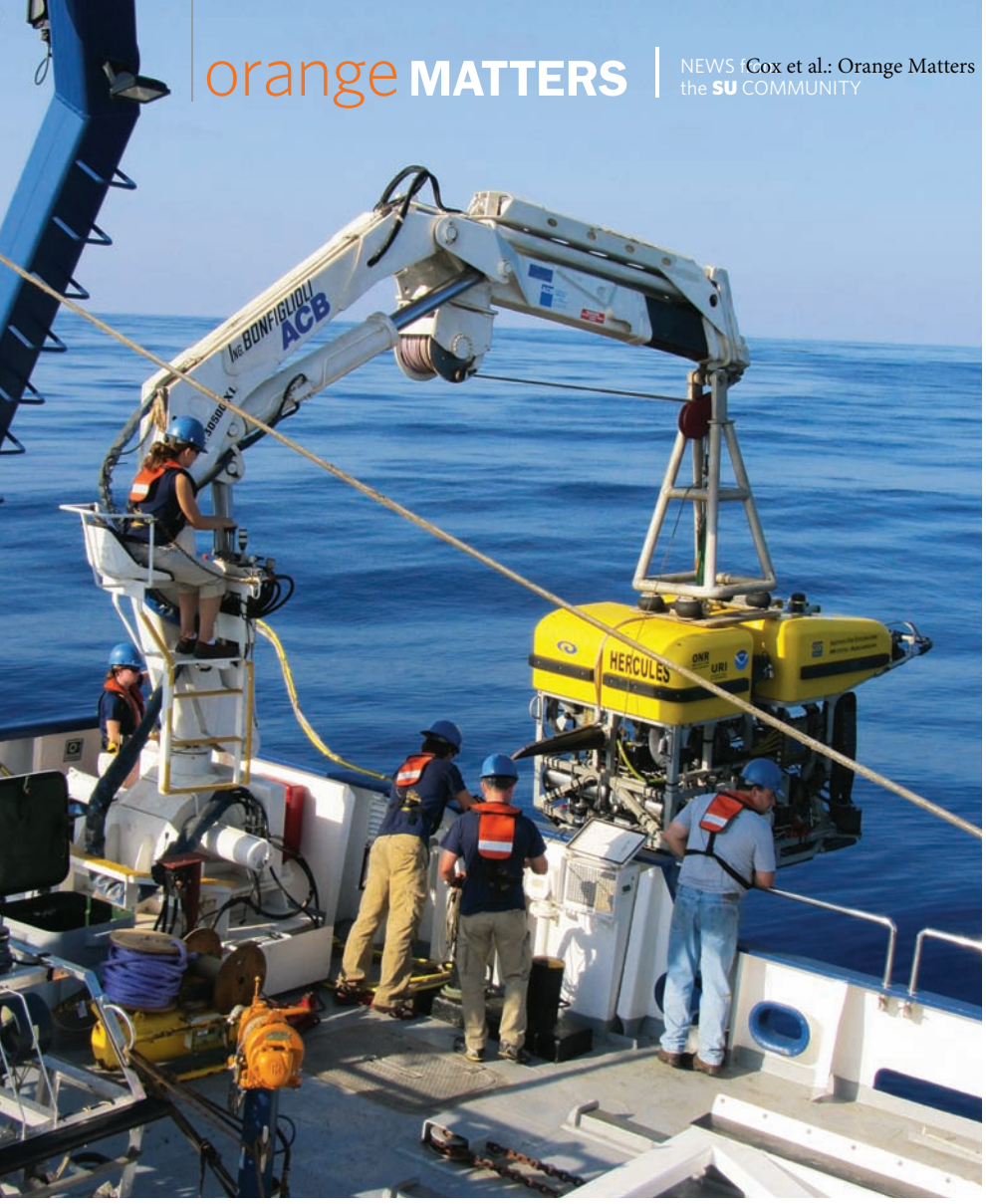


E/V *Nautilus* crew members recover Hercules, a remotely operated vehicle, following a dive in the eastern Atlantic.

DEEP SEA EXPLORATION »

THE QUEST FOR SERPENTINIZATION

ABOARD THE E/V *NAUTILUS* IN THE EASTERN ATLANTIC OCEAN, SOME 150 nautical miles west of Portugal, Earth sciences department chair Jeff Karson watches a live video feed from Hercules, a remotely operated vehicle (ROV), as it explores the seafloor of Gorringe Bank, a submarine mountain range. When Karson sees what he believes are white veins of calcium carbonate streaking across dark mantle rock, he asks the ROV operator to try to grab a sample. Hercules's robotic arm reaches out and collects a chunk of the dark material with its claws. "There we go, there it is," says Karson, Jesse Page Heroy Professor of Geology. "Beautiful. That's terrific."

For Karson, such samples serve as forensic evidence in his hunt for serpentinization vents—submarine geysers that form when seawater flowing through cracks in rocks from the Earth's upper mantle creates a hydrothermal reaction, releasing heat that drives up water temperature and triggers other chemical effects. Through this process, known as serpentinization, the mineral olivine—which is found in peridotites (typical mantle rocks)—is transformed into serpentinite. The reaction also creates alkaline fluids more caustic than household bleach, Karson says. "When you add that to seawater, it causes the precipitation of calcium carbonate, basically like the limestone we have around here," he says. "But instead of building it in sedimentary layers, it's built in complexly branching spires as high as 20 stories tall. It's amazing."

