Dear Friends of the College of Arts and Sciences:

By now, word has traveled to you that, due to a downturn in state revenues, UW is facing serious budget reductions for this biennium. Needless to say, these are challenging times; however, in the words of Winston Churchill: “A pessimist sees the difficulty in every opportunity; an optimist sees the opportunity in every difficulty.” I take the optimistic view that these challenges have given UW a great opportunity. Budgeting is about prioritizing, and, as we re-calibrate, we will closely examine our mission and goals in order to refashion ourselves, while maintaining our integrity and commitment to the best in higher education here in Wyoming.

As we navigate through these changing times, the College of Arts and Sciences remains committed to preparing A&S students for “complete living,” while our faculty persist in doing excellent research and outstanding creative work—and that is the stuff that Elevations is all about. We want to capture for you the excitement we feel here in the college. In the past, I have described this magazine as a look into the heart and soul of A&S. I invite you to peer into what makes us who we are, and I’m sure you will see that the College of Arts and Sciences is informing the future of Wyoming and the world.

In addition to this year’s feature articles, which clearly demonstrate how A&S faculty research brings deeper understanding to the human story and assists people on the other side of the globe, we share student internship experiences and how those encounters enhance their education. As always, “A&S Impacts” offers concrete examples of how the College of Arts and Sciences meets UW’s land-grant mission in the twenty-first century—to serve the state, the Rocky Mountain region, and the nation, as well as the global population. For short news items, check out “A&S Briefs,” and be sure to note “A&S Bookcase,” featuring A&S alumni and faculty authors.

Finally, I want to encourage you to share the good news about the College of Arts and Sciences. Let your family, friends, neighbors, and the stranger in the grocery store or at the gas pump know just how much cutting-edge scholarship, excellent teaching, and active learning is going on in A&S. And while you are sharing the good news, remember you are a part of it as an A&S alum, supporter, and friend. You are truly a part of our A&S family!

Best regards,

Paula M. Lutz

Dean
Chinese language students conduct outreach in China

Associate Lecturer Yan Zhang, Department of Modern and Classical Languages

As economic and tourism ties between China and the West are cultivated, mastery of the Chinese language and culture becomes increasingly more valuable to University of Wyoming graduates. To better prepare UW students to perform well on the global stage, the Chinese Language program, housed in the Department of Modern and Classical Languages, offers the UW Chinese Summer Study Abroad.

Beginning in summer 2010 and continuing each year after, the Chinese Language program’s highest achieving students have traveled to China for a two-month intensive, interdisciplinary academic language course. Intended for students who have completed two years of college-level Chinese and who plan to pursue a Chinese minor, the UW Chinese Summer Study Abroad greatly strengthens Chinese language proficiency. Through immersion in Chinese culture and intensive language classes, these students are exposed to richly rewarding and memorable encounters.

From May 19 to July 19, 2015, I accompanied 12 UW students to Huaqiao University in Xiamen, China, at the southeast coast in the Fujian Province, across a strait from Taiwan. Because of its geographical position, Xiamen has been a crucial port for many centuries. From the nineteenth century until its occupation by Japan during World War II, Xiamen was a British treaty port. Xiamen, with its geographical position, Xiamen has been a crucial port for many centuries. From the nineteenth century until its occupation by Japan during World War II, Xiamen was a British treaty port. Xiamen has been a crucial port for many centuries. From the nineteenth century until its occupation by Japan during World War II, Xiamen was a British treaty port.

In addition to cultural immersion and 25 hours of classroom time per week, students participate in community outreach. On May 30, 2015, we spent the day with a local organization, One Heart Charity. In operation since 2002, One Heart Charity now has several divisions and works to improve the lives of Xiamen residents who are in need. Among its most widely served clients are orphans, children of migrant families, and individuals suffering with cancer.

The UW students primarily interacted with underprivileged, rural children from migrant families. After opening remarks, the children were divided into four groups, led by two UW students. Each group prepared a short singing and dancing act, which they performed for the others. Each routine received ecstatic cheers. Both English and Chinese were spoken throughout the day, stretching everyone’s linguistic abilities.

As UW students answered the migrant children’s questions, exchanged contact information, and took photos, the classroom became more like a family party. Yuxia Li, a mother of one of the children, comments, “My son was so excited. He told me that he won’t be afraid of learning English anymore because his UW big brother told him his English was so good. Thanks for meetings us!”

Later, the Chinese children gave the UW students a library tour and everyone created art work. The cheerful atmosphere reached its climax when the UW students presented the children with gifts, including American reading books, two badminton sets, two volleyballs, two baskerballs, and one soccer ball. In return, each Chinese child gave gifts to the UW students. “When they heard American students would be coming to see them, the Chinese students were so excited that everyone made their own gifts one week earlier,” says Yuqin Yan, a volunteer for One Heart Charity.

That afternoon, the UW students stood hand-in-hand with Chinese children at a Confucius temple, they hung prayer cards before departing. When they learned that two Chinese children were celebrating birthdays that day, the UW students insisted on returning to the library to celebrate. Xiaoxiang Lin, director of One Heart Charity, comments, “Today is probably the only time these children will meet with American students in their whole life. We really appreciate your time, your sunshine smiles, and your gifts. We believe your company today will open another door to these underprivileged children and show a beautiful world to them.” As a result of this outreach, the UW students felt more connected to the lives of Xiamen locals.

Encouraged by the Chinese children’s smiling faces and trustful eyes, the UW students continued community service in Xiamen. To experience first-hand the life of a merchant, they engaged in a project with local street vendors to help sell products at the night market—a few even learned to perform demonstrations. Some students sold traditional Chinese tea, tea equipment, and accessories; others advertised Chinese fans and umbrellas. Another group helped to sell women’s clothing and make fashion recommendations—a common practice in Chinese marketplaces. One group organized pre-activity shopping and arranged chocolate-covered bananas for sale.

In an environment with many distractions, the students’ efforts were nonetheless attention-grabbing. “Your students were the most diligent and nicest foreign students that I have ever seen,” Miss Chen, the umbrella and fans street seller, says. “付佳一 (Nate) and 米昊 (Tyler), you two are the hardest workers. You know how to communicate with the customers, and how to promote the sales. Your Chinese is very impressive. Tonight you promoted my business very well and you sold three times more items than [I do] on a regular day.”

Impacts on UW Students

“I love working with One Heart Charity. What really impressed me was how loving all the children were. Being able to meet with them and talk to them was one of the best experiences of my life. It made me step back and evaluate what is really important in life. Being able to go to China helped me in many different ways. Not only did my Chinese greatly improve, but I also made many amazing friends; furthermore, it helped me come out of my shell and become open to new experiences. Since I can speak Chinese, I will have an advantage over others in my field and have more job opportunities.” Alex Sanchez, geology major

“The trip this summer was huge for me. I had never done any real travelling before, and now that I’ve started, I never want to stop. I learned so much about China. Working with the kids at One Heart Charity was so much fun; they were so excited, and that energy is contagious. I was impressed by how they tried to make us feel at home. This trip was life changing, and someday I hope to go back,” Tyler Miller, criminal justice major

“Academically, [the UW Chinese Study Abroad] is a much more ideal environment to study a foreign language. What most impressed me was how understanding the locals were, as well as how kind and grateful they were when we attempted to learn. We showed interest in their language and culture, and they rewarded us for that.” Richard Bierman, international studies major

“Often, we are aware of the underprivileged in our own community who are overlooked. Aside from major global catastrophes, we don’t realize that every community has its own underprivileged citizens and that to help one community helps many.” Edward Ma, electrical engineering major

Broader Impacts on Campus Community

Study abroad incorporates learning and changing. By integrating community service with instruction and reflection, UW students gain a greater understanding of the Chinese language, experience authentic Chinese life, and bring change to people and the communities in which those individuals live. In the process, the UW students serve as UW and United States ambassadors, while making lasting friendships.

On the UW campus, these students enthusiastically shared their Chinese adventure stories with other students at Discovery Days and World Languages Day. They also are involved in Associated Students Interested in China (ASIC) to introduce and promote Chinese culture to the UW community. As Confucius says, “Don’t refrain from an act of kindness, no matter how small.”

Pictured at left: UW Students dance with children from One Heart Charity.
(Yan Zhang Photo)
Gender and Women’s Studies helps incarcerated women tell their stories

Professor Bonnie Zare, director of Gender and Women’s Studies

Wyoming Pathways from Prison Project is a collaboration between Gender and Women’s Studies faculty and the Wyoming Department of Corrections (DOC). The project developed in response to a needs assessment conducted by Professors Cathy Connolly and Bonnie Zare and Associate Professor Susan Dewey, Gender and Women’s Studies, along with American Studies graduate student Rhett Epler and Rosemary Bratton, founder and director of the Hilde Project, which offers education and support services for disenfranchised women.

