

**WINTER 2015** 

UNIVERSITY OF OREGON COLLEGE OF ARTS + SCIENCES



#### WHAT CAN I DO WITH A DEGREE IN . . . ?

#### NEW COLLEGE AND CAREERS BUILDING WILL HELP STUDENTS FIND THE ANSWER

he most common question I hear from prospective students visiting the College of Arts and Sciences is "What can I do with a degree in (fill in the blank)?"—with the blank representing a name of a major in the humanities or social sciences.

My answer is always the same: "You can do whatever you want. Our liberal arts degrees don't train you for a single vocation. Rather, they provide you the skills to pursue an almost infinite number of career paths."

But this answer—once widely accepted in America—now is frequently challenged in a postrecession world acutely aware of an

> "MY DAUGHTER WANTS TO MAJOR IN PHILOSOPHY," ONE PARENT RETORTED. "WELL, I DON'T SEE ANY WANT ADS FOR PHILOSOPHERS."

ever-unstable employment landscape and mounting student debt. I hear this challenge in many forms, ranging from media debates to the pointed rejoinders I hear in parent Q & A sessions. "My daughter wants to major in philosophy," one parent retorted. "Well, I don't see any want ads for philosophers."

For this parent, my comment about training students for an open-ended multitude of careers rather than a specific vocation simply did not compute.

By now, I am used to skepticism . . . and eager to respond. I make the case that liberal arts train us to think logically, question

critically, communicate clearly, act creatively, and live ethically—exactly the training that employers want (see page 2). I emphasize how this is supported, time after time, by many surveys of employers across the nation. Finally, I always point out that education at a public research university isn't just about career training, but also about creating well-rounded citizens who lead vibrant lives and contribute to society.

These types of parent conversations and untold interactions with students themselves—have helped shape the idea for a new College and Careers Building.

This 50,000-square-foot building, located in the very heart of campus, will serve as a home for both the College of Arts and Sciences and the UO Career Center—creating a centralized hub where students can make a direct connection between their academic interests and their future careers.

This one-of-a-kind facility will be dedicated to long-term success for students majoring in the arts and sciences—whether they choose comparative literature, geography, history, marine biology or any of our 46 majors.

This building will also help us recruit top students, as it underscores our commitment to helping them pursue degrees that fit their passions and also prepare for future career success. Our promise is to launch them with a practical sense of purpose as they leave the university.

The College and Careers Building will, to our knowledge, be the only university building in the nation that locates career services with the arts and sciences. I'm pleased to report that, with the remarkable philanthropy of Don and Willie Tykeson, this building will become a reality. Their \$10 million gift, and the support of other generous donors for \$1 million, has launched our campaign to fully fund the building and guarantee that this concrete symbol of the value of an arts and sciences degree will open its doors to students in just a few years. I could not be more excited about this opportunity to help our students succeed. I hope you

W. Andrew Marcus is interim Donald and Willie Tykeson Dean of Arts and Sciences. He is a professor of geography and proud parent of two UO graduates and three current UO students, all of whom have majored or are majoring in the arts and sciences.

will join me in this effort.



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#### A Finance Guy Walks into a Dean's Office . . .

ome months ago, a recruiter for a financial services company in Portland visited me. He explained he was looking to hire new UO graduates who could help retirees plan how to draw down their nest eggs. I told him that he was in the wrong place: This is the College of Arts and Sciences, I said; the finance department is located in the Lundquist College of Business.

"I've got computers to help us with compound interest rates and amortization tables," he replied. "What I need is a 22-year-old who can sit down with a 72-year-old to discuss their hopes and aspirations, their children and grandchildren, and the prospect of aging and decline."

I'll never forget what he said next: The ideal skill set for the position is someone who had majored in English literature—a student who has read about life and its seasons, who is a rigorous and adaptable thinker, who is a good communicator. That kind of person is able to approach problems in a way that someone who is only technically trained cannot.

To this I would add that any arts and sciences graduate emerges with the skills needed to thrive in a job like this—and in all the other jobs he or she will hold over the course of a long and, we hope, fulfilling working life.

—IAN F. MCNEELY Associate Dean for Undergraduate Education, College of Arts and Sciences

#### TOP 10 SKILLS EMPLOYERS TELL COLLEGES TO EMPHASIZE

82 PERCENT WANT CRITICAL THINKING AND ANALYTICAL REASONING SKILLS 81 PERCENT WANT THE ABILITY TO ANALYZE AND SOLVE COM-

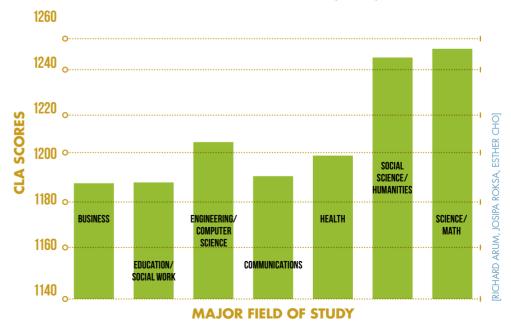
PLEX PROBLEMS 80 PERCENT WANT THE ABILITY TO EFFECTIVELY COMMUNICATE ORALLY 80 PERCENT WANT THE ABILITY TO EFFECTIVELY COMMUNICATE IN WRITING 78 PERCENT WANT THE ABILITY TO APPLY KNOWLEDGE AND SKILLS TO REAL-WORLD SETTINGS 72 PERCENT WANT THE ABILITY TO LOCATE, ORGANIZE AND EVALUATE INFORMATION FROM MULTIPLE SOURCES 71 PERCENT WANT THE ABILITY TO

When employers
were asked which
learning outcomes
they want to see
colleges place
greater emphasis
on, the top-ranked
items all align with
the skills that are
hallmarks of a liberal
arts education.

INNOVATE AND BE CREATIVE 67 PERCENT WANT TEAMWORK SKILLS AND THE ABILITY TO COLLABORATE WITH OTHERS IN DIVERSE GROUP SETTINGS 64 PERCENT WANT THE ABILITY TO CONNECT CHOICES AND ACTIONS TO ETHICAL DECISIONS 56 PERCENT WANT KNOWLEDGE ABOUT SCIENCE AND TECHNOLOGY [HART RESEARCH]

#### HOW TO GET THOSE SKILLS

The Collegiate Learning Assessment measures how well graduates demonstrate the skills employers say they are looking for: complex reasoning, clear communication, analytical problem-solving, etc. The results show that students majoring in the humanities, social sciences and sciences are the most likely to acquire those skills.



#### BEYOND THE MAJOR—WHAT EMPLOYERS SAY THEY REALLY WANT



OF EMPLOYERS SURVEYED AGREED WITH THIS STATEMENT:

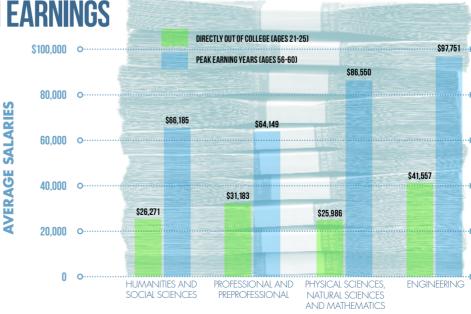
A candidate's demonstrated capacity to think critically, communicate clearly, and solve complex problems is more important than their undergraduate major.

[HART RESEARCH]

#### **SHORT- VS. LONG-TERM EARNINGS**

Graduates who have degrees in social sciences, humanities and sciences make slightly lower initial salaries than those with professional degrees in fields like business. But they catch up midcareer.

[DEBRA HUMPHREYS AND PATRICK KELLY]



## The Geography of Violence



#### ZERO-SUM POLITICS ON THE GROUND IN NORTHERN IRELAND AND WEST BANK REGION

haul Cohen (left) has spent 30 years studying why people fight—and why they don't.

As a political and cultural geographer, Cohen specializes in ethno-territorial conflict. He has walked the streets of Northern Ireland as partisan parades dissolved into rioting and he has

wandered the outskirts of villages along the Israel-Palestine border when fighting made it too dangerous to enter the communities themselves.

Always, Cohen has been on the lookout for instances where a conflict was averted, where the actions by a few key people defused a situation that was spiraling toward violence. He finds rivals who live side by side in relative peace, and studies them to develop practical solutions to reduce conflict.

Cohen's research has led to atypical areas for a geographer—ethics and incarceration, for example. These interests share a common thread, however.

"I'm interested in questions of power," Cohen said. "I'm interested in pushing toward real-world outcomes." What have you been working on lately?

**COHEN:** I'm looking at how people find a way to live with one another and not pursue violence. The academic literature has historically suggested that violence occurs because communities are opposed to each other and violence is the method they're using to advance their agenda—that it's a zero-sum dynamic, "if it's good for you, it's bad for me." However, what I've found in the field, where real life is lived, is that while the political operatives are talking zero-sum, there can be a whole lot more compromise going on than was ever even hinted at in the literature.

I'm working on an approach to shift conflicts from being about the demands for certain rights to fulfilling particular needs. When it's a rights-based dispute it's often headed toward violence, but when it's a needs-based conflict there can be all kinds of accommodations.

#### Do you have an example of that kind of accommodation?

**SC:** There is a very difficult place in the town of Hebron on the West Bank. It's a historical religious site and it is thought to be the burial place of the prophet Abraham, who is Ibrahim in Islam. But, because of the shared connection to that patriarch, the site func-

**INTERVIEW BY MATT COOPER** 

tions as both a synagogue and a mosque, and the arrangements that are made to allow that to happen are quite interesting.

On Saturday, it's a synagogue; on Friday, it's a mosque. There are also holidays throughout the year from both communities that supersede that schedule. There are separate entrances. There are some spaces that are shared and others that are exclusive.

It's a small space that can be shifted according to a schedule to serve the needs of different communities, without negating the claim by either side that the space belongs to them. It doesn't force them to abandon their rights claims. They're making it work.

