Department of Architecture

In 1868, the Massachusetts Institute of Technology created the first academic program in architecture in the United States of America. Replacing a system of purely professional apprenticeship, the Institute imported a system of more formal education in studios, sketching, and formal presentations of drawings and models from Europe. Many things have changed, but this hands-on approach to learning has not. Nor has its essential contribution to the nature of architecture as a design discipline combining many different forms of expertise and knowledge—in history, policy, creative expression, structural engineering, and research. What we do understand better today are the merits of a project-based approach to learning and why our current approach to learning is relevant across many disciplines.

Today, our students learn in a multitude of programs: master of architecture (MArch); master of science in architecture studies (SMArchS); master of science in art, culture, and technology (SMACT); master of science in building technology (SMBT); and doctor of philosophy (PhD), with concentrations in building technology, design and computation, and history, theory, and criticism. Undergraduates can earn a bachelor of science in architecture (BSA) or a bachelor of science in art and design (BSAD) and can minor in architecture; design; history of art, architecture, and design; and art, culture, and technology.

To help negotiate the complexity and diversity of expertise and learning around architecture, our department today organizes itself into four discipline groups that sit alongside a fifth, embedded program. Our discipline groups are Architecture and Urbanism (A+U); Building Technology (BT); Design and Computation (COMP); History, Theory and Criticism of Architecture and Art (HTC; with the Aga Khan Program in Architecture [AKPIA]); and, embedded within our department but with significant budget independence, the MIT Program in Art, Culture and Technology (ACT). MIT Architecture also includes several labs: the Future Urban Collectives Lab, Urban Risk Lab, Prototypes of Prefabrication Research Laboratory (POPlab), Self-Assembly Lab, Sustainable Design Lab, Future Heritage Lab, and Infrastructure Architecture Lab.

As a discipline of making, architecture is fundamentally constructive and optimistic. There is not an architect alive who does not want, in some way, to make the world both better and more beautiful. Our faculty and students are working across urgent and contemporary issues ranging from affordable housing, public infrastructure, and disaster resilience to community spaces, displacement and migration, and questions of environment and architectural heritage.

The complex nature of our small but illustrious department mirrors the complex nature of the environments we study and create. The spring of 2020 was a reminder of this and of how much knowledge in places and events—and cities and studios—happens in interactions that are unplanned, that don't seem important at first. Our efforts at retooling our education at the beginning of the current pandemic have focused as much on preserving the qualities of the unexpected, the innovative, and the delightful in our shared creative research as they have on traditional modes of classroom delivery. Adaptation and resilience are now essential goals for our community and its approach

to learning. They also form the foundation of our approaches to the larger crises—of climate, of equity, and of civic engagement—that challenge the built environment today.

Recognition

MIT Architecture's standing has continued to increase in recent years, and the department is recognized as a leader in the field both nationally and internationally. The department ranked first in the QS World University Rankings for Architecture and Built Environment. Over the last five years, we have consistently ranked first or second. In 2020, MIT ranked fifth for art and design. In addition to international QS ratings, the professional master of architecture program is consistently ranked among the top schools nationally by DesignIntelligence. In the most recent (2019) ratings of specific areas, MIT's graduate architecture program ranked first in construction methods and materials and design technologies, second in research, and third in sustainable built environments/adaptive design/resilient design. Furthermore, our distinguished doctoral programs consistently attract their top-choice PhD candidates despite offers from better-funded competitors.

Personnel

Architecture and Urbanism

- Professors: Nicholas de Monchaux, Antón García-Abril, Sheila Kennedy, Adèle Naudé Santos, Hashim Sarkis, Andrew Scott, Anne Spirn (joint appointment with the Department of Urban Studies and Planning), and James Wescoat (HTC/ AKPIA/A+U joint appointment)
- Associate professors with tenure: Mark Goulthorpe (on leave), Ana Miljački, William O'Brien (on leave), and Rafael Segal
- Associate professors without tenure: Rania Ghosn, Mariana Ibañez, Miho Mazereeuw, and Skylar Tibbits (AD/COMP joint appointment, on teaching leave during the spring)
- Assistant Professor Brandon Clifford
- Associate professors of the practice: Yung Ho Chang (on leave) and Marc Simmons
- Mahony lecturer: Rosalyne Shieh
- Belluschi lecturer: Hans Tursack
- Lecturers: Alexander Anmahian, Kyle Coburn, Jeremy Jih, Axel Kilian (A+U/COMP joint appointment), Jennifer Leung, Cristina Parreño Alonso, and Yao Zhang
- Visiting professors and instructors: Cherie Abbanat, Rebecca Berry, Iñaqui Carnicero, Lorena del Rio Gimeno, Alexander D'Hooghe, Rami el Samahy, Roisin Heneghan, Florian Idenburg, Max Kuo, Robert Mohr, Shih-Fu Peng, Roi Salgueiro Barrio, Susanne Schindler, and Enrique Walker
- Undergraduate lecturers: Marcelo Coelho, Benjamin Fry, Christophe Guberan, Bo-Won Keum, Lee Moreau, and Paul Pettigrew
- Technical instructors: Christopher Dewart and Jennifer O'Brien

