Winter 2018

Wooster Magazine: Winter 2018

Caitlin Paynich

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Collecting Science
Answering Questions for Generations of Researchers

Also inside
Digital curation techniques reveal cultural insights in hundred-year-old documents.
What can a fossil of a prehistoric squid tell us about the Pacific Ocean? What do the writings of our Founding Fathers’ wives or the stories written in old newspapers tell us about the culture hundreds of years ago and how it applies to the way we live today? Alumni from The College of Wooster are making it possible for researchers to ask questions like these by presenting data in interesting ways. As the new editor of Wooster magazine, I’ve had the opportunity to talk with these alumni and learn not only about their passion for their research but their passion for Wooster.

It is an honor to write to you as the new editor of a publication that inspires pride for so many of you. With a bachelor of arts degree in writing and a master’s in communication, I’ve always had a passion for telling compelling stories. I have worked for several years in liberal arts education and alumni communications in Ohio and Michigan. One of the aspects about my work I enjoy most is talking with alumni about the impact their alma mater had on them and the ways their experience continues to shape who they are today. In this issue of Wooster magazine, learn about what it means to curate a collection of scientific specimens from alumni who understand fossils in the way librarians understand books. Read about an alumna and also a team on campus using different digital techniques to explore new meanings in documents written hundreds of years ago.

Hearing these stories gave me a new appreciation for the value of the data and tools researchers use to ask complex questions about the world and its history and draw conclusions about how to move forward. Along with College leadership and our design team, I now embark upon a similar research process to gather meaningful data about Wooster magazine and its readers. As we look closely at the structure, design, and content, we want to hear from you. We want to consider the things the magazine does well along with any ways it could improve. Are the stories interesting and compelling to you? Is there information that you’re looking for that you can’t find? As our readers, your thoughts and input matter and will be used to shape the evolution of this publication. We encourage you to visit the link above and take the survey to share your feedback.

I look forward to reading your thoughts and ideas about what makes you proud of Wooster magazine and how it can continue to develop.

CAITLIN PAYNICH
Editor
LIKE HOLDING A TIME MACHINE
Look at scientific collections through the eyes of alumni experts and researchers.

DIGITAL TRICKS CONNECT REVOLUTIONARY INSIGHTS
Alumna Connie Schulz ’64 uses digitization to capture the complexity of history.

COLLABORATION CAPTURES CULTURAL CONNECTIONS
Research by English Professor Jennifer Hayward creates digital curation experience for Wooster students.

ONE QUESTION UNEARTHS A LIFETIME OF DISCOVERY
Professor Olivia Navarro-Farr leads the exploration of a major Maya archaeological site.

Departments

BOOKS
OAK GROVE
CLASS NOTES
A WOOSTER MOMENT

On the Cover:
Bones, preserved specimens, fossils, plants, and other items form scientific collections around the world and act as a different kind of library for researchers. These specimens come primarily from The College of Wooster’s own biological collection and collections curated by Wooster alumni.

Photos: Costas Soler and Sheila Steiner, University of California Museum of Paleontology; N. Gilmore, Academy of Natural Sciences of Drexel University; Matt Dilyard, The College of Wooster
Books! *Recently published by alumni and faculty*

**John Keyse-Walker ’78**  *Beach, Breeze, Bloodshed*, Minotaur Books, 2017

Coincidentally displayed together at a Barnes and Noble in Westlake, Ohio, Miraldi and Keyse Walker both took to writing page-turning mystery novels after several years practicing law in Ohio. *The Edge of Innocence*, a historical fiction novel, tells the story of a 1964 murder trial in which Miraldi’s father was one of two defense attorneys. *Beach, Breeze, Bloodshed*, the second novel for Keyse-Walker, continues the story of Constable Teddy Creque from *Sun, Sand, Murder*, winner of the 2015 Minotaur Book/Mystery Writers of America First Crime Novel Award.

**David Miraldi ’75**  *The Edge of Innocence*, 2017

**John Weitzel ’49** with Lesley Himmel  *My Friend, Henry Mancini*, WestBowPress, 2017

John Weitzel ’49 grew up with Henry Mancini, the Academy Award winning composer and director who wrote many well-known titles including "Breakfast at Tiffany's" and "The Pink Panther Theme." In the 1980’s, John and his wife Dixie would perform for various venues, sharing John’s stories of his friendship with Henry Mancini, playing live music on the piano and organ. John continues to share the program with retirement and nursing homes and church groups. He regales their adventures as students and best friends in the seventh grade in Aliquippa, Pennsylvania, and their connections throughout life in his recent book.

**Karen McClintock ’75**  *My Father's Closet*, Trillium, 2017

Karen McClintock returned to Ohio last spring for the release of her memoir, *My Father's Closet*, telling the story of her family’s secret about her gay father and his on-campus partner. She enjoyed connecting with friends as she taught and read chapters from the book at libraries, bookstores, and seminaries. She said, "Without Wooster, this book and this career would not have been such a fantastic ride."

**John Barnard, Assistant Professor of English**  *Empire of Ruin: Black Classicism and American Imperial Culture*, Oxford University Press, 2017

**Shannon King, Associate Professor of History**  *Whose Harlem Is This, Anyway? Community Politics and Grassroots Activism during the New Negro Era*, NYU Press, 2017

**Boubacar N'Diaye, Professor of Africana Studies**  *Mauritania's Colonels: Political Leadership, Civil-Military Relations and Democratization*, Routledge/Taylor & Francis Group, 2017

**Garret Thomson, Professor of Philosophy** and Scherto Gill  *Human-Centred Education: A Practical Handbook and Guide*, Routledge, 2017

New book to share?  Email cpaynich@wooster.edu.
In an event that drew more than 3,000 to Timken Gymnasium, moderators Aubri McKoy ’20 and Denise Bostdorff, professor of communication studies, discussed a wide range of social issues with Kareem Abdul-Jabbar. The NBA legend and author of “Writings on the Wall: Searching for a New Equality Beyond Black and White” delivered the Peter Mortensen Lecture, part of the College’s first-year seminar program.

Answering questions submitted by Wooster students, the conversation covered a wide range of hot-button topics including the 2016 election, the importance of a free press, women’s and LGBTQ+ rights, environmental issues, Colin Kaepernick and the NFL, life lessons from Abdul-Jabbar’s basketball career, and the value of arts and humanities. A reader and scholar himself, Abdul Jabbar stressed the need to think critically and emphasized the idea that “knowledge is power,” encouraging everyone to “maintain curiosity…look for information…explore the world…find out about different cultures, find about the past.”
LGBTQ Event at Alumni Weekend Inspires Engagement

Last June at Alumni Weekend, returning alumni from many generations attended an open reflection session designed to explore the LGBTQ (lesbian, gay, bisexual, transgender, queer) experience at Wooster in the 1960s—a discussion that’s leading to growing conversation and engagement among alumni.