#### What does your work involve in Northern Ireland?

**SC:** I've studied partisan parading, which historically has created opportunities for considerable communal violence.

There is what I've called "a choreography of violence"—people know what to expect in particular places and they can choose to pursue that opportunity for violence or they can choose to avoid it. The parades take place at a specific time, along a particular route, both of which are known to everyone in advance. Along the route, there are areas where there will be no friction, there are areas where there will be a certain kind of friction that doesn't include physical violence and there will be places where physical violence is possible and even likely. And everybody knows where those places are.

I can tell you, "If you want to see Molotov cocktails thrown, stand on this street at this time on this day. And bring an umbrella, because the stuff's going to be flying."

#### What's the take-away from the "choreography of violence" concept?

**SC:** There are sufficient stakeholders invested in violence, which means that violence persists. What we have with the choreography of violence, however, is that the violence is not acceptable to some people, and not beyond certain thresholds, and not in certain areas. There's a geography to

it—what the geography says is that some people are very susceptible and others are relatively or even considerably immune to violence taking place in their space.

It's almost as if it's sanctioned within that area, and that draws it. If you suppress it there, it's going to come out someplace else. The police have made the decision to allow the pressure to be released in this expected

tions or sectarian organizations trying to take their membership in a less violent direction. But they can't say, "We've decided to surrender, we're going to elevate the needs of the other side." They're manipulating and orchestrating within their own community so that there will be an alternative course taken, but if you signal that to people it causes a crisis of legitimacy and what's pos-



66 IF YOU WANT TO SEE MOLOTOV COCKTAILS THROWN, STAND ON THIS STREET AT THIS TIME ON THIS DAY, AND BRING AN UMBRELLA, BECAUSE THE STUFF'S GOING TO BE FLYING.

way because in all likelihood, innocent people—noncombatants, nonparticipantswon't get hurt, because they know where it's going to be and they stay away.

#### So in those areas, the violence is essentially automatic.

**SC:** In fact, though, it's not automatic. If people want the violence not to happen, it's easy for them to signal, sometimes just by their presence, that the rules have changed for this moment and the space is not going to experience violence. There's a lot of unspoken communication that takes place in the street, there are all kinds of symbols that serve as "fighting words"—they can be flags, insignias, stuffed animals, even music. And if you come into the space with those things, the challenge is issued and there will be a response; if you defer, then there may not be a response.

It's difficult for me to talk about these things in detail because they're sensitive and I've conditioned myself not to.

#### Can you explain why this is a sensitive area?

**SC:** The stakes are high. Some of the work that I've done that's sensitive involves the leadership of these paramilitary organizasible is their leadership will be eroded and they'll be replaced by people who are more extreme who will take it back to the violence. The fact that they're (moving toward nonviolence) is often something that they have to deny, rather than take credit for it.

#### Are you hopeful when you open a newspaper every day?

**SC:** Hell, no. It is challenging to absorb the news and maintain a positive outlook. The world is a harsh place when you do what I do, and the challenges are enormous.

One thing I've learned in the past 10 years, though, is that I mostly don't need to encourage my students to engage in making change. They're here to engage and they're not deterred by the magnitude of the challenges. It's a question not of motivating them but of strategizing with them, and that's good for me.

Shaul Cohen's research as a political and cultural geographer has led him to some interesting areas namely, ethics and incarceration. Cohen directs the UO's Carnegie Global Oregon Ethics Community and he chairs the university's steering committee for the Inside-Out Prison Exchange Program. Read more in the "Online Extras" section of Cascade at cascade.uoregon.edu.



## HOLY SCHOLARSHIP!







### Revealing the secret identity of comics as a super field of study

#### By Matt Cooper



lack Widow is a Russian-born spy with wrist bracelets that fire energy blasts, and over the years she's fought crime alongside Iron Man and Captain America.

But when the superheroic femme fatale character

showed up at Portland's 2014 Rose City Comic Con last fall, she had neither of those do-gooders in mind. Dressed in the Widow's trademark skintight black outfit, Anne Stewart, a 2012 UO grad, was at the comic book convention to see an action figure who doesn't shoot lasers from his eyes. Instead, she scanned the crowd for someone who was defying Comic Con's spandex-and-winged-boots dress code in favor of a suit and tie.

"It's always very interesting to me [at comic conventions]," said Stewart, who majored in English and Japanese. "I'll say, 'I studied comics in college under a guy named Ben Saunders,' and they'll say, 'Oh! *Ben Saunders*!"

Yes, Ben Saunders. The buttoned-down University of Oregon English professor who specializes in the literature of the English Renaissance by day is in danger of being eclipsed by his charismatic and seemingly omnipresent alter ego: Ben Saunders, the Comics Guy.

It's a title that makes him cringe. Saunders, an expert in the history of British and American comics and cartoons, believes that the world of scholarship waiting within the panels of a comic strip is well beyond the purview of any one person—it would be like asking one professor to cover the entire history of English poetry, he says. Now in his third year at the helm of the nation's first undergraduate comics and cartoon studies minor, Saunders is quick to credit a team of academic colleagues who contribute their own special powers to a program that is as demanding as it is popular.

## "You enter this uncomfortable realm where you're attempting to interpret text and images in novel ways."

"People need to understand that this is an extremely challenging academic discipline, it's global and historically oriented, it has a cultural tradition spanning various countries and there is well over 100 years of cultural productivity in comics just in this country," Saunders said. "The thing I don't want to be is 'the comics guy.' The notion that there can be just one 'comics guy' does a disservice to the art form—and to the wider field of comics scholarship."

#### THE MOST EFFECTIVE FORM OF COMMUNICATION EVER DEVISED

It all began in 2009, when Saunders curated an exhibit called "Faster Than a Speeding Bullet: The Art of the Superhero" at the Jordan Schnitzer Museum of Art. The 1,500 who turned out on opening night set a record for opening-night attendance to a show at the museum. The crowd flooding in was so big, in fact, that then-university president Richard Lariviere couldn't get out; he turned to Saunders and said, "There's something here. What more can we do with this?"

Today, there are 25 to 35 students in the minor at any given time and Saunders' comics courses consistently fill—he'll teach as many as 45 in one class.

The comics and cartoon studies minor immerses students in an international, historical and critical perspective on the art of comics, from editorial cartoons to comic books to graphic novels. Students learn to think outside of the boundaries of particular disciplines and to analyze the interaction between images and text.

English professor Karen Ford, department head, said the minor extends the

department's reach—not only by presenting cartoon texts as literature worthy of study but also as a vehicle for changing the way we think about the works of more traditional scholarly subjects like, say, Emily Dickinson, who sometimes drew cartoons in her handwritten manuscripts.

"Without the comics minor, I would never have thought to include her drawings in my poetry courses," Ford said. "The minor reminds us that the verbal and the visual are more interrelated than we generally imagine, and that pictures are also texts with multiple possible meanings that are shaped in turn by multiple contexts."

In addition to an introduction to comics and cartoon studies, courses in the minor cover arts and visual literacy, graphic narratives and cultural theory, art and gender, Latin American comics and Japanese comics (called *manga*) and animation (*anime*). Courses are offered through a range of departments, including comparative literature, East Asian languages and literatures, English, ethnic studies, Romance languages and others outside the College of Arts and Sciences.

Saunders calls comics "one of the most effective forms of communication ever devised," noting that everything from airplane passenger-safety instructions to electronics owner's manuals are examples of the comics form. Students in the minor explore why this mode of communication is so valuable, as well as the relationship between aesthetics, politics and culture.

"It just sounds insane now, but in the 1940s parents feared that exposure to comics would leave their children morally and intellectually retarded—this was a genuine belief," Saunders said. "Now you can get credit at college for studying comics. So students can learn something about shifting cultural values just by looking at the history of the medium itself."

Saunders' passion for the minor resonated with an anonymous donor who, in 2013, agreed to invest \$50,000 annually in the program for four years, creating a \$200,000 endowment. That has enabled Saunders to support student projects, explore additional courses and host guests, including writers Greg Rucka (*Action Comics, Batwoman*) and Matt Fraction (*The Invincible Iron Man*) and Eugene artist Jan Eliot, creator of *Stone Soup*. The money is also a resource for the funding of exhibitions and conferences.

"Right now, comics are the R&D division for so much popular media—so much of what you see in film, on TV and on the Internet is either focused on or working with material adapted from comics—it's inescapable," Saunders said. "Comics also combine words and pictures in a unique and often highly sophisticated way. Students in the minor are asked to think about comics and the relationship between word and image in a way they don't for any other discipline."

#### A HEROIC LINEUP

It's fair to say that Saunders has a tiger by the tail that is threatening to swallow him whole.

In addition to his academic responsibilities as a professor and the new director of the university's College Scholars program, Saunders is in constant demand as









There's more to the comics minor than superheroes. Students learn to recognize French cultural stereotypes in the strip Asterix (page 7) and to interpret the idiosyncratic language in George Herriman's Krazy Kat (below). The minor has even inspired a student comics magazine, Art Ducko, featuring "graphic stories" drawn by students (right).

a speaker at university events and comics conventions. At Rose City Comic Con, for instance, where Anne Stewart did eventually find him, Saunders gave a lecture called "Batman's Shadows" and ran panels on "Reading Comics for College Credit" and the representation of women, people of color and queer characters in superhero comics.

One of his latest efforts is a partnership with the Experience Music Project Museum in Seattle, which specializes in popular culture. Saunders is curating a show that will open in 2016 on EC Comics, a 1950s-era American publisher of horror and crimefiction comics and the classic satire, Mad.

All of these extracurricular activities mean that finding free time in Saunders' schedule is a job for Superman.

Fortunately, he has several colleagues who bring expertise to the minor in areas such as French and Spanish literature, Japanese art and film, comparative literature and cinema studies. Among them:

• Fabienne Moore, an associate professor of French, teaches an upper-division course, War in French Comics, that covers the Paris Commune, both world wars and the Algerian war, as represented in eight to 10 bandes dessinées, or "BD" (literally, "comic strips"), showing the evolution of the genre. Students also read comics theorist Scott McCloud's Understanding Comics in French and engage in spirited debates—in French—about racialized representations and animal abuse in Tintin in the Congo, a comic by Belgian cartoonist Hergé.























Moore sees the minor as an important step toward legitimizing a field of study that has what she calls "an enormous potential for research."

