Five years ago, The Cooper Union Board of Trustees made a landmark decision to adopt the 10-year Plan to Return to Full-Tuition Scholarships. The ambition of the Plan was clear from the outset—it would reaffirm The Cooper Union’s historic commitment to providing free education for all undergraduate students, build a financially resilient institution for the long term, invest in our world-renowned academic programs, and fund capital improvements to Cooper’s physical plant.

Now, at the midway point of the Plan, I am pleased to report that our progress is overwhelmingly positive and on track. We are achieving steady financial gains, despite the challenges of the pandemic and recent economic uncertainties; increasing scholarship levels in step with the Plan; enriching our academic programs; and updating our facilities with new, interdisciplinary student spaces and ongoing work to address many years of deferred maintenance.

This progress supports the Institutional Goals & Strategic Priorities developed by our community and adopted by the Trustees in December 2018. The Strategic Priorities, in particular, require the return to full-tuition scholarships, strengthened financial health, and fortified academic programs, but they also challenge us to provide opportunities for student exploration and experiences at the intersection of disciplines; enhance student life through new programs and spaces; increase diversity across the board; develop new standards for integrating practice-based education with the humanities and social sciences; and encourage public service for the benefit of our New York communities.

In this issue of *At Cooper*, there is evidence of these priorities in action. “Designs for the Future of Food” (page 15) reports on students across our schools and alumni in multiple fields taking on critical social issues related to food sustainability. A story on Cooper’s expanded partnership with the Icahn School of Medicine at Mount Sinai (page 22) illustrates how valuable collaborations are in opening up new learning and professional pathways for students, and alumni profiles (pages 12, 20, and 26) show how Cooper’s community is advancing diverse perspectives in the world of art and community-centered solutions for New York City’s urban landscape. A revitalization of Cooper’s own cityscape is underway (page 3), stewarding our historic Foundation Building for the future and enlivening student and faculty spaces to encourage innovation.

As always, we are grateful for your contributions to The Cooper Union’s positive momentum. There is more opportunity ahead of us as we enter the second half of the 10-Year Plan to Return to Full-Tuition Scholarships. Your continued support and collaboration will be essential, and we look forward to sharing news of our progress.

With gratitude,

Laura Sparks, President
This spring, passersby on Cooper Square were treated to the first glimpse of the Foundation Building’s refurbished façade, free from the sidewalk bridge and scaffolding that cloaked the storied landmark for over a year. The work marks one of the most significant preservation efforts undertaken at Cooper since the 1970s, when John Hejduk AR’50 set his iconic redesign within the building’s 19th-century shell. Inside, beyond the lobby, there is new vitality as well: The Cooper Union Library is abuzz, with an updated atrium hosting club meetings and faculty talks, tables encircled by students collaborating on projects, and a fully reimagined Center for Writing and Learning.

The Foundation Building face-lift and ongoing library renovations have followed recent initiatives to invest in the college’s physical spaces. In 2018, when The Cooper Union’s Board of Trustees approved the Plan to Return to Full Tuition Scholarships, they identified the need for accruing reserves for deferred maintenance and capital improvements as integral to stewarding financial health. With help from grants and donors, Cooper has since increased those investments.
“As we work to raise scholarship levels, we didn’t want to just stop making other improvements for students and faculty,” says Natalie Brooks, Cooper’s chief talent officer, who oversees facilities projects. In 2019, she and President Sparks sat down with the deans of each school to develop a master plan for allocating the capital expenditures budget, identifying priorities for utilizing limited campus space and resources. “It’s always safety and student needs that come first,” Brooks says.

Concerns over safety lent some urgency to restoring the Foundation Building, which was at the time of its construction in 1859 one of the tallest in Manhattan. A comprehensive study of the exterior undertaken two years ago—the first in more than 20 years—revealed the need for immediate masonry repairs. And because of the building’s designation as a New York City landmark, everything from replacing brownstone and terra-cotta to matching paint colors required approval by the Landmarks Preservation Commission. Consultants and architects at SOCOTEC and PRESERV Building Restoration—firms that incidentally both employ Cooper alumni—have led the restoration project, now nearing completion.

“We wanted to make sure that the façade work would be finished in time for Commencement,” Brook says. With the scaffolding and most of the sidewalk bridges removed from the sides of the building, repairs to the roof are underway.

In all, revitalizing the Foundation Building has cost $5.4 million, aided by a matching grant of $750,000 awarded through New York State’s Environmental Protection Fund Program for Parks, Preservation, and Heritage. The college has plans to conduct a study of the building every five years, helping mitigate maintenance costs and ensure the long-term preservation of an important piece of New York architectural history. In addition to repairs to the roof, an extensive renovation of the backstage green room of the Great Hall is taking place this summer, improving accessibility in the 164-year-old venue. Simultaneously, the college plans to repair the Student Residence Hall façade and find a new renter for the attached retail spaces, which are currently under renovation.

Further revitalization of the Cooper Library is also in the works. The first phase began last summer, led by architecture firm Method Design, and included updating the spaces used by The Cooper Union Archives and Special Collection and reorganizing the main bookstacks to expand study areas, add furniture, and repurpose the atrium as a public forum. The aim for this summer is to continue enhancing
The news is full of stories about how artificial intelligence is going to change higher education: Why would a student write their own essay if they could just feed the prompt to ChatGPT? Why should anyone write an essay—or complete any assignment at all—if the work can be automated?

This past fall, the Center for Writing reopened in a newly renovated space in the library as the Center for Writing and Learning. With loads of natural light, comfortable furniture, good coffee, and even some greenery, the new Center has quickly become a destination for students, faculty, and staff who want to share ideas and move their engineering, architecture, art, and writing projects forward. After having to meet with students and colleagues virtually so much during the worst of the pandemic, we’re ecstatic to be not just back in person but in a place that fosters conversation and collaboration.

And that’s at least part of the answer to the challenge posed by artificial intelligence. The future of college learning is likely to be both communitarian—motivated by and for groups of people with shared interests—and idiosyncratic—an outgrowth of each student and faculty member’s ideas, experiences, and interests. You can’t automate the kinds of work that Cooper students are doing in the Center; no algorithm can build coalitions of students, faculty, and staff who imagine, experiment, and build together.

