

FALL/WINTER 2021

IMAGINE

University Libraries at Virginia Tech Magazine

A FEAST FOR FOODIES



Creating a
Prototyping Studio

Michael Collins lives on
through his collection



Back at it!

Students returned to campus for in-person learning.

Photo by Jack Micallef '24

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Imagine

Fall/Winter 2021 Vol. 2, No. 2



Dear friends of the University Libraries,

This fall, students were back on campus for in-person classes and the University Libraries was buzzing with activity. We are energized by the work being done in our studios, laboratories, study and collaboration spaces, and with our physical and digital information resources.

Throughout these pages, you will find stories about our new prototyping studio that opened on the fourth floor of Newman Library, an incredible collection of food history used by culinary professionals, scholars and recreational foodies alike, and the library's initiatives to make Virginia Tech research data and scholarship freely available to everyone with an internet connection.

It is an exciting time to be a Hokie. I invite you to take some time over the holidays to flip through these pages and learn more about your research library at Virginia Tech. Also, join us on social media @VTLibraries and stay connected.

All the best,

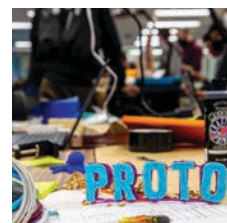
A handwritten signature in black ink that reads "Tyler D. Walters".

Tyler Walters, Ph.D.
Dean, University Libraries
Virginia Tech

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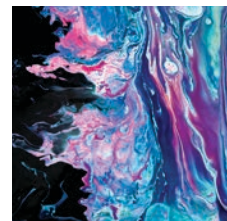
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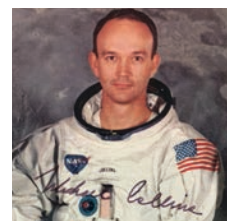
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Digital versions of Imagine magazine are available online at lib.vt.edu/magazine

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Front cover: Artifacts from Special Collections and University Archives' history of food and drink collection. Photo by Trevor Finney. Features photos: Prototyping Studio by Trevor Finney (top right), data flow painting by Hayley Stout '22 (middle), Michael Collins courtesy of Special Collections and University Archives (bottom right).

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Group study tables

now available thanks to architecture students

By Ann Brown

Students studying. Photo by Trevor Finney.

IN TIME FOR THE FINAL EXAM study crunch, brightly colorful and hard-to-miss group study tables are ready for action thanks to the creativity and hard work of College of Architecture and Urban Studies students.

Before the pandemic, Newman Library buzzed with students during finals week. Many students reserved group study rooms, built study forts on the second and fourth floors with moveable whiteboards, and used the technology enhanced group study tables to finish final projects.

Bob Pillow, assistant director for user services for the University Libraries, knew that wasn't possible during the pandemic and searched for ways for students to come together again in the library while maintaining physical distancing.

"After reading an article in the Virginia Tech daily e-newsletter, I was impressed by the College of Architecture and Urban Studies' commitment to preserving the physical studio experience for students as much as possible," said Pillow. "I thought we needed to find a way to do something like that here in the library."

Pillow walked over to Cowgill and Burchard Halls to check out the group work tables in the college's studios and saw them bustling with activity and collaboration. The see-through plexiglass dividers gave students an opportunity to see each other and work together.

He reached out to Enric Ruiz-Geli, professor of practice in the School of Architecture + Design,

“

When our students understand the holistic approach as a designer, project manager, builder, they are more empowered. They will be unstoppable.

Enric Ruiz-Geli

in the College of Architecture and Urban Studies. Ruiz-Geli was immediately receptive to the project and the opportunity to provide students with another living lab project.

"This was an opportunity for our students to take an active role in overcoming challenges in the pandemic," said Ruiz-Geli. "We want to show students that it is possible to be active, to search for solutions and to be an architect activist. The students looked at air circulation, social distancing structure and how they could reduce risk by changing spaces and the working environment."

Eight students took active roles in the experiential learning project including budget and project management, scheduling, conceptualizing, milestone development, and final construction.

"When our students understand the holistic approach as a designer, project manager, builder, they are more empowered. They will be unstoppable," said Ruiz-Geli.

Once the University Libraries and the College of Architecture and Urban Studies signed the memorandum of understanding, the project had a budget and timeline. The group study tables now on the second and fourth floors of Newman Library took seven weeks to complete, from concept to installation.

Fifth-year architecture student and project lead, Chris Tucker, was excited that the library saw what he and his fellow students did in Cowgill Hall and wanted to do something similar in the library.



Architecture students install plexiglass dividers. Photo by Ryan Young.

The University Libraries was a true client and partner, providing them a budget and a timeline. The budget not only purchased materials for the project but also paid students for their expertise and hard work. The students had to provide solid results and work through challenges along the way.

Tucker and his student team members ran into challenges during the design and construction process. “Building doesn’t go as smoothly as it appears in drawings,” said Tucker. “I’ve learned that in class we stayed in precise drawings and when you take it to construction in reality, you’re working with imperfect materials. So you need some wiggle room in what you design when you take it to the site. The tables were not level and the plexiglass wasn’t exactly square.”

The student designers made use of tables the library already had. The students researched 3D printing techniques for plexiglass connectors and joints so they didn’t have to drill into the tables.

Chiravi Patel, a fifth-year architecture and building construction double major became involved because of her experience with 3D design and printing. She was also a part of the student group that created the collaboration desks in Cowgill and Burchard. She remembers the first thing that came to mind when planning the library project — the sheer weight of the plexiglass dividers.

“Although the plexiglass is only an eighth of an inch thick, the length of the sheets makes a unique situation where the weight is distributed over a very thin surface area when mounted to the tables,” said Patel. “This also came into great consideration when designing the joint because the plexiglass wanted to wobble. This material with an increased span is fairly flimsy but also when tensioned can crack under pressure. We

had to design a joint that would look sleek but also withstand the weight of the plexiglass.”

Just like most projects, there was an element of trial and error. “Once we had one set of connections printed and were assembling one pod, we really began to understand where our weak spots were in our design and had to be quick on our feet to come up with modifications to the design to ensure that the design would work,” said Patel.

When students are able to see their creations used as intended, it brings home the lessons learned in the process.

“It was complicated at times,” said Tucker. “But it feels good. Already, students are using them the way I envisioned. I saw them sitting across from each other, talking through the plexiglass while discussing whatever they were working on. You always have that worry, are they going to use it? They are using it!”

Patrons can’t miss the desks’ bright orange and pink plexiglass walls that seem to glow. “The beauty of the design is that it is quite flexible,” said Pillow. “Going forward, the collaboration desks could be broken up and rearranged into different configurations, or left pretty much as they are but converted into individual study spaces.”

Pillow said it would even be possible to configure the tables to their pre-pandemic state. “I couldn’t be happier with the creativity and inventiveness shown with the final product,” said Pillow. “Even more so because it doesn’t have to be final, we can continue to adapt them in the future.” ■



SEE THE VIDEO STORY
bit.ly/tablesfromcaus

Let's create

Newman Library's new Prototyping Studio

By Elise Monsour Puckett



A SLIGHT BUZZ from a vacuum former or flash from a laser cutter may be unusual to see and hear in a traditional library, but not at Virginia Tech. This fall, a new Prototyping Studio opened in a large space on the fourth floor of Newman Library. Hokies can invent, design, and prototype all in one place. This technology-packed space is the brainchild of University Libraries team members Max Ofsa, Jonathan Bradley, Patrick Tomlin, Scott Fralin, and Sara Sweeney-Bear.

"The steps from idea to object can be more complex, fluid, and iterative than is often realized," said Tomlin. "Ideas often morph and change over time. We want to help guide that multistep process of ideation, revision, and creation - the process of prototyping - so that students can maximize their creativity and see results in the shortest amount of time possible."

The Prototyping Studio will absorb the 3D Design Studio and is the newest in Newman Library's network of studios that includes the Studios Technology Lending Desk, Media Recording Studio, Virtual Environments Studio, and Fusion Studio.

"Providing our studios to all patrons at no cost impacts our community by allowing for risk-free exploration of ideas and projects," said Ofsa. "It also provides a way for people to familiarize themselves with new technologies even if their funds or knowledge are limited."

The goal of the Prototyping Studio is to create a space for students, faculty, and community members to stretch their imaginations and prototype as easily as possible all while building their confidence as creators and innovators.

"From the outside it may seem like the Prototyping Studio is just a standard maker space, but at the core we are delivering a true prototyping space for modern makers," said Ofsa.

The studio features 3D printers (FDM, metal, resin, and bio-resin), a CNC milling router, laser cutter, vacuum former, PCB mill, PCB printer, a huge collection of electronics equipment, and a variety of hand tools that can enable work in foam cutting, clay molding, carving, resin casting, sewing, and the ability to make both hard and flexible boards to accommodate devices such as wearable technology. It will also be the only place on campus that provides all library patrons access to do metal 3D printing. All library studios are free for patrons to use, and the Prototyping Studio is no exception.

"I think that the interdisciplinary nature of the library makes it a natural location for a resource as diverse and student-centered as the Prototyping Studio," said Tomlin. "For this reason, students don't need any prior experience, or need to have a particular academic or departmental affiliation to use the studio. It isn't dependent on having a course or research assignment to complete. Much like the library always has, we just want to help the university community realize their ideas."

Left photo: Students employees Mary Pletcher and Leah Ican experiment with new technology and fabrication techniques such as vinyl application. Photo by Trevor Finney.

"The studio is special because of our access model," said Bradley. "Other makerspaces exist on campus, but our goal is to be available to everyone and to make getting started as easy as possible. We think the Prototyping Studio will greatly expand the reach of our experiential learning opportunities and help the University Libraries reach some of the goals of the modern research library, which includes providing access to more than just books and articles."

Scholarship comes in many different forms and students are increasingly asked to produce work and to engage in research that requires learning new skills and developing new mindsets in the process.

According to Tomlin, "Virginia Tech puts great emphasis on experiential learning and what can be more experiential than learning how to laser cut a piece of acrylic for the first time?"

"I am passionate about expanding people's ability to create," said Ofsa. "Given the opportunity, people tend to create amazing things. Often it is the lack of opportunity that squanders a great idea or stalls it from seeing fruition. My hope is to provide a space that brings out the creativity of our community and expands our collective skillset."

The team intends to make some display pieces, including an electric guitar, as a way to show off the capabilities of the space and the machines inside. They also intend to develop and teach a new series of workshops surrounding some of the technologies and machines available in the studio as well as add a program to the University Libraries' Twitch channel where viewers can interact with library staff as they create things live in the studio.

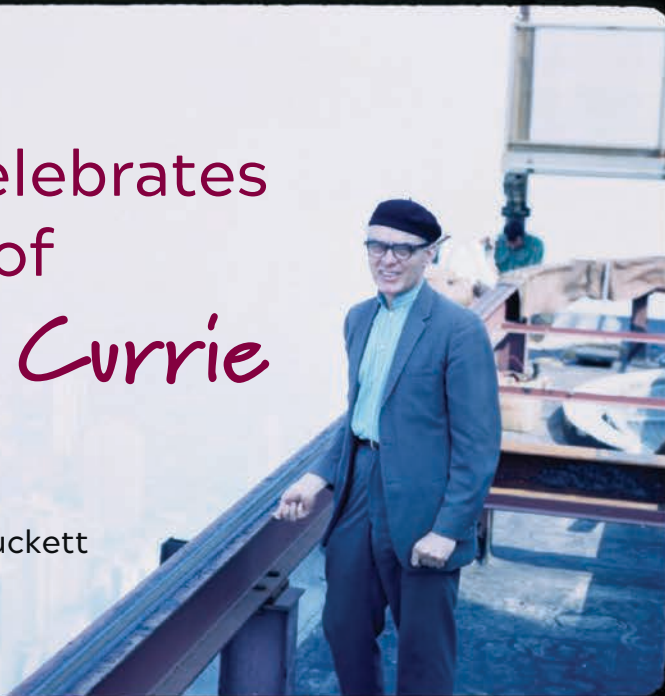
"I'm excited to see what students produce by having access to the Prototyping Studio," said Tomlin. "I'm also excited about the energy it brings to Newman Library." ■



Student employee Jared Harris experiments with new tools in order to create documentation for the studio. Photo by Trevor Finney.

