridge between people."

The experience was a close collaboration between the Modern Greek Program, which initiated the internship, and LSA's Opportunity Hub, which offers wraparound support for LSA students, including preparatory courses, coaching, and funding. Next year, when a growing list of positions in Greece will be listed as part of the Hub's international internships, even more students will be able to participate in these

"The Opportunity Hub provides resources and support through every stage of the internship experience," said Paula Wishart, assistant dean of student development and career initiatives and the director of the Opportunity Hub. "We work with students to identify their goals, help them access scholarships and reflect during and after the internship on what they have learned. And by the end of an internship, students have applied their liberal arts education to solving real problems — which is really amazing when you think about it."



LSA SENIOR STAVROULA KYRIAZIS INTERNED AT SOLIDARITY NOW IN AUGUST OF LAST YEAR. MANY GREEKS GO ON VACATION IN AUGUST, WHICH MEANT THAT THE ATHENS CENTER WAS SHORT-STAFFED—ESPECIALLY IN TERMS OF PERSONNEL WHO COULD SPEAK BOTH GREEK AND ENGLISH WELL.

BY THE END OF AN INTERNSHIP,

kinds of opportunities.

STUDENTS REALLY GAIN THE ABILITY TO APPLY THEIR LIBERAL ARTS EDUCATION TO SOLVING REAL PROBLEMS.

ing that eight-year-old refugee and his family. The organization offers assistance to immigrants and refugees from countries such as Syria, Afghanistan, Pakistan, and to citizens from down the street. The languages they speak are as diverse as their circumstances, but Kyriazis mostly translated back and forth between English and Greek.

"Opportunities like this internship at Solidarity Now allow students to deepen their language and cultural literacy through complex, authentic taskbased learning," says Artemis Leontis, a professor of modern Greek and the chair of the Depart"An experience like that really centers you," Kyriazis says about her internship at Solidarity Now. "It's easy to be awestruck by the size and the complexity of the problems that you're facing at a place like that. It's not just Syria or Afghanistan, it's not just one country or policy causing all of this. Being in the office was really taxing, but whenever I felt overwhelmed I would think about all of the people we were helping, sometimes over a hundred a day. And even though the global problems are even bigger, I still felt good being able to make an impact on so many people's lives." ■

Together Again

Filmmaker Dan Habib and journalist Jody Becker reconnected 25 years after working together at the *Michigan Daily* to create two documentaries on civil rights and disability issues.

JODY BECKER (A.B. 1986) and Dan Habib (A.B. 1987) worked together at the *Michigan Daily*, Habib as a photographer and Becker as a reporter and opinion editor. The two covered the news of the day separately and together, which included issues like American companies divesting from South Africa under apartheid, an issue that spurred protests across the Ann Arbor campus of U-M.

"In those days at the *Daily*, you got an assignment and you'd go to wherever the story was happening and you'd meet your photographer there," Becker says. Habib had a knack for always being on the scene first, she says, scoping out the story, capturing the action and the feeling of the moment.

Habib remembers Becker as a tremendous collaborator, someone from whom he learned a lot.

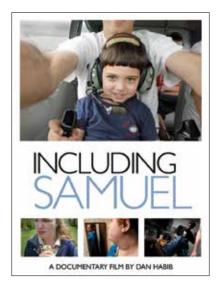
"I always thought Jody seemed like a professional journalist posing as a college student," Habib says. "She was amazingly professional and insightful, and she helped me learn critical lessons about journalistic ethics and integrity."

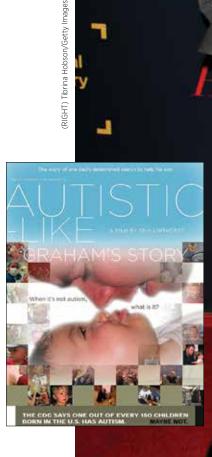
In 2008 – 25 years after their work together at the *Daily* – the pair reconnected when Becker heard about a documentary film that Habib had produced about his son, Samuel. The film *Including Samuel* touched on disability issues. Becker was working as a writer and producer on a father-son film that also touched on related subjects, the film *Autistic-Like: Graham's Story*.

"Dan being Dan, he gave us all kinds of unbelievably great advice about getting more attention for the film, including how to get on PBS," Becker says.

Becker and Habib had both built successful careers in journalism. Becker established herself as a radio reporter-producer and documentary story editor and Habib as a photojournalist and documentary filmmaker. Though they'd been back in touch since 2008, they didn't meet again in person until last year.

Over lunch in Los Angeles, Habib discussed some of his ongoing projects. Becker loved the rough cut of what would become a 30-minute documentary called *Mr. Connolly Has ALS*. She sent Habib notes, and that led to Habib inviting Becker to work with him on another documentary, a feature-length film called *Intelligent Lives*.





