



So much can change in a year. After battling a pandemic, navigating an entirely new way of living, working, and learning, there is now a growing sense of cautious optimism. For all of the challenge and loss—and there has been so much of both—in many ways, we have also learned so much. We saw what we are capable of; we made unexpected discoveries; and we forged ahead with incredible resilience, as individuals, as an institution, and as members of a world community.

Despite the pandemic, The Cooper Union has made important strides.

We've done so together through interdisciplinary initiatives that promote the kind of invention and imagination that can happen when artists, architects, and engineers have the agency and opportunity to work side-by-side, whether physically or virtually, informed by their own disciplines and the critical perspectives of a humanities education.

Our story "One Lab for All" reports on the opening of the new IDC Foundation AACE Lab (page 3), which is testament to Cooper's interdisciplinary momentum.

We've also continued the ongoing work of examining our systems and structures to strive to ensure Cooper acts and feels like a learning and working environment that is equitable and welcoming for all. That work has included school-specific and institution-wide town halls, workshops, explorations, and programming, and beginning with the first-year orientation program last August, ongoing dialogue and learning centered on social, racial, and economic justice. See "Reframing for Action" (page 8) for more on this work led by HSS Associate Dean Nada Ayad in collaboration with Dean of Students Chris Chamberlin, the Black Student Union, the Cooper Climate Coalition, and other students to extend what began as a reading group on intersectional justice and is now a full lecture series that has continued throughout this academic year.

In addition, our financial plan remained on track as of the close of the 2020 fiscal year in June, and now three quarters into Fiscal Year 2021, we are cautiously anticipating a similar result. While the financial hardships of the pandemic have been very real, our steady performance has been due, in large part, to the strong start we achieved collectively in 2018 and 2019 at the outset of our 10-Year Plan to Return to Full-Tuition Scholarships. The strength of those prior years gave us the confidence to move forward and has allowed us to continue increasing scholarships in line with the plan and with a 0% increase in tuition. As always, we will need the continued support of our full community, and our gratitude for that support and generosity cannot be overstated. The photos and story on our Cooper Together Global Block Party (page 24) which celebrated Peter Cooper's February birthday in grand (virtual) style and also raised more than \$256,000 in his honor, exemplify this spirit.

Momentum and optimism. There is evidence of both at The Cooper Union this spring.

Laura Sparks

At Cooper | Vol. XLX, No. 2, Spring 2021 | Published by the Office of Communications | Cooper Square, New York, NY 10003

Matthew Bower | Managing Editor | matthew.bower@cooper.edu
Mindy Lang | Creative Director | mindy.lang@cooper.edu
Angela Starita | Senior Writer | angela.starita@cooper.edu
Kim Newman | Media Relations Manager | kim.newman@cooper.edu

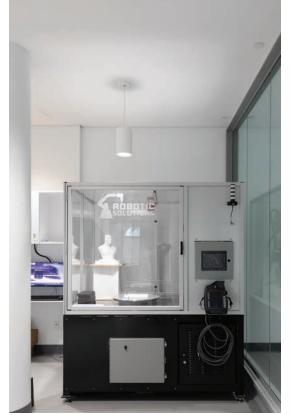


Marget Long

The Cooper Union opens a new interdisciplinary maker space with \$2M from the IDC Foundation

ooper students have never been shy about working together, yet the practices and techniques they learn as architects, artists, and engineers tend to be compartmentalized by discipline, with few formal opportunities for crossover between the labs of 41 Cooper Square and the shops and studios of the Foundation Building. The IDC Foundation Art, Architecture, Construction, and Engineering (AACE) Lab, which officially opened in December, is changing that. The new high-tech lab is The Cooper Union's first maker facility dedicated to students from all three schools, offering access to advanced fabrication equipment in a newly renovated space designed by Cooper alumni.

"The opening of the AACE Lab is an exciting development for collaboration between art, architecture, construction, and engineering," says Raymond R. Savino, president of the IDC Foundation, a New York-based charitable organization that promotes education in



Kuka robotic machining cell



Formlabs and Ultimaker 3D printers mounted against the Foundation Building's round elevator shaft



3D color-printed plaster forms

these fields. Cooper was awarded \$2 million in funding from IDC to build an interdisciplinary maker space in 2018 after several departments joined together to submit a grant proposal. New York State also supported the project through the Higher Education Capital Matching Grant Program. According to Harrison Tyler, the AACE Lab's director, the new facility enables students to fabricate intricate components, artwork, prototypes, and models from a broad range of materials thanks to high-precision digital tools, which include laser cutters, CNC routers, 3D printers, a waterjet cutting machine, a vinyl cutter, a vacuum-forming machine, and more. "It really is our first truly school-wide fabrication resource," he says.

Housed in a former lobby on the fourth floor of the Foundation Building, the AACE Lab owes its design to Sam Anderson AR'82, adjunct professor in the Irwin S. Chanin School of Architecture and founding principal of Samuel Anderson Architects. "We really wanted it to have a feeling of openness and inclusion, so that people felt very comfortable coming in," says Anderson. "Historically there hasn't been as much collegial interaction between the engineering school and the art and architecture schools as one would hope for. The goal of this project was to create a facility that would be as open as possible to all three schools, and up until now the spaces like that have all been in 41 Cooper Square. Aside from the Great Hall and the library, the spaces of the Foundation Building haven't really offered that."

Anderson's team included Cooper alumnae architects Kayt Brumder AR'09 and Alice Colverd AR'16, both of whom work for his practice. For Tyler, who oversaw the lab's construction, it was important to involve architects familiar with both Cooper's history and the experience of being a Cooper student. "The design by Samuel Anderson Architects had a super high level of attention to detail in relating to and being respectful of the lobby space," he says. Zhenia Dementyeva and

"The opening of the AACE Lab is an exciting development for collaboration between art, architecture, construction, and engineering."

-Raymond R. Savino, president of the IDC Foundation

"It really is our first truly school-wide fabrication resource."

-Harrison Tyler, director, AACE Lab,

"It's so wild to think that Peter Cooper put that elevator shaft in there more than a century and a half ago, anticipating the invention of the elevator, and now there are 3D printers hanging off of it."

-Zhenia Dementyeva AR'21

Photos: Marget Long

Willem Smith-Clark, both fifth-year Cooper architecture students, also assisted with creating architectural drawings and virtual models of the lab.

One of the primary design challenges the team faced was figuring out how to marry the ethos of a leading-edge, all-school workshop to the architectural legacy of the Foundation Building. "We have a lot of reverence for John Hejduk and what he created with the Foundation Building," Anderson says. "We felt it was really important to be respectful of Hejduk's design and at the same time not to mimic what we imagine he would do."

In 1975, the entire interior of the building was famously reconstructed by John Hejduk, an influential architect and former dean of Cooper's school of architecture. One way of putting the lab in conversation with the unique character of the building's interior was to introduce a large, custom glass partition forming the entrance to the lab. "We did a number of studies of how to relate to the existing geometry of the space without imposing a new geometry," explains Colverd. "We didn't want to create a strong division between the space of the elevator lobby and the AACE Lab, so the glazed partition slips between two of the columns that were in the lobby, with one of the columns outside the AACE lab and the other inside. By doing that, we hoped to suggest a continuity between the two spaces."

"That move ended up working out so well in the space, and it feels very natural that you can see one column through the glass while being with the other column in the lobby," says Brumder, who also notes the technical challenges of designing a state-of-the-art facility within a 161-year-old building. "The requirements for this space are very different from those of the wood and metal shop. The machines in the AACE Lab require not only electrical infrastructure, but also infrastructure for data networks, compressed air, plumbing, exhaust, and also noise reduction and acoustics."

Accommodating those requirements within the constraints of the space resulted in some imaginative solutions, such as situating 3D printers on shelves that wrap around Peter Cooper's famous circular elevator shaft. "The AACE Lab has these small, happy moments that, when you notice them, it really makes you smile, which is the case with a lot of the Foundation Building's design," says Zhenia, who worked on the project as an intern for Anderson's firm. "It's so wild to think that Peter Cooper put that elevator shaft in there more than a century and a half ago, anticipating the invention of the elevator, and now there are 3D printers hanging off of it. It's kind of humorous of Sam to do that, and I think Hejduk had that sense of playfulness as well."

The lab also adjoins with Cooper's existing Art and Architecture Shop to form a direct connection between the two, a decision that Tyler felt would give students the flexibility to work with both newer digital fabrication tools and traditional woodworking and metalworking machinery. "It's kind of essential in my mind that there's some physical connection to the tools that already exist," Tyler says. Though installing a double door along the wall shared by these two spaces may go unnoticed as a design element, the architects say it plays a significant role in the pedagogical function of the AACE Lab.