“It was cathartic for many of us—both LGBTQ alumni and allies. It provided a forum for testimony about our experiences and feelings about Wooster,” said Wayne Cornelius ’67, one of the moderators of the discussion held in Lowry Center. “Recalling the time that we spent deep in the Wooster closet, this was a first chance to share that experience—and its life-long consequences—with a sympathetic audience of alumni, students, and staff.”

The open format allowed the audience to hear testimony from recent LGBTQ graduates and current students. “We were delighted to hear about their positive experiences and the support they received at the College,” said Cornelius. Today, Wooster students participate in campus-wide pride celebrations. They also benefit from specific support groups and Safe Zone training, designed to promote a welcoming environment for all gender identities, gender expressions, and sexual orientations and open to all members of the campus community.

“Students have the opportunity to hear from alumni and network with them,” said Melissa Chesanko, director of sexuality and gender inclusion. “We’re always thinking about what else we can do, but interacting with alumni gives them a chance to reflect on what we’ve done in the past few years.” Along with the Center for Diversity and Inclusion, Chesanko is collecting audio and video interviews with alumni to continue to share their experiences with the community. Contact her at mchesanko@wooster.edu to share a video or learn more about supporting current students.

The breakfast discussion at alumni weekend inspired the organization of the LGBTQ+ Alumni Group, a social network that spans generations and embraces LGBTQ+ alumni and allies internationally. Building on the organization Going True formed in 2010, the group intends to spark informal regional gatherings of LGBTQ alumni and serve as ambassadors to the community for potential students with similar experiences. The first regional gatherings are being planned for 2018 in Cleveland, Washington, D.C., Chicago, Boston, New York, and San Francisco.

Future Alumni Weekend celebrations will also include a discussion of LGBTQ experiences using the 2017 event as a model. “We want to encourage LGBTQ alumni to connect in whatever way they can,” said Cornelius and Laurie Priest ’95 who are spear-heading this new group. “We believe there are many LGBTQ alumni who are not currently engaged with Wooster with feelings that have discouraged them from reconnecting. We love Wooster and are grateful for so many things about the education we received. We fully recognize that Wooster has not always been supportive of LGBTQ students, but we feel a new day has dawned and want to move forward.”

Alumni interested in learning more, being involved, or hosting or participating in a regional gathering, may contact Wayne Cornelius at wcornelius@ucsd.edu or Laurie Priest at lpriest@mtholyoke.edu.

Above: Erin Cross ’95 spoke at the Lavender Celebration last spring, a ceremony honoring graduating lesbian, gay, bisexual, transgender, queer, intersex, asexual and ally (LGBTQIA+) students for their achievements and strength in the face of adversity at Wooster.
G
eology grads, Clara Deck ’17 and Sarah Frederick ’15, recently published an article in *Forests*, a monthly journal of forestry and forest ecology, for their investigation as undergraduates on how forests in eastern Russia are responding to climate change.

Under the guidance of Greg Wiles, professor of geology, Deck and Frederick had two complementary roles in the publication, titled “Elevational Transect and Hemisphere-Wide Comparisons, Kamchatka Peninsula, Russian Far East.” Frederick performed fieldwork, meticulously taking straw-size samples of 500 or so trees, and Deck measured individual tree rings in the lab at Wooster, then analyzed the tree rings for their climate signal.

Frederick looks back on her fieldwork, which took place in July 2014, as a career-altering experience that led to her current work at the Laboratory of Tree-Ring Research at the University of Arizona, where she is pursuing a master's degree. “It was amazing … and very influential for me. Most undergrads don't have the opportunity to do international field research. I found a niche that I really enjoyed doing,” she said.

In the lab, it was an equally valuable experience for Deck, who studied permafrost in Alaska for her Independent Study. With Wiles navigating her through the grunt work that resulted in this publication, she gained an appreciation for the “long and laborious process” of being able to date the trees and measuring how much they grew each year by the width of each ring.

“In the case of these trees in Russia, we found that they're ring width was directly correlated to summer temperature. It's a helpful tool to see back into the (past) to see what's going on with the climate,” remarked Deck, who is listed as the first author of the paper and is now in the earth and climate sciences master's program at the University of Maine, studying ice sheet stability.

Joining Deck, Frederick, and Wiles as authors on the project were three Russian geologists, who were vital in locating the right sites for the fieldwork as well as interpreting the data. Rosanne D'Arrigo, a tree-ring researcher at Columbia University’s Lamont-Doherty Earth Observatory, and Nick Wiesenberg, Wooster's geological technician, were also co-authors.

Wiles added that further collaboration among Wooster, Lamont, and the Russians will continue, and that the data set Frederick, Deck, and their colleagues collected in Russia is archived in the International Tree Ring Databank, a resource for climate scientists interested in climate and ecological research.
Nicosia Shakes, assistant professor of Africana studies at The College of Wooster, accepted the National Women's Studies Association/University of Illinois Press First Book Prize at the NWSA's annual conference in Baltimore, Maryland in November. Her proposed book, *Gender, Race and Performance Space: Women's Activism in Jamaican and South African Theatre*, was recognized as the best dissertation or first book manuscript by a single author in the field of women's and gender studies.

An expansion of Shakes' dissertation, the book will examine theater groups, formed and operated by women of African descent, and how their performances create feminist thought through feminist practice. The groups include Sistren Theatre Collective and the Memory, Urban Violence and Performance Project, based in Jamaica, and the Mothertongue Project and Olive Tree Theater Company, in South Africa.

"My main argument is that theater is one of the best ways to represent women's life experiences … that's what I want readers to leave with," said Shakes, a Jamaican scholar and artist who has been involved in theater for about two decades as an academic researcher, playwright, and performer. Shakes hopes to complete the book by 2019. After that, she plans to expand on her ongoing theatre research, in addition to other areas such as popular culture and black radicalism in the Caribbean.
St. John’s University Taps Wooster’s Lee McBride for Prestigious Visiting Chair

St. John’s University in New York City selected Lee A. McBride III, associate professor of philosophy at The College of Wooster, for a one-semester visiting appointment as the 2018 Peter and Margaret D’Angelo Chair for the Humanities this spring.

Established in 2007, the D’Angelo Chair brings high-profile, multi-disciplinary visiting professors to St. John’s College of Liberal Arts and Sciences. McBride specializes in American philosophy, ethics, and political philosophy, and his current research interests focus on insurrectionist ethics, resistance to oppression, and the philosophy of race. During his semester at St. John’s, he will teach an undergraduate seminar that will focus on the role of experimental inquiry and practical rationality in insurrectionist resistance to oppression. He also will deliver two public lectures on related themes, one on the university’s Queens campus and another on its Staten Island campus.