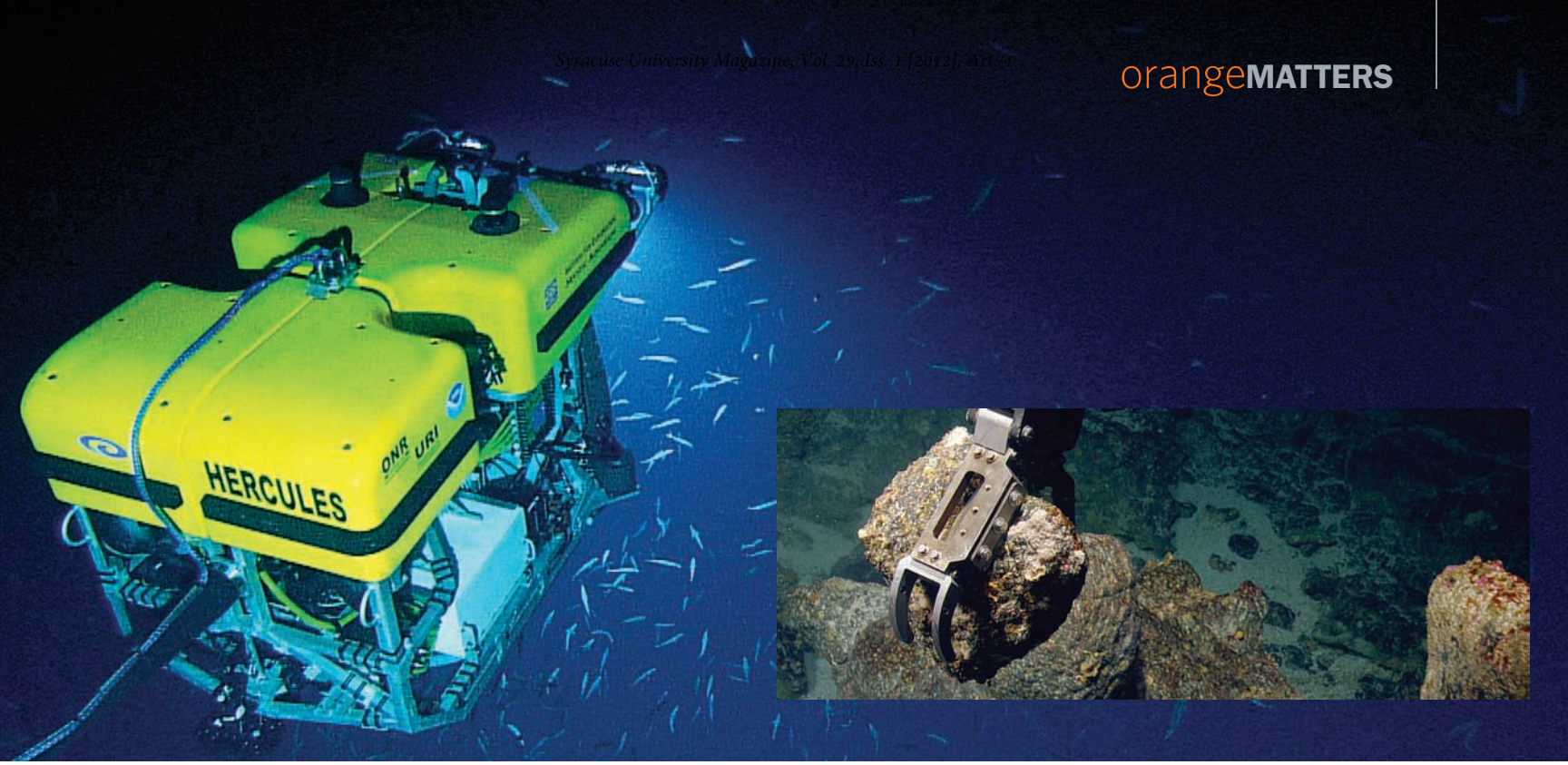
Karson and University of Washington scientist Deborah Kelley are credited with discovering an active serpentinization vent field in 2000 on a submarine dive near the Mid-Atlantic Ridge, in an area now called Lost City. "We were descending from the top of this huge spire and it was 60 meters before we got to the bottom—and that was just one of the large spires down there," he says. "It was like being on a mountain the size of Mt. Rainier with these towering spires on top. If that were on land, it would be a national park."

These vents also offered a geologic contrast to the more recognizable—and studied—submarine hydrothermal vents known as "black smokers," which are fueled by the extreme heat from submarine volcanoes. Discovered in 1977 in the Pacific Ocean, black smokers yielded evidence of microbial life forms created in the dark depths of the ocean, demonstrating that life can exist in and evolve from chemosynthetic systems, not just photosynthetic ones. Likewise, the Lost City vent field offered evidence of its own distinctive microbial residents, sharing more clues to the possible origins and diversity of life. "Black smoker vents completely extended our ideas of how life can be supported in a general sense," Karson says. "The circulation systems—or geysers—we found were driven by these really simple chemical reactions. There was no volcanic heat at all, meaning if you have the right rocks and right conditions, you could have hydrothermal vents and all the weird life forms that go with them far away from any volcanic heat."

In early October, the *Nautilus* headed to Gorringe Bank as part of the New Frontiers in Ocean Exploration 2011, an initiative headed by famed deep-sea explorer Robert Ballard, in collaboration with the National Oceanic and Atmospheric Administration (NOAA) and the National Geographic Society. Along with the crew of the *Nautilus*, which is operated by Ballard's Ocean Exploration Trust, and a multidisciplinary team of scientists, Karson, a member of the NOAA *Nautilus* advisory board, was accompanied on the expedition by Aleece Nanfito G'11, who worked as a data logger, and Darcy Joyce '13, a dual Earth sciences and English major. "I hadn't had any field experience until that point," Joyce says. "It was totally unlike anything I've ever done before."