"Harrison really hopes there will be a cross-pollination, where people will work on projects in both spaces and have an ongoing dialogue," says Colverd. "The passageway between the two spaces is I think integral to the future of both," Brumder adds. Zhenia sees the creative potential of interweaving digital and traditional techniques as well: "It gives students the opportunity to explore new and old handicraft, and I think it will actually reinforce Cooper's commitment to craftsmanship and will solidify it for generations to come."

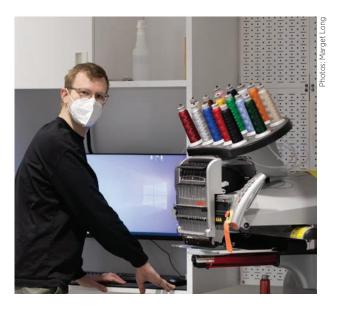
The new digital fabrication equipment has also proven to be remarkably conducive to virtual learning and working with social distancing protocols, and it has even been put to use to benefit the wider community during the pandemic. A pilot phase of the AACE Lab launched in a temporary location in February of 2020, staying open to students for only a few weeks before the COVID-19 lockdown. As the health crisis hit New York City hospitals, a group of Cooper staff and faculty volunteers organized an initiative to 3D-print and laser-cut 1,500 protective face shields, which they donated to local health workers. Since then, students have also been able to take advantage of the equipment via a remote project submission and contactless pick-up system.

"Students can submit a file online, a lab technician sends the file to the machine, and it'll turn out more or less exactly the same as if a student were doing it in person, so I think it ends up working really well both for what we're dealing with right now and hopefully where we'll be in the near future," explains Tyler. For now, the facility will continue operating via remote submission, with the goal of eventually opening for socially distanced and limited in-person access once it is safe to do so. "What will be key to making the AACE lab successful is offering not only the tools but the instructional resources to use them," he says. "We're starting out by offering software workshops before looking at how to make the AACE Lab part of the official curriculum." Tyler plans on working with deans and faculty members to formally introduce AACE Lab equipment into curricula across the institution.



AACE Lab Director Harrison Tyler at the Melco CNC Embroidery Machine, which can embroider imagery from digital vector files at up to 1,500 stitches per minute

"This represents a huge step forward for all three schools," says Laura Sparks, president of The Cooper Union. "The AACE Lab not only equips our students with the latest tools, but it also expands the imaginative possibilities for creating, making, experimenting, all of which are such an essential part of what a Cooper education is about." Sparks sees the AACE Lab as the next chapter in a long history of forward-looking education at



The Cooper Union, and in that sense, the IDC Foundation seems a kindred spirit. "Fueling innovation through such collaboration among construction-related fields is the focus of the IDC Foundation," Savino explains. "We are especially pleased that this facility has already proven to be so adaptable to current conditions, and we look forward to seeing what novel ideas Cooper students generate with this new resource."

Tyler says student response has been enthusiastic and the projects he's seen come through the lab so far have been promising. "Right in the beginning of March last year, when we launched our pilot operations, the breakdown of students using the lab in person was almost exactly proportional to the size of each school," he says. "I'm excited for the future of this space and for seeing what kind of work comes out of having an architect, an artist, and an engineer all working in the same environment." •

- MATTHEW BOWER

REFRAMING FOR ACTION

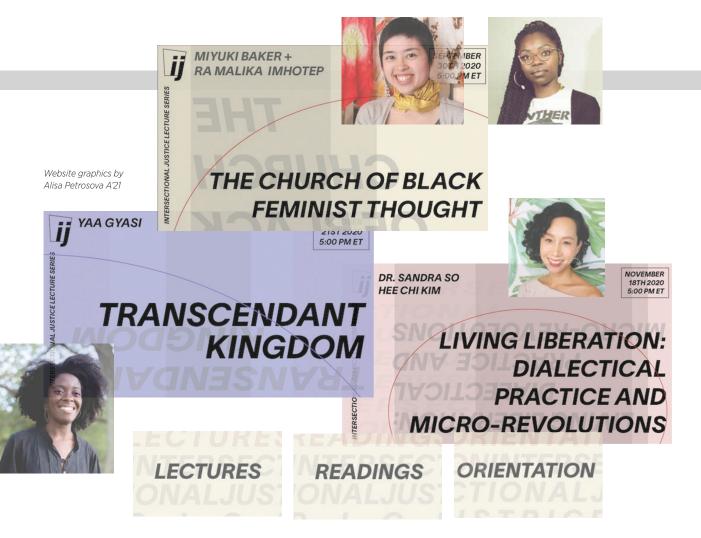
New lecture series addresses multifaceted injustice

hile 2020 will surely be remembered for the COVID-19 pandemic, the year was also marked by the anguish provoked by ongoing violence against Black Americans, most horrifically exemplified by the murder of George Floyd last May and, sadly, others since then. As one means of responding to the crisis, a coalition from the Cooper community worked to provide more opportunities for discussion.

Specifically, the coalition wanted to introduce Professor Kimberlé Crenshaw's concept of intersectionality, a lens for understanding the complex ways that multiple forms of oppression can interact to inform a person's particular experience—the intersection of racism and sexism faced by Black women, for instance. As HSS Associate Dean Nada Ayad explained, "An intersectional justice framework advocates for the systematic equitable treatment of people of all races, classes, genders, and sexualities, that results in equitable opportunities and outcomes for everyone. All people are able to achieve their full potential, regardless."

Last summer, members of the Black Student Union, Cooper Climate Coalition, and other students collaborated with Dean of Students Chris Chamberlin and Associate Dean Ayad to enhance first-year students' orientation with two-hour reading groups dedicated to studying texts centered around the theme of intersectional justice. One of the organizers, art senior Alisa Petrosova, wondered how Cooper could incorporate discussions about justice into the curriculum: "What would happen if we started those conversations earlier in our journey? How could this contextualize our disciplines as well as the humanities?" These sessions were led by an array of academics and artists in literature, history, and other fields whose work contends with racism and the complex legacy of colonialism. By all accounts, the sessions were a great success and lauded by the incoming students.

In a similar spirit the alliance behind the reading groups decided to expand the conversation by offering a lecture series that began in Fall 2020. One member of the Cooper Climate Coalition, Brighton Hyunh, supports the expanded conversation on intersectionality because, as he sees it, the concept gives a far more accurate picture of the impact our actions have in a whole host of arenas, from climate activism to the fight for racial justice. The civil engineering senior stresses that singular environmental changes often intersect with broader patterns of racial and class inequality. By way of example, decline in salmon populations in a given region, he says, "could interrupt cultural traditions associated with catching salmon or could disrupt an integral food source for impoverished groups. Meanwhile other communities within the area may have the financial ability to purchase imported or farmed fish and never experience a cultural or nutritional loss from no longer having local salmon. In this one effect of climate change, culture and food security immediately become areas of concern that affect individual populations."



Framed around this kind of approach to seeing the systemic nature of inequality, the Intersectional Justice Lecture Series, as the organizers dubbed it, has also aimed at challenging how academic knowledge production itself is often shaped by exclusionary institutions and practices. The series launched with **Miyuki Baker** and **Ra Malika Imhotep**, founders of The Church of Black Feminist Thought. The pair spoke at a community-wide online lecture where, among other topics, they introduced their concept of "Embodied Citation," an idea that riffs on the bibliography page of a research paper. The goal, as they explain on their website, "is to share citations in more accessible ways and to surface all the hidden labor done by black feminist artists, scholars, and writers."

Their talk, given last September, described the roots of the project and specific practices that can help us interrogate dominant historical narratives to reveal the essential roles played by people who, until very recently, have been largely ignored in the traditional academic canon. Nora Ashwood, a sophomore in the School of Art who attended the talk, learned about an important document in Black feminist thought, the 1977 statement of the Combahee River Collective. The group, who Ashwood is now researching, describe systems of racial, sexual, heterosexual, and class oppression as interlocking. Noting the ways that this understanding informs her work on Cooper's student council, Nora says, "I don't think we can work towards change or establishing empathy if we don't first try to study the structures already in place. This is something I'm still, and will forever, be learning about."

The series' speakers all stressed the ways we can work as individuals to decolonize our thinking.

The next event in the series was a conversation between Associate Dean Ayad and Yaa Gyasi, a young writer who had just published her second novel, Transcendent Kingdom. Gyasi's debut novel, Homegoing, was celebrated as an expansive, highly original meditation on the fate of a family torn apart by slavery, winning her the National Book Critics Circle John Leonard Prize and the PEN/Hemingway Award for Best First Novel.