Writing is about having something to say, not just about handing work in to a professor. And learning is about discovering things you’re motivated to do and working with others to acquire the knowledge and skills that will allow you to live out your ambitions—not just about grades or degrees. Our new lounge space has hosted groups of faculty discussing their teaching practice and students talking about their classroom experiences, and our creative writing group relaunched this past semester so that students can share poems and stories.

The library staff has been doing phenomenal work to make the first floor of Foundation a busy hub for our campus community. Together, we’re making sure that a Cooper Union education is alive, active, and human.

— Kit Nicholls, director Center for Writing and Learning
students, faculty, and staff from all schools in creative, interdisciplinary projects and pedagogies [see “A New Center for Writing and Learning in the Library” on page 5].

“We are absolutely thrilled to have the Center in our space and are delighted with the collaborations and initiatives it has already generated,” says Norberg. “We look forward to continuing to transform the library into a space that supports the teaching, learning, scholarly, and creative endeavors of the Cooper community.”

Brooks notes that the Center’s relocation afforded the opportunity to add much-needed classroom capacity to 41 Cooper Square following the introduction of block scheduling and more electives across the curriculum. “We’re a small campus, so we try to be creative in meeting everyone’s wants and needs,” she says.

Brooks has worked with each of the schools and various departments to ensure capital expenditures fulfill their wishlists while being mindful of the college’s tight urban quarters. Remodeling the dean’s office in the School of Engineering to include a state-of-the-art conference room, for instance, freed up academic space previously overbooked for administrative meetings. Other expenditures have included a renovation of the School of Art’s photography lab and new workspaces in the large architecture studio.

Thanks to external funding, the recent improvements have even included all-new facilities that support the goal of fostering interdisciplinary work. In 2018, the college was awarded $2 million by the IDC Foundation to transform the fourth-floor lobby of the Foundation Building into a high-tech maker space, the IDC Foundation Art, Architecture, Construction, and Engineering (AACE) Lab. Since then, the facility’s technologies have been incorporated into student projects.
across all three schools, including cross-disciplinary collaborations that range from an interactive sculpture created by electrical engineering and art students to a 3D software tutoring program led by students in the School of Architecture. According to Harrison Tyler, director of the AACE Lab, nearly 500 different Cooper students actively made use of the lab this year, with proportional representation from each school.

Last year, after space in 41 Cooper Square formerly rented by a private preschool became available, Cooper unveiled the Benjamin Menschel Civic Projects Lab, along with a new student information and admissions center called the Hub. Funded by the generosity of the Menschel family—longtime supporters of interdisciplinary work at Cooper—the Civic Projects Lab is an all-in-one classroom, workspace, and public showcase designed to facilitate engagement with the surrounding New York City community. The lab has been used for projects that partner with local nonprofits as part of the popular Data Science and Design Projects for Social Good course, taught by Sam Keene, professor of electrical engineering.

Smaller facilities investments—adding more lounge furniture and replacing plastic water jug delivery with more sustainable bottle-filling stations—have made a noticeable difference in the quality of campus life, too. As Cooper moves toward closing the budget gap in its deferred maintenance, Brooks says the hope is to continue looking for ways to enrich the student experience. “It’s exciting to see all this new activity around campus and the interdisciplinary work that has resulted from just three years of facilities improvements,” she says. “And we’re still looking ahead to do even more.”
CONGRATULATIONS TO THE

Commencement Committee co-chair Brian Cusack ME’01 M.Eng’03 and mace bearer Douglas Ashford A’81 lead the procession.

With the help of Student Trustee Elias Dills AR’24, President’s Citations were awarded to: Anne Romme AR’05 (above right) Leslie Hewitt A’00 (right) and George Reeves ME’64 (below right)

Commencement speaker Kara Swisher receives her honorary doctorate from Chair of the Board of Trustees Malcolm King EE’97.

CUAA President Robert Tan AR’81 with a prized Peter Cooper bobblehead.
The Cooper Union’s 163rd Commencement took place in the Great Hall on Wednesday, May 24, 2023 at 10:30 am. President Laura Sparks welcomed attendees, describing the graduates as “a class of collaborators...a class of budding architects, artists, and engineers who get things done with and for others.”

Andrius Alvarez-Backus, a graduating senior in the School of Art, took the stage to deliver the student address and commend the “mission of collaboration” that has defined his classmates’ time at Cooper despite the disruptions of a global pandemic and great social challenges in the world.

Kara Swisher, an acclaimed podcast host, journalist, and editor-at-large of New York Magazine known for her incisive coverage of the tech industry, gave a sharp-witted commencement address, encouraging the graduating class to “speak truth to power” and to not fear stepping out of line.

Anne Romme AR’05, Leslie Hewitt A’00, and George Reeves ME’64 received this year’s President’s Citations. Robert Tan AR’81, president of The Cooper Union Alumni Association, closed out the day, welcoming the Class of 2023 to the CUAA.
Students from The Irwin S. Chanin School of Architecture, the School of Art, and the Albert Nerken School of Engineering once again mounted an expansive, Cooper-wide exhibition of their artworks, models, projects, and research. The 2023 End of Year Show, which opened on May 23, welcomed guests to explore student works and celebrate this traditional culmination of the academic year.
Left to right, top to bottom:
Design IV, Spring 2023; The Bail Project, Data Science and Design Projects for Social Good; Design III, Fall 2022; Thesis, Fall 2022-Spring 2023; Design III, Fall 2022; Cooper Steel Bridge team members Philip Ramirez CE’25 and Eddie Jacob Zlotsky CE’23; Graduate Research Design Studio I, Fall 2022; Jonelle Austin A’25
Lizards opens with its titular reptile duo conversing about the pandemic on a Brooklyn rooftop. “I mean, to be honest, I’m kind of into this confinement thing because I feel like I’ve been fantasizing about not having any plans and just having to stay home and do things I never have time to do,” one lizard says. “That’s such a quarantine week-one thing to say,” replies the other. Meanwhile, an impromptu jazz score builds as various species of animal musicians perform “It Never Entered My Mind” from different corners of the cityscape.