Between January and June 2015, researchers conducted semi-structured, in-depth interviews with 40 women incarcerated at the Wyoming Women’s Center (WWC) in Lusk and 28 women who are on probation (mainly in Cheyenne, Gillette, and Riverton). Most women described events that led to their incarceration within the context of financial stress, limited work opportunities, rural challenges, and limited resources. Formerly incarcerated women discussed gender discrepancies in post-release housing and work opportunities, financial obligations and lack of reliable transportation, caregiving responsibilities, and struggles developing relationships or reconnecting with potential social support systems.

The research team compiled a rich set of data and wrote a detailed report to the DOC with evidence-based recommendations for change. Recommendations include: use the currently unused Mother and Child unit, possibly as a work release unit; examine staffing needs, particularly with respect to caseworkers and counselors; provide an intimate partner violence/domestic violence class; offer more regular access to the outdoors and outdoor exercise; facilitate ways to keep women in regular communication with their children; revisit the passing and receiving and touching rules and the consistency of staff enforcement of them. In adult community corrections (ACC), a halfway house where people are either still serving their sentences or on parole, designate a few hours per week for women-and-children only in the visiting areas; in ACCs, provide affordable transportation so that workers can fulfill their work-related obligations and goals; connect women with a network of 12 Steps sponsors ready to support those women who are in recovery; increase relevant job training and placement opportunities for well-paying jobs upon release; offer more formal and informal educational opportunities, including college classes.

Impacts

The final recommendations listed above led to meetings with senior DOC staff members, and, consequently, the approval of an innovative UW course, Women, Crime and the Law. The course was taught inside the WWC by UW faculty members and trained UW students for three weeks in early spring 2016. WWC students studied memoirs and developed several drafts of their own narrative, resulting in a polished autobiographical account. The peer-reviewed open access feminist journal Wagadu: Journal of Transnational and Gender Studies devoted a special fall 2016 issue, “Telling My Story,” to this pioneering course and published selected pieces by WWC students, as well as UW students and faculty, DOC staff, and community partners.

WWC Student Comments

“I always thought that I wasn’t intelligent enough. Growing up in the hood, I think a lot of kids think that. I’ve learned that I am more intelligent than I thought.”

“I shared my story. I’m not ashamed anymore. The preacher calls it waiting for the ‘sweet nasty now and by and by.’ If I can show them that while they are here, they can better their lives. This can change your life.”

“You have a story that might help someone. If I can help just one person from coming here, or coming back, then that’s all I want.”

“This is the best thing we’ve done here—I’ve done a lot of programs. This is one of the best ones. Others are for paperwork, checking boxes.”

“Scared, hard, fear, struggle—these emotions are growth; they’re not negative. You let us have emotions, be open and free—that’s probably the most positive thing about this class.”

“I will not be an inmate forever—the first day you ladies came in, you were all a bit skittish, but then you CAME BACK.”

Pathways from Prison: Summary of Activities

- 70 interviews with currently and formerly incarcerated women at the WWC in Lusk
- Technical report with 12 recommendations for the Department of Corrections (DOC)
- Established bridge between UW and DOC Education Programs Director
- Regular rotation of UW faculty to begin teaching at WWC in April 2016
- Establishment of a student organization to aid formerly incarcerated UW students
- UW students co-taught a course in May 2016 at WWC
- Wagadu special issue on Lusk women’s memoirs, “Telling My Story”
- UW researchers co-organizing the National Conference on Higher Education in Prison in Nashville
- Cornell University Press interested in book based on UW researchers findings
- UW researcher will teach a course based on findings and meet with criminal justice professionals and researchers in Shanghai, China
A statue of a uniform for the guard on the east side of the wall. These guards also purchased a German Democratic Republic (GDR) border guard uniform, an 80-mark pistol, or a hooge on a multicolored tag. The tunnel had a militaristic look at the beginning of the week, but the multicolored confessions transformed the arch into a garden portico overgrown with flowers.

Courses in African-American and Diaspora Studies, Global and Area Studies, and the Departments of Modern and Classical Languages and Political Science used the arch as a teaching tool to discuss social justice and conflict and resolution.

Exhibition at LCCC (Albany County): A photo presentation donated by the University of New England was displayed along with repurposed pieces of UW’s mock Berlin Wall. The GDR uniform, as well as pins and medals donated by Wymingtonites were also on display. LCCC hosted a public panel, featuring eyewitness accounts to the fall of the Berlin Wall, including me, Professor Emeritus Klaus Hansen (Modern and Classical Languages), State Legislator Charles Pelkey, and Pulitzer Prize-winning journalistic Mark Fitz. LCCC, Head Librarian Mary Henning invited children from local elementary schools to paint their own wall and discuss walls in society.

An Arch of Reconciliation:

We created a wire arch to represent an opening of the iron curtain and symbolize a path to reconciliation and unification. People were encouraged to attach (anonymously) a message of hope or regret or a quote or a drawing or a symbol or a bush on a multicolored tag. The tunnel had a militaristic look at the beginning of the week, but the multicolored confessions transformed the arch into a garden portico overgrown with flowers.

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Presentation by Gary Bruce, University of Waterloo: Author of The Firm: The Inside Story of the Stasi (NY: Oxford University Press, 2010), Gary Bruce gave a talk. His work is based on previously classified and declassified documents and on interviews with former secret police officials and citizens. This event coincided with the formation of the Arch of Reconciliation.

Keynote speech on the anniversary of German unification: Andrew Denison, Ph.D., director of Transatlantic Network, lectures throughout Germany and serves frequently as a commentator on German radio and television. His talk, “The United States and German Reunification: Hopes and Fears in Retrospect,” reviewed the American debate about German reunification during the crucial 1989-1990 period. He discussed American expectations for Germany and Europe at the time and outlined how a unified Germany has become both a challenge and an opportunity for European integration. In addition, Denison spoke to political science classes on the subject and was interviewed by Wyoming Public Radio.

Struggle with a Foreign Tongue: David Bowie in Berlin: Associate Professor Ulrich Adelt, American Studies/African-American and Diaspora Studies, spoke about British pop singer David Bowie’s three years living in West Berlin during the 1970s. While there, Bowie produced some of his most highly regarded music under the influence of the German musicians and his own expatriate conceptions of German national identity. Tying with fascism and collaborating with British and American musicians Brian Eno and Iggy Pop, while explicitly referencing German musicians, Bowie added another facet to constructions of border-crossing identity to the German music genre of “Krautrock.”

Reunification commemoration concert: Professor John Fadial, Department of Music, collaborated with several UW faculty musicians, the Colorado Philharmonic, and UW music students to present a concert featuring J.S. Bach’s Brandenburg Concerti. Written in the 1720s at Cöthen, the Brandenburg Concerti was composed for the Margravate of Brandenburg and illustrates the composer’s newfound artistic freedom. Bach is viewed by many as a unifying cultural figure for Germany, as well as throughout the world.

Impacts

“I was able to take my AP European History and my World War II survey course to Berlin Wall exhibit at the University of Wyoming. Both classes thoroughly enjoyed putting up graffiti and demolishing the wall several days later, but the more important part was that it gave my students a physical connection to our studies when we discussed the start of the Cold War, the fall of the Berlin Wall, and German Unification. Once we connected the event to our studies, the students were able to do more critical analysis when paired with the primary source documents. Furthermore, the experience will have a greater and longer lasting impact.” - Will Plumb, social studies instructor, Laramie High School

“The class I took to the Berlin Wall exhibit at UW consisted of students who were already quite interested in the history of the Cold War and the fall of the Berlin Wall. It inspired them to explore the history of the Berlin Wall. We had discussions about the images, their meaning, why the people painted them and the impact they have had. We then examined what type of issues/concerns that we face today and how they might represent these on the mural at LCCC. The project was a wonderful opportunity for our students to explore social justice issues, as well as work within a mural space (not something we get to do often), and the integration of subject areas. The students were able to see how events from history and also contemporary issues can impact public sentiments through the medium of art. They created a sense of community as they worked together exploring ideas and techniques, but perhaps, most importantly, they learned how powerful art can be.” - Sharon Mathiesen, art instructor, UW Lab School

Of those who filled out a survey regarding the keynote speech offered by Andrew Denison, Ph.D., director of Transatlantic Networks, most agreed that his talk about German reunification greatly raised their awareness of America’s role in this historical event. Several commented that the talk offered both an overview of history and a look into its influence on the future.

Among those who commented on Professor Adelt’s talk about German influence on David Bowie’s music, one UW graduate student stated, “Ulrich Adelt’s talk revealed a lesser-known but highly significant period during Bowie’s career. By intriguingly detailing the three years that David Bowie spent in Berlin, Professor Adelt illustrated how Bowie’s German stint proved to be tremendously influential in developing the iconic pop star’s artistic direction and creativity.”