As chief scientist of the 12-day Gorringe Bank leg of the *Nautilus* voyage, Karson focused on the area because of its similarities to Lost City. The submarine mountain range rises from a seafloor 5,000 meters deep and features two peaks: Gettysburg Seamount and Ormonde Seamount, which climb to within about 20 to 30 meters of sea level. The bank is located on the Azores-Gibraltar tectonic plate boundary

Photos courtesy of Jeff Karson



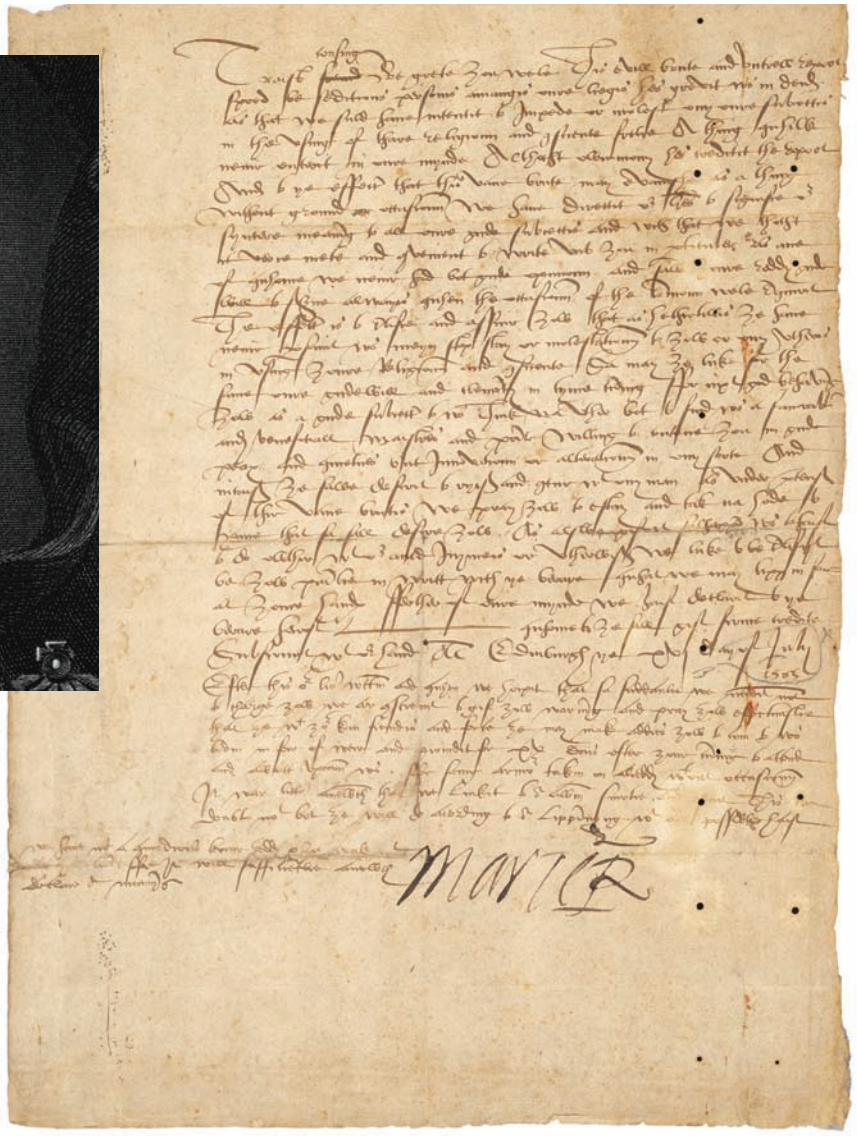
Hercules (above) passes through a swarm of mackerel while exploring Gorringe Bank. With its robotic arm (inset), Hercules reaches out and samples a rock with its jaws, which are about 1 foot long.

that separates the Eurasian and African plates. "It's a place where many different kinds of geologic activities have taken place," Karson says. "It originally formed as the Earth was being pulled apart with the seafloor spreading, which created the rocks and the uplift. It's also been affected by a bit of volcanic activity and by faulting associated with that plate boundary. I've always been interested in this location, but my interest was very much renewed when we found the Lost City and got to thinking this could happen any place in the ocean where there are peridotites exposed to seawater—and this was my favorite place to look."

The expedition's search for active serpentinization vents on the Gettysburg Seamount was hampered by a problem with the fiber-optic cable used for Hercules, limiting the amount of exploration time. Nonetheless, the expedition, which featured a live 24/7 Internet video feed that was shown in the Heroy Geology Laboratory and lecture halls on campus, produced insights and a valuable collection of samples for the research team. "Olivine is a vibrant green color that varies depending on the rock's degree of serpentinization," Joyce says. "Once we got our samples to the surface and cracked them open, they had all these beautiful colors inside—dark greens, olive greens. One sample had these amazing pink crystals inside, really weird stuff."

Karson plans to thoroughly analyze the samples, noting the presence of different minerals will offer details on their origins. Although they didn't discover any active serpentinite geysers at Gettysburg Seamount, Karson is undeterred. After all, they only explored a minor portion of the area—and as much as a third of the Atlantic Ocean seafloor contains exposed serpentinite masses, he says. It was just a scratch at the surface, and he cites the carbonate veins as evidence they were on the right track. "If we can find that type of hydrothermal activity in a place like Gorringe Bank, it would virtually assure us that it was happening all over large parts of the ocean floor and would have huge consequences for the distribution and biomass of life on the planet, the chemistry of oceans, and some other geologic processes," Karson says. "It would force us to rethink how our planet is working. I think we'll find a lot more of these exotic hydrothermal systems on serpentinite masses in the ocean. We still have a lot of exploration to do." *—Jay Cox*

The SU team of Darcy Joyce '13 (left), Earth sciences chair Jeff Karson, and Aleece Nanfito G'11 aboard the E/V *Nautilus* last fall.