Insurrectionist ethics, McBride says, does not simply imply pitchforks and physical violence. Rather it advocates “standing up against injustice and oppression; that indignation and irreverence may be appropriate responses to oppression. Many oppressed people learn or are taught, early on, to just take it. But there are times where the norms and conventions need to be called into question—to be resisted.” McBride cites Henry David Thoreau, Frederick Douglass, Martin Luther King Jr., and Angela Davis as examples of American thinkers who have grappled with that question. “There are some pretty fiery things, even anger, in King’s writing that people tend to paper over or downplay,” McBride says. “There’s a whole book of Thoreau’s essays, called The Reform Papers, which paint John Brown as a heroic figure.”

A member of Wooster’s faculty since 2006, McBride has taught courses in American pragmatism, African American philosophy, philosophy of race, feminist philosophy, political philosophy, environmental ethics, philosophy of food, ancient Greek philosophy, and contemporary continental philosophy. He has also advised 33 Independent Study projects. Those projects, he notes, are typically creative and challenging for the student. “I’m learning right along with them.”
Wooster Joins Selective Liberal Arts Consortium

As graduation approaches, more than two dozen Wooster seniors interviewed for positions in New York and Washington, D.C. through the Selective Liberal Arts Consortium, a group that helps top-notch employers recruit talented students with diverse backgrounds, knowledge, and skills from a group of eight highly selective colleges. As the newest member of the consortium, Wooster joins Bates, Bryn Mawr, Colorado College, Grinnell, Haverford, Vassar, and Washington & Lee.

The consortium, founded in 1987, connects students with a wide range of for-profit, non-profit, and government organizations. Students apply for in-person interviews at two January recruiting days, one in New York City, one in Washington, D.C. They also can participate in two video interview days in February and September.

“This is just a terrific opportunity for our students,” said Sarah R. Bolton, Wooster’s president, “and we are so pleased to have been asked to join the consortium.”

This winter, Wooster seniors interviewed with recruiters from Morningstar, M&T Bank, the Pew Research Center, Memorial Sloan Kettering Cancer Center, Sullivan & Cromwell, the FCC, the U.S. Department of Justice, and others.

Campaign Update: $175 million and counting!

With just months remaining until it draws to a close, the Wooster’s Promise campaign has surpassed $175 million in contributions and commitments from the Scot faithful. Included in that total are funds raised to meet the McAfee Scholarship Challenge, announced in September. Made possible by a $2 million bequest from the estate of William McAfee ’32, the challenge was matched dollar-for-dollar by Wooster’s alumni, parents, and friends, adding $4 million to existing and new scholarship funds in just over four months.

As the campaign enters the homestretch, the College is also within striking distance of achieving its goal of 42 percent alumni participation. Every gift made before June 30, whether to The Wooster Fund or one of the other five campaign goals—academic strength, experiential education, student financial aid, and the life sciences—counts. To make your commitment to fulfilling Wooster’s promise, visit the campaign website at wooster.edu/promise
Political science major and offensive lineman for the Fighting Scots, Patrick Mohorcic ’18 traveled to Atlanta and New Orleans this winter as captain of the 2017 Allstate American Football Coaches Association (AFCA) Good Works Team®. Honored during the live broadcast of The Home Depot College Football Awards on ESPN on Dec. 7 (above) and during the Sugar Bowl on Jan. 1, the team refurbished a local youth center and stood at midfield during halftime of the nationally-televised game.

“It’s a truly humbling honor,” said Mohorcic, who was voted captain by college football fans for his exceptional community service accomplishments and dedication to giving back to those in need. “There are a lot of great student-athletes on the Allstate AFCA Good Works Team. I’m really appreciative of all the Wooster fans who voted for me. We went up against several Div. I powerhouses, and it goes to show how powerful the Wooster family is.”

Mohorcic earned his place on this year’s Allstate AFCA Good Works Team® for his commitment to Men Working For Change, a student organization on campus that advocates for the prevention of sexual violence on campus and serves as an awareness group about ways to prevent sexual assaults through seminars and other planned events. Mohorcic also co-founded ScotsCare, an organization with a vision to develop a positive connection between Wooster athletic programs and students with special needs within the Wooster community. Mohorcic is the first Wooster student-athlete to be named to the Allstate AFCA Good Works Team, and he’s the second team captain from a Div. III program.
Most often, research starts with a question, a need or desire to learn more about a particular subject, idea, or solution, but answering those questions can be limited by the resources available. That’s what Wooster graduate April Arquilla ’17 found when she decided to study coral snakes—a group of snakes found primarily in Latin and South America—in her Independent Study. While she and her advisor, biology professor Rick Lehtinen, traveled to Costa Rica as part of a larger research excursion, Lehtinen pointed out that finding snakes in the wild can be harder than you think. Instead, to complete her study, Arquilla relied on specimens of snakes found in scientific collections around the world.

In the same way that books open windows into history and capture information, collections like those Arquilla found act as time capsules and tools for researchers and scientists. In fact, Wooster alumni like Kathy (Bremar) Hollis ’03, John Sime ’09, Erica Clites ’06, and Kristina (Brady) Shannon ’03 take pride in ensuring these collections continue to offer opportunities to ask questions that the scientists who discovered them never imagined.

**A Different Kind of Library**
Hollis likens scientific collections—composed of frozen tissue, bones, preserved specimens, or fossils—to a library of books with infinite possibilities: “You never know how they’ll use what they’re reading,” she said. She manages the paleobiology collection in the National Museum of Natural History at the Smithsonian Institution, with 40 million items, one of the largest fossil collections in the world.
"Scientific collections provide data to answer questions such as ‘What was living, in what place, at what time?’ ‘What was the ecology like?’ ‘How was the world different in the past?’” And further, these specimens together can help answer questions that may be asked in the future, Hollis explained. “Research is only limited by the questions you can ask. Specimens collected for specific studies 70 to 100 years ago are still invaluable for future research.”

For Hollis, making specimens available for research often takes the form of standardization, but organizing natural history is different from cataloging a library of books by subject or author. “Because the collection at the Smithsonian has been around for so long, it hasn’t always been standardized in the same way.” She explained that as the science changes, the organization and information retrieval system needs to continue to evolve as well. “We have collections that are organized by genus and species names, but those names may have been revised multiple times,” she said. “Others are organized stratigraphically; each layer of rock represents a different point in time, but names of strata change as well, so fossils are challenging to standardize in a physical order. Physical organization is really important until we have a complete digital database of the collection that tells us which case, in which drawer, on which floor we can find a specific fossil.”

Though finding effective ways to present fossils in the collection to researchers offers a challenge, Hollis has come to really enjoy that aspect of her work. Like many geology majors at Wooster, Hollis found a mentor in Professor Mark Wilson, and she has always been interested in rocks. “As a kid, I even remember giving rocks as presents,” she says. “I thought everybody liked them.” She says Wilson served as an amazing mentor and also helped reinforce her passion for science and remaining curious about the world.