“Beautiful moment of communion through sound waves in Brooklyn despite social distancing,” wrote artist Meriem Bennani A’12 when she posted the video to Instagram in March of 2020, shortly after New York City went into lockdown. Conceived by Bennani and filmmaker Orian Barki as an episodic series, 2 Lizards depicts the early months of the pandemic as it unfolded. The resulting eight videos were recently exhibited by the Whitney Museum of American Art in the project’s first-ever museum presentation as a narrative film.

Bennani and Barki’s work offers a surrealistic diary of the period spanning March 17 to July 5, 2020. Superimposing 3-D animation on iPhone videos and footage of global events, the series...
follows its lizard protagonists as they witness their city transformed by public health anxieties, social isolation, and cries for social justice following the murder of George Floyd.

“We decided to go for moods,” Bennani explained in a New York Times interview at the time. “There was so much factual information from the news that it’s our way of abstracting it into a feeling that can fuel story.” She and Barki provide the voices for the two lizards, narrating familiar scenes and conversations that distill the emotional complexity of everyday routines upended by new social realities, both mundane and devastating—surging death tolls, Zoom parties, quarantine lethargy, the 7 pm cheer for essential workers.

Bennani and Barki’s film has since been celebrated for capturing life in the city at the height of the pandemic with a mix of absurdist humor and social commentary. After going viral on social media, 2 Lizards was acquired by both the Whitney and the Museum of Modern Art in 2021 before its exhibition run in the Whitney’s free lobby gallery from September 2022 through February 2023.

The film’s museum debut coincided with another acclaimed New York City exhibition by Bennani, who was born in Morocco and earned her M.F.A. from the École nationale supérieure des Arts Décoratifs after graduating from Cooper. Windy (2022), co-commissioned by High Line Art and Audemars Piguet Contemporary, is the artist’s first public sculpture, located on the High Line at 24th Street. The
work, which was on view this spring, is a spinning sculpture in the shape of a tornado made from black foam, entreat­ing the public to walk around it, viewing from a distance as its dynamism makes the details almost impossible to grasp.

While Bennani’s practice has been primarily focused on moving images, the commission suggests a new, more abstract direction for her interest in motion and animation, one that poses questions about the post-lockdown experience of public space. Most notably, Windy engages with the return to life of a crowded New York City park, a sharp contrast with the slow pace of isolation she and Barki explored in 2 Lizards.

“Developing Windy has expanded my understanding of sculpture and allowed me to take on new conceptual and technical challenges in my work,” the Cooper alumna says. “I hope that visitors will have a visceral, emotional reaction when they experience the piece and be swept away by its chaotic energy, echoing the energy of New York City and the High Line.”

View 2 Lizards in its original eight-part video format through Meriem Bennani’s Instagram: @meriembennani.
In a first-year engineering design class, Cooper Union students reimagined oyster shells as bricks, corn husks as paper, scraps of beets and red cabbage as paints, fruit skins as leather wallets, and, believe it or not, spoiled milk as thread. “I never thought they’d make that work,” Amanda Simson, an associate professor of chemical engineering who teaches the course, says of this last idea. “But they did.”

Since 2020, students in her section of Engineering Design and Problem Solving (EID101) have tackled Re-Envisioning Waste—a topic she selected to encourage them “to think about where they’re getting materials and reflect on the broader ways we use things and throw them out.”

In a multitude of ways, The Cooper Union is taking on the real-world issue of food sustainability: Architecture students and faculty are addressing waste and sustainability through design, contributing to last fall’s acclaimed Tallin Architecture Biennale (TAB) that reflected on food and the construction of circular economies.
Others are taking on data visualization projects to help nonprofits, such as Brooklyn’s food rescue organization City Harvest. Students across majors are collaborating on various new technologies that support regenerative farming practices, repurpose materials, and help curb carbon emissions. Meanwhile, alumni are working on the front lines, finding ways to produce higher quality food with less impact on the environment.

Food sustainability has garnered increasing attention as the world’s population—and food insecurity—grows even as concerns mount over agriculture’s outsize impact on the environment. According to the World Bank, the current agriculture system generates as much as 29 percent of total greenhouse gas emissions. The pandemic also has thrown a harsh spotlight on the weaknesses in food production and distribution systems (remember those empty supermarket shelves?), making the call to address food sustainability even more urgent.

“We’re pressed for time with global warming and how much waste is generated by the food industry,” says Nada Shetewi, a chemical engineering junior who took Re-Envisioning Waste. In the class, she explored brewery wastewater treatment with microbial fuel cells, which generate electricity as a bonus. “I’ve always been interested in environmental issues and waste management. It was a unique opportunity to do research and get hands-on experience bringing an engineering project to life.”

Another sustainability project is MUDBUG, which stands for Multiuse Data Acquisition Bio Unit Group. Brandon Bunt BSE’22, a mechanical engineering master’s student, leads the club, which was created last year. Its goal: develop an affordable sensor that would wirelessly send data to a phone about soil quality—all as a way to advance organic farming and traditional techniques. “It would be like a little bug you throw into the soil,” he says, adding the group already has a prototype. He believes the technology has the potential to help farmers make better-informed decisions.
decisions about their soil compared with slower methods of lab testing, empowering them to wean their operations off petrochemical fertilizers.

Bunt got the bug for MUDBUG while studying abroad in Guatemala as an undergraduate in 2021. “I realized there’s lots of engineering problems in agriculture that need a lot of work,” the 2021 Benjamin Menschel Fellow says, “and it’s not necessarily just throwing the newest technology at the problem. We should look at Indigenous farming practices and how to marry modern technology to make them more efficient, so we can wean ourselves off chemical fertilizers, chemical pesticides, and monoculture-based farming practices.”

In a companion Vertically Integrated Project (VIP) course, students are further honing the technology. Offered since 2020, the VIP program allows undergraduates to work on various large-scale research projects over several semesters, with an interdisciplinary approach—bolstering Cooper’s strategic goal of courses and projects that bring together students from engineering, architecture, and art.

