



CAROLINA
ARTS & SCIENCES
SPRING • 2022

**Reopening
the World**
Study Abroad's
COVID playbook

ALSO INSIDE:

- Pollution-cleaning plastics
- Tackling tough subjects
- Pandemic parallels



Tar Heel basketball legends Phil Ford '78 and Walter Davis '77 stopped by my office recently. They were on the court when I was an undergrad here.

Endings and new beginnings

It is bittersweet for me to realize that this is my last dean's message for *Carolina Arts & Sciences* as I prepare to retire at the end of the semester, wrapping up 35 wonderful years of service to UNC-Chapel Hill.

It has been a year of reflections and celebrations. When I became dean in early 2020 (after serving as interim dean for a year), little did I know that a global pandemic would dominate the next two years. We are now on the road to normalcy, with the resumption of in-person classes last fall and adopting a mask-optional

policy in March. I'm enormously proud that teaching, learning and research continued on, even during the worst of COVID-19. I know we are stronger for the lessons learned and that many innovative instructional techniques born of necessity will stay with us.

As I look back on what we have accomplished in my time leading the College — the launch of our Program for Public Discourse, the appointment of our first associate dean for diversity, equity and inclusion, a new academic department (earth, marine and environmental sciences) and a new, very popular minor in data science — I can see that we have contributed meaningfully to the *Carolina Next* strategic plan. The College's next dean will inherit a strong leadership team, a brand new undergraduate curriculum and, I hope, a sense of gratitude for landing one of the best jobs in the world.

Sincerely, 

As *Carolina Arts & Sciences* went to press, the next dean of the College of Arts & Sciences had not been named. Visit college.unc.edu for the latest news on the dean search.

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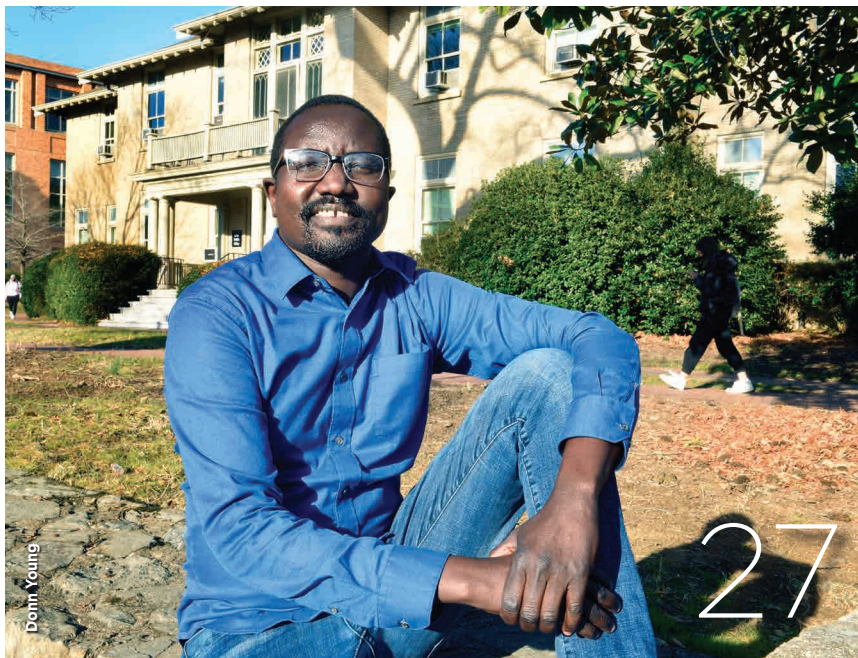
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Cover Photo:

Carolina undergraduate Nikki Salazar at the Parc de la Ciutadella in Barcelona, Spain. It is the city's largest park and a favorite of locals and tourists. *(Photo courtesy of Nikki Salazar)*

A glass of water with ice cubes is shown on the right side of the image. The background is a dark, textured surface with numerous water droplets of various sizes. The overall color palette is dark blue and black, creating a moody and scientific atmosphere.

BY DELENE BEELAND

Can sustainable plastics clean our plastic-polluted water?

UNC researchers across disciplines are harnessing the power of a new plastic to remove pollutants from drinking water. Their work just got a significant boost from the state legislature.



Inventing a new kind of plastic to remove plastic pollution from our drinking water may sound counterintuitive. But for Frank Leibfarth, it makes perfect sense.

Leibfarth, an assistant professor of chemistry, invented a synthetic resin material that is highly effective in lab experiments at removing polluting chemical components known as PFAS — which stands for per- and polyfluoroalkyl substances — from drinking water.

PFAS are created in the commercial production of many products and coatings that repel water and stains, from stain-resistant fabrics to your favorite nonstick frying pan to takeout food boxes.

Leibfarth's polymer plastic material is so innovative that *Popular Science* named him to its "Brilliant 10" list in 2021. The honor recognizes early-career scientists and engineers nationwide engaged in transformative work through innovative approaches to global issues.

The N.C. General Assembly also took note and recently allocated \$10 million in funding for Leibfarth's laboratory — and that of his collaborator, UNC associate professor of environmental sciences and engineering Orlando Coronell — to scale up the new resin for use in public water utility systems.

N.C. Sen. Michael Lee, who represents New Hanover County, championed inclusion of the funding boost in last fall's budget. The North Carolina Collaboratory, established by the General Assembly in 2016, has helped to raise awareness for the importance of PFAS research and testing through the NC PFAS Testing Network, which includes Leibfarth and Coronell.

"Early lab results suggest these resins developed at UNC outperform anything else on the market by a factor of two and,

continued

in some cases, remove almost 100% of PFAS compounds,” said Lee. “If this technology works at scale, it will be a significant tool to mitigate PFAS exposure in North Carolina’s drinking water and, frankly, that of the world.”

Several N.C. waterways are severely contaminated with PFAS due to industrial chemicals, such as the well-documented case of GenX (a type of PFAS) pollution by an industrial plant in the lower basin of the Cape Fear River. The river provides drinking water for an estimated 355,000 North Carolinians downstream of the plant.

Leibfarth and Coronell hope the new resin will clean up the Cape Fear and other rivers, too. Better yet, they hope it will bring environmental equity to lower-income families who are disproportionately affected by PFAS pollution.

“PFAS pollution is a problem in North Carolina, but it’s also an international problem,” Leibfarth said. “Our work will benefit the state, but it will also, hopefully, have global benefits.”

REDUCE, BUT ABOVE ALL, REINVENT

For many years, the pro-environment message has been to move away from plastics due to their legacy of harm. But Leibfarth’s philosophy is more nuanced. And it helps explain why he believes a next-generation sustainable plastic will save us from plastics of the past.

Leibfarth said that while we should all try to reduce the amount of plastic we use personally, there are some applications in life where plastics are better for the environment.

Yes, you read that right.

“Take cars,” he explained. “Today’s vehicles contain more plastic than those made several decades ago. This means they are lighter and burn less fuel. Or, if you drive an electric car, use fewer electrons.”

Still most traditional plastics

biodegrade poorly. Their molecular legacy is expected to live on as “forever chemicals” that pollute our soil, water and oceans for millennia.

PFAS are particularly troubling because they “accumulate in the environment, and they don’t biodegrade. They will be there for thousands of years, and we just keep making more,” Leibfarth said. “Worse, they can cause health effects even at low levels of exposure.”

While understudied, exposure to these chemicals is tied to disruption of the endocrine system and some cancers. But it’s not just those living near polluting factories who are affected. PFAS pollution is so pervasive that it’s in our water, our food — and bioaccumulates in each of us.

“The dangerous part of these chemicals is their combination of

toxicity and longevity,” Leibfarth said.

Despite the missteps of plastics past, Leibfarth believes next-generation sustainable plastics are the solution.

“I call myself a polymer chemist,” Leibfarth said. “All plastics are polymers, but not all polymers are plastics. Using our ability to build polymer materials from the ground up, and our commitment to sustainability, we saw this opportunity where we felt we could make a contribution to water purification. That’s what led us to make these materials for PFAS remediation.”

SCALING UP: FROM THE LAB TO PUBLIC WATER UTILITIES

While Leibfarth has focused on designing the structural properties of the new material, collaborator Coronell from the UNC Gillings School of Global Public Health has focused on how to



Liah McPherson



Jon Gardiner

TOP: GenX pollution is affecting the lower basin of the Cape Fear River.

BOTTOM: Chemist Frank Leibfarth invented a synthetic resin material that has proven highly effective in removing PFAS from drinking water.



Jennie Sala



Jennie Sala

TOP: Orlando Coronell, a professor in the Gillings School of Global Public Health, is partnering with Leibfarth on the PFAS work. **BOTTOM:** Postdoctoral associate Guan Pin "Nick" Chew, left, joins Coronell in the lab.

grouped into short and long-chain PFAS. The Environmental Protection Agency urged industry to voluntarily cease producing long-chain PFAS in the mid-2000s. Industry's response was to move to short-chain PFAS, but emerging evidence indicates that these are just as bad for human health and are even more difficult to remove from the environment.

"They tend to leak through state-of-the-art resins," Leibfarth said. "We were finding breakthrough of the short-chain PFAS in simulations of six months." In contrast, tests of long-chain PFAS found simulated breakthroughs in 18 months.

Coronell's added challenge is thinking through the resin material's life cycle.

"What happens when you get through its useful life? Can we transform it to its prior state and render it useful again?" he asked. "These are important considerations in terms of whether these new technologies can be used or not at scale."

The next step will be to run experiments in real-world situations and in real time. Testing and evaluation at the water treatment plants will span several months to a year, Coronell said.

"But first we want to ensure we have a resin bead that will actually work," he added. "Before testing at pilot scale at a water treatment plant, we will continue to work at laboratory scale with additional equipment, resources and water samples to ensure we have something that is worth testing at scale."

The Institute for Convergent Science will be working with the North Carolina Collaboratory to support this project. ICS was also an early investor in the PFAS project and seeks — along with Innovate Carolina — to help bring it across the finish line.

"We would not have taken on the challenge if we did not think it was doable," Leibfarth said. "But we could not have gotten to this next step without this new funding."

apply it. He is examining how to use the new resin in engineered systems where its performance can be measured and evaluated. The funding boost from the state will aid in scaling the material from testing at the lab bench to real-world testing in three locations across the state: two public water treatment facilities and one aquifer.

Despite the pair's promising findings to date, there are challenges to overcome.

Leibfarth's immediate challenge will be to overcome manufacturing hurdles. His lab has created 40 grams of the polymer at a time, but he will need

devised for running tests in the lab and re-engineer it for use in a water treatment facility. There are many different variables to account for, he said. A big question is how the material's structure will affect its performance at scale.

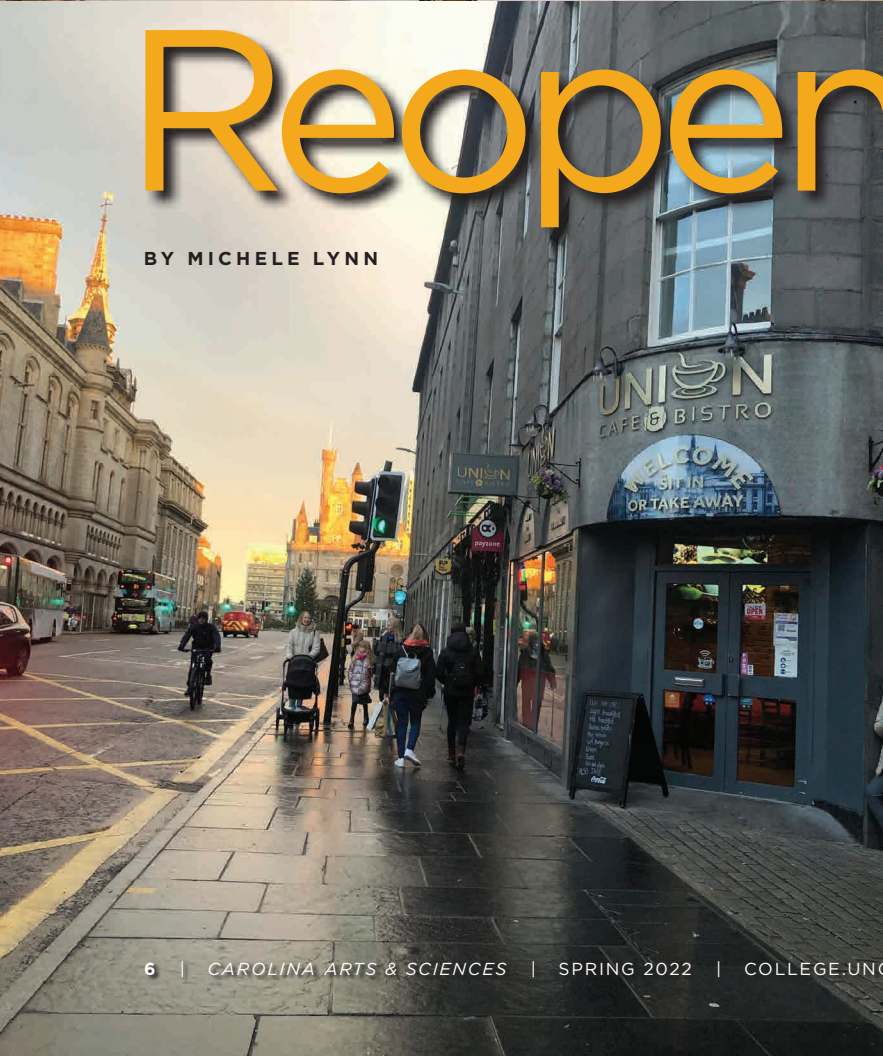
"From the size of the beads and their structure to the content of organic matter and other ions in the water to how fast the water flows through the column — it all matters," Coronell said.