“The Arch of Reconciliation was a fantastic teaching tool to use in my Cross Cultural Communication course, as well as the African American rhetoric course that I taught in the Fall 2015 semester. In both classes, we critically analyze the impact that genocide and oppression have on a culture and its people and then and the ripple effects that resonate in the present. One aspect that is often missing from these kinds of discussions in textbooks and academic articles is the aspect of reconciliation. Through the arch, my students and I were able to actively engage in a discussion about reconciliation and were able to physically go over to the arch and see what that meant to UW students.” - Professor Tracy Patton, African American and Diaspora Studies

“The Arch of Reconciliation was a good starting point for our conversation in class about the Berlin Wall and German Reunification. I also used the arch as a way for students to use their language skills outside of the classroom as I taught them the basic vocabulary (reconciliation, regrets, and hopes) in German and encouraged them to also write in German. In my upper-level class, the students spent time in pairs discussing what those words mean and how they might respond. Even in my lower-level class, some students chose to write in German.” - Associate Professor Rebecca Steele, Department of Modern and Classical Languages
American Studies Program

The American Studies Program and the Wyoming Arts Council launched an exhibit, “Art of the Hunt,” at the Wyoming State Museum in Cheyenne. Based on Folklife Specialist Andrea Graham’s five years of research across Wyoming, the project received funding from the National Endowment for the Arts and the Wyoming Cultural Trust Fund. The exhibit displayed traditional arts and artifacts, stories, and folklore relating the experience of hunting, fishing, and guiding in Wyoming in the past and present. The exhibit featured several Wyoming artists, including those who make rifles, saddles, holsters, knives, bows, and fly rods. A series of public events highlighted specific aspects of the exhibit and included panel discussions and artist demonstration days. American Studies graduate student Peter Gibbons photographed artisans at work to supplement displayed artifacts. In addition, American Studies graduate student Julian Saporiti collected Wyoming hunting culture songs and stories. The exhibit and its programs ran for 13 months and attracted 55,000 visitors. “Art of the Hunt,” which closed in September 2015, lives on at <https://wyomingartofthehunt.wordpress.com/> as well as on Facebook.

Andrea Graham and Professor Eric Sandeen, through the Wyoming Institute for Humanities Research, hosted at UW and of which Sandeen is founding director, in partnership with the Wyoming Humanities Council, launched a survey in 2015. They worked with dozens of humanities and arts organizations and institutions throughout Wyoming to build a database of contacts, projects, and connections. Wyoming is rich in actively curated historic sites, including public libraries, railroad depots, schools, homes, landscapes, and landmarks, as well as museums, large and small—from the State Museum in Cheyenne to local museums and collections in many Wyoming communities.

Results of the survey will aid humanities organizations across the state to build a community of humanities exchanges and programming for the public. This information also will allow a wide network of people, including UW scholars, to work together directly in service of Wyoming public arts and humanities organizations.

In April 2015, Teton County Public Library, along with Jackson Hole and Summit High Schools, hosted Associate Professor Beth Loeffra, American Studies and Creative Writing, and Claudia Rankine, an award-winning poet, for an evening of public conversation about race and creativity. In addition, Loeffra and Rankine, who recently co-edited a book, *The Racial Imaginary: Writer on Race and the Life of the Mind*, both led day-long creative writing workshops for approximately 100 high school students. The writers offered insights and opportunities for people of all ages to participate in the creative thinking and writing process with a particular focus on race and diversity.

Assistant Professor Líla Soto has been actively involved with the Wyoming Latina Youth Conference (WLWC) since 2011. Founded and directed by Ann Esquivel-Redman and hosted by Laramie Community College in Cheyenne, the WLWC gathers Latina girls and young women from fifth grade through high school for a program of information and empowerment. The WLWC’s mission is “to enrich and empower young Latinas through mentors, education, and awareness.” The conference, which draws nearly 100 participants, offers workshops and distinguished national speakers, and culminates with a banquet. Participants leave with assorted resources on Latina culture and experience, as well as with a sense of pride and community.

Department of Communication and Journalism

Every October, the Department of Communication and Journalism sends journalism faculty members to the Wyoming High School Press Association Convention. These faculty present workshops on various aspects of journalism to help students produce high-quality content in school newspapers and to prepare future journalists to write and report ethically and effectively. This event also serves as a means to recruit students to UW.

Professor Ken Smith is a member of the Wyoming Press Association Board of Directors and also serves as the Ombudsman for Wyoming newspapers. As a member of the board, Smith contributes to decisions that affect Wyoming’s newspapers and, ultimately, many of its citizens. The state Ombudsman, Smith arbitrates when readers make a complaint concerning fairness in reporting practices. Smith examines the newspaper’s coverage and determines whether or not the newspaper was negligent or if it was fulfilling its professional obligation to its community. This arbitration helps ensure that newspapers maintain the highest ethical standards and that Wyoming citizens have a greater ability to engage with media about important issues.

Global and Area Studies

Funded by the state of Wyoming’s Excellence Initiative, Global and Area Studies (GAST) conducts outreach through the “Global Scholars Speaker Series,” and also offers “in-reach” via various visitors to the UW Laramie campus.

In spring 2015, GAST Visiting Senior Scholar Ahmed Rhazaoui, Ph.D., presented “The Syrian Crisis, Refugees, and the Impact on Neighboring States,” to residents in Wyoming (Rotary/Kiwanis joint meeting), Powell (Northwest College), Casper (Casper Foreign Relations Society), and Laramie (UW campus). Rhazaoui worked for the United Nations Development Program for 30 years, and he specialized in development of post-conflict states—mostly in Africa and the Middle East. He was in charge of reconstruction efforts in Rwanda after the 1994 genocide, and, in fall 2014, he worked at refugee camps in Jordan and Lebanon where he found housing for those who fled civil war and chaos in Syria.

In fall 2015, George Varughese, Ph.D., was the GAST senior visiting scholar. Varughese is with The Asia Foundation and currently serves as the in-country director of reconstruction and development efforts in post-civil-war Nepal. During his UW visit, Varughese spoke to several Wyoming communities about how the April 2015 Nepal earthquake influenced development and political reconstruction in the country. Varughese has been with the Asia Foundation for 17 years, and, prior to arriving in Nepal in 2013, he served as director in Afghanistan. Varughese spoke at North–west College in Powell, the Buffalo Bill Center in Cody, to a public audience sponsored by the Workland Rotary Club, and on the UW Campus in Laramie. In addition, Varughese spoke to Wyoming community college partners at the annual International Studies articulation meeting held in Saratoga.

Department of Criminal Justice

Department of Criminal Justice faculty interact with agencies and individuals across the state and region in countless ways. Many faculty are active in researching issues related to the criminal justice system, including several topics that have received national attention in recent years such as police shootings, better parole decisions, and impacts of sanctions versus incentives associated with successful reentry into society. Other work involves examining the role peers, family, and school discipline play in delinquency cases. Several faculty serve on boards and organizations, including the Albany County Community Juvenile Service Board, the State Advisory Council on Juvenile Justice, the National Institute of Justice, the Natrona County School District, and the Health Sciences and Human Services Advisory Board.

In addition, the department places student interns in agencies across the state.

Department of Modern and Classical Languages

In February 2016, the Department of Modern and Classical Languages hosted a free eight-hour American Council on Teaching Foreign Languages (ACTFL) workshop for Wyoming world language teachers. Thirty-five teachers of Arabic, Classical Greek, ESL, French, German, Japanese, Latin, Russian, and Spanish were in attendance. Among participants were faculty from 16 Wyoming junior and senior high schools and two Wyoming community colleges, as well as UW faculty and graduate students in Global and Area Studies, the Department of Modern and Classical Languages, and the College of Education. Participants under the guidance of ACTFL presenter Associate Professor Cindy Martin, department head of the School of Languages, Literatures, and Cultures, University of Mary–land, explored ways to integrate ACTFL Proficiency Guidelines into their curricula. These guidelines are the basis for the 2013 Foreign Language Content and Performance Standards adopted by the Wyoming Department of Education. Participants also broke into language groups to discuss how to facilitate learning in their language across grades 6 through 16 in Wyoming. The event was co-sponsored by the Wyoming School–University Partnership, Albany County District #1, the College of Arts and Sciences, and the Wyoming Institute for Humanities Research.
In our college years, my friends and I have been given the most wonderful opportunity to put our arts and sciences degrees into action: travel Wyoming to volunteer, through art and dance, at underserved and unlikely locations. We have come to call our group “Dance in Unlikely Places,” and we take every chance to perform, write, teach, share, and explore through dance. From hospitals and care centers, to natural sites and museums, we dance to move those who watch us, and be moved by the experiences in turn.

~ Sydney Edwards, dance science and visual arts student

Sponsored by a grant from UW Cultural Outreach and the Larsh Bristol Memorial fund, Edwards, a Laramie native, and her friends Katherine Schultz (Casper, dance science and dietetics), Craig Mitchell (Casper, dance performance), Karolina Klatka (Rock Springs, dance), and Maliina Jensen (Nunuk, Greenland, dance science graduate) traveled to Rock Springs, Riverton, Sheridan, Casper, Greybull, and Laramie. They visited assisted living centers, elementary schools, museums, main streets, and outdoor venues.