“These round holes come from bite marks attributed to a mosasaur, the swimming reptile whose fossil remains are also found along the Colorado Front Range.”

What can this fossil tell us?

This specimen is an ammonite, an extinct shelled cephalopod or ancient form of squid related to the modern nautilus, distinguished by a chambered shell.


Discovered in the Late Cretaceous period, this ammonite is from in an inland seaway that once stretched from modern-day Canada to Mexico.

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part of collections work. It’s being part of the bigger picture of scientific pursuit.”

The Bigger Picture of Scientific Pursuit
John Sime, a graduate of Wooster’s geology program and a Ph.D. student at the University of Pennsylvania in the Department of Earth and Environmental Science, sees collections as possibilities for scientists and researchers to pursue. “Paleontologists bring a scientific imagination that recognizes the potential for fossils to answer questions about the history of life. In collections, there is the possibility of opening up a drawer and finding something new,” he said. “There are species described every year that are discovered not in the forests of the Amazon, not at remote locations, but in collections where they’ve been waiting—sometimes forgotten because of lack of resources—and later found and identified as new species.”

Sime frequently uses the collections at the Academy of Natural Sciences of Drexel University in Philadelphia—where he first volunteered at age 13—to explore bigger patterns of evolution that explain the diversity that we see around us. “I’m using fossils to test different hypotheses about how animal life has diversified over many millions of years,” he said. Further, he explained that through collections of fossils collected over time, today’s researchers can answer new questions the early scientists who collected them never considered. Early scientists in the 19th century mapped time based on the fossil organisms they found. “They were creating a roadmap to find mineral resources by asking questions like ‘In what layers am I likely to find coal or oil?’” Sime said, but today the questions have changed. “Paleontology has shifted its focus to questions that involve ecology and evolution.”

Today, Wooster geology alumna Kristina (Brady) Shannon is looking at layers of sediment with those modern questions in mind. As curator at LacCore, the National Lacustrine Core Facility, at the University of Minnesota, Shannon and her team work with researchers to study cores extracted from current lakes and paleolakes (places where lakes used to be) all over the world. “Collecting a core is like putting a straw into a glass of water, putting your finger on top and pulling it out,” explained Shannon. “In each core tube, the material at the top is going to be the youngest and the stuff at the bottom is going to be the oldest. In the lab, we split that tube lengthwise to examine the layers and other structures to see what they reveal about changes in the environment over time or answer other questions.”

Much of their work is in the field collecting samples with researchers. “I really love the fieldwork and that started with course field trips and the work that I was doing in the geology department at Wooster,” said Shannon. She

Crab specimen from Monterey, California
Photo: Costas Soler and Sheila Steiner,
University of California Museum of Paleontology

April Arquilla ’17 studied this specimen of the mussurana (Clelia clelia) from the Academy of Natural Sciences of Drexel University for her I.S. Photo: N. Gilmore/ANSDU
and her team take those field samples and work with Minnesota lake associations to analyze environmental conditions. For example, they can look at a core from a swimming lake that's become overcrowded with algae. “The cores can tell us how changes to the landscape may have impacted what's gone on in and around the lake,” said Shannon. The researchers can then ask questions like: “How have pavement and road salt affected the sedimentation and water quality in the lake? What did the system look like before and are there changes we can make to the area around the lake to get back to a more natural state?”

By definition scientific collections pull together multiple items to answer scientific questions, but these Wooster alumni have noticed a growing trend toward further enhancing collections through digitization or digital specimen records and images. Digitizing a specimen is not like snapping a picture on your cell phone, jokes Hollis: “It’s easy to take a picture, but an image of a specimen needs to be a scientifically useful picture and of digital archival quality. The digital representation needs to be able to be measured and analyzed. When we put 3D image datasets of specimens online, researchers anywhere in the world can have a replica.” Hollis and her team at the Smithsonian, for example, are currently working on a digitization project that is part of a larger partnership involving nine museums and managed by Wooster alumna, Erica Clites. A museum scientist focusing on invertebrate collections at the University of California Museum of Paleontology at Berkeley, Clites credits her Wooster experience for supporting not only her geology knowledge but also her writing and speaking abilities which are critical to effectively managing the Eastern Pacific Invertebrate Communities of the Cenozoic project, EPICC for short.

“There are species described every year that are discovered not in the forests of the Amazon, not at remote locations, but in collections...”  - John Sime ’09
“Coordinating with eight different institutions is really facilitated by being able to be clear in my writing and being comfortable speaking in front of groups,” Clites said. EPICC will digitize a collection of marine invertebrate organisms from along the eastern Pacific coastline all the way from Alaska to Chile. This collaborative of museums will create a digital dataset based on a combined collection of 1.6 million invertebrate fossil records of what was living along the eastern Pacific coast from the end of the era of the dinosaurs to about 10,000 years ago.

“It’s not just one type of fossil but everything found in that area: bivalves, gastropods, decapods, crustaceans, barnacles, echinoderms, and more,” said Clites. While similar studies have been done more locally, EPICC will allow researchers to study the area on a much larger scale. “This is especially neat for this area because it’s (arguably) the largest continuous coastline in the world and the arrangement of the continents has been this way for most of the past 66 million years. It gives us a chance to look at, over a wide variety of environments, how ocean temperature is changing over time,” she said. Studying the organisms in the compiled collection will allow scientists to study these climatic and environmental patterns in different ways and might in the future answer questions Hollis and Clites haven’t anticipated.

Building up these scientific collections like a database allows them to continue to act as primary data in research. “Our goal is to scale up the data from one fossil not just in the collection here at the Smithsonian but all natural history collections,” said Hollis. “We’re taking a big data approach to analyzing what collections can tell us by working with the natural history community to create a dataset of specimens in collections worldwide.”
Providing a Dataset for the Unwritten Questions

As the dataset grows, the role collections play in scientific research becomes more visible as part of the process, especially when studying organisms that no longer exist. “Collections are a critical piece that people don’t think about as often as research papers, experimental trials, and other aspects,” said Clites. “They underlie all of that and make it possible. We’re able to back up assertions people make in their papers with evidence found in physical collections.”

While making collections as accessible as possible for research makes up a large part of collections management, Hollis explains how her work is a little like a balancing act. “We’re in the forever business. The more that you access and handle a fragile fossil, you put that fossil at risk, but if you lock that fossil up and make sure that nobody breathes on it, no one can see it or study it,” she said. Hollis, Clites, Sime, and Shannon, use their training and experience to balance those two factors. “We want to provide the highest level of access to the collection that allows researchers around the world to use our specimens as a resource,” said Hollis. “The accountability part is making sure that those specimens are preserved and available in perpetuity.”