There is also the broad nature of PFAS molecules themselves. More than 5,000 chemicals fall under the PFAS umbrella, and these are largely



Reopening the

BY MICHELE LYNN





UNC's Study Abroad Office adapted its programming during the pandemic, creating new global learning opportunities for students at home while helping others travel internationally safely.

continued

world

CLOCKWISE FROM TOP LEFT:

Nikki Salazar at La Alhambra, an Islamic palace and fortress in Granada, Spain.

• *The basilica La Sagrada Família in*

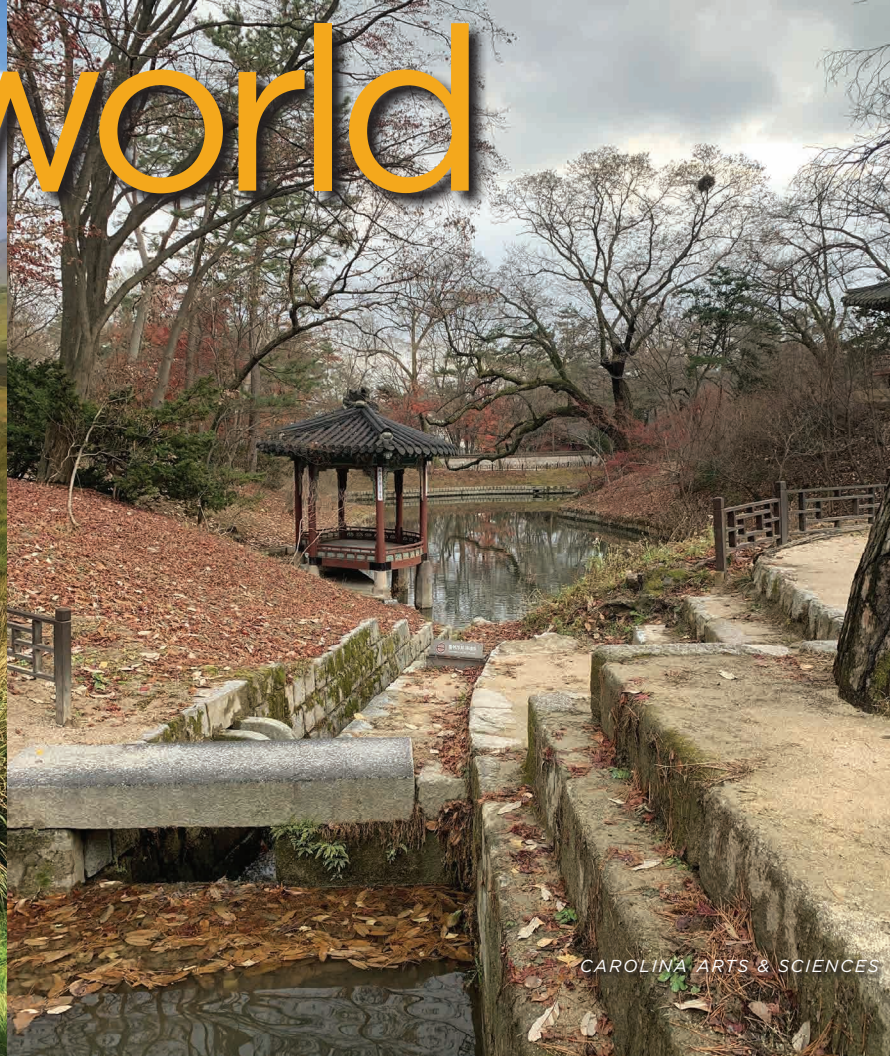
Barcelona. • Tracy Ridley at the Seoul Sky Observatory at the top of the Lotte

World Tower. • The Huwon Secret Garden at the Changdeokgung Palace

in Seoul. • Melanie Carmichael at Loch

Tulla in the Scottish highlands, en route

to the town of Oban. • Carmichael visits Aberdeen, Scotland.





Stirling, Scotland. Seville, Spain. Seoul, South Korea. Manheim, Germany. For undergraduates Melanie Carmichael, Nikki Salazar and Tracy Ridley, these cities represent more than dots on a map; they served as home during the students' semesters abroad.

When the COVID-19 pandemic began to affect travel in March 2020, nearly 95% of the 382 UNC undergraduates studying abroad returned home, finishing their term online with their host institution. While many other universities put their study abroad programs on hold, staff at UNC's Study Abroad Office — led by interim associate dean Jason Kinnear — wrote a different narrative beginning the following semester. Kinnear and his team developed a complex risk assessment tool using a variety of metrics to gradually resume programs with safety precautions in place.

South Korea was the only country available to UNC students in fall 2020. Twelve countries were available in spring 2021, 11 in summer 2021, 14 last fall, and this semester students had a choice of 33 countries. (Before COVID, a typical semester would have UNC students studying in about 60 countries.)

"We started slowly because we wanted to ensure the safety of our students," said Kinnear. "But we are committed to making global

opportunities available to our students because these experiences are truly life-changing."

Carolina remains a leader in global engagement, a commitment prioritized in Carolina Next, the University's strategic plan. During the pandemic, Study Abroad has continued to innovate to serve students and create new global learning opportunities. Virtual global study, research and internship programs with partners throughout the world are just some of the ways that UNC provided students with a global experience. Carolina faculty who ordinarily lead study abroad programs worked with international partners to teach new Collaborative Online International Learning (COIL) courses.

In recognition of its inclusive and comprehensive efforts to internationalize the campus, UNC recently received the Platinum Award for Global Learning, Research and Engagement, the highest award given by the Association of Public and Land-grant Universities.

"The biggest takeaway from my experience was how it fast-tracked my journey to feeling like an adult. I was in complete control of how to spend my time and money, and I learned what I valued in the real world outside the classroom."

— NIKKI SALAZAR '22

CLOCKWISE FROM TOP LEFT: *Salazar at Cap de Formentor-Pollença on Mallorca Island. • The UNC in Sevilla cohort at the ancient Roman amphitheater of Itálica. • The breathtaking view at Cap de Formentor.*

Growing up in the small North Carolina town of Lincolnton, Nikki Salazar '22 spoke Spanish as her first language with her Costa Rican immigrant parents. Salazar attended the UNC in Sevilla program in fall 2021 with the academic goal of strengthening her ability to read and write in her native tongue. A recipient of the #HeelsAbroad photojournalism scholarship, Salazar took over Study Abroad's [Instagram](#) account for a week, documenting her Sevilla experience.

Studying abroad had been a dream of Salazar's since she was accepted by



CLOCKWISE FROM TOP LEFT: *Ridley and friends enjoy Korean barbecue in the Itaewon district of Seoul. • Climbing Hallasan Mountain, the highest mountain in South Korea. • Going down the Third Tunnel at the Demilitarized Zone.*

UNC and received an Excel at Carolina summer grant fellowship of \$5,000 to study abroad. Her original plan to use that money in the summer after her sophomore year was thwarted by COVID.

A Covenant Scholar, Salazar says that as a first-generation college student she was thrilled that her scholarship covered overseas tuition.

Her travels, which included trips to France, Italy and other cities in Spain, helped her learn to be proactive and to

think on her feet. “In France and Italy, where I don’t know the language, I had to figure things out without a lot of help, which made me a better traveler and made me feel empowered,” said Salazar.

Living with a host family provided a stepping stone to independence. With three host siblings close to her age, Salazar “attended birthday dinners and just hung out with young people in the house, learning words I probably shouldn’t have,” she said, laughing.

COVID protocols — including masking, social distancing and showing her vaccination record to gain entrance to sites — did not decrease the impact of Salazar’s experience. “After this trip, I can dream bigger,” she said. “Meeting so many people and traveling gave me a lot of hope for the future.”

“Everyone can get something out of studying abroad, whether you’re looking to improve your language skills or just seeing something new. The people I’ve met who have studied abroad come back with a completely different mindset, are a lot more open and want to keep seeing the world.”

— TRACY RIDLEY

When choosing to study abroad, Tracy Ridley ’23 ventured to both a familiar destination and one outside

his comfort zone. For the latter, he chose Seoul, having never traveled to Asia. After spending the fall 2020 semester in Seoul, Ridley returned home to Matthews, North Carolina, for two weeks before boarding a plane for Germany, where he spent the spring 2021 semester at the University of Mannheim.

With a mother who is German, Ridley grew up speaking German as well as English, but never studied German in school. “My classes and experiences in Germany gave me the ability to give a 45-minute presentation and write a 20-page paper in German,” he said. “I feel about as near-native in the German language as possible for having grown up in the United States.”

While Ridley’s initial vision of study abroad in Europe was filled with weekend jaunts to nearby countries, the risk of COVID shaped his decision to remain in Germany throughout the semester.

“Germany was very strict regarding traveling outside the country and then returning,” he said. But he was exposed to what he describes as “a good cultural mix” since his classmates hailed from diverse countries, including Belgium, Italy, France, Denmark, Switzerland and Slovakia.

Ridley’s study abroad motivated him to successfully apply for a summer 2022 internship with Bertelsmann, a German multinational corporation. “Without the

continued



in-country experience and mastery of the language, I don't think I would have gotten this internship," he said. "Since I've been a kid, I have wanted to live in Germany. My study abroad experience helped me be ready to make that big step."

The semester at Seoul's Yonsei University as a Phillips Ambassador expanded Ridley's horizons as he stretched himself to try new things, including starting Korean language classes, hiking and visiting museums. "Studying abroad taught me to keep an open mind," he said.

Because of COVID, South Korea did not allow travel out of the country, and Ridley had to quarantine for two weeks upon arrival. And while he was in the first small cohort of UNC students to study abroad in fall 2020, he describes his stay "as about as normal as you can get nowadays," filled with new friends, adventures throughout the country and immersion in a new culture.

"Studying abroad gave me more hope for the future," he said. "Being away [from home] helped me find those things that I really like to do and motivated me for what's to come."

While most Carolina undergraduates spend their first semester exploring Franklin Street, the Old Well and the Pit, Melanie Carmichael '26 was discovering the Scottish Highlands, the Isle of Mull and London. As a participant in the new Carolina Global Launch program,

Carmichael completed a study abroad program at Scotland's University of Stirling in fall 2021, before beginning classes on the UNC campus this spring.

In addition to the 25 students who were in Stirling with Carolina Global Launch, Carmichael interacted with students from throughout Europe and the United Kingdom.

"Starting college this way made me independent and responsible," said Carmichael. "The rule for Carolina Global Launch is that if you don't do well in your classes, you won't be going to UNC, so we had to make sure we were on top of our studies."

"Studying abroad isn't a vacation; it's a learning opportunity. I learned to understand the cultures that I was surrounded by, find commonalities with others and see different perspectives. I learned so much culturally and academically."

— MELANIE CARMICHAEL

Being a disciplined student did not prevent Carmichael from taking part in every excursion offered by the study abroad company with which UNC contracts for this program. She went on 20 excursions, including weekend trips to the Isles of Mull, Iona and Skye and the town of Oban. Carmichael even flew to London to tour the sights with her dad.



CLOCKWISE FROM TOP LEFT: Stirling Castle, high on a volcanic rock above the River Forth. • Carmichael, second from right, at the Highland Games Academy, where she was the only one who flipped the women's competitive caber. • Glencoe, a stop on a trip to the Isle of Skye.

Students wore masks in classes and had easy access to free COVID tests and tested themselves before any excursion or event. "I was just happy that I was able to do everything I did during a time when many people weren't traveling at all," she said.

Carmichael remains close with her fellow Global Launch classmates now that they are in Chapel Hill.

"We go to dinner together all the time, and we are just there for each other," she said. "My parents commented that since my return, I seem like a different person. I've grown so much from this experience and now I'm always ready to do the next big thing."

Scholarships

in the College of Arts & Sciences



My experience with the Chancellor's Science Scholars program has helped shape my appreciation for all of the



STEM fields and has helped me to hone my career path; it has also expanded my perspective on the

many opportunities that I could pursue after undergrad."

NAOMI JOHNSON '22

Naomi, a neuroscience major with minors in chemistry and African American and Diaspora studies, is from Cary, North Carolina, and is a Chancellor's Science Scholar.



My Honors Carolina Scholarship is one of the best opportunities I've had in my life, and I couldn't be more grateful for it. Being a part of Honors Carolina allowed me to explore academic opportunities that I wouldn't have found otherwise, and my scholarship alleviated the financial pressure of college. Being at UNC was always a dream of mine, and Honors



Carolina has made it even more fulfilling."

SAM HACKETT '22

Sam, a business administration and exercise and sport science double major, is from Hampstead, North Carolina, and is a Batchelder Family Honors Carolina Scholar.

Naomi and Sam are just two of the many amazing students whom Carolina is able to attract because of scholarship programs like the **Chancellor's Science Scholars** and **Honors Carolina Scholars**.