(All photos by Sydney Edwards)
Using the past to predict the future: how UW earth scientists work to understand active volcanoes

Diana Marie Waggener

The Roman poet Virgil (70-90 B.C.E.) imagined the Phlegraean Fields—a volcanic area west of Naples—to be an entrance into Hell; and nearly 1,300 years later, Dante Aligheri expounded upon that theme by journeying, with Virgil as his escort, through the nine volcanic-like circles of Hell in The Divine Comedy. Some have argued that the motivation for Edvard Munch’s famous painting “The Scream” was a volcanic eruption that caused the sky to turn red, and the April 1815 volcanic blast of Mount Tambora in modern-day Indonesia is credited with inspiring striking paintings of scorching sunsets. Poets and artists have long aimed to mythologize and depict volcanos, but the reality of living with a volcano defies the imaginations of creative minds—such is the life of those people who live in surrounding areas of Nyiragongo, an active stratovolcano in the Democratic Republic of Congo (DR Congo).

An immense country that measures 905,345 square miles, the DR Congo, population 69.6 million, until recently has been at the center of what some call “Africa’s World War.” Claiming nearly six million lives, either as a direct result of fighting or because of disease and malnutrition, and displacing two million people between 1998 and 2003, this war is the deadliest conflict since World War II.

LIVING WITH A VOLCANO

On the eastern side of this war-torn nation, near the Rwandan border and on the northern shore of Lake Kivu, sits Goma, population one million; and smoldering just 12 miles north of Goma is Mount Nyiragongo. Part of the Virunga Mountains in the southern section of Virunga National Park, Mount Nyiragongo has an elevation of 11,384 feet. The modern city of Goma was founded sometime around 1941 and built on top of the lava flow from the southern fracture zone of the lower flanks of Nyiragongo. Several parasitic cones of unknown age, some of which have erupted in Goma, surround the Nyiragongo main crater.

Dominated by the Rwandan Genocide of 1994, which fueled both the First and Second Congo Wars, and Nyiragongo, which last erupted in 2002, Goma derives its name from the Swahili word for “drum” because of the rumbling of the volcano. The area is rife with bandits and caustic geochemistry due to the large quantities of methane and carbon dioxide gases of Lake Kivu and Nyiragongo’s unusually fluid magma.

On January 10, 1977, Nyiragongo’s crater walls fractured, and the lava lake drained in less than an hour. Because of the fluidity of the lava, it flowed down the flanks of the volcano at speeds of up to 60 miles per hour. After the lava lake reformed in the crater during eruptions in 1982, 1983, and 1994, another major eruption of the volcano began on January 17, 2002. A fissure opened in the south flank of Nyiragongo, reaching the outskirts of Goma, and, during the eruption, 400,000 people were evacuated from the city and across the Rwandan border into neighboring Gisenyi. Lava covered the northern end of the runway at Goma International Airport and reached Lake Kivu, eliciting fears that the lava might cause gas-saturated waters deep in the lake to suddenly rise to the surface, releasing extremely large amounts of carbon dioxide and methane. Buildings collapsed, approximately 120,000 people were left homeless, and, as a result of asphyxiation by carbon dioxide, as many as 170 people died.

The Observatoire Volcanologique de Goma (Volcanological Observatory in Goma) (OVG) watches Nyiragongo very carefully. This is a difficult task because foreign aid for the observatory ended in 2014, and the government of North Kivu province doesn’t have the funds for data gathering expeditions to the crater, seismographs, access to satellite data, or for public awareness campaigns.

Enter UW earth scientists and their colleagues

Fortunately, earth scientists like Professor Ken W.W. Sims, Department of Geology and Geophysics, want to understand Nyiragongo’s long-term eruptive history, as well as more recent eruptions, and his research can help inform scientists at the OVG in Goma.

In October 2015, Sims, along with Ph.D. candidate Erin Phillips, Department of Geology and Geophysics, and mountaineer and photo journalist John Catto, in collaboration with...
scientists at the OVG and Dario Tedesco from the University of Napoli, Italy, collected samples from Nyiragongo’s lava flows and parasitic cones to better comprehend the hazards of Nyiragongo and its threat to both Goma and Gisenyi. A follow-up of two previous research expeditions, funded by the National Science Foundation (NSF) and National Geographic, in 2007 and 2010, during which Sims collected a suite of samples from the vertical walls in the summit crater, the outer flanks of the volcano, and magma samples from the lava lake, this recent expedition (also funded by NSF) primarily focused on sampling the parasitic cones. “Sampling in the city was easy,” says Sims. “For example, the OVG is located on the side of Mount Goma—one of Nyiragongo’s parasitic cones. Collecting fresh tephra [rock fragments and particles] samples was a straightforward task.”

Gathering other samples proved not to be as simple. Traveling on bumpy dirt roads for many miles, and, ultimately, hiking into the outback, where nobody goes except to gather fresh tephra samples from the vertical walls in the summit crater, the outer flanks of the volcano, and magma samples from the lava lake, this recent expedition (also funded by NSF) primarily focused on sampling the parasitic cones. “Sampling in the city was easy,” says Sims. “For example, the OVG is located on the side of Mount Goma—one of Nyiragongo’s parasitic cones. Collecting fresh tephra [rock fragments and particles] samples was a straightforward task.”

The final leg of the 2015 expedition was an overnight excursion to Nyiragongo. Sims and Phillips, accompanied by a small group of porters, a cook, and two armed park rangers, ascended the summit. They collected a dozen samples from the crater rim and the flanks of the volcano, allowing Sims to complete the sampling he began in 2010. “The lava lake has changed dramatically since 2010,” says Sims. “It is now smaller and has sunken deep into a crater on the third, lower terrace; whereas in 2010, it was perched about 10 to 15 meters above the third terrace and walled in by a spatter cone. Today it would be hard to get right to the edge of the lake to get a fresh sample like I did in 2010, but you could get a great gas sample right now. I guess I am not surprised it has all changed; it is after all a volcano—one of Earth’s crucibles of change.”

Meanwhile, a little over nine miles northwest of Nyiragongo, the Bushwaga cone to gather tephra and lava samples, they inadvertently wandered onto the local chief’s private land. “After crossing onto his property, we were taken, by armed guards, to see him during his genteel Sunday afternoon gathering,” says Sims. “After a jovial conversation, we were provided with one of his shepherds and his enthusiastic son as our escorts to our desired destination.”

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Moving into the lab

Gathering samples is only the first step in better understanding Nyiragongo and Nyamulagira in terms of their differences and similarities, as well as the likelihood of their next eruptions. Phillips, who will defend her dissertation in spring 2017, is in the process of analyzing samples. “My main goal is to gain better age control on past Nyiragongo eruptions by age dating as many parasitic cones as possible,” Phillips explains. “Essentially, by understanding how often Nyiragongo has erupted in the past, I hope to improve the accuracy of predicting when deadly eruptions might occur in the future.”

Because Nyamulagira is farther away from Goma, its threat to the population is not considered as significant as that of Nyiragongo, nonetheless, its high eruptive frequency makes Nyamulagira a volcano worthy of serious attention.

During the Congo excursion, a United Nations helicopter took Sims, Phillips, Catto, Tedesco, and five other scientists to Nyamulagira, a shield volcano with a summit elevation of 10,033 feet, for a two-day expedition. As they wandered around the crater collecting lava samples from recent flows, Sims noticed a stark contrast between Nyamulagira’s 2010 lush green crater compared with its current lava-covered surface with a few small flowers appearing intermittently. “For the first time in over 50 years, Nyamulagira hosts a massive lava lake in its summit crater,” Sims notes. This observation clearly demonstrates Nyamulagira’s changeable and active nature.

In addition, I am comparing the neighboring Nyiragongo and Nyamulagira by looking for geologic complexity in their deep magmatic sources.”

Phillips’ work is a bit cathartic, as it begins with using a rock hammer to crush collected volcanic rocks. Next, she moves to Sims’ “clean lab” to break down the bonds in the rocks using various acids and then separates elements of interest using chromatographic techniques; finally, she is able to gain insight into the chemical makeup of the rocks using the University of Wyoming High Precision Isotope Laboratories new “state-of-the-art” inductively coupled plasma multi-collector mass spectrometer, which measures isotopes of different elements based on their mass-to-charge ratio. “To determine the age of a sample,” notes Phillips, “I compare the abundance of naturally occurring radioactive isotope parents to the abundance of their decay products, or daughters.” Knowing the ages of multiple samples allows Sims and Phillips to gain a better picture of Nyiragongo’s magmatic cyclicity, which helps to tell the story of the volcano’s eruption pattern over time.

This is slow work, and many samples are still in process, but Phillips has some finalized data. “Although Nyiragongo and Nyamulagira are only nine miles apart, they have very different isotopic signatures, suggesting small-scale mantle heterogeneities,” notes Phillips. “These heterogeneities are important because they are accompanied by many other differences between the two volcanoes, including their overall chemical makeup, their eruptive style, and their eruptive frequency.”

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"I think that the most interesting data that we have so far includes the previously unknown age of Nyiragongo summit lava that is less than 100 years old, showing that there has been at least one eruption in the last 100 years, other than the known 1977 and 2002 eruptions,” Phillips says. “These are more pieces to the puzzle that can help us to understand their recent eruptive history and how they might behave in the future.”

