Columbia GSAPP

Abstract 2020

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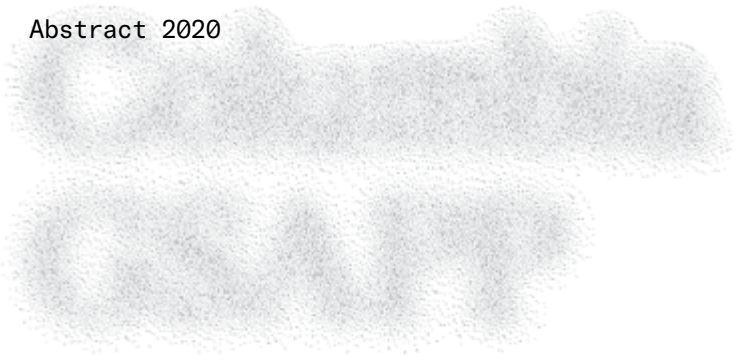

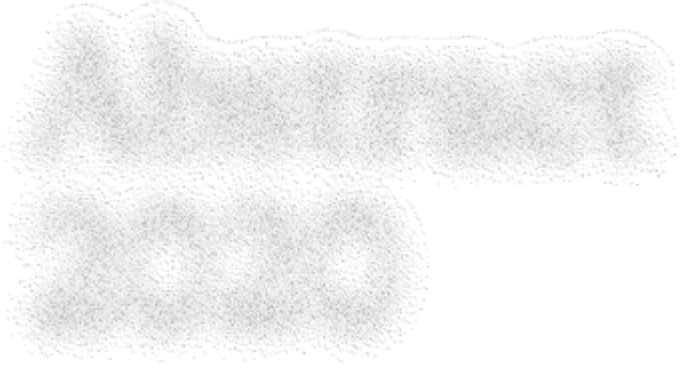

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Dean's Statement
Amale Andraos

On the occasion of the sixth volume in this series, I am honored to reflect on the past year and all that has come to life through the extraordinary efforts of our community around the world. In March 2020, in direct response to the massive spread of COVID-19, we immediately, and with almost no preparation, shifted our entire educational, social, and professional lives online. I continue to be in awe of the speed, diligence, and adaptability that our students, faculty, and administrative team showed in the face of these world-changing challenges, and how the School persevered through tremendous difficulties and uncertainty, finding new ways and opportunities to come together and to exchange ideas that re-imagine architecture and the disciplines of the built environment, for the future.

Since its launch in 1988, Abstract has served as an always incomplete and yet indispensable cross-section through Columbia GSAPP, an opportunity to register evolution and change by acknowledging and archiving the incredibly diverse production that happens across the School's multiple platforms, programs, research centers, initiatives, events, exhibitions, publications, and more. As a capsule in time, and a tool for recognition and reflection, Abstract invites us to observe, understand, and begin to articulate the School's vibrant mix of continuity and change.

While every institution carries the weight of its history as a means of articulating its mission, meaning, and coherence over time, GSAPP's trajectory has been one of a continuous transformation: of disciplines, premises, and practice. From the very founding of its architecture program situated at the intersection of European Beaux-Arts and American pragmatism, to today's continued dedication to both a liberal arts tradition and the skill-building and expertise of a professional school, GSAPP has been committed to understanding, exploring, and fundamentally reshaping the foundations of the built environment, through its disciplines and practices.

2020 fundamentally changed the built environment for all of us, though the way these changes were felt and experienced were markedly specific, different, and personal. The ongoing global pandemic upended the way we learn, the way we live, and the way we teach each other at the School and beyond. We had to work on ideas and concepts under previously unimaginable constraints, all while dealing with a spectrum of feelings and fears. And yet, students and faculty managed to use these limitations as motivation to explore new modes of collaboration and communication, and in the process came to overhaul much of our shared understanding of what design education can do and what a school of architecture, planning, and preservation can be, across all of its scales and modes of thinking and practice.

It has often been said that what we do at GSAPP is an attempt to prepare for a future we cannot possibly know, looking to the past to find moments that undo

what we think we share and projecting them into the future to imagine new collectivities. Across every aspect of the School, we strive to question, articulate, and carve new positions and practices we can believe in and act by, in the midst of complete uncertainty. This uncertainty became material, it came crashing into us, in March 2020, amplifying our community's strengths but also showing us its fissures and where we needed to heal. Slowly but surely we got to work together—faculty, students, and staff—and through discussions and pedagogical projects across all of the School's spaces and dimensions, re-invigorated our shared commitment to offer new understandings of architecture and the built environment that find themselves twined together with both the larger questions of the world and the deep internal intellectual worlds and imagination we cultivate inside the walls of Avery.

During our time of physical dispersal, we connected more than ever, and what was shared continues to resonate like many difficult and inspiring seeds that will come to prepare us for what might lie ahead.

Editor's Note

Abstract 2020 is imbued with digital effects: headers rendered in a monospaced font and drop shadows evoke overlapping browser windows. And aptly so, because the planning phase—which occurred parallel to the reinvention of the School's commencement ceremony, public programming, and pedagogy as virtual experiences—was marked by a constant back-and-forth between digital and print options. Finally published in both formats, the book is a compelling before-and-after portrait of the School following an abrupt shift to remote learning.

Faced with ever-evolving travel restrictions, faculty revamped their syllabi halfway through the spring 2020 semester. The urban planning studio led by faculty Jose Luis Vallejo and Ryan Devlin, for example, began studying informality and public space in Buenos Aires before shifting their focus to the Jackson Heights and Corona neighborhoods of Queens, NY (355).

In response to mandatory store closures and limited operations, students resorted to makeshift supplies for their models, such as the screwdriver-turned-column in Jiageng Guo's '22 MArch proposal for the Core Architecture Studio II led by faculty Emmett Zeifman (193).

Final reviews sessions were hosted online for the first time, bringing together guests across time zones and geographic boundaries into a grid of floating heads. Virtual backgrounds created a sense of shared space: the Advanced VI Studio led by faculty Stephen Cassell and Annie Barrett employed a color-split background, referencing the parallel lives detailed in their studio brief (33).

GSAPP's classrooms in Avery, Fayerweather, and Schermerhorn Halls have been replicated on the gaming platform Minecraft (20–23). The final review of the Material Things course led by faculty Josh Jordan invited students to display their models inside a digital twin of Avery Hall's 100 level (271).

Last, and most notable of all, the GSAPP community pooled its expertise and resources to address the unprecedented public health crisis. This work includes Assistant Professor Hiba Bou Akar's collaboration with Ph.D. and Masters students to create the living document "Pandemic Urbanism: Praxis in the time of COVID-19" (494) and the GSAPP Making Studio's mobilization of its 3D printers and laser cutters to produce face shields for health workers amid the mask shortage (497).

Like its precursors, Abstract 2020 continues to spotlight the most exceptional student-authored work at Columbia GSAPP. This snapshot of the 2019–2020 academic year is furthermore a testament to the students' resilience in face of adverse challenges incurred by the pandemic. The dedication of zassistant editor Aayushi Joshi '20 MSAAD and Cheng Ju Lee '21 MSAUD together with a talented team of photographers—Yoonwon Kang '20 MArch, Eunji Kang '20 MSRED, Adela Locsin '21 MArch, Kunal Mokasdar '20 MSAUD, and CJ Wang '20 MSAAD—were critical in documenting this exceptional moment in time.

—Shannon Werle

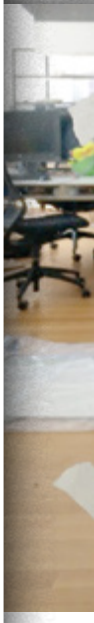
Dean's Letters

As part of the School's response to the impact of COVID-19 on the 2019–2020 academic year, Dean Amale Andraos wrote weekly messages to the "GSAPP Family" in order to keep everyone up-to-date on the latest news, resources, and events. These excerpts provide a glimpse into the challenges faced and experimental strategies employed by the School as faculty, students, and staff adapted to a hybrid teaching model over the course of the spring 2020 semester.