For scientists around the world and Wooster students deep in the I.S. process like April Arquilla, the curators of scientific collections steward a process that can provide answers to questions that cannot be found in a book or a trek across the rainforests of Costa Rica. As Professor Lehtinen explains it, “There has to be a physical object that we can point to. If you get lots of information from lots of specimens, from lots of collections, you get, certainly not complete knowledge, but it’s a little bit like having a time machine.”

“We’re able to back up assertions people make in their papers with evidence found in physical collections.”
- Erica Clites ’06
As the new Ruth W. Williams Hall of Life Science takes shape on campus, the biology faculty is looking forward to showcasing some of their own specimens in a new space. Like the alumni curating collections across the country, Wooster maintains collections of living and once-living specimens on campus not only for research and preservation, but also for teaching purposes.

Currently squatting in Scovel Hall and a storage facility borrowed from the Wooster grounds crew, the College’s vertebrate zoology collections include more than 2,000 specimens from whale vertebrae to salamanders preserved in alcohol. Rick Lehtinen, chair of the biology department, says these specimens serve two main functions, research and teaching. “Every specimen that we have is a record of a form of life that occurred at a certain place and time,” he said. In the classroom, seeing the specimens allows students to learn how to identify subsets of local mammals, birds, fish, reptiles, and amphibians.

When completed, Williams Hall will provide a dedicated space on the third floor to display and house this natural history collection. “We’ll be able to fully organize the specimens in a way that’s much more usable,” said Lehtinen. “The shelving units will be in the middle of the floor so they’ll be accessible from both sides. Nothing will be lost or overlooked because it’ll be more accessible and safer.” He explained that because some of the specimens are preserved in hazardous fluids they require more upkeep and the new space will allow them to be kept under more constant vigilance.

“Every specimen that we have is a record of a form of life that occurred at a certain place and time.”
- Rick Lehtinen, Biology Chair
The new space makes room for separate accommodation of the College’s vertebrate and invertebrate or insect collections as well as the herbarium collection. Composed of living plants and more than 5,000 traditional pressed plant specimens, the herbarium allows students to practice identifying plants and study them for research. Much of the collection remains in storage until the opening of the new building, but Jennifer Ison, assistant professor of biology sees the new facility as an opportunity to take research to the next level. “It’s going to be really great for I.S. students. Right now, they need to work in the summer or fit all their research in a short window before the weather changes. You need to control a lot of things in a research space: light, temperature, humidity, and pests,” she said. The new building includes a 1,078-square-foot greenhouse with three separate climate-controlled rooms for tropical, arid, and research environments. “We’ll have plants from around the world as well as frogs and bees. That’s why the three rooms are so critical.”

The hallway on the third floor leading to the greenhouse includes a small display space where Lehtinen and Ison envision exhibiting items from the collection, making it more visible to the community. “We’d like the general public to be able to benefit from the collection and see these objects,” he said.

Photos: Matt Dilyard
Digital Tricks Connect Revolutionary Insights

Alumna Connie Schulz ’64 uses digitization to capture the complexity of history.

by Caitlin Paynich
In today’s world of instant communication, talk-to-text tweeting, and hand-held computers, a quick Google search can give you an overview of an event in history such as the American Revolution or the signing of the Declaration of Independence, but what about the thoughts and experiences of the people who did the signing or fought in the war? According to Connie (Bartlett) Schulz ’64, College of Wooster history alumna and retired professor of public history of the University of South Carolina, looking at the writings of our Founding Fathers—as well as their families—can offer greater understanding of the past, its people, and how we approach the issues we face today.
After more than 35 years of teaching, just as her retirement became official in 2008, Schulz received a call from the National Endowment for the Humanities informing her that she had been awarded a grant to create a digital edition of those writings using today’s technology to give scholars an intricate digital tool to study these issues.

“I joke about being an old dog that learned new digital tricks,” said Schulz, who’s currently leading a team to publish The Papers of the Revolutionary Era Pinckney Statesmen, a collection of 3,000 documents, after first publishing The Papers of Eliza Lucas Pinckney and Harriott Pinckney Horry with the University of Virginia Press in 2012. Both works are “born digital” meaning they were never published in print. The documents include letters, journals, financial records, legal documents, receipt or recipe books, and other materials written by Eliza Pinckney (1722-1793) and her family. Pinkney is known for her role as a plantation mistress who developed indigo as a crop and dye. Her daughter Harriott Horry kept detailed journals in 1793 and 1815 documenting her travel from South Carolina to New England. Her sons Charles Cotesworth and Thomas became revolutionary and early national era military, political, and diplomatic leaders. Their writings capture the stories and the feelings that surrounded the events and give historians a greater understanding of the time. “One paragraph in your history textbook lets you know overall what happened, but it wasn’t that straight forward,” says Schulz. “Women wrote about childbirth, disease, social networks, charitable activities—all things that we need to know about.”

Schulz and her team use a broad range of digital tools to create a digital publication with a lot of the “bells and whistles” that DocTracker, their sophisticated database structure builds into the publication. “An editor picks a topic or person and brings all the documents together that are scattered in libraries and archives around the world,” said Schulz. “We transcribe handwriting, preserving crossed out items so that you can see that Thomas Jefferson had second thoughts when writing the Declaration of Independence or the writers of the Constitution had multiple
second thoughts or drafts. We try to be faithful to the manuscript.” By pulling all these documents together into a digital publication, scholars can access history with the depth and breadth provided by an editor who has an understanding of the connections between events or people. In a book, historians rely on the index in the back of the book. “If there’s no book, there’s no back of the book index,” Schulz said. In their digital editions, she and her team create an index based on their knowledge of what interests scholars by using digital links. For example, Schulz said, “How do you create metadata that allows you to see every mention of ‘enslaved people?’” She points out that in the “18th century, people rarely wrote ‘slave.’” Instead they may have used words like “my servant” or more frequently used their names when describing them or mentioning their work. “You need the kind of power to access information that a skilled indexer created, knowing what was being discussed in the text even if the word itself is not there for a keyword search,” she added. But the digital publication is more than just an index; the database that Schulz and her team use allows them to create links for every person, place, event, or organization. “All these things are added to a glossary and then anytime they appear in the document, there’s a link to that identification and any other references to it,” she said. “It allows you to find where else people are mentioned. Did the Pinckneys or their correspondents write about this person again? Where does he or she show up in the other documents? A digital edition allows its users to quickly connect events and people.”

In The Papers of Eliza Lucas Pinckney and Harriott Pinckney Horry, and The Papers of the Revolutionary Era Pinckney Statesmen, both published by the University of Virginia Press, those links allow readers to find connections in the letters and documents not only written by Pinckneys, but additionally in documents in other editions in the American Founding Era Collection also published by the Virginia Press, including three born digital collections as well as several that have been converted from the original letter-press or printed volumes. “You have access to the writings of Washington, Jefferson, Madison, Hamilton, and others, and it’s a remarkable tool. You can look across multiple editions and search much more comprehensively,” said Schulz. Looking across a number of documents in this way allows scholars to “think critically and imagine the world in different ways because they have tools that allow them to put metadata together and ask different questions.”