Exhibit Celebrates the Work of Leonard Currie

By Elise Monsour Puckett



"I ALWAYS WONDERED ABOUT HIM," said Steve Tatum, digital collections and art curator at the University Libraries. "There was a large black and white picture of his 1961 house that was sacred to architecture faculty that hung meaningfully in the Art and Architecture Library. I was so happy to have the chance to dig into his life. What a treasure this collection is."

Tatum has been scanning and cataloging the photos of the University Libraries' new Leonard Currie exhibit for 10 years. With the help of his two metadata student assistants Carolyn Buonforte and Irene Baron, the trio created a historic exhibition about Leonard (Len) Currie (1913 - 1996) using photos from a slide collection the Currie family donated to the library.

Leonard Currie, a renowned architect and educator, led the architecture program at Virginia Tech from 1956 to 1962, laying the groundwork for the College of Architecture and Urban Studies. Before coming to Virginia Tech, he was the founding director of the Inter-American Housing Center (CINVA) in Bogotá, Colombia, an Organization of American States program that addressed the urgent need for low-cost housing in Latin America. After leaving Virginia Tech, Currie taught at the University of Illinois in Chicago for 20 years, then returned to Blacksburg to practice architecture. He spent the rest of his life dedicated to helping Habitat for Humanity and provided free architectural consultations for people who couldn't afford an architect.

Currie was an avid world traveler. Wherever he went, he had a camera in his hand. Throughout his life, Currie constantly took photos and captioned the photos on the slide itself. This exhibit is based on these annotated photos, known as the Currie Slides, and also highlights Currie's own

architecture by showing the several houses that he and his wife, Virginia, built for their family.

The team conducted research on Currie's personal life, projects he worked on, and his professional legacy. "Before we did the research, the collection seemed pretty random," said Tatum. "But we were surprised to discover that the photo collection was such a complete, coherent journal of Currie's career."

The house that Leonard and Virginia Currie built for their family in 1961, locally known as the Pagoda House, is a landmark in Virginia's residential architecture for its modern style.



"At Virginia Tech, we most often hear that Currie studied architecture with Walter Gropius, the founder of modern architecture, at Harvard," said Tatum. "That makes him sound like an establishment figure grounded in the Western tradition. That's not what he was. Currie was much more than that. The work that Currie did in Latin America before coming to Virginia Tech was monumental."

One goal of this exhibit was to highlight Currie's work where he addressed the housing crisis for the working poor in Latin America. "As Virginia Tech aspires to be a global land-grant university, it's a good time to highlight the ethos of international service that Currie brought with him to Blacksburg," said Tatum.

"Being born and raised in El Salvador, I have seen the necessity of housing," said Baron. "Growing up I volunteered for Habitat for Humanity, like Currie. It's a very challenging job, but it's very rewarding, especially when you get to see and feel how grateful and happy people are to finally own a home."





Currie was a pioneer in aided self-help housing, and during its golden years, CINVA was a top institution that not only focused on this type of housing but also on education and research.

"As an engineering student, the research part of CINVA was particularly interesting to me, since new technologies were invented during this time, such as the CINVA-RAM," said Baron. "The CINVA-RAM was a block-making machine that allowed the fast production of soil-cement blocks to build houses at an affordable cost. Up to this day, it is still used for aided self-help housing technologies."

Tatum's students uncovered important items and information in the exhibit. Baron, an international student from El Salvador, began by cataloging the Currie slides, double fact-checking along the way for accuracy and translating any information that was written in Spanish to English.

"As my role progressed, I got the opportunity to help with the research for the Currie exhibit," said Baron. "My area of focus was aided self-help housing, more specifically, in the CINVA project Currie worked on in Latin America, which led to me re-creating a 3D model of the CINVA Research Center using Rhinoceros 3D."

Buonforte's work was key to the project as well. She catalogued and took inventory of the Currie slides and conducted research on where he grew up, went to school, and the start of his professional life.

One challenge the team faced was deciphering Currie's handwriting and abbreviations. "When reading articles about the people and places he photographed, we often serendipitously ran across clues for deciphering his notes," said Tatum.

"Taking pictures is a form of journaling, just as writing is," said Tatum. "They are a primary source of information.

Collections that have been obscure for many years should be saved for the time that someone has an interest in researching and publishing them. Scholars of Latin America have thanked us for making these important pictures available."

While this exhibit has an archive in Special Collections and University Archives, a WordPress site was created and includes a bibliography. Visitors to the site hail from Columbia, Chile, Turkey, Spain, Ukraine, and France to name a few. Scholars of international development are studying the work Currie did with housing and are particularly interested in the Latin American photos from the 1950s and 60s. Lastly, Wen Nie Ng, University Libraries' digital collections librarian, created a Leonard Currie section in Southwest Virginia Digital Archives virtual exhibit.

Leonard Currie is well-known to people who have been with Virginia Tech for a long time, and local history buffs are enjoying the historic photos. This exhibit brings him to life for younger generations and very likely provides a different perspective on his life for older generations.

"Currie's story is beautiful and his work reflects that," said Buonforte. "Not only was he a member of the Hokie Nation and deserves to have at least the Virginia Tech community know about his work, but also he helped many, and I think that in and of itself should be acknowledged."

"Having someone like Currie at Virginia Tech is something that we, as a community, need to be proud of and pass on to future generations," said Baron. ■



EXPLORE THE COLLECTION
bit.ly/currievt



Visions from the past reawakened

By Elise Monsour Puckett

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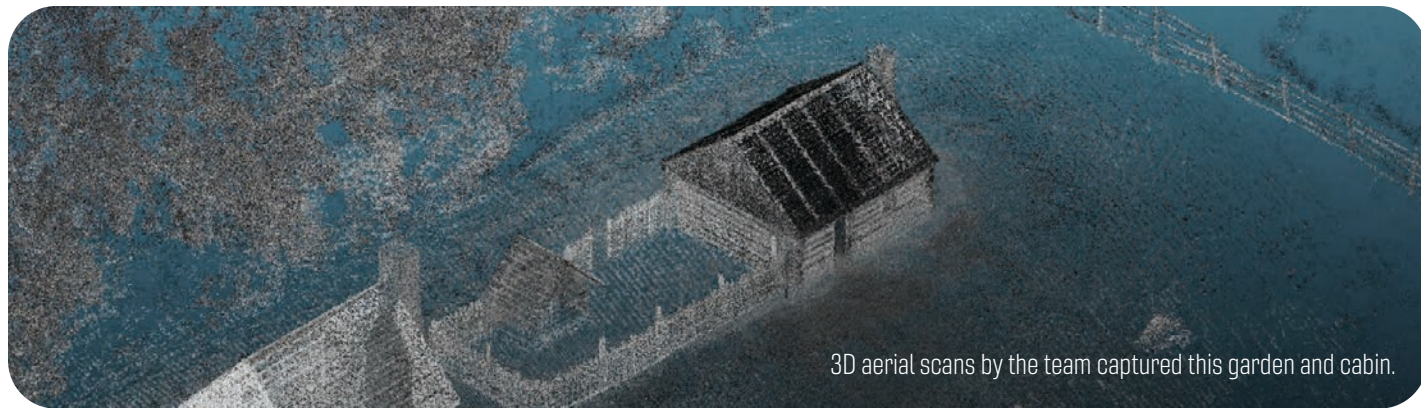
HIS VISION BEGAN WITH A BOOK. The scent of old leather, paper, and ink wafted through the air as he rustled the yellow, aged pages of the book with purpose. He found himself flipping back and forth between the book and old historical maps, when he suddenly looked up. Thump, the book closed. An idea was sparked.

The book was on the battle of Second Manassas. Todd Ogle, executive director of Applied Research in Immersive Experiences and Simulations (ARIES) at the University Libraries wasn't able to easily transfer the mental model of what he was reading to the actual landscape. Ogle wanted to bring historical documents, photographs, and map information, which is typically held in libraries and archives, to life, in-situ, on a battlefield of the American Civil War.

Ogle is now making his idea a reality with the help of a National Endowment for the Humanities grant, a collaboration with the Pamplin Historical Park and its National Museum of the Civil War soldier in Petersburg, Virginia; Virginia Commonwealth University; and a distinguished group of humanities and digital media-focused advisors in Civil War era history and education. The team is led by Principal Investigator Paul Quigley, Virginia Tech associate professor and director of the Virginia Center for Civil War Studies. Other group members include Virginia Commonwealth University's Associate Professor Kathryn Shivley, Pamplin Historical Park and the National Museum of the Civil War Soldier's Tim Talbott, University Libraries' Corinne Guimont, computer science faculty members Kurt Luther and Doug Bowman, School of Visual Arts faculty members Zach Duer and Thomas Tucker, and School of Education's faculty member David Hicks.

"For me, the wide variety of collaborators on this project really makes this unique," said Guimont. "Not only do we have people from multiple departments involved, but we are also working with folks at other





3D aerial scans by the team captured this garden and cabin.

universities as well as the team at Pamplin Historical Park. Everyone brings different experiences and perspectives to the work and how it can benefit the users. I feel like I have already learned a lot from everyone involved in this project.”

Together they are designing an augmented reality application to enhance visitors’ understanding of Civil War history. Augmented reality is a great way to render real-world information and present it in an interactive way. Objects are enhanced by computer-generated perceptual information making virtual elements become a part of the real world. It can be applied to historical artifacts around the world and is a way of engaging the public with collections at any library in the future.

Included will be period photos and illustrations, map information translated to the ground, points of interest, videos, animations, text, and audio content using augmented reality to help people understand history within its physical context.

“So one thing we’re going to do is allow visitors, through augmented reality, to play with different fortifications and ‘add’ them to the landscape,” said Quigley. “Then they will receive audio or visual feedback from historians, who will provide more information. And living historians will portray characters from the era—men and women, Black and white people. We can make it so much more interactive than a simple video.”

Pamplin Historical Park contains four museums, three historic homes, and the Breakthrough Battlefield, site of the critical Union action on April 2, 1865 that led to the Confederate evacuation of Petersburg and Richmond and subsequently to the war’s Union victory.

“At the time, 15 years ago, smartphones didn’t exist and mobile augmented reality was still in the research and development phase of its life cycle,” said Ogle. “Even now, sharing hidden histories like this is not widespread even though the technical affordances exist. I’d like to push this out to as wide an audience as possible.”

The grant funding will allow the team to consult with all collaborators as they develop an application that will provide technologically innovative and engaging ways for park visitors of all ages to better understand the latest historical research on several topics that are not always prominent in public presentations of Civil War era history. These topics

include environmental and military history; the war’s impact on households, civilians, and enslaved African Americans; the nature of historical sources; and the construction and reconstruction of historical narratives over time.