Her highly anticipated sophomore effort explores the relationship between mother and daughter—one an immigrant from Ghana, the other an assimilated neuroscientist—who are grappling with the exigencies of being both immigrants from Africa and Black in America. Those dual pressures of immigration and racism embodied in one person's experience is one example of Crenshaw's intersectionality.

The final talk of the fall semester, entitled "Living Liberation: Dialectical Practice and Micro-Revolutions," was given by Dr. Sandra So Hee Chi Kim, who reflected on her roles as an academic and community organizer. Dr. Kim's talk described how she has integrated her scholarly training into grassroots racial justice education and community-building.

After Dr. Kim's lecture, Susannah Lee Kandikatti, a student at the University of Hawaii at Mānoa, was moved to write to Associate Dean Ayad. "There are many days," she wrote, "when I feel hopeless about the state of our nation and the world, but Dr. Kim's talk was truly reinvigorating knowing that the small steps we take together, although small, are important and significant."

Brighton concurs: "Intersectionality allows us to have a broader mindset as we notice links and causes that might have not been immediately obvious before." The result, he says, is "more accurate problem solving."

The series, which continued in Spring 2021 with three more speakers (see below), keeps exploring various issues using an intersectional lens. Associate Dean Ayad encourages all members of the Cooper community to join in on the conversation and to share suggestions for future speakers with her or Dean Chamberlin: "The process is very open and collaborative, and we would love your input." •

- ANGELA STARITA

THE INTERSECTIONAL JUSTICE LECTURE SERIES | SPRING 2021

March 4: Elizabeth Hoover

Environmental Reproductive Food Justice: Native Communities Reclaiming Traditional Foods

Elizabeth Hoover is an associate professor in the Environmental Science Policy and Management department at the University of California Berkeley whose work focuses on food sovereignty and environmental justice for Native communities

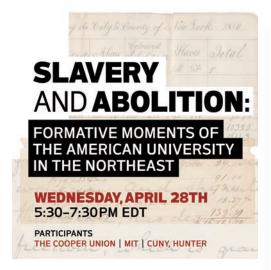
March 25: Shekar Krishnan BSE'06

Fighting Against Displacement: Housing as a Human Right in New York City

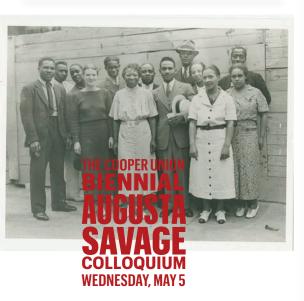
Shekar Krishnan is a lawyer, community activist, and co-founder of Communities Resist, a legal services organization serving North Brooklyn and Queens. The group is celebrated for its community-rooted, intersectional approach to housing and racial justice.

April 22: Edafe Okporo

Imagining a Society that Is a Bridge to All Edafe Okporo migrated to the United States as an asylum seeker in 2016. He is a global gay rights activist and the executive director of the RDJ Refugee Shelter in Harlem. The shelter helps refugees transition to life in America. He is author of the forthcoming book Asylum, a Memoir & Manifesto and founder of The Pont, a group that helps nonprofits make their organizations more inclusive and equitable.



Featuring professors and students who have undertaken archival research on their universities' ties to the Atlantic slave trade and slavery, this two-hour symposium hosted by The Cooper Union provides a platform for reckoning with the past and asks how to collectively imagine paths forward to building actively anti-racist institutions.



A group of academics and creative practitioners come together to honor the life and work of the artist and educator Augusta Savage, who graduated from The Cooper Union in 1925. This public conversation will explore the intersections of history, art-praxis, education, and social justice.

VISIT

COOPER.EDU FOR MORE INFORMATION ABOUT THESE SPRING EVENTS

Above: Harlem Community Art Center of the Works Progress Administration. Front (I to r): Zell Ingram, Pemberton West, Augusta Savage, Robert Pious, Sarah West, and Gwendolyn Bennett; back (I to r): Elton Fax, Rex Goreleigh, Fred Perry, William Artis, Francisco Lord, Louise Jefferson, and Norman Lewis

Photographer: Andrew Herman. Schomburg Center for Research in Black Culture, Photographs and Prints Division, The New York Public Library

MALCOLM KING EE'97 Continued from back cover

core principles that I have embraced from Malcolm X's life and speeches. The first is the importance of highlighting injustice where it exists, to call attention to the problems, and to acknowledge the people who experience it. The second is the principle of self-empowerment and looking within to take action to advance oneself. Malcolm X often spoke about the positive habits individuals needed to adopt to overcome injustice, often with a heavy focus on education. In other cases, he advocated for cooperation within the community to move things forward.

We can continue to promote equity as a society by ensuring that people have a fair chance to succeed. People's opportunities may often appear to be equal, but there are many unseen factors that put some at a disadvantage relative to others. For inclusion, I believe that the most effective approach is to promote awareness and exposure. Unconscious bias is a significant contributor to exclusionary behavior or tendencies, but educating people on the existence of those biases may help reduce them. Also, it has definitely been shown that exposure to examples that are contrary to stereotypes promotes more inclusive behavior.

Where do we stand in the plan to reinstate full-tuition scholarships?

When I was asked to join the Free Education Committee, which worked on the plan to get back to free, I didn't think it was possible. I just thought, "OK, well, it's mandated. I'll be on the committee, and I'll die trying, but it's not going to work." I'm thrilled to have been proven wrong and also to have learned some things about institutional finance and organizational strategy along the way. We're not there yet, but we are on track for getting back to free. Now there are some steep slopes ahead of us. But considering what we've done over the past few years, considering how we've weathered the current economic situation, I think that we are well-poised to succeed.

When we developed the plan, we assumed that over a 10-year period there would be some type of economic trouble that would impact our finances. We knew that the plan was ambitious and that there would be ups and downs. That's why it was so important that we had such positive results in the first two years, enabling us to steadily navigate this tumultuous past year. While we expect there to be a negative impact on the plan this year, it won't be as big as we initially projected and we expect to remain on track, thanks to careful management of the school's finances. The next few years present a big challenge ahead in that we'll need a significant fundraising increase in what we call current-use funds to stay on track. Our financial monitor noted the same in their most recent annual report. What I will say is that our current credibility as an institution has helped and will continue to help with fundraising.

How can we increase alumni participation to support our drive to get back to full-tuition scholarships?

It's the same approach that I take with any general donor—to understand what their passions are, what types of causes they feel strongly about, and then to connect those things to aspects of Cooper, where possible. Does Cooper advance something that you care about whether you went to Cooper or not? What is it about Cooper that would make someone want to support it regardless of their history with the school? I really think we can step back objectively and see many reasons to be drawn to Cooper's mission and vision. I'd like people to say, "I believe in the institution and I want to support it. And oh, yeah, I happen to be an alum." So, we'd like the desire to support Cooper to stand on the merits of the institution, as opposed to a sense of obligation, which is a bit of a change in narrative.

As far as students are concerned, we're trying to be much more intentional in exposing them to the history of the institution and Peter Cooper's vision. We hadn't done that consistently in the past and I personally didn't have that awareness when I was a student. We've also been better about engaging alumni to interact with the students to build a sense of community across generations. I had no idea about Cooper's finances 20 years ago, but students now are very aware of what it takes to sustain the school. We've had some great senior class gifts over the past several years, so the awareness and enthusiasm is definitely there.

I personally focus on the themes of the noble origin, the rich history, and the promising future rather than the idea of "giving back." Cooper Union should have broad appeal to society, and we should lead by example in supporting the institution we know and love.

ONCOOPE





WORLDWIDE AND VIRTUAL: TYPOGRAPHICS FESTIVAL JUNE 1 TO JULY 1, 2021 2020-21 BENJAMIN MENSCHEL FELLOWSHIP EXHIBITION

THIS YEAR'S FELLOWS ADAPTED THEIR PLANS TO THE RESTRICTIONS OF THE PANDEMIC AND PRODUCED WORK THAT PUSHES THE BOUNDARIES OF RESEARCH, ANALYSIS, AND INTERVENTION





CULT FOLLOWING
THE CHEESE CULT, A NEW
STUDENT CLUB, LEADS
VIRTUAL CHEESE-MAKING

WORKSHOPS

\$1.6M GRANT FOR BIOENGINEERING

THE ALBERT NERKEN SCHOOL OF ENGINEERING RECEIVED A GRANT OF NEARLY \$1.6M TO SUPPORT BIOENGINEERING/BIOMEDICAL EDUCATION AND RESEARCH



EE STUDENT WINS PRESTIGIOUS SCHOLARSHIP

ALEXA JAKOB EE'22 WAS AWARDED THE GOLDWATER SCHOLARSHIP, THE PREEMINENT UNDERGRADUATE AWARD FOR RESEARCH IN ENGINEERING, MATHEMATICS, OR THE NATURAL SCIENCES