For Carolina to continue to recruit the brightest and most talented students from all walks of life, private philanthropy is more critical than ever in meeting our commitment to students of all backgrounds.



Learn more and support scholarships for students in the College of Arts & Sciences:

chancellorsscience-scholars.unc.edu/support-us/
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A space to talk about hard things

The award-winning National High School Ethics Bowl teaches students how to thoughtfully engage with divisive topics — and with one another.

BY MARY LIDE PARKER '10

Is it okay to “ghost” someone you’ve been dating? What is the value of objectivity in journalism? How should government officials communicate information about COVID-19?

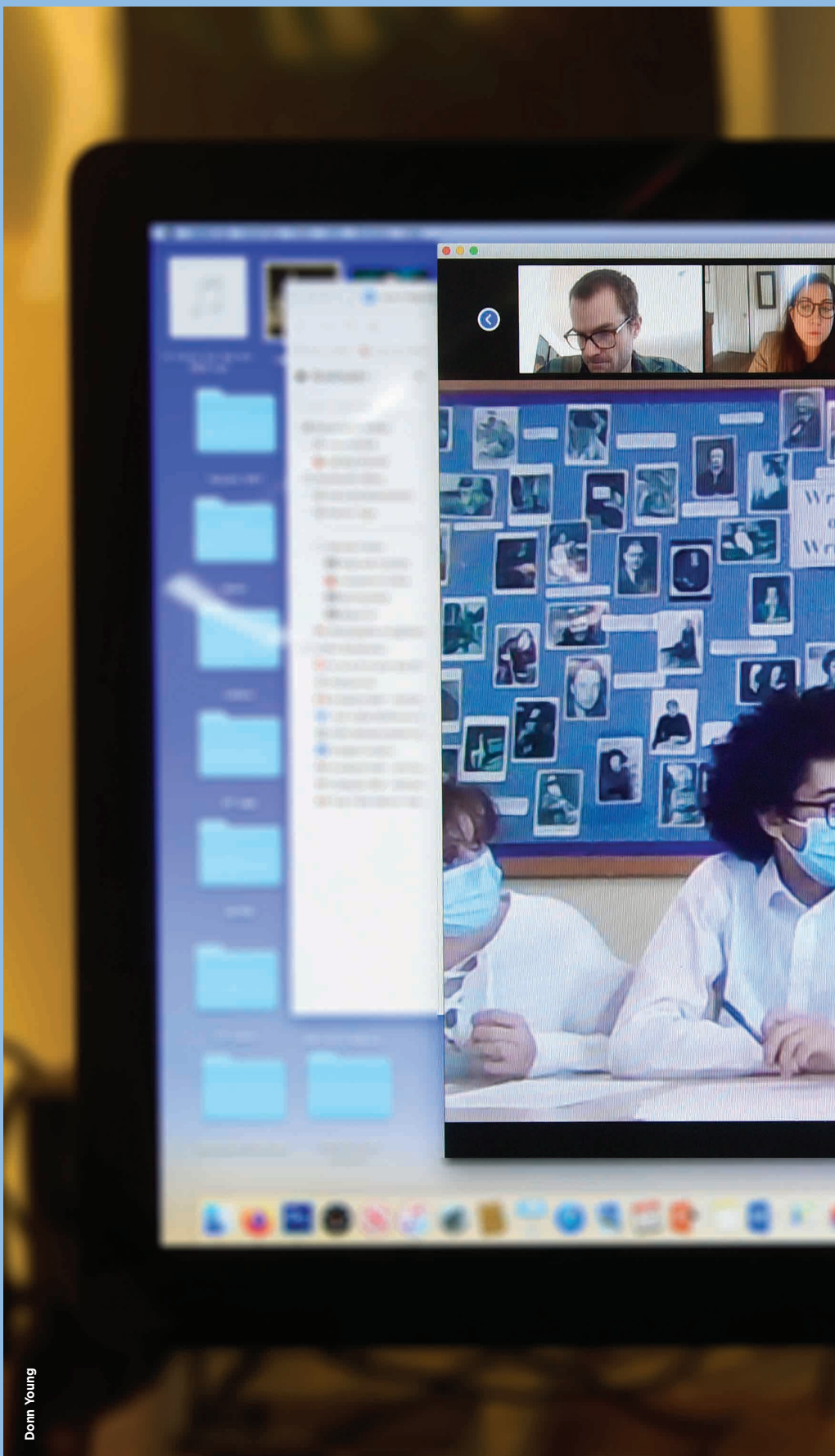
These questions are just a few of the topics presented to students during the **National High School Ethics Bowl (NHSEB)**, a program that hosts regional bowls and then a national event each April in which teams discuss real-life ethical issues. The program is part of the **Parr Center for Ethics** in the department of philosophy.

Unlike traditional high school debate clubs, NHSEB participants do not focus on *winning* an argument. Rather, judges give students a score based on the clarity and quality of their reasoning.

“Combative, antagonistic debate

continued

Teams from Woods Charter and Eastern Alamance high schools discuss cases on DNA testing and obligations to family at the virtual January North Carolina High School Ethics Bowl.



Dom Young



doesn't get us very far," said Alex Richardson, director of the program. "Students are evaluated on the ways they engage with each other. Are the conversations respectful and constructive?"

Each bowl includes judges from the Chapel Hill community — including philosophy graduate students, retired professors or public servants.

Delaney Thull, a graduate assistant working with the program, recalled the first time she participated in the competition as a judge and the impression it left on her.

"I remember thinking 'Wow, these students are handling things with so much grace and respect,'" she said. "Our country needs more of that skill set — where you can have strong disagreements and still walk away with mutual respect and admiration."

Thull sees the ethics bowl as a space for young people to come together and talk about difficult subjects.

"It's amazing to see American teenagers having hard conversations about topics that most adults aren't willing to touch," she said.

Empowering young people

To participate in those hard conversations, teenagers must feel empowered. As the Parr Center began conceptualizing the NHSEB back in 2012, the staff worked to create rules and guidelines that would encourage high school students to feel confident and respected.

"College students are accustomed to being treated as fully evolved and informed members of society, but high school students are often talked down to — as if they don't have the agency to understand complex societal problems," Richardson said.

The Parr Center staff designed the ethics bowl events to change that mentality.

"We can teach them what it means to have productive discussions about



Alex Richardson is director of the National High School Ethics Bowl. The program recently received a prestigious prize from the American Philosophical Association.

fundamental moral and political issues in a way that is not derailed by disagreement but is actually improved by it," he added.

During its inaugural year (2012-2013), NHSEB oversaw 11 regional competitions with about 1,000 students participating.

In 2021, the program hosted 40 regional competitions across 32 states, with nearly 4,000 students from 350 schools taking part.

"For a program that is less than 10 years old, it's grown like wildfire," said Richardson, who joined the Parr Center as director in fall 2019.

"Just when I got up to speed, everything changed," Richardson said, referring to the start of the COVID-19 pandemic. "But I think what we are teaching students is more important than it has ever been."

Shifting goals from five years to five months

When COVID-19 canceled plans for the annual April event in spring 2020, Richardson and his team surveyed their constituents — students, teachers, judges and volunteers. The response was overwhelming: *Please keep the NHSEB going.*

In their feedback, the teachers were quick to vouch for the ethics bowl's

value, both academically and socially.

As for the students, "over and over again, we heard students say, 'I would miss the community building and networking that this activity provides for me,'" Richardson said.

The team spent summer 2020 figuring out how to move the event online for the next season and how to keep the dynamics that made the in-person events so successful. First: Keep the competition alive and lively. What does it take to make the ethics bowl happen if the students and judges cannot be in the same room? The team partnered with Enable Education, a technology firm, that designed web-based software to overcome this hurdle.

In January 2021, they rolled out the **NHSEBOne competition platform** to aid in the administration of regional competitions.

Just a few weeks after its activation, NHSEBOne was used to conduct over 30 events. Over the course of the year, 85 percent of the regional competitions adopted the platform. By the end of the 2021 season, 38 events were conducted on a platform that did not exist six months earlier.

The team worked hard to develop other tools as well, broadening the scope of the program throughout the pandemic.



Donn Young

Clockwise from left, NHSEB team members Sally Moore, Juliana Hemela, Delaney Thull, Alex Richardson and Michael Vazquez discuss an upcoming competition.

They saw early success with **NHSEB**Bridge, an online-only competition tailor-made for teams in their first year of involvement with the activity. Recruiting for this program in 2020 focused on schools and students from underserved communities.

This past October, they relaunched the most popular new program from 2020, **NHSEB**Academy, which allows students to receive coaching assistance and mentorship. Students can go to the website to schedule a consultation, brainstorming session or practice a Q&A with an undergraduate student at UNC. They can even pair with other teams for practice scrimmages with a new initiative called The Stadium.

“It turns out that what we needed to do to respond to COVID-19 worked well with the goals of our five-year strategic plan,” Richardson said.

These goals included leveraging new technologies and making the events more accessible and streamlined.

“A five-year plan quickly became a five-month plan,” he added.

The hard work and long hours paid off. In December, the team was awarded the prestigious Prize

for Excellence and Innovation in Philosophy Programs by the American Philosophical Association. The selection committee praised the team for its response to the challenges faced by the pandemic and cited the program as “evidence of philosophers doing their best work in a public forum to advance the public good.”

Using ethics in the real world

Lauren Haines saw a flyer for the National High School Ethics Bowl during her first year of high school. After attending the initial meeting, she was hooked — she participated in the event all four years of high school. When she came to UNC in 2019, she continued to be involved as a mentor for the NHSEB.

“I think the social aspect of the ethics bowl is so valuable,” Haines said. “It teaches students how to argue in an accessible way and how to approach people who might disagree with you.”

In addition to teaching solid communication skills, Haines said, the program has exposed her to topics she may not have encountered otherwise.

“We’ve had several cases that dealt

with ethical dilemmas in medicine,” she said. “It helps students communicate across disciplines.”

Haines says involvement in the program helped her learn how to translate scientific jargon into language that is clearer for a broader audience — which helped her land a part-time job while still in college.

“I write for an artificial intelligence and data science company now,” she said. “I don’t think I’d be able to do it if I didn’t have that language practice from the ethics bowl.”

Providing continuity

As the pandemic continues to complicate event planning, the ethics bowl team continues to adapt. The Parr Center planned to host the North Carolina Regional Ethics Bowl on the UNC campus at the end of January. But when concerns about the omicron variant emerged, Richardson started making contingency plans.

He and the team ended up switching to a virtual event for the regional bowl instead of bringing hundreds of students to campus.

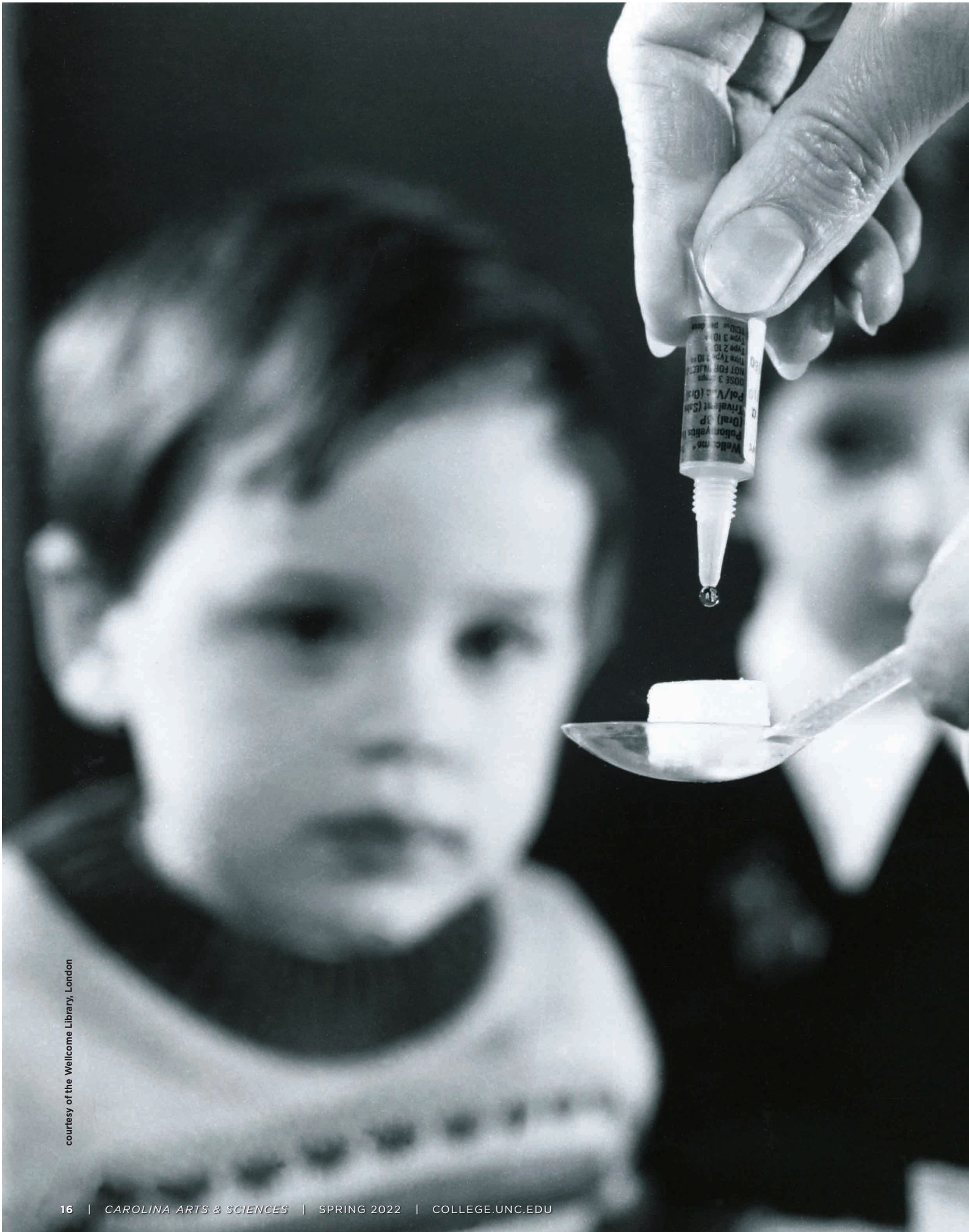
“That decision was disappointing, but we received a lot of emails from people who were relieved,” Richardson said.