"I find it fascinating that when I teach the class, my dreams at night happen in frames," Moore said. "It's a bizarre sensation but it confirms for me that the cognitive processes at work in reading images with text is very different from reading a book or watching a film.

"My secret wish," she added, "is to find a colleague at the university's MRI lab willing to record how the brain works when reading comics."

 Tara Fickle, an assistant professor in the English department, asks students in her gutter" or "closure," both crucial to comics—then present cogent criticism through discussion and writing. It's a demanding task, but students are buoyed by the final project: They design their own comic book and produce a short write-up explaining their inspiration, process and goals.

"The best measure of a course's success is that a student comes out of it not just saying 'I learned something new' but 'I learned a new way of looking at things I thought I already knew how to look at," Fickle said. "The comics minor is a perfect example of this university's commitment to thinking progressively and productively about what a 21st-century humanities education should look like, and

what today's student needs to be able to know and do to succeed in a rapidly changing world."

• Glynne Walley, an assistant professor of Japanese literature, introduces students to the past and present of Japanese culture through manga and kibyoshi, or "yellowbacks," which are picture books from the 1700s and 1800s.

For the latter, one of his tools is *Playboy, Roasted à la Edo*, a social-political satire series that follows the travails of a wannabe sophisticate who never quite measures up to the social elite he so admires. "Students relate to that idea really well—'Am I cool?" Walley said. "As someone who works on the past, one thing I'm always trying to get students to realize is that people in the past are still people. Making connections across distance and time is really important."

• Akiko Walley, assistant professor of Asian art, teaches students the history of Japanese *manga*, using this globally recognized comics form as a portal for exploring a country and its culture.

Manga—"man" is Japanese for "casual," "ga" means picture—is inseparable from Japanese life. More than one-third of all printed books published in Japan fall into this category; after a devastating earthquake in east Japan claimed more than 15,000 lives in 2011, people turned to manga for healing, Walley said, relying on a medium that is always the quickest to reflect societal change.

Walley trains her students to identify the subtle differences that distinguish one category of *manga* from another: the use of lines, framing and fonts, for example, or even the positioning of dialogue bubbles, which accelerates or slows the pace of the story.

Her intent is for students to develop the ability to critically assess visual information—an empowering experience, Walley said, and a marketable skill in the digital age.

#### NO, IT'S NOT A CAKEWALK

Yet despite the best efforts of professors to present comics to students through a kaleidoscope of thought-provoking perspectives, Saunders continues to battle two groups of skeptics: adults who sneer at what they see as the dumbing-down of higher education and students who are convinced they've discovered an academic cakewalk.

But consider Krazy Kat.

On the surface, George Herriman's early-20th-century newspaper strip couldn't be simpler: A mouse throws bricks at a cat,

"My secret wish is to find a colleague at the university's MRI lab willing to record how the brain works when reading comics."

Graphic Narratives and Cultural Theory course to consider how social, political and economic forces influence the form and content of graphic fiction, one of her specialties. Students dissect works ranging from Art Spiegelman's *Maus* to the racial undertones in *Tom and Jerry* cartoons.

Students must learn the formal vocabulary of an unfamiliar medium—terms such as "the



## Krazy Kat's language is a patois stew of Yiddish, Louisiana creole and Joycean phonetic puns.

which interprets this as a sign of affection. Yet *Krazy Kat*'s mixture of offbeat surrealism and poetic, idiosyncratic language earned it status as one of the first comic strips to be treated as "serious art," and it remains a favorite of comics aficionados to this day.

At first take, though, the strip is almost impenetrable. Its language is, as Saunders put it, "a patois stew of Yiddish, Louisiana creole and Joycean phonetic puns." There is a nuanced poetic structure at play, the comic equivalent of a sonnet and something that requires multiple readings to identify. Herriman's life story, too, offers fertile ground for academics. The African American cartoonist passed as white for his entire adult life, his career intertwining African American, Native American, French and Caucasian cultures, and multiple social classes.

"My initial reaction was, 'Wow, this is kind of hard to read,'" said junior Ruby Lambie, a digital arts major. "The way Herriman portrays language in the strip was unlike anything I had ever seen. The development of the characters wasn't something that was apparent immediately. But the more you read it, the more you could connect with it."

Lambie found the strip easier to comprehend as her class delved into Herriman's life and times, exploring immigration, history, culture, society and the rise of modernity. They read *Krazy Kat* aloud in class, approximating the voice of its simple-minded protagonist, the better to decode the strip's idiosyncratic language and astounding phonetic approach.

Over time, Lambie became conversant in Herriman's tongue. Asked on a pop quiz to describe her reaction to *Krazy Kat*, she responded in an approximation of Herriman's own style: "It is cleva and fone-et-eek and it makes me heppy."

Lambie's progress would resonate with another comics and cartoon studies minor: Trace Cabot, BA '13, a major in cinema studies and English, who said the comics and cartoon studies program requires "not only profound thinking but very creative thinking, as well."

"It requires you to enter into this uncomfortable realm where you're attempting to interpret text and images in novel ways," Cabot added, "without any easy answers."

#### DISTURB THE COMFORTABLE

Now a graduate student in film at USC, Cabot is a teaching assistant called upon to impart to students what he learned about Japanese animation from Akiko Walley and Steven Brown, a professor of comparative literature. He brushed aside the criticisms of the skeptics, arguing that such reactions only prove the capacity of comics studies to "disturb what is comfortable."

"There is this sense that literature is something safe and inert, a timeless artifact that we can't approach in a new way," he said. "Comics studies circumvents that and confronts you with something that requires the hard work of interpretation."

Put another way, UO sophomore Alex Milshtein said, "People will go to a museum to see art, people will go to a library to see words. But for some reason, when you combine those two things, people say, 'That doesn't work.''

Milshtein is out to change that. Majoring in political science and history and minoring in comics and cartoon studies, he is the creative force behind *Art Ducko*, a comics magazine featuring the work of UO students and scheduled to debut winter term.

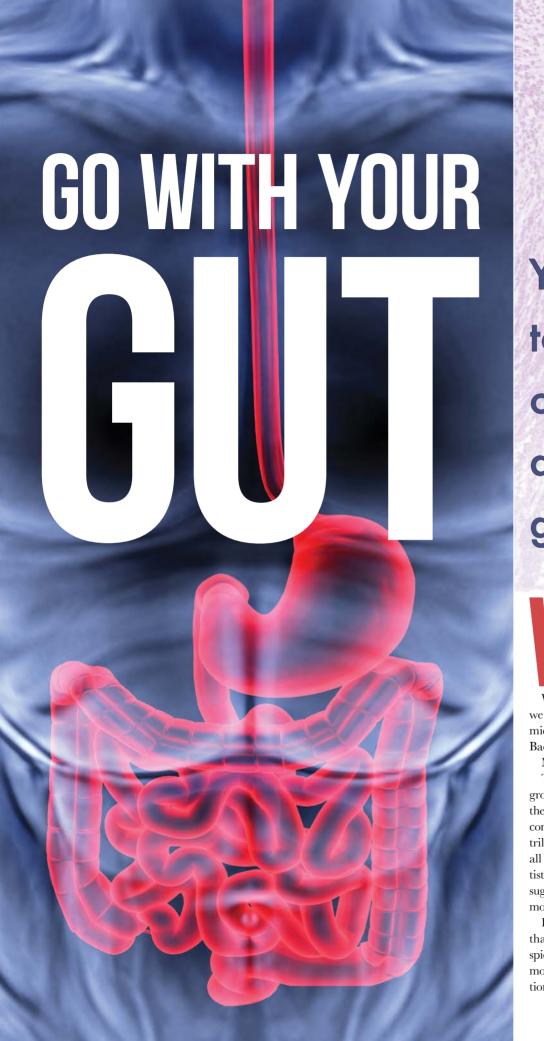
Milshtein's experience launching the magazine is a microcosm of the minor itself: Response is exceeding expectations. He had hoped, originally, to corral a handful of like-minded students and generate enough content for a modest product; today, six editors work with two to three artists each and Milshtein has more content than he can publish in his 30-page issue—"a good problem to have," he noted.

The inaugural edition will feature four "graphic stories," a submission on comics art criticism, a review of web comics and various strips and panels. Support has come from the Department of English, the UO Cultural Forum, the Digital Arts Program and Saunders himself, through funds from the aforementioned endowment (his official title, in the magazine masthead, is "Sugar Daddy").

Milshtein works closely with Saunders to plan out the magazine. An aspiring cartoonist himself, Milshtein sees *Art Ducko* as both a platform for talented student artists and a tool for generating even more momentum for the comics and cartoon studies program.

"We're trying to build comics culture through this magazine," he said. "I want the comics and cartoon studies minor to be huge. I want it to be a draw to the university."





You are host to trillions of bugs and that's a good thing

**BY GREG BOLT** 

E ARE NOT ALONE.

Not because of visitors from other planets—these creatures aren't even visitors.

Most of them have been here longer than us.

What's keeping us company—in ways we are just beginning to comprehend—are microscopic beings. Untold legions of them. Bacteria, fungi, viruses.

Microorganisms.

They inhabit the air we breathe, the ground we walk on and everything we touch; they inhabit *us*. We are each host to a massive community of microbes, numbering in the trillions. Most of them make their home in, of all places, the digestive tract—and UO scientists are on the cutting edge of research that suggests these microbial companions do a lot more than just process what we had for lunch.

For example, not long ago it was believed that peptic ulcers were caused by worry or spicy food. Now we know that one of the most common sources of ulcers is an infection by the bacterium *Helicobacter pylori*,

which in some people damages the coating that protects the lining of the stomach.

As scientists at the UO and elsewhere focus on the human gut, they're finding intriguing signs that the complex world of microbes there might play an important role not only in intestinal health but also the way our brains develop and how conditions such as autism emerge.

"Recent science has shown that some of these microbes interact with us in very important ways: altering how we develop as children, influencing our immune system, affecting our digestion, protecting our health, perhaps even changing our behavior," said Brendan Bohannan, a UO biology professor. "Science is just beginning to understand these interactions, but the potential for this new understanding to lead to innovations in human health and well-being is huge."