BARRY LEWIS 1945-2021

A LONG-TIME CONTINUING EDUCATION INSTRUCTOR, LEWIS'S WNET SERIES OF NYC WALKING TOURS WERE NOMINATED FOR MULTIPLE EMMY'S

ROJEDU



/AT-COOPER/SPRING-21

HARPER'S BAZAAR INTERVIEWS TWO SCHOOL OF ART ALUMNAE

A FEATURE ABOUT
THE STUDIO MUSEUM
IN HARLEM INCLUDED
ASSOCIATE PROFESSOR
LESLIE HEWITT A'00
AND FIRELEI BÁEZ A'04



A WORLD OF MANY WORLDS

THIS YEAR'S ARCHITECTURE THESIS PROJECTS SYNTHESIZED NINE INDIVIDUAL WORKS, PRESENTED ONLINE AND IN THE FOUNDATION BUILDING WINDOWS





THE PULLMAN PORTERS LEGACY

THE WINDOWS OF THE FOUNDATION BUILDING FOLLOW THE JOURNEY OF THE FIRST AFRICAN AMERICAN LABOR UNION IN THE U.S. EXHIBITION IS VIEWABLE ONLINE



HUMMINGBIRD TAKES FLIGHT: MURAL BY COOPER STUDENT MAKES THE NEWS

YUMI RODRIGUEZ A'22 CONTRIBUTED TO THE AUDUBON MURAL PROJECT, WHICH DEPICTS CLIMATE-THREATENED BIRDS THROUGHOUT HARLEM

OUCH! MAGAZINE

DAYI NOVAS A'20 DESIGNS, EDITS, AND DISTRIBUTES WHAT SHE CALLS "A HAPPY MAGAZINE FOR EVERYONE"

VISIONS OF HOME

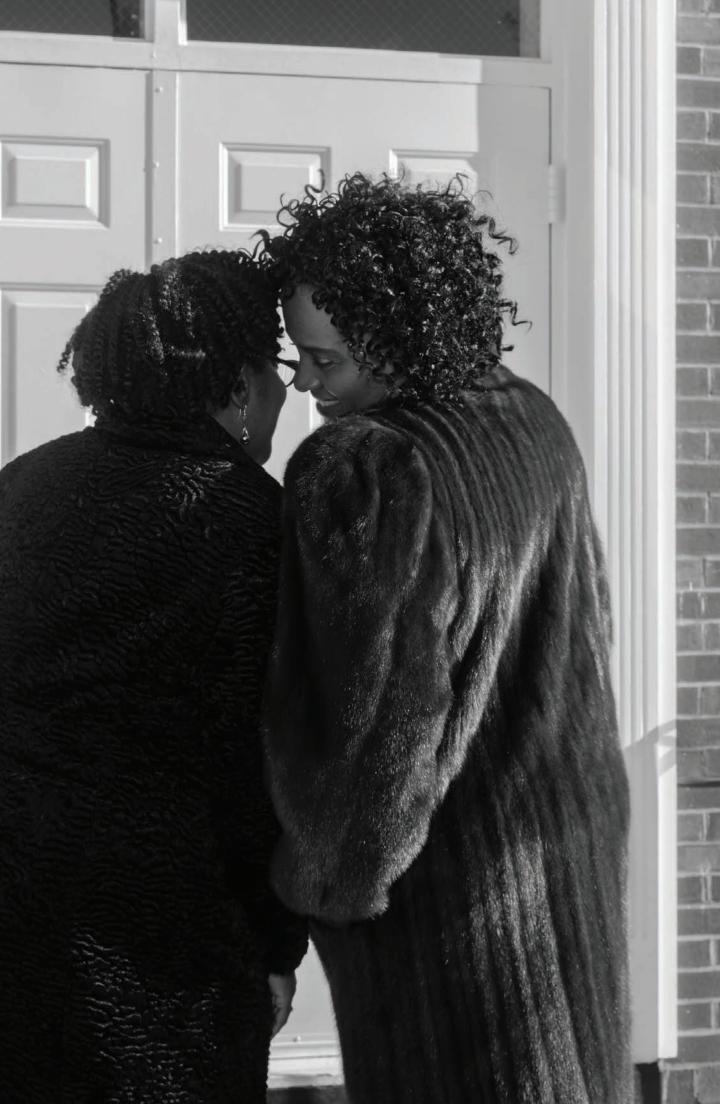
Dannielle Bowman A'11 awarded the 2020 Aperture Portfolio Prize

emory has a curious way of holding onto small details. In the photography of Dannielle Bowman, a 2011 graduate of the School of Art, those details become a language through which to relate shared, often unspoken histories. Last spring, Bowman was awarded the 2020 Aperture Portfolio Prize for What Had Happened, a series in progress that explores themes of home, family, and collective memory through striking black-and-white compositions photographed in the Los Angeles neighborhoods around where she grew up—Baldwin Hills, Inglewood, and Crenshaw. The series has since expanded to include works produced in New Jersey; New Haven, Connecticut; and Bed-Stuy, Brooklyn and was presented by Aperture this past January in an exhibition titled Dannielle Bowman: 2020 Portfolio Prize Winner, hosted by Baxter St. at the Camera Club of New York.

"Growing up in a neighborhood that has been so deeply shaped by migration is a unique experience," says Bowman, whose grandfather moved to California from Texas at a young age. "I was interested in how recognizing cultural signifiers of that experience can make you feel comfortable, like you're looking at your own family." What Had Happened draws together associations of landscapes, cultural objects, and scenes of domestic life with alluring use of texture and shadow to evoke both personal memory and stories of Black American migration.

An important influence on this work, according to Bowman, is Isabel Wilkerson's *The Warmth of Other Suns*, which traces the lives of four individuals to tell the story of the Great Migration, the movement of nearly six million African Americans out of the Southern United States between 1915 and 1970. "I became fascinated by the formal choices Wilkerson makes to see these individual stories within the context of the larger story, by looking at the intimate, micro-level events of personal family history as part of this macroscale migration." Yet What Had Happened is not conventionally documentarian, avoiding a focus on any one particular individual

Alpha Kappa Alpha, 2017 © Dannielle Bowman



or family and often obscuring subjects' faces from view. Bowman says she is instead drawn to black-and-white photography's power to "shows us things in a way that we can't actually see in our experience of the world. Like they're from another place."

In works such as Vision (Bump'N'Curl) (2019), which depicts a kaftan-clad woman in a lush backyard garden, that interweaving of estranged perspective and memory is anchored in the significance of detail. "We can never remember things 100%, and instead we remember the oddest details," Bowman says. "The way her tomato plants smell in June, her hair. You remember those things, and that's also part of the reason she's turned away. She has this very specific hairstyle that speaks to a certain kind of Black glamour, and it reminds me of women in my family and many women I've met in my life."

Working in the medium of black and white has also produced responses the artist had not quite anticipated: "In spite of the fact that the people in every other picture in the show are Black, people would assume that this woman in the garden is not a Black woman. I don't know if it's because they don't expect a Black woman to be in that space, but it's shown me how black and white photos really allow you to project onto what you're seeing."

Bowman, who earned her MFA from Yale School of Art and lives in New York City, has been a contributor to The New York Times 1619 Project, a journalistic endeavor to center North American slavery and the contributions of African Americans in the narrative of United States history. This year, she will participate in the Light Work Artist-In-Residence program, which is being hosted remotely as a result of COVID-19.

Like many artists, Bowman has had to alter her practice as a result of the pandemic: "I've wanted to work with archival material for a long time, but I also wanted a clear reason for doing it." Last summer, she uncovered a hard drive of old photos taken at a 2012 family reunion in Texas. "They were incredible, so different from what I had been showing in critiques at Cooper, so much more fluid. I started pairing them with what I'm working on now and thinking about their relationship to these ideas of Black home and family." Three of the photos, depicting this family celebration through a hazy lens, were displayed as part of the exhibition at Baxter St.

As a series, What Had Happened continues to evolve. "I see my approach to photography as a way of being in the world or seeing the world, and as a way of making worlds as opposed to being just about making projects," Bowman says. That attachment to the medium dates to her time at Cooper, but learning to feel at home in her work has been a journey. "I was the most boring Cooper student ever. I wanted to take pictures and was really rigid about it. Now I beat myself up about not pushing myself more to try other mediums. I would mostly do environmental portraits. It took me a long time to figure out how to make work that I really care about, and it's funny, because at the end of the day I'm basically still doing environmental portraits."