“I wanted to involve students in research as early as possible, for the mentorship and to understand what research is about,” says Neveen Shlayan, associate professor of electrical engineering, MUDBUG club adviser, and coordinator of the VIP program. “It’s another way for students to express themselves and find their passion.”

Meanwhile, Data Science and Design Projects for Social Good has for the sixth year partnered students from art and engineering with nonprofits to analyze large data sets and distill the information into visuals (maps, charts, graphs) and even full-scale installations. continued on page 25
ON COOPER

DANIEL LEPEK CHE’04 IN MEMORIAM
A FAVORITE OF STUDENTS IN THE CHEMICAL ENGINEERING DEPARTMENT, PROFESSOR LEPEK WAS A VITAL, BELOVED MEMBER OF THE SCHOOL OF ENGINEERING

Salamishah Tillet joined Gloria Steinem to discuss the state of women’s rights as part of the Gardiner Foundation Great Hall Forum.

What Makes a House a Home

Cooper’s STEM Outreach presented a youth-led exhibition focused on Black homeownership.

AERIAL DESIGN TEAM WINS TOP FIVE FOR DESIGN ENGINEERING SENIORS IN THE VERTICAL FLIGHT SOCIETY’S 2023 COMPETITION

Watch: Great Women Live in the Great Hall

In honor of Women’s History Month, Gloria Steinem returned to the Great Hall for a conversation with Salamishah Tillet.

Cooper Architecture Exhibitions Database

Fundraising aims to digitize collection dating from 1965

Watch: Black and Female

Novelist, playwright, and filmmaker Tsitsi Dangarembga discussed her latest essay collection with Pulitzer Prize-winner Margo Jefferson.

Cooper’s First Undergraduate Research Symposium
THE CELEBRATION CONTINUED...
Evening performances included Tiler Peck, Melissa Manchester, Lisa Fischer, Melissa Errico, Alice Wetterlund A’03, and others.

ARCHIVES & SPECIAL COLLECTIONS RECEIVES METRO GRANT
Funding supports the digitization of the ledgers and orders of the Great Hall.

WORKS BY JOAN AND REYNOLD RUFFINS A’51
See photos of the Cooper exhibition mounted this spring in the Stuyvesant-Fish House.

CONFRONTING CARBON FORM
Exhibition explored architecture’s relationship to fossil energy.

PRESIDENT SPARKS NAMED POWER PLAYER IN EDUCATION
PolitcsNY lists President Sparks among the most influential education leaders.

THE SATURDAY PROGRAM
Spring 2023 Year End Show
High school students shared their work with the Cooper Union community.

Photos: Argenis Apolinario, João Enxuto, Marget Long
Last fall, 14 students in the School of Art studied with the celebrated artist and alumna Firelei Báez thanks to the Alex Katz Chair in Painting, a one-semester visiting professorship awarded to a distinguished artist from the fields of painting and drawing. Báez, who graduated from Cooper’s School of Art in 2004, has made a body of work that confronts the impact of colonial history on racial and gender identity. Exploding with saturated color and pattern, Báez’s canvases fuse living things—human bodies, plants, and animals—with the ephemera of colonialism—particularly maps. Female bodies, often shown in silhouette, sometimes stand barefoot and sometimes are tottering on front toes with the backs of their feet extended into the shape of a high heel, bodies literally conforming to the demands of gender.

The richness of her imagery was born of a desire to create a place for herself in a tradition that included few women of color. “I remember as a student being overwhelmed by the history of painting, especially Western painting,” she says. “I remember feeling that I wasn’t included in it. So I tried to really investigate every part of it in order to enter a space.”

She was able to share her critical intervention in that history with Cooper students through the visiting professorship established and underwritten by the celebrated painter Alex Katz, a 1949 School of Art graduate. One of the benefits afforded by the named position is to bring the best contemporary practitioners and a wide range of artistic perspectives to campus.

Báez grew up in Miami and knew nothing about The Cooper Union until, as she recalled at an artist’s talk last December, Professor Emerita Day Gleeson encouraged her to apply. “No one said it’s very rigorous, no one said very few people are accepted. They said: try.” That approach, one infused with both curiosity and
diligence, underpins her work ethic. “I feel I’m always trying to learn more.” Báez was awarded The Cooper Union President’s Citation in 2022 and is the recipient of the Philip Guston Rome Prize and the Artes Mundi 9 Prize. Her work is held in significant collections, including the Baltimore Museum of Art, the Tate Modern, the Guggenheim Museum, the Whitney Museum of American Art, and the Studio Museum in Harlem, to name just a few.

As an artist fascinated with where and how knowledge is stored and accessed, Báez is drawn to archives, where she culls ship manifests, lists, and maps that often become part of her paintings. During a talk she gave at Cooper last December, Professor William Villalongo A’99 asked her how archives became so essential to her process, and she answered that it started while she was a student at Cooper. “There were free materials in the library, things that they had decided no longer fit the school’s needs.” While the books and journals themselves became materials for her art-making, they also prompted a set of questions: What stories do we hold on to? Which are discarded or updated? And what are the criteria?

School of Art alumnus Jairo Sosa A’17 recently said, “Firelei Báez has been a great inspiration for me because of the way she unearths and reinterprets buried histories through her alluring and challenging paintings and sculptures.” Like Báez, Sosa, a sculptor currently completing his M.F.A. at Columbia, makes work that depends upon archival references. “The rigorous research she conducts coupled with her intensive studio practice is what makes her works so spectacular—and inspirational.”

A visitor to the James Cohan Gallery studies Báez’s Untitled (A Correct Chart of Hispaniola with the Windward Passage) from 2020.
Traveling uptown to conduct research at Mount Sinai during his senior year at Cooper was a pivotal moment for Tyler DiStefano, a 2015 mechanical engineering graduate. Thanks to a collaboration facilitated by one of his professors, DiStefano was able to nurture his interest in biomedical engineering while working in a major hospital research facility.