WORDS FROM MARY, QUEEN OF SCOTS

ONE OF THE MORE IMPRESSIVE holdings in Syracuse University Library's Special Collections Research Center is a single leaf of paper: a letter on the subject of religious toleration, written in July 1565 and signed by Mary, Queen of Scots. Although the body of the document was likely written in the hand of a secretary, the royal signature has been verified by the British Museum. Part of an autograph collection given to the University by Frances Ward Harrington '24, an editor for *Mademoiselle*, *Charm*, and other magazines, the letter is on display through June 22 at the library as part of the exhibition, *The Power and the Piety: The World of Medieval and Renaissance Europe*. History professor Chris Kyle, an expert on early modern England, is lead curator.

Mary Stuart, as she was also known, lived her entire life (1542-87) in the throes of post-Reformation political intrigue. Born a Catholic, she inherited the throne of Protestant Scotland as an infant. After an arranged marriage to Francis II, she was queen consort of Catholic France as well. Mary's great political ambition was to secure the throne of England, and she pursued it after Francis's death by marrying Henry, Lord Darnley, a Scottish-English Catholic who, like Mary, held claim to the English crown. Many Protestant Scottish nobles opposed the marriage, fearing persecution under the rule of a Catholic royal couple. In an attempt to assuage these fears, the 23-year-old Mary proclaimed support for religious toleration in Scotland in a letter written to her cousin, Lord Gray. Struggling to retain power in Edinburgh when she composed the letter, she expresses views on the peaceful coexistence of Protestants and Catholics that may have had more to do with politics than any personal commitment to tolerance. Nonetheless, she wrote:

"...that we should have intended to impede or molest our subjects in the using of their religion and conscience freely...never entered our mind.... The effect is to certify and assure you that as hitherto we have never permitted stop, stay, or molestation to you or any others in using your religion and conscience, so may ye look for the same good will and clemency in time coming..."

Despite her efforts, Mary was forced to abdicate the Scottish throne and flee to England in 1567. She lived there for more than 20 years under the watchful eye of her cousin, Queen Elizabeth I, whose crown she coveted. Convinced Mary was acting against her, Elizabeth issued the order for Mary's execution in 1587.

—David Marc

Letter image courtesy of SU Special Collections Research Center

INFORMATION TECHNOLOGY »

A DISRUPTIVE FORCE ON THE INTERNET

ANYONE WHO SURFS THE INTERNET IS FAMILIAR WITH HOW THOSE POP-UP ADVERTISEments hit us in our interests. Internet users may also wonder if every click they make is being duly noted and analyzed. In short, are we being cyberstalked and digitally manipulated? According to the School of Information Studies professor Milton Mueller, an answer may involve the use of deep packet inspection (DPI), a technology initially developed to enable Internet operators to detect and intercept viruses and malware. Today, Mueller says, DPI is applied to a broader range of Internet governance issues, such as detecting file sharing, blocking unwanted content, or exploiting information about users for targeted advertising. He likens the impact of the technology on Internet use to people watching us with special glasses that allow them to read our minds. "You can imagine that it would be very disruptive," says Mueller, a leading researcher on the issue and an expert on Internet governance.

In his paper, "The End of the Net as We Know It? Deep Packet Inspection and Internet Governance" (*New Media and Society,* 2011), Mueller presents DPI as a disruptive technology used to scan Internet communications in real time and make automated decisions about whether to block, slow down, speed up, or manipulate traffic streams. He believes this technology has a major impact on privacy, network neutrality, free flow of information, intellectual property protection, network security, and other Internet governance issues. "With DPI, suddenly the network operators have a lot of control over the users that they didn't have before," he says. "That kind of new access to information really changes the way people do things."

In the past five years, several Internet service providers worldwide sold customers unlimited, high-speed access and—without their knowledge—implemented DPI to detect people using file sharing applications to download music, or movies, and then they blocked, or slowed down the traffic. In 2008, there was a massive protest against Comcast when consumers became aware of the practice. Later, the Federal Communications Commission ordered Comcast to stop throttling file-sharing traffic. "People are always talking about how technology changes society," Mueller says. "Technology doesn't just have a simple one-way relationship. One of the ways in which change happens is through regulatory political mechanisms, through people protesting technology, or going to the government and changing the rules by which it is governed."

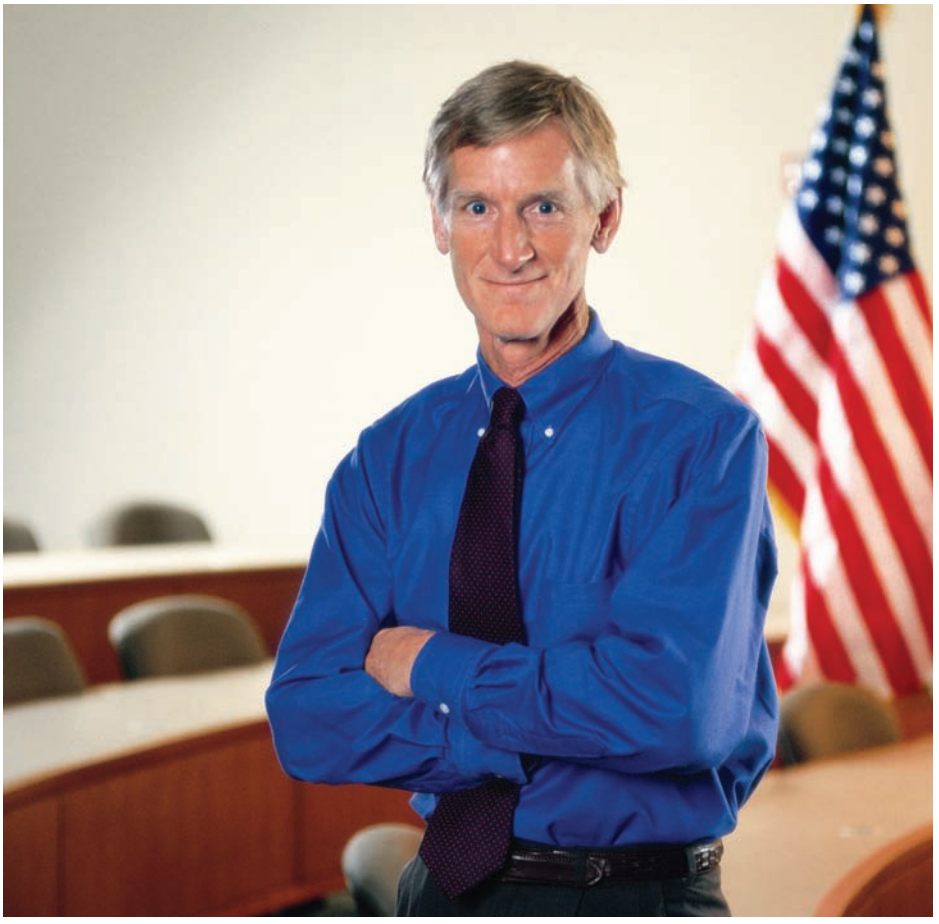
Mueller started his DPI research in 2008, when he was a visiting professor at Delft University of Technology in the Netherlands, and he received a $300,000, two-year grant from the National Science Foundation in 2010. He is now working with iSchool doctoral student Andreas Kuhn and master's degree students Xiang Wang G'12 and Stephanie Santoso G'12, who are collecting case studies and conducting interviews with companies that make and sell DPI applications. By collecting data during a four-year period and doing case studies about DPI governance in the United States, Canada, and several European countries, Mueller and his team have gained a clear picture of DPI use in different parts of the world. They currently face the hardest task in their data gathering: collecting information from authoritarian countries. "We are doing this research to inform policy makers about how to respond to this technology in a way that is not stupid—like you can either ban it, or simply allow the abuse of this technology to take place," Mueller says. "We are trying to inform the public about how to make the network more transparent, how to understand the traffic on the Internet, so they can be more informed consumers. Ideally, this knowledge could be applied to other technologies in the future."