- MATTHEW BOWER



Vision (Bump'N'Curl), 2019 © Dannielle Bowman

FILLING IN THE GAPS

Carmi Bee AR'67 approaches housing at a neighborhood scale

ffordable housing—a perennial problem in New York City that has proven even more urgent with the COVID-19 emergency—raises tough questions: how do we define "affordable"? What form should it take? And frequently the most contentious of all—where should it be located? Last October, Mayor Bill de Blasio announced a plan to build 800 new units in the New York neighborhood of SoHo, a highly unusual move considering the wealth of the proposed location. Besides signaling an attempt at spreading affordable housing equitably across the city, it's also a response to growing homelessness, which according to a study conducted by the city, rose by 7% from January 2019 to January 2020. The numbers have almost certainly grown since then, but as CityLab has reported, the COVID crisis has posed multiple obstacles to getting an accurate count of just how many people have lost their homes in the past year.

"people need more than shelter—they need healthy, permanent homes in thriving communities."

The issue has been central to Carmi Bee, a principal of RKTB Architects and a 1967 Cooper Union graduate who served as an alumni trustee on Cooper's Board of Trustees from 2002 to 2006 and as CU Alumni Council president from 2007 to 2009. This past January, he told the Architect's Newspaper that he hopes the Biden administration will address the housing crisis in thoughtful, holistic ways since "people need more than shelter-they need healthy, permanent homes in thriving communities." In August 2020, he published an article in ArchNewsNow arguing that architects have a responsibility to plan for maximum health and safety for their clients, a mandate made urgent by the pandemic. His essay draws apt parallels between architectural responses to early 20th century concerns about fire and disease and today's rising sea levels, future epidemics, and how to design for those eventualities. In the piece, he describes a potential solution to some of New York's housing woes in the form of infill housing, new structures in spaces where there's either an empty lot or a derelict building. The term implies a building of approximately the same height and width of adjacent buildings that will not contradict the architectural character of the neighborhood. RKTB has built its own Infill Housing Prototype© at sites across Brooklyn on lots zoned as R-6, which can hold small, multifamily apartment buildings 20-25 feet wide. The form could be one tool for addressing New York's ever-pressing housing crisis—one clearly exacerbated in 2020—as a strategy for filling voids in a neighborhood—replacing "what I call missing teeth," he says. Ideally two adjacent lots could be used to create an eight-unit building.







Prospect Gardens. Park Slope, Brooklyn Above left: Exterior Left: Stairwell view

Monsignor Anthony J. Barretta Apartments, East New York, Brooklyn Above right: Exterior Right: Night view—the glazed stairwell acts as a lighthouse on the street



The prototype is purposely simple: four- to five-story buildings with a floor plate of 2,500 square feet of usable space, no elevator, flexible apartment plans, and a well-lit glazed central stairwell visible from the street. The aim is to keep costs down and provide solidly built spaces that can be modified for different uses. The stairwell also gives residents greater security and less opportunity to be in close quarters with neighbors as happens in elevators. "The problem with walkways," Bee says, "is that they're often hidden away, and dark and depressing," and frequently unsafe. "That was a very important factor" in the building design, Bee says, because essential to the prototype is its promotion of community safety. The first-floor apartments of the buildings are accessible.

The Infill Housing Prototype, it turns out, has long roots that lead back to Bee's days as an undergraduate where he studied under John Hejduk, the architecture school's first dean, renowned for his approach to architecture pedagogy. "He was a formalist but a poet on top of that so without being overt he was quite political." While studying an unrealized development plan for the town of Hook in Hampshire, U.K. by the London County Council, Bee created a matrix of activities for analyzing the needs of the town. Hejduk loved the approach, so for his thesis project, Bee applied his ideas to a renewal scheme for the East Village. Bee is quick to point out that his plans had nothing to do with urban renewal—the euphemistic term for razing low-income neighborhoods. Instead, he proposed a design centered on infill housing that would be introduced incrementally. Hejduk along with Bernard Rothzeid, Bee's mentor and later partner at RKTB, encouraged him to reach out to a local organization, Mobilization for Youth in the East Village, to get their input. Speaking with the group helped solidify his belief that neighborhood organizers and residents must be involved. Bee went on to earn his Master in Architecture at Princeton, deciding that his career's focus would be using architecture to improve communities.

He eventually joined Rothzeid's firm and became partner in 1981. The firm was and remains an environment that encourages the concept of architecture as a form of social justice. In those first years, Bee worked on housing renovations in Washington Heights, Hell's Kitchen, sites around Brooklyn—all of which brought him back to his thesis project, which had the potential to act as connective tissue in communities where public housing had often been built with little consideration—and at times clear contempt—for residents and the surrounding neighborhood.

Bee started to collaborate with Michael Lappin, then the president of the Community Preservation Corporation (CPC). The group was founded in 1974 in response to the extraordinary number of apartments lost to fire, neglect, or demolition—20,000 to 30,000 units per year, according to CPC. Lappin, who still builds affordable housing, teamed up with Bee to build the prototype in multiple iterations but with the same essential elements. As he put it in his August article, "Our investigations for remediating these moribund environments began with a commitment to restore both their physical and social fabric."

Bee and Lappin valued moving incrementally, fortifying neighborhoods lot-by-lot. It was hardly the approach taken by big developers who frequently require large swathes of land to build towers that almost always clash with a neighborhood's scale and style. Bee, who characterizes tabula rasa urban development as "devastating," has found that his long-view approach, though slower, is far more valuable to communities than large-scale projects that impose on a neighborhood instead of becoming part of its fabric.

The importance of thinking holistically about affordable housing has also come into focus at The Irwin S. Chanin School of Architecture, particularly since Dean Nader Tehrani introduced a third-year studio sequence dedicated to housing when he came to Cooper in 2015. He echoes Carmi Bee's philosophy that housing is not a singular entity but a critical piece of the city. "It is housing for us all, and therefore requires communal thinking, compromise, and an understanding of greater social agendas. It is what defines the fabric of the city once we separate out of it the monuments, institutions, and public building. It is the glue that holds cities together."

According to Professor Mersiha Veledar AR'03, one of the studio's professors, students learn to consider materials, methods of construction, the high cost of urban real estate plus the need to house as many people as possible without sacrificing quality of housing. Like Bee, Professor Veledar believes it's important for students "to find novel ways of challenging formal preconceptions through a careful understanding and reconfiguration of typical room standards and their embedded spatial redundancies. We need more availability!"

What Bee began investigating as an aspiring architect at Cooper has proven to be an essential part of his career, yes, but more to the point, a powerful contribution to affordable housing. With many appropriate lots still available, it's a solution that could have even greater currency as the full effects of the pandemic become painfully clear.

- ANGELA STARITA

ENGINEERS IN EDUCATION

Albert Nerken School of Engineering alumni discuss the experiences that taught them how to teach others

"To me education is not just about the delivery of content per se but I think it has to be about community and fostering an environment in which everybody is contributing."

Teacher Michael Kumaresan made that remark when reflecting on one of the many difficulties of online education, but much the same could be said about teaching in general. While many Cooper alumni go on to work for companies like Google, BASF, and NASA, some like Kumaresan, who graduated in 2010 with a degree in electrical engineering, pursue careers in teaching after years of working as engineers.

Now Dr. Elizabeth Waters, associate director of STEM Outreach at Cooper, would like to encourage engineering students to consider teaching and mentoring earlier on. Waters recently launched STEM Teaching Fellowships, an internship program designed to nurture Cooper students' commitment to education, mentoring, and service in their life's work and engineering career. The 2021 STEM Fellows, Matthew Grattan and Mahmoud Khair-Eldin, worked previously as Summer STEM teaching assistants, an experience that ignited their desire to further pursue engineering





education. "We're looking for students who are interested in teaching a Summer STEM class and then we're really building on their interest in teaching to provide them with some other training, including communication training," Waters says.

STEM teaching fellows, Matthew Grattan BSE'19 MChE'21 (I) and Mahmoud Khair-Eldin CE'21



The goal is to equip fellows with what she calls "a tool kit" for teaching before the Summer STEM program gets underway again in June with the hope of adding a kinesthetic experience to the cerebral one. The toolkit includes practical training in the development of learning goals, curricula, activities, and class culture, along with resources and ongoing coaching throughout the Summer STEM program. "We want



them to feel really successful and excited about teaching."

Waters runs three programs that offer courses taught by Cooper undergraduates for middle and high school students interested in science and math: STEM Saturdays, Summer STEM, and STEM Days. As part of her efforts to highlight careers in education for her student teachers, Waters located Cooper engineering graduates who now teach or work in public education-Michael Kumaresan EE'10, Joanna Cruz EE'12, John Davis EE'98, Mike LaRosa ChE'99, and Donna Peruzzi EE'02to interview them about the trajectory of their careers. She discovered that, at base, they were all drawn to the great changes they could make in their students' intellectual lives.