“My research and the ARIES program is focused on the role of immersive experiences in supporting situational context for learning,” said Ogle. “So it is gratifying to see it coming to fruition after all this time.”

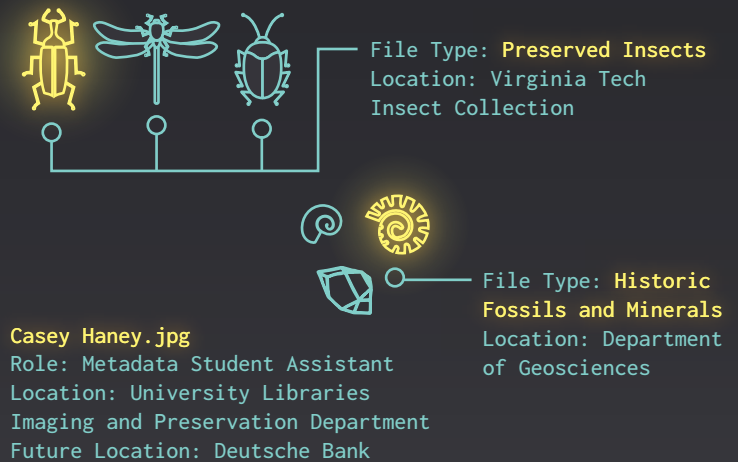


3D scanning captures the geometry as well as the color information of objects and structures on site.

“I always think of the library as a place where different disciplines and departments come together,” said Quigley. “Ogle’s ARIES program is really important. He is doing these kinds of immersive experiences and he works closely with students and faculty around the university. And he’s really into history!”

“I’m always fascinated by what can happen when people from a variety of disciplines come together to create something to benefit the general public,” said Guimont. “This project will be beneficial for visitors of the Pamplin Historical Park in how they’re learning and understanding significant historical events. But this could also provide a model for how other historical sites could enhance their visitors’ experiences.”

This project is the beginning of what Ogle hopes will be a multi-year, public-private partnership that brings together technology, humanities, and learning science scholars to bring the past to light in new and engaging ways. ■



Casey Haney's library work in [metadata] lands her dream job;

(By Elise Monsour Puckett);

> METADATA. WHAT IS IT EXACTLY?

Some would say it is simply data about data, but library student employee and soon-to-be-graduate Casey Haney knows it's more complicated than that.

Haney was a metadata student assistant in the University Libraries' digital imaging and preservation department. Thanks to her work and the vast experience she has gained, Haney graduated from Virginia Tech in May 2021 with a degree in computer science and a job at Deutsche Bank, an international financial institution. As part of the bank's graduate internship program, Haney rotates through different areas of the industry by working with different teams at the bank until she chooses one that aligns with her interests, goals, and aspirations. Then she becomes a full-time member of the team of her choice.

Haney's time as a library student employee was spent cataloging digital items, such as scanned old photographs, rare documents, and 3D models, including delicate, preserved insects in the Virginia Tech Insect Collection in the College of Agriculture and Life Sciences' Department of Entomology and historic fossils and minerals from the Department of Geosciences in the College of Science.

With careful attention to detail, Haney ensured any preexisting data accurately represented the item before it went into an online collection. She vetted the date of creation; name of the creator; the geographical region the item related to; and descriptive tags of what the item is, like a newspaper, photo, or sheet music.

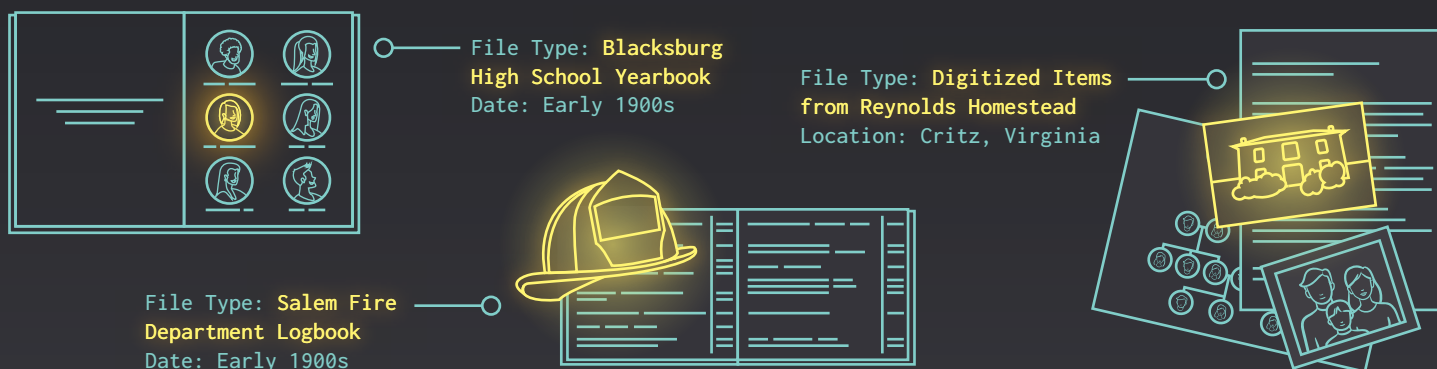
One of Haney's favorite items was a set of Blacksburg High School yearbooks from the early 1900s. "It was fascinating to see how similar teenagers were back then to how they are now. One senior had a yearbook quote that simply stated 'Last night at twelve I felt immense. But now I feel like thirty cents.' Frankly, I think we've all been there at some point," laughed Haney.

Haney explained that the data needs to be easily understood and usable by the client, while also meeting a set of standards where it could be uploaded to an international archive and still be accessible to anyone looking for it.

"This kind of standardization is the key to making sure Virginia Tech and its partners can actively participate in the digital world," said Haney. "We allow anyone seeking to learn from us in a digital space to find what they are searching for by speaking a global information language."

Metadata work and the data creation process are tedious and subjective and require meticulous attention to detail. For example, Haney was cataloging a digitized logbook from the Salem Fire Department, which included various logistical topics the fire department tracked in the early 1900s. She and her supervisor had to carefully decide how to categorize the topics. The difference between the two categories can change whether or not the document shows up in a search on a database.

"Making sure you can back up your reasoning for giving an item a specific label is massively important and sometimes very stressful," said Haney.



A 2016 study by Pew Research Center found that 77 percent of adults believe libraries contain useful and reliable information and concluded that people intrinsically trust libraries and the information they provide. “As a library employee, one of my main goals was to ensure that all information I add to an item or an exhibit was factually correct and as bias-free as possible,” explained Haney. “It can feel like a stressful task to take on sometimes, especially when you’re uncertain of how accurate the information you’ve dug up during research really is, but it’s simultaneously extremely rewarding to contribute to such an educational powerhouse that will be used by many people.”

As described in Haney’s blog, *Researching the Reynolds Family: How I Created My First Exhibit Ever*, one of Haney’s biggest accomplishments in her time with the University Libraries was the creation of the Reynolds Homestead portion of the popular Southwest Virginia Digital Archive exhibit. Haney was tasked with taking the digitized items from the Reynolds Homestead, one of the Library’s Outreach Campus Centers, and creating an exhibit that discussed the Reynolds family, their history, and their impact on Virginia that would be displayed online alongside a group of exhibits from other partners.

“This task was much easier said than done,” said Haney. “Many of the items had either very little context or were not visually engaging, which didn’t help sell the exhibit.”

That didn’t stop Haney. She got creative and made some of the exhibit items herself, including a timeline of the family, and spent many hours researching. “I talked to Reynolds Homestead staff, read an entire book on the family, and even looked up their gravesite information so I could verify various birth and death dates,” said Haney. “Overall, this project had me doing a little bit of everything, and by the end of it, I felt like an accomplished computer scientist and historian.”

There are several key elements that Haney feels set her library position apart. “It’s hugely interdisciplinary,” said Haney. “I’ve had the pleasure of working alongside historians, architects, theater majors, all of different age ranges and with widely different areas of expertise. Trying to communicate with other people from areas that are so different from my own can pose a challenge. However, it’s also been a great exercise in flexibility, as I’ve needed to be creative in the ways I explain

things and ask for information so I could work effectively with our partners.”

Of all the positions I’ve had while studying at Virginia Tech, my job at the library was my favorite by far,” said Haney. “The people I work with were nothing but kind, helpful, and encouraging.”

Haney said in particular she owes a lot of thanks to her supervisor, Wen Nie Ng, digital collections librarian. “Wen not only spent a lot of time working with me to teach me what I needed to know to do the job, but also regularly encouraged me to take my own approach to things and try out my own ideas,” said Haney. “I was

inspired to try things out, be okay with making mistakes, and learn everything I could about what it meant to do professional work in this position. I now have more confidence in my own abilities to work alongside other professionals and share my own thoughts and ideas with them.”

After a few years of professional experience in the real world, Haney wants to attend graduate school and be the second person in her family to get a master’s degree, after her mother.

“I have enjoyed college and during my time at the University Libraries, I’ve simultaneously been able to learn and also bring to the table my own knowledge in computer science,” said Haney. “The library’s dynamic of learning and teaching was invaluable and kept the job engaging and fun!” ■