"As the semester started again last week, this time in living rooms, houses, buildings, and cities across the world, an infinite number of video grids popped up across all of our screens. It was a remarkable moment to experience, and your willingness to gather online to share, observe, exchange, and try to make sense of our new condition—its challenges and its opportunities—is inspiring.

I have found myself thinking about these grids constantly, especially in the context of architecture. The grid, of course, has a fraught and contested history—it has, at times, been embraced for its democratic potential and, at others, deployed as a ruthless colonizing device. These past weeks have revealed that the grid remains as powerful as ever in its ability to structure relationships, whether between the individual and the collective, the specific and the generic, the small and the infinitely large, the local and the global."

March 30, 2020



"Thank you for your enthusiasm, for opening up your classes, for proposing special lectures, and for rallying to collaborate as much as possible right now. In many ways, in our physical distance, we have never been more socially connected as we strive to share more about our present and, more importantly, as we try to look for silver linings and for new future interconnections between the architectural, the urban, the rural, and the natural—between the social and the ecological—as they are manifested through the built environment."

March 23, 2020

Illustration of architecture students across a Zoom grid by M.Arch student Hazel Villena.

Family

The newsletter series, titled GSAPP Family, was inspired by a student-authored sign outside of an Avery Hall studio.

"Today, of course, our disciplines and our means of representation have changed. Yet, the power and search for new ideas and epistemologies, which invite us to reconsider what architecture and planning, design and development can be, are more crucial than ever. As we find ourselves reduced to the space of our screens—removed from our loved creative, interpersonal work environments, our tools, materials, and messy techniques—we are by necessity re-engaging with an economy of means to explore our expanding ideas. These exchanges and encounters, across forms and formats, will most certainly have a lasting influence on our individual and collective trajectories, and thus, on the future of our field."

April 13, 2020

"While we cannot know what the future holds—or how our current condition will invite new forms of making, thinking, writing, building, planning—just taking stock of the creative ways the disciplines of the built environment have assembled and reassembled out of and in response to crisis is hopeful. In the most immediate present, maker spaces across architecture schools are already chipping in, printing parts, and joining larger supply chains for shields while exploring what else they can urgently contribute. What new unforeseen doors will open or re-open—what supportive infrastructures will we help lay out—in this moment of scarcity and precarity?"

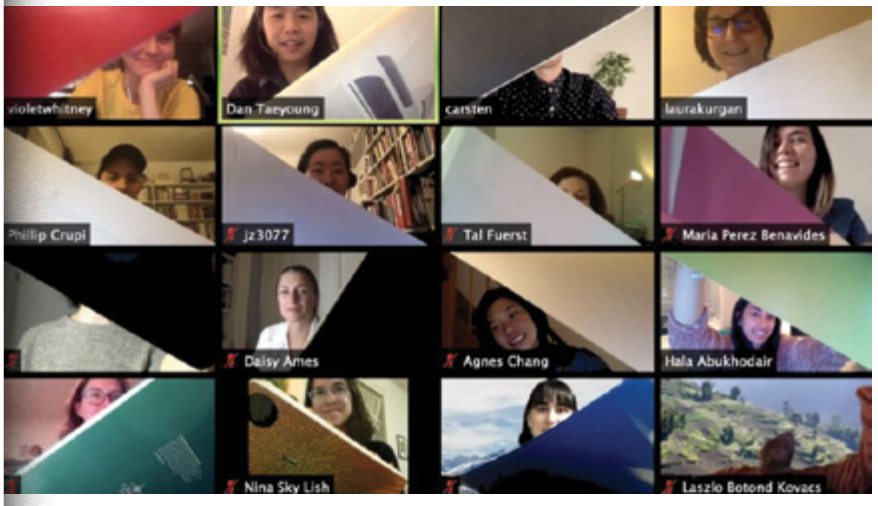
April 6, 2020

GSAPP

"Five weeks in. Seems like an eternity. So much has changed in so little time. We are so swallowed up in riding this out, in structuring some semblance of normality, that I fear sometimes we forget to stop and register the true weight of what is happening and how much we have changed. And yet, in the storm of daily worries, accompanied by the relentless and overbearing news of tragedies unfolding all around us, near and far, it is in the simplest acts of solidarity, recognition, and kindness—the 7 pm city-wide claps around the world, the neighborly check-ins, the collegial support, the unexpected email or call, the hand wave from across the street—that I find myself letting go and feeling, just for a moment, all that has been lost.

Those moments for me have crystalized in GSAPP's endlessly creative and dedicated faculty, in the school's ruthlessly loyal and protective administrators, in our students, whose resilience in the face of such upheaval has been nothing but awe-inspiring. I have also been particularly touched by the strength of the bonds that connect us to our alumni around the world. The outpouring of support, the Tuesday Talks, the global outreach, the random notes: Never in GSAPP's history has there been such a strong sense of meaningful community. These invaluable ties might have always been here but they are revealing themselves in unprecedented ways, as we also show up for each other in unprecedented ways."

April 20, 2020



Workshop on remote conferencing led by GSAPP's Visual Studies Sequence Faculty on March 26 and 27, 2020.

[illegible]y

“This year, we are deeply saddened by our inability to come together in person to celebrate this crucial moment of transition. But we are holding this sadness together with the knowledge that there will be other occasions to return and come together again. We are also holding all of the uncertainty of this moment with the certainty that our togetherness is more than a ritual we reenact every year: it is a practice that we must actively reconsider and re-invent in the face of a changing world. So while graduation will be different this time around, it will certainly not be any less important. It might even be made more meaningful by our shared circumstances. Certainly, it will be the most creative and unique—again, a reflection of the strength, intelligence, and engaged imagination you have all cultivated during your time with us.

So please know that as you grow from students to alumni in this GSAPP Family, we will still be here on the other side. We will continue to communicate as much we can on our recovery efforts for a safe return in the fall and to share with you the ongoing life of GSAPP: its resolute and creative energy in New York as well as its strong, extended ties around the world. Stay tuned for alumni networking opportunities, for updates on career services, for special events hosted for our incoming students, for original workshops and new opportunities (like crash courses in making and scripting!) for returning students . . . ”

May 11, 2020

“This past week, as final reviews and other final classes took place, I was lifted again by the quality and inventiveness of student work—with resourceful models assembling everything from clay to cupcake molds, beautifully rough and textured renderings, carefully detailed drawings, sizzling critiques, and witty collages. But I was also heartened by the lively, committed gatherings and conversations around this insightful work: the faculty, critics, colleagues, and friends, who showed up and carved precious time out of their own practices and lives (practices and lives made more precarious in this moment) to share their thoughts with us.”

April 27, 2020

Faculty Reflections

These excerpts are selected from virtual lectures, conversations, and newsletters produced by Columbia GSAPP from late March 2020.

"2020 is a year we will never forget. The question is, as a society and as a people, how do we respond to this challenge? I would hate to keep doing the same research I'm doing now and so talking about these great inequalities, inequities, and injustices and just having a collection of books and articles that document what great researchers before me have done and before them [is critical]. I would love to sit back and be old .. and see [my students] on TV, or their policies, or their elected officials, and know that they're actually changing the world and doing the things that we've talked about in the classroom."

Malo A. Hutson
July 6, 2020

"First of all, history is so alive. It's so exciting right now to make it so tangible, empowering us to think about change and the possibility of change. I think within two weeks our world just kind of turned around in one second and so I keep saying: If we can do this, no one can say it's not possible anymore to change because we have shown that when it hits, we are resilient and have results."

Amale Andraos
March 20, 2020

"Design is central to the way we're discussing the world; it's a great platform from which we can change it but that comes with a very particular understanding of what is design now. Design is the intersection of many different things. It's formal, material, technological but it's also political, financial, social, ecological. It's also influencing the way we relate to other species."