The key to effective teaching, says Cruz, a public high school teacher at City Polytechnic High School of Engineering, Architecture, and Technology, is putting students' experience and learning styles at the center of your lessons. "I've been focusing on how we can really make our curriculum relevant and decolonized." She reflects on courses she took at Cooper with Professor Toby Cumberbatch, who taught electrical engineering until his retirement in 2018. His classes gave students the space to do their own research and make their work relevant to their interests. That combination of freedom and rigor, she found, kept students passionate about their work, and it's a balance she tries to strike in her own classroom. "Toby never gave us any answers. We had to figure out and prove to him why we had to do this and why it made the most sense. And we got shot down so many times. And if anything, that drove us to continue to find answers."

Kumaresan, who also recalls some professors employing the Socratic method in mathematics classes, characterizes his alma mater as rigorous but "humble" because of the accessibility of his professors and the support he received from older students who tutored first-years. That "near-peer" mentoring has long been part of the school's undergraduate experience.

All of the alumni educators Waters interviewed feel that their engineering training has been particularly helpful in the classroom: first, the rigor of academics at Cooper prepared them not only for teaching the content of STEM classes, but for the long hours of planning endemic to the profession. They report that their tech skills and, more importantly, their problem-solving mindset gives them a great advantage as



teachers. Mike LaRosa taught high school in New York City early in his career and now works as a consultant for non-profits launching health and education initiatives. The greatest challenge and pleasure of his work comes from the endless variety of obstacles that must be met to reach each organization's goals. "In a nutshell, I help folks draw and elicit senses of clarity and calm from uncertainty and ambiguity. And you can

draw a very clear through-line from what I do now to my experience at Cooper."

Donna Peruzzi came to teaching right out of college by becoming a New York City Teaching Fellow—a competitive training program for public school teachers—and has remained in the profession for almost 20 years, now teaching middle school science. She feels her role ultimately is to encourage students "to be scientifically literate citizens and to make sense of what they're hearing about on the news and what they're experiencing themselves with their family, whether it's health care or climate change or the pandemic." She seeks to provide her students with exposure to careers in STEM fields, especially those who have no family members in science or engineering.

All of the planning and area expertise won't amount to much, though, without communication skills. "A lot of the engineers that come out of Cooper definitely are going to know how to solve the differential equation and get the computer program working," says Waters, "but communicating that information is an essential part and becoming even more of an essential part of any job."

John Davis concurs. He frequently finds that his high school students may get to know a subject remarkably well but forget to tailor their remarks to a general audience. He recalled taking classes at Cooper that hit on the need for good communication skills at the beginning of his undergraduate career and at the end. "If I were suddenly dean of engineering [at The Cooper Union], I think the biggest thing I would add is more stress on communication during the middle period [of an undergraduate education] as well." Davis, like his fellow alumni, is passionate about opening STEM fields to women and people of color and believes teaching is the best way to substantially improve diversity. Communication is key to meeting that goal. As Peruzzi put it, "It's both those concrete skills, but also helping them see that they don't need to be experts in order to make change and to have agency and start figuring out their pathways."

- ANGELA STARITA

STEM Teaching Fellowships are funded by the Cross Ridge Foundation with support from Joseph Dobronyi, a trustee of The Cooper Union and descendant of Peter Cooper.

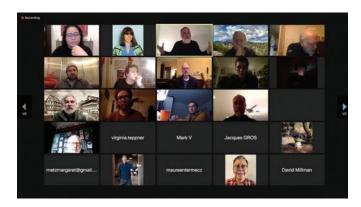
STEM Saturdays is made possible thanks to the Alfred P. Sloan Foundation with additional support from the John Ben Snow Memorial Trust.

The Summer STEM program is generously supported by the Henry Sterne Trust.



This year, Cooper Together, our global multi-day celebration of Peter Cooper's birthday, went virtual for the first time, with content featuring students, faculty, and alumni reaching over 5,000 people in 30 states and 14 countries!

To our Cooper family all over the world who joined us in fun and fellowship this February, thank you for all you make possible for our school, our students, and for one another.



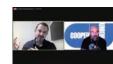






New York City: A 5,000-Year History with David Gersten AR'91

David Gersten, Distinguished Professor Adjunct in The Irwin S. Chanin School of Architecture, gave a talk based on his popular new course, showing footage from the Fall 2020 semester of guest speakers and virtual classroom discussions with students.

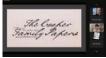




Talk and Toast:

A Trip Through the Peter Cooper Archives

The CUAA hosted a presentation by Lisa R. Norberg, director of The Cooper Union Library, who shared rare and unique manuscripts and materials documenting Peter Cooper's life. The evening closed with a special birthday toast to Peter Cooper.











2021 Cooper Union Alumni **Association Founder's Day Awards** Ceremony: The CUAA held their inspirational annual awards ceremony, honoring alumni excelling in the fields of art, architecture, engineering, and public service.



Behind the Scenes with "Wonder Women": Writer/Director Patty Jenkins A'93 and actor Gal Gadot

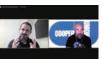
President Laura Sparks moderated a conversation about the Wonder Woman trilogy, giving alumni and friends a behind-the-scenes look at the film series as well as upcoming projects.



















1-3



The Advancement of Science & Art in Visual Effects: Frankie Rodriguez A'99 on His Career Journey

School of Art Dean Mike Essl A'96 talked with Frankie Rodriguez about his Cooper experiences in graphic design, drawing, 2D animation, and computer science—and how they informed his work on Star Wars: Rogue One, Avengers: Infinity War, and Frozen 2.



What was the name of the building formerly located on the land currently occupied by 41 Cooper Square (NAB)?



Hewitt Building



Cooper Union-Themed Trivia Night

A competitive event tested alumni knowledge on all things Cooper-from history of the neighborhood to notable Great Hall speakers. CUAA Events Committee Chair Mark A. Vasquez ME'88 emceed.

Over 160 donors contributed \$256,636 in honor of Peter Cooper's 230th birthday, continuing the legacy of philanthropy that has strengthened and sustained his beloved institute for generations.

MEET OUR SUPPORTERS

The Cooper Union is proud to recognize the individuals, families, and organizations whose leadership contributions have supported and sustained this beloved institution for generations. We are especially grateful to the members of our Lifetime Giving Societies and Cooper Fund Leadership Circle whose outstanding commitment to Cooper makes our founder's dream a reality.

Meet the newest members of our Lifetime **Giving Societies**

Peter Cooper Heritage \$1,000,000+

Altman Foundation

Sarah Bedell Cooper \$500,000-\$999,999

Vic '63 and Eleanor DiFranco George A. Reeves '64 and Ross Wisnewski

Abram S. Hewitt \$250,000-\$499,999

Alan Fortier '79 Pearl Greenberg '48 and Murray Greenberg '49 Tat-Sing Huen '77 Evelyn and Peter Kraus

Sarah Amelia Hewitt \$100,000-\$249,999

Daniel Arsham '03 David '55 and Gladys Daniel Michael Duffy '97 Jennifer Fenton Weishaupt '95 and Erich Weishaupt Aftab '97 and Ellen Hussain

John '69 and Mary Manuck John Papamarcos '41 Paul '72 and Brinda Wiita Gary Williams '71 Andrew '88 and Mary Wilson

William '76 and

Current Lifetime Giving Society Members

Peter Cooper Heritage

\$1,000,000+ Sidney J. Altschuler '57 Robert '43 and Margaret Bayuk Joan and Robert Bernhard The Estate of Howard '49 and Anita Betts Irwin S. Chanin 1915 and Sylvia Chanin Charina Endowment Fund George Clark '41 Con Edison James E. Craig '63 Francois '87 and Susan de Menil Donald '37 and Jane Deed Ronald W. Drucker and Lisa Ware The Estate of Antonya '62 and Daniel Eisen '62 Susan Eisenberg '62 and Benjamin Eisenberg '61 Eleanor and Stanley W. Ensminger '46 The Estate of Ellen and Sidney Feltman Barbara White Fishman '60 Howard Flagg '75 and Angelica Garcia-Flagg The Estate of Elaine Flug The Jacques and Natasha Gelman Foundation F. Phillip Geraci The Estate of Kathleen Gerla The Estate of Byron Gibbs '51 Horace W. Goldsmith Foundation Paula and Jeffrey Gural The Estate of George Hecht '30/'51 Isaac Heller '52 Leona M. and Harry B. Helmslev Charitable Trust IDC Foundation

The Estate of Roger '25

and Tessa Heine

William Hergenrother '55

Benedict '75 and Susan Itri

The Estate of

Maurice Kanbar

Alex '49 and Ada Katz William King '48 The Estate of Helmuth Knapp '50 John Kossak '41 and Evelvn Kranes Kossak

The Kresge Foundation Stanley '70 and Ruth Lapidus The Robert Lehman Foundation

The Estate of Harry Levine '30 Richard and Ronay Menschel Robert B. Menschel

Edward Durbin '48 and Joan Morris Marie Morrone, in honor of

Vincent Morrone '63 National Science

Foundation Albert Nerken '33 Rosemary '53 and

Milton Okun The Estate of Emil '41 and Billie Pansky

Rubin '42 and Rene Rabinowitz The Estate of

Farl Reddert 1915 Michael F. Roberti '67 The Robin Hood Foundation Daniel and Joanna S. Rose Frederick P. and Sandra P.