#### **ONLY 10 PERCENT "US"**

Consider this: The human body has an estimated 100 trillion cells, some sources say, but only 10 trillion or so are "us"—that is, our blood cells, our muscle cells, and so forth. The other 90 percent are joyriding microorganisms-yes, 90 trillion critters cohabiting each of our bodies, a good portion of them classified as bacteria.

Of all the nooks and crannies in a human being where these tiny organisms hang out, no place says home like the gut. The human gut is awash in trillions of microscopic organisms, harboring a larger population than any other part of the body.

"The human gut is special because it's so densely populated," said Karen Guillemin, a UO biology professor. "The challenge for the field right now is to understand how these bacteria affect both our development and our health."

Guillemin has made a career of studying the myriad microorganisms found in living animals. Lately she's been focused on microbes in the digestive systems of

vertebrates, with a particular eye toward understanding how what she observes in animals—specifically the zebra fish—gives insight into the human gut microbiome.

The UO has pioneered the use of zebra fish as a model organism. Unlike other common research organisms such as fruit flies and

monly found in breast milk. Researchers discovered that these sugars couldn't be broken down and used by the infant, raising questions about their roles.

It turns out that gut bacteria use these sugars to grow. Human babies are born without any microbes in their digestive

#### MICROBES MIGHT INFILIENCE THE WAY CONDITIONS SUCH AS AUTISM AND SCHIZOPHRENIA EMERGE.

nematode worms, zebra fish have backbones, and thus are remarkably similar to human beings in both genetic makeup and embryonic development. They also reproduce quickly, allowing Guillemin and others to raise zebra fish with no gut bacteria and compare them to unaltered zebra fish to better understand how bacteria affect development.

They can also restore gut bacteria to zebra fish to see whether certain bacteria are helpful, and in what way. Of course, these kinds of tests aren't possible in humans.

The strength of the research program on zebra fish is one reason Guillemin came to the University of Oregon. Now she's at the forefront of an area with huge promise-but also challenging obstacles.

"We're just scratching the surface of what the biological capacity of this system might be," Guillemin said. "We're at an exciting stage in our knowledge, but it's an early stage."

#### BREAST MILK FEEDS BACTERIA

The wide-ranging involvement of microbes in health and human biology is an emerging field. The involvement of *H. pylori* in causing ulcers has only been known since the 1990s, and some of the most surprising revelations have taken place within the last five years.

Take the example of complex sugars com-

tracts, and the sugars help them form their own microbe communities, or "microbiomes." The discovery will influence how we look at infant nutrition, Guillemin said.

Research also suggests that changes in the gut microbe community could play a role in intestinal diseases and that changing the makeup of the bacterial community could treat some infections.

For example, doctors recently discovered that bacteria from the gut of a healthy person can be used-via a procedure called a fecal transplant—to treat people infected with a particularly stubborn and hard-totreat bug that causes diarrhea and abdominal pain.

People who have been treated with antibiotics are at risk for this infection because this pathogen can spread when the normal gut bacteria have been weakened by the antibiotics. But transplanting gut bacteria taken from the fecal matter of a healthy person appears to restore a normal, healthy gut microbiome that can fend off the infection. Clinicians speculate that the same treatment could be used to help people with irritable bowel syndrome, colitis, constipation and other intestinal conditions.

But Guillemin is cautious. "We don't yet know how to precisely manipulate people's gut microbiota to restore them to a healthy

#### IT'S IN OUR DNA

For something so tiny, the microbes in our gut cast a pretty big shadow in the research world.

Scientists have only recently discovered that these microscopic creatures might play an outsized role in our health, development and even our overall well-being. Scientists at the UO are at the forefront of the growing field of research aimed at teasing out the myriad ways human bodies are affected by this vast and complex biological community.

The META Center for Systems Biology (META stands for Microbial Ecology and Theory of Animals) is the UO's hub for these efforts. Funded by the National Institutes of Health, the center brings together scientists from multiple disciplines—biology, chemistry, physics, mathematics and computer science—to tackle this challenge. It's one of 13 national programs conducting multidisciplinary research of biomedical phenomena.

"One of the really unique things here is that we have a number of folks working on microbiota issues from a variety of different angles," said Bill Cresko, associate vice president for research and a biology professor who is part of that team. "That's in the DNA of this university: We make breakthroughs by doing interdisciplinary research."

The dozen UO scientists involved in the center study the composition of microbial communities, how they are established and how they vary across individuals, generations and locations. Those researchers include the following:



#### Brendan Bohannan, biology

Bohannan studies how and why microbial communities come together—in the world, and in our bodies—and how they change over time. He examines microbiomes in tropical rainforests, built environments such as buildings and also "host organisms" including human beings.

In humans, Bohannan investigates how microbial communities form after birth and why they vary from person to person.



#### John Conery, computer and information science

Conery is the director of META's Bioinformatics Core and has spent 15 years researching ways to use high-performance computing and computer simulations to better understand biological processes. His work involves working with researchers to help come up with new or

better ways to analyze the vast amounts of data, including genetic data, being gathered on the human microbiome.



#### Judith Eisen, neurobiology

One of the early pioneers of using zebra fish as a biological model, Eisen studies how intestinal microbes are influenced by the nervous system and how the development of the nervous system is influenced by microbes. She is part of a team that recently was awarded a sig-

nificant grant from the National Institute of Mental Health to study whether problems in the gut microbiome cause genetic problems that lead to conditions such as autism, intellectual disabilities and schizophrenia.



#### Jessica Green, biology

Green is the director of the UO's Biology and the Built Environment Center, where she explores the interactions among microbes, humans and the urban environment. She is an engineer and ecologist whose work focuses on biodiversity science, using a variety of approaches to

study complex biological systems in our bodies, cities, forests and oceans.



#### Karen Guillemin, biology

Guillemin, director of the META center, wants to understand how hosts and their associated microbial communities shape each other and uses zebra fish to see how they coexist with their microbial residents. She ultimately hopes to learn how similar complex systems in humans can

be manipulated to promote health.



#### Raghuveer Parthasarathy, physics

As director of the META Live Imaging Core Facility, Parthasarathy uses advanced optical techniques to explore gut microbial communities and examine the physical properties of cell membranes. He designed and built a special microscope for use in zebra fish experiments that look at

the microbial gut community and how the host responds to it.

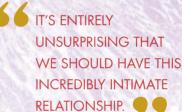
state," she said. "Understanding how to engineer gut microbial communities is something we're trying to do in our animal models."

#### **GUT BUGS AND THE BRAIN**

Recently, a team of UO scientists focused on the potential effects of gut bacteria on the brain won \$330,000 from the National Institute of Mental Health. Another \$1.3 million grant is expected to follow.

Biologists Judith Eisen and Philip Washbourne will lead an exploration of the role that gut microbes might play in disorders such as autism, intellectual disabilities and schizophrenia.

With support from Guillemin and Cristopher Niell, an assistant professor of biology, the scientists will look at how gut microbes might affect the growth of synapses, the relay points that carry signals in



the brain. It's something Eisen has been thinking about since 2009, when few others saw any potential in the field.

"Everybody thought it was a crazy idea," she said.

Preliminary evidence suggests that when animals are raised in an environment that prevents the development of a gut microbiome, genes that control synapse formation are affected. These same genes also appear to be involved in disorders involving neurological development, such as autism, so it's possible that the lack of certain microbes in the gut could be tied to developmental disorders.

"It's mind-blowing to think that the microbiome is so important in so many ways, and yet we really didn't understand this until recently," said Eisen, a neurobiologist who studies brain and spinal cord development. "You can look at it in another way, though. We evolved with these organisms, so it's entirely unsurprising that we should have this incredibly intimate relationship."



# YET ANOTHER COMPLETION

n fall 2013, Marcus Mariota could have chosen to leave college early for the fame and fortune of professional football. Even then—even before his 2014 Heisman-winning season—he would have been a top NFL prospect.

But he decided to return to the UO. The Ducks' star quarterback felt that completing his education was just as important as completing passes downfield.

"I wanted to get my degree. I wanted to leave with that in hand," Mariota said at a press conference last year. "Football is only for a short period of time, and I wanted to prepare myself for after."

Most people only know "Super Mariota" the quarterback, the guy who memorized the entire UO playbook before ever taking a

snap, who put in endless hours on the practice field, who analyzed every move he made in every game in search of ways to improve.

What they don't know is that he put that same effort into academics. Mariota last year received his bachelor's degree in general science, with an emphasis in human physiology, finishing with a 3.22 gradepoint average.

He did it the way he runs the Ducks offense: Fast. Mariota completed his academic requirements in a little over three years and walked in graduation ceremonies last spring.

Tackling a science degree on an abbreviated timeline is at least as challenging as avoiding the blitz. Mariota took 20 or more credits a term during much of his college career, well above the norm.

In fall 2013, Mariota took physiology and human anatomy at the same time, something few students dare. He took his midterms in those classes while preparing for the big Stanford game. Last year, before the UCLA game in October, Mariota canceled a national media interview to study for a chemistry midterm.

Mariota became a household name across America in December when he won college football's Heisman Trophy, a first for the university. But he also collected honors off the field: Mariota received the Emerald Athletic Award for achievement in athletics, service and scholarship and was named to the PAC-12 conference's second-team all-academic lineup for earning a GPA of 3.0 or better.

"You are very deserving because of your play on the football field, but also because of the way you handle yourself on campus and in the classroom," biology instructor Cristin Hulslander said, in a Heisman video tribute by faculty members. "We're very proud of you."

Steve Stolp, Mariota's academic adviser and the executive director of UO Services for Student Athletes, said that ever since arriving at the university the quarterback has been a fixture at the Jaqua Academic Center for Student Athletes.

"He's just single-mindedly committed to not only being a great football player, he literally closes the academic center down," Stolp told reporters last year. "I know for a fact we were kicking him out of there when the building closed most nights."

W. Andrew Marcus, interim dean of the college, said skills that Mariota learned in the classroom translate loosely to the football field, just at a much faster speed—communicating clearly, thinking logically and (no surprise for this QB) acting creatively.

"Marcus Mariota is as much of a role model in his academic pursuits," the dean said, "as he is on the football field."