Andrés Jaque
March 20, 2020

"We're in a different and a dramatically more urgent crisis situation in which we're dealing with an immediate crisis but we're also thinking about the questions between these two things [COVID-19 and climate change] and anticipating that we really do have to do is to rebuild our societies, and I say this in plural, in a manner that is sustainable and equitable and is ready in a sense and attempts to mitigate climate change."

Reinhold Martin
March 20, 2020

Family

"I think there are some really interesting parallels about the needs in this kind of state of emergency–which we're clearly globally acknowledging with COVID-19–but is also true of climate change. It's a state of emergency and, in both cases, there's a case to be made for taking drastic and immediate action now for the benefit of the long term. The sooner the better and the more drastic the better."

David Benjamin
March 20, 2020

"In architecture, in general, we tend to be very prospective in what we work on. We take issues that we see at the moment and try to be smart and thoughtful about how they came to be which is why history is very important but we are also training people to think about a future world and we can't imagine that world without understanding where we are and where we've been."

Mabel Wilson
March 25, 2020

"I think even though the network is super extensive and super connected and intricate, the node of connections that happen here in New York and the intensity of discussions and the ability of gathering that data that happens somewhere else and then immediately putting it in context with ILAS [Institute for Latin American Studies] for example—whether it's in architecture, or whether it's in international affairs, whether it's in law—being in New York, we can talk together online here; it feels that you would have to scream for days in faraway places to be heard. So, I think here . . . things get connected immediately, and so New York will have a comeback."

Galia Solomonoff
March 25, 2020

"The enormity of our current time is beyond words. While we are staying home for the health of everyone, staying connected is more valuable than ever ... With the rapid shift to online learning, our students have shown tremendous resilience, and the support of faculty, staff, and alumni has been remarkable. There are ups and downs, no doubt.

For planning, COVID-19 presses us to (re) imagine what the new normal could be. How can we work towards addressing the structural failures that add to the vulnerability of disadvantaged communities and people? How can we (re)design public spaces for community engagement and interaction under the constraints of social distancing?"

Weiping Wu
May 2020

“How we collectively remember, and how we forget, is core to our practices as preservationists. Habits and rituals help us remember, as Aaron Vinegar discussed in this semester’s [Historic Preservation] podcast series. In addition to our old academic habits we are now developing new ones, and becoming more comfortable teaching and learning remotely through video conferencing. In the future, every time I will open a video conferencing app, I will remember the rituals of this pandemic, and how we overcame its challenges. I look forward to integrating these new rituals with our old ones, as we return next fall to in-person teaching. There is no substitute for going to class, to the library, having unscheduled encounters over coffee that turn into deep discussions. Thinking optimistically, technology, if we use it right, will enable us to enhance those rituals and learn together, even over great distances.”

Jorge Otero-Pailos
May 2020

“We’re trying to figure out ways that we can actually overcome this idea of social distance and say it’s not social distance that we’re dealing with right now it’s physical distance. . . I think there are ways of creating small networks and small discussion spaces—that’s what a lot of the visual studies faculty have tried to do—and have come up with really unique ways of organizing this digital space to make it really accessible to students as they are engaged in this very disoriented moment.”

Laura Kurgan
March 20, 2020

“The immediate and the fast, in terms of what we’re facing today, is really monumental. I think it’s all showing us the need for public health infrastructure but other areas that we are pretty much going to need to fundamentally think about changing going forward. Call it a challenge, call it an opportunity, call it just sobering . . . I think that architects, engineers, the construction industry, and governments are going to have to come together to tackle some of these problems. And architects are right in the middle of that.”

Craig Schwitter
March 20, 2020

Family

"[Considering] the situation we're in now–finding ourselves having to be isolated–how [can we] still have a kind of relationship to the exterior world–both physically and visually and be able to have fresh air? One of the things I'm working on now is researching the subject of staircases and vertical transportation and trying to understand where people actually can mix and to what degree they can mix, interact . . . It's quite exciting and important research if we're going to continue to live in this way of having to isolate but still need to connect at smaller scales."

Hilary Sample
March 20, 2020

"We are not going to be such personalistic individuals and we have to invent new ways of working in this complex world. Now it is absolutely evident and true that we have to build a new one and the pedagogical practice is for me the laboratory for all of this . . . this is the moment I think that the school of architecture—and universities in general—are the only places where these changes can be explored, redesigned, and redescribed."

Juan Herreros
March 25, 2020

"When COVID-19 hit and we learned how to communicate over Zoom, we also started wondering about the ways we can contribute as we collectively face a global crisis so we started working on the [Pandemic Urbanism] reading list as COVID-19 started ravaging through cities and communities around us in March 2020. At that heightened moment of uncertainty, we felt that we lacked the knowledge and tools to think about the pandemic as it relates to urbanization. We aimed to put together in one document material that could help us as well as help students, scholars, activists, practitioners everywhere as they start trying to make sense of the pandemic as it relates to the built environment."

Hiba Bou Akar
August 24, 2020

Screenshots of the following courses were featured in the Spring 2020 GSAPP Family newsletters: Dark Space: *Architecture Representation Black Identity Seminar* led by Associate Professor Maio Gooden; Kitchenless Stories Advanced VI Architecture Studio led by Associate Professor Anna Puigjaner; "NYC Grey to Green Energy Transition" Urban Planning Studio led by Anthony Borelli and Graham Trelstad.

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Master of Architecture Amale Andraos, Dean and Program Director

The Master of Architecture program is a three-year accredited professional degree program and is regularly ranked as one of the top architecture graduate programs in the country. At GSAPP, architecture is understood as a form of knowledge inextricably linked to a broader context of environmental and global action—one that is oriented not towards what architecture *is* but towards what *it could be*. Today, the Master of Architecture program pushes this understanding of architectural experimentation and re-invention forward, with faculty and students weaving together critical discourse with technological skill, disciplinary expertise with expanded modes of practices, and design speculation with engagement in the issues of our time. The program finds its strength in the diversity of its faculty and their approaches to architecture. Its pedagogy is, simultaneously, rigorously structured and constantly re-examined to respond to ever-changing contexts—welcoming the openness, inquisitiveness, and intellectual generosity that enable and foster new avenues for individual development and collective directions for the field.

The Master of Architecture program is centered on the Architecture Design Studio and the three curricular sequences that orbit it: History and Theory, Visual Studies, and Technology. While the sequences run in parallel, they are also designed to be brought together at critical junctures: through the intersection of specific exercises and through broader project integration. Supplementing these main pedagogical tracks is an Elective sequence and a required Professional Practice course.

The Architecture Design Studio sequence is divided between Core and Advanced Studios. The Core Studios consist of the first three semesters. They are structured to build knowledge on the fundamentals of architectural design through the theme of "Architecture and the City" and through an inclusive and expansive understanding of history, cities, typology, and performance. Core I focuses on acquiring analytical and drawing skills; Core II tackles the design of an institutional building; Core III concludes the sequence with the Housing Studio.

Advanced Studios consist of the last three semesters, with the last two composed of nearly eighteen studios that together explore new instruments, techniques, and formats of design across a multiplicity of existing realities. The studios function as laboratories for discussion, where students and critics practice new ways of mobilizing architectural concepts, programs, tools, and methods to intervene on specific layers of the everyday. The sequence encourages a focus on "Architecture and Environment" as a fundamental question for the field.

The History and Theory curriculum stresses a broad social and cultural approach to architectural history, with

particular attention to emerging global concerns. Architectural history is seen in terms of a rich matrix of parameters—political, economic, artistic, technological, and discursive—that have had a role in shaping the discipline. Students are introduced to a range of subjects broadly distributed in both space (geography) and time (chronology), and are encouraged to think and work across categorical East-West and North-South distinctions and the asymmetries these binaries often reproduce, and to consider both continuity and change across 1800 as the threshold that marks the end of the European Enlightenment and the beginning of worldwide industrialization.