Rose Foundation Susan and Jack Rudin William '63 and Patricia

Sandholm Morris Shane '47 Frank Stanton, in honor of Louis Dorfman '39 and

Ann Hysa Dorfman '39 The Starr Foundation Peter Torraco '28

Anonymous (6)

The Estate of Leonard Trentin '37 Martin '56 and Diane Trust The Trust Family Foundation The Estate of Mitchel '49 and Marjorie von Wieser Irma Giustino Weiss '45 Henry Wolf Foundation

Sarah Bedell Cooper \$500,000-\$999,999

Booth Ferris Foundation Michael Borkowsky '61 Kevin '72 and Patricia Burke Lois M. Collier Thomas '77 and Diane Driscoll The New York Community Trust-Henry C. Enders Fund Mark L. Epstein '76 George '40 and Cecily Fox The Robert David Lion Gardiner Foundation In honor of Roy Grace '62 Bette-Ann and Charles Gwathmev Roslyn and Elliot Jaffe Lila Wallace-Reader's Digest Fund Richard and Ellen Lincer National Endowment for the Arts

New York State Council on the Arts Alphonse R. Normandia '48

and The Normandia Family Harry Ploss '68 Richard '57 and

Ardath Schwartz Alfred P. Sloan Foundation Surdna Foundation UNTIL ALL ARE FREE Cynthia C. Weiler and E. Blake Moore, Jr.

Abram S. Hewitt \$250.000-\$499.999

Anonymous (2)

Howard '70 and Nancy Amols Lawrence B. Benenson Alfred '67 and Kathryn Brand Judith Cassella '71 and Charles Cassella '68 Citi Community Development Clo and Charles S. Cohen Garv Davis Raymond '86 and Tina Falci

Morris '66 and Amanda Gelb The Hearst Foundations The Lucius N. Littauer Foundation Susan and John Michaelson Constance J. Milstein Frank W. Miner '47 Ted and Monica Nicholas The Carroll & Milton Petrie Foundation The Pinkerton Foundation Rockefeller Brothers Fund In Memory of Ahmad and Parvaneh Tehrani Tiger Foundation Philip Zev Weisberg '89 and Alla Weisberg Jeremy Wertheimer '82 Tom '59 and Claire Wesselmann Dale '45 and Charlotte Zand Anonymous (2)

Sarah Amelia Hewitt \$100,000-\$249,999

Joel '58 and Louise Alper

John and Corrinne Alpert Foundation Robert '54 and Linda Alwitt Marc and Joanna Appleton H.B. Avison, in memory of Beth and Art Kramberg George '59 and Frances Barletta Robert W. Bassemir '49 The Bay and Paul Foundations, Inc. Bernard '40 and Lorraine Bayuk Charles '39 and Zelda Bliss Leo J. Brancato '50 Kenneth Bridbord '64 and Maryanne Lachat Lia Vodja Brillhart '60 Eugene '64 and Susan Briskman Mary Schmidt Campbell and George Campbell Jr. Marie and Joseph Celkupa Anne and Albert Chao John P. Clarke '66

Sandra Cordiano Norma Rancken Cossey ME'46 and C. Murray Cossey E'40 Richard and Jean Covne Family Foundation Cross Ridge Foundation The Charles A. Dana Foundation Marvin '49 and Faith Dean Ira W. Decamp Foundation Christine Degen '68 and Bruce Degen '66 Roberta and Deke Dening, Parents of John Dening '99/'03 Carol and Joseph Dobronyi Louis Dorfsman '39 Stephen Doyle '78 and Gael Towey Timothy Driscoll '56 and Barbara Driscoll Timothy Driscoll '73 Lauren Esnes '80 and Eugene Esnes '80 Katherine Faulkner, Daniel Gallagher, and Nader Tehrani, NADAAA Jovce Feinsilber '50 George A. Fischer '54 N. Phyllis Fischer '54 Frezza Family Foundation Janet Paxton Gardner '65 and The Edward and Elizabeth Gardner Foundation Stephen '67 and Jane Gerard Shirley Glaser '56 and Milton Glaser '51 Mona Bhoyar and Milind Godbole, ws of Akash Godbole '17 Harold '44 and Rose Goldberg Alan I. Goldsmith '86/'89

> Nancy Grabow T.J. Gottesdiener '79 and Skidmore, Owings & Merrill

Jack D. Goodman '51 and

James C. Gower '88/'90 Richard G. Graven '52 William 1921 and Polly Grimshaw Agnes Gund The Guzzardi Family Robert J. Hammond, Sr. '38 and Elizabeth T. Hammond Edward I. Hawthorne '43 and Lillian Hawthorne Jeffrev S. Hersch '87 and Ronny Hersch Eric '89 and Hillary Hirschhorn Sol Horwitz William J. Horvath John E. Huddy '85 Institute of Museum and Library Services Judith and Thomas Iovino Susan Kamen Marsicano '61, in memory of Nicholas Marsicano The J.M. Kaplan Fund

Jaishri and Vikas Kapoor

Frank K. Kelemen '37 Steven '64 and Carolyn Koestenblatt John '64 and Sarah Koster Alan '70 and Camille Kramer The Labowsky Family Lynn '60 and Anne Marie Lander Eugene M. Lang Foundation Michael Lefkowitz '69 Ilan M. Levi '65 David '74 and Diane Levy Leon Levy Foundation Susan Lin '88 Fredric Litt '61 and Jane Ebbers Litt John L. Loeb Edgar Luber '53 Raymond Luke Harriet and John Mack, in memory of William Cooper Mack '06 James '80 and Patricia Malanga Connie V. Martinez

Rhoda Metzger, in memory

of Fred Metzger '57

Cora and Clarence Michalis Fernanda D. Milling '29 Ken '69 and Helene Mitchell Edgar '78 and Mary Mokuvos Vincent '36 and Grace Moore Lawrence Ng '78 Stavros Niarchos Foundation Ernest E. Olson Jr. '52 Sean Patrick O'Neill '03 Edward '63 and Mary Ott Emil J. Parente '53 William Paulus, Jr. '58 and Lois Paulus Alberta Poskanzer The Reed Foundation Donald '63 and Kathleen Reilly Arthur R. Robinson '51 Anne Dudek Ronan '83/'84 and Gregory J. Ronan '81/'82 Paul '62 and Ann Rosche The Estate of Fujio Saito '47 Robert G. Sarubbi '53 Allvn '66 and Meredith Schneider

Donald '57 and Mary Lou Schwinn Sciame Construction, in memory of John Fitzpatrick Silverweed Foundation Lee H. Skolnick '79 and Jo Ann Secor John Ben Snow Memorial Trust Stuart '55 and Etta Spater Tishman Speyer Robert '65 and Barbara Spindel Rochelle and Brian Steinwurtzel Henry Sterne Trust Eugene Stueben '61 Solon E. Summerfield Foundation Ben '49 and Helene Swedowsky Adele Hall and Robert W. Sweet Thomas W. Synnott, III Sol Tanne '47 and Janice Hopkins Tanne

James Tellefsen Jr. '77 and Martha Tellefsen Arthur Thomson '64 Diane Toy '97 and Eric Fung '97 Philip '92 and Jennifer Trahanas Otokar '58 and Ruth von Bradsky Bruce F. Waller, Parent of Greta M. Waller '06 Rachel L. Warren, in honor of Willard L. Warren '50 and Claudette S. Warren Clifford '36 and Margaret Warren Herbert A. Weidner '49 Jack Yogman '48 Tony Yoshida and Sunrise Mart George W. Young Anonymous (7)

The Pucilowski Foundation

Patricia Pothier '50 and

Cooper Fund Leadership Circle recognizing gifts of \$10,000 or more since July 1, 2020

\$200.000+

Evie June Katz

Sidney J. Altschuler '57
Kevin '72 and Patricia Burke
Charina Endowment Fund
The Robert David Lion
Gardiner Foundation
Pearl Greenberg '48 and
Murray Greenberg '49
Alex '49 and Ada Katz
Dave Mangelsdorff
Richard and Ronay
Menschel
The Robin Hood Foundation
Alfred P. Sloan Foundation