—Yuhan Xu

Q&A

WAR FAIR?

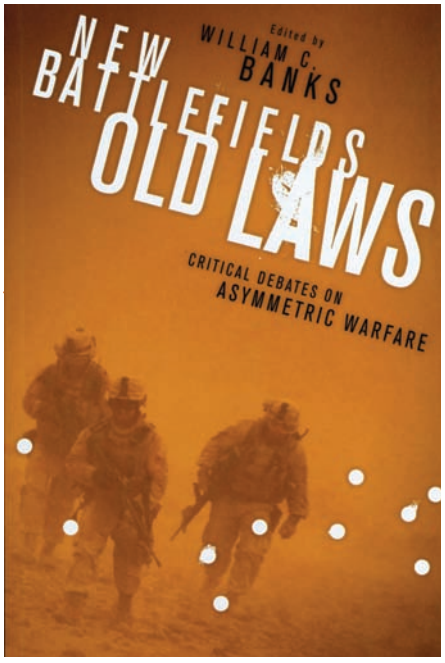
In a new anthology, Professor William Banks and colleagues illuminate the legal issues posed by conflicts with non-state combatants



To read more of the interview, go to *sumagazine.syr.edu.* For more on the book, go to *insct.syr.edu/projects/new-battle-fields/.*

WILLIAM C. BANKS, DIRECTOR OF SU'S INSTITUTE FOR NATIONAL SECURITY AND Counterterrorism (INSCT), has brought out a new anthology of essays concerning the ongoing struggle to extend the rule of law to the sphere of human activity perhaps least suited to abide by it: warfare. In *New Battlefields, Old Laws: Critical Debates on Asymmetric Warfare* (Columbia University Press, 2011), Banks and an international group of distinguished colleagues, including SU professors David Crane L'80 and Renée de Nevers, confirm in detail something many readers already suspect: The task of implementing laws of armed conflict, already enormous, has taken a turn toward the gargantuan in the 21st century. A proliferation of non-state combatants (as varied as Hezbollah in Lebanon, the Zetas drug cartel in Mexico, and the Lord's Resistance Army in East-Central Africa), wielding an arsenal of non-traditional weapons (suicide bombers, improvised explosive devises, child soldiers, and attacks from within urban neighborhoods) is enough to create nostalgia for old-fashioned Geneva Convention(al) wars. And then there is the fate of civilian human rights in all this, a subject Banks refuses to put on the backburner. Banks, who is Board of Advisors Distinguished Professor of Law in the College of Law and Professor of Public Administration in the Maxwell School, recently sat down with *SU Magazine's* David Marc to answer some questions.

Photo courtesy of the Maxwell School



How is the U.S. Constitution faring 10 years after 9/11?

Ten years out gives us a chance to reflect, and I think reflection demonstrates the Constitution has taken something of a beating. At the same time, the Constitution is proving resilient, and it will perhaps emerge even stronger than it was. When I say, "It took a beating," I'm thinking of particular efforts in the early part of the last decade where the executive branch pushed very hard at strategies and tactics in the "Global War on Terrorism." The courts eventually upheld many of these initiatives and, in so doing, compromised some constitutional protections we always presumed we had. For the first time we found ourselves running a detention center offshore, where we admitted we weren't following traditional wartime protections for detainees. We also found ourselves detaining persons, including American citizens, on our own soil in military brigs for extended periods of time, and then promising to conduct, for those individuals, military commission trials rather than traditional civilian or military trials. During much of the Bush administration, executive power was used in an aggressive way to shape the scope of counterterrorism. For the most part, those policies have continued in the Obama administration. Most of the Obama administration's departures from Bush administration policy have been rhetorical and subtle, rather than substantive.

Leaving the home front, how do you feel we are doing on the Geneva Conventions?