The Visual Studies curriculum registers how the visual in design has multiplied exponentially, especially by way of computation, and invites students and faculty to rethink how it intersects with pedagogy, projects, and practices. Through a careful survey of drawing's new temporal nature, students discover methods to harness the potential of drawing, engage with today's visual diversity, and communicate extraordinary visions. The sequence offers a wide range of tools and techniques designed to expose students to the potentials and limits of these tools and techniques and is divided into three broad sets of workshops: analysis/representation, design environments, and fabrication. This variety of possible trajectories promotes individual approaches to visualization and fosters invention.

The Technology curriculum is founded on the belief that the realities of building technology are integral to design exploration and experimentation, especially as computational power and data have become ubiquitous, and changes in manufacturing, materials, and information technologies are shaping new modes of thinking and making. Recognizing how performance—its measurement and verification—has become not only a primary function of architectural "solutions," but also a generator of architectural concepts, the sequence aims to encourage critical and creative approaches to data and measurement and the discovery of new design opportunities and paradigms.

Advanced Architecture Studios
David Benjamin, Sequence Director

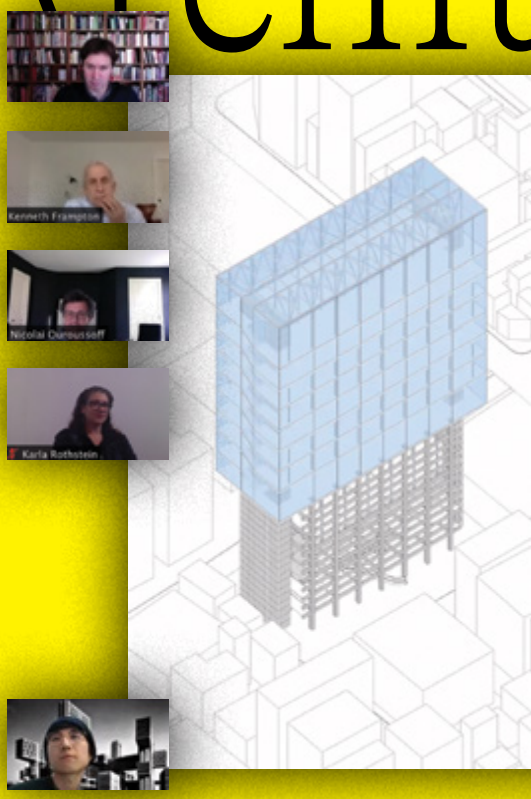
The Advanced Studios build on the ideas and skills developed in the Core Studios and bring together students in the MArch and MSAAD programs. These studios, which take place during the students' final two semesters at the School, have always explored the future of architecture in a diversity of ways. Each studio creates its own world—with its own intersection of social, cultural, formal, material, economic, and environmental concerns—and students have almost 20 worlds to choose from. After selecting a studio, students conduct experiments and develop projects through concepts and massings, programs and forms, drawings and models, materials and atmospheres, metrics, and narratives.

At the same time, the various students and faculty of the Advanced Studios engage in a shared discussion about the most interesting research, practice, ideas, and design of the built environment. They address the theme of "Architecture and Environment" and fortify the hypothesis that climate change is ground zero for a shared discussion about architecture's engagement with the world. Responding to climate change requires attending not only to technical matters like energy consumption and carbon footprint but also to social and political issues, such as inequality and public policy. In this context, the Advanced studios are framed as a unique and multifaceted opportunity to tackle climate change at the scale of the building and to address climate change through design.

Over the spring 2020 semester, faculty and students responded to COVID-19 by quickly and creatively reinventing the studio format with virtual meetings, new working methods, and experimental representation strategies. Confronting these pedagogical shifts with determination and ingenuity, they used the new constraints to create architecture with the urgency, flexibility, and creativity that our new era demands.

Advanced Architecture Studio

Daisy Ames, Galia Solomonoff,
Hilary Sample, Alessandro Orsini,
Laura Marie Peterson



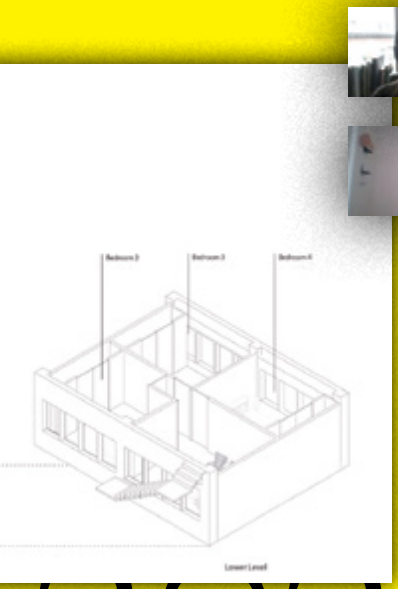
Juan Herreros, Hilary Sample,
Sarah Dunn, Brigitte Shim
Work by Hanseul Jang

Spring

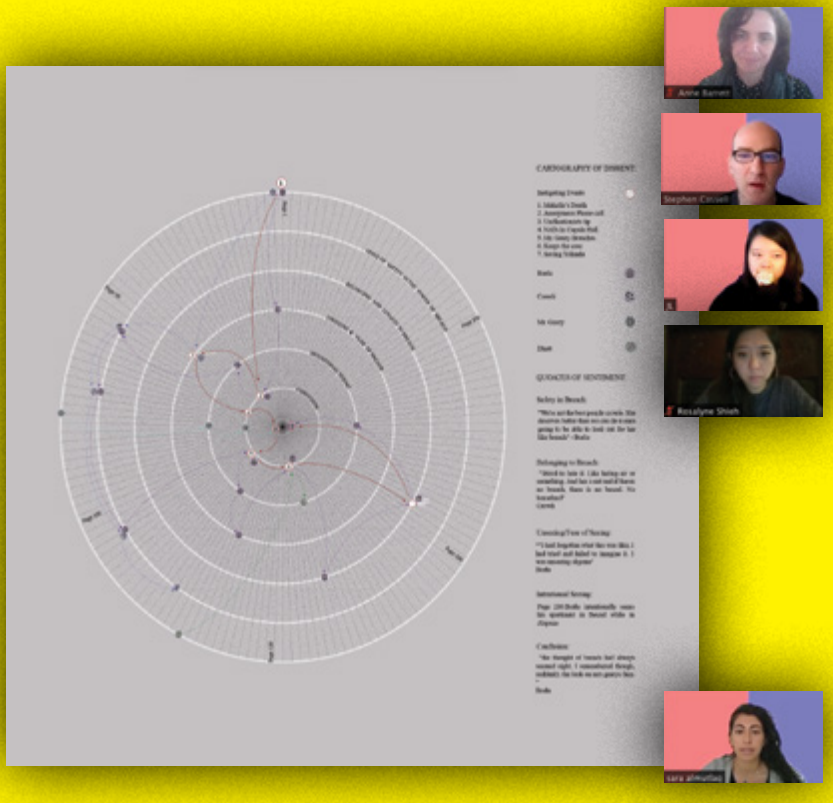
tecture Studio VI

Enrique Walker,
Kenneth Frampton,
Nicolai Ouroussoff,
Karla Rothstein
Work by Chenyan Zhou,
Yu Kon Kim, Kyu Chan
Kwak, Helena Urdaneta