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Casey Haney



Food Timeline

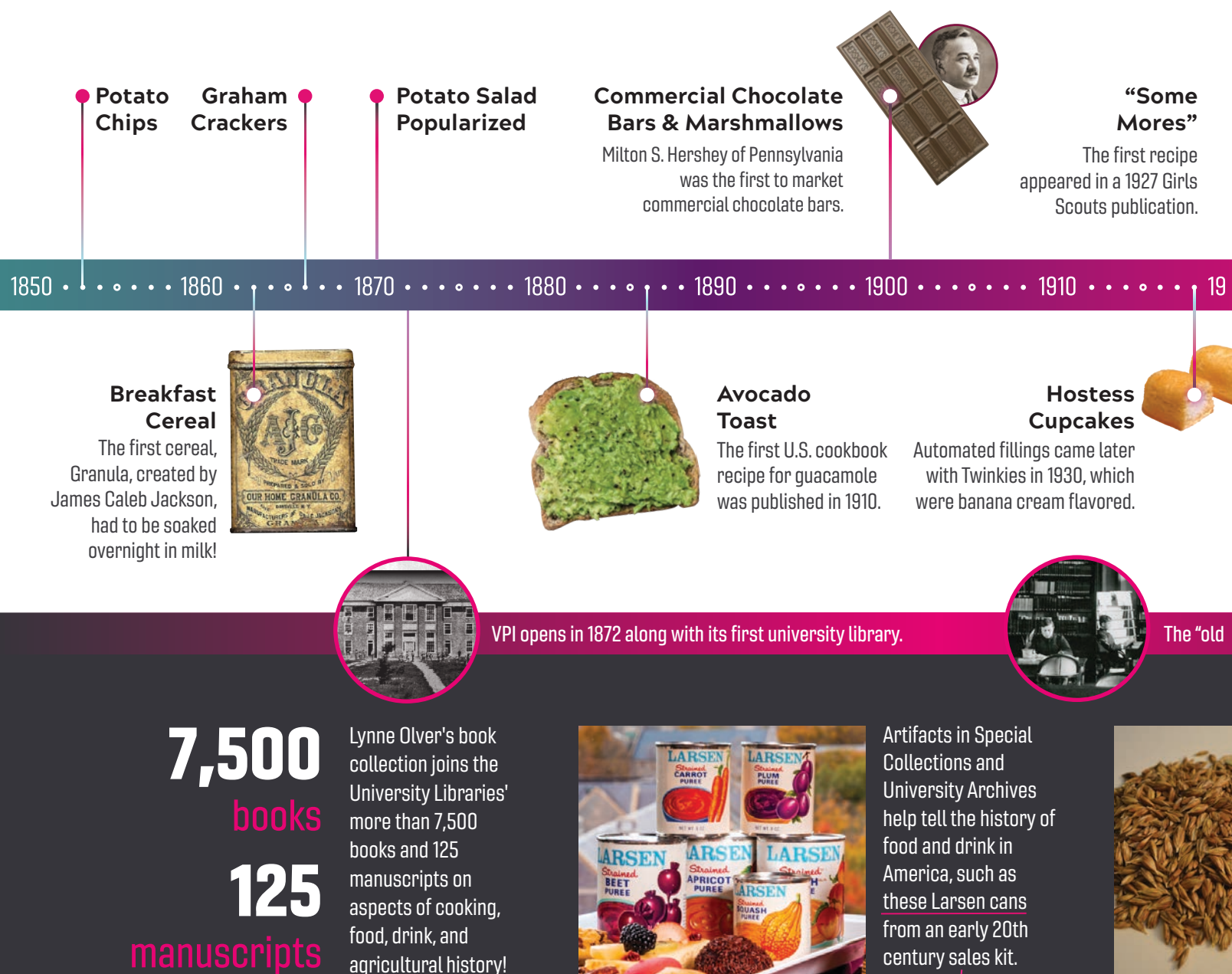
is a feast for foodies

By Ann Brown, Kira Dietz, and Trevor Finney

IN NOVEMBER 2020, the University Libraries' Special Collections and University Archives took over the management of The Food Timeline and private book collection of the site's late creator Lynne Olver. The Food Timeline is a significant online collection of information about food and its social context throughout history.

According to Anna Zeide, founding director of the Virginia Tech Food Studies Program, The Food Timeline is an unparalleled archive and resource that offers a wide array of materials for studying food history.

"The Food Studies Program seeks to add humanities and social sciences perspectives to the study and teaching of food," said Zeide. "As part of this goal, we want to help students, faculty, and the broader public understand food



History of Food and Drink Collection

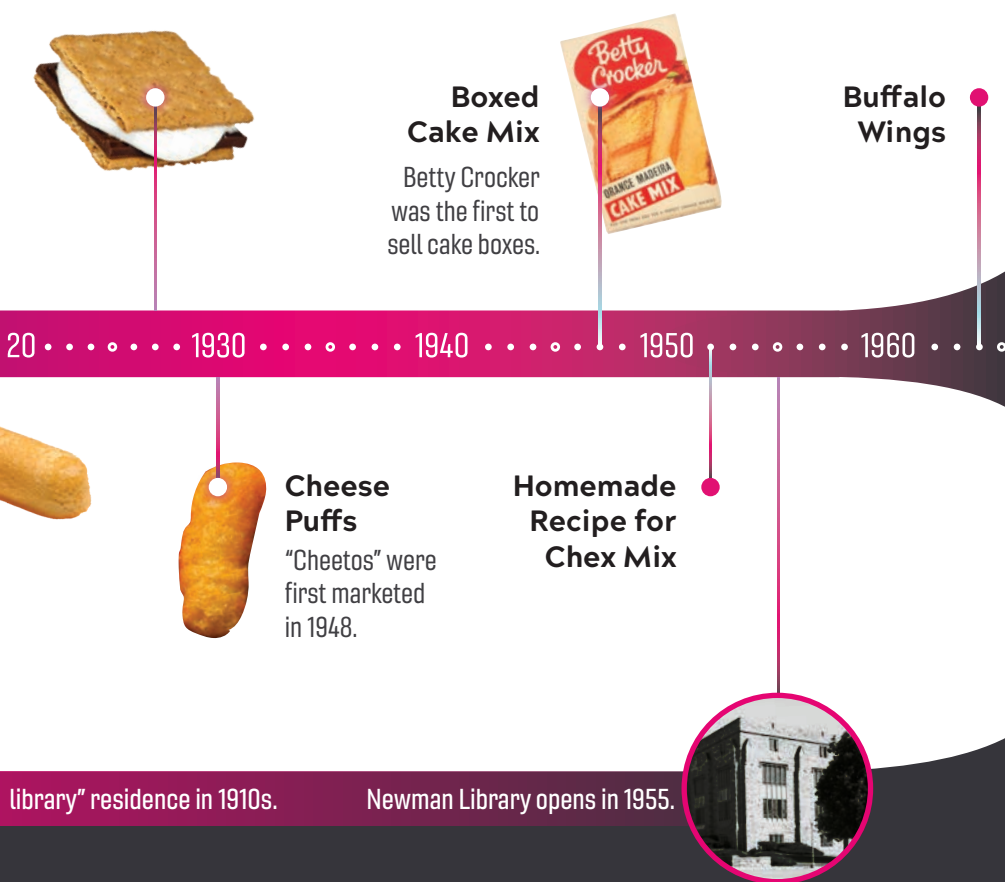
University Libraries is home to a history of food and drink collecting area. This collecting area began in 2000 with the transfer of the private book collections of Laura Jane Harper and Doralee Peacock from the Department of Human Nutrition, Foods, and Exercise totalling about 550 items. Today, the collecting area includes more than 7,500 books and publications, as well as more than 125 manuscript collections primarily housed in Special Collections and University Archives.

In addition to sharing centuries of recipes and cookbooks, the history of food and drink collecting areas also help document early American cookery, southern cookery, social history, household management, home remedies, domestic economy, dietetics and nutrition, food processing and preservation, cookery education, and eating and cooking in wartime. Particular areas of focus include the Ann Hertzler Children's Cookbook and Nutrition Literature Collection, the History of the American Cocktail Collection, and the Food Technology and Production Collection. One-of-a-kind handwritten recipe books from the 1800s and early 1900s are also a part of the collection. ■

from a historical perspective, and better understand the research process used to learn about food in the past, all of which is aided by The Food Timeline.”

Individual food history courses have worked with the University Libraries' food and drink collections, including The Food Timeline, with guidance from archivist Kira Dietz. As the Food Studies Program launches a new minor in Fall 2022, the timeline will be centrally integrated into the curriculum.

For years, The Food Timeline, under the management of Lynne Olver, has been an invaluable resource for foodies, journalists, and academic researchers alike. “Because it is a well-known public-facing site, it also gives our program connections to the broader world of food writers and food journalists who have long turned to The Food Timeline as a resource,” added Zeide. “We hope to collaborate more with those groups in the future.”



More than 750

Food Timeline entries span from 2009 “Twecipes” (Twitter recipes) to 17,000BC emmer grain.



EXPLORE THE TIMELINE
foodtimeline.org



Sharing data to **FUEL DISCOVERY**

By Ann Brown

● **THE UNIVERSITY LIBRARIES PROVIDES EXPERTISE** in data planning, management, and publishing to fuel discovery and future research. Recently, the library launched a new version of its research data repository platform, powered by Figshare.

Accessible from anywhere, Figshare is a cloud-based platform for storing, sharing, and citing research data. Virginia Tech researchers can upload their research data, receive a digital object identifier (DOI) for citing the data in publications, and meet sponsor requirements for openly available data. Data uploaded to the Virginia Tech research data repository is discoverable in search engines, including Google Scholar and Google Dataset Search. Engagement and impact of the research can be tracked through views, downloads, citations, and Altmetric usage tracking.

“The University Libraries has a long history of and expertise in preserving and providing access to information,” said Jon Petters, University Libraries assistant director of data management and curation services. “Helping Virginia Tech researchers publicly share data and other outputs fits neatly within this scope of work.”

The reason the University Libraries chose the Figshare platform for the university’s data repository is because it makes it easy to upload and publish data. Figshare provides well-written guidance on how to work within the system, which is linked on the Virginia Tech data repository guide. Faculty and students can use this guide to work within the system or contact the data services team to ask for help.

Nina Stark, associate professor of civil and environmental engineering and Anthony and Catherine Moraco Fellow in the College of Engineering, and her graduate students have published their raw and processed data in the repository. They also published how they processed the data.

“Publishing and curation of data is difficult and we — my research group — are not experts in it,” said Stark. “Therefore, I appreciate the support from the University Libraries, that they work with us to get this done. It makes it easier for us, and it makes my life easier in a way that I can send students to them. I know the students will be supported and we will end up with a well-curated data product.”

Stark believes that sharing knowledge and data within research communities propels advancement of knowledge forward. “I also believe that sharing data openly fosters trust, communication, and collaboration between researchers as well as with stakeholders and the public,” said Stark. “I also increase my visibility as a researcher through data publications.”

Ashley Dayer, assistant professor in the Department of Fish and Wildlife Conservation in the College of Natural Resources and the Environment and an affiliate of the Global Change Center and the Center for Coastal Studies, both housed in Fralin Life Sciences Institute, said published data allows other researchers to build on her research. The University Libraries data services team helps faculty share data appropriately when it involves human subjects, especially at an individual level.

“Transparency is a key aspect of open data — so others can replicate our research or do additional analyses. Also, there’s the potential for the responses to our research survey to become a part of other new studies, maximizing the benefits of the time survey respondents spent responding to the survey without taking their time again,” said Dayer. “While social science has been slower to move to open data, more and more journals and funders are recognizing the benefits and that it can be done.”

“
I also believe that sharing data openly fosters trust, communication, and collaboration between researchers as well as with stakeholders and the public.

Nina Stark

A benefit of publishing data in the data repository with its own digital object identifier (DOI) is the ability to track usage metrics.

“I’ve yet to be made aware of any use of my dataset but I can track usage metrics and see that the data has been downloaded,” said Dayer. “I hope in the future to see it cited elsewhere, which is a benefit of it having its own DOI.”

The University Libraries not only helps Virginia Tech researchers publish data openly, but collaborates with partners across the globe to help others do the same. One recent project is the Guide to Accelerate Public Access to Research Data. This Association of American Universities and Association of Public and Land Grant Universities project was the result of work funded by the National Science Foundation. University Libraries Dean Tyler Walters served on the project’s steering committee and helped advance the initiative.

The guide discusses framing a campus initiative to accelerate public access to research data, making priorities visible, establishing a plan, and considering key implementation areas. During the AAU/APLU Advancing Public Access to Research Data meeting on May 5, 2021, Walters presented how Virginia Tech completed the process outlined in the guide.