Having a reliable technological infrastructure in place made a last-minute pivot to an online event much more feasible. While some of the social aspects are lost, Richardson believes the most important components are present in both formats.

“We have built a strong alternative platform that enables us to keep much of what matters not only intact, but consistent,” he said.

Thull, the graduate student, said taking ethics out of the classroom and into the real world helps students see that it’s not just an abstract thing.

“It’s not just for philosophy nerds,” she said. “This approach touches all of our lives in deep, meaningful, personal ways.”



courtesy of the Wellcome Library, London



THE POLIO PROJECT

A mysterious disease. The race for a vaccine. Stressed-out health care workers. Southern Oral History Program students probe memories of an earlier pandemic to better understand the current one.

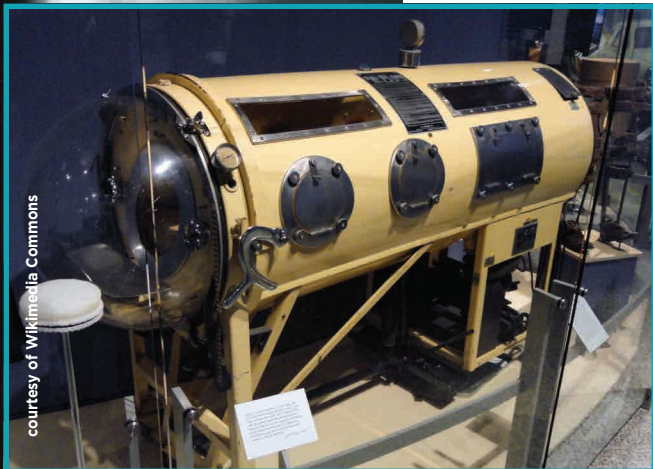
BY KIM WEAVER SPURR '88

continued

LEFT: A child receives the oral polio vaccine in liquid drops on a sugar lump. The oral vaccine was developed after the Salk vaccine, which was administered by injection.

BELOW, LEFT TO RIGHT: A tank respirator, or "iron lung," used at Union Hospital in Terre Haute, Indiana, from 1953 to 1973. • A poster created by the British Ministry of Health, circa 1960.

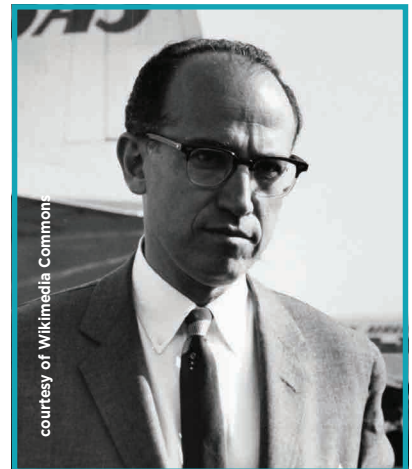
• Jonas Salk, creator of the Salk polio vaccine, in 1959.



courtesy of Wikimedia Commons



courtesy of Wellcome Library, London



courtesy of Wikimedia Commons



Donn Young



Donn Young



When scholars at the Southern Oral History Program were considering new projects for graduate students to undertake last spring, they thought that interviewing people about the polio epidemic — the disease wasn't eradicated in the United States until 1979 — could provide a lens for understanding COVID-19.

Since 1973, SOHP has preserved the stories of people from all walks of life, from mill workers to civil rights activists, in an online archive through University Libraries' Southern Historical Collection. Based in the Center for the Study of the American South, the program has the motto: "You don't have to be famous for your life to be history."

Prepping for the project

"He was in the hospital about 26 days. ... I had to hand him over to a nurse, and I thought I would choke to death, to give him up when he'd never been away from me and to hand him over to strangers. It was hard."

— RUBY MERRITT ON HER SON, WENDELL,
CONTRACTING POLIO IN 1943 AT AGE 3.

SOHP provides fellowships to graduate students who receive oral history training while they work on research projects. To prepare for the Polio Project, the field scholars first consulted the archives — probing the rich database of existing "life history" interviews to find audio clips like the one with Ruby Merritt as a way of gaining background information before embarking on fresh interviews.

They turned to historical newspapers in Digital NC's archive to find out how the polio epidemic had affected North Carolina (and UNC-Chapel Hill), and they read the 2006 Pulitzer Prize-winning book, *Polio, An American Story: The Crusade that Mobilized the Nation Against the 20th Century's Most Feared Disease*.

Archival *Daily Tar Heel* and *Summer School Weekly*

headlines struck a familiar chord with what the UNC community has been facing with COVID-19. In 1952, "Polio Forces Cancellation of Two (Football) Games," and in 1957, "Polio Total Jumps; Students Urged to Get Shots."

Four graduate field scholars conducted new interviews in spring 2021 with residents of Carolina Meadows, a Chapel Hill retirement community, as well as other people.

"We asked them questions such as: 'What was polio like? Who helped you if you got sick? What was it like to be isolated from others?'" said Susie Penman, a graduate field scholar and Ph.D. student in American studies. "They shared that as a kid in the summertime [when the virus seemed to peak], they were not allowed to go swimming, and you didn't have social media and other things to keep you occupied while inside. It was a different kind of struggle to be isolated."

Penman became so interested in the project that last summer she reached out to people in "post-polio" support groups. Similar to those dealing with long COVID-19, these polio survivors are coping with the lasting effects of polio.

In June, Penman interviewed Beverly Foster, former longtime director of the undergraduate program in the UNC School of Nursing. Foster remembered an uncle who had polio, which affected his ability to pursue a career as a musician, and an English teacher who used crutches as a result of polio. As a practicing nurse in the late '60s, she treated children with polio at a clinic on the U.S.-Mexico border.

Although the field scholars usually conduct interviews in person, in many instances they had to adapt their research methods during the pandemic.

Caroline Efirm, a Ph.D. student in the department of health behavior at the Gillings School of Global Public Health, learned to use Zencast, a high-quality audio recording platform.

"I did feel like we were able to make genuine connections with people, even if only virtually," she said. "Even though we weren't sitting in people's living rooms, we were still able to be present with them in that digital space."

continued

TOP: "Oral history is a way to put yourself in someone else's shoes," said Sara Wood, project manager for the Southern Oral History Program. SOHP is part of the Center for the Study of the American South. **BOTTOM:** Graduate field scholars Susie Penman, left, and Caroline Efirm interviewed people about their experiences with polio. They also probed research materials like these in the Southern Historical Collection in Wilson Library.

Pandemic parallels

“It was a hot, hot summer, up to 100 degrees. I was given maybe two or three patients in iron lungs to look after ... being 5 feet tall, I had to stand on a stool to put my hands through the portholes to do nursing care for the patients.”

— VIRGINIA WOOD, ON TREATING PATIENTS
IN THE '50S AND '60S AT NORTH CAROLINA
MEMORIAL HOSPITAL (SOHP ARCHIVES).

Stressed-out health care workers. Hope for a vaccine. Struggles over quarantining and isolation. Anxiety over the unknown. Community resilience.

Some familiar themes began to emerge between the polio and COVID-19 pandemics as researchers culled through archival materials (like Virginia Wood’s interview) and talked to new people.

There were differences, too. “We also discovered that vaccines were often given at schools — schools were such a central hub for communities back then; they were a connection to public health and safety,” said Sara Wood, an oral historian and project manager for SOHP who has produced stories for National Public Radio and the Southern Foodways Alliance.

Efird interviewed William Earl Thompson, a retired minister and resident of Carolina Meadows, who experienced polio outbreaks in 1944 and 1948 in Statesville. He remembered that the nearby town of Hickory became a focal point for the epidemic.

“Polio was such a mysterious thing. Nobody knew where it came from. But I was aware as an 8-year-old child that there was a fearful thing happening nearby,” said Thompson, who recalled trucks spraying DDT in the streets because people thought polio might have been spread via mosquitoes. He also recalled setting aside 10 cents of his allowance each week for the March of Dimes.

Seth Kotch, director of SOHP and an associate professor of American studies, said the “Miracle of Hickory” was a great example of a community coming together. In June 1944, a field hospital was quickly built in Hickory with nurses recruited from local colleges. The staff of the Hickory Emergency Infan-

tile Paralysis Hospital treated 454 children who contracted polio, according to a 2018 *Our State* magazine article.

“It’s a story of people overcoming adversity,” Kotch added. “North Carolina was really the site of a great success story even as it was the site of struggles. ... As we try to understand our present moment better, what does it take to unite a community around a solution to a common problem?”

Kotch noted that his father, Jonathan, a retired pediatrician and UNC public health professor, grew up in New York and was a “polio pioneer.” In 1954, he was among the first children to receive the polio vaccine developed by Jonas Salk. His father attended elementary school with Salk’s niece, and for years proudly carried a polio pioneer identification card with him.

“In many ways, polio became the perfect candidate to help us learn about COVID,” Kotch said. “How can we understand what’s going on all around us by looking to our past? That is one of the core missions of a historian.”

A humanities lens

Efird said even though she is a public health scholar, she appreciates the value of humanities research.

“I love how oral history and qualitative research centers the voice of the people who are experiencing these things,” said Efird, who also previously served as a graduate research consultant for an Honors English class on “healers and patients.” “I hope in my career to continue to focus my work through a humanities lens. How we can use both qualitative and quantitative research to meet the needs of the people who are receiving the care?”

Wood said the work of graduate students is central to SOHP’s mission.

“We started this as a pilot project to see what would happen if we scratched the surface. A lot of surprising stories and experiences came up, more than I think we initially expected,” Wood said. “Oral history is a way to put yourself in someone else’s shoes.”

Listen to excerpts of polio interviews curated from the SOHP archives at go.unc.edu/polio-project.

CLOCKWISE FROM TOP LEFT: *An ad that ran in The Franklin Press and the Highlands Maconian on March 5, 1953. • A headline from the Oct. 3, 1952, edition of The Daily Tar Heel announces cancellation of football games due to polio. • Margaret Truman (seated, center) in a 1948 White House broadcast for the March of Dimes.*



Take Half An Hour To DO YOUR PART

Save A Life On The Korean Battlefield

--- or ---

Save a Child's Legs From Crippling Polio

Give A Pint Of Your

BLOOD

Franklin Presbyterian Church

FRIDAY (Tomorrow), MARCH 6

11:00 a. m. to 6:30 p. m.

Telephone 681 If You Need Transportation

To bring you to the church or take you home.

Take that GI's other arm!---

"Do you want him to die for your way of life... or LIVE for it? Only you can decide. American industry can save him against the enemy, clothe him against the cold... but none is getting him, only YOU can save his life with that precious pint of blood... So, open up your heart... bring him back alive by giving the greatest of all gifts... your blood.

Your Armed Forces are Short 300,000 Pints of Blood a Month! Macon County Was Short 21 Pints Last Blood Bank Visit

Keep that youngster's body sound!---

New year blood will also be used to build up the nation's Gamma Globulin supply for the polio season next summer. Gamma Globulin is the first inoculation discovered against the crippling effects of polio... It will be made available through your donations of blood to epidemic polio areas next summer. Gamma Globulin is a by-product of plasma and therefore this will not reduce the amount of blood sent overseas.

GIVE YOUR BLOOD TOMORROW!

One Pint of Your Blood May Save a Child's Limb -- or Life!

This appeal is presented in the public interest by: Veterans of Foreign Wars, Macon County Post No. 7339

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|------------------------|------------------------|-------------------------|
| Reeves Hardware Co. | The Bank of Franklin | Macon County Supply Co. |
| Bryant Furniture Co. | Burrell Motor Co. | Bower's Store |
| Macon Construction Co. | Sossamon Furniture Co. | The Franklin Press |
| | Bell's Dept. Store. | |



both images courtesy of Digital NC

Yankees Even World Series By Taking 7-1 Victory

The Daily Tar Heel

VOLUME 142 NUMBER 3 CHAPEL HILL, N. C., FRIDAY, OCTOBER 3, 1951

POLIO FORCES CANCELLATION OF TWO GAMES

Douglas To Be Speaker Here

Eisenhower, McGrath Also May Give Talks

Justice William O. Douglas and Gov. George Mason will both be in Chapel Hill next week, according to the University of North Carolina. Douglas is expected to arrive on Monday, Oct. 8, and McGrath on Tuesday, Oct. 9.