“I hadn’t engaged in that type of research before,” he says. “The experience really showed me the capabilities of an R1 institution.” In fact, it inspired him to later return to Mount Sinai to earn his Ph.D. in biomedical sciences. “I went back because it was such a great fit.”

DiStefano is not the only one who has followed a path between the two institutions. In 2018, a joint research and educational exchange was established, allowing Cooper engineering students to apply to work with graduate researchers and faculty in the Icahn School of Medicine at Mount Sinai (ISMMS) and providing options for earning course credit. A bioengineering minor was introduced to the engineering curriculum in 2021, and since then, external collaborations on biomedical research have broadened considerably, so much so that Cooper alumni who pursue an advanced degree from ISMMS—like DiStefano—have often served as mentors for Cooper students participating in the exchange.

For Chris Panebianco ChE’16, who earned his Ph.D. in biomedical sciences from ISMMS last year, working with Cooper undergraduates helped bridge his research and his passion for education. “I applied for the NIH [National Institutes of Health] F31 Fellowship as a grad student, expressing my interest in teaching,” he says. “They told me, if you really want to teach, you shouldn’t be doing it at Mount Sinai because there is no undergraduate population, and you won’t get the experiences you need.” James Iatridis, Panebianco’s advisor and a professor in the Department of Orthopedics at ISMMS, suggested he reach out to Jennifer Weiser, an assistant professor in the Department of Chemical Engineering in the Albert Nerken School of Engineering.

“It was one of the best decisions ever,” Panebianco says. He wound up assisting with Weiser’s biomaterials course at Cooper, providing the opportunity to translate ideas from his doctoral research into forms of inquiry-based learning for Cooper students.

Undergrads would then become interested in the project I was working on and want to get involved in the research,” he says.

The Mount Sinai exchange allowed Sanjna Rao ChE’22, for example, to participate in NIH-funded research on injectable biomaterials with Panebianco. Rao, who is currently pursuing her own Ph.D. in biomedical engineering at the University of Delaware, served as the second
author on the manuscript that Panebianco published in the journal *Biomaterials*. Additionally, the work served as a major part of Panebianco’s dissertation for his degree from Mount Sinai. “It’s a testament to how much work Sanjna put into it and how talented and motivated she is,” he says. “She gained two years of research experience and was able to go straight from undergrad to a Ph.D.”

DiStefano, who joined life sciences consulting firm Charles River Associates in 2021, had a similarly beneficial experience, first as a Cooper undergrad himself—collaborating with Eric Lima ME’02, the inaugural Distinguished Professor of Bioengineering at Cooper, and Kevin Costa, associate professor in the Department of Cardiology at ISMMS—then as a Ph.D. researcher under Professor Iatridis. “More Cooper students started applying to the Mount Sinai exchange in the first few years of my Ph.D., and I saw it as an opportunity to give back,” he says. As a postdoctoral researcher at the University of Pennsylvania, Panebianco is part of the Institutional Research and Academic Career Development Award [IRACDA] program, an NIH-sponsored initiative whose aim bears similarities to the Cooper–Mount Sinai partnership. It enables him to conduct intensive research at an R1 institution while pursuing teaching relationships with undergraduate programs.

“The model that Cooper and Mount Sinai developed is something I’m involved in now in a more formalized way, bringing all these pieces of research and teaching together.” he explains. “At Penn, I conduct research in the mechanobiology of bone development. Then I will teach STEM coursework at Rutgers University–Camden, a primarily undergraduate institution that has a high population of underrepresented minorities in STEM. My extra goal is to use these courses to get students excited about my research and recruit them to research at Penn. Similarly, I’m developing outreach modules with Jen [Weiser] and the Center for Engineering Mechanobiology at

Sanjna Rao ChE’22 presents her biomaterials research at the 2021 AIChE Student Conference.
Penn to inspire students from other universities to pursue mechanobiology research."

Another key aspect of the Cooper Union–Mount Sinai exchange is an annual research symposium. Held in-person at Mount Sinai in its first year, the event moved online because of the pandemic and has since remained virtual. “We discovered that the virtual format works really well,” explains Weiser. “It’s a great way to make internal connections and to see what colleagues at both Cooper and Mount Sinai are working on. Because of that, more and more people have gotten involved.”

The 2022 symposium, for which Panebianco gave the keynote address, was held in October and drew 60 attendees. His talk highlighted the evolution of the Cooper Union–Mount Sinai program, which now includes several undergraduates who are undertaking research with faculty members at both institutions. Weiser, Panebianco, and Iatridis have even recently co-authored engineering education-focused research with Cooper undergraduates, publishing work in the journal *Biomedical Engineering Education* with students Poorna Dutta ChE’22, Jillian Frost ChE’22, Angela Huang ChE’22, and Olivia Kim ChE’23.

“The program is continuing to grow and giving students opportunities to tap into this research infrastructure,” says Panebianco. “If they’re hungry for it, they can get the research experience they need.” ■

**CUTTING-EDGE COLLABORATIONS**

**COOPER x BELL LABS**
This past spring, the Albert Nerken School of Engineering welcomed Peter Vetter, president of Bell Labs Core Research, to tour Cooper’s facilities, meet with students and faculty members, and deliver a guest lecture highlighting the latest research from the Nokia Bell Labs team and their vision for the next-generation cellular data network. Vetter’s visit to The Cooper Union builds on an initiative to foster industry connections and expose students to unique learning opportunities and cutting-edge technologies.

**COOPER x SOLAR DECATHLON**
Each year, as part of an interdisciplinary Vertically Integrated Projects (VIP) course, Cooper students compete in the U.S. Department of Energy-sponsored Solar Decathlon, a collegiate challenge in which teams design and build low-carbon buildings that mitigate climate change while improving affordability and quality of life. Cooper’s 2023 team took home the grand prize in the commercial division of the national design challenge. The team’s winning design project re-imagines the New York Harbor School on Governors Island through energy retrofit principles and a workforce development initiative. Above, left to right: Larry Zeng CE’26, Ji Yong (Jacob) Chung AR’24, Amelia Roopnarine ME’25, Tate Liang AR’25, and Pamela Cabrera, assistant professor adjunct of architecture.