Mario Gooden, Christoph Kumpusch,
Andrés Jaque, Pedro Rivera,
Walter Hood



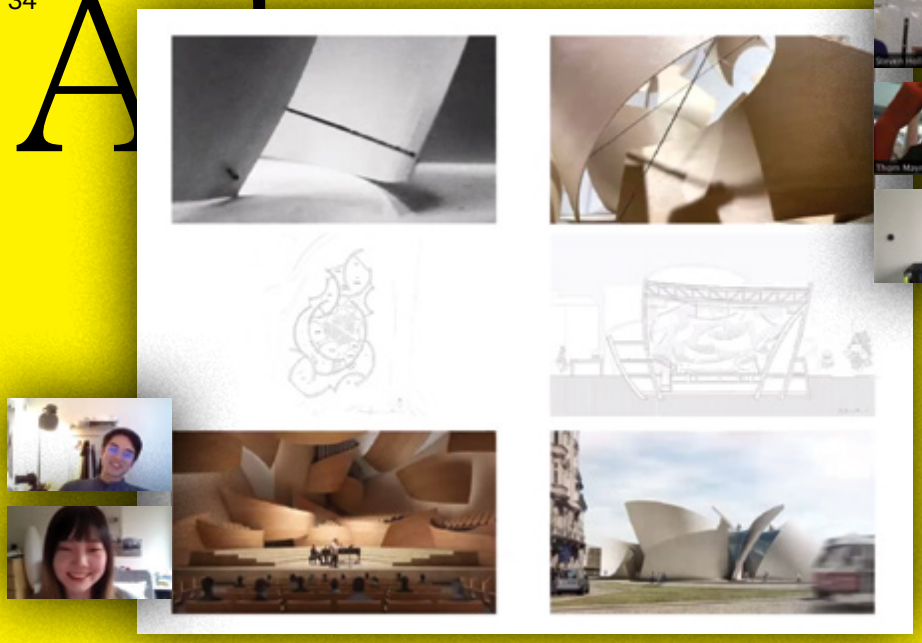
Olga Aleksakova,
Markus Appenzeller,
Iruma Rodríguez
Work by Anna Creatura,
Becky Greenberg



Annie Barrett, Stephen Cassell,
Jane Lea, Rosalyne Shieh
Work by Sara AlMutlaq

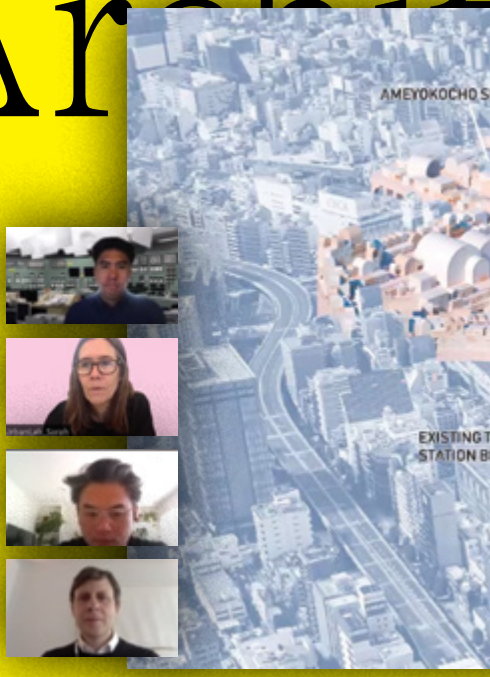
2020

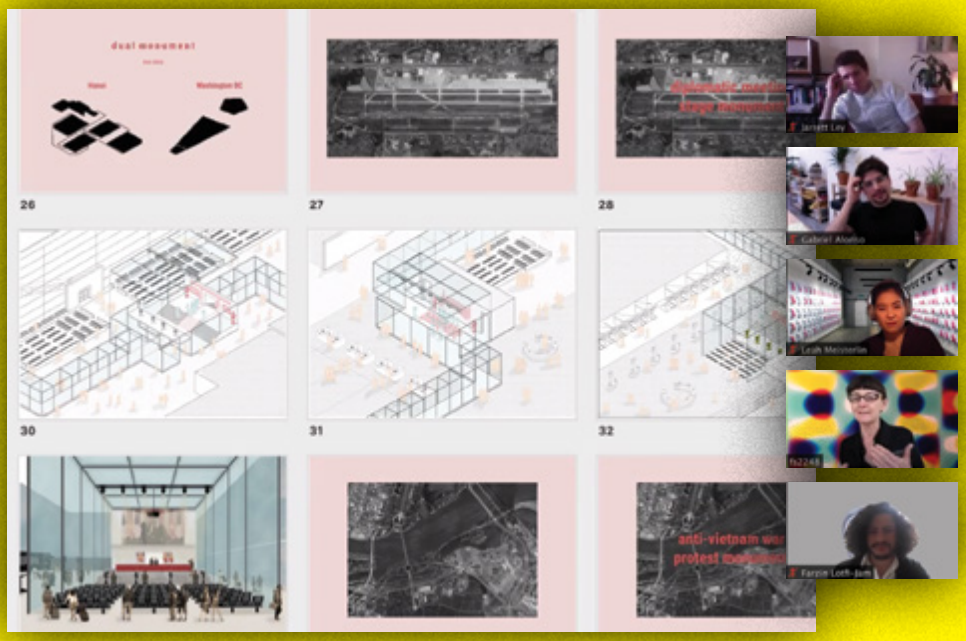
Arch



Steven Holl, Thom Mayne
Christoph Kumpusch
Work by Lihan Jin, Maini Ke

Archit



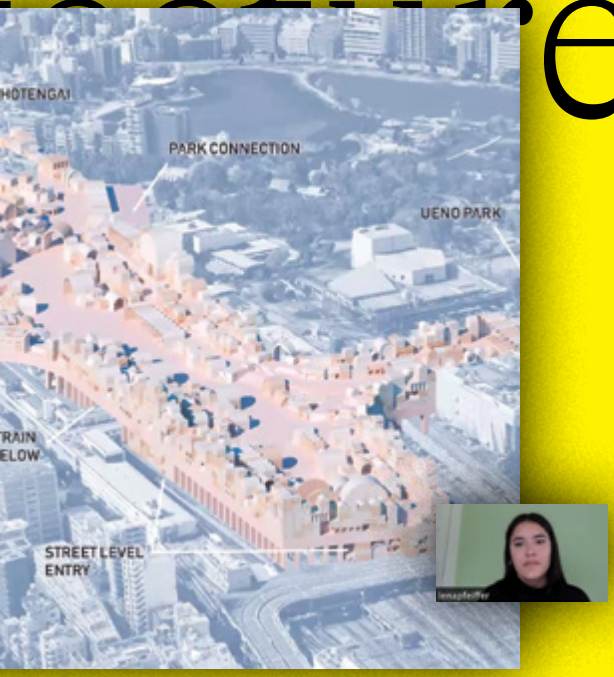


Jarrett Ley, Gabriel Alonso,
Leah Meisterlin, Felicity Scott,
Farzin Lotfi-Jam
Work by Rafaela Olivares