The laws of war have really begun to evolve in the last decade. They've had to. The genesis of our "new battlefields, old laws" project here at INSCT was the 2006 war in Lebanon between Hezbollah and Israel. We began to see Hezbollah using apartment buildings and other structures to hide out among the civilian population so the Israelis wouldn't attack them, or if the Israelis did hit them, world attention would be focused on criticism of the Israelis, rather than on the Hezbollah for hiding in such a fashion—shooting and then cowering among civilians. In the five years since, we've run a number of workshops and major conferences, we've written papers, and now published this book, which asserts that the Geneva Conventions are not up to the task of dealing with the new battlefields. They simply don't provide a sufficient blueprint for warfare between a state and a non-state actor that's willing to disobey the laws of war to gain advantage over a stronger party. What I think is happening now is not so much that the Conventions are changing—they're not—but state practice in response to the Conventions is evolving more in keeping with the nature of the wars we're fighting.

If non-state actors refuse to obey laws, it seems pointless to try to write laws to govern them. Is the situation hopeless?

One idea is to provide incentives, to offer them deals they can't refuse. Offer them financial rewards. Offer them opportunities to have their detainees treated according to Geneva Conventions standards in return for similar treatment.

So where codified law fails, more basic laws, such as reciprocity, may be used to impose order?

Yes, and there are some small signs that such tactics pay off in some circumstances. But that can work both ways. States can avoid breaking the international treaties they've signed by hiring military contractors who may use force in ways not permitted for our trained military. There's even a danger of military contractors becoming dominant players in wars against non-state actors. Then states may lose control over the battlefield, and we're all in trouble.

In a legal system based on precedent, do these developments present special dangers in the long run, no matter how effective or ineffective they may be under immediate conditions?

They do. One of the things that students of the Constitution pay attention to is this: How have the other institutions of government reacted to judicial decisions? Certainly, the tone of national security policies began to change during the latter years of the second Bush term and the Obama rhetoric is considerably different from that used by the Bush administration, but in the latter Bush years *and* the Obama years, the pattern of fairly aggressive use of executive power to shape the scope of counterterrorism remains.

Glacial, Icecap and Permafrost Melting LIX: Lake Paron, Peru, 2008
Sayler/Morris for the Canary Project

THE CANARY PROJECT »

BATTLING CLIMATE CHANGE WITH ART AND ACTIVISM

IN 2005 WHILE LIVING IN BROOKLYN, SUSANNAH Sayler and Edward Morris read "The Climate of Man," a series of articles on climate change by Elizabeth Kolbert that appeared in *The New Yorker*. Experienced collaborators in art, activism, and teaching, the married couple considered the series life-changing and were moved to action. "Those articles made us—and I don't think this is too strong a term—morally outraged," Morris says. "It became an imperative: We can't just sit here!"

Sayler and Morris, now teaching in the Department of Transmedia in the College of Visual and Performing Arts, set out to do with photography what Kolbert had done with words: travel the globe and show the immediate realities of climate change. With advice from scientists and journalists, they targeted 16 sites on five continents with dramatically visible evidence of climate change. They took on extreme weather events first, photographing Hurricane Katrina's devastation from a helicopter. They also documented rising seas and floods; droughts and forest fires; melting glaciers, ice caps, and permafrost. They found instances of human response, too: desert wind turbines near Palm Springs, California, and the intricate anti-flood network of the Netherlands. The resulting photographic series, *A History of the Future*, served as the foundation for their creation of the Canary Project, an ongoing, evolving multimedia research-based art initiative with the goal of deepening public understanding of climate change.

So named because they want art to act like the proverbial canary in the coal mine, warning about the dangers of what could happen with the environment, the project

Lake Paron (left) represents one of the first water storage projects in central Peru. Rainwater is collected in the lake during the rainy season and siphoned off during the dry season. Susannah Sayler and Edward Morris (above) in the Netherlands, 2010.

In 2010, the Canary Project teamed up with faculty and students in COLAB, the University's collaborative design laboratory, for a sustainability awareness project. Teams of students put their design and communication skills to work to raise student awareness and inspire involvement in the University's sustainability goals.

(*canary-project.org*) works in a variety of ways. In 2006, Sayler and Morris collaborated with graphic designer Dmitri Siegel for an exhibition hosted by the Museum of Contemporary Art Denver that featured Sayler's photographs placed on city buses. "We wanted to position the photographs not just in a limited art-world context in galleries, where the main thrust of looking at them is appreciating the photographs," Morris says. "We wanted it to be more than that."

They also worked with other activist-artists, such as Eve Mosher, whose project on rising seas the Canary Project helped produce. In *High Water Line* (2007), Mosher used a blue chalk line through some 70 miles of Brooklyn to mark the point 10 feet above sea level that some scientists project flood waters could reach there. Through its fiscal sponsor, Media Collective Inc., the Canary Project also awards direct grants annually to support relevant works. More than 30 artists, designers, writers, educators, and scientists have participated in the project, creating exhibitions, installations, educational workshops, and other initiatives. Most recently, the Nevada Museum of Art hosted an archival exhibition of project works from 2005-10.

According to Sayler and Morris, the Canary Project provides an opportunity for them to balance the "seeming impasse" between the impulses of art and activism. "We had this very activist project and we looked at the photographs and realized—they're just not yelling, because that's not the kind of photographs they are," Sayler says. "So we do things like the Green Patriot Posters Project, where we can be straight-out activists." Inspired by an exhibition of World War II-era posters that helped mobilize the public for the war effort, the Green Patriot initiative was launched in Cleveland with a series of bus ads focused on environmental sustainability, and expanded to include work drawn from a national contest. *Green Patriot Posters* (Metropolis Books, 2010) features 50 detachable posters and five succinct guest essays. The posters are also available online (*www.greenpatriotposters.org*). "It struck us that those posters do something that's very needed now," says Morris, an editor and contributor to the book. "They are able to valorize individual action in some kind of collective framework."

—Nancy Keefe Rhodes

To read an in-depth interview with Susannah Sayler and Edward Morris, go to *sumagazine.syr.edu*.