**COOPER x FLATIRON INSTITUTE**
In 2021, Alice Pisani, assistant professor of physics, was hired into a joint tenure-track appointment in the Albert Nerken School of Engineering and the Center for Computational Astrophysics (CCA) of the Simons Foundation’s Flatiron Institute. The partnership has opened doors for students to work on projects that utilize CCA’s facilities and engage Pisani’s research in cosmology, including her focus on extracting data from cosmic voids—regions of the universe with few galaxies—using machine learning.
“We have this unique opportunity to have very different but very talented students working together,” says Sam Keene, an electrical engineering professor who co-taught the course this past semester with Aden Bailey A’19. “It’s one of the ways Cooper can differentiate itself.”

Bailey, a founding designer at a healthcare startup, actually took this very class as an undergraduate. She says it exposed her to the work world and career possibilities—benefits she hopes her own students will reap. “It was one of the first classes that felt so real-world, felt like I was having an impact,” says Bailey, whose project focused on recidivism for the Center for Employment Opportunities and whose first job was as a graphic designer for City Harvest. “I had a client depending on me. It kicked off my interest in doing product design and user experience. It gave me an introduction into how to understand people’s work from other disciplines. That’s something I use every single day.”

Interest in the study of food can be traced to Cooper’s early history. In the late 1860s, professional cook Pierre Blot—one of America’s first celebrity chefs—conducted cooking demonstrations in the Great Hall, hoping the college would establish a school of gastronomy, according to Peter Buckley, a retired associate professor of history and The Cooper Union’s unofficial historian. Alas, it didn’t work. Fast-forward to around 2000, when Buckley first taught the Social History of Food to explore food production and consumption from 1492 to the present, with an emphasis on the passage of New World foods (sugar, wheat, beef) across the Atlantic into Europe and Asia.

“When I first proposed it, food was not seen as being nearly as important historically,” he says. “But since then, it’s become completely central to social and political discourse.” After 20 years, the course remains popular, so much so that Buckley adjunct-taught it again this past spring and has shifted the focus to global cuisines. Students examined a different city (Kyoto, Goa, Charleston, Lyon, and more) each week, studying its food culture as well as how history shapes our experience of food.

Over in The Irwin S. Chanin School of Architecture, Lydia Kallipoliti, associate professor of architecture, co-curated TAB 2022, which was titled Edible; Or, the Architecture of Metabolism, and taught a course by the same name. She also organized the EDIBLE conference in November, bringing TAB participants to Cooper to debate the intersection of architecture, food systems, and regenerative design.

“It’s not possible to persist in having linear modes of production and distribution,” she says. “It’s not sustainable to continue life in that way. We wanted to offer viable alternatives to how design could intervene in creating different cycles of production to address the fragility of the production and distribution processes.”

Hayley Eber AR’01, acting dean of the School of Architecture, and Mae-Ling Lokko, a former Cooper Union adjunct professor now at Yale University, co-taught a workshop last year that inspired the TAB installation Everything’s on the Table, created by Cooper architecture students. It disrupts waste by reinventing the typical dining table as a 12-foot-long butcher block set with culinary prototypes, to harvest, store, and transform cooking castoffs. The perimeter of a cast-iron pan, for example, collects, stores, and reuses animal fat. Vases grow herbs from vegetable tops or hold coffee grounds that feed oyster mushrooms. Overhead, meats cure in drying chambers.

“It was very much a living table,” Eber says. “Things were reconstituted, reused, reharnessed. The whole premise was a production landscape and that our role at the table is not just to be there and be fed. We have agency. We can participate in the food cycle.”

Last summer, Sanjana Lahiri AR’22, now a designer at Sage & Coombe Architects in Manhattan, worked as a curatorial intern with Kallipoliti and organized the TAB research section, inspired by a seminar called Archaeology of Architecture and Food Systems that looked at the burdened history of colonization and food as well as women’s roles in the kitchen.

“The experience was great,” Lahiri says. “As a whole, the biennale was essentially framing issues of climate change, resources, production, and waste through the lens of food. I think showing these large issues on such an intimate scale humanizes stuff and allows people to see these issues in a different way.”
One of the hallmarks of a Cooper Union architecture education is a wide-lens view of the built environment combined with deep understanding of a site’s history. That was a notion critical to the school’s first architecture dean, John Hejduk AR’50, and carried forward by the late Diane Lewis AR’76, a professor known for her pedagogical vision that demanded students unearth a location’s deep-seated memories to successfully create architecture that speaks to its community.

In 2019, Peter Ballman AR’08 and Dasha Khapalova AR’07 called on their training at The Irwin S. Chanin School of Architecture to propose transforming a two-block site in downtown Manhattan—one built for cars—into a new public space that will reunite sections of the neighborhood long separated by the roadway—essentially excavating a long-hidden affinity between different regions of lower Manhattan. As the pair—the principals of the firm Ballman Khapalova—have put it, “An obstacle will be turned into a place of connectivity.”

Called Rotary Park, their proposal would introduce green space, indoor meeting and performance areas, and playgrounds on a 4.5-acre site where the Holland Tunnel’s circular exit roadway is located. Although still a proposal, the pair have assembled a formidable team to bring the project to life, including the structural engineering firm Thornton Tomasetti, climate engineers Transsolar, Sciame Construction, Starr Whitehouse, and other firms with specialties in landscape architecture, precast concrete, and even naval engineering. Together with community stakeholders, the architects have dedicated the last three years to meeting with community boards, the Port Authority, and residents to promote a plan that is driven by community needs as well as the site’s history.

Originally marshlands, the area where the Holland Tunnel terminates was once a contested border zone between the Lenape and Dutch settlers. The Dutch tried to convert the site to farmland, but when it proved barely arable, they gave it to formerly enslaved people. Later, Trinity Church purchased the land to build a gated park, a chapel, and elegant homes. But by the beginning of the 20th century, the neighborhood was again a marginalized part of the city. The park had been
converted into a train storage shed by Cornelius Vanderbilt and, in 1918, 115 years after its construction there, St. John’s Chapel was razed. By the time the Holland Tunnel opened in 1927, no one thought much about the area’s livability or green space: The neighborhood, filled with manufacturers and warehouses, was dedicated to industry.