“As a whole, when more researchers publicly share their data,” explained Petters, “non-researchers, such as policymakers and journalists, can have more confidence in the integrity of research results.” ■



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Analyzing Virginia Tech's output and **impact**

By Ann Brown

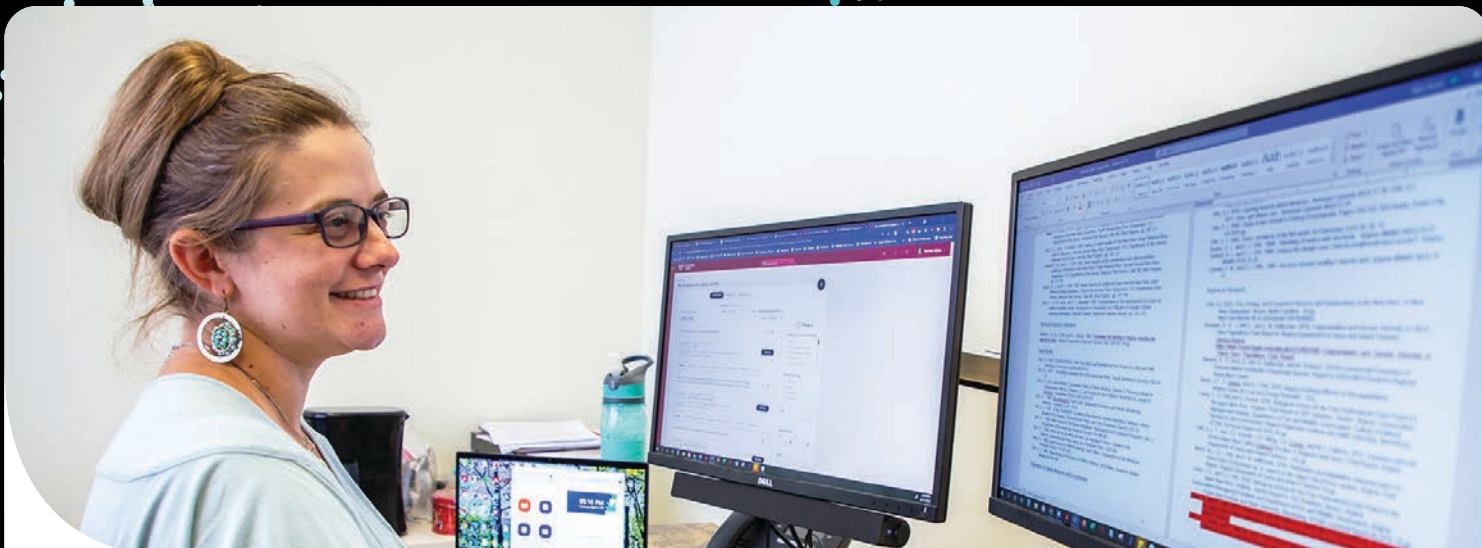
THE UNIVERSITY LIBRARIES' RESEARCH impact team is conducting two pilot projects to assist the Virginia-Maryland College of Veterinary Medicine and the College of Natural Resources and Environment (CNRE) in analyzing the productivity and impact of their faculty's research.

The goal of the projects is to obtain a holistic view of research in the college by collecting information about faculty research and scholarship and uploading it to the Elements activities database to make the system's information more complete and gain a more comprehensive view of faculty output and impact.

College administration will then be able to extract research output data through Elements' analytics. In addition, data users and librarians will be able to export the data and analyze it in specialized research analytic tools, such as VOSviewer.

For faculty, having this comprehensive record of their research and scholarship in Elements will mean that their Elements list of scholarly and creative works is more up to date if they choose to opt in to displaying a Virginia Tech Experts public profile sourced from their Elements pages. It will also mean that they can use a quick deposit method via Elements to more easily deposit works to the university repository, VTechWorks, providing global open access to their work.

Finally, college and university reporting will better represent the scope of faculty work. Alternatively, when universities or colleges rely on commercially available databases, there will always be some amount of research and scholarship that is not included. With a combination of automatic importing from multiple databases and manual entry in Elements, the team is building college-specific databases that attempt to cover all faculty research outputs.



Rachel Miles reviews a profile. Photo by Trevor Finney.

Librarian Rachel Miles is manually entering and automatically importing research output data from 86 CNRE faculty members to ensure it is documented in Elements. She has been collecting curriculum vitae, researcher profiles, and researcher IDs, and then cross-referencing them with research databases and profiles such as Scopus, Web of Science, PubMed, Crossref, ORCID profiles, and Google Scholar Profiles.

"CNRE and the College of Veterinary Medicine are ideal for these pilot projects because they have the ideal faculty size. We are doing this for the first time and working through challenges as we go. Both of these colleges see the value in this work and will benefit from the holistic view of their research impact," said Miles.

CNRE Associate Dean Keith Goyne said capturing this information is vital to communicating his college's impact.

"Faculty within the College of Natural Resources and Environment are studying and developing solutions to 21st century challenges - sustainability, climate change, changes in biodiversity, disease transmission, products made from renewable resources, natural resources-human interactions, and water quality and quantity," said Goyne. "Fully capturing scholarly activity in the college is critical for accurately communicating the breadth, depth, and importance of faculty activities to stakeholders, the public, funding agencies, and campus leadership."

By using a web form, Veterinary Medicine Librarian Kiri DeBose is working with faculty in the College of Veterinary Medicine to ensure that their information is up to date and complete in Elements.

"The first page gives an overview of the project and the second includes information that can be added to their profile. The third page is where they can include links to their curriculum vitae or other lists of scholarship, as well as any research profiles or IDs that we can connect to their Elements profile to auto-claim publications in the future," said DeBose.

Once the form is submitted, DeBose's team creates citation lists to be checked and then sees what citations have been claimed or what citations need to be claimed. The team also checks citations for discrepancies between the faculty's curriculum vitae listing and the final published citation. DeBose's team verifies if the item is the same or if it needs to be added to Elements or the faculty's curriculum vitae. DeBose is also working with others in the college to include professional contributions, university service, and grants to name a few other areas where Elements can demonstrate the work faculty do.

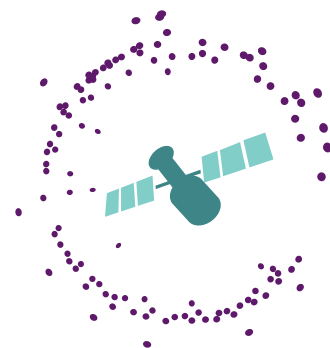
According to College of Veterinary Medicine Dean Dan Givens, this project is key to communicating the reach and impact of the college's work.

"Faculty of the college create a broad and significant impact through their scholarship in applied veterinary medicine, biomedical science, and public health," said Givens. "To rapidly and effectively summarize the cumulative scope and impact of this work at the level of the college, the appropriate collation of scholarly output is necessary in a single summarizable format. Once effectively summarized, we can better communicate the exciting narrative of how our college is improving the lives of animals, people, and communities."

These library services are available to all College of Veterinary Medicine faculty. Some may choose to enter and manage their information themselves; others may ask for assistance while they enter their information or have DeBose work on certain aspects of data.

"Because of Kiri's work, faculty are able to focus primarily on their area of scholarship while investing limited quantities of their time to ensure that the summary of their scholastic efforts in the Elements system is accurate and comprehensive," said Givens. "Thus, more scholarship is completed and the narrative of our success is communicated most appropriately and effectively." ■

openly sharing scholarship globally



By Ann Brown

DURING ITS MARCH 22 MEETING, the Virginia Tech Board of Visitors approved the resolution to establish a scholarly articles open access policy, a revision to the university's Policy on Intellectual Property 13000. As a result, Virginia Tech authors grant the university nonexclusive license to their scholarly articles in order to make them openly available through the university's repository, VTechWorks, housed and maintained by the University Libraries at Virginia Tech.

VTechWorks is an open repository, which means that anyone around the world with an internet connection can access and download journal articles, presentations, theses, dissertations, and other documents that are hosted on the site. Openly available research is cited 18 percent more, on average, than research that is only available behind publisher paywalls.

Open access facilitates the advancement of knowledge and makes a greater impact on society, including economic benefits.

According to the approved policy, Virginia Tech authors will deposit an electronic copy of their unformatted, post peer-review, accepted manuscript for each scholarly article within one month after the date of its publication. Then, the university grants authors a nonexclusive license to share accepted manuscripts elsewhere. An author may waive the license for an article or delay access for a specified period of time to honor publisher embargoes. According to the policy, the university may not sell the articles.

By making Virginia Tech research and other scholarly works openly available to the public, including scholars in low- and middle-income countries, government policymakers,



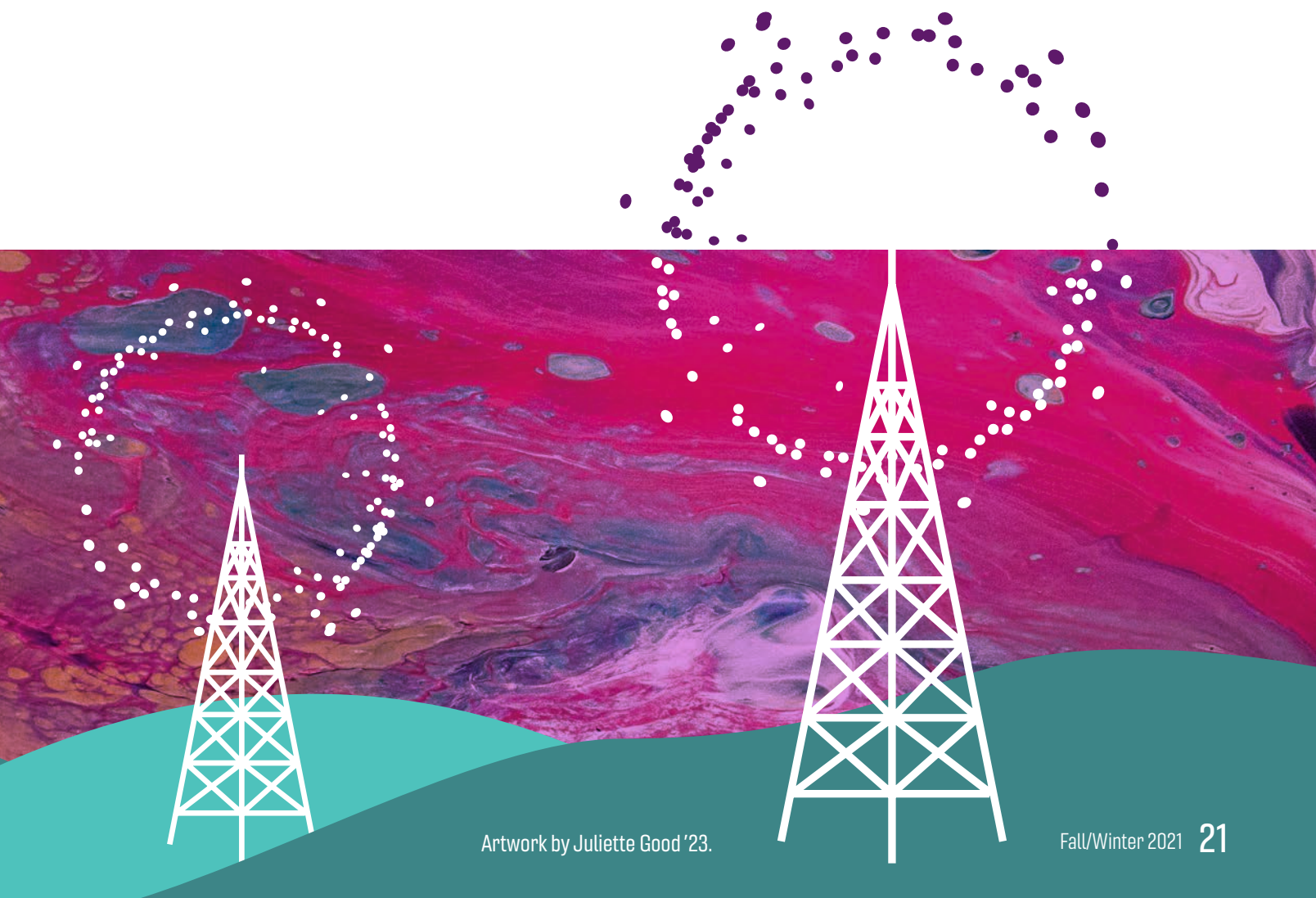
nongovernmental organizations, taxpayers, and alumni, Virginia Tech authors will benefit from full dissemination of their work and an increase in its societal impact. This will also help Virginia Tech meet its mission as a global land-grant university.