Nyiragongo is the greater threat to populated areas. By dating a collection of samples from its parasitic cones, Phillips, Sims, and their colleagues will develop a better sense of how often Nyiragongo has erupted in the geologic past, which will offer an improved framework within which they can predict future eruptions and a more tangible hazard analysis for the area.

A VOLCANIC CRUCIBLE OF CHANGE

This past spring, Nyiragongo’s activity shifted, as it again became more active and started erupting from a new vent in the bottom terrace. In response to this new activity, Sims returned to the DR Congo in August 2016 to collect more samples and participate in another National Geographic documentary. “Nyiragongo was wild,” he notes. “It is now exhibiting a new style of eruption. In addition to the persistent lava lake that has been there since I have been going in 2006—my fourth time now—there was a new vent on the side of the third terrace—the crater’s bottom. Upon our descent to the second terrace, this new vent was simply degassing.”

After reaching the second terrace, a little less than 1,000 feet down, Sims and the documentary crew camped for several days. “The volcano changed dramatically and started erupting large strombolian-style eruptions with lots of bombs landing on the second terrace near our camp all night,” says Sims. “Then its activity switched to a third mode whereby it started erupting massive amounts of lava—up to millions of cubic meters per hour—that covered the third terrace floor and poured into the lava lake for the remaining three days we were there.”

For now, the people of Goma keep a watchful eye and listen carefully for the rumbling, while scientists like Sims and his students do their best to stay ahead of the volcano.
Archaeological evidence reveals prehistoric stories that shed light on our human journey

Diana Marie Waggener

“The human past is full of stories,” says Professor James Ahern, head of the Department of Anthropology, “but most of those stories are not recorded history because they took place long before people began to write; thus, it is up to anthropologists to bring these stories to light.”

Ahern has been working to bring prehistoric narratives to light since 1992 when, as a first-year graduate student, he spent a summer in Zagreb, Croatia, studying the Neandertal mandibles from Krapina Rockshelter (c. 130,000 years old) and those from Vindija Cave (c. 33,000 to 42,000 years old). When he set off for Croatia to study the Neandertal fossil record, Ahern was admittedly ignorant of the reality he would face when entering a country that had recently declared its independence from the Socialist Federal Republic of Yugoslavia and was in the midst of war. “Although there was a cease-fire in effect by the time I arrived, I was overwhelmed by the human suffering,” notes Ahern. “The war in Bosnia-Herzegovina had just begun, and Zagreb was full of refugees from both Bosnia and many parts of Croatia. Hotels and hostels were full, but, thanks to the generosity of a museum curator, I had a couch to sleep on.” That summer’s research results confirmed that late Neandertals looked much more like modern humans than did earlier Neandertals.

The Transition from Neandertals to Modern Humans

Since his initial visit, Ahern has returned to Croatia more than 25 times, and he remains committed to better comprehend the transition between Neandertals and modern humans that took place in south-central Europe between 30,000 and 42,000 years ago. Ahern and his colleagues believe that the Neandertal-to-modern-human evolutionary transition was complex, both biologically and culturally. Neandertals from Vindija Cave exhibit some modern human features, indicating that genetic contact with modern humans occurred. Also, these last Neandertals appear to have used stone tools, as well as bone tools that generally are associated with the first European modern humans. Almost everyone living outside of Africa today has a small amount of Neandertal DNA in them—a living relic of these ancient encounters.

In the late 1990s and early 2000s, Ahern and his colleagues published their findings, but because their results were based primarily on their discoveries from Vindija, they decided to broaden their research to include additional Cenotian sites. They began excavating at both Zala and Bukovac Caves. Unfortunately, the Zala sediments were not old enough to preserve evidence of Neandertals or early modern humans, but at Bukovac, they found that the earliest use of the site by modern humans dated to approximately 31,000 years ago.

At left: Professor James Ahern and Ivor Janković, (Institute for Anthropological Research, Zagreb) excavate Abri Kontija. Above: James Ahern enjoys the detail-oriented work of gathering samples. (Nenad Kuzmanovic photo)

Excavating Additional Sites to Expand Research

This work paved the way for two other projects. One focused on the late Neandertal archaeological sites in Dalmatia (the southern part of Croatia), which ended last year; the other, an ongoing project, is in and around the Lim Channel, an unusual geographic feature that cuts through the western coast of Istria. The name comes from the Latin limitus for “limit,” referring to the landform’s position at the border of two Roman Provinces, Dalmatia and Italy. Mountains and caves surround the channel water, and, because of the lower salt content and higher concentration of dissolved oxygen and temperature gradients in the channel, the sea flora and fauna are well-developed.

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Historically, fishing in the Lim Channel has always been excellent, and now, in addition to the natural species, farmed mussels and oysters are part of the channel’s prolific sea life. “As an anthropologist, I am drawn to the Lim Channel,” says Ahern. “The remains of large, prehistoric hill-forts are found on the peaks overlooking the channel, and the walls of the channel, both above and below the water, are pierced with numerous caves and rock shelters that had been occupied in both prehistory and recent times.”

For the past three years, Ahern has been part of an international research team that explores prehistoric and human biology and lifeways in the Lim Channel region. Funded by the Croatian Science Foundation, the team is led by Ahern and his longtime collaborator, Ivor Janković (Institute for Anthropological Research, Zagreb). Besides anthropologists, team members include geologists, geophysicists, remote-sensing specialists, divers, and animal bone specialists from the United States, Italy, the United Kingdom, and Croatia. Students from around the world, including many from UW, also have the opportunity to participate in this dynamic exploration. Using a combination of tried-and-true archaeological methods, like traditional gridded excavation using hand and surveying tools, and cutting-edge techniques, such as drones and three-dimensional modeling, the team hopes to better understand how Neandertals and early modern humans lived and what their interactions were like.

“Archaeological fieldwork in the Lim region is a mixture of hardship and bliss,” Ahern says. “We usually work during the hottest time of the year—July and August—when the temperature frequently stays over 100 degrees Fahrenheit for multiple days.” In addition, the combination of the steep slopes of the Lim channel, which are blanketed by dvača thorn bushes, and regular sightings of poskoks (the European horn-nosed viper) makes for treacherous hikes to the site.

Once there, the slow and back-breaking work of careful excavation and documentation begins and continues throughout the hot day. “I get as much bliss out of the fieldwork as I do anything else,” Ahern adds. “Yes, the fieldwork is difficult but it is so incredibly rewarding, not just in terms of the research, but personally I find the combined physical and mental labor to be most satisfying.”

Many of us would identify the bliss part as at the end of the work day when the team goes back to rented apartments in the once-fishing-now-tourist village of Vrsar, which comprises a spectacular coastal landscape. “Unlike a lot of archaeological fieldwork done by my colleagues at Wyoming sites,” notes Ahern, “we are blessed with showers and actual beds at the end of a day of fieldwork. The local cuisine is an exquisite blend of Italian and Croatian, and the long hot days often end with a swim in the Adriatic with the sound of German folk music emanating from a nearby campplatz.”

Most discoveries at the Lim Channel will be revealed in the future, as researchers analyze collected data; however, they already have some ideas about how ancient inhabitants of the Lim region lived. “We know that Neandertals occasionally occupied Romualdo Cave, where they made stone tools and processed animals for food. They were succeeded by early modern humans at Romualdo, who engaged in similar activities” notes Ahern. “We also know that early modern humans heavily occupied another one of the sites at Abri Kontija, making and discarding numerous stone tools and animal remains, including those of a wild horse.” Other findings show that, at the end of the ice age when sea levels rose, Lim Channel inhabitants caught and cooked large amounts of shell fish.

This information helps Ahern and his colleagues piece together those prehistoric stories that otherwise would never be known. “The history of human interactions with their environments and with each other go tens of thousands, even hundreds of thousands of years,” explains Ahern. “By understanding the diversity of these interactions, we can better understand ourselves and how our own interactions shape our world today.”

Former anthropology students Rory Becker (Ph.D. 2010), Fallon Judkins (B.A. 2016), and Deanna Traczek (B.A. 2016) trek to Rovinjsko Selo Cave. (James Ahern photo)

Soil samples laid out to dry at Abri Kontija. Coloration, composition, and grain size can help distinguish different stratigraphic levels and thus different time periods. (James Ahern photo)

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Romualdo Cave, Lim Channel, Croatia. 40,000 years ago

The cold crept through their wrapped furs. After climbing up a steep slope, made slippery by the fresh snow, the small group entered a small opening in the rock. Inside, the chamber was warm but not warm enough, and the group was uncomfortable as they waited in the moist cave. Finally, one of them returned from the cave mouth with a burning bundle in hand. Another came in with some scraps of wood, and soon the warm glow of a fire lit up the chamber and the faces of the people there. Blue and green eyes twinkled on the faces shining in the firelight—large faces with large brow-ridges and projecting jaws and noses. One, a woman who had seen an amazing thirty winters, began to sing. The others went silent. A younger man unwrapped a leather pouch to reveal pieces of shiny, angular stone. He and another began to carefully hit the stones together and, at times, worked the stone with a piece of well-worn bone from the pouch. Small flakes of stone fell onto the muddy cave floor. The singing continued. Some lay by the fire and slept. Others chewed on old scraps of meat and bone.