Ballman and Khapalova, both of whom come to the project with years of experience on diverse, large-scale designs—between them they’ve worked at Deborah Berke Partners, SOM, Kohn Pederson Fox, and Sciame Construction, among others—see the current conditions of the site through this historic lens. It’s an approach to architecture they learned from Diane Lewis, who in her renowned fourth-year studio taught Cooper architecture students to mine a site for its multiple histories and to understand that those histories still have an impact on the site: Ballman recalls Lewis’s concept of “city as psyche...packed full of all of these kinds of latent motivations.” And as a New York City forum, The Cooper Union has long offered a model for exposing and debating just such underlying motivations in the life of the city, hosting speakers ranging from automobile-centric “master planners” like Robert Moses to those like Lewis Mumford, Victor Gruen, and Lewis herself who emphasized civic use as part of urban infrastructure.

Khapalova, who in 2022 was named one of Architizer’s “100 Women to Watch in Architecture,” told the Tribeca Trib, “While the park isn’t here yet, [the area] is improving, which is what we’re trying to do in the short term. Make people see the space as not just populated by traffic, but also populated by people.”

The design for Rotary Park garnered many awards, including the 2019 Architect’s Newspaper Best of Design Award for Unbuilt Urban Design, the 2021 AIANY Design Merit Award for Urban Design, and recognition as a 2021 Architizer A+ Awards Finalist in the Unbuilt Transportation category. But the project has evolved a great deal since Ballman Khapalova made those drawings. For the two architects, these designs are essentially a way of helping people visualize the amenities that the space could potentially provide—a first draft, not a hard-and-fast proposal. As Ballman says, “We see ourselves as defining the problem and proposing solutions—
we’re advocating for the need for a park, not for a particular design.” He and Khapalova realize that thoroughly reimagining such a trafficked piece of infrastructure is, to say the least, a concept that will face great opposition. But the two are in for the long haul.

“Robert Moses proposed the Lower Manhattan Expressway to connect the east and west sides of the southern end of the city,” Ballman says. “His solution would’ve razed whole neighborhoods, which is no solution at all. But the problem still remains.” He and Khapalova want to focus on all the areas impacted by the Holland Tunnel—including Canal Street as it moves through Chinatown. “The issues are bigger than the Rotary site,” he says.

The two got in touch with Gina Pollara AR’91, a friend and Cooper alumna whose knowledge of such long-haul projects is extensive: Pollara, who directed the Municipal Arts Society and currently leads an initiative to memorialize victims of the Triangle Shirtwaist Factory fire, was a central figure in the building of the Four Freedoms Park on Roosevelt Island. Pollara admires Ballman and Khapalova’s initiative in proposing new uses for the rotary, and their awareness of what a project like this entails.

“I think it’s a heavy lift; it’s a long-term project. These kinds of things don’t happen in five years—more like 20 years. But like any project, you have to have the will and the persistence and perseverance in the face of what will be any number of setbacks.” She says that Ballman and Khapalova have just that. Today Four Freedoms Park is a highly celebrated project, but it initially read as a nonstarter; the skepticism was so rampant that even now Pollara marvels that the park was indeed built. (“Sometimes I think it’s a mirage,” she says.)

Well-aware of the potential obstacles, Ballman and Khapalova have decided to come at the problem from multiple perspectives. First, they are widening their focus to consider surrounding areas: the Tribeca neighborhood, Canal Street where much traffic is deposited after exiting the tunnel, and the area near Hudson Square where drivers enter it. Residents contend with a great deal of traffic, noise, and air pollution, and minimal greenspace. The architects are asking how some of those problems can be mitigated in the short term in ways that could get people excited about a bigger-scale project in the future.
To that end, they’re undertaking an array of projects in the area that, like their drawings, help neighbors and other stakeholders imagine a greener, more pedestrian-friendly lower Manhattan. Last June, for instance, the couple gathered with volunteers to plant 12 trees—most of them five-year-old heritage oaks—on Laight, Varick, and Hudson Streets, all adjacent to the rotary. This one event alone resulted in new connections among residents, points out Jared Sheer, the founder of a neighborhood group, Tribeca North Neighborhood Association. It was a group effort that included contributions of money and labor from the Port Authority and a host of volunteers from the neighborhood. “It’s been a living and breathing thing,” Sheer says. “You meet people and it evolves from there.”

Besides restoring the landscape around the tunnel, the architects are working with other neighborhood organizations, including the Tribeca Community School. Kristen Pallonetti, program director of the school, says that the architects had inspired her pre-K students by asking them to imagine what they would like in the park. “They’ve done great work with the children, letting them feel that they can make changes to their space,” she says.

Laura Starr, co-founder and principal of the landscape architecture firm Starr Whitehouse and a member of Community Board 1, supports their idea: “They’re choosing to fight for unorganized masses who just want to breathe when our world is just so car-centric,” Starr says. She recalls hearing Ballman and Khapalova present to the community board and being impressed with their perspective, not to mention their tenacity. She knows firsthand the validity of their arguments: as a resident of Tribeca, she daily navigates the traffic around the rotary to get to her office in Hudson Square.

Reflecting the broad view of ethical, environmental, and cultural dimensions of architectural practice they developed as Cooper undergraduates, Ballman and Khapalova see themselves as creating a space for a community to articulate its vision for the area and then leading the efforts to make that happen. It’s an approach to city planning that was unheard of in the post-war years of highway building.

“When infrastructure was built under Robert Moses, there was no thought about what it meant to a community—how it severed neighborhoods,” says Pollara. “Now looking at infrastructure to provide amenities and public space is a really smart idea.” Without a big vision, she adds, little can happen. “If nobody sparks the fire, the fire doesn’t happen.”