Anonymous (3) **\$50,000-\$199,999**

Altman Foundation Daniel Arsham '03 Jacqueline Bernstein and Marvin H. Weiner The Estate of Ingeborg M. Borre Anne and Albert Chao Chubb Con Edison Vic '63 and Eleanor DiFranco Thomas '77 and Diane Driscoll Alan Fortier '79 Jane and Bill Furman Morris '66 and Amanda Gelb Jacques and Natasha Gelman Foundation The Greenbrier Companies Paula and Jeffrey Gural Aftab '97 and Ellen Hussain **IDC** Foundation Susan Kamen Marsicano '61 Leon Levy Foundation National Historical Publications and Records Commission The New York Community Trust-Henry C. Enders Fund John Papamarcos '41

The Carroll and Milton

Petrie Foundation

George Reeves '64 and Ross Wisnewski Rochelle and Brian Steinwurtzel The Estate of Eugene Stueben '61 UNTIL ALL ARE FREE Thomas Van Wart '55 Jeremy Wertheimer '82 Gary Williams '71

\$25.000-\$49.999

Howard '70 and Nancy Amols Richard Auerbach Eugene '64 and Susan Briskman The Brooks Family Foundation Susan Eisenberg '62 and Benjamin Eisenberg '61 Jennifer Fenton Weishaupt '95 and Erich Weishaupt Pam Flaherty Stephen '67 and Jane Gerard Harold '44 and Rose Goldberg Sally Gottesman The Estate of James C. Gower '88 Ilan '65 and Barbara Levi Frank W. Miner '47 Kenneth '69 and Helene Mitchell Newmark Knight Frank Theodore '46 and Hazel Newler H. Steve Schweitzer '66 Arthur Thomson '64 Diane Toy '97 and Eric Fung '97 Henry Sterne Trust Rachel L. Warren Susan Lin '88 Anonymous

\$10.000-\$24.999

Sara Lee and Axel Schupf

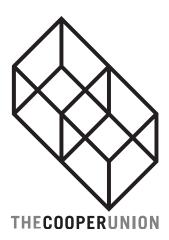
Allied Universal Robert '54 and Linda Alwitt Charles Arbore '66 Nicolas Avrutin '14 A. Robert Birmelin '54 and Blair Tillisch Birmelin Ivan '62 and Diana Bottlik James '79 and Natalie Bracken Lia Vodia Brillhart '60 Brooklyn Brewery Curtis Browne '68 Arlene Buechert '54 Michael Callan '68 Mary and John Carroll Christina Casey Judith Cassella '71 Collaborative Construction Management, LLC Constellation, an Exelon Company William '76 and Sandra Cordiano Richard and Jean Coyne Family Foundation Cross Ridge Foundation Christopher Curro '15 Christine Degen '68 and Bruce Degen '66 Roberta and Deke Dening Doris and David Deutsch Theodore Dezvane '93 and Melissa Knoll Vito '06 and Daniela Dilenna Edward '76 and Kathleen Dineen Carol and Joseph Dobronyi Michael Duffy '97 Jack Eichenbaum '63 Jose Esteves '82 Chenggong Fan '95 Jack Feder '50 Wanda Felton Barbara Gural Jane Gural-Senders Richard Halko '69 Jeffrey '87 and Ronny Hersch Hoefler & Co.

Toni Howard and David Yarnell Tat-Sing Huen '77 Institute of Museum and Library Services Josephine Iselin Benedict '75 and Susan Itri Elise Jaffe + Jeffrey Brown Mark Jay '73 and Susan Rosenthal-Jay Patricia Jenkins '93 Arthur '50 and Maryla Kaplan Malcolm '97 and Danielle King Steven '64 and Carolyn Koestenblatt Jozef Krakora '97 Jimmy Kwong '80 and Pauline Yep Sophie Lee Landau '15 Lynn '60 and Anne Lander Marie Lechleider '54 Steven '75 and Michelle Lerner The Estate of Loretta Levy '47 and Roy Levy '47 Darrell '89 and Jenny Low John '69 and Mary Manuck Winifred Marasco '66 and Joseph Marasco '66 Winifred Martin '48 Barbara Martinsons Rhoda Metzger, in memory of Fred Metzger '47 Paul Millman '74 Moxy East Village Corinne Musa '04 and Derek Musa '03 National Endowment for the Arts Ruth Nerken New York State Council on the Arts Aleksey Orekhov '10 The Estate of Edward Owen '42 Constantine '00 and Beth Plakas

Goran Pocina '84

Ernest Nussbaum '50 Marshall and Jane Rafal and Family Daoyuan Ren '94 Charles Rivkin '50 Dean Sansone '89 Walter Schepp Walter '60 and Ruth Schillinger Richard '57 and Ardath Schwartz Donald '57 and Mary Lou Schwinn Ann Seregi '60 and Larry Kallenberg '60 SITU Studio Irma Sityar '83 Sean '85 and Penny Smyth John Ben Snow Memorial Trust John '82 and Susie Sobchak Rodney '61 and Linda Sorkin Laura and Andrew Sparks Robert '65 and Barbara Spindel Richard Stock swissnex Boston William '74 and Louise Symington Nader Tehrani John '69 and Dorothy Telesco James Tellefsen Jr. '77 and Martha Tellefsen Edward Tirados '87 Gerald Wasserman '66 and Michele Trincellita Stephen Welby '87 Leslie Wheelock Paul '72 and Brinda Wiita Francis Williams Andrew '88 and Mary Wilson YC Foundation Alfred Zacharias '53 Dale Zand '45 Martin '77 and Beth Zubatkin Anonymous (4)

For additional listings of Cooper's most generous donors, or to learn more about society membership and how you can join this incredible group of philanthropists, visit bit.ly/MeetSupporters.



THE COOPER UNION
FOR THE ADVANCEMENT OF
SCIENCE AND ART
COOPER SQUARE
NEW YORK, NY 10003

NON-PROFIT ORG. US POSTAGE PAID S. HACKENSACK, NJ PERMIT NO. 1077

4 QUESTIONS FOR MALCOLM KING EE'97

Meet Cooper's new chair of the Board of Trustees

Malcolm King EE'97 has served on Cooper's Board of Trustees since 2013, officially stepping into his new role as chair this past December. He previously served as chair of the Audit Committee and also serves as a member of the Free Education Committee (FEC), which was responsible for developing the Board-approved plan to return Cooper to full-tuition scholarships. He is a co-chair of Cooper Union on Wall Street (CUWS) and is currently head of Cybersecurity Risk & Control at Wells Fargo. The following conversation is excerpted from an interview with Malcolm King for the Albert Nerken School of Engineering as well as a recent virtual fireside chat between King and several fellow alumni from the Class of 1997.

What does being an alumnus bring to your service as board chair?

My relationship with the institution has changed over the past several years, and I'd say really in a good way and in a deeper way. For the decade after I graduated, I was very grateful to Cooper for what it meant to me, what it meant to us as students. But that changed with what we refer to as our own financial crisis, when we were not able to offer full-tuition scholarships anymore. As a board, we were compelled to revise the mission statement because the old mission statement had referred to the full-tuition scholarships. So, we had to do some soul searching to think about what Cooper meant to us. What does it mean to the world? Why is it worthwhile? That forced us outside of the mindset of just being alums of Cooper. What we discovered through reading history, getting feedback from the community, and reading Peter Cooper's own words about his aspirations for the institution, was a better understanding of Peter Cooper's vision and intent.



Besides offering access to students, to people who couldn't otherwise afford a college education, the idea was to foster a sense of civic responsibility, a sense of morality, and a desire to do good in the world. That's what he wanted the school to really teach us, besides what the curriculum provided.

I also came to better understand the role of the Great Hall in Peter Cooper's vision. We think of the Great Hall in the historical context—many famous people spoke there and in many cases they delivered historically significant speeches. That wasn't by chance. Peter Cooper intended for the institution to be a platform for civic discourse to advance

good in society by addressing the critical problems of the time.

Cooper has actually meant more to me as I've become less focused on my personal history with the institution. Now, I see Cooper as not only a gift to us as alumni, but as a self-perpetuating gift to society whose breadth and impact is unrivaled, in my view.

What do diversity, equity, and inclusion mean to you?

The Cooper Union was founded with the objective of being inclusive, as Peter Cooper wanted to provide the opportunity to enjoy a formal education regardless of economic status, race, or gender. Staying true to his vision compels us to stay engaged and be aware of how we are supporting inclusion. Most people guess that I was raised with strong awareness of social justice and the history of civil rights because of my name, and they are correct.

Sometimes, I clarify for people that I am named after Malcolm X, not Malcolm Forbes, just so they're sure. There are two