Most people expect Mariota to make his mark on the gridiron. But with degree in hand, he can call an audible and switch from sports to sports medicine after his playing days are over.

"Science is the future," Mariota says in an athletic department video. "You can change the world with what you are able to learn."

-GB



### **AVERTING INTERNET** ISASTER Mapping "Carrier Hotels" to Predict Disruptions and Potential Fixes

CLASSIC ART DECO building in Manhattan-60 Hudson Street-is now a modern hub for Internet communication. The former Western Union building, which spans an entire

was built in the 1920s as a headquarters for a breakthrough 20th-century technology: the telegraph. Today, it houses banks of computers that carry Internet traffic for more than 60 telecom companies.

block in midtown Manhattan,

Buildings such as these are found the world over. They're called "carrier hotels," and they're the key to a critical question about the Internet: How would a terrorist attack, a hurricane or even a power outage in one place affect connectivity for users elsewhere?

Believe it or not, we don't know much about the vulnerabilities of the Internet when it comes to potential disruptions such as these. But Reza Rejaie, an associate professor in the Department of Computer and Information Science, has found a way to answer these critical questions.

Rejaie and colleagues from Duke University and New Jersey-based Niksun Inc. have received \$500,000 from the National Science Foundation to map Internet connections across the globe. Establishing a robust "Internet topology" will be a major first step toward understanding the vulnerabilities of the Internet as a whole to any disruption.

Think of the Internet as a huge collection of interconnected computers. These computers are called routers because they route messages from one computer to another across the network—say, from the CNN website to your laptop. Companies such as AT&T and Comcast own and manage their own networks-linking together scores of these routers-to serve an area as large as a city, a state, a country or the entire world.

The Internet comprises more than 40,000 such networks worldwide. They are connected to one another by wiring together some of the major routers at carrier hotels-for example, AT&T and Comcast might connect their networks at a few such buildings in Seattle, Chicago and Miami.

The carrier hotels are therefore key to creating a useful map of Internet connectivity, since they act as hubs where different networks connect and exchange traffic, Rejaie says.

"Existing Internet maps are either too abstract or too detailed," he said. "They present a pretty picture but are of limited use for investigating the Internet's vulnerabilities because they neglect the physical location of places where different networks connect and are therefore generally incomplete."

Rejaie's approach is different: He is mapping individual carrier hotels where networks connect.

Consider the carrier hotel in downtown Seattle at 2001 Sixth Avenue, which is owned by Colorado-based Zayo. Using Zayo's website, Rejaie can easily find companies that have networks in this building, such as AT&T and Verizon. Then, using what he calls "probing messages," he can track the route that a message takes as it traverses two networks in the building.

The goal is to create an Internet-wide map that identifies the networks located in these critical locations and how they connect to each other. This will then help predict how the flow of Internet traffic might be disrupted in the event of a major catastrophe—and how it might be rerouted as a response to that disruption.

"What we do is detective work," Rejaie said. "Understanding where and how networks connect is essential for understanding how the Internet can be affected by various events." -MC

OR BABY BOOMERS thinking that online "brain games" might be a kind of mental fountain of youth, top scientists have a response: Think again.

An international group of scientists has publicly panned the growing brain-game industry, saying current research doesn't support the notion that structured computer games lead to better brain health or performance.

A statement coauthored by the UO's Ulrich Mayr and two colleagues and released last fall said that advertising for the games plays on the fear of an aging population and that games are no substitute for commonplace activities known to benefit health and cognition.

Mayr, the UO's Robert and Beverly Lewis Professor in Neuroscience and an expert on the flexibility—or lack thereof—of the human mind, said it's important to keep studying how the brain learns and what people can do to boost mental agility or hold off the effects of aging. But so far, he said, the science doesn't support the claims of many brain-game providers.

"Our main goal in this statement is to clarify the kind of empirical evidence that would justify recommending commercially available brain-training programs for improving cognitive functioning," Mayr said. "Our conclusion is that such evidence is currently not available, despite what aggressive marketing about benefits 'based on neuroscience' seem to suggest."

The statement is signed by almost 70 researchers from more than 30 universities in six nations and was based on a review of numerous previous studies. It was issued by the Stanford Center on Longevity at Stanford University and the Max Planck Institute for Human Development in Berlin.

Brain games are becoming more popular, and more profitable. The industry brings in \$1.3 billion a year in revenue, according to a story in *The New York Times*, and a business journal reports that one of the leading companies in the field has raised almost \$70 million in venture funding since 2005.

But those who want to stay mentally sharp are better off following a prescription that has been shown to help: a healthy diet, regular exercise and a good dose of social activity. Time spent on brain games, Mayr and his fellow researchers say, is time that could be

# ARE BRAIN STANKER

#### SCIENTISTS SUGGEST YOUR TIME IS BETTER SPENT ON OTHER ACTIVITIES

better spent on things that might actually help.

"Essentially, what the experts on learning, memory and cognitive aging are telling us is that to improve or maintain their own cognitive functioning, they would spend neither time nor money on brain-training programs," Mayr said.

Other UO researchers have reached similar conclusions. A study by UO psychology professor Elliot Berkman published last year found little overall change in brain functioning from online training programs.

Of particular concern, scientists said, are claims or implications that brain games will prevent, slow or reverse Alzheimer's disease. They said such statements are "devoid of any scientifically credible evidence."

Also, Mayr cautioned against the use of brain-training programs in schools. The results of Mayr's own research suggest those programs divert money and time away from effective teaching programs.

"The costs of such programs are particularly apparent when, as is already happening in some school districts in the United States, they are used at the taxpayer's expense in schools,

replacing regular, teacher-driven instruction," he said. "The benefits we find are negligible and inconsistent and clearly do not warrant replacing valuable class time through such training programs." —GB



# FIELD TRIP

LESSON FROM KYRGYZSTAN: You might want to pass on the fermented horse milk.

That's just one of those unexpected nuggets one picks up when traveling in exotic places, and for most American geology students it doesn't get much more exotic than this small Central Asian nation wedged between China and Kazakhstan. That's where a lucky group of UO undergraduate and graduate students found themselves last summer on a field trip that even seasoned travelers described as epic.

"It was overwhelming, really," said Brittany Dayley, one of 27 undergraduates who took part. "We were just experiencing so much geology so quickly. We covered a lot of ground in the time that we were there."

Ray Weldon, professor of geology and trip organizer, has covered a fair amount of ground himself, having studied Kyrgyz geology for more than a decade. One of the new nations that formed after the breakup of the Soviet Union, Kyrgyzstan sits on one of the most geologically active areas of the planet, he said.

A prime example is the Tien Shan Mountains, one of the tallest ranges on Earth, with peaks as high as 24,406 feet.

The Tien Shan is a relatively uncommon example of mountains emerging in the middle of a continent. Typically, mountain ranges form where two plates-big pieces of the Earth's crust-collide, like the Cascade Mountains rising from the collision of the Juan de Fuca and North American plates.

Weldon said the Tien Shan Mountains are rising over a weak spot in the Asian continental plate, far from a plate boundary. Think of it like a big wrinkle that pops up in a large sheet of fabric when you try to push it across a table from one end.

That push comes from India, which is on a separate plate that's colliding with Asia. It's a big collision, forming the Himalayan Mountains, including Mount Everest, and raising the Tibetan Plateau.

But some energy from that collision continues inland until it finds a weak spot, creating the wrinkle that is the Tien Shan. Geologically





#### THE IMPORTANCE OF GETTING IT WRONG

snack time, math is eightyear-old Zara's favorite

part of the school day. Zara doesn't just like math. She practically vibrates when she knows an

THER THAN LUNCH and

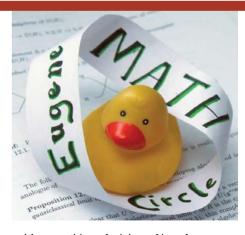
answer, stretching so hard to be called on that she probably grows another half-inch during every class.

The place Zara loves doing math the most is the Eugene Math Circle, a weekly class offered through the UO Department of Mathematics for kids seeking more of a challenge than their regular schools provide. The math circle is a place where kids eager

to learn more about numbers-and there are more of these kinds of kids than you might think-can geek out on binaries, powers, formulas and fractions.

"I just think it's really fun figuring out things, because I like solving puzzles and stuff," Zara said, after solving a set of problems involving binary numbers. "It's funner because it challenges me, and I like to be challenged."

That's mathematical music to the ears of Maria Nemirovskaya, an instructor in the math department and organizer of the Eugene Math Circle. Several other UO faculty members take part, offering five afterschool classes on the UO campus for elementary, middle and high school students.



It's something of a labor of love for Nemirovskaya, who says there's nothing like the look on the face of a child who suddenly understands not just the answer to a problem, but the mental steps to get there.

"With kids, unlike with adults, you can see it when it clicks," she said. "There is a light





Above: At 14,000 feet, the Kumtor gold mine—second-highest gold mining operation in the world-was one stop on the excursion. Left: Students visit Petrov Lake, a glacial lake formed by an unstable dam of ice and rock that is eroding, threatening a toxic waste site downstream.

speaking, the Tien Shan are very new mountains that are still growing by about a centimeter a year, or about a half-inch.

"In geological terms, that's screaming," Weldon said. "You can practically see the mountains being built."

The trip was made possible by the Lloyd W. Staples Scholarship and Award Endowment Fund, named for a late professor in the geology department and largely supported by alumnus Dick Bray. Both graduate and undergraduate students joined in the Kyrgyzstan trip, after attending a one-term seminar class on the country and preparing a research report on an aspect of the region's geology. Each student had to become an expert on a particular topic such as mountain building or earthquake faults and then, during the trip,

present findings at a site displaying that kind of geology.

But the students learned about more than geology. They also learned about another culture, one that is as different from their own as pink granite is from basalt.

The Kyrgyz people, undergraduate Brian Meyers said, "are absolutely wonderful. We had a warm reception everywhere we went."

On their travels through the countryside, Meyers said it wasn't uncommon to be invited to share in kumis, a tart drink made of fermented horse milk popular among Kyrgyz people. The milk is only mildly alcoholic, but because it's considered rude to drink and run, one might end up downing a good many drinks.