Schulz credits her own critical thinking and her first experiences exploring historic documents on her own to The College of Wooster. “Wooster prepared me to evaluate the historical evidence I uncover through an interdisciplinary lens that combines science as well as humanities and the arts,” said Schulz. Though she had

“I love giving back what I got at Wooster. What I do with grad students is exactly what was so valuable to me at Wooster in an Independent Study.”

- Connie (Bartlett) Schulz ’64
an interest in history, Schulz said she chose Wooster for its strong music program. After playing violin in the orchestra and taking private lessons at Wooster, she continued to seek out a local community orchestra in every city she lived in and became a professional violinist in the South Carolina Philharmonic. “I’ve played all my life and Wooster accepted and encouraged that. That’s part of Wooster; life is more than just your major,” said Schulz.

As a history professor, her Independent Study—about how Protestant churches responded to U.S. Supreme Court decisions regarding prayer in public schools—gave her an experience she took pride in passing on to her own students. “I love giving back what I got at Wooster,” she said. “What I do with grad students is exactly what was so valuable to me at Wooster in an Independent Study. I learned so much from working one-on-one with a mentor and being given permission to explore historic documents on my own and really connect with people from the past on an individual level through the things that they wrote to other people.” Schulz had the opportunity to see the other side of one-on-one mentoring when she took her first full-time teaching position as a visiting associate at Wooster in 1982-83. “I had 10 senior I.S. and about 15-20 junior I.S. students, and I saw how labor intensive it can be to help students fully understand. There’s kind of an aha moment in research. Wooster was particularly good at bringing students to that moment when they understand what it’s about.”

“That’s part of Wooster; life is more than just your major,” said Schulz.

Over the years, Schulz encountered Wooster graduates in the graduate public history program at the University of South Carolina and found them to be “some of the best students.” She enjoys teaching students to “think critically and write knowledgeably using primary source documents,” especially considering the value she sees historians take away from analyzing the complexity of historical connections through this type of in-depth research. “The survival of our culture and the survival of our country depends on understanding the past and understanding people from the past, and I love sharing that with students,” she said. She helps students recognize what research can show them and how they can take the next step and contribute.

The Pinckney papers projects, which have recently received an additional $430,000 in grants from the National Endowment for Humanities and the National Historical Publications and Records Commission, became a passion for Schulz after she retired from her role as a professor. Through these digital editions that offer a complex look at the many layers and perspectives on the issues of the past, she sees readers and scholars developing a better appreciation for how people struggled and resolved those issues and how they can continue to resolve them in the future. “People fundamentally haven’t changed. They care about many of the same things. They fight about many of the same things. You need that historic perspective for it to make sense. The past was equally messy and uncertain,” she said. “My hope is users of our editions come away with a sense that we can deal with the issues that we’re facing today because people in the past have managed to do that, and they survived.”
Enjoying a polo match or “elevenses,” a short break for tea and cakes, might not seem like obvious cultural traditions to be observed in Chile, a country that most people know for its Spanish heritage, but when Professor Jennifer Hayward spent time in Chile through a Fulbright Visiting Scholar grant last fall, these traditions came as no surprise. Her research in Chile focuses on the British community found there in the 19th-century, and by collaborating with The College of Wooster's Digital Collections department, she’s found a way to further study British influence on the culture during that time.

“Today, we don’t see the British and South Americans as having much in common, but from 19th century records we see crucial connections in terms of trade, economics, politics, and culture,” said Hayward, professor and co-chair of English at Wooster. “Chile still has cultural traditions from the British side of their heritage, as well as prominent descendants of those original British colonists.” English-language newspapers published in Chile in the late 19th and early 20th centuries reveal some of these connections, but while historical American papers have become widely available through digital technology, Hayward explained that these British Chilean newspapers “only exist in their original, fragile form and in poor quality microfilms that are in real danger of deteriorating or even being destroyed by earthquake or fire. They are an important part of cultural patrimony and also provide evidence of globalization and the ties between Anglo-America and South America that have always existed but that we’ve forgotten about.”

Though Hayward and her colleagues can begin to analyze passages of the newspapers through the traditional method of close reading, her interest in expanding her research and being able to analyze the periodicals on a broader scale led her to meet with Catie Newton, the College’s digital curation librarian. After taking a closer look at the 12 reels of microfilm lent to Hayward from the Biblioteca Nacional of Chile, Newton recommended first scanning the films to create digital files, and then creating a website to mine the depth of data—and data about data, known as metadata—that the scans would reveal. Omeka is a web publishing platform that “is meant to mimic a museum environment digitally,” said Newton. “It works with text, audio files, images—all kinds of content. You can organize things into collections, which worked well for different newspapers like The Valparaiso Echo and The Chilean Times. What sets Omeka apart from tools like WordPress, is that it offers a lot of options for description. We wanted to include a transcript and make it searchable.”
The desire to make the newspapers searchable or readable by a computer led to further collaboration with Jacob Heil, Wooster’s digital scholarship librarian and the director of its Collaborative Research Environment. “We wanted to take this great trove of digital materials and turn it into a great pedagogical opportunity that incorporated Jen’s research,” said Heil. “We thought about how to pare down 10,000 images into something that’s manageable and make those images available to a wider audience, specifically the scholarly and Chilean community audiences.”

Through the support of a grant from the Andrew W. Mellon Foundation for pedagogical digital projects, Newton and Heil hired and trained multiple students to work on the project, providing them the opportunity to learn valuable skills and giving them experience with cutting-edge techniques. “A lot of what our students did was try to train computers to read the newspapers using optical character recognition (OCR). The newspaper images have tons of information in them, but it’s all trapped inside of a picture,” said Heil. “OCR does a great job reading a modern computer-generated PDF. It has a much harder time parsing where lines are and where columns are and what the letterforms look like in these newspapers.”

“...this great trove of digital materials and turn it into a great pedagogical opportunity that incorporated Jen’s research.”

- Jacob Heil

Students developed a web database [woosterdigital.org/britishchileannews/](http://woosterdigital.org/britishchileannews/) to facilitate the use of the data mined from 19th Century British Chilean newspapers.
he success or failure of this computer training “depended upon the newspaper” said David Hale ‘19, a junior who spent much of last summer scanning microfilm, entering metadata through Omeka, and “OCRing,” as he called it. “At the time, no one knew what method to use to get results from these files. My job, along with my coworker’s, was to find out the best way to get results. This was the first job in which I had this kind of responsibility and autonomy,” he said. “I liked the independence and experimental nature of the job.”