Abri Kontija Rock Shelter, Lim Channel, Croatia. 24,000 years ago

The sun rose over the ridge and illuminated the valley below. The summer had been hot but wet enough to make the valley green, and animals were plentiful. The hunt today had gone well, and all of the members of the small group were carrying parts of the horse that they had killed. The climb up the steep slope was arduous but usual for these people. This valley was their home. As they climbed, they could see smoke rising out from under a rocky overhang above. The others were waiting and expecting. The climbers finally arrived and joyfully announced the success of the hunt. Some of the others smiled and greeted the climbers, but others were gathered around a small boy who lay, lifeless, in the shadow of the overhang. The joy of the hunters waned as they remembered the boy’s plight. He had fallen while playing. The cuts were large and recently had become infected. Now, the boy was present, but he was not here. An older woman was busy smearing red ochre on the boy’s chest. One of the hunters cried and ran toward the boy, dropping the horse’s head onto the dusty floor. The others looked with concern and whispered with each other as they began preparing the horse meat for cooking. Hungry stomachs could not wait.

Lim 002 Rock Shelter, Lim Channel, Croatia. 9,000 years ago

The sun sparkled on the water below. The searing heat of the fire was almost too much for the two men. The smell of smoke and sea filled their lungs. The shells gave a hissing sound as they opened in the fire. One of the men dragged the opened shells out of the heat with a stick and laid them in the dust to cool.

Romualdo Cave, Lim channel, Croatia. 3,000 years ago

The procession began at the town’s earthen walls. It was a solemn occasion. The one they carried had been a father, a craftsman, and a warrior. The procession made its way down the well-worn trail to the sacred place. Into the earth and under the town he would go. When they arrived at the hole in the rock, the priest led them in a prayer to the gods before the man’s kin carried his body into the hole and laid him down upon the mud as bats flew around their heads. Tears were shed, but all knew that he would be with them always. Like all of their ancestors, he had become part of the foundation of their home.

Scenarios constructed by Professor James Ahern

Based on Anthropological Findings, We Can Imagine the Past

The view looking out from Abri Kontija. (James Ahern photo)
Informed and Wyomings future through internships

Founded in 2005, with its office in Laramie, AHW has been working to increase its visibility and outreach throughout our Wyoming communities. As AHW’s first intern, Anderson helped to launch the organization’s website, inviting Wyoming residents to communicate with the AHW about spaces and places, including school buildings and libraries, that are important to them. “Transferring Web content to a new host template was my primary project,” explains Anderson. “In doing so, I was able to help edit and choose which information to include on the new website. In a way, I was given the responsibility to determine how the organization is presented to the general public. I learned not only how to edit a website’s content and appearance using the program Squarespace, but I also learned how important multimedia and online engagement is for twenty-first century organizations.”

In addition, the AHW partnered with the State Historic Preservation Office (SHPO) to host a conference, Preserve Wyoming, at which Anderson offered a presentation about AHW. Preparing a talk gave Anderson an opportunity to consider more deeply what historic preservation is and its personal importance to him. “Historic preservation is a unique way for me to contribute to the betterment of society,” he says, “while simultaneously satisfying my desire to create beautiful design and unique spaces, and my specific approach to historic preservation is one that focuses on the opinions of people in individual communities that actually use the historic buildings in question.”

When Anderson’s internship was completed, he continued to work with the AHW a couple of hours each week to produce Web content and stories. He notes, “To be able to say that I worked for a statewide historic preservation nonprofit will look beautiful on my resume. I also have had the terrific opportunity to work with and learn from some of the best preservation minds in the region.”

Anderson plans to pursue a graduate degree in historic preservation, American studies, or, perhaps, urban studies. He credits his internship with the AHW with helping him to gain a sense of direction and purpose in his academic and personal lives. “The most important thing that I learned while interning with the AHW was that people in Wyoming really love barns,” Anderson jokes. “More seriously, though, I learned that relationships between different institutions within the same general movement can have divergent interests that complicate what should be common goals. If individual citizens, private non-profits, and state and federal organizations can’t work together effectively, then the ability to preserve historic resources can be limited.”

During the spring of 2015, Casey Terrell, Department of Political Science graduate (2015), served as an intern for the 63rd Wyoming State Legislature. He was one of the first UW students to participate in a new 12-credit-hour internship. “This expanded internship allowed me to live in Cheyenne full time, rather than commute back and forth to Laramie, which always is risky during the early spring when the session convenes,” says Terrell. “More important, it allowed me to really immerse myself in the legislative process.”

Terrell selected both the House and Senate Committees on Mineral, Business, and Economic Development to work with during the session. His duties included assisting committee members with public hearings, conducting research on legislation, and providing administrative support. “Before the session, I was considering a future in natural resources, but I was not sure if I would still be interested in the field outside of the classroom,” Terrell says. “Since I wanted to test out the possibility of a future career in the field, I decided these committees would help me make a decision. I was very privileged to serve under Chairman Von Flatern of the Senate and Chairman Lockhart in the House. My involvement with these committees allowed me to directly observe bills from the moment they were introduced, with all the amendments and discussion in between, to the moment they became law.”

Observing the process from start to finish helped Terrell to develop a unique perspective on the legislative process. “In this day and age,” notes Terrell, “many people are upset about disagreements in our government, but from what I saw, disagreements between legislators create the best end product. I witnessed many instances where a bill would be fluidly working its way through the process when a legislator would present an issue that had been missed before, thus requiring an amendment. To the political outsider this appears to be unnecessary encumbrance, but I came to learn that these moments are why representative democracy works.” Essentially, laws begin as ideas. As those ideas are fleshed out, with input from individuals with conflicting perspectives, laws that serve the greater good are put into place.

Terrell says that his internship influenced him in a personal way, as well. He was challenged to look at private issues from new perspectives simply by watching the leadership of Wyoming’s policy makers. He noticed a prevailing principle that no matter how differently individual legislators viewed a specific issue, they maintained a sense of decorum and respect. “Many an afternoon I would watch two individuals with opposing points of view clash in the chambers during debate, only to watch them embrace each other with a handshake and a smile at a reception that night,” Terrell explains. “This is a lesson that I carry with me to this day.”

Following his Wyoming State legislature internship, Terrell was hired to intern with Senator John Barrasso’s Cheyenne office. Currently, Terrell is attending the UW College of Law, pursuing a joint juris doctor and master’s degree with the Haub School of Environment and Natural Resources.

“My internship experience helped me decide that I should pursue this dual degree program,” Terrell says, “I learned how important natural resources are going to be to the future of Wyoming—my home—and I want to play a role in that future.”
Thornton, Colorado, native, Ashley Dafoe, says it was her early love of dance that led to her fascination with the structure—and, specifically, the bones—of the human body. This curiosity led her to pursue an emphasis in biological anthropology. “When I see skeletal remains, I want to know who the person was and what their life was like before they died,” she explains. “I believe that the field of biological anthropology, both current and future, will allow ancient remains to ‘live’ in the lab, rather than settling somewhere forgotten.”

During summer 2016, Dafoe deepened her knowledge about her area of interest by participating in a ten-week summer internship hosted at the National Museum of Natural History, Smithsonian Institution, in Washington, D.C. “Going into this experience, I had ‘textbook’ knowledge. I understood the human skeleton but had no idea how to conduct research. I could tell you that someone had this disease or that break, but I couldn’t contextualize it. I couldn’t see how a disease or break fit into the bigger picture of that person’s experience of a world in a different time.”

Her Smithsonian mentor, Physical Anthropology Collections Manager David Hunt, taught Dafoe how to take a seemingly small piece of information and prod more deeply until she could understand how that small piece fit into a much larger puzzle. While working with one of the premier anatomical human skeletal collections in the world (the Robert Terry Collection), Dafoe systematically gathered data of metric and non-metric variables from 880 individuals. Besides informing her own investigation, Dafoe’s results were added to the collection for use by other researchers. She explains, “My project focused on osteometrics—measuring bones—of the tibia. My project was two-fold, the first part explored reliability of measurements we take for determining sex. The second part looked at inter- and intra-observer error.”

Learning how to design research and develop a literature review were among the skills that Dafoe gleaned from her internship. She also came to appreciate the importance of collaboration in meaningful research. “Thinking of it this way makes research a lot less scary,” she notes. “I can rely on other experts just as they would rely on me. This kind of collaboration is often hard to find, but when done correctly, it is invaluable.”

Dafoe says that her internship experience helped her to develop a new-found self-assurance. “I have learned to be confident in what I know, to be confident in what I say, to be confident in asking for help. If I had been the timid intern who stood back and let my knowledge be overshadowed by those around me, the experience would have been wasted.”

Previously, Dafoe participated in excavations of Paleolithic, Roman, and Late Middle Ages archaeology sites in Croatia, as well as a skeletal case study of three nineteenth century burials recovered in Wyoming. She will graduate in May 2017 and plans to enter a Ph.D. program the following year to study skeletal biology, juvenile trauma, and paleopathology.