"You pretty much want to avoid that," Meyers said. -GB

#### THE MATH CIRCLE IS A PLACE WHERE KIDS CAN GEEK OUT ON BINARIES, POWERS, FORMULAS AND FRACTIONS.

in their eyes, they're jumping up-and my kids literally jump—and their faces change when they get this 'a-ha!' You can see the transformation."

Nemirovskaya, who teaches two elementary-level courses, lights up in much the same way when she talks about her students and what they're learning. And what they're learning isn't strictly math-it's more like training for young brains.

"In my elementary classes, of course I teach math," Nemirovskaya said. "But the most important part that I teach is how to think, to think outside the box, to just use your brain. (Typical) elementary school math is problems with

recipes. I give them problems without recipes."

It's not all about getting the right answer. Math circle teachers also emphasize the importance of getting it wrong.

Being wrong is actually an important part of learning math, because even the smartest people are often wrong and being wrong is a necessary step in problem-solving, especially as problems get more complicated.

In fact, Nemirovskaya starts every class with a problem that's designed to elicit a wrong answer on the first try. The learning happens as students figure out why.

"I try to make sure they're not afraid to get the wrong answers, and that getting the wrong answer is actually a very positive outcome," she said. "I'm trying to teach them analytical skills and develop their brains. From my standpoint, that's even more important than the math." -GB

Nemirovskaya's first goal is to guide her students toward identifying the crux of a math problem. Two recent questions she posed to them:

- A chicken standing on two legs weighs eight pounds. How much does that chicken weigh if it stands on one leg?
- Three workers paint three rooms in three hours. How long does it take six workers to paint six rooms?

(See page 28 for answers)

## Garment industry best bet for women's financial independence BANGLADESH

HE SCENE WAS a garmentmaking factory in Bangladesh. Some 1.400 workers—most of them women and all of them grossly underpaid—were denied wages and a holiday bonus by the owner. A woman named Yesmin, a trade union leader, intervened. She telephoned the

owner repeatedly, seeking the compensation. When the calls went unreturned, Yesmin sent one last message: If you don't bring the money, she warned, I'm going to start selling the factory machinery to pay these wages.

"And the owner calls right back and says, 'Don't sell, I'm coming, I'm coming!"" Lamia Karim said, chuckling. "He shows up in an SUV with bags of money."

Karim, associate professor of anthropology, is a scholar of women and social change in her native Bangladesh. The South Asian country of 160 million is considered by Western governments to be a model for developing nations because of its reliance on two industries with the potential to empower women: microfinance and the ready-made garment manufacturing industry.

But Karim has found one approach has decidedly more potential to help women than the other. And her conclusion might be surprising.

Microfinance—the practice of loaning a small amount of money to individuals to seed entrepreneurial endeavors—has

been touted as a panacea for global poverty and a way to empower women. The United Nations declared 2005 as the year of microfinance and a year later awarded the Nobel Peace Prize to economist Muhammad Yunus, one of the first to experiment with the practice.

But Karim is an outspoken critic of the practice (see Cascade fall 2011). She's found that although the loans are made to women, their husbands almost always control the funds—although it's the woman who is targeted by the banks if repayments falter. Her research also shows that rather than starting new businesses, women who did control these loans often simply lent the money to others.

The country's \$20 billion garment-manufacturing industry, however, can empower women because the wages paid—although meager—are still more effective for giving women economic independence than funding entrepreneurship that may or may not be realized. Factory work also creates an

#### **CLIMATE CRISIS: EVERYWHERE AND NOWHERE**



T'S BEEN A vexing question for Kari Norgaard (left): How can the crisis of climate change simultaneously affect the entire world and yet fail to make the evening news?

How can the impact of climate change be, as she puts it, "everywhere and nowhere"?

Her research shows that this paradox feeds off a host of intersecting factors: geopolitics, economics, cultural expectationseven how we see ourselves.

Norgaard, a UO sociologist, is investigating why we, as a species, seem incapable of coming to terms with this human-caused global crisis. Her body of work includes the critically acclaimed 2011 book, Living in Denial: Climate Change, Emotions

and Everyday Life, a case study of one Norwegian community's detachment from the stark reminders of a warming world, evidenced for example in a first snowfall that came two months later than usual.

Norgaard found that global warming was common knowledge among the highly educated and politically savvy Norwegians in her case study. But they were inclined to shift responsibility for the problem to the US or China. "They say, 'We're a small country, we're not as bad as the Americans," Norgaard said.

By laying the blame elsewhere, Norgaard's subjects were protecting the things that are important to them-a gasguzzling SUV, perhaps. Her work has also shown that where climate change is

environment where workers—overwhelmingly women—can organize collectively for change, Karim said.

Karim's new book, *Constructing Modernities:* Women and Social Change in Bangladesh, explores the global garment industry and its impact on this Muslim-majority society.

While she is a strong proponent for the industry, Karim stressed that there must be more regulation of factories notorious

#### ACTIVISM IS NO SMALL ACT OF COURAGE.

for abominable conditions. The flashpoint in this struggle was the 2013 collapse of an eight-story factory near the country's capital, which killed more than 1,100 people. After the disaster, more than 50,000 workers took to the streets to protest low wages.

"I want people to support this industry and reform it," said Karim. Noting that retailers such as Gap, Walmart, J. C. Penney and H&M rely on Bangladeshi manufactur-



The collapse of an eight-story factory in 2013 became a flashpoint for worker's rights. Women took to the streets to mourn missing family members and 50,000 workers marched to protest low wages.

ing, she encouraged shoppers to hold these companies accountable.

Her travels to Bangladesh have also exposed Karim to inspiring stories such as Yesmin's.

A worker in the industry since she was 12 years old, Yesmin later became a vocal advocate for improving conditions, and as a result she lost her job in the early 1990s. Yesmin joined the labor movement and became a trade union leader—she's also a

poet—and she's been locking horns with the industry establishment ever since.

This is no small act of courage in Bangladesh, where sexism and gender inequality can expose women to considerable risk.

"These women are crafting new lives, they have hopes and dreams and they want their children to become lawyers, nurses," Karim said. "Yesmin said to me, 'If I don't fight, we'll just perish."" –MC

THE RESPONSE WE NEED
IS NOT ABOUT RIDING
BIKES OR CHANGING A
LIGHT BULB, IT'S ABOUT
REENGAGING DEMOCRACY.

concerned, people struggle with feelings of hopelessness, given the enormity of the issue, and feelings of guilt—for failing to make fundamental lifestyle changes.

Said one woman interviewed by Norgaard: "I have a guilty conscience, that's why I try not to think about it."

Unfortunately, this is a self-fulfilling prophecy. If people don't hear their friends and neighbors talking about climate change, they're less likely to bring the matter up themselves, Norgaard said.

"My research is focused on the people who know it's happening—it's about denial in the form of apathy," she added.

But while many think of climate change in terms of "What should I be doing differently?," Norgaard stresses that to solve this global problem, it is our political leaders who must change course.

"The response we need is not about riding bikes or changing a light bulb, it's about reengaging democracy," Norgaard said. "What individual people can do is talk about climate change, care about it, demand political action."

Tackling this massive and politically charged issue has earned Norgaard no shortage of venom from skeptics. Rush Limbaugh denounced Norgaard as an "environmentalist wacko" in a 2011 tirade and she has been attacked in YouTube videos, as well.

Norgaard pays little attention to the denial movement, beyond noting that its most serious threat is in distracting the rest of us from acting responsibly. But she expects the clamor from critics to die down over time.

"As climate change becomes more obvious," Norgaard said, "that's going to go away."

In just the last year or so, Norgaard has been buoyed by indications that climate-change policy might finally be moving to center stage. President Obama and Chinese president Xi Jinping recently signed a historic agreement to cut emissions. There is more news coverage and more civic action, she said, noting for example that some 400,000 people joined in a march last fall in New York City, demanding government action.

"There is so much climate activism now," she added. "The problem is extremely serious and things do not look good. However, in the last year it is very energizing to me that there are more people talking about it." —MC

## HOW CAN ISS ISS HAPPEN?

Middle East expert looks through the lens of political economy

ANY IN THE WEST predicted that Syrian President Bashar Hafez al-Assad would fall along with numerous other Middle East leaders toppled during the Arab Spring uprisings earlier this decade.

But Angela Joya (above) wasn't one of them.

The new assistant professor of international studies knows that the reality on the ground in Syria is much more complicated than is typically portrayed in US newspapers. And that reality helps explain how some segments of the population look for solutions from the extremist group ISIS, or Islamic State of Iraq and Syria.

According to Joya, the Syrian president and his Ba'ath Party—though accused of brutal crackdowns—also enjoy a level of support among everyday Syrians. Despite the political chaos and violence within the region and country, the government has maintained basic services and a tolerable quality of life outside active war zones.

"Those are things that are not really covered in the outside media," Joya said. "(The crackdowns) are one reality. There is also the fact that the government is still manag-

ing to take care of its people to some degree. That's why you don't see those anti-Assad voices being so strong."

Joya's recent appointment represented a two-for-one victory for the international studies department. She is an expert on the Middle East as well as a political economist, both areas in which the department wanted growth.

Political economy isn't a field of study. It's a way to assess

change in a country by way of examining its economic systems, government and the roles of both powerful and marginalized groups. "It's a toolkit we use to study transformative processes such as globalization," Joya said. "We're enabling students to have a critical eye for understanding the actors who are involved."

Of late, Joya has concentrated on Egypt and Syria, countries in stark contrast when it comes to political upheaval and reform.

Egypt, for Joya, represents an enormous missed opportunity.

The Arab Spring uprising of 2011 that overturned ruler Hosni Mubarak in just 18 days brought the promise of a more inclusive government. But the Islamist Muslim Brotherhood that rode the uprising to power had no real vision for Egypt and was itself toppled by protests within a year; it's been replaced by military-backed President Abdel Fattah el-Sisi and a return to policies that were the cause of the country's tumult in the first place.