The students, under the guidance of Newton and Heil, found that the layout, text size, image placement, and quality of the microfilm all affected the way the software was able to recognize the letters on the page. “What it does is it has a bunch of dictionaries running in the background looking at the shape of the letters, the shape of the letters around them and then making guesses on what that dictionary word is based on those shapes. Any images or other interruptions to the text make it more difficult,” said Newton. The students involved in the project took all of the data captured through OCR from each newspaper image and combined it to create an online database through the Omeka software with a common metadata schema called Dublin Core that captures fields for each

“Through this project, students can engage with primary source material in really interesting ways. It teaches them to think about why the content was made, the context, the physical format, and the actual content within it.”

- Catie Newton

Below: Newton shows David Hale ‘19 scanning techniques to use when reviewing the newspapers in microfilm.
image like contributor, date, language, copyrights, description, and the coverage of certain places or subjects, and makes them searchable. “This is what makes working with Omeka a great academic exercise and learning opportunity for our students,” said Heil. “It’s not just that we’re filling in fields because they’re helpful. It’s an intellectual exercise for students to look at an image in a newspaper and think about the ways they’re describing things.”

“It teaches students to engage with primary source material in really interesting ways,” added Newton. “It teaches them to think about why the content was made, the context in which it was made, the paper that was used or the physical format, and then the actual content within it.” Further, she explained that it forces them to think about posting pictures on the internet from an academic perspective. “Working with Omeka teaches students responsible digital curation. They often have their first experience contributing digital items to the internet via something like Facebook where they’re uploading selfies they took over the weekend for example. There’s not a lot of labor that goes into describing those things. We often, and students in particular, take for granted that museum sites are searchable. It’s good for them to think about what goes into making resources accessible and to be a part of that process.”

For Hayward, being able not only to collaborate with Newton and Heil, but also to give students this experience is truly exciting. “In the English department it’s quite difficult for us to include students in our research. So much of what we do is literary interpretation. We don’t often collaborate with others. With digital humanities, collaboration is absolutely key,” she said. She sees students developing skills that will benefit them as they begin research of their own and moving forward in their fields. “Students can not only participate in research but also learn really important skills. Creating websites, creating Omeka exhibits, learning about OCR and statistical analysis of literary texts—all of these are great tools that they can use in so many different professions. The digital humanities allow us to get students excited about research, invested in research, and learning valuable skills at the same time.” By incorporating the research and tools into her classes, Hayward is also giving students the opportunity to collaborate across cultures. “This semester, my Wooster students are comparing the newspapers published by colonists in Chile with newspapers published in London at the same time. Then they will present the results of their research to Chilean students and in turn learn about the Chilean students’ work on markers of national identity in the same newspapers. Researchers who worked in relative
isolation can now easily join forces through transnational research groups, while students can be connected across continents, and both can use computational methods to analyze large bodies of data. All of these possibilities are very exciting.”

“These digital projects require different skillsets that are wonderfully interdisciplinary,” said Heil. “These kinds of projects are deeply academically engaged and meaningfully pedagogical, interdisciplinary, and collaborative.” The project continues to stimulate collaboration with the Pontificia Universidad Católica de Valparaíso, the Universidad Autónoma de Chile, and the Universidad de Chile. The British Chilean Newspaper Project website—available globally—provides digital access to records of the 19th-century British colonists of South America once only available to “a privileged few, preserving these invaluable records of the early years of Chile as a nation,” said Hayward, “Chilean scholars are very excited about our project, because digitization will make these newspapers searchable and therefore much more accessible and useful to students and scholars alike. Without these preservation efforts, the descendants of the original British colonists in Chile are concerned that this cultural heritage would disappear.”

With Wooster students capturing first the images and then the metadata in the website, Hayward and her fellow researchers and collaborators can see patterns emerging through linguistic and computer-based analysis across the collections of texts. “Digital analysis allows us to process vast amounts of text or big data in ways that were impossible before,” said Hayward. Those patterns can begin to reveal information to researchers about the history of Chilean culture and further globalization as a whole. “Valparaiso was an early hub of globalization because it was the chief shipping port on the coast of South America before the Panama Canal. The records of the British Colony provide us with historical, economic, and cultural information about an early stage of globalization,” Hayward said. “Part of the project is to recover the history of all these traces that make up contemporary Chilean identity, but then the larger point is to create connections across continents. We’re all hybrids, and globalization is not new.” What she enjoys most about the project is not only the cross-cultural and cross-specialty collaboration to preserve Chile’s heritage, but also “the excitement of tracing stories through these newspapers and watching my students’ delight at the discoveries they find buried in these papers that are, in some cases, almost two centuries old.”

“The digital humanities allow us to get students excited about research, invested in research, and learning valuable skills at the same time.”

- Jennifer Hayward
One Question Unearths a Lifetime of Discovery

by Hugh Howard

Professor Olivia Navarro-Farr Leads Exploration of Major Maya Archaeological Site

When Olivia Navarro-Farr was growing up in San Antonio, she expressed an interest in archaeology, and like many young enthusiasts drawn to that subject matter, the romance of ancient Egypt caught her attention. However, a simple question posed by her mother sent her on a career path resulting in two prominent discoveries (thus far) that now have strong ties to Wooster, where she is an assistant professor of archaeology.

The question—"Why aren’t you interested in exploring your own roots connected to pre-Hispanic culture?"—sent her to Mexico on an eye-opening trip as a teenager (accompanied by her mother and aunt) where she had a taste of ancient indigenous Mesoamerican civilization. This led her to pursue a field school project in Belize as an undergraduate and eventually she immersed herself in Maya area archaeology; since graduate school she has worked in Guatemala, the “heartland” of ancient Maya civilization.

Once Navarro-Farr began working there, she was “absolutely hooked.”
In addition to her original interest—a personal desire to understand her non-European roots—she was, and still is, highly motivated to educate a wider audience about the region’s fascinating past. “Our educational system does not privilege pre-colonized lives. There’s such a rich and deep history, I’ve always wanted to know more about it and to share with audiences,” she said.

The most recent major discovery of a royal tomb, officially termed “Burial 80,” was made in the summer of 2017 and credited to the U.S.-Guatemalan El Perú-Waka’ Archaeological Project, of which Navarro-Farr serves as a co-principal investigator. Located at the ancient city of Waka’ in northern Guatemala, it has been provisionally dated to 300-350 AD—the oldest to be discovered at the site (by several hundred years), confirmed by members of the Proyecto Arqueológico Waka’ and the Ministry of Culture and Sports of Guatemala.

Though not in the field during the time of discovery, Navarro-Farr and her team of Wooster students were not surprised. They were following the research 1,800 miles away via consistent updates provided by the project’s Guatemalan co-director, Juan Carlos Pérez. “The systematic investigations now provide the most comprehensive understanding of the ‘Early Classic Palace’ construction sequences,” said Navarro-Farr, adding, “the tomb itself is also incredibly important for our understanding of the foundation of the Waka’ dynasty.”