Anna Puigjaner, Ziad Jamaleddine,
Inés Yupanqui, Luis Carranza,
Pep Avilés

Spring

...ecture Studio VI



Cyrus Peñarroyo, Sarah Dunn,
Jimenez Lai, David Benjamin
Work by Lena Pfeiffer

Phu Hoang, Ada Tolla, Leslie Gill

Alessandra Cianchetta, Jing Liu,
Kai-Uwe Bergmann
Work by Jae Kyun Park

2020

<HAVANA MICRO X> Olga Aleksakova, Julia Burdova, Esteban de Backer

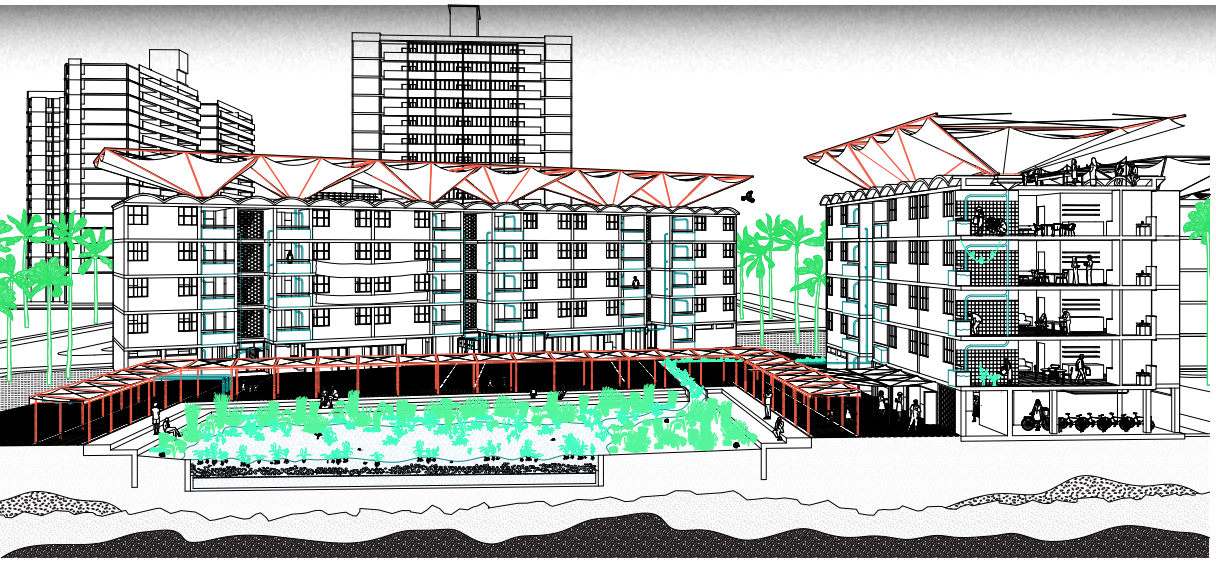
This studio *Havana Micro X: Modernist City Planning Model in a Post-Modern World* proposes urban hybrids to question inherited cultural, economic, environmental, and technological assumptions. Modern precedents assist participants in re-interpreting historical efforts and ideologies and, hopefully, proposing an alternative urban discussion capable of addressing contemporary issues.

Becky Greenberg

The underutilized ground floor of an existing modernist housing block is transformed into a small fabrication shop, in which sustainably managed wood from the newly implemented forestry industry is processed for construction use. These materials are ultimately utilized in typological improvements to the existing apartments above.

So Jin Kim

Students examine four tissue samples of Havana modernist fabric and study their development under the current conditions of a weakened state. The result is an urban proposal for the selected areas and a zoomed-in examination of a single hybrid building.



Kate McNamara, Frank Mandell

Aguas de la Habana Libre is a political organization and light ecological infrastructure that creates new opportunities for public and domestic space. It is a is a tactical assemblage of low-tech interventions: roofs, pipes, and pools produce aquatic urbanism that ameliorates Havana's precarious relationship to water.

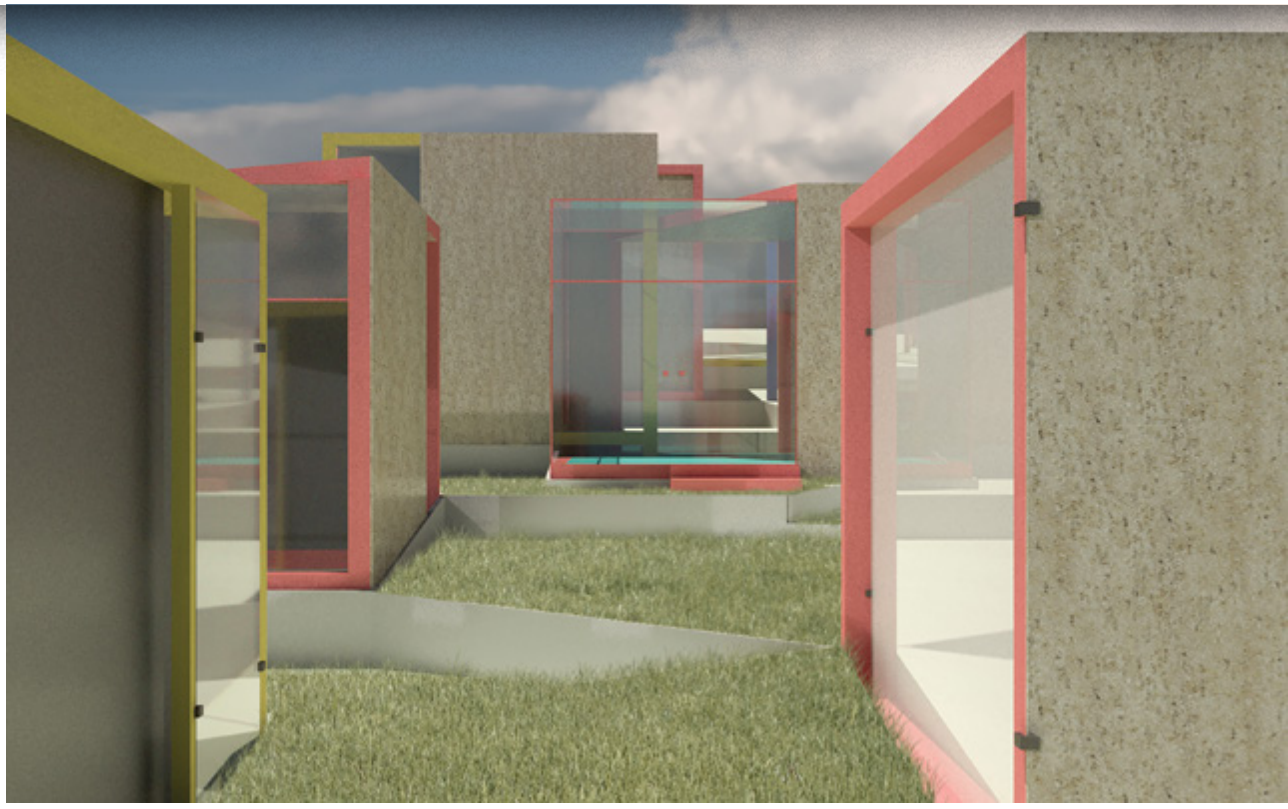
Berkhan Eminsoy

<EVERYTHING MUST SCALE> Michael Bell

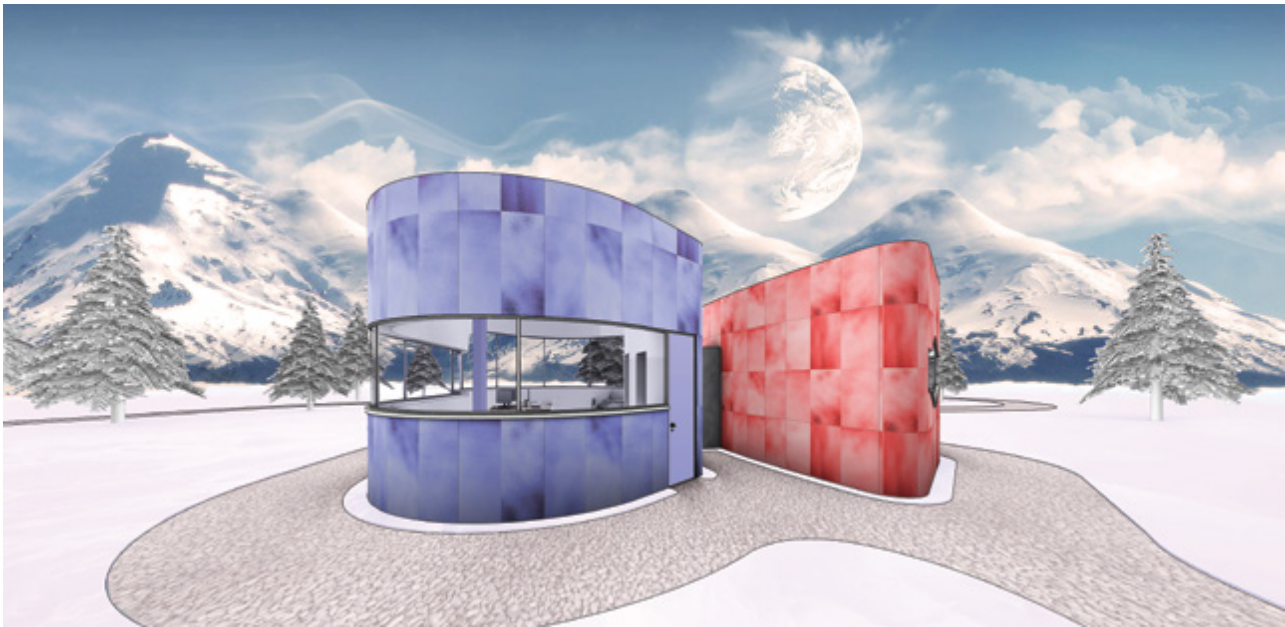
The studio *Everything Must Scale 3: Architecture and the Teacher-less School* follows a series that have looked at architectural building types increasingly being challenged if not made obsolete. This edition explores what will become of schools as education is increasingly automated, achieved without the same type or number of on-site teachers and in the realms of software and media as