"Despite the demands of the people, it seems Egypt is going back to reliance on the International Monetary Fund for loans and subsidies with onerous conditions," Joya said. "Ordinary people will face the same hardships they faced under Mubarak."

In Syria, meanwhile, there was, at best, ambivalence for the Arab Spring uprisings, which many viewed as destabilizing and disruptive for day-to-day life, Joya said.



That's because, in contrast to other countries in the region, Syria's leadership—both Bashar al-Assad and his predecessor, Hafez al-Assad—historically "kept the lid" on sweeping calls for reform by providing enough basic services to keep workers, peasants and other Syrians happy, Joya said.

Meanwhile, those who don't favor Assad have few alternatives. The Syrian opposition to the president is divided and lacks any sort of political or economic vision, having squelched any momentum gained during the recent regional upheaval, Joya said.

Especially worrisome to Joya is that some younger Syrians place hope in the extremist group ISIS.

Though Syrians condemn the group's barbaric attacks on Westerners, some are so desperate for change—and frustrated by the history of US actions in the Middle East—that they see the group as a noble force trying to drive out occupiers. The hope is misplaced, Joya added, because ISIS is only tearing the country apart as it battles Assad for power.

Can the US be part of a better future in the Middle East?

Not if it maintains its wrong-headed reliance on military tactics to effect change, Joya says. Building relationships with grassroots organizations and working to improve the lives of average citizens would help shift how the West is perceived in the region, she added. —MC

## LATIN FLAVOR

#### PORTFOLIO-BUILDING VIA LANGUAGE, CULTURAL PROFICIENCY

COTT ERDMAN, Class of 2012, is a legal assistant at Hecht and Norman, a Eugene law firm specializing in immigration law.

Miranda McGee, BA '11, is a client service associate training coordinator at Fisher Investments in Portland.

Elizabeth Dalton, BA '11, is an ESL (English as a second language) teacher at Portlandia International School of Languages, also in Portland.

What do they have in common?
An undergraduate degree in Latin
American studies (LAS).

One of the newest majors at the UO, the LAS degree program is paving the way for a diverse range of careers by offering students sophisticated language and cultural instruction, enhanced by real-world experiences such as internships and study abroad.

LAS bills itself as an "intellectual adventure." Like every other major field of study in the College of Arts and Sciences, Latin American studies does not steer students toward a fixed career outcome. Instead, "we provide the skills to pursue an almost infinite number of career paths," said W. Andrew Marcus, interim dean of arts and sciences (see Dean's Page).

This is especially true in LAS, where thirdyear Spanish or Portuguese proficiency is a requirement for the major, thereby establishing portfolio-building skills that are increasingly in demand: Spanish because demographic shifts mean that US businesses, government agencies and nonprofits increasingly serve Spanish-speaking Latin American clients; Portuguese because it is the seventh mostspoken language in the world, and Brazil, with 200 million Portuguese speakers, is the world's fifth-largest economy, a major trading partner and an international cultural force.

In fact, recognizing Brazil's impact on the global stage, the LAS program has declared 2014-15 "the year of Brazil."
According to LAS program director
Monique Balbuena, a literature professor in
the Robert D. Clark Honors College, "All of
our activities this year, the scholars we're
bringing in, the lectures we're promoting—
it's all focused on Brazil."

Portuguese or Spanish language proficien-

With language skills at the core, the LAS program also explores the cultural, historical, geographical and political factors that define the challenges and opportunities of the region. More than 45 faculty members from academic units such as journalism, ethnic studies and environmental studies teach classes affiliated with LAS and contribute their expertise to a comprehensive understanding of the region.

As a new major, LAS is a small one, with about 30 students formally majoring in it. But hundreds of other students take LAS-related classes each term.

"Most courses related to Latin America are always full," said Carlos Aguirre, a history professor and the previous head of the



BRAZIL, WITH 200 MILLION PORTUGUESE SPEAKERS, IS THE WORLD'S FIFTH-LARGEST ECONOMY, A MAJOR TRADING PARTNER AND AN INTERNATIONAL CULTURAL FORCE.

cy is more than a path to career readiness; it's also an indispensible tool for gaining insight into Latin America as a whole—a region of more than 600 million inhabitants, 13 percent of the Earth's surface area and a combined gross domestic product of \$6 trillion—as well as individual countries and cultures.

LAS program. "Many of them are history majors, Spanish majors, international studies majors, political science majors. They want to learn more about Latin America. But no matter what their major field of study, they benefit from the growing presence of the program." —LR



### REPRESSIVE OR PROGRESSIVE?

#### A Chinese scholar sheds new light on a time-honored custom

HE CHINESE government recently enacted a law that, to Westerners, might seem a bit curious: Adult children must visit their aging parents.

It was the formalization of perhaps the most fundamental virtue of traditional Chinese society. "Filial piety" refers to the expectation that children will honor their parents, maintaining a lifelong bond with them that historically has included extraordinary personal sacrifice, intimate caretaking and elaborate mourning rites.

Centuries-old tales abound—of sons tasting medicine to ensure its safety for their mothers or eating only foraged vegetables so that their parents may dine on rice. And it survives to this day: A Chinese newspaper recently reported that a 26-year-old man had pushed his wheelchair-bound mother for 93 days to reach a popular tropical tourist destination, calling it "by far the best example of filial piety" in years.

Modernization in China and a booming economy have raised concerns that children are beginning to neglect this sacrosanct practice. That has prompted resurgence in support for filial piety, and this is of particular interest to Maram Epstein, associate professor of Chinese in the Department of East Asian Languages and Literatures.

Epstein's new book—Orthodox Passions: Filial Piety in 18th-Century China—will be among the first to explore the changes in how this virtue was perceived at the verge of modernization. She is attempting nothing less than to rewrite the history of emotion for the world's most populous nation.



MODERNIZATION IN
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TO NEGLECT FILIAL PIETY.

Many modern scholars have treated with cynicism the accounts of filial piety from that era, dismissing it as a repressive and empty ritual requirement.

Epstein's research, however, has convinced her that sons and daughters in Late Imperial China took seriously their obligations to mothers and fathers, in part because it allowed them to avoid other societal trappings—including romantic attachments—and to develop a sense of individual purpose. "Filial piety enabled people to resist other ritual demands," Epstein said, "for example, that they dedicate their energies to serving as officials, husbands, brothers or wives."

Some acts of filial piety may seem quaint or extreme to modern Western sensibilities, but they can be understood more positively within a discourse of love, Epstein said. Just as contemporary US culture affirms sacrifices made in the name of love (think Leonardo DiCaprio in *Titanic* or organ transplants made by a parent for a sick child), Epstein's book will argue that China's filial children were similarly motivated by powerful feelings of love.

Her book, to be finished this academic year, has been more than a decade in the making. In support of this project, Epstein has received a UO Humanities Center Fellowship and a summer stipend from the National Endowment for the Humanities, which underwrote her most recent research trip to China.

As her book nears completion, Epstein is sharpening her argument about what's at stake if scholars begin to take filial piety more seriously. If the practice is viewed as beneficial to—not repressive of—one's sense of self, Epstein says, scholars—and perhaps even the rest of us—might be encouraged to rethink their interpretations of this tradition. —MC



## **TERRORISM**

#### AS A TEACHING OPPORTUNITY

HE PAST AND THE PRESENT sometimes meet in strange places. They intersect in a particularly intriguing way in the person of Cory Browning (right), fresh from a doctoral program at Cornell University and starting his first tenure-track position at the UO as an assistant professor of French.

Browning's subspecialty is terrorism studies, and this is where his scholarship makes fascinating links between now and then. He weaves together the blood-stained guillotines of revolutionary France and the aerial destruction of 9/11, looking for ways to understand how and why terror has endured as a political tool.

Not surprisingly, Browning's work is a sure-fire conversation starter.

"It does spark a lot of interest, because it can go in many directions," he said. "Once you start digging, you see there is a rich history that we can explore that hasn't been explored a lot, and I think that's why terrorism studies is popular right now."

It's not really unusual that a French professor would develop expertise in terrorism, given that the word stems from the French terrorisme and refers directly to the Reign of Terror, which began in 1793 in the wake of the French Revolution. The symbol of the Terror was the guillotine, which was used to execute thousands of "enemies of the revolution," often with little or no credible evidence.

But fear of the guillotine helped establish the revolution as the new national order; it was so successful that terrorism came to be seen by later revolutionaries as a necessary step to secure the gains of a popular uprising. That idea has persisted into modern times and is now used by Islamic extremists, among others, as a tool for gaining political power.

Americans sometimes forget their own history with terrorism, which was used to

great effect by the Ku Klux Klan and more recently, with less success, by ecoterrorists. People's views on terrorism also are shaped by their own national history and which side they see as being in the right, Browning said, citing the French resistance fighters in World War II.

During the war, both the French government and the Nazis considered resistance fighters terrorists. Even members of the resistance considered themselves terrorists, Browning said, but after the war they were regarded as heroes by the Allies for opposing the invading Germans.

It's that duality that makes terrorism studies such an interesting field, he said. It challenges students to understand how different the world can appear depending on one's point of view.

"Terrorism studies is actually a great teaching opportunity to engage students in that debate or to see it from different angles," Browning said. "They see how a terrorist from one person's perspective is a freedom fighter from another person's perspective and see how terrorism is much more complicated and much more multifaceted than we perhaps allow it to appear in public discourse."

But don't mistake Browning's intellectual pursuit for support of terrorists. He said it's important to understand terrorism as a political weapon, not only to see how it can take root and grow but also to deal with it more effectively.

That's why Browning disagrees with the idea that nations should never negotiate with terrorists. The complex nature of conflict and its relation to the past requires a dialogue—but not capitulation—if any solution short of war is to be found, Browning believes.

"It's fundamentally not as black and white as politicians and others often try to make it out to be," he said. —GB



**HUMANITIES** 

# COIN OF THE Since when

N THE ANCIENT city of Sardis, in what is now Turkey, an excavated temple dedicated to Artemis was found to have an inscription on the side—but it had little to do with worshiping the Greek goddess of the hunt.

Instead, the inscription documents an economic transaction: The priests and priestesses of the temple had foreclosed on the estate of an individual who owed the temple money.