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JODY BECKER WAS DRIVING WHEN HER DAD CALLED HER TO SAY THERE WAS A **GUY TALKING ON NPR** WHOSE RECENT FILM BORE SIMILARITIES TO THE FATHER-SON DOCUMENTARY AUTISTIC-**LIKE THAT BECKER WAS** WORKING ON AS A CONSULTANT. THE GUY ON NPR TURNED OUT TO BE BECKER'S COLLEGE FRIEND AND FELLOW DAILY ALUM DAN HABIB.

"JODY HAS A UNIQUE ABILITY TO LOOK AHEAD SEVERAL STEPS, LIKE IN A CHESS GAME, TO UNDERSTAND HOW THE VIEWER WILL PERCEIVE A CERTAIN SCENE OR THEME."

CARVING THE STORY

Intelligent Lives follows three subjects: Micah Fialka-Feldman, who was attending Syracuse University; Naieer Shaheed, who was navigating high school in Dorchester, Massachusetts; and Naomie Monplaisir, who was looking for sustainable employment. All three had been labeled as having intellectual disabilities, and all three had fought hard—and had family members who fought alongside them—to help them succeed in inclusive environments.

The stories in *Intelligent Lives* all touch on the challenges of transition: the transition from high school to college, from college to what comes after, and from segregated environments to more inclusive ones.

The film took years to make. Some subjects were selected early in the process, while others came on only after months of searching. And after Habib had selected his subjects, there were still months and months of filming to capture and communicate their stories.

"What is interesting about working with filmmakers the way that I do is that filmmakers all see the stories unfolding in real time," Becker says. "They've done a lot of shooting, and they've fallen in love with their characters. And when they come to me, they are really looking for help in compressing the story and enhancing it."

"I like working with people who hold me and my films to extremely high standards and are never afraid to tell me what they really think," Habib says. Becker did that, Habib says, "even if we both knew the suggestion might entail significant revisions and a lot more work. She has a unique ability to look ahead several steps, like in a chess game, to understand how the viewer will perceive a certain scene or theme."

AN IMPROMPTU PARTY AT THE BEAUTY SALON

The topic for *Intelligent Lives* took shape organically, Habib says. A 2014 federal law known as the Workforce Innovation and Opportunity Act (WIOA) vastly expanded employment opportunities for people with disabilities. The law focuses on work that is competitive, which means everyone has to apply for a job, and work that is integrated, which means it's in a "typical," non-segregated setting. These are important changes, Habib says.

"Competitive, integrated employment means not having people in these sheltered workshops where they're getting paid sub-minimum wage to do menial work alongside only other people with disabilities," Habib explains. "That's not as meaningful as life can be for people."

In the film, Monplaisir attends a planning session with a counselor and members of her family to make a plan for using her social network to help her look for a job. She then gets a temporary, unpaid position at a nearby beauty school through a friend of a friend. At the end of the trial period, the beauty school administrators decide to offer Monplaisir a position there. When they do, everybody celebrates.



MICAH FIALKA-FELDMAN (ABOVE) ON THE CAMPUS OF SYRACUSE UNIVERSITY, WHERE HE CO-TAUGHT A CLASS, NAOMIE MONPLAISIR (RIGHT) AT THE BEAUTY SCHOOL WHERE SHE WORKS. FIALKA-FELDMAN AND MONPLAISIR WERE TWO SUBJECTS OF LSA ALUMNUS DAN HABIB'S DOCUMENTARY INTELLIGENT LIVES, ABOUT THE CURRENT CHALLENGES AND HISTORICAL PREJUDICES **FACING PEOPLE** WITH INTELLECTUAL DISABILITIES.

Students and teachers, men and women, people with dye jobs and perms and heads of soaking wet hair all drop what they're doing to give Monplaisir a big hug when they hear the news. It's obvious that they all know and love her, and that she will have a good chance of being happy there doing work she finds meaningful.

"What I really liked about the beauty school was that it was such a great





community for Naomie," Habib says. "And that's something we always have to remember, that work is often a big part of our community. And if you don't have a job, or if you don't have a job in a 'typical' work environment, then you're missing out on what could be a series of really wonderful connections."

SURFACE THE STORY

Part of the fight against the segregation of people with disabilities, Habib says, is surfacing the stories of people with disabilities, showing that they are not just a part of specific communities but that they are a part of *every* community.

And change can begin, Becker says, with a compelling story that motivates viewers to action. The core of the pair's collaboration was this effort to tell these stories in an inclusive, entertaining, and dramatic way — to meet the audience where they are.

"A lot of my work is involved in helping carve the story out from hours of footage, to keep the story understandable and to also make it dramatic," Becker says. "In documentary, you don't want to overexplain and you don't want to underexplain. You want to put the viewer into an active role. Both of these films are deeply invested in creating an environment where viewers can actively reach their own understanding of people and the issues."

"The end goal of all of this is to get the film in people's lives one way or another so that it can create change," Habib says. "I love making films, but I didn't get into this just to make films. I got into this to create change. And I feel that change is best created when it's based on really solid research of what is actually helping people with disabilities gain access to college or employment or full social lives. And that's what we're trying to capture and communicate in a really compelling way."