Photo (above left) by Amanda Burr; photo (above right) courtesy of the Canary Project

Acclaimed interior designer **Thom Filicia '93** visits with interior design students at The Warehouse in January. Filicia gave a lecture and also met with students to critique their work. To watch a video about Filicia, go to *sumagazine.syr.edu.*

NEWS **MAKERS**

English professors **Dana Spiotta** and **Bruce Smith** were finalists for the National Book Critics Circle awards. Spiotta was nominated in the fiction category for *Stone Arabia* (Scribner); Smith in the poetry category for *Devotions* (University of Chicago Press).

Illustration professor **John Thompson** created original paintings for "Dogs at Work," a new set of four 65-cent U.S. postage stamps issued to celebrate working canines.

Biology professor **William Starmer** was elected a Fellow of the American Association for the Advancement of Science, the largest general scientific society worldwide, for his outstanding contributions to science and technology.

Literacy pioneer **Ruth Colvin '59, H'84** chronicles her life of world travel in *Off the Beaten Path: Stories of People Around the World*, published by Syracuse University Press.

Bob Costas '74, the Emmy Award-winning sportscaster who has spent more than three decades at NBC Sports, was elected to the National Sportscasters and Sportswriters Association's Hall of Fame. He will host the network's primetime coverage of the 2012 London Summer Olympics.

Alex Pines '11 collected third place for "Our Coast," in the narrative multimedia storytelling features category of the William Randolph Hearst Foundation's Journalism Awards Program. She received a $1,500 prize.

SPORTS

The SU men's basketball team produced a record-breaking season to remember. The Orange posted a 34-3 mark, the best record in program history, and advanced to the Elite Eight in the NCAA tourney. Along the way, the Orange reeled off 20 straight wins for its best start ever, captured the Big East regular season title with a record 17 conference victories, and remained among the top-ranked teams in the national polls all season.

Tom Coughlin '68, G'69 collected his second Super Bowl trophy as the head coach of the New York Giants when they defeated the New England Patriots, 21-17, in Indianapolis in February. Coughlin is now among an elite group of 13 head coaches who've won multiple Super Bowl titles. It was also Coughlin's second Super Bowl victory over the Patriots, complementing the stunning 17-14 win in Super Bowl XLII (2008). Celebrating with Coughlin was fellow Orange football alum **Markus Paul '89**, assistant strength and conditioning coach for the Giants.

Orange women's soccer midfielder **Alyscha Mottershead '13** played for Team Canada in the Olympic Qualifying Tournament in Vancouver. The Canadian team finished second behind the United States, securing a spot in the 2012 London Summer Olympics.

The SU men's and women's cross country teams earned All-Academic team honors from the United States Track & Field and Cross Country Coaches Association (USTFCCCA) for the third straight year. Individual USTFCCCA All-Academic honors went to Orange women **Lauren Penney '12** and **Sarah Pagano '13**, and Orange men **Pat Dupont '12**, and **Sean Keefe '14**.

Jace Lowry '15 won the junior men's race at the 2012 USA Cross Country Championships in St. Louis in February.

Syracuse field hockey players **Liz McInerney '12**, **Heather Susek '12**, and **Kelsey Millman '13** were honored as Longstreth/National Field Hockey Coaches Association Division I All-Americans. McInerney was named to the first team, while Susek and Millman were named to the second and third teams, respectively.

Photo courtesy of College of Visual and Performing Arts

Photo by Steve Sartori

SOCIAL MEDIA » ONLINE PRESENCE

FOLLOWING SU

Twitter:
www.twitter.com/syracuseu

Facebook:
www.facebook.com/syracuseuniversity

SU app for your mobile device:
sumobile.syr.edu

WALKING INTO A ROOM WHERE EVERYONE IS SITting casually around a table, updating their work on laptops or iPads, and generating creative ideas, you might think you've crashed a meeting of a social networking company. But this isn't Silicon Valley. Gathered around the table is the all-student team known as #44 Social, which creates online content for Syracuse University. "SU is one of the first universities to have a student team promote its presence on its main social media platforms, and we're very serious about this," says Kate Brodock, SU's executive director of digital and social media. "I feel really strongly about our team because I think students offer the best voice for the University."

Each student on the 11-member team works in three-hour shifts, covering 12 hours on weekdays, and nine hours on weekends. Their prime focus is maintaining SU's Facebook page and Twitter account. They often use various online tools so they can do quick searchs to answer queries on SU-related issues, and they are responsible for providing and updating information about University news and events, and posting photos and videos. "We are the official SU presence on social media platforms, so we need to make sure we are representing everything going on here, not just focusing on any particular school or department," says Dan Klamm '08, assistant director of digital and social media. "It's a constant effort to build relationships across the campus and collaborate with everyone in our community, so we can get information we need to put out to our community and represent everything taking place here."

Challenges? The team has had a few, including fielding questions about the Orange's switch to the Atlantic Coast Conference, and about the investigation of former associate head basketball coach Bernie Fine '67. According to Brodock, all the members of #44 Social have conducted themselves in a professional and confident way while on the accounts. "It's really important to me to be part of the team to represent the University," Jake Hebert '12 says. "I feel like sometimes the fate of the University is in our hands."

After the team was established in October 2010, members of #44 Social spent two months working on SU's Facebook page and Twitter account. Back then, about 60,000 people followed SU on its Facebook page. Today, the University counts nearly 81,000 "likes" on Facebook and more than 13,000 followers on Twitter. And this team continues to add more social media platforms and is revitalizing the University's YouTube channel. Students, faculty, alumni, sports fans, and potential SU students can now stay close to the University through such platforms as YouTube, foursquare, Google+, and Instagram. "I'm a huge fan of social media. It's no longer a niche market any more," says Jared Kraham '13 of #44 Social. "Not only is it an experience of working with the team, but I think the biggest part of what we do is coming up with ideas on innovative ways to engage our community, and really make a statement that SU is a leader in social media in the United States." — *Yuhan Xu*

RESEARCHSNAPSHOT A FOCUS ON RESEARCH AT SYRACUSE UNIVERSITY

PROJECT:
Managing River Systems for the Future

INVESTIGATOR:
John McPeak

DEPARTMENT:
Public Administration and International Affairs

SPONSOR: Livestock-Climate Change Collaborative Research Support Program/U.S. Agency for International Development (USAID)

AMOUNT AWARDED:
$699,997, project runs until April 2015.