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- Teaching fellows: Maroula Bacharidou, Zain Karsan, Daniel Marshall, and Chris Weaver
- Principal research associate: Reinhard Goethert

Art, Culture and Technology

- Professors: Judith Barry, Renée Green, and Krzysztof Wodiczko (retired)
- Associate professors with tenure: Azra Akšamija (on leave) and Gediminas Urbonas
- Assistant professor: Nida Sinnokrot (on leave during the spring)
- Professor without tenure: Joan Jonas (retired)
- Lecturers: Lara Baladi, Mario Caro, Georgie Friedman, Andrew Graydon, Marisa Jahn, Jesal Kapadia, Tobias Putrih, Rasa Smite, and Raitis Smits

Building Technology

- Professors: John Fernández (on leave; director of the MIT Environmental Solutions Initiative [ESI]), Leslie Norford, John Ochsendorf (on leave; director of the American Academy in Rome), and Christoph Reinhart
- Associate professor without tenure: Caitlin Mueller (on leave during the spring)
- Professor post-tenure: Leon Glicksman
- Lecturers: Benjamin Marksman and Paul Louis Mayencourt

Design and Computation

- Professors: Terry Knight (on leave during the spring) and George Stiny (on leave during the spring)
- Associate professors with tenure: Takehiko Nagakura and Lawrence Sass
- Associate professor without tenure: Skylar Tibbits (A+U/COMP joint appointment, on leave during the spring)

History, Theory and Criticism of Architecture and Art

- Professors: Mark Jarzombek, Caroline Jones, Nasser Rabbat (AKPIA), and James Wescoat (HTC/AKPIA/A+U joint appointment)
- Associate professors with tenure: Arindam Dutta, Timothy Hyde, and Kristel Smentek
- Associate professor without tenure: Lauren Jacobi (on leave)
- Lecturer: Christopher Ketcham
- Visiting instructor: William Lockett

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Leadership

Andrew Scott stepped down as interim department head in May 2020 after two years and Nicholas de Monchaux became the new department head on June 1. Les Norford continued on as an associate department head, and Terry Knight became the new associate department head for strategy and equity on June 1. Academic program directors were Miljački (MArch), Norford (undergraduate), Hyde (SMArchS), Kennedy (SMArchS AD), Segal (SMArchS URB), Barry (SMACT), and Reinhart (SMBT). Norford served as chair of the Committee on Graduate Students as well as the Graduate Officer. Tibbits served as the undergraduate D-Minor/BSAD coordinator. Our discipline groups were led by Barry (ACT), Miljački (A+U), Rabbat (AKPIA), Reinhart (BT), Sass (COMP), and Smentek (HTC). Also, Wescoat was the co-director of the Leventhal Center for Advanced Urbanism.

Faculty Promotions, Appointments, Transitions, and News

We celebrated the promotions of Arindam Dutta to full professor and Brandon Clifford to associate professor without tenure. After a search and appointment case, we welcomed Nicholas de Monchaux as a full professor and department head.

Our two new fellows, Hans Tursack (Pietro Belluschi Fellow) and Rosalyne Shieh (Marion Mahoney Fellow), have done well this year and are both continuing in their positions through 2020–2021.

Professor Wescoat made the transition to professor emeritus, and Professor Santos transitioned to professor post-tenure.

This year we lost our professor of the practice, Philip Freelon, to a terminal illness he had been battling.

Funding

Collectively, our faculty are increasing the scope and impact of their research. Incoming sponsored research has substantially increased over the last few years, providing our students with additional financial support and opportunities.

Professor Fernández received a \$1.5 million gift from the Bank of Bangkok to work with the Thai Institute of Public Policy on resilience and sustainability planning for Bangkok.

Professor Mueller received support from the Dar Group to explore structurally optimized concrete housing in the Middle East. In addition, she has received funding from the software companies Robert McNeel & Associates and Altair to support her research on new methods for high-performance computational design. In May 2020, Mueller also received a grant from MITx to develop 4.453x Creative Machine Learning for Design, a massive open online course (MOOC) based on the interdisciplinary MIT subject.