Since 2016, members of the Open Access Policy Working Group, created by Virginia Tech's Commission on Research, have been drafting the policy while consulting with faculty, staff, and students across the university. The group presented its work to Virginia Tech's Commission on Research, Commission on Faculty Affairs, and the Faculty Senate each year since 2017, and to the Commission on Graduate and Professional Studies and Policies in 2019. They have also consulted with University Legal Counsel while drafting the policy.

Working Group members will begin work on a plan for implementing the policy, which will go into effect on July 1. For more information about the scholarly articles open access policy, the Open Access Policy Working Group, and the policy's drafting, visit the Open Access Policy Working Group information page. ■



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Celebrating Nasty Women

By Elise Monsour Puckett

IN 1986, JANET JACKSON'S HIT SONG "NASTY" topped music billboard charts, with the catchy yet controversial lyrics, "Oh, you nasty boys." Thirty years later, in 2016, this song made a comeback after then-candidate President Donald Trump's "nasty woman" reference to Hillary Clinton during a presidential debate. Headlines blew up worldwide and the phrase went viral, spiraling into the Nasty Woman feminist movement.

In 2021, Virginia Tech students from Marian Mollin's spring 2020 section of HIST 4914 (History Capstone Research Seminar) published the book "Nasty Women: Transgressive Womanhood in American History" as their primary assignment of the course. This rigorous and demanding class requires students to engage in original historical research and writing on a topic of their choice. The students chose "Nasty Women in American History" as their topic, looking at the long view of American women and examining their behavior of protesting societal norms and breaking boundaries through the decades.

Students in the class — Alicia Aucoin, Gillian Barth, Grace Barth, Helen Hickman, Savannah Lawhorne, Kat McGowan, Caroline McLean, Madison Sheehan, Elizabeth Sholtis, Trenton Spillman, Bethany Stewart, Alyssa Thompson, Liv Wisniewski, and Olivia Wood — all had a hand in writing the book.

In the book's 14 chapters, the student authors recount stories of strong historical women, some enslaved, a few engineers, and even early celebrities. Taken together, the chapters demonstrate how there is no such thing as an average woman, as even those ordinary women are found doing extraordinary things.

Led by Mollin, an associate professor of history, in collaboration with Virginia Tech Publishing housed in University Libraries, each student produced a chapter or article-length essay that resembled the kinds of scholarly papers historians regularly deliver at professional meetings or submit for publication. Then each of these works were combined and published into a book.

"Compiling the essays into a published volume adds a level of seriousness and excitement to the class," said Mollin. "Students universally love that their work will appear in an actual book rather than just submitted as a class assignment that no one except their professor sees. And knowing that their work will be published and available for public consumption pushes students to do their very best work."

"This project is unique because each student gets to write about whatever they want to under the subject matter," said McLean, a student in the course and a double major in history and international studies with a minor in Spanish. "That means that each author wrote about what they were most interested in and passionate about."

The now successful project encountered some challenges along the way. During the first months of the pandemic in spring 2020, the class shifted to remote learning. This almost derailed the entire book project.

"The students had really just started their research," said Mollin. "Some of their research was with online databases, but more were print library resources that suddenly were inaccessible. The lack of face-to-face contact was difficult as well. The work in this capstone research seminar is intense, and peer support is essential to the students' successful completion of their projects."

The classmates were scattered geographically and met through Zoom, challenging their ability to maintain a sense of connection required to complete the high-level project.

"All of my sources for my chapter were back in my dorm room in Blacksburg," said Liv Wisniewski, one of the class project authors. "I hadn't brought them home with me over spring break, figuring I would only be gone for a week and not intending to work on the paper in that time anyway. I was away from them for a month and had to get special permission to return to campus early to get my things so I could finish my chapter."

The students did not give up.

They engaged in extensive primary source research about their chosen topics, and then collaborated in editing and layout. The process taught them to adhere to a rigorous schedule of frequent deadlines, work as a team, independently search for sources, and demonstrate an ability to think clearly and analytically.

"It's great preparation for any kind of work, not just work in the discipline of history," said Mollin.

The class rallied and persevered. "We used our Zoom meetings to help sustain the sense of intellectual community and camaraderie we had cultivated during the first half of the semester," said Mollin. "In an act of intentional defiance of the obstacles that the pandemic had thrown in their paths, the students doubled down on their commitment to produce high-quality work and turn their class assignments into an actual published book."

McLean helped write the acknowledgments and introduction, and her own chapter focused on the 1918 Chamberlain-Kahn Act, also called the American Plan, which humiliated and traumatized thousands of women during the first half of the 20th century.

"I felt it was important to reveal lesser known historical events in the book," McLean said. "Before writing this chapter, I didn't even know what the American Plan was and I am a history major! I was astonished that this type of forceful and humiliating repression against women even happened in the United States. I wanted to write about it so that more people learn about it so that it's never repeated."

Wisnewski chose to research and write about Alice Roosevelt while also designing the front and back covers. "It was a very fun process, not only getting to really dive into the history of a woman I have always been curious about, but then to create a very visible part of the physical results of the class."

The students are now proud published authors. The book is available both as a freely downloadable eBook and as an affordable paperback edition.

"I believe that providing a professional venue for undergraduates to showcase the skills and talents they develop as students should be an integral part of their experience at Virginia Tech," said Mollin. "And that is exactly what the history capstone book projects, done in conjunction with Virginia Tech Publishing, provide."

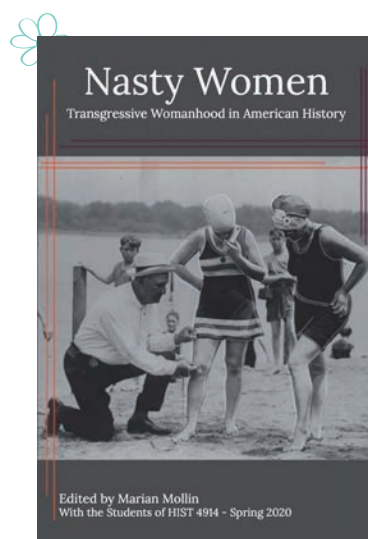
"While a number of history faculty had done book projects like this before, doing it under the auspices of Virginia Tech Publishing has made both the editing process and the end product much more professional," added Mollin.

"Working with both University Libraries and Virginia Tech Publishing was delightful," McLean said. "University Libraries went above and beyond helping us find sources for the book, without which writing the book would not have been possible. Virginia Tech Publishing even taught a group of students from the class how to copy edit over the summer so that we could be directly involved in the publishing process on our own book. I am very grateful for the skills they taught me and their willingness to help along the way."

Students ended the 2020-21 school year with a published book on their resumes and on a subject about which they are passionate.

"This book and women's history mean a lot to me because it is important for people to know what conditions were like for women in the past," McLean said. "Many take our positions in society for granted today and overlook the challenges that so many women had to face to get to this place."

Wisnewski wants to be an educator and plans on going into museum work. "Not just because I love old stuff, which I do, but because I want to pass on that love to other people. Writing this book was part of that for me. I was excited to share my interest in Alice Roosevelt, to spotlight her and let people see her and learn from her like I did. I love teaching and telling stories, and writing is in some ways the best of both of those things."



Book cover by Liv Wisnewski.

“It’s great preparation for any kind of work, not just work in the discipline of history.”

Marian Mollin

Mollin hopes readers of the book will gain new insights. "I love learning what each group of students considers important or usable from their study of the past," Mollin said. "Because of generational differences, our students often see things in a different light than older and more established historians such as myself and my colleagues."

"The whole book is really a testament to the academic spirit of the university and the passion students feel for their work," said Wisnewski. "It was great fun to be able to complete the book and celebrate with my classmates this spring."

This project serves as a reminder not to take current circumstances and privileges for granted.

"It is women like the ones in this book who broke the boundaries that allow the women of today to experience rights and freedoms," said McLean. "It is also a reminder to the community that there is always room to enact change, to make the history of tomorrow." ■



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Hip Hop Culture
edited by
Thomas Riggs

Ursula Thomas
and Jill Drake

Statewide partnership provides access to diversity, equity, and inclusion collections

By Ann Brown

THE VIRGINIA TECH COMMUNITY NOW HAS ACCESS to more resources focused on equity, diversity, and inclusion as a member of a statewide partnership led by VIVA, the academic library consortium of Virginia.

Thanks to the State Council of Higher Education for Virginia Fund for Excellence and Innovation and state funding by the General Assembly, VIVA has purchased three African American and Indigenous peoples primary source collections and a collection of ebooks covering a broad range of diverse topics. They also started a subscription to a video collection of African American oral histories.

The resources now available are: African Americans and Reconstruction, 1865 - 1883; African Americans and Jim Crow, 1883 - 1922; Indigenous Peoples of North America; The History Makers Digital Archive; and The Diversity Bundle Ebooks collection from Gale.

Since VIVA's creation in 1994, University Libraries at Virginia Tech has benefited from VIVA's role in purchasing and licensing shared collections across the state.

"VIVA has been a key ally in providing information resources to colleges and universities across the Commonwealth of Virginia," said Edward Lener, University Libraries' associate director for collection management. "All 39 public institutions of higher education are included, from the smallest community college to the largest research university, so everyone benefits when VIVA adds a new resource. Decision making is collaborative and all member institutions are encouraged to participate."

University Libraries' Collections Strategist Nitra Eastby said this collection will offer faculty and students additional tools to investigate and think critically about the history of North America and the United States.

"To see VIVA prioritizing the acquisition of this content is encouraging. Our history books have been traditionally written by those in power, diminishing the voices of people who were silenced and oppressed in the pursuit of that power," said Eastby.



Team members Kirsten Dean, Nitra Eastby, Roberto Silva, and Anthony Wright de Hernandez at the popular reading collection. Photo by Trevor Finney.

“The expansion of access to primary source collections from Black and Indigenous peoples of North America will improve the ability of our students and faculty to both investigate these stories from multiple perspectives and to continue to challenge the predominant narratives surrounding the history of North America and the United States.

“It is not possible to achieve a truly inclusive environment if only one story is adequately represented in the materials available, so these resources will help move us towards a collection that is more reflective of the community that we serve and of the future that we strive for at Virginia Tech,” said Eastby.

Lener said the collections offer firsthand accounts of these slices of history in order to offer a rich representation of past events from those who helped shape them.

“Some of the newly added materials are retrospective in nature, including primary source materials and oral histories on important topics from our past,” said Lener. “A deeper understanding of our shared history will help all of us in creating a better path forward.”

The newly available Diversity Bundle Ebooks collection from Gale is a group of 57 titles with publication dates of 2017 to the present. This collection provides information and research across a broad range of diversity, equity, and inclusion topics that are applied across many fields including business, health science, and education.

“These ebooks can help students and faculty explore contemporary issues in this space,” added Lener. “Together, the new collections represent an important step forward in improving understanding of diversity, equity, and inclusion on our campuses.”

Lener emphasized that while these new resources represent a good start, much more in this area will be coming in the months and years ahead. ■

Increasing diversity, equity, and inclusion across collections

Last year, Collection Strategist Nitra Eastby established a five-person team to explore assessing diversity, equity, and inclusion (DEI) in the University Libraries’ collections. Team members Ana Corral, Kirsten Dean, Roberto Silva, and Anthony Wright de Hernandez represented a variety of departments and roles within the University Libraries. The team attended an online course, “Equity in Action: Building Diverse Collections,” that outlined essential concepts in cultivating and promoting inclusive and equitable collections, and learned the basics of conducting a diversity audit.