BACKGROUND: Riverine systems in arid and semi-arid lands serve as key resources that support livestock and crop production. The importance of these resources will only grow in response to the vegetation, rainfall, and livelihood changes expected under predicted climate change scenarios. For herders, rivers flowing through drylands are critical for producing vegetation that serves as dry season grazing reserves and essential sources of permanent water. For farmers, the waters allow for cultivation of land through both the recession of floodplains and irrigation. Due to increased population pressure and changing rainfall patterns in the Senegal and Niger river basins, the agricultural economy based on these riverine systems in Mali and Senegal has come under the kinds of stresses that climate models predict may become more widespread in the future.

Maxwell School professor John McPeak (above, right) meets with a group of farmers and herders outside of Gao, Mali. McPeak (bottom photo, right) conducts a tour of the weekly livestock and produce market in Kati, Mali, with the project's local market monitor and other project members.

IMPACT: By investigating the impact of climate change on the vegetation of these riverine systems to date, an international team of researchers will make recommendations for long-term planning that addresses change and adaptation, and develop an understanding of likely outcomes in similar environments. By documenting the migration patterns of herders and their use of riverine resources, researchers will work together with development partners and local communities to reduce conflict between herders and cultivators, decrease crop losses to livestock, enhance the viability of livestock production, and improve land-use management planning and implementation. By identifying how to best develop livestock production systems, researchers seek to improve human nutrition through enhanced milk access and increased income, particularly for women. By analyzing the benefits and costs of different methods of irrigated rice production, researchers will identify ways to increase food security in riverine production systems. The project also provides technical support to development partners in Senegal and Mali. Notably, this project includes collaboration in Douentza, Mali, with the Near East Foundation, illustrating the kinds of integrated research and development outcomes that motivated the foundation's recent move from New York City to Syracuse. Finally, education and training are an objective of this program as students at universities and research institutes in Mali and Senegal will be integrated into the research agenda, thus enhancing the capacity of the host countries.

Photos by Adamou Kalilou Amadou (top) and Jay Angerer/Texas A&M (bottom)

STUDENT PHILANTHROPY COUNCIL »

CREATING A CULTURE OF GIVING BACK

HELENE KAHN '10 WAS A JUNIOR WHEN SHE ATTENDED A TRUSTEE DINNER AS A REPRESENTATIVE of the Student Association. When asked about her career plans, she replied, "I'm interested in fund raising." Kahn was just the sort of young person SU was looking for to help create a culture of philanthropy on campus, so immediately after graduation she started work as a development associate in the Office of Development. Her charge was to lay the groundwork for the next generation of philanthropists among students and young alumni. "I always knew I wanted to be involved in the philanthropic world because of my parents' work with nonprofit organizations," Kahn says.

Kahn began by benchmarking best practices at other universities that are actively working to instill a campus culture of philanthropy. Realizing interactions with students and young alumni must be peer to peer, she recruited 14 students with a commitment to SU to serve on the newly formed Student Philanthropy Council (SPC). Council members learn about the University's history, vision, and goals in preparation for spreading awareness among students, interacting with the Board of Trustees, attending alumni events, and hosting the annual scholarship luncheon during Orange Central. "It's easy to connect with alumni because you always have something in common with them," says SPC chair Chelsea Damberg '12, whose grandfather attended SU on the G.I. Bill. "Why donors decide to give to SU, or why they support a scholarship in a particular field, reminds me of why I want to give back."

Photo by Steve Sartori.

Student Philanthropy Council members (from left) Erik Bortz '12, Chelsea Damberg '12, Matt Cohn '12, and Jess Cunnington '13 show off the blazers specially designed for them by renowned fashion designer Henry Grethel '54.

In an effort to ensure SPC members could be easily identified as campus leaders, Kahn approached celebrated American designer Henry Grethel '54 with the idea of designing blazers specifically for them. Donating his time and services, Grethel created stunning navy blue blazers with orange piping—custom made for each student. Council members made quite an impression when they wore their new blazers for the first time at the trustee installation ceremony last fall. "People kept asking me where they could buy one," Kahn says. "I told them the blazers are not for sale because they were designed exclusively for SPC members as a badge of honor." Damberg says she was excited to learn she gets to keep her blazer after graduation. "My blazer is going with me to the grave!" she says.

Last spring, SPC launched a postcard and social media campaign to heighten student awareness that tuition covers only 80 percent of the University's operating costs for the academic year, and the remaining 20 percent must be covered by gifts from donors. Postcards with such messages as "Did you know in 2010 that more than 30,000 people gave to SU to ensure you have the best educational experience possible?" blanketed campus and similar fact-based tweets went viral. SPC member Nykeba Corinaldi '11 says they had to figure out a way to approach students with a positive message that would overcome their negativity about the high cost of tuition. "College is expensive and students have more debt now than ever," Corinaldi says. "That's why we explain to them the importance of philanthropy."

Kahn acknowledges the SPC program's success will be difficult to measure until today's students become tomorrow's donors. "We're planting a lot of seeds, watering them, and watching them sprout," she says. Corinaldi, who graduated in December and is now part of Generation Orange, believes everyone should try to give their time, treasure, or talent to something they are passionate about. "I love Syracuse," she says. "I will forever bleed Orange."

—Christine Yackel