Professors Norford and Reinhart received research support from the Dar Group through the School of Architecture and Planning's Leventhal Center for Advanced Urbanism to develop methodologies to assess heat resilience in urban neighborhoods. Professor Reinhart has also been given a gift by US switchable glazing manufacturer View Inc. to support research on new view metrics. In addition, with Professor Jessika Trancik (MIT Institute for Data, Systems, and Society), he was awarded \$900,000 in funding by MIT Portugal to work with the Technical University of Lisbon and CEEIA on integrated building energy mobility data models.

Professor Segal was awarded a two-year Dar seed grant to examine the future of large infrastructure projects along coastlines and their impact on urbanized waterways and flooding; the focus of the research will be Istanbul's decommissioned airport. Segal was also awarded a Center for Art, Science, & Technology (CAST) grant for an exhibition on the theme of architecture and collectives to take place in Czechia and Poland.

Professor Tibbits and the Self-Assembly Lab received a *National Geographic* Exploration grant for their continued work on growing islands in the Maldives.

Lecturer Tursack was awarded a Council for the Arts at MIT grant to design and build a sculptural installation titled Precarious Structures. In addition, he was awarded two CAST Visiting Artist in the Virtual Classroom grants for his design seminar, 4.s13 Choreographing Form, as well as a winter residency at Art OMI in Ghent, NY.

Master of Science in Architecture Studies Program

The SMArchS program is organized into six areas of study according to the department's discipline groups. This year, Professor Hyde continued in his role as program director. The program's main goals continue to be strengthening its visibility outside MIT, fostering research across discipline groups, and further increasing student funding.

In fall 2019, the group offered an online open house that was attended by 288 people, a much higher number than in preceding years. However, the percentage of people who attended the open house and applied, were admitted, and then enrolled remained very low, at just under 2%. The open house offered in spring 2020, originally planned to be held on campus, was converted to a virtual event after the cessation of on-campus activities. The attendance was low for this event, but many SMArchS admitted students had already been in contact with their respective discipline groups and may not have required the information provided.

In response to SMArchS students' desire to strengthen their sense of community, department funds were provided for weekly social hours with coffee and cookies. According to informal student feedback, these events were appreciated and contributed to the social community of the program. The social hours were held from the beginning of the fall semester until the closure of the campus in the spring as a result of the COVID-19 pandemic. The usual final thesis reviews did not occur this year due to the closure of the campus and the dispersal of students into different time zones. Discipline groups held internal virtual thesis defenses for each student.

Master of Architecture Program

The MArch program is a professional accredited degree program in architecture that integrates critical thinking and design with advanced technical toolsets to prepare

students to contribute meaningfully to the architectural field, be it through practice, teaching, or research. This past year, Professor Miljački directed the program.

The program has been steadily increasing in visibility. After a large spike in 2018 admissions, 2019 and 2020 have seen fewer applicants; however, these applicants are of high caliber, and our yields have been consistently spiking beyond our expectations over the last three years. Our National Architectural Accrediting Board accreditation is still a few years away, giving us some leeway to experiment with the curriculum, which is especially necessary under COVID-19 conditions.

Undergraduate Programs

The department offers two undergraduate majors: a bachelor of science in architecture and a bachelor of science in art and design. The long-standing Course 4 architecture major is a broad non-professional degree program that prepares students for either a graduate professional degree program in architecture or further education or employment in related fields. The art and design major focuses on design as a discipline with applications beyond architecture. As noted, the department also offers minors in architecture; design; history of art, architecture, and design (Humanities, Arts, and Social Sciences [HASS] minor); and art, culture, and technology (HASS minor).

Five years ago, our first-year cohort of newly declared majors included just two architecture majors, both of whom graduated last year. This year we graduated 10 undergraduate architecture and design majors and eight architecture and design minors. One of our undergraduate architecture majors won a Fulbright Fellowship and two of our undergraduates, one architecture and one design major, were inducted into Phi Beta Kappa. The BSA curriculum is now coordinated with the BSAD and the architecture and design minors, allowing students to choose among paths that start with two common design courses. The design major and minor programs are helping us increase our reach to MIT's undergraduate population, thus growing the BSA enrollment as well.

Professor Tibbits coordinates the architecture and design major and minor programs, providing guidance on course sequence, pedagogy, and selection of instructors. Professor Norford continued his position as the Course 4 undergraduate officer. Faculty members who served as undergraduate advisors included Professors Fernández, Knight, Mueller, Norford, Sass, Smentek, Spirn, Tibbits, and Wescoat, as well as manager of special projects Paul Pettigrew and academic program manager Renee Caso. Fernández, Norford, Pettigrew, and Sass offered advising seminars to first-year students.