This comes on the heels of a historic 2012 discovery, the tomb of Kaloomte’ K’abel, more commonly known as Lady K’abel, a seventh-century Maya queen. Navarro-Farr directed those investigations in collaboration with Griselda Pérez Robles during the spring and summer prior to her arrival at Wooster. “Lady K’abel was considered the greatest ruler of Waka’ during the ‘Late Classic’ period. The significance of this woman’s powerful role as a ‘Kaloomte,’ which translates to ‘Supreme Warrior,’ provides tremendous insight on the nexus of gender and...
power in Classic Maya politics,” explained Navarro-Farr.

Aiding Wooster students’ understanding of the importance of that discovery, there is a stela, or free-standing monument, originally 11-feet tall, of a limestone impression of Lady K’abel at the Cleveland Museum of Art, the centerpiece of the museum’s Mesoamerican collection. Navarro-Farr attempts to organize a class trip there regularly.

Of course, it is not the field trip, but the fieldwork, in which budding archaeologists, such as Haley Austin ’16, Hannah Bauer ’19, Hannah Paredes ’19, and Sarah Van Oss ’16, truly gain insight into this ancient world, and Navarro-Farr’s prominent position gives them research opportunities rarely available at the undergraduate level. Bauer, Paredes, and Van Oss were all working at the project’s laboratory facility in Guatemala City this past summer, analyzing ceramics from Navarro-Farr’s excavations. Many of the vessels unearthed are household items, such as serving dishes and drinking cups, all made out of earthen wares, which makes for “a fascinating comparison as to the difference in how royalty lived compared to the common people,” said Bauer. Paredes took an interest in sherds of pots “that helped fill in gaps about what kind of world they lived in and showed us artistic styles and motifs that were popular at the time.”

With Navarro-Farr’s leadership at the site, Wooster students will continue to take part in this unique hands-on experience. Their work has helped answer some questions, but endless others remain about the discoveries at the site, which spans 19 square kilometers with an average of 205 buildings per square kilometer. The materials found could offer information to archeologists about class structure, the economy of the time, political influences, the role of women, and more. Most of the buildings and plazas have not yet been investigated, but Navarro-Farr is in it for the long haul. “There’s a lot to be done. As long as I can happily keep going with it, I will. It’s a privilege to do it,” she said.

With the questions to be answered and discoveries yet to be made, pursuing her own roots, as her mother suggested has led to a lifetime of discovery. “I think she used it as a moment to take an interest that I already had and channel it,” said Navarro-Farr. “No one in my family had a background in archaeology, and she said you need to go to these places, and it had the absolute effect of blowing me away. So, I want to credit her for really shaping my path.”

Navarro-Farr (center) and her students visit the stela of Lady K’abel at the Cleveland Museum of Art, the centerpiece of the Mesoamerican collection.
This fall, a newly renovated space on the lower level of Lowry Center will offer students more room for student organizations, collaboration, and special events, taking the place of Scot Lanes. The new area will include four collaboration rooms on the east side and a large programming space on the west side. The larger space will be more flexible, offering several types of seating, room for speaker presentations, or it could be completely cleared out for a band. Pool and ping pong tables and printing stations will also be included in the space.

Paying tribute to the memory and history of Scot Lanes, the wood from the original bowling lanes will be featured in the entryway for the new space. Since the opening of Lowry Center in the fall of 1968, Scot Lanes served as a fun place for students to gather and play. The reimagined space will continue to act as a place for students to interact and connect outside the classroom.

The renovation is supported by the Class of 1966 in honor of their 50th reunion. More than 74 percent of the class contributed to the reunion gift totaling over $13.5 million. The class gift will also support other priorities on campus, including the Howard F. Lowry Endowed Professorship and the Class of 1966 Endowed Scholarship.
The entryway for the new space will feature wood from the original bowling lanes.

All conceptual renderings by Hastings+Chivetta Architects
When the Fighting Scots take the field today, the marching band plays “Black and Gold,” a song written and scored for band by composing duo John ’49 and Dixie ’48 (Annelu Huston) Weitzel in 1948. Before that year the band of then-52 kilted musicians played popular or locally-composed Wooster versions of songs, but “Hail to the Black and Gold,” as it was originally known, was the first composed and arranged for band. The couple’s arrangement of the piece gave Wooster an entirely original and unique song.

After completing his degree at Wooster, John Weitzel went on to earn his master’s in music education from Columbia University in 1950. He taught high school band for 35 years, where his students knew him for his love of the phrase “One more time!” His wife Dixie, who died in 2003, was an accomplished pianist and elementary school music teacher. At age 93, John lives in Grand Rapids, Michigan and continues his love of music by playing the baritone horn for various groups including St. Cecilia Grand Band, the Calder Concert Band and other ensembles.

Even after 70 years, the Weitzels’ “Black and Gold” legacy still resounds in celebration after every touchdown, as the team enters, and at the end of every football game.

**Hail to the Black and Gold**

_Hail to the Black and Gold!_
_Cheer, cheer for the clan._
_Keep your eye upon the goal line._
_Watch ‘em drive, watch ‘em win, sure they can,_
_Drive on to victory._
_Hold the banner high upon the hill,_
_so we’ll hit the high road and_  
_they’ll take the low to the glory of Wooster Scots._
WOOSTER is calling you home!

Return to Wooster to reunite with your classmates, strengthen connections, see what's new on campus, and so much more. Look for more information about this summer's event at woosteralumni.org.

Coming Together to Fill the Arch
At the close of Martin Luther King Jr. Day, a day of service on Wooster’s campus, students united, braved the cold, and completely filled the Kauke Arch with snow and Scot spirit. Though classes took place as scheduled on Jan. 16, students made memories through a tradition that began when the arch was built in the 1960s. Watch the arch fill up in this video https://youtu.be/bkPluMk8-tY and learn more about MLK Day on campus through the eyes of Monet Davis ’19: https://youtu.be/NNiRb72Df4U.
In Closing

Sending Fossils into the Future

“Somebody collected these shells in the 1800s and put them in a drawer. Now in the 21st century, we can use modern tools and make discoveries on old specimens,” said Mark Wilson ’78, the Lewis M. and Marian Senter Nixon Professor of Natural Sciences and Geology at Wooster. Along with researcher Paul Taylor, Wilson recently used a scanning electron microscope to reveal bacterial mats on a 450-million-year-old shell in the collection at the Natural History Museum in London.

“These bacterial mats encrusted the shells and were essentially unknown to us prior to finding these fossils. Knowing now what kinds of bacteria these were changes our models of the ecology of these encrusting communities,” Wilson explained.

“This demonstrates the value of museums and the curators who manage collections. We can look at specimens no one has ever looked at in that much detail before and find cool things that no one knew were there. Until we had that technology, who would know?” Wilson said. “When you collect a specimen and save it in a museum, you’re sending it into the future.” Read more about collecting science and the role of curators of scientific collections inside.