The Natural History Research Experience (NHRE) program covers all departments within the National Museum of Natural History. Of the 450 students who applied for the 2016 internships, 18 were selected, two of those 18 were UW students.

Elizabeth Dalyn Grindle is a senior from Pavilion, majoring in anthropology and environment and natural resources with a minor in drawing. Originally, she wanted to be a wildlife biologist, then she thought she might like to write for National Geographic, but after taking an introduction to cultural anthropology class, Grindle found her calling.

Grindle says that hands-on learning is best for her, so participating in a Natural History Research Experience (NHRE) Internship at the National Museum of Natural History at the Smithsonian Institution was a perfect way to spend the summer of 2016. She worked with Research Scientist Torben Rick, who specializes in archaeobiology. Grindle’s project involved analyzing a collection of sturgeon bones from the Oregon Coast with the goal of developing a better understanding of sturgeon fisheries of the past to direct current conservation efforts for both the green and white sturgeon—the green is near threatened and the white is declining.

Funded by the National Science Foundation, Grindle’s internship gave her a sense of what her future job might entail. She had a great deal of independence in developing the main research question, methodology, and work routine. “My project is roughly what I’d like to do with my career,” she says. “I want to go into environmental archaeology, which studies past environments and how people used them, and then—but not always—applies this knowledge to current issues spanning agriculture to conservation.”

Besides working in the lab, Grindle took exclusive tours of various natural history collections. “We had the opportunity to see the best of each department, which is really quite special,” she comments. “My mentor told me that he hasn’t seen many of the other departments.”

In addition, Grindle went to seminars on graduate schools, grant writing, and NSF fellowships. “One very important aspect of my internship was the amount of networking I was able to do,” she says. “I literally met people who have my dream job. My mentor was my initial contact and is the person I talked to the most, but I also met people who work in the lab on contract and visiting researchers who are using the lab space.”

Grindle lived in a dorm at George Washington University and was in walking distance to the museum. “The city had something for me to do every day,” she notes, “which, as a Wyoming native, I’m not used to.” She took advantage of the opportunity to visit other Smithsonian museums, monuments, federal museums, the zoo, parks along the Potomac, and shopping in the Georgetown District. “I am fairly certain,” she adds, “that I will be going to graduate school in a much more populated place than Laramie, so learning how to navigate and live in a city is an invaluable experience.”

Grindle has taken advantage of other opportunities at UW, as well. In summer 2013, she participated in an immersion course with the Maori in New Zealand; and, in spring 2014, she studied abroad in Australia. As a McNair Scholar, Grindle completed a research project on the stable isotopes of human remains, and, in 2015, she attended the archaeological field school in Croatia.

Grindle will graduate this December and is applying to graduate schools that focus on zooarchaeology; in particular, ungulate domestication. “As no ecosystem is untouched,” Grindle notes, “archaeology can contribute to learning how to more sustainably interact with the environment by understanding the different ways in which it was done in the past.” What a wonderful way to inform the future.
Department of History professor receives Western Heritage Award for best magazine article

Professor Renee Laegreid, Department of History, received the National Cowboy and Western Heritage Museum’s Western Heritage Award for Best Magazine Article this past spring. The award recognizes her nonfiction article, “Finding the West in Twentieth-Century Italy,” published by the Western Historical Quarterly. Located in Oklahoma City, the museum gives awards for multiple categories, including film and television, music, and literary endeavors.

Laegreid, whose work was featured in the 2015 issue of Elevations, tells how, beginning in the late nineteenth century with William F. “Buffalo Bill” Cody, the cowboy emerged on the national scene, reflecting national values, goals, and attitudes among Americans and toward other nations. Although not much has been written about the influence of the American cowboy in Italy, which had its own cattle drive traditions, in the late nineteenth century, Italy also used the cowboy to promote its own a sense of national cohesion and identity.

Laegreid specializes in the history of the American West, with a focus on gender and culture in the late nineteenth to mid-twentieth centuries. Her current research projects involve cultural and social analysis of Western iconography.

Evidence of continental collisions found in Wyoming

Professors Carol Frost and Ron Frost and Research Scientist Susan Swap, Department of Geology and Geophysics, authored a paper that discusses evidence of continental collisions in Wyoming’s Teton Range, dating to as early as 2.68 billion years ago.

Published in the January 22, 2016, issue of the peer-reviewed journal, Geochimica et Cosmochimica Acta, their research shows that plate tectonics were operating in what is now western Wyoming long before the Himalayas began to form between 40 and 50 million years ago.

“In fact, the remnants of tectonic activity in old rocks exposed in the Teton Point to the world’s earliest known continent-continent collision,” says Carol Frost, lead author. “While the Himalayas are the prime example of continent-continent collisions that take place due to plate tectonic motion today, our work suggests plate tectonics operated far, far back into the geologic past.”

Supported by the National Science Foundation, the scientists reached their conclusions by analyzing exposed granite in the northern Teton Range and comparing it to similar rock in the Himalayas. These igneous rocks were formed from decompression melting, which involves the upward movement of the earth’s mantle to an area where pressure is decreased. As the earth’s mantle melts, magma forms. While the Tetons are a relatively young mountain range formed by an uplift along the Teton Fault less than 9 million years ago, the exposed rocks there are among the oldest found in North America.

While the mechanisms that formed the granites of the Teton and the Himalayas are comparable, according to research results, significant differences between the rocks of the two regions exist. Specifically, the ancient crust that melted in the Teton contained less potassium than the more recently melted crust found in the Himalayas.

Recent College of Arts and Sciences graduate receives fellowship

College of Arts and Sciences graduate Michael Huntington (B.A., secondary mathematics education, 2009; Ph.D., mathematics, 2015) is a 2016 Knowles Science Teaching Foundation (KSTF) fellow.

Huntington teaches mathematics classes, primarily grades 9-12, at STEM High School in Highlands Ranch, Colorado. Teaching assignments include pre-calculus, calculus, and cryptography. He also sponsors the school’s Math Club. “I am very honored and excited to receive the fellowship,” Huntington says. “I hope that I will be able to be a positive voice in improving education. I also am excited to represent the University of Wyoming.”

The KSTF Teaching Fellowship, targeting new mathematics and science teachers, spans five years and covers three phases.

Hoyt Hall renovation is complete

Conceived in 1916 as a women’s dormitory, Hoyt Hall recently underwent a major renovation. The $2.9 million update included life-safety and accessibility improvements and enhancements to interior finishes in faculty and staff offices, classrooms, study areas, and other building spaces. The work also included energy-efficient upgrades to current lighting, rest room renovations, installation of new electrical and data systems wiring, and replacement of the existing fire alarm system.

Home to the Departments of English and Modern and Classical Languages, as well as the Creative Writing Program, the 100-year-old building is now a safer and more functional building. A dedication ceremony took place in September.

“All of our classrooms have been renovated, and some have been redesigned with the result that Hoyt Hall has much friendlier, more flexible teaching spaces with all the benefits of twenty-first century technology,” says Associate Professor Peter Parolin, head of the Department of English. “In addition to its historic charm, Hoyt now possesses the essential features of a modern university building.”

Huntington and other fellows will participate in professional development led by experienced educators. Selection criteria include content knowledge for teaching, exemplary teaching practice, and leadership qualities.

“The fellowship is a long-term commitment to improving myself as a teacher, but also becoming a teacher leader,” he says. “They [KSTF] provide a great community of diverse and dedicated teachers from around the country to meet and talk with. They also provide amazing educational contacts. We also are given money for professional development and supplies, which allows us to explore and experiment with different ideas.”
A&S Bookcase

Krautrock: German Music in the Seventies
Ulrich Adelt
University of Michigan Press, 2016

A catch-all phrase for 1970s white German rock groups that blended African-American and Anglo-American influences with the electronic music of European composers, Krautrock includes groups like Can, Popol Vuh, Tangerine Dream, and Kraftwerk. Arising out of the German student movement of 1968, the music connected leftist politics with experimental rock music, and, later, electronic sounds. Krautrock focuses on the construction of the music, and, later, electronic sounds. It includes groups like Can, Popol Vuh, Tangerine Dream, and Kraftwerk. Arising out of the German student movement of 1968, the music connected leftist politics with experimental rock music, and, later, electronic sounds.

First Words: On Dostoevsky's Introductions
Emeritus Lewis Bagby
Academic Studies Press, 2016

"First words are nearly always important, marked in a special way for their being the initial utterances we encounter as we enter into the world of the text" (Bagby 2016). Dostoevsky attached introductions to many of his works such as Notes from the House of the Dead, Notes from Underground, The Devils, The Brothers, and Karamazov. Despite Dostoevsky's efforts to call his readers' attention to these introductions, they have been neglected as an object of readers' attention to these introductions, they have been neglected as an object of importance, marked in a special way for their being the initial utterances we encounter as we enter into the world of the text" (Bagby 2016). Dostoevsky attached introductions to many of his works such as Notes from the House of the Dead, Notes from Underground, The Devils, The Brothers, and Karamazov.