Department of Architecture Admissions and Enrollments

For the third year, the department replaced the fall open house with online web forums using the Office of Digital Learning rooms in Building 9. This format enabled prospective students to learn about MIT Architecture's degree programs and meet our current students without the prohibitive costs of visiting the campus. Online sessions were offered on two dates, each at its own time, to accommodate people from differing time zones. The online open houses are more cost efficient and increase international participation while leading to similar admissions outcomes, and therefore the department intends to continue them in the future. Due to the COVID-19 pandemic, our spring admitted students open house was also converted to an online platform. Admissions applications for the SMArchS program were down 5% from last year; yields were high and roughly consistent with the previous few years: 465 applications, 29 targeted, 32 admitted, 25 enrolled (overall yield: 78%). Diversity statistics showed continuing high international student numbers (82% international applications, 68% international students enrolled) and approximately equal gender numbers. Underrepresented minority numbers remained extremely low (three applications, three accepted, three enrolled).

For the MArch program, admissions were highly competitive even with a drop in the number of applications since last year: 468 applications (244 female, 224 male, 54% international applicants), 21 targeted, 45 admitted (62% female, 24% underrepresented minority, 40% international), and 25 enrolled.

In AY2020, we had 30 undergraduate architecture and design majors, 56 undergraduate architecture and design minors, and 21 undergraduate ACT and HTC HASS concentrators within our department. Our undergraduate program currently comprises close to 100 students spread out over three years of study (2021, 2022, and 2023).

Lectures, Conferences, and Symposia

A series of "in-conversation" events involving MIT faculty and invited guests were scheduled for fall 2019: Brandon Clifford hosted composer Ashley Fure and Mariana Ibañez hosted roboticist Mark Yim, but a conversation between Rafi Segal and Erion Veliaj, mayor of Tirana, Albania, was postponed to spring 2020. Visiting studio faculty Heneghan Peng and Enrique Walker each presented their work. Endowed lectures included a conversation between photographer Iwan Baan and architect Michael Maltzan for the Ahmad Tehrani Symposium, the presentation of the 25th Pietro Belluschi Lecture by architects Sandra Barclay and Jean Pierre Crousse, and structural engineer Guy Nordensen's presentation of the Edward and Mary Allen Lecture in Structural Design.

The Architecture Student Council continued its Dinner with the In-Laws series in fall 2019 with three events: Community, featuring Karilyn Crockett, Susanne Schindler, and Sarah Williams and moderated by Xio Alvarez; Failure, featuring Sheila Kennedy, Cristina Parreño, and Jeremy Jih and moderated by Daniel Marshall; and Lunch with One In-Law, with Samuel Bravo.

Spring 2020 lectures focused around the theme of building consensus. Speakers included Mimi Hoang and Eric Bunge, visiting studio faculty Iñaqui Carnicero and Lorena del Río, the feminist architecture collaborative, and mayor of Tirana Erion Veliaj with Rafi Segal. Three lectures/events were held via online webcast due to COVID-19: a talk by Sasa Zivkovic and Leslie Lok, Chris and Dominic Leong's presentation of the NOMAS Lecture, and the department's launch event for the latest issue of its peer-reviewed journal *Thresholds* 48: *Kin.* Scheduled lectures with Carmody Groarke, Anna Puigjaner, and Christine Binswanger were canceled or postponed due to the pandemic. The 30th Arthur H. Schein Memorial Lecture with architect Ellen van Loon scheduled for spring 2020 was also postponed due to the pandemic.

The Critical Broadcasting Lab hosted Thomas Weaver and Beatrice Galilee in the fall and Sylvia Lavin in the spring. Subsequent events were streamed via the student online radio station <u>WAWD?Radio</u>.

Exhibitions, Publications, and Initiatives

In fall 2019 and spring 2020, the department displayed several exhibitions in the Keller Gallery: *Part Objects*, a representation of student work from Hans Tursacks' seminar of the same name (September 2019); *Digital Archeology, Virtual Narratives: The Case of Lifta,* an exhibition of student work from a summer workshop led by Professors Jarzombek and Nagakura along with students Eli Keller and Eytan Mann (September 2019); *Transtectonics*, a solo exhibit from Cristina Parreño Alonso (October 2019 through January 2020); and *Play Room*, an exhibition from Ana Miljački and the Critical Broadcasting Lab (February and March 2020). Three exhibitions originally scheduled for spring 2020, *Atelier Morphology: Making Materials for Adaptive Matter* by Maroula Zacharias, the Undergraduate Architecture & Design Exhibition, and the MIT Architecture Student Show, were canceled or postponed due to COVID-19.

Thresholds Journal, the annual peer-reviewed journal produced by the MIT Department of Architecture and distributed by The MIT Press, published *Thresholds 48: Kin* in spring 2020. The publication was released digitally, with print copies released in summer 2020 as a result of COVID-19 delays.