NEWS IN BRIEF

One Grid Player, 3 Others Stricken

George and Steve Laffer: This Season

Coeds Note Rush Change

A recent study has shown that the rush change in the University of North Carolina is a significant factor in the decision to attend the institution.

Yugoslavian Cosmopolitan Proxy Elect

The University of North Carolina has elected a Yugoslavian cosmopolitan as a proxy elect for the upcoming election.

Dormitory Advisory Bicycle Goes Astray

The Dormitory Advisory Committee has reported that a bicycle was lost in the dormitory area.

Regulations On Voting Are Listed For Students

The University of North Carolina has listed regulations regarding voting for students.

Printed Bible Anniversaries Is Observed

The University of North Carolina has observed the printed Bible anniversaries.

Prof. Eaton's Short Story Is Horored

Professor Eaton's short story has been honored by the University of North Carolina.

BA Buildings To Open Soon For Students

The new BA buildings will be opening soon for students.

Columbia Spector Anti-Ke

Columbia Spector is anti-Ke.

Playmaker Ducat Sale Opens Today

The Playmaker Ducat sale opens today.

Notes No For Absent Proxy

Notes are not for absent proxy.

Status Of Dogbin Is Left Vague By Legislature

The status of Dogbin is left vague by the legislature.

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courtesy of National Archives and Records Administration



• The name of David Gardner's financial investing company is borrowed from Shakespeare-era court jesters, or fools, who could tell the king or queen the truth.

'Chief Rule Breaker'

David Gardner, co-founder of The Motley Fool, says his English degree helped him in creating financial advice that is accessible to people of all backgrounds and experience levels.

BY PAMELA BABCOCK

Motley Fool co-founder David Gardner (English and creative writing '88) got a taste of what investing meant as a kid in Washington, D.C. His father, a banking lawyer, would talk about owning — through stock — a piece of the companies that made products familiar to him, such as a favorite brand of chocolate pudding.

His father's fascination with the stock market paid off years later. He set up stock portfolios for each of his children at birth. When they turned 18, he turned the portfolios over to them to manage.

Managing a portfolio before e-Trade might seem daunting, but that experience inspired Gardner, his brother Tom, and a friend to co-found The Motley Fool, a financial investing and advice company for the amateur investor. It began as a stock-picking paper newsletter in 1993 and became one of the first online

communities for investors on AOL. Several years later, the brothers launched www.fool.com. The goal? To educate the masses with unconventional wisdom and an accessible, upbeat sense of humor.

Gardner said his English degree, along with his love of literature, the arts and his own sense of humor, led him to choose the company name, borrowed from Shakespeare. Court jesters — fools — could tell the king or queen the truth without having their heads lopped off. In the staid world of investment advice, the fool's cap logo made The Motley Fool easily identifiable and accessible. Members became known as "Fools," and the Gardners took on unconventional job titles.

As "Chief Rule Breaker," Gardner developed an approach called "Rule Breaker investing" which advises people to invest ahead of the crowd in innovative companies while holding shares well after others have sold. For 28 years, Gardner recommended stocks for a worldwide

membership. He has hosted a weekly podcast since 2015.

Over the years, Gardner made iconic picks such as buying Amazon at \$3.21 a share in 1997. But more important than picking Tesla in 2011 or Netflix in 2004 or Amazon in 1997, the key was he held on to the stocks and recommended others do the same. "When Amazon in the '90s went from \$3 to \$95, we felt like geniuses. But in 2001, when it went from \$95 to \$7, we didn't feel as great. But these days, with it up at \$3,000, we feel really great [again]."

Gardner said learning from UNC English professors such as Doris Betts, Daphne Athas and Bland Simpson helped him recognize that "language is the garment of thought. As we contemplate what our next sentence will be, we're really forced to think clearly to write clearly." Doing that in the opaque world of finance helped translate something that many feel "they could never understand and make it actually perfectly understandable and relatable."

The company, based in Alexandria, Va., has over 600 employees worldwide. Its website and podcasts provide a wealth of investment content for free; premium subscription services offer more custom financial advice. A focus on workplace culture and engagement has reaped dividends, with the company most recently being named to *Inc.* magazine's "Best Places to Work."

Gardner, who lives in Washington, D.C., met his future wife, Margaret McKinnon Gardner (English '88) in a sophomore creative writing class. Both were Morehead-Cain Scholars. In his free time, Gardner loves board, video and card games. He has more than 900 games of different kinds alphabetized on shelves in his home.

Last May, Gardner handed stock-picking duties off to analyst teams. He said he's looking forward to the next chapter and how he can add value to the world. He is serving as chairman of The Motley Fool Foundation, the company's new philanthropic arm.

"I'm a Fool for life," Gardner said with his trademark enthusiasm. "Life should be fun!"

'Take risks and dream big'

Forbes recently tapped rising star computer scientist Bashima Islam for its "30 under 30" list in science.

BY PAMELA BABCOCK

Bashima Islam's research on tiny computing devices pairs new technologies with promising real-world applications, including reducing battery waste from mobile devices and giving pedestrians a heads-up about approaching cars.

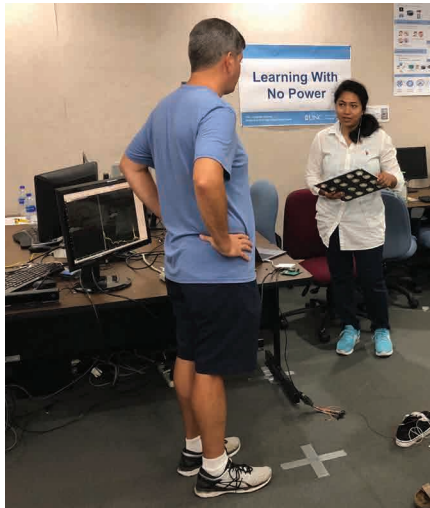
"I like to work with things that have not been discovered yet," said Islam (Ph.D. computer science '21), who was recently named to *Forbes'* "30 under 30" list in science. "The most interesting thing about my work is that it is often a combination of multiple research areas. It's very interdisciplinary, which allows me to explore different dimensions and to work with and collaborate with people with different expertise."

Islam, a native of Dhaka, Bangladesh, once considered becoming an astronaut or zoologist. But her passion for science, math and engineering led her to an undergraduate degree in computer science and engineering from Bangladesh University of Engineering and Technology. Carolina was her top choice to earn her doctorate because of the mobile computing, machine learning and embedded systems research being led by assistant professor Shahriar Nirjon.

"The faculty at UNC have been amazing to me," said Islam, currently a visiting postdoctoral research associate at the University of Illinois at Urbana-Champaign. This fall she will join the electrical and computer engineering department at Worcester Polytechnic Institute in Worcester, Massachusetts.

Battery waste is a big concern for her. Estimates are that by the year 2035, there will be 1 trillion small devices such as smartphones, tablets and computers powered by batteries. To keep batteries out of landfills, Islam has researched battery-less devices that are powered using ambient sources such as solar energy and radio frequency. They're known as intermittent devices because the "charge" may vary based on how much energy (light, for example) is available.

Bashima's work on battery-free systems paves a path toward smart battery-free devices that perform real-time computational tasks with machine learning/artificial intelligence capabilities. This research opens the door to many real-world applications. One of the inspirations behind her work is IBM's "Project Rhino," where impalas outfitted with sensors help in tracking rhino poachers.



• Bashima Islam, at a UNC computer science open house, explains how energy generated from walking can power tiny computers. • Carolina was Islam's top choice to pursue her Ph.D. At UNC, she was active in the Graduate Women in Computer Science Group.

"If there is a poacher [in the area], the behaviors of the impalas can tell us about it. Having a sustainable, maintenance-free system can help the forest ranger stop the poaching and preserve wildlife," she explained.

Pedestrian safety is another area of research. A jogger listening to music through headphones might be unable to hear an approaching car. But if the headphones had sensors that could detect the approaching vehicle and alert the wearer, the jogger could get out of harm's way.

Islam's husband, Md Tamzeed Islam (Ph.D. computer science '21) works with Amazon in Cambridge. The pair met as undergraduates at Bangladesh University of Engineering and Technology and continued working together in Carolina's Embedded Intelligence Lab.

She won numerous awards for her research as a Ph.D. student and has been an active advocate for women in STEM since high school.

While women can face challenges in male-dominated science fields, Islam credits a supportive family, faculty and classmates with her success. At Carolina, she was active with the Graduate Women in Computer Science Group, which connects students and department members for research and support. She also served as the president of the UNC Computer Science Student Association.

"It's very important for us to be a mentor for young women who want to pursue a career in science or engineering," she said.

Islam said she was shocked when her phone pinged with news of the *Forbes* recognition late last year.

"I didn't expect it, but I also feel that this is a great recognition for me and my work," Islam said. "It's good to take risks and dream big. That's one thing I have learned throughout my life."

Building community resilience to climate change

Miyuki Hino is helping residents and civic officials find creative ways to deal with the impact of flooding and rising sea levels.

BY PATTY COURTRIGHT (B.A. '75, M.A. '83)

In the face of severe storms and rising sea levels, flood-prone areas are especially vulnerable to the effects of climate change.

Thanks to the work of Carolina environmental social scientist Miyuki Hino, a growing body of data helps identify problem areas and increase communities' resilience.

"Broadly, I'm interested in how humans are affected by changes in the climate and how we can adapt to a future environment that will look different from the one we have now," said Hino, an assistant professor in city and regional planning who also holds an adjunct appointment in the Environment, Ecology and Energy Program.

By quantifying how floods and rising sea levels already affect things like the local economy, property values and migration patterns, Hino helps residents and civic officials find creative ways to prepare for future climate challenges. In addition, she examines relevant government programs and policies to determine whether they are effective and equitable and how they could be improved.

Her current research is focused on three North Carolina communities: Beaufort, which is bordered by an estuary; Carolina Beach, which has direct exposure to the ocean; and New Bern, which lies beside the Neuse River and can also be affected by the ocean.

She began by meeting with local officials to understand the challenges they face and their plans for sustaining thriving communities. Increasingly, coastal areas are seeing relatively small,



Donn Young

- Miyuki Hino in city and regional planning is working with three N.C. communities — Beaufort, Carolina Beach and New Bern — to mitigate the impacts of climate change.

short-lived floods, even on sunny days, that disrupt everyday life. By installing storm drain sensors in flooding hot spots, Hino works with officials to track the rising water and pinpoint when floodwater spills onto the streets. The sensors were developed by technicians at UNC's Institute of Marine Sciences in collaboration with colleagues at NC State.

"One thing we're interested in is that the drivers of these kinds of floods can be different from place to place, so what evolves with climate change will probably be different as well," Hino said. Extremely high tides are a known cause, as is rain coupled with wind blowing in a certain direction, she added.

Hino also plans to examine "climate smart growth" communities, where new construction is built in places that are safe from flooding. This summer, she will delve into the most effective practices and policies used in those areas, such as zoning or strategic incentives, as a way to help other communities apply lessons learned.

Helping communities work toward their goals, large or small, is her motivation. "That is always the lens I use: How can my work be useful to them?" Hino said.

Hino's research interests have evolved. After earning a bachelor's

degree in chemical engineering from Yale University, she worked with a civil engineer who focused on flooding issues and began to understand that climate change preparation was fairly uncharted territory. She came to realize that moving people out of harm's way — strategically and equitably — was often necessary but rarely discussed.

That concept, known as managed retreat, provides homeowners with the resources to leave potentially hazardous situations without passing the risk on to someone else. The homeowner, who is in the driver's seat, works with government or conservation groups to buy their land.

Hino, who earned a Ph.D. in environment and resources from Stanford University and joined the Carolina faculty in 2020, said she has found a research home in Chapel Hill.

"In North Carolina, preparation for more intense hurricanes and heavier rainstorms is already underway, and UNC, with its rich intellectual climate, is a fantastic place to partner with state and local governments as they prepare for a different climate future," she said. "What we are doing benefits the people around us."

► Watch a PBS NC video about Hino's research at go.unc.edu/floods.

'I have to find their voice, I have to find their stories'

A historian explores the social networks that helped enslaved people survive.

BY GENEVA COLLINS

Brandi Brimmer was recruited to the department of African, African American and diaspora studies in fall 2021 because of her expertise in U.S. slavery and emancipation. But Brimmer, associate professor and Morehead-Cain Alumni Scholar, is quick to note, "To borrow the language of one of my mentors [Daina Ramey Berry], I'm not a historian of slavery, I am a historian of the enslaved."

The distinction is important. Brimmer specializes in African and African American social and political history, and she has spent over a decade digging through archives — accessing federal pension records from the Reconstruction era, property and Census records, and manuscript collections that are a part of UNC's Southern Historical Collection, among many other sources.

"My work is about what happens to the enslaved laborers when they go home," said Brimmer. "What kind of communities are they part of? What were the sustaining aspects of their lives that enabled them to resist and survive these harsh conditions of enslavement? ... I have to find their voice, I have to find their stories."

As she teaches her students who embark on research in UNC's archives, different methodologies are required to extract the family stories of 19th-century African Americans from the archival holdings. "Those collections weren't built for *their* family papers. These are the papers of former slave holders, but there are quite a few ways to use those collections to recover the history of African Americans," she said.