Ge Guo

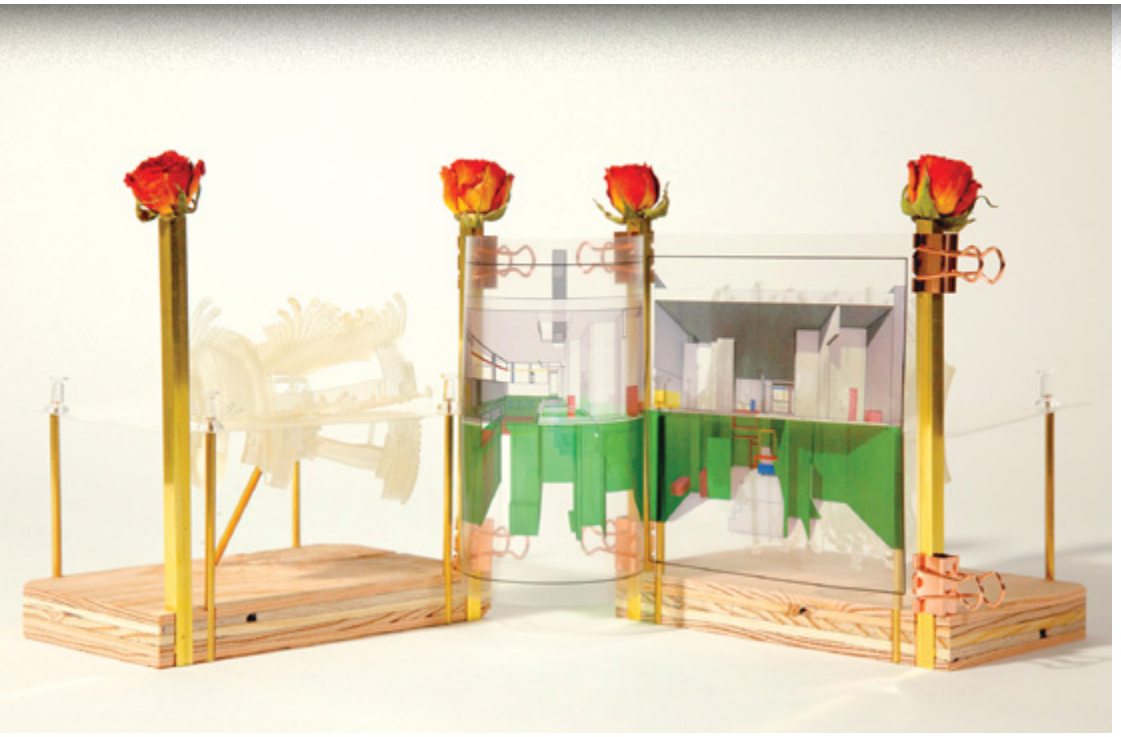
The notion of "language" is experienced in space through children's navigation. If the syntax of the space is its physical structure, the semantics of the space is constructed in children's minds by connecting previous memories when physically moving inside/outside architecture. Just like the complexity of language, diverse human experience is achieved through elemental, repetitive, sequential architectural elements in multiple scales.



Leon Esmaeel



education becomes less place-specific and can occur almost anywhere. The studio addresses issues of architecture and scalar realms of economy, energy, and the forms of power or authority that shape the built world. This includes examinations of how the expanded presence of automation, renewable energy, new forms of mobility meet older forms of settlement, architecture, and place.

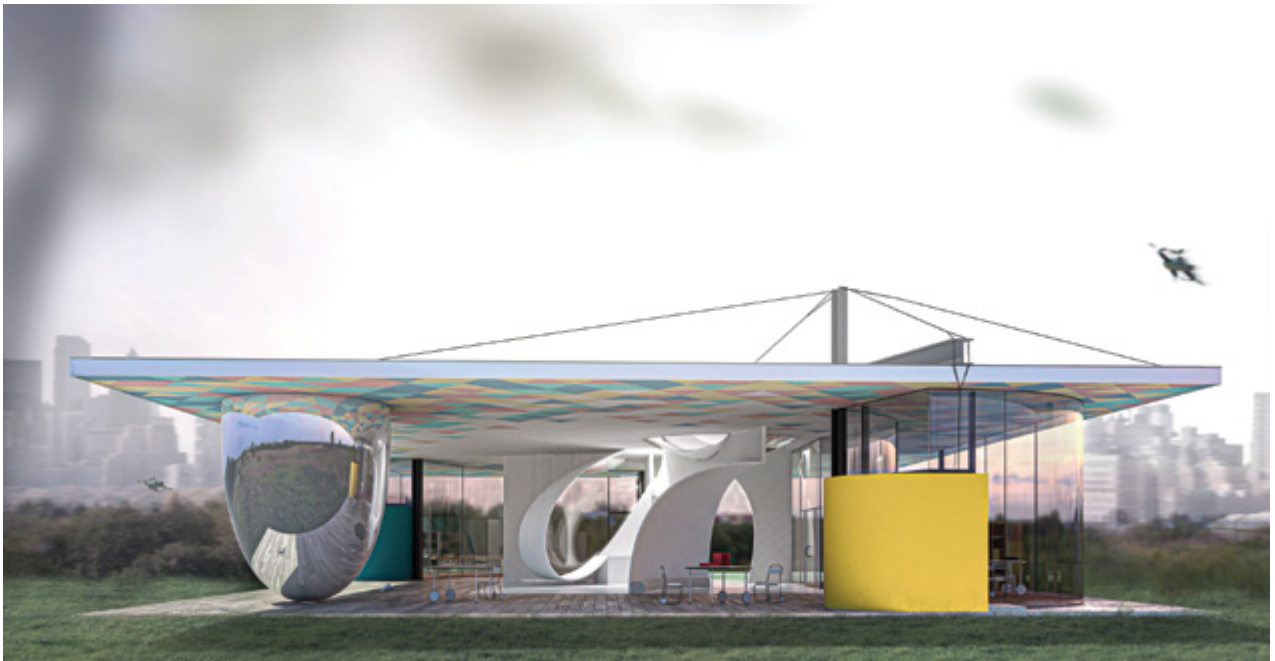


Hyeokyoung Lee

The medium of architecture has relied on mechanical tools, materials, and more recently the computer. Each of these mediums has its syntax, which can be restrictive. The goal of this project is simple: to recover the lost syntax of students' minds, and thus the possibilities of the universe.

Qi Yang

Knowledge is never static, and so should the experience of architecture be never static. This micro-school puts students' minds and bodies in motion. The traditional auditorium and classroom are dismantled into an open canopy—a space of discovery. All furniture is movable to encourage self-organization.