Ballman and Khapalova spoke with pre-K students who were inspired to draw what they wanted in a local park (left and right). Some of the children took part in a tree-planting project organized by the architects (center).
RECURRING DONORS: SUCCESS-CRITICAL

“His donation [to The Cooper Union] has become a ritual. Some people meditate in the morning, some people write in diaries. This is like a formality that I want to do by hand. When I make this gesture, it reminds me of all the things I need to do in my life.”

Nanwei Chen CE’13 recalls hearing during her time as a geotechnical engineering student that when she was ready, she could give back. Now, she does—every week. “I’m really grateful for the education I received at Cooper,” she says, noting the profound sense of relief she felt knowing that her education was not a financial burden on her family. Once Chen secured her first serious job after graduation, she felt it was the right time to donate. Although initially it was a small amount, she viewed it as an acknowledgment of the education she received and a reminder to refresh her goals, in both her life and her career, weekly.

Recurring donors—donors who commit to making regular, ongoing gifts, often weekly and monthly—provide essential predictability, stability, and ongoing engagement, indispensable to the success of The Cooper Union. Their generous and consistent donations uphold Peter Cooper’s founding vision and philanthropic legacy, supporting the next generation of innovators, creators, and leaders.

Monthly donor Robert De Saint Phalle A’01 is a partner at an experience design company, a director of product design, and an educator. He understands the importance of education and believes in supporting every school he has attended, including The Cooper Union. “For the first 10 years, I couldn’t give much. Now that I’m older and have more disposable income, I want to prioritize giving. I give to all my schools, from grade school to graduate school.” De Saint Phalle, utilizing automatic deductions, emphasizes the ease and manageability of monthly giving, even in small amounts, and encourages others to do the same.

Sony Devabhaktuni AR’03, another monthly donor, contributes to several School of Architecture initiatives, crediting Cooper with shaping his intellectual and professional outlook. He says the education he received was more than just a degree; it was an investment in him as a person, and he feels a strong responsibility to give back. “I felt that as soon as it was possible, I should be contributing. I think any amount can make a difference. When I started, I didn’t give much...it was $5 or $10 a month. I did feel a certain responsibility to make sure that this opportunity was available to students in the future.” The intellectual curiosity, openness, and sensibility he encountered at Cooper has shaped his thinking about practice, education, and what it means to contribute through his work.

If you are inspired by these alumni stories, please consider setting up a recurring donation at cooper.edu/donate, and check “Make this a recurring payment” in Step 4. Thank you to all who help sustain The Cooper Union.

IS COOPER IN YOUR ESTATE PLANS?
Please reach out to development@cooper.edu so we can properly thank you.
Learn more about other ways to give back at cooper.edu/giving/other-ways-to-give
The All Cooper Reunion 2023 was a resounding success! Thank you to everyone who joined. It was a weekend of celebration, reflection, and reconnection that will be remembered for years to come. From campus events to dinner and dancing at 230 Fifth Avenue, we made new Cooper memories to last a lifetime.

More than 300 alumni joined in Cooper Together 2023 meetups around the globe—from Tokyo to Houston to Boston to London—celebrating Peter Cooper’s birthday and his inspiring philanthropic spirit.

REUNION 2023

The All Cooper Reunion 2023 was a resounding success! Thank you to everyone who joined. It was a weekend of celebration, reflection, and reconnection that will be remembered for years to come. From campus events to dinner and dancing at 230 Fifth Avenue, we made new Cooper memories to last a lifetime.

More than 300 alumni joined in Cooper Together 2023 meetups around the globe—from Tokyo to Houston to Boston to London—celebrating Peter Cooper’s birthday and his inspiring philanthropic spirit.

THANK YOU FOR SHARING OUR VISION

Your support has helped us make positive and tangible progress as we mark the midway point in The Cooper Union’s 10-Year Plan to Return to Full-Tuition Scholarships. We are deeply grateful to all of you—our alumni, faculty, staff, students, donors, and partners—for contributing to the future of The Cooper Union.
This July, Demetrius L. Eudell joined The Cooper Union in the newly established position of vice president of academic affairs. Eudell, who previously was dean of social sciences at Wesleyan University, brings to Cooper extensive, scholarly experience with a focus on 19th-century US history, intellectual history, and the history of Black people in the Americas. In his new academic leadership role, he will help foster academic collaboration across Cooper’s programs. We asked him a few questions as he prepares to join our community.

**What drew you to The Cooper Union?**

I was drawn to Cooper by its unique history, innovative curricular offerings, and distinctive place in higher education, founded to provide free education to men and women. Peter Cooper believed education should be free to all students, and contemporary Cooper is returning to this original mission. A year after its founding, Abraham Lincoln launched his political career with his famous 1860 Cooper Union speech, which directly led to his presidency. I am delighted to join Cooper, where this tradition of engaged public discussion on urgent social issues is combined with a rigorous education in the applied arts and sciences as well as the humanities and social sciences.

**What excites you about moving to New York City?**

Despite numerous challenges, New York nonetheless remains a center of culture and the arts, with a mixture of peoples from everywhere in the world that is difficult to match. These cultural institutions are combined with institutions of higher learning and civic engagement that provide fertile ground for intellectual stimulation and collaboration. It also must be acknowledged that the restaurants and food landscape continue to be a mecca, which is itself a direct effect of its cultural diversity.

**What role should humanities and social sciences education play at Cooper?**

The humanities and social sciences are essential components for rounding out education in the pre-professional fields at Cooper. While each of the three degree-granting schools provide training that will allow graduates to go into the world to practice in the field, upon entering the work world, they will certainly be confronted directly with questions that extend beyond the specificities of their formal training. For instance, concerns have emerged in technological innovation with pollutants produced from chemical processes and the ethics of code robotics and AI. As well, in architecture, where and for whom structures are created, as well as the materials used to construct buildings, are crucial humanistic questions. Additionally, the issues of representation and recognition in the visual arts (applied and putative “fine” arts worlds), despite the increased presence of marginalized groups, remain a challenge. It is with an approach to the humanities also as practical knowledge that Cooper offers its students a holistic education enabling them to undertake these challenges.