In spring 2020, with department support, students launched outofframe.mit.edu, a student blog developed to foster connection and elevate student life during the pandemic and beyond.

Also in the spring, in response to the COVID-19 lockdown, the department communications team launched the Dispersed Department Digest, a weekly email to the internal department community featuring non-urgent news, useful resources, and updates from across the department, MIT, and beyond.

In June 2020, the department launched the Summer Work and Pedagogy Program. The program will employ more than 70 students over the summer and serve to keep the entire community engaged during an uncertain time. The subjects covered will range from building geodesic domes to prototyping publications, workshopping for radio, and exploring the social intersections of architecture.

Student Departmental Awards

Each year, we recognize the accomplishments of our continuing and graduating students with awards. This year the following students were honored:

- Xiomara Alvarez-Schlossman Research Award
- Adiel Benetiz—Louis C. Rosenberg [1913] Travel Fellowship and Rosemary Grimshaw Award
- Taylor Boes-Sydney B. Karofsky Class of 1937 Prize
- Dries Carmeliet—NuVu Prize
- Maria Estaban Casanas—SMArchS Thesis Prize
- Rodrigo Escandon Cesarman–Marvin E. Goody Award

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- Stratton Coffman—Imre Halasz Thesis Prize and American Institute of Architects Henry Adams Medal and Certificate
- Ginerva D'Agostino—NuVu Prize and Marjorie Pierce/Dean William Emerson Fellowship
- Marlena Fauer—Arthur Rotch Prize
- Aidan Flynn–Schlossman Research Award
- Dalma Foldesi—Special Faculty Recognition for Design Excellence
- Mengqi He–NuVu Prize
- Stephan Hernandez—Course 4 Thesis Recognition
- Trevor Herman Hilker—Special Faculty Recognition for Academic Excellence
- Rachel Hirsch—SMArchS Thesis Prize
- Angeline Jacques Alpha Rho Chi Bronze Medal
- Effie Jia—William Emerson Prize
- Kailin Jones-NuVu Prize
- Paul Mayencourt—Tucker-Voss Award
- Michelle Menkiti—Henry Wentworth Gardner (1894) Prize
- Luis Alberto Meouchi Velez-Julian Beinart Research Award
- Mohamad Nahle–NuVu Prize
- Nof Nathansohn—SMArchS Thesis Prize
- Eleni Okikonomaki-NuVu Prize
- Jim Peraino Arthur Rotch Special Prize
- Caroline Rosenweig—Henry Wentworth Gardner (1894) Prize
- Indrani Saha-Kristen Ellen Finnegan Memorial Fund Award
- Taesop Shin—Course 4 Thesis Recognition
- Chelsea Spencer Kristen Ellen Finnegan Memorial Fund Award
- Lynced Torres—NuVu Prize
- Marisa Waddle-NuVu Prize
- Sarah Wagner—Special Faculty Recognition for Academic Excellence
- Zhicheng Xu-NuVu Prize

We are extremely proud of the work our students and faculty take on, both in the classroom and out in the world. It is my privilege to share below the full breadth and depth of our community's collective pursuits, news, and achievements. The information includes personnel, faculty activities, and notes from each discipline and program group.

Architecture and Urbanism Discipline Group

Four degree programs reside within the Architecture and Urbanism discipline group: master of architecture (professional program), SMArchS architectural design, SMArchS architecture and urbanism, and bachelor of science in architecture. Professor Miljački continued as director of the A+U group. The group managed to stay connected after the closure of the campus in March, successfully adjusting pedagogical goals and support for both faculty and students in finishing up the semester in an online setting. Earlier in the year, the group hosted a retreat for all involved in delivering the MArch curriculum and important meetings regarding internal governance, equity, and teaching assignments as well as dual degrees and leaves of absence. At the end of 2019, the group expected to launch three open searches; however, the search for full faculty (which yielded two positions) was supported by two out of those three lines, and since the leadership transition continued, the search for the remaining line was postponed.

A+U's faculty continue to develop cutting-edge research in their field. Professor García-Abril's Ensamble Studio completed the Ensamble Fabrica in Madrid, Spain. In addition, the studio's Hemeroscopium House project was selected to participate in the 2019 Open House Architecture festival, and the studio received the 2019 Royal Institute of British Architects Charles Jencks Award. Also, the project Ca'n Terra was nominated as one of the 2019 Beazley Designs of the Year and was on display at the Design Museum in London.