She acknowledged that the snippets gleaned from letters and records that treat enslaved people as objects or chattel can be traumatic — not just for students but for the historians who recover them. It is one reason she has focused much of her research delving into pension records at the federal archives level.

"Pension officials are interested in verifying; they are carrying out all these investigations in communities," Brimmer said. "And what it results in is a lot of testimony about how Black people lived their lives."

Brimmer's most recent work is *Claiming Union Widowhood: Race, Respectability, and Poverty in the Post-Emancipation South* (2020), a deep look at the U.S. pension system and how widows of Black Union soldiers struggled to receive the benefits due them. Her current book is an extension of that research. It's about a claims agent named Frederick Douglass — not the famous abolitionist of the same name.

Black claims agents were essentially acting as attorneys



• In her classes, Brandi Brimmer shares techniques for students to recover the history of African Americans from archival sources.

within the U.S. Pension Bureau who represented Black communities, investigating and bringing forward their claims, Brimmer explained. Douglass' pension ledgers are archived at East Carolina University, and through them she has reconstructed his client list and the range of services he provided to the Black communities in the New Bern area — assisting Civil War veterans and survivors in receiving benefits, helping people recover owed wages, working on behalf of church communities.

Supplementing the ledgers with narratives from Black newspapers and church records, "I've uncovered this fascinating world of middle-class Black professionals that just hasn't been written about," she said.

Brimmer came to UNC as part of a cluster hire by the College of Arts & Sciences, bringing eight faculty to campus over two years to study issues of U.S. slavery and matters of health and wellness in communities of color. The goal of the cluster hire is to encourage collaboration, both among the new faculty and with faculty elsewhere on campus. The group has been meeting regularly since arriving on campus, led by Karla Slocum, associate dean for diversity, equity and inclusion. (See more on Slocum's work on page 32.)

"The meetings have "definitely been a place where I can get a broader sense of the University and figure out where I can fit in," said Brimmer. "I really am very grateful for this space."



• Jade Neptune worked with Carolina Performing Arts to bring more art into the community while engaging UNC students.

When creative arts and political science collide

One high school civics class changed everything for senior Jade Neptune, who created a nonprofit to support students' extracurricular interests.

BY LAUREN MOBLEY '22

Jade Neptune, a senior studying political science and artistic management, founded a nonprofit called **The Gap Project** at age 16 during her last year of high school.

While at Carolina, Neptune has also served as a Chapel Hill Town Council campaign manager, worked with Carolina Performing Arts and the North Carolina Symphony, and provided academic coaching to North Carolina prisoners.

"I knew coming into Carolina that I

would major in political science, but I was missing something I've always been in love with — the creative arts," said Neptune.

Neptune created an artistic management major that blends business and marketing classes with art classes. "I realized something was missing in my studies — the human perspective that I needed to enrich my degree."

One high school civics class changed everything for Neptune: For an assignment, she needed to propose a congressional bill on any topic. She landed on the idea of extracurricular accessibility for students regardless of financial ability.

"When the project was over, I emailed my teacher, and the subject line was 'crazy idea.' With her support, The Gap Project was born."

Neptune grew up as a dancer and her brother as a golfer — two costly extracurricular activities. She remembers the financial pressures her parents experienced to support their interests.

The Gap Project's mission is to bridge the gap between students who can and cannot afford the costs of these activities. She has continued to focus on her nonprofit while at Carolina.

During the start of the pandemic, she faced challenges with many after-school activities being paused. To provide alternatives for K-12 students, Neptune planned a wildly successful athletic equipment drive. Since then, The Gap Project has hosted a holiday art supply drive in collaboration with the Art Therapy Institute of NC, held an outdoor story time in her hometown and conducted outdoor ballet classes in Durham. "I was so fortunate to provide a free pair of new

ballet shoes to all of the girls," she said.

This spring, The Gap Project announced its first scholarship fund, the Bridge Scholars, at Neptune's alma mater. The awards will be given to a Pinecrest High School senior involved in extracurricular activities.

Neptune has many other interests. She is a writing coach for the UNC Correctional Education Program, where she provides blind feedback on essays from N.C. prisoners.

"I am thankful for the opportunity to give feedback that is positive and genuine," she said. "Being kind goes a long way."

Neptune also served as a Carolina Performing Arts Creative Futures Undergraduate Liaison and was tasked with bringing more art into the community while engaging UNC students. Last semester, she planned a successful community event called Placemakers in partnership with Arts Everywhere that featured live student performances and collaborative art activities.

During the pandemic, Neptune worked on "**One State One Score**" — a North Carolina Symphony collaborative video that features musicians from across the state playing the same song to spark a sense of togetherness.

Neptune has also been involved with projects related to her political science major. She was the manager for Chapel Hill Mayor Pro-Tem Karen Stegman's campaign team for Chapel Hill Town Council.

Neptune is on tap to graduate in August 2022 at 19 years old after just two years at Carolina. She's never been on a plane but will study arts criticism in Galway, Ireland, this summer.

With her first year being remote, she has loved experiencing her second and final year on campus.

During her first week in Chapel Hill, she looked across the quad and had a moment of gratitude. "I sat there and thought, 'I never want to leave,'" she said.

After graduation, Neptune aspires to move to Boston and work in an arts-related experience for a year before applying to law school.

A mindset of service

Former “Lost Boy of Sudan” is pursuing a doctorate in public policy to help advance peace and community in his home country.

BY ELIZABETH POINDEXTER (B.A. '10, M.A. '19)

Samuel Garang Akau fled his home in South Sudan as an 8-year-old during the Second Sudanese Civil War. Many of his family members — including his parents and a brother — died during the war that lasted more than two decades.

“You’ve got to do something and focus on what you can change,” said Akau, who today is pursuing a Ph.D. in public policy.

The war between the Sudanese government and the Sudan People’s Liberation Army lasted 22 years. Akau is among the more than 20,000 refugees often referred to as the Lost Boys of Sudan.

Akau traveled with a group of unaccompanied minors and eventually made it to a refugee camp in Kenya (where he was reunited with his older brother) and then on to the United States via a refugee program. He went on to attend Stanford University, where he studied creative writing.

Before pursuing his master’s degree at American University, Akau served as a deputy dean at the University of Juba, an English-speaking university founded in the 1970s and located in South Sudan, where he started a public service initiative. At the university, he focused on entrepreneurship and fostering leadership skills.

“Empowering young people and giving them the skills they need to serve is going to be the way forward,” Akau said. “Not many South Sudanese have the training and privilege to be able to engage at that higher level.”

That work spurred him to pursue graduate work at UNC. The program appealed to Akau because of its strong focus on economics, in addition to how it balances political science and international relations.

“Policy is not a straightforward thing,” Akau said. “There’s a human element to it, and when the human element is involved, there’s also going to be politics.”

While he pursued his master’s degree, Akau noted a lack of human capital, strong government infrastructure and analytical capacity in South Sudan.

“At the end of the war, there was fear that signing a peace



- “One of the challenges we face in South Sudan is the mindset of service,” said Samuel Akau, a Ph.D. student in public policy. “I want to go back there and serve.”

agreement is not enough,” Akau said. “You have to address some of those drivers of war. Otherwise, it’s likely that countries will go back to war.”

Akau hopes to use what he’s learned at Carolina to continue capacity-building work and to provide insights into the country’s future policies.

For him, that includes the [Sawa Sawa Network](#), which he founded in 2019. The initiative uses digital tools and emerging technologies to build peace and community in South Sudan and its diaspora.

Akau is also a fellow with the [Weiss Urban Livability Fellowship program](#), offered by The Graduate School. The fellowship program supports talented graduate students who have an interest in urban livability.

“One of the challenges we face in South Sudan is the mindset of service,” Akau said. “I want to go back to South Sudan and serve whether that’s with an international organization or with the government.”

One aspect of Akau’s research is the role of social media and how it can polarize communities. In particular, he’d like to focus on how social movements empower people to share their perspective and exchange ideas that move toward the greater good.

Akau is also pursuing the [Graduate Certificate in Innovation for the Public Good](#), offered by Innovate Carolina, and co-sponsored by the College. As a global citizen, he’s preparing the next generation of leaders in South Sudan and beyond.

“I would have never thought that this was going to be my trajectory. For me, to be able to gain a Ph.D. and do something that impacts others’ lives; it’s what makes life meaningful.”



• Doug Mackenzie and Dean Terry Rhodes (third and fourth from left) spent time with students at a fellowship gathering in fall 2020.

Gap year fellowship provides a means for students to see and serve the world

BY MARY MOOREFIELD (M.A. '20)

Do you ever wish you could take time off to travel the world for a year?

Thanks to the Mackenzie Family Global Gap Year Fund, some Carolina students are doing just that before they even set foot on campus.

Carolina parents Doug and Shawn Mackenzie, through their family foundation, have enabled the College of Arts & Sciences to partner with the Campus Y to support the Global Gap Year Fellowship. This university-sponsored program, which began in 2011, allows admitted students to spend a year abroad performing public service. Students can select locations and service areas of their choosing or participate in existing programs through the organization Global Citizen Year.

“We work with students to help identify areas of interest and passion to find placements that align with those interests,” said Sarah Smith, director of the fellowship program. “Our students do a wide variety of service, including environmental preservation, animal care, teaching English, working on social innovation projects and entrepreneurship, art education — anything that gives back to the social good.”

The Global Gap Year Fellowship provides life-changing opportunities for students. It allows them to gain experiences, knowledge and maturity.

“Coming in fresh out of high school, a lot of students haven’t had a chance to explore and do things on their own, so this offers them the opportunity to do so with a support system in place,” Smith said. “For many students, this means managing

their finances for the first time, troubleshooting and resolving conflicts — all really important skills to have as adults.”

The program doesn’t stop once students complete their travels and begin classes at Carolina. They continue to be supported through skill-based trainings, community-building events and social activities.

The students who participate in the program are outstanding, Smith said, and they arrive at Carolina energized and ready to make a difference. Simone McFarlane ’24, an environmental sciences major, spent 2019-2020 in Mexico and Colombia. While in Mexico, McFarlane worked in a health clinic, creating awareness campaigns around sexual health and gender violence. In Colombia, she taught English and developed a curriculum highlighting Afro-Colombian history. McFarlane is now a Robertson Scholar and is involved with the program’s service committee.

“My gap year was the most exhilarating experience of my life,” McFarlane said. “Never before have I felt so close to myself; living in new environments enhanced my self-awareness and humility, and these traits have invigorated my curiosity about this world!”

Doug Mackenzie’s driving motivation for investing in the gap year fellowships stems from his commitment to students’ personal development.

“I have a strong belief in the value of an opportunity at a coming-of-age moment and being put in uncomfortable situations as a young adult — learning how to overcome obstacles, learning about oneself, developing a sense of self-reliance and the value of that knowledge at that point in life,” he said.

Mackenzie, a founder and partner with Radar Partners, a private investment firm, is no stranger to Carolina. His daughter, Alyson, is a 2011 graduate, and son, Andrew, graduated in 2014. The family’s commitment spans the breadth of the College — they also established the Mackenzie Family Eminent Distinguished Professorship in Applied Sciences, the Mackenzie Family Foundation Innovation Scholarship and the Mackenzie Family Foundation Fund for Excellence in Entrepreneurship. Last October, he received the Dean’s Distinguished Service Award honoring his support.

Through the Mackenzies’ vision and generosity, the Global Gap Year Fellowship is positioned to change the lives of deserving students for years to come.

► *Editor’s note: During the COVID-19 pandemic, Global Gap Year Fellows have served in the United States due to international travel restrictions.*



ABOVE: Summer Bridge participants met with Chancellor Kevin Guskiewicz. RIGHT: Latonya Brown-Puryear said Summer Bridge taught her “how to navigate campus before the rest of the freshman class arrived.”

Former Summer Bridge alumna pays it forward

BY ANDY BERNER

“To whom much is given, much is required.”

This is what Latonya Brown-Puryear always remembers her father saying. The physician took his words to heart when she endowed a scholarship to the Summer Bridge Program. “It is an honor to be in a position where I can help someone get the great start at Carolina that I got,” said Brown-Puryear.

Summer Bridge is a six-week transition program that helps incoming first-year students adjust to Carolina by providing academic enrichment, community building, and co-curricular and experiential learning activities.

Brown-Puryear’s high school guidance counselor in Whiteville, North Carolina, told her about the unique program. “The beautiful thing about Summer Bridge is that it takes what can seem, to a small-town girl like I was, a huge intimidating university — and shrink it down and make it into a smaller experience,” said Brown-Puryear. “We were taught how to navigate campus before the rest of the freshman class arrived.”

Her father also told her that she could be anything she wanted to be. When people asked her how she thought she could become a doctor, she said “no one ever told me I *couldn’t* be one!” After achieving a 4.0 grade point average during the summer session, Brown-Puryear knew she belonged at Carolina.

“I knew that when I grew up, I wanted to have a platform to make an impact on people,” she remembered. “I wanted to share a love and passion for others and even though the health care system is huge, it is still that one-on-one relationship with a patient that I feel makes a difference.”

After getting a B.S. in radiologic science at UNC in 1993, she worked at UNC Hospitals. “My mentor was Joy Renner, division director of radiologic science. She has always been my mentor, and I was so happy to endow a scholarship for students in her division. When I decided to provide a scholarship for the Summer Bridge Program, she’s the one who put me in touch with the right people.”