Because admission for many schools in India is discipline-specific, liberal arts programs are less well established—but they're growing. Dean Andrew Martin wrote the following piece for the *Economic Times of India* outlining some of the major thoughts and themes on the importance of a liberal arts education in the twenty-first century.

What I want for Amy, and for all of our students, is to discover what matters to her and to pursue her choice of career aggressively and fearlessly.

DEAN ANDREW MARTIN

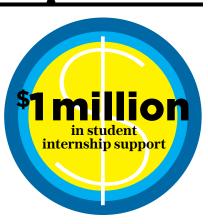
I MET A STUDENT named Amy who is studying at the University of Michigan's College of Literature, Science, and the Arts, where I serve as dean. Amy was a wrestler in high school, and she enlisted in the United States military after she graduated. Now, Amy studies computer science at the University of Michigan, and she found an internship (1) at a major internet security company in Ann Arbor, Michigan. But Amy's biggest worry about finding a job after graduation isn't necessarily the salary. (Although I'm sure that matters, too.)

"One of my fears is having a career I don't have a passion for," Amy said. "I want to wake up liking what I do every day."

I've been to Mumbai to visit with alumni, and many of their stories are similar to Amy's. The liberal arts education they received at the University of Michigan gave them what they needed to build a terrific career and a rewarding life.

And while Amy has a very promising future, the world she and other current students face after graduation is changing rapidly (2). In this world, spending one's whole career in the same job is increasingly unlikely. Many industries, especially those dealing with technology or commerce, are experiencing wave after wave of intense, sustained disruption.

The LSA Opportunity Hub connects students to internships at more than 1,400 corporations and organizations, from Fortune 500 companies to Michigan nonprofits to everything in between.



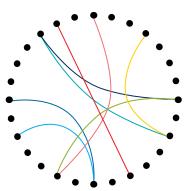
The piece appeared on November 18, 2017, in the Economic Times of India

Since 2008, there has been a 40% increase in private university enrollment in India, a trend related, many believe, to the difficulty of choosing an academic track right out of high school as well as a growing awareness of the American liberal arts model.



To learn more about the relationship between majors and industries — and how people who study all kinds of things at LSA end up doing all kinds of other things related or seemingly unrelated to what they studied — please explore the LSA career wheel at

myumi.ch/careerpathwheel



A liberal arts degree offers Amy and students like her the tools to adapt to new conditions. Studying the liberal arts means studying all of the ways that humans try to understand the world, and the curriculum includes classes from across the humanities, the social sciences, and the natural sciences. Students study a number of different academic fields in classes that encourage critical and interdisciplinary thinking. Doing this means that students can develop the mental apparatus to excel at whatever career they put their minds to pursuing.

And the numbers bear out the idea that the liberal arts give graduates the skills they need to become innovators and leaders. Not surprisingly, a third of all Fortune 500 CEOs hold liberal arts degrees, and 55 percent of world leaders hold degrees in either the humanities or the social sciences (4).

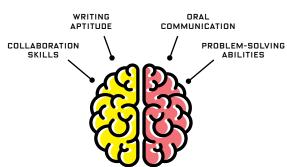
The liberal arts allow graduates to both define and pursue success by developing a set of core competencies: clear and compelling communication skills, critical thinking, creative problem solving, and the ability to look at an issue from multiple angles. These skills are not confined to a single industry, such as medicine, engineering, technology, politics, enter-

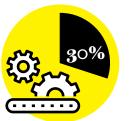
tainment, or law. These are skills that are vital to success in all of those sectors — and in life (5).

Remember, Amy doesn't want just any job. She wants a job that means something to her. Liberal arts students like Amy spend a lot of time learning to survive—and thrive in—uncertainty. They have developed the kind of mental flexibility that enables them to adapt as their fields shift and evolve, or to successfully change tracks and embrace new careers [6]. Liberal arts students aren't just prepared for their first job, they're prepared for their eighth—or even their eighteenth.

At the end of the day, it's the student who has to decide what they want. And we want to give them the skills to do that, wherever that journey takes them. It's Amy who has to decide whether she wakes up liking what she does every day. What I want for her, and for all of our students, is to discover what matters to her and to pursue her choice of career aggressively and fearlessly. And if she decides that she needs to make some kind of change in the future, I want her to have the confidence that she can translate the skills that she has learned into some new arena.

Overall, liberal arts graduates earn as much as—or more than—many students with degrees from vocationally oriented schools over the course of their career, and four of the top five traits that employers are looking for in recruits right out of school are central to a liberal arts education.







30% OF TASKS IN 60% OF INDUSTRIES WILL BE AUTOMATED IN THE FUTURE.

Increasing automation means that college graduates will need the mental flexibility to adapt to shifting economic landscapes and succeed in careers that didn't even exist when those students came to campus for first-year orientation.

University of Michigan College of Literature, Science, and the Arts

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