Professor Ghosn published essays in *LOG47*, *New Geographies* #11 *Extraterrestrial*, and *AD: The Landscapists*. Her book *Geostories: Another Architecture for the Environment* (Actar, 2018) was reviewed in *The Architectural Review* and *The Journal of Architecture*. With her practice, Design Earth, Ghosn exhibited projects in multiple venues. The <u>Cosmorama</u> was on view at Matadero Madrid in the *12 Urban Fables Exhibition*, and another project is included in the *Kiruna Forever* exhibition at ArkDes in Stockholm.

Professor Ibañez recently published the chapter "A House Is a Tree Is an Insect Is a Computer Is a Human" in *The Routledge Companion to Paradigms of Performativity in Design & Architecture.* In addition, Ibañez led the completion of the Radcliffe Child Care Center at Harvard University and Casa DaMa in Buenos Aires, Argentina. She received the Award for Design Excellence from the Boston Society of Architects.

Professor Kennedy completed the design work on the Colorado Innovation Center. Also, Kennedy's firm, Kennedy & Violich Architecture Ltd is leading the renovation of the Hayden Library and courtyard. The firm was among six finalists chosen for a design competition to envision the future Anthony Timberlands Center for Design and Materials Innovation at the University of Arkansas.

Professor Miljački's Critical Broadcasting Lab presented *Sharing Trainers* at the São Paulo Architecture Biennale. Student work from her studio was also presented at the biennale. Miljački edited the proceedings of the <u>Under the Influence</u> symposium, published by Actar in December. In addition, Miljački lectured at various national and international institutions, moderated the Speaking of Trees symposium, and gave the closing keynote for the Fulfilled symposium.

Professor Segal created a new lab, Future Urban Collectives, that is currently engaged in projects in Arizona and Israel. Segal also co-organized a Boston housing workshop and completed a "sunshine" model commissioned by Boston's Friends of the Public Garden. With artist Marisa Morán Jahn, he is developing the design and program for Carepod Baltimore in Maryland. In addition, he has completed an urban plan for the Lingang Pujiang Science and Technology Park in Shanghai.

The Self-Assembly Lab, directed by Professor Tibbits, began work on two new projects: <u>Liquid Printed Metal</u> and <u>Climate-Active Textiles</u>. Liquid Printed Pneumatics is currently in the review process for acquisition by the Museum of Modern Art as part of its permanent collection. The lab's projects have been featured in *Fast Company* and the *Wall Street Journal*. The lab was also featured at SIGGRAPH LA, which exhibited its work on active textile tailoring with the apparel company Ministry of Supply.

Kyle Coburn's firm, CO-G, was featured as one of *Architect* magazine's "Next Progressives" in the April 2020 issue.

Rami el Samahy has been selected as co-chair of the <u>Urban Design Committee for the</u> <u>Boston Society of Architects</u>, a three-year appointment. The Somerville ArtFarm, a community-space project with his firm OverUnder, will break ground this summer.

Jeremy Jih's firm, J.Roc Design, completed an art gallery with translucent partitions in Boston's South End for an art nonprofit. The firm also began construction on two new single-family houses in the Boston area.

Cristina Parreño Alonso's project Tectonics of Wisdom is part of the exhibition *Public Architecture*—*Future for Europe,* organized by the European Cultural Centre and held in the Schusev State Museum of Architecture in Moscow.

Susanne Schindler co-organized The Terms of Habitation and was a co-initiator for Retheorizing Housing Through Architecture as Grounds for Research and Practice at the Israel Institute of Advanced Studies in Jerusalem. Schindler was also invited to become a member of the management committee for COST-Action CA 18137: European Middle-Class Mass Housing.

Marc Simmons delivered numerous public lectures at national universities this year and was the invited keynote speaker at the Alberta Institute of Architects Banff Sessions. Recent completed projects include the Seattle Space Needle reconstruction with Olson Kundig, Amazon Spheres with NBBK, the Canadian Parliament House of Commons at West Block with A49 and EVOQ, and the Xiqu Center for Chinese Opera in Hong Kong with Bing Thom and Ronald Lu, among others.

Hans Tursack was invited to lecture at Autodesk BUILD Space in South Boston with Viola Ago. He also took part in the Decoys and Depictions symposium at Washington University in St. Louis and the Compositional Physics symposium at the Rice University School of Architecture.

Art, Culture and Technology Discipline Group

The MIT Program in Art, Culture and Technology is a discipline group and academic program within the Department of Architecture and a center for artistic research and practice within the School of Architecture and Planning. ACT is headed by distinguished artist-professors and supported by a dynamic cast of practitioner graduate students and staff, visiting lecturers, fellows, affiliates, and guests. Through an integrated approach to pedagogy, public event programming, exhibitions, and publication, ACT builds a community of artist-thinkers around the exploration of art's complex conjunctions with culture and technology. The program's mission is promoting leadership in critical artistic practice and deployment, developing art as a vital means of experimenting with new registers of knowledge and new modes of valuation and expression, and continually questioning what an artistic research and learning environment can be and do.