A concrete outcome of the team’s work is a collection consultation model, which Eastby is piloting with Inga Haugen, College of Agriculture and Life Sciences liaison, in Fall 2021. At the 2020 and 2021 vendor visit events, vendors were asked to include a presentation or statement about diversity, equity, and inclusion in their collections and company. The University Libraries will continue this practice to emphasize its importance. The Library added many new collections with a diversity, equity, and inclusion focus, including Gale Archives of Sexuality and Gender part 4, Global Hip Hop Studies, and additional Black historical newspapers in addition to the collections through VIVA.

Apollo 11 astronaut

MICHAEL COLLINS

lives on through his collections



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By Ann Brown

HISTORIC EXPERIENCES of Apollo 11 astronaut Michael Collins live on through his papers in Special Collections and University Archives at Virginia Tech.

A hand-written letter from Charles Lindburgh and a well-used flight manual that traveled to the moon and back signed by Michael Collins and inscribed "the real McCoy" are two of the most riveting items found in the Michael Collins papers in the University Libraries' Special Collections and University Archives. Many of Collins' photos, documents, pieces of memorabilia, and awards vividly exemplify his work, impact on aerospace, and even his personality.

From astronaut and command module pilot on Apollo 11 to accomplished author, Assistant Secretary for Public Affairs at the State Department, and founding director of the National Air and Space Museum in D.C., Collins enjoyed a full career in service.

Upon Collins' passing on April 28, 2021, former Virginia Tech archivist and head of Special Collections Glenn McMullen recalled his experiences in the 1980s working with him and others to create the Archives of American Aerospace Exploration for the University Libraries' Special Collections and University Archives.

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DOCK LT ON: AGENA, READY TO DOCK
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VDMH/IRFNA



This group of collections, one of the most extensive of its kind, contains personal and professional papers, other documents, and memorabilia from a range of NASA administrators, engineers, project directors, and, as in the case of Collins, an astronaut. These materials document not only Apollo 11, but many historic NASA missions, and are available at Virginia Tech largely due to aeronautical engineering graduate Christopher Kraft, class of '44. In 1986, Kraft, former director of NASA's Johnson Space Center and head of flight operations during Apollo 11, worked with McMullen to donate his own papers to the collection and encouraged his NASA colleagues to do the same.

McMullen remembers writing to nearly 100 astronauts from the early years of NASA's space program and getting their responses. He said Collins was more interested than most. So the pair exchanged letters, spoke on the telephone, and then McMullen made a visit to Collins' home near American University in Washington, D.C. to complete the deal.

"Collins had no connection with Virginia Tech except through Chris Kraft, but he was very interested in his papers being in a growing archive," said McMullen. "He invited me to his house. We had lunch together. I

remember his friendliness, helpfulness, and willingness to donate his papers to a place he had never been to, but knew only through the university's reputation and the recommendation of his colleague Chris Kraft."

"I remember going into his basement at his home. He let me take whatever he thought would be of interest and helped me stack it in my car to bring back to Blacksburg," said McMullen. "He was glad to find a home for his materials and was happy with the idea that people would be interested in his papers."

McMullen said working with Collins was a highlight of his professional career.

"Usually archivists work with survivors of people who have passed away and left their papers for the archives," said McMullen. "Meeting someone who was the creator of the papers and of some renown was a good experience. I enjoyed working with him; he was very down to Earth."

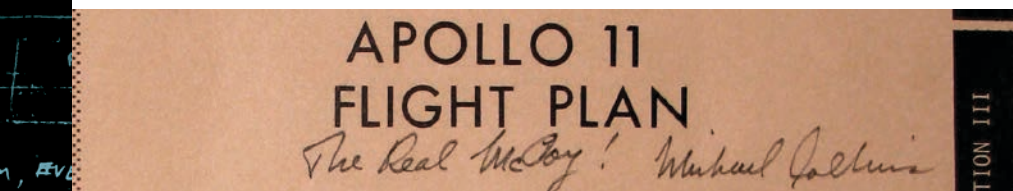
University Libraries' archivist Marc Brodsky works with classes and researchers using the collection. "The Collins collection has shown its versatility by being used in English and writing classes as well as by history classes!" said Brodsky.

It's an invaluable trove of primary source documents that spotlight the history of space discovery.

"To have Collins' rich collection, that is one of many NASA-related collections, presents an incredible opportunity for researchers and fans of the space program alike to take a deep dive into the lives and accomplishments of some of these individuals and the truly remarkable accomplishments of the program, generally," said Brodsky. "When we presented several exhibits to commemorate the 50th anniversary of Apollo 11, which drew heavily from the Collins and Kraft papers, they were among our most visited exhibits ever."

A portion of the Collins collection is available online, but it and the other aerospace collections can be explored in their entirety by visiting Special Collections and University Archives. They are currently open by-appointment only. Instructions for making an appointment are available at their website.

Space discovery has captured the imagination of millions throughout the decades. These collections capture and preserve the excitement and dedication of those who experienced it first hand and were generous in sharing their experiences with past, present, and future generations. ■



VIEW THE PAPERS
bit.ly/collinspapers

Photos of the Apollo 11 mission courtesy of Special Collections and University Archives.

Statewide grant funds

OPEN TEXTBOOK

By Elise Monsour Puckett

VIRGINIA'S ACADEMIC LIBRARY CONSORTIUM (VIVA) has awarded one of eight VIVA Open Course Grants to Virginia Tech to create a freely available, first-of-its-kind textbook, "Holistic Green Real Estate Management." This is the fourth grant Virginia Tech has received through this program.

Project investigators Erin A. Hopkins, associate professor for apparel, housing, and resource management, and Anita Walz, University Libraries' assistant director of open education and scholarly communication librarian, will create a comprehensive open education resource on the topic of green real estate management. This textbook is for upper-divisional undergraduate and graduate students and will be adopted by the fall of 2022 in the Property Management Operations course at Virginia Tech.

Applications to the highly competitive grant program are reviewed by disciplinary subject experts, selected members of VIVA's Open and Affordable Course Content Committee,

and others nominated and selected from VIVA institutions. Funded by the General Assembly and sponsored by the State Council of Higher Education for Virginia, this program empowers teaching faculty with the time and resources they need to adopt, adapt, and create no-cost and affordable higher education course content and textbooks for Virginia students.

The response to the grant program was strong, with 31 applicants requesting nearly \$500,000 in funding. Virginia Tech will receive \$9,801 of the combined \$155,885 grant funds awarded among the eight recipients. Together, all of the grants are projected to result in a substantial student cost avoidance of \$1.9 million over the next five years. It is expected that students at 11 Virginia institutions will benefit from these grants and many more can adopt these works upon completion of the projects in the future.

"This grant is special because it helps to support the development of an open textbook," said Hopkins. "The book

This graphic from chapter two of the book highlights different categories of key issues and how they are interconnected.

Environmental

- Sustainable land use
- Plastics
- Water
- Fracking
- Methane
- Biodiversity

Social

- Human rights and labor standards
- Employee relations
- Conflict zones

Governance

- Tax avoidance
- Executive pay
- Corruption
- Director nominations
- Cyber security

Graphic adapted by Kindred Grey from Adrien Coquet, Gregor Cresnar, and Guilherme Furtado, thenounproject.com. CC BY 3.0.

focuses holistically on green real estate management by incorporating the human and social elements of managing green buildings as well as the green buildings themselves.

“Green real estate management can significantly reduce the negative ecological externalities of the built environment while also providing benefits to various other stakeholders, including building users, owners, investors, property management companies, vendors, and the community,” said Hopkins.

The book will include links between environmental issues and place-based economic disparities, accessibility for the built environment and building management, the role of buildings in creating greenhouse gas emissions, and property managers’ ecological responsibilities.

In detailing the project, Hopkins said, “I am extremely fortunate to be partnering with Anita Walz. Her work in University Libraries makes this a perfect collaboration, and I am happy she is serving as the project manager.”

Walz noted that her principal role is to map out each prospective project’s goals, desired outcomes, and development process in consultation with faculty. She then coordinates peer review by students and subject matter experts and oversees copyediting, copyright/open licensing review, graphic design, accessibility, and publication of the work freely online in multiple formats.

To enhance inclusivity, the team plans to implement an accessibility plan that may include removal of barriers caused by sound, video, font size and type, file format, and tagging systems. This will ensure project outputs are accessible to as many student learners as possible.

“I’m excited to get started,” Walz said, “and I’m looking forward to collaborating with Erin Hopkins on this important project.”

Once Virginia Tech students start using this freely available textbook, they will save an estimated \$80,000 to \$120,000 in textbook costs over a five-year period. Additionally, the general public and students beyond Virginia Tech will also have access to this textbook and could benefit from access to the material at no cost.

“High textbook costs may prevent students from purchasing required course materials and may make them less likely to do well in a college course,” said Hopkins. “By providing open education resource materials, we’re helping students be set up for success upon graduation. Even when challenging financial situations present themselves, they still have access to required materials at no cost.”

So far, four other universities, including two in Virginia, have expressed interest in adopting or reviewing “Holistic Green Real Estate Management.”

“I’m passionate about disseminating this information to students, our next generation leaders, to enable a more sustainable built environment in the future,” said Hopkins. ■



Book cover by Kindred Grey.



Erin Hopkins. Photo courtesy of Erin Hopkins.

Spotlight Q&A

Virginia Pannabecker reflects on her new role as assistant dean and director, research collaboration and engagement



IN AUGUST 2014, Virginia Pannabecker joined University Libraries at Virginia Tech as a scholarly communication and life sciences librarian. She grew into a role coordinating health sciences services and then into leading research collaboration and engagement as director.

As assistant dean, she will guide and support strategic actions to improve the library's embedded role in research, affiliated policies, and related public engagement, leading the University Libraries' research services and its One Health approach to a comprehensive health sciences library system with the Veterinary Medicine Library, Virginia Tech Carilion School of Medicine Library and the Fralin Biomedical Research Institute Health Science and Technology Library.

"This change communicates the strategic importance of these areas within the University Libraries, across the university, and to other universities, nationally and internationally, providing increased opportunities for success in supporting all areas of research at the university," said University Libraries Dean Tyler Walters.

What can your areas bring to the table to help Virginia Tech meet its strategic goals?

The University Libraries has so much to offer in services and partnership areas! Key areas in research collaboration and engagement that I encourage readers to explore are Evidence Synthesis, which informs future research, policy, and decision-making with comprehensive, systematic reviews; Research Impact Services, which helps us understand and communicate Virginia Tech's research impact and engagement; Strategic Research and Industry Analysis that analyzes and identifies research trends, strengths, and impact; Undergraduate Research Services; and Health Sciences Libraries and Services that offers specialized spaces, collections, consultations, and support services.

How did you become interested in the areas of research services and creating the robust suite of services the University Libraries has today?

I love learning about new topics, areas, and ideas, and research is a great way to learn. I like to stay open to possibilities, including learning about different methods, ideas, and practices around what 'research' is. There are so many creative possibilities in how we can work with partners in different roles - within academia and broader communities, how we can generate ideas, how we can approach research goals, how we can decide and adapt what we create through results of research processes, and how we can engage and work with others to share findings, implement new ideas, or explore further. In particular, I appreciate opportunities to collaborate towards mutual goals.