Brown-Puryear went on to earn her M.D. at UNC in 1999 and accepted a residency in internal medicine at the University of Alabama at Birmingham. There, she met her husband, who was a radiology resident. After finishing their residencies and completing fellowships in Miami, they relocated to Ohio and joined private practices.

Now a pulmonary and critical care medicine physician, Brown-Puryear is pleased that her Tar Heel lineage lives on, not only through her philanthropic support, but in her oldest daughter, Kennedy, a current undergraduate at Carolina.



“We are so appreciative of Dr. Brown-Puryear and her support, both financially and beyond, of Summer Bridge and our students,” said Victoria Chavis ’14, coordinator of co-curricular and academic engagement with Summer Bridge. “As a participant, or ‘Bridgee,’ myself in 2010, I know the impact these financial gifts have for our students.”

Kyle Polanco ’22, also a “Bridgee,” added: “Summer Bridge is a fruitful, memorable experience that not only allows students to get a head start academically in earning college credits, but also allows participants to foster long-term relationships with other peers, professors and mentors while simultaneously learning and growing. This program truly allows participants to bridge the gap between high school and college and develop the necessary tools to excel and succeed at the next level.”

Any student who has been admitted to UNC-Chapel Hill and is a North Carolina resident is eligible to apply to Summer Bridge. Housing and tuition costs are covered by the program. All participants receive a stipend that can be used to cover the costs of books, on-campus dining options and other on-campus expenses.

Two adventurers create their legacy with undergraduate honors and study abroad scholarships

BY ANDY BERNER

In a lesson pulled from more than 40 years of teaching marketing, John Hood Summey '62 knew that he wanted to make a positive impact on the world using a “benefits structure analysis.” John and his late wife, Edith (Edie) Shuford Summey '62, always kept emotional ties to Carolina. So, when it came time to create their legacy, they knew they wanted to help students succeed for generations to come.

The concept of benefit structure analysis in marketing, as taught by Professor Summey at Southern Illinois University Carbondale (SIUC), means determining what specific benefits and characteristics are desired by consumers for a particular product. As proponents of education and international travel, John and Edie used that concept to create their legacy.

Based on their accrued \$4 million gift, they endowed the John Hood and Edith Shuford Summey Honors Carolina Scholarship Fund and the John Hood and Edith Shuford Summey Honors Carolina Study Abroad Scholarship Fund at UNC-Chapel Hill.

The Honors Carolina Scholarship Fund will provide four years of support to undergraduates in the College of Arts & Sciences. The Study Abroad Scholarship Fund will provide undergraduate students support to participate in Honors Carolina summer programs in international locations and explore the culture and area in which they study.

John and Edie were high school classmates in Gastonia, North Carolina. They also had historical ties, as they traced both of their families back to 1732 when their ancestors arrived from England on the same ship, the Richard and Elizabeth. “Being Tar Heel born and Tar Heel bred,” it was only natural that they each chose to go to Carolina.

In their junior years, they became a couple after Edie began their courtship. Edie knew when John was going to be at the Air Force ROTC building and would try to casually walk past. Of course, one day he saw her and yelled out to her. She pretended not to hear him, so he ran after her. Thus, their lifelong romance began.

John remembered the day he chose to sit on the bench under the Davie Poplar tree with Edie. The popular legend was that whoever you sat with on that stone bench was the person you were going to marry.



courtesy of John Summey



ABOVE: Avid scuba diver Edie Summey on one of her many undersea adventures. LEFT: John and Edie Summey. Their support will help students in Honors Carolina and will fund study abroad experiences.

Edie's diligence had paid off. They were married the following summer and lived in Victory Village married student housing on campus their senior years.

John and Edie had a lot in common, and they enjoyed their life together. They became educators after earning doctoral degrees at Arizona State University — John in marketing and Edie in art education. They both taught at several universities, and John was awarded the title “Distinguished Teacher” at SIUC.

They were both adventurers who traveled extensively to more than 80 countries and every continent and subcontinent, relishing their cultural experiences and explorations. They were also “Master Scuba Divers.” John logged 1,144 dives and Edie logged 1,589 dives while traveling internationally to multiple oceans and exotic locations to photograph and explore the exciting and beautiful undersea world.

“We are so fortunate to have alumni like the Summeys who want to help Carolina provide outstanding, dynamic educational experiences and adventures for talented students,” said Dean Terry Rhodes.

John and Edie loved their time as undergraduate students at UNC and always delighted in visiting the beautiful campus.

“We greatly valued the high quality of education we received and the experiences we had at Carolina,” John said. “It is our hope that the students who experience the opportunities provided by these scholarships will also value their education, become loyal alumni and alumnae, and perhaps someday establish a scholarship program of their own.”



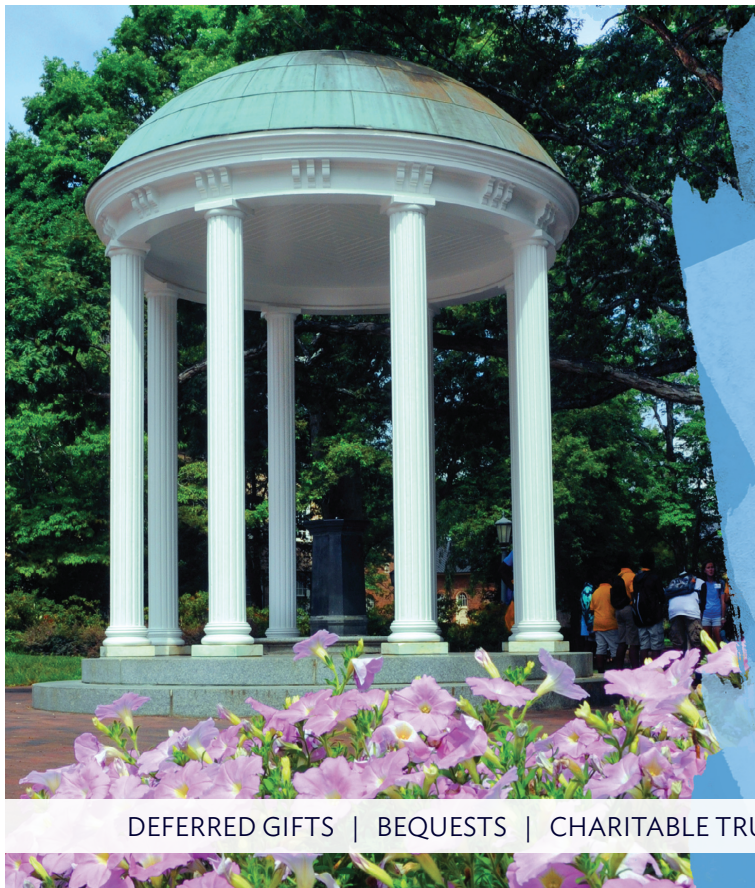
#Throwback: IMS TURNS 75



UNC
Institute of
Marine Sciences
est. 1947

The Institute of Marine Sciences in Morehead City (part of the department of earth, marine and environmental sciences) celebrates a 75th birthday this year! In this photo, taken in 1985, a group of North Carolina Sea Grant staff spend time on board the R/V *Machapunga* to learn more about IMS research. (Photo courtesy of North Carolina Sea Grant).

Do you have any memories of your time at IMS? Share them with us by writing college-news@unc.edu.



What will be your legacy?

“For the last 50 years, I have thought about reimbursing the University for the money my scholarship provided to me... I want to help create a situation where young people can just explore and enjoy the environment that exists on campus. I think that’s when you are able to open your mind and see things that you might not if you are focused on a deadline for a test or paper.”

— JOHN BRITTON '65, whose current gifts and a future bequest will support students in the department of history

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'The climate of our College community matters'

INTERVIEW BY KIM WEAVER SPURR '88

Karla Slocum became the College's first associate dean for diversity, equity and inclusion last July. She is the Thomas Willis Lambeth Distinguished Chair in Public Policy in the department of anthropology. We chatted with Slocum about her work since taking on the new role.

Q: Why are you passionate about leading DEI efforts in the College?

A: As someone who has been on the College faculty for over 20 years, I know that the climate of our community matters significantly for our everyday lives. For this role, I saw an opportunity to help boost the climate, attend impactfully to the experiences among our faculty and staff, and continue developing a progressive DEI structure that is a prime fit for the arts and sciences at Carolina.

Q: What have been your top priorities since becoming associate dean?

A: There are so many but two stand out. First, I'm interested in community-building and for faculty and staff to feel more included, better connected and valued. So, I have instituted spaces to encourage dialogue and exchange on issues like equity with the return to campus amid COVID-19, scholarly work on race and inclusive curricula. I see these spaces as creating learning opportunities and connections. Second, I want to help create and facilitate DEI structure-building, to ensure sustainability. For example, we have worked on building College-wide processes for undoing bias in faculty hiring and developing support systems that aid in the development and improvement of DEI structures at the department level.



• Karla Slocum leads the DEI Strategic Plan Committee in a workshop in Hyde Hall. The group hopes to roll out a final plan in fall 2022.

Q: The College had a successful "cluster hire" this year with faculty working together across disciplines. Why are these important?

A: Cluster hires are valuable because they help create community among scholars who share research interests and whose work and identities may also be underrepresented on campus. We know that faculty thrive when they have a strong network to support them. With cluster hires, a network is already "baked in" through the group of scholars who are hired at the same time. Cluster hires also allow us to address scholarly areas that we want to grow. Our most recent cluster hire, focused on understanding wellness in communities of color and understanding U.S. slavery, helps us ensure that timely and critical subject areas are well-represented in our curriculum and scholarship.

Q: This past year, you created a staff diversity advisory committee; a faculty committee already existed. How are they working together?

A: The two committees are made up of faculty and staff from across our divisions, departments, centers, institutes and curricula. Dean Terry Rhodes and I are meeting bimonthly with the

committees which, together, advise on strategies and measures for improving diversity. The needs of faculty and staff are both different and related. So, when taken together, both committees help us in thinking about DEI needs broadly for the College.

Q: You are working on a strategic plan. What's your timeline for this?

A: Since September, I've been working with a fabulous committee of staff and faculty — drawn from our two Dean's diversity advisory committees as well as the Dean's Leadership Team — to develop a first-ever DEI strategic plan. The planning process allows us to first look deeply at where the College is on matters of DEI such as representation, equitable treatment and status of employees within our community, and the climate within departments and units. Next, we will move on to devising goals and a vision for how DEI should be set up in the College. The last part of our process is to outline a set of very specific action items for addressing DEI now and into the future. We hope to roll out the final plan in fall 2022.

► Learn more about DEI in the College at college-diversity.unc.edu.

Music and English major named Marshall Scholar

Kennedy Miller, a senior studying vocal performance and English, has been named Carolina's 22nd Marshall Scholar. The prestigious scholarship funds graduate studies in any field in the United Kingdom.

A native of Rocky Mount, North Carolina, Miller is the president of the Alpha of North Carolina Chapter of Phi Beta Kappa, a member of Honors Carolina, a performer with UNC Opera, the vice president and manager of Carolina Choir, and a vocal and piano teacher with Musical Empowerment — a student organization that provides free music lessons to children in the Chapel Hill-Carrboro community.

"I started singing classically when I was a sophomore in high school and decided pretty quickly that was what I wanted to do in college," she said. "It



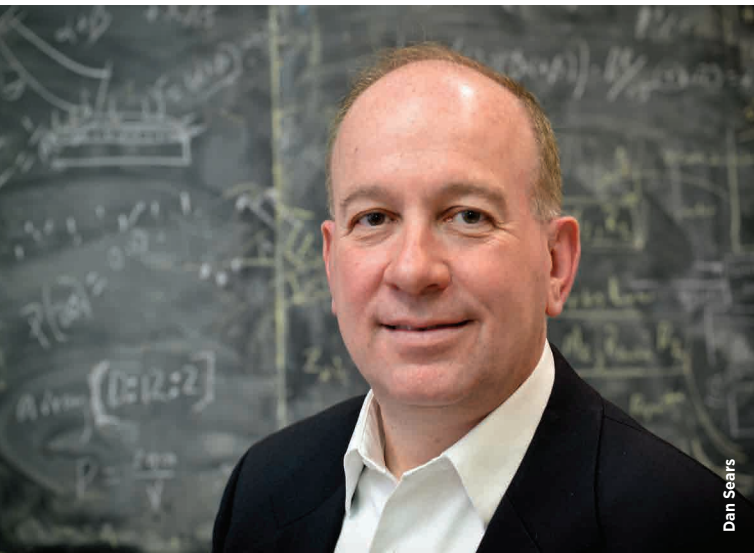
has just been an inextricable part of my identity forever."

Her interest in classical singing and opera coincided with Miller's increasing activism in social movements such as the March for Our Lives and #MeToo.

That desire to empower the women she plays on the stage carried over into her academic research, which traces the history of female protagonists in French

operas and how the evolution of the ways that characters are portrayed parallels the feminism movement.

As a Marshall Scholar, Miller will continue mastering her craft to maximize the impact she can make through music. She plans to study at the Royal Academy of Music in London to earn a master of music degree with a concentration in vocal studies.



Clemens named UNC's chief academic officer

Chris Clemens, Jaroslav Folda Distinguished Professor of Physics and Astronomy, was named UNC provost — the University's chief academic officer —

in February.