This was the first year of the Institute-wide Transmedia Storytelling Initiative (TSI) pilot; ACT director Judith Barry is a member of the steering committee, and the funds are administered by ACT. TSI supported the following:

- Development of four classes in ACT, Comparative Media Studies, and Urban Studies and Planning
- A combination of seven lectures and lecture series in the Department of Architecture, Women's and Gender Studies, and the Open Documentary Lab
- Equipment purchases in ACT
- 10 student Fialkow Fellow distance residencies
- 12 student and alumni production grants

ACT faculty were active domestically and internationally giving lectures and producing work for group and solo exhibitions. *Futurity Island*, from Professor Urbonas' studio, was exhibited on campus in September and included a one-day symposium titled Futurity Island: Amphibian Pedagogies and Submerged Perspectives.

Professor Green was a fellow at the American Academy in Berlin during the fall semester.

During the fall semester and up through March 10, 2020, ACT hosted five lectures as part of its Monday Night Lecture Series, five class-based talks that were open to the public, and three artistic research luncheons exploring collaborations among artists, scientists, and technologists. Subsequent public programs and activities were canceled owing to the move to disbursed work as a result of the COVID-19 pandemic.

In June, the ACT staff was presented the School of Architecture and Planning's Infinite Mile Award.

In spring 2020, eight of 65 viable applicants to the graduate program were accepted and four were waitlisted. ACT targeted an entering class of six students. We offered admission to three from the waitlist. Overall, five declined and two deferred due to COVID-related issues. Four applicants are scheduled to matriculate in fall 2020. For additional program notes and faculty activities, refer to the Program in Art, Culture and Technology's report to the president.

Building Technology Discipline Group

Building Technology offers students the opportunity to explore critical topics for the future of the built environment and natural resources. Our program explores ways to use design and technology to create buildings that contribute to a more humane and environmentally responsible built world. Professor Reinhart continued to serve as the director of the Building Technology group in AY2020.

BT faculty continue to attract support from the larger MIT funding ecosystem, including the MIT Energy Initiative, the Center for Complex Engineering Systems, the HKUST-MIT Research Alliance Consortium, the Environmental Solutions Initiative, and the MIT Portugal Program (see the funding section above for more specific information).

BT faculty continued to engage in new and cutting-edge research in their field this academic year. Professor Glicksman continued his research with the D-Lab and the Department of Mechanical Engineering on evaporative cooling of harvested crops in East Africa. He is also working on sustainable passive housing in India and energy-efficient monitoring and control of commercial buildings (with sponsorship from Schneider Electric).

Professor Mueller received support from the Dar Group to explore structurally optimized concrete housing in the Middle East and is engaged in similar research with partners in Mexico. Mueller delivered invited lectures at the SOM International Research and Design Forum in Chicago, McGill University in Montreal, and ETH in Zurich.

Professors Norford and Reinhart continue to work on separate projects with the Exelon Corporation. Norford also continues to supervise a Singapore-MIT Alliance for Research and Technology urban-climate research team. In April, Norford gave an invited lecture for the Cornell Systems Engineering program.

In December 2019, Professor Fernández presented a talk on ESI's project to monitor climate risks in the Amazon (funded by the Global Environment Facility) at COP25 in Madrid as well as invited talks at the Colegio Oficial de Arquitectos de Madrid, Harvard University, the Bandung Institute of Technology in Indonesia, and the Vienna University of Technology. Fernández completed the final year of a five-year term as director of ESI and accepted Vice President of Research Maria Zuber's offer to continue serving for another five-year term.

Professor Ochsendorf received the 2020 Arts and Letters Award in Architecture from the American Academy of Arts and Letters for "ideas in architecture through any medium of expression." Ochsendorf returned to MIT after completing a professional leave from MIT during which he served as director of the American Academy in Rome.

In October 2019, Professor Reinhart gave a plenum talk at the Velux Symposium in Paris as well as invited lectures at ETH Zurich, the Georgia Institute of Technology, and GreenBuild 2019 in Atlanta. In January 2020, edX published the first version of 4.464x Sustainable Building Design; the course, led by Reinhart, had a final enrollment of 17,000 individuals. This MOOC, an online version of MIT's residential subject 4.464/4.401 Environmental Technologies in Buildings, will be part of a micro-master on energy, and its development is being supported by the MIT Energy Initiative.

Design and Computation Discipline Group

The Design and Computation group's continued goal is to extend the boundaries of research and education in computation and spatial design, especially in collaboration with relevant industries and academic entities. Professor Sass serves as the group's director.