Much of my professional development and a significant source of ideas for the services we have today comes from active involvement in professional organizations like the Science and Technology Section of the Association for College and Research Libraries and the Medical Library Association. I've been deeply engaged in supporting and developing library research services broadly and in particular for health sciences programs and professions, which focus on research, education, and outreach to and for people. However, increasingly, health sciences takes a broader, more holistic approach, through One Health, Health Humanities, and integration of multicultural knowledge and experiences of overall wellness. These purposefully focus on connections between individuals, society, non-human animals, and the environment in which we all live together. Doing so successfully often requires both deep experience and training in one area, such as immunology or public policy development, along with collaborative, transdisciplinary work with partners in oral history, nutrition, community organizing, environmental engineering, performing arts, public humanities, and more.

— “ —
Experience in and exposure to different disciplinary approaches, cultures, and societies can lead to a broad view of what 'research' means.

Virginia Pannabecker

While I have spent the majority of my working life in science, engineering, and health sciences libraries, my educational background is in the humanities and social sciences. I also spent three years teaching English as a foreign language in France and Japan. Experience in and exposure to different disciplinary approaches, cultures, and societies can lead to a broad view of what 'research' means, why it's important, and how we can engage with local and global partners to increase its effectiveness for our work and for our communities. This is especially important when working in a public research university with a commitment to local and global outreach and engagement.

How does your position fit your professional passions?

Academic environments and research universities like Virginia Tech are exciting and inspiring places. We also have a lot of work to do towards learning more and acting to increase access to and fully inclusive engagement with university opportunities for people from diverse backgrounds. I'm passionate about increasing access to and opportunities within Virginia Tech and for community members towards engagement and partnerships in research, scholarship, and co-learning. I also love to support transdisciplinary collaboration, international collaboration, and shared access to, engagement with, and impact of scholarly and creative works, as well as programming and events, so that we all have more opportunities to learn from and build with each other.

Leading research services and health sciences libraries with so many experienced, enthusiastic colleagues means I'm continually involved in supporting initiatives that fit my professional interests and passions. ■

Library provided ‘refuge’ for alumnus during tumultuous times

AS A HIGH SCHOOL STUDENT, CHRIS LLOYD '71 was academically successful. The sociology major was determined to continue to make the grades at Virginia Tech.

“I never had to work for the grades. During my freshman and sophomore years at Virginia Tech, I realized this was a different environment from high school,” Lloyd said. “Everyone was smart and talented, and I didn’t want to disappoint my parents or myself.”

Lloyd attended Virginia Tech during the late 1960s, a time when strong opinions, colorful banners, and emotional arguments occupied the Drillfield. He would find solace from the tumult in Newman Library.

“It was the library or failure. When I needed to get serious studying done, I would sequester myself in a cubicle to fully concentrate. It had a grounding effect on me.”

It’s in that spirit that Lloyd has supported the University Libraries and its academic mission by contributing to the Library Excellence Annual Fund each year.

“I’m financially able to give,” Lloyd said. “I thought about where my contributions should go, and every student uses the library for something. Why not contribute to something that helps people get through their four or more years at Virginia Tech? You have to make the grade, and to do that, you need library resources. If not, you probably won’t get through school.”

Lloyd said he is impressed with the reach of the University Libraries in local communities, throughout the state, and beyond with multiple library locations, outreach programming, and online access to digital resources and experts.

“The library reaches individuals on and off campus. Researchers can tap into the library system’s valuable resources and databases from across the state and even the world,” said Lloyd. “The University Libraries is a valuable resource and provides technical credibility to Virginia Tech as a leader. It’s not all about the book.”



Chris Lloyd '71 and his grandson. Photo courtesy of Chris Lloyd.

Lloyd spent three to four hours every week in Newman Library, no computers and no shortcuts. He would take a seat in the library and find his focus.

“Back then, everything was manual — we cranked it out on paper. If I had a report or paper due, I was in the library. If I had a test coming up, I was studying in the library,” said Lloyd. “Dorm life was chaotic and social and there was a lot going on across campus. So there were many distractions.”

While at Virginia Tech, Lloyd worked for University Libraries in the reserved book section. This gave him more opportunities to read, study, and get paid. There, he recentered.

“The library was a refuge,” he said.

That refuge proved valuable in times when the Vietnam War, civil rights, and anti-government sentiment were just a few issues permeating the student body psyche.

“The late ‘60s was a tumultuous time. Weird and wild things were happening on the Drillfield, and I was able to listen to a lot of opinions. I enjoyed the exchange of ideas and met really interesting people,” said Lloyd. “I was elected and served as an off-campus senator in the Student Government Association and was exposed to a cornucopia of ideas, which was fundamental for me. It was something I wasn’t exposed to before.” ■ **AB**

Alumnus believes in connections to serve others

ELECTRICAL ENGINEERING ALUMNUS VIK CHADHA M.S.

'94 believes in creating networks — both the human and computer kind — to build something even greater.

Since graduating from Virginia Tech, he has used his innate ability to combine the best people and technologies to create businesses and provide startup capital to help others reach their full potential. Through all of their corporate and community service endeavors, he and his wife of 23 years and fellow Hokie, Vidya Ravichandran '96, live the Virginia Tech motto *Ut Prosim* (That I May Serve).

"This is a very important value system for us," said Chadha. "When you're impacting people and families, it becomes a social responsibility."

Chadha and Ravichandran and a close friend, Raj Hajela, created their first project, *passion4art.com*, to support and raise awareness for the arts. Then the website's server crashed, and months of hard work was lost. This devastating experience made them realize that they couldn't be the only ones falling victim to the whims of technology hiccups. The idea to start Backupify, to help businesses back up critical information, was born.

"Backupify started as a lark with a good friend named Rob May. But that lark met a need and we sold, what began as a hobby and morphed into a fast-growing startup that raised \$20 million in venture capital funding, for over \$100 million," said Chadha. "If you tinker around, you don't know where it can lead."

As an electrical engineering graduate student in the early '90s, Chadha worked for the University Libraries' information technology department overseeing the CD-ROM collection. This was an early and very unstable stand-alone system not supported by other information technology systems or networked servers. So unstable in fact, the library issued him a pager in case the system crashed and he needed to rush to Newman Library to fix it.

Because of his job in the library, Chadha could buy a car, earn a parking pass, and meet living expenses. It also led to his graduate thesis, a computer network simulation about how our brain works.

Those lessons in how networks need to be configured for success stuck with Chadha. Throughout his career, he watched how networking — both in-person and through technology — helps companies connect with employees and clients throughout the world. Personally, he appreciated the ability to video chat with his father in India through software using Unix servers and networks.

Even after creating and selling more than a half dozen companies that solve wide-ranging business problems through



Vik Chadha M.S. '94. Photo courtesy of Vik Chadha.

technology and human networks, Chadha and Ravichandran continue to seek opportunities to help others.

Ravichandran is founder and CEO of GlowTouch Technologies, which offers customer experience management services and contact center, business process, and technology outsourcing with a motto "putting people first." The affiliated GlowTouch Foundation, created by Ravichandran and her family in 2004, reaches beyond the corporate mission and provides the economically challenged access to quality health services, educational assistance, and employment opportunities in the GlowTouch Technologies global footprint.

Recently, the foundation lent a helping hand to Raj, who was involved in *passion4art.com* over 20 years ago, and his wife Priya Hajela, with their philanthropic undertaking - The VaxAll Initiative. It is a COVID-19 vaccination program in India that funds vaccines and leverages local hospitals and primary care centers to pre-register and administer them. The program also creates connections to promote the importance of vaccinations.

"We place human networks on top of physical networks," said Chadha. "We care deeply about others and want to make a difference in people's lives."

As founder and CEO of Scalable Ventures, a firm that invests in entrepreneurs and innovative software creators, Chadha uses his skills for analyzing effective networks and managing risk to help others scale up their ideas and become successful companies. He said it's about mentorship, connections, and financial backing.

"Entrepreneurship is a twisty, windy journey with ups and downs — a lot of downs," said Chadha. "Entrepreneurship and innovation are my jam. I enjoy unlocking potential by leveraging highly talented people and technology."

He combines his personal and professional interests with market needs to make something bigger. For him and Ravichandran, it is a hobby, a livelihood, and a way of making the world a better place. ■ AB



Larry Thompson honored with emeritus status

By Mark Owczarski

Larry Thompson. Photo courtesy of Larry Thompson.

LARRY THOMPSON, College of Engineering librarian and associate professor of University Libraries at Virginia Tech, has been conferred the title of associate professor emeritus by the Virginia Tech Board of Visitors.

The emeritus title may be conferred on retired professors, associate professors, and administrative officers who are specially recommended to the board by Virginia Tech President Tim Sands in recognition of exemplary service to the university. Nominated individuals who are approved by the board receive a copy of the resolution and a certificate of appreciation.

A member of the Virginia Tech faculty since 1996, Thompson served the College of Engineering faculty and students by providing in-depth research consultations, high quality instructional sessions, and ensuring access to information sources to support and enhance the degree programs and research initiatives of the college.

He was the author or co-author of numerous journal articles, presentations, and series with a focus of enhancing methods of teaching students to locate, evaluate, and use engineering information.

Thompson was a leader in the American Society for Engineering Education's Engineering Libraries Division, presenting and organizing sessions at the annual conference for more than 25 years, and received the Homer I. Bernhardt Distinguished Service Award for his many contributions.

He provided instrumental leadership and mentoring to the science and technology liaisons by leading the science and technology team at the university for five years, and his influence continues today through the liaisons who progressed their careers into leadership capacities.

In the classroom, Thompson co-taught the engineering and physical sciences section of the GRAD 5124 Library Research Skills course for more than 15 years and contributed to the regular updating and revision of core material for all course sections.

Thompson received his bachelor's degree and Master of Library Science degree from the University of Buffalo. ■





Let's celebrate!

The Council for Advancement and Support of Education awarded the University Libraries' IMAGINE Magazine a **gold Circle of Excellence Award** in June 2021. Winners were selected based on several factors, including overall quality, innovation, use of resources, and the impact on the institution or its external and internal communities, such as alumni, parents, students, faculty, and staff.

"We were pleased and very proud that IMAGINE: The University Libraries at Virginia Tech Magazine was recognized by the Council for Advancement and Support of Education," said Ann Brown, director of strategic communications at University Libraries. "We have a small strategic communications team, and the bi-annual magazine is an important communication to our Virginia Tech community, library supporters, and library colleagues across the country and beyond. In addition to positive feedback from our readers, it's really special to be recognized by advancement communications peers across the country."

We want to hear from you!

We're curious. What do you think of the magazine? Do you have questions about library services or would you like to learn more about library programs? Let us know through the survey link or QR code below.

Do you have friends who would be interested in getting the magazine? They can be added to the mailing list by filling out the survey and providing a mailing address.



WE LOOK FORWARD TO HEARING FROM YOU!

bit.ly/imaginefeedback



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lib.vt.edu

A background image showing two students wearing face masks and working on a laptop. The image is overlaid with a semi-transparent orange and white geometric design.

Every great idea starts somewhere. At Virginia Tech, **they start here.**

In an age of limitless information and rapid change, access to emerging technology and the perspective to build on it has never been more valuable. University Libraries at Virginia Tech provides expertise and services that transcend geography and time to fuel accomplishments by all Hokies.

Help the University Libraries serve all Hokies for generations to come.

Learn how you can make a legacy gift through your will.

Contact Rachael Carberry, Director of Development,
at restep2@vt.edu or 540-750-0673.