Clemens joined the physics and astronomy department as an accomplished astrophysicist in 1998. Since then, he has served as chair of physics and astronomy, senior associate dean for natural sciences and senior associate dean for research and innovation in the College of Arts & Sciences.

He is the recipient of a Hettelman Prize for Artistic and Scholarly Achievement and a Faculty Award for Excellence in Doctoral Mentoring.

Clemens was instrumental in launching the College's Program for Public Discourse in 2019, serving as its

inaugural director. Through curricular and extracurricular programs, the PPD seeks to support a culture of debate and deliberation, enabling Carolina students to be better citizens, leaders and stewards of democracy.

In March 2019, Clemens was named the inaugural senior associate dean for research and innovation, where he led strategic planning and provided guidance across the College's academic divisions and research programs, fostering new models of innovation, initiatives and collaborations.

Before that, as senior associate dean for natural sciences, Clemens helped to launch the Environment, Ecology and Energy Program. He collaborated with chairs to build the research enterprise and helped to develop the curriculum in the applied physical sciences and biomedical engineering departments. Clemens also drafted a plan and funding proposal for the pilot of the Institute for Convergent Science.

Sugar-coated test takes advantage of COVID-19's sweet tooth

An interdisciplinary team led by scientists from UNC-Chapel Hill and the University of California, San Diego have designed a rapid and sensitive lateral flow assay that has the potential to become the gold standard for the detection of SARS-CoV-2 variants.

The new test, named GlycoGrip, adapts natural biology to reliably capture the virus and allow for a simple and accurate detection of COVID-19 infection within minutes. Its low cost, portability and ease of manufacture could make it globally available, especially in rural or low-income areas that typically lack easy access to expensive PCR testing equipment.

The findings were published in *ACS Central Science*.

“We tapped into nature to reimagine viral diagnostics,” said Ronit Freeman, co-corresponding author of the paper. Freeman is a UNC associate professor of applied physical sciences and biomedical engineering.

GlycoGrip is inspired by the natural biology of epithelial cells — those that are targeted and infiltrated by the SARS-CoV-2 virus. These cells are coated with a dense matrix of sugars called the glycocalyx, and it’s this sugar-net that the virus exploits to cause infection.

“We have turned the tables on the virus by using the same sugar coat it binds to infect cells to capture it onto our sensor,”



Sarah Daniels

• “We turned the tables on the virus by using the same sugar coat it binds to infect cells to capture it onto our sensor,” said Ronit Freeman.

said Freeman. The concept is intuitive: a droplet of biofluid containing the virus, such as saliva, is placed on one end of the strip and flows along the surface. When the fluid reaches a sugar-coated patch, the virus becomes trapped on that specific area. This capture is then signaled by antibodies treated with gold nanoparticles producing a visual color that indicates infection.

A patent has been filed for the new technology, and the team envisions a future in which GlycoGrip can offer cheap and reliable testing for a wide range of viruses.



Economist forecasts omicron's infectiousness

Remember alpha, the first COVID-19 variant? Alpha put the world on alert that mutations can change *everything* we thought we knew — within mere weeks — about what to expect from COVID-19.

Back then, economist **Peter Reinhard Hansen** was skeptical of reports that alpha was 50% more infectious than the original coronavirus, SARS-CoV-2.

“I was surprised and wondered if the high number could be true,” said Hansen, the Henry A. Latané Distinguished Professor of Economics.

So Hansen began crunching the numbers himself.

Building on statistical methods from econometrics — which he typically applies to models of financial volatility — he built a model, outlined in the *Econometrics Journal*, to estimate the infectiousness of new viral variants and better predict case numbers once a new variant emerges.

Hansen used health data available

from Denmark to calculate a value known as the reproductive number (RO) for alpha. This value characterizes the average transmissibility of an infectious disease in a susceptible population with little to no immunity. (Back when alpha was spreading, vaccines were not yet widely available in Denmark.)

“Everything I had read in the early reports turned out to be true,” Hansen said.

After incorporating up-to-date health data, Hansen’s model showed that the delta variant was about two times more infectious than alpha, and that omicron was about three times more infectious than delta in the Danish population.

Forecasting the infectiousness of viral variants is crucial to developing public health mitigation strategies, and for allocating resources in health care settings, Hansen said.



• The UNC AAU project team includes (from left) Christina Burch, Kelly Hogan and Mara Evans.

AAU award will support development of STEM teaching evaluation models

The Association of American Universities has selected five STEM departments at America's leading research universities, including the department of biology in the College of Arts & Sciences, to host demonstration projects in the evaluation of undergraduate teaching.

The departments will receive \$100,000 awards to create better models for effective and equitable evaluation of STEM teaching. The models could then be adapted to STEM departments at other undergraduate institutions.

The teaching evaluation demonstration projects are an effort of the **AAU Undergraduate STEM Education Initiative**, which was established in 2011 to influence the culture of STEM departments at research universities so that faculty members are encouraged to use teaching practices proven to maximize student engagement in STEM and support student learning.

UNC was one of eight project sites in this 2011 effort; the departments of biology, chemistry, physics and math worked together to transform large lectures into high structure active learning courses. Now, the department of biology is building on this work and other curricular advances to learn how various ways of assessing teaching can lead to the growth of an educator as well as more equitable outcomes for high stakes decisions.

The UNC project team includes Kelly Hogan, associate dean of instructional innovation in the College of Arts & Sciences and a teaching professor of biology; Christina Burch, professor of biology; and Mara Evans, STEM teaching associate professor.



• The Greenlaw Hall Gameroom opened in late 2019.

NEH grant will develop critical game studies

Courtney Rivard, a teaching associate professor in the department of English and comparative literature, was awarded a grant from the National Endowment for the Humanities for her project, "Integrating Storytelling & Critical Game Studies into the Curriculum."

Rivard's approximately \$55,000 grant will support a yearlong curricular development and faculty training program on teaching with games. The grant will lead to the development of a critical games studies minor.

"Games have become a dominant medium to tell stories, and the humanities has a central role to play in analyzing ideas of narrative, representation and power in games," said Rivard, who was also a 2021 Institute for the Arts and Humanities faculty fellow.

It is work that Rivard is currently doing as director of the department's Digital Literacy and Communications Lab. In 2019, Rivard launched the **DLC's Gaming Initiative**, culminating in UNC-Chapel Hill's **first game-based classroom**, which opened in Greenlaw Hall in late 2019.

To Rivard, critical game studies would offer students an opportunity to view games as "texts in need of critical analysis."

Rivard is one of two faculty members in the College who received recognition from the NEH. **Letitia Guran**, a teaching assistant professor in Romance studies, **received a NEH-Mellon Fellowship** to research and write a monograph exploring the power of Langston Hughes' works on race in the Soviet Union and the United States.

Places in My Heart

BY BLAND SIMPSON

North Carolina, the Old North State, is an ocean wave breaking, a fiddler sawing away in the mountain night, a hundred Ayrshire milk cows lowing in a Piedmont dawn, the sound burst of a B3 organ and joyful voices raised in song beyond the stained-glass windows of a city church. It is a line of sandbars, some nearly thirty miles out into the Atlantic Ocean, some less than a mile from the mainland; a set of broad, flat terraces, vast farmlands, and timber stands broken by willow-clad rivers both black-water and brown and by their deep gum and cypress swamps, occasional bluffs, and green and golden marshes; a host of hills made of red clay and sand, growing pines called loblolly and longleaf, oaks called white and red and turkey and blackjack, red maples and river birches, and hickories with shaggy bark; and then a profusely eruptive land of tall folds upon folds, peaks, ridges and rocky tops, domes, cliffs, grassy balds, and gorges, a host of mile-high mountains, too, with a vast quilt of blue haze laid out over it all.

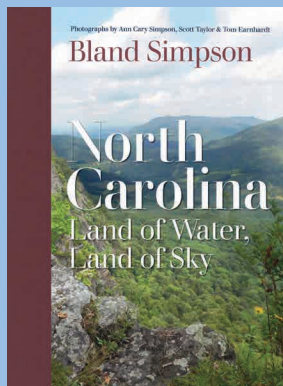
Water everywhere is my first lingering memory of North Carolina, for home meant water in the Pasquotank County ditches, in the yards flooded with hurricane rain, in the creeks and lagoons, in our river and the sound below, and, always, in the endless deep blue ocean beyond. At times, my family was a set of westbound travelers with a hilltop lookout over a great range of fields and forests, the two-lane blacktop undulating over long stretches, ribbonlike toward Chapel Hill, and when we reached this terrain in late afternoon, the low western sun would be saturating the clay of those roadcuts, a rich, deep, ochreous color I could never look away from, knowing we had left the sound country and were now in a very different place, gliding into the hills of Carolina through long, topless tunnels of red clay. A few years later, I was among a group of men and boys in three cars pulling canoes up and over the Blue Ridge, and then we all saw, many of us for the first time, the high blue mountains that were even bigger and taller than the men had said and that went on forever. As our small caravan passed Asheville at sunset, I could hardly believe at twelve what a vast province North Carolina was and how long it would take — how many journeys and returnings there *must* be — before I would



Ann Cary Simpson



Scott Taylor



Tom Earnhardt

CLOCKWISE FROM TOP LEFT: • *Lookin' Off Place, Bluff Mountain, Ashe County* • *Lookout Light and Core Banks, Carteret County* • *Bland Simpson (far right) and his collaborators.*

have even the very beginning of a sense of it.

If this is a tale of stories, sights, and glimpses drawn from a relentless traveling presence over many a year, pray let it be, for a lifetime of music, teaching, theater, literature, and conservation has carried Ann and me, and Scott and Tom too, all across our great state. Let it be a world of powerful passing looks at handmade Canada goose whirligigs at Powell's Point in Currituck, at a biplane crop duster in a hangar just waiting to fire up its Pratt and Whitney engine and take to the air down in Scotland County below Laurinburg, at cloud-enshrouded Chimney Rock almost invisibly towering over Lake Lure in Rutherford County out west, and at the fall and flow of water everywhere. From sea level to sky-high, from pickles to peaches and cabbage to corn bread, here's to the land: North Carolina.

Excerpt from North Carolina: Land of Water, Land of Sky (UNC Press) by Bland Simpson, with photographs by Ann Cary Simpson, Scott Taylor and Tom Earnhardt. Simpson is Kenan Distinguished Professor of English and Creative Writing. Read more books at magazine.college.unc.edu, and enjoy our monthly "Bookmark This" feature at college.unc.edu.

Strawberry shortcakes with sorghum whip

This is my family recipe for shortcakes. It's technically a cream biscuit recipe, but it's my go-to for last-minute spring and summer desserts with seasonal fruit and a whipped topping. I try to always use local ingredients, and in the spirit of *Edible North Carolina*, this recipe is decidedly local. When possible, I like to sweeten things like whipped cream and other non-baked components with syrups such as honey, molasses and sorghum. These syrups allow the individual aspects of a very saccharine dessert like strawberry shortcake to shine through the sweetness.

Serves 4-6

FOR THE CAKES:

- ½ cup cornmeal (I like local Redtail Grains Cateto Orange Heirloom Cornmeal)
- 1½ cup flour (historic Lindley Mills All-Purpose is my go-to)
- 2 teaspoons baking powder
- ½ teaspoon salt
- 2 teaspoons sugar
- 1½ cup plus 2 tablespoons heavy cream, divided
- Sanding sugar (optional)

FOR THE BERRIES AND CREAM:

- 1 pound strawberries, stemmed and sliced (I'm a fan of Cate's Corner Farm berries!)
- 2 tablespoons sugar
- Juice and grated rind from half a lemon
- 1 cup heavy cream
- 2 tablespoons sorghum syrup (or honey)

Set the oven to 450 degrees and line a baking sheet with parchment paper.

In a large bowl, combine the cornmeal, flour, baking powder, salt and sugar and mix until incorporated. Add in 1½ cups heavy cream and stir until just combined. Flour a work surface and your hands. Transfer the dough to the floured surface and gently knead and fold until the dough is cohesive. Gently press into an even ½-inch thickness. Use a cookie cutter (like my North Carolina shaped one!) or a round biscuit cutter to cut out as many cakes as you can, then gather the scraps, press, and cut again. Place cakes on the baking sheet. Gently brush the tops with the leftover cream and sprinkle with sanding sugar. Bake for 12-15 minutes or until golden brown (check the bottoms to make sure they don't overbake).

While the cakes bake, prepare the strawberries. In a



KC Hysmith

large bowl, add the sliced strawberries, sugar, and the lemon juice and grated rind. Gently stir to combine. Cover and refrigerate for a half hour (up to overnight).

In another bowl, whip the cream until slightly stiff peaks form. Drizzle in the sorghum and whip a few seconds more to combine.

To assemble: slice two cakes in half and place on a plate. Top with generous portions of strawberries, their juice and a big dollop of sorghum whip.

*Recipe and photo by KC Hysmith, a Ph.D. candidate in American studies who is also a writer, food historian, recipe developer and photographer. She is interested in the intersection between food, gender and the digital landscape. Hysmith is the associate editor of the forthcoming **Edible North Carolina: A Journey Across a State of Flavor** (UNC Press, May 2022), edited by Marcie Cohen Ferris. Follow her on Instagram @kchysmith.*



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