The COMP faculty continue to conduct new and cutting-edge research in their field. Professor Nagakura held exhibitions in various venues. *Aaltohouse AR*, an augmented reality tour of Alvar Aalto's house, was installed in Gallery A4 in Tokyo and exhibited from December 2019 to January 2020. *Screening of Unbuilt Monuments*, a computer graphics representation of unrealized modern architecture, was exhibited at two public museums in Hiroshima and Osaka, Japan. *Monticello from the Air*, a video produced from a 2016 workshop led by Nagakura, was adapted as part of two upcoming TV programs including a Netflix feature on African American culinary history.

Professor Tibbits' Growing Islands/Maldives research will be exhibited at the Venice Architecture Biennale. Also, his research was on view in an exhibition at the Cooper Hewitt Design Museum, the *Broken Nature: Design Takes on Human Survival* exhibition in Milan, and the *Future Starts Here* exhibition at the Victoria and Albert Museum. Tibbits' recent publications include *Being Material* (The MIT Press) and a paper for the *Soft Robotics Journal*.

History, Theory and Criticism of Architecture and Art Discipline Group

The History, Theory and Criticism of Architecture and Art program aims to produce leading-edge scholars and intellectuals in the field of art and architectural history. The group places a strong emphasis on historiography and analytical methodologies. Faculty members explore the history of art and architectural works, the shifting attitudes toward their interpretation, and the geopolitical pressures on their appearance, preservation, and disappearance. This year HTC faculty continued to teach, publish, and participate in key department and Institute events in their field. Kristel Smentek served as director of the program, while Timothy Hyde was faculty director of the SMArchS degree program.

Arindam Dutta was successfully promoted to full professor, and Timothy Hyde was promoted to associate professor with tenure and received the Clark-Oakley Fellowship.

Professor Jacobi's latest publication, *The Architecture of Banking in Renaissance Italy: Constructing the Spaces of Money,* was published by Cambridge University Press in September 2019.

Professor Jarzombek continued his work with the Mellon Global Architectural History Teaching Collaborative; however, many of the collaborative's planned conferences were canceled as a result of the COVID-19 emergency, including its Venice Biennale exhibit.

Caroline Jones continued to serve as a member of the School Council and was appointed associate dean for strategic initiatives. She also serves as the director of the Transmedia

Storytelling Initiative, a new hub for pedagogy and research in time-based media. In addition, Jones was the recipient of the Committed to Caring Award from the Office of Graduate Education.

HTC faculty delivered a remarkable number of talks remotely around the world, chaired conference panels, and served as editorial board members. In February 2020, an impressive number (13) of HTC scholars participated in panels in person at the College Art Association's annual conference in Chicago.

HTC also welcomed a pair of visiting instructors in spring 2020: List Visual Arts Center associate curator and HTC alum Christopher Ketcham and CAST postdoctoral fellow Will Lockett.

Aga Khan Program for Islamic Architecture

The Aga Khan Program for Islamic Architecture at MIT is an academic leader in the study of architecture and urbanism in the Islamic world. Reinforcing this standing is our main goal. We continue to recruit promising students and postdoctoral researchers and to improve the curricular content of our two programs of concentration in Islamic architecture and urbanism in the SMArchS program and the PhD program in HTC. We sponsor various activities in the department including a lecture series, a postdoctoral program, and a travel-grant program. We also fund students in the SMArchS urbanism and MCP programs whose work bears directly on urbanism in the Islamic world.

Professor Rabbat taught a course on Islamic architecture at New York University Abu Dhabi in January 2020. In addition, he was the W. Bernard Herman Distinguished Visiting Scholar at the University of Toronto. He has published several essays on Mamluk architecture; Gulf cities; Syria's modern history, heritage, and reconstruction; and modern Arab art. Since the COVID-19 lockdown, he has recorded several podcasts with organizations in London, New York, Seattle, and Bahrain. Also, he has given keynotes and public lectures at the Museum of Fine Arts, Boston; NuVu in Cambridge; Bonn University; the Aga Khan Development Network in Chantilly, France; and Cambridge University.

In the past year, Professor Wescoat co-taught (with the Aga Khan Agency for Habitat) a design workshop on voluntary relocation planning in the Pamir Mountains of Tajikistan. Also, he completed a major research project on rural drinking water planning in Maharashtra, India. Wescoat transitioned to professor emeritus after 12 rewarding years of research, teaching, and service with AKPIA.

Nicholas de Monchaux Professor of Architecture Head, Department of Architecture

Andrew Scott Professor of Architecture Interim Head (2018–2020), Department of Architecture