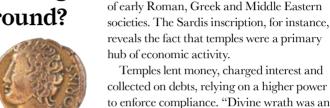
when has money made the world go 'round?

Debt, in other words. is as old as civilization itself. "Even then," said Noah Kave, visiting assistant professor of classics,

"people were getting in over their heads."

Money lending—along with other economic systems such as taxation and global trade—are at the heart of a new classics course Kaye is teaching this winter,

question: Since when has money made the world go 'round? terested in the ways that inscriptions, coins, weights and measures illuminate the history



hub of economic activity. Temples lent money, charged interest and collected on debts, relying on a higher power to enforce compliance. "Divine wrath was an

effective form of security," according to Kaye.

Kaye, an archaeologist, is especially in-

Archaeology of Ancient

Economy. It seeks to answer the

"They were the biggest banks," he said. "And they were too big to fail—perish the thought that Artemis should not have her gold and ivory treasury."

Coins and inscriptions similarly speak volumes about economic life in ancient times.

### RELIGION AND POLITICS DO MIX

#### **RECENT ALUM TACKLES ISSUES** OF THE DAY ON CAPITOL HILL

ATT LEASURE INITIALLY thought he was aiming for law school. And then, as he progressed toward a BA in religious studies at the UO, he considered getting a PhD. But these two possibilities are on hold for now as he commits to an initial career trajectory that was not on his radar at all.

As with many students in the humanities, an unexpected world of possibility opened for Leasure (right), which paved the way to an early career in Washington, D.C.

Among his most formative UO experiences were courses that explored the dark side of human nature and his participation in the

Inside-Out program, which took him inside the Oregon State Penitentiary to study literature with inmates.

"I always seem to be going head-first into controversial issues," said Leasure, a Eugene native who graduated from the Robert D. Clark Honors College in 2011.

This readiness to tackle the tough stuff was evident in the title of Leasure's thesis, "Symbolic Death: Suicide Bombing as Religious Martyrdom," which won the honors college award for best international thesis.

Controversial issues are also at the heart of his job as a legislative correspondent in Rep. Peter DeFazio's office in Washington. Leasure responds to constituent e-mails and letters, and prepares a weekly analysis of constituent concerns for DeFazio. He estimates that he processes about 1,000 e-mails each week for the congressman, with hot-button topics

ranging from immigration policy to Social Security reform to timber harvest sales.

Leasure originally came to D.C. soon after earning his degree as an Americorps volunteer at a nonprofit called Bread for the City, a safety-net agency that provides food, clothing, medical care and social services. After a year in service there, he was hired into a staff position.

Here, too, his job required grappling with day-to-day challenges of everyday peoplein this case, those in poverty or otherwise disadvantaged. Leasure was a caseworker whose clients included those struggling with drugs and alcohol, chronic homelessness and mental illness.

This job built directly on his experience with Inside-Out, a national program that brings college students together with incarcerated men and women to study together in a seminar behind prison walls. (The UO

Tablets and stones from excavated sites have been found with inscriptions of merchant inventories, trade transactions and debt payments.

Coins can demonstrate how integrated and cohesive an economic system—and the society at large-may have been. The Romans, for instance, had one system of coins for the entire realm, underscoring the top-down control of the Roman Empire. The Greek citystates each had their own coinage, consistent with the concept of early democracy.

Weights and measures demonstrate the existence of regulated markets, where a trader could have greater assurance of getting a fair deal because of a uniform—and enforceable—system of measurement.

All of this is fertile ground for exploration, says Kaye, because much of the existing body of research and scholarship about these ancient societies has focused on philosophers, military leaders, poets and mythologies of the times.

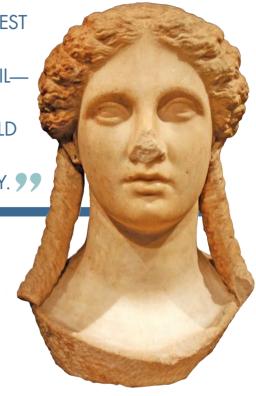
In delving into the everyday hurly-burly of the marketplace and financial transactions,

**66** THEY WERE THE BIGGEST BANKS, AND THEY WERE TOO BIG TO FAIL-PFRISH THE THOUGHT THAT ARTEMIS SHOULD NOT HAVE HER GOLD AND IVORY TREASURY. 99

"we are dealing with a very nonelite segment of society," he said. "It is not as well studied."

Besides guiding his students toward an understanding of how our current economic system came to be, Kaye hopes his course will also illuminate alternatives.

"These were complex economies run by a different logic," he said. "Our way is not the only way things can be." -LR



#### **66** I ALWAYS SEEM TO BE GOING HEAD-FIRST INTO CONTROVERSIAL ISSUES. ??

chapter is currently run by geographer Shaul Cohen-see Online Extras.)

"It's hard to overstate the emotional experience of going into a penitentiary once a week, with the gates closing behind you," Leasure said. "And then studying with people who are not going to walk out with you-who are going to be there maybe a few years, or their entire life."

Leasure was profoundly moved by his interactions with the inmates, "the smartest, most passionate guys I've ever met."

Besides cultivating compassion for the inmates in his study group, Leasure also began to gain a new understanding of how public policy (e.g., "three strikes" sentencing) can play out in real life. Inside-Out "transformed the way I look at crime, prevention and how we reconcile policy goals with attempts to promote individual change," he said.

All this in turn built on his formal undergraduate education, where he delved into subject areas others might consider forbidding. For instance, he took Mark Unno's religious studies course on "the dark self" and David Frank's honors college class on torture policy. He worked with religious studies associate professors Deborah Green and Rick Colby on his suicide bomber thesis.

Ultimately, he sees no contradiction between his scholarly immersion in religious traditions and his budding career in government. "Both systems [religion and government] are designed to create cohesion in society," he said.

And he's not a fan of the cultural taboos on these topics. "I can't stand it that religion and politics aren't polite to talk about," he said. "I always want to talk about both." -LR



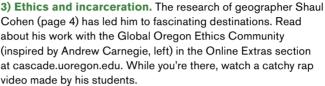
#### **ONLINE EXTRAS**

1) Film shorts from Spanish students. Students in the Spanish Heritage Language Program recently completed short documentaries in which they define their cultural heritage in their own words. Watch them in the Online Extras section at cascade.uoregon.edu.



2) Alex Dang and slam poetry. The English major gave an electric presentation on racial identity during last year's TEDxUOregon, an

event modeled on the global movement of TED talks or "ideas worth spreading." Visit cascade.uoregon.edu and the Online Extras section to check it out.





Berkeley National Laboratory and Hewlett-Packard. Visit the Online Extras section of cascade.uoregon.edu to read more about a man who makes computer networks easy to use for "folks who aren't geeks."

Answers to math questions on page 19: 1. Eight pounds 2. Three hours



Visit Online Extras at cascade. uoregon.edu



#### Cascade is the alumni magazine for the UO College of Arts and Sciences

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CORRECTION: The fall 2014 issue of Cascade incorrectly stated that Christine Liu, a major in psychology and biology, received a Science, Mathematics, and Research for Transformation (SMART) Scholarship for Service, Liu did not receive this scholarship.

#### **CAS Advisory Board**

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#### When chimpanzees attack

t's long been theorized that human encroachment has instilled in chimpanzees a predisposition toward war and infanticide. Since Jane Goodall first reported on chimpanzee violence in the 1970s, many have speculated that they kill because humans have destroyed their habitats.

In fact, the behavior comes naturally, according to UO anthropologist Frances White (pictured here with an affectionate bonobo). She was among 30 international researchers who published findings recently in *Nature* that "aggressiveness... is a natural adaptation that benefits them within their social organizations," said White.

The study, led by a University of Minnesota researcher, also highlights the differences between chimpanzees and bonobos. For thirty years, White's research has probed the reasons for the peaceful ways of bonobos versus that of chimps.

"We found that chimpanzees sometimes kill other chimpanzees, regardless of whether human impacts are high or low," said White, "whereas bonobos were not observed to kill, whatever the level of human impacts."

#### A man among them

e is the first male director of the Center for the Study of Women in Society in its 40-year history.

Michael Hames-García, a professor in ethnic studies, recently took the helm at CSWS, which funds feminist scholarship across multiple disciplines—from fields as diverse as sociology, folklore and theater



arts. In his research, Hames-García examines the intersection of gender, race and sexuality.

As director, Hames-García intends to expand the center's ability to support research, especially for graduate students and undergraduates. He's less concerned about the distinction accompanying his appointment.

"I'm passionate about research," Hames-García said. "I'm passionate about feminist and antiracist and antihomophobic research, and CSWS is the place to make an impact on that research and that scholarship, particularly at the University of Oregon."

#### Short-listed by the governor

ust as we were going to press, an important milestone was achieved for the College and Careers Building (see Dean's Page). After reviewing all higher-education capital construction proposals for the 2015 legislative session, Governor Kitzhaber named the College and Careers Building one of four UO projects to be included in his budget.\*

The next step: The legislature will be asked to approve \$17 million for the project—a match for \$17 million in private gifts toward the building, including \$10 million from Don and Willie Tykeson (left).



"We need the help of our alumni and donors to keep this project in the legislature's budget," said Hans Bernard, associate vice president for state and community affairs.

"We encourage all alumni to stay up to date about the legislative session and help us make this project a reality."

\* The other three are renovations of Chapman and Klamath halls and a learning and innovation hub for the School of Architecture and Allied Arts.



#### Add envoy to her honors

ne of the UO's most acclaimed researchers has again been tapped for service at the national level.

The US Department of State recently announced that chemistry professor Geri Richmond (throwing the O in this photo at the South Pole) has been selected as a science envoy to work with researchers in other nations on global issues. She was one of four named to these posts by Secretary of State John Kerry.

Richmond will work with fellow scientists in Thailand, Myanmar, Laos, Vietnam and Cambodia on shared goals.

Richmond has also just assumed the presidency of the American Association for the Advancement of Science. She serves on the National Science Board, is a member of the National Academy of Sciences and is a fellow of the American Association for the Advancement of Science, the American Academy of Arts and Sciences, the American Physical Society and the American Chemical Society.



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