When Leaves Change Color
John Bradford Branney
Anaphora Literary Press, 2015

When Leaves Change Color opens with a vivid description of a violent attack, part of the 1680 Pueblo Revolt on a sprawling New Mexico family ranch. This well-researched, adventure-based story on the introduction of horses to the Plains Indians takes the reader through intricate, divergent sub-plots that come together in an unexpected way. Branney's research for When Leaves Change Color began decades ago when he discovered wild horses in his home state—Wyoming. Other Branney books include Shadows on the Trail, Saving Miguel, Ghosts of the Heart, Light Hidden by Darkness, Winds of Eden, and Rock Strikes Three.

Friendship, Love, and Hip Hop
Katherine Hejtmanek

Friendship, Love, and Hip Hop looks at how young Black men live and change inside a mental institution in contemporary America. While the youth in Katherine (Kate) Rose Hejtmanek's study live within the rigidity of institutional life, they also effectively finesse what Hejtmanek calls the "give"—friendship, love, and hip hop—in the system. Hejtmanek is a psychological, cultural, and medical anthropologist with a focus on children and youth. She has a joint appointment in the Department of Anthropology and Archaeology and the Children and Youth Studies Program at Brooklyn University.

From Fidel Castro to Mother Teresa
Joe McGowan, Jr.
University Press, 2012

Joe McGowan, Jr., (B.S. Journalism 1952; A&S Outstanding Alumnus 1994) shares the challenges—from dropping in by helicopter to being expelled from a country—of reporting in areas torn by conflict, natural disaster, and powerful political regimes. He documents his experiences covering wars, revolutions, famine, a killer earthquake, and a saint-to-be, and each assignment is sprinkled with insightful personal observations. Those interested in the life of an old-fashioned newshound will find this book fascinating.

Professor Eric W. Nye
Palgrave MacMillan, UK, 2015

Professor Eric Nye became interested in the Cambridge Apostles while working on a project to renew interest in the writer John Sterling. Nye presents John Kemble's Gibraltar Journal and other appended documents to give readers new insight on the Cambridge Apostles and their 1830 Spanish expedition. "The Apostles" was a free-thinking society of which Kemble was a prominent member. After his brief adventure as a revolutionary, documented by his journal, Kemble settled in Cambridge where he embarked on his edition of Beowulf (published in 1835) and lectured to dwindling audiences on the history of the English language.
Giving with purpose is A&S alumni couple’s philosophy

Giving is important; intentional giving is both important and heartfelt. A&S Alumni Brittany D.M. Hodges and Robert Mathes, members of the College of Arts and Sciences Board of Visi-
ton, embody a spirit of purposeful giving in all that they do.

Brittany (B.S. chemistry 1999; Ph.D. analytical chemistry Purdue 2008) and Rob (B.A. philosophy 1997; J.D. UW Law School 2000) first met in 1996 at the end of Brittany’s freshman year when she came into Rob’s room with a mutual friend looking for a Frisbee after finishing her finals. “Unfortunately, I had not finished my finals and was not very cordial,” quips Rob. “The next fall, we were introduced again through mutual friends and started dating.” They dated from 1996 to 2008, and, of much the time, theirs was a long-distance relationship, while Brittany worked at the Idaho National Laboratory and then later moved to Indiana to attend graduate school and Rob went to law school and then worked in Cheyenne and Denver. “We finally both made it to Denver,” notes Rob, “and Brittany said yes to a marriage proposal.”

Their life in Denver is full, both personally and professionally. They have a three-year-old son who keeps them on their toes and brings them much joy. Brittany owns Inkwell Scientific, LLC, a writing and editing business with a focus on scientific, medical, and technical writing. She writes and edits assorted content, including marketing materials, scientific application notes, journal articles, grants, and Website content, and she also does Website design and copywriting. “My clients include a wide variety of companies,” notes Brittany, “ranging from scientific instrument companies to builders and real estate firms.” Rob is a partner at Davis Graham & Stubbs, LLP, an exclusive member firm of Lex Mundi—a network of independent law firms. His practice focuses on public land law, including environmen-
tal compliance and federal land use and planning. “I’m fortunate in that most of my projects are in Wyoming,” Rob says, “so my practice keeps me traveling to Wyoming on a regular basis.”

Both Brittany, who has lived in many places, including Buffalo, Wyo-
ing, and Rob, who was born in Laramie and moved to and grew up in Gillette, have strong loyalties to Wyoming and UW. Each of their parents attended UW, earning their degrees in the late 1960s and early 1970s. Encouraged by their parents to attend UW, Brittany and Rob made the most of their educational opportunities. Rob was a member of Pi Kappa Alpha Fraternity and served as a student senator and chair of the Public Relations and Budget and Planning Com-
mitees for ASUW. Brittany was a member of Delta, Delta, Delta Soroity and was the Department of Chemistry’s representative to A&S Student Council. They also were active in service organizations like Iron Scull and mortar Board. They both attended conferences in their respective fields through generous programs that subsidized their travel and conference fees. “Those experiences shaped our views and broadened our understandings of our studies,” says Rob.

Those experiences also taught them the importance of giving back, so they established the Robert C. Mathes and Brittany D.M. Hodges Philanthropy fund in 2014 and the Robert C. Mathes and Brittany D.M. Hodges Chemistry Endowment in 2016. “We want to provide opportunities for students in philosophy and chemistry to travel and participate in a conference or research experience,” says Brittany. “We hope these students will come away with excitement about their stud-
ies, a better understanding of their fields, an enriching travel experi-
ence, and some wonderful memories at the same time. We know financial strain can limit opportunities for travel and engagement with the UW community, and we want our scholarship money to remove financial barriers.”

While UW is Brittany and Rob’s primary philanthropic focus, they also give to their church and some other organizations that touch them annually. Brittany is a founding member and on the Board of Directors of Kiva Colorado, an organization dedicated to improving the lives of families through parental education and support services. Rob is a longtime volunteer with the Rocky Mountain Mineral Law Foundation, a collaborative educational nonprofit committed to scholarly and practical study of the law and regulations related to mining, oil and gas, water, public lands, energy, and environmental protection.

Brittany and Rob’s general philosophy concerning philanthropy is to “give back more than you receive,” which is why they give to UW, where they were well prepared for a purpose-driven life that includes wonderful careers. “A remarkable UW education is a tradition for both of our families,” says Rob. “We hope to pass on that remarkable educational experience to others.”

Now, that is complete living.”

A&S honors amazing people

This past spring, the College of Arts and Sciences honored an outstanding former faculty member, an outstanding alumna, and the 2016 Extraordinary Merit Award winners in teaching, research, and advising.

Professor Emeritus Walter Gordon Langlois is the 2016 Outstanding Former Faculty award recipient. He joined UW’s Department of Modern and Classical Languages after teaching at the University of Wisconsin (1954-1956), Lycée Sisowath in Cambodia (1956-1957), Boston College (1957-1964), and the University of Kentucky (1964-1974). He was hired as both department head and professor of French.

In addition to being an excellent instructor, Langlois was a prolific researcher. His primary area of interest concerned the French writer and states-
man André Malraux.

During his distinguished career, Langlois was a member of the Modern Language Association, the American Association of Teachers of French, the Malraux Society, the Manuscript Society, serving as president for several years, and the Société d’étude du XXe Siécle (Twentieth Century Study of Society). He was a visiting professor at Osaka University (Japan, between 1984 and 1986, as well as director of National Endowment of the Humanities summer sessions at UW in 1984, 1988, 1989, and 1990.

Arvada, Colorado native Katie Groke Ellis was named the 2016 Outstanding Alumna. While starting as a defensive back for UW Women’s soccer team, Groke Ellis double majored in women’s stud-
ies and political science.

Currently, Groke Ellis is a senior associate at SE2, an integrated com-
munications agency that works to change policy, opinion, and behavior. She is on the board of the Women’s Lobby of Colorado, and the Arvada West High School Foundation. Groke Ellis speaks at events for the Wyoming Women’s Foundation—maintaining her connections to Wyoming—and fairly recently offered a brown-
bag presentation, “What to do with a Degree in Women’s Studies,” on the UW Campus. Clearly, Groke Ellis has done quite a bit with her degree in Women’s Studies! Along the way, she also managed to earn a master’s degree in public administration from the Uni-
versity of Colorado at Denver, and she and her husband John have two children, Chloe and Gus.

2016 Extraordinary Merit in Research recipients are: Ellen Cazzato (Department of Botany and Geography Geophysics), Antoinette DeNapoli (Department of Religious Studies), David Mes-
senger (Global and Area Studies and Department of History), Cliff Reife (Department of Geology and Geophysics), and Qian-Quan Sun (Department of Zoology and Physiology).

2016 Extraordinary Merit in Teaching recipients are: Joshua Clapp (Department of Psychology), Rob Colter (Department of Philoso-
phy), Conxita Domènech (Department of Modern and Classical Languages), Anna Zajacova (Department of Sociology); and the 2016 Extraordinary Merit in Advising recipient is Robert Concoran (Department of Chemistry).

The College of Arts and Sciences is appreciative of all gifts!

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