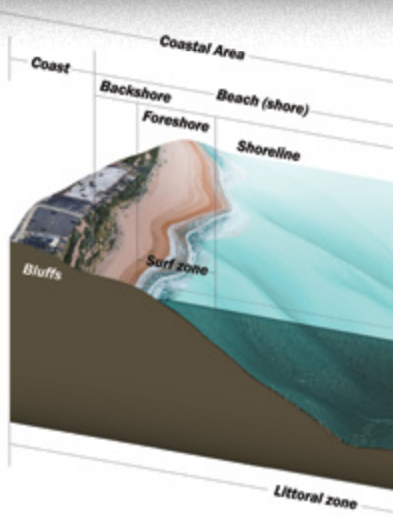


<FOREST-TO-CITY: ARCHITECTURE AS OPEN SYSTEM> David Benjamin

This studio addresses the massive global construction and rapid urbanization that will occur in the same ten years in which it is critical to drastically cut carbon emissions. We explore a new type of design. We simultaneously design materials, typologies, prototype buildings, forests, and supply chains. We explore architecture as an open system. We explore the use of engineered wood in

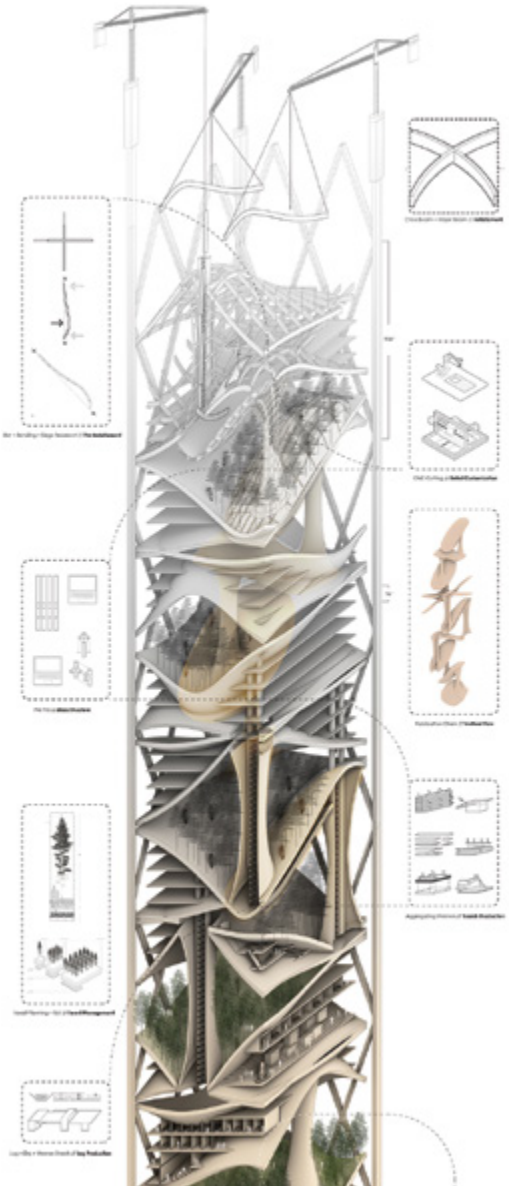
William Anderson

The mission of *Plant-Base* is to build future cities that are truly sustainable by vastly eliminating the need to make cities from high embodied energy materials.



Yankun Yang

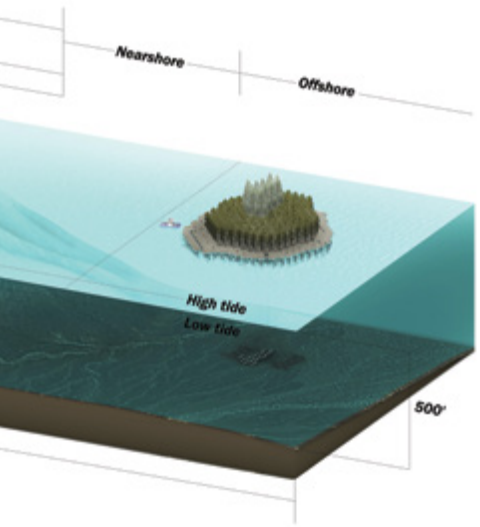
The development of *Jack and Beanstalk* aims to re-balance the social hierarchy inequalities caused by the huge income gap and increasing population in the year 2050 through reestablishing the product consumption habit of using paper money to achieve consumer equilibrium and social class equality.



Peter Stoll

Built across two sites in Seattle—a post-suburban sustainable timber forest and newly densified housing within the city—the project explores the entanglement of natural and urban systems in Seattle, re-thinking the relationship between the city and its surroundings in terms of density, material extraction, and ecology.

buildings and the idea of mass timber as a system. We take a critical look at the farm-to-table movement—as well as at some of the past models of architecture as a system—and we develop new kinds of open systems for architecture.

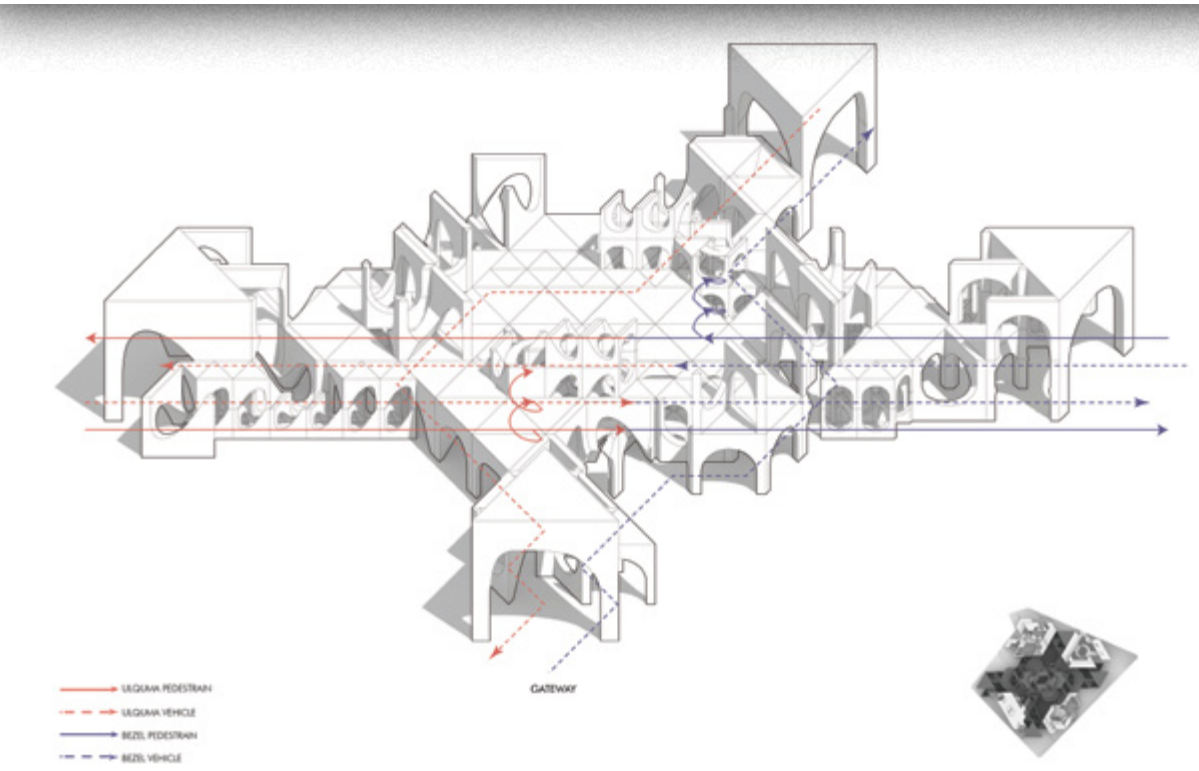


Luo Qingkai

This project focuses on an underexplored aspect—the interior arrangement—of CLT, community-participation industries, and a new appearance of the community based on an optimized universal structural unit named Bam-ino. A successor of Dom-ino, it's an ideal solution for mass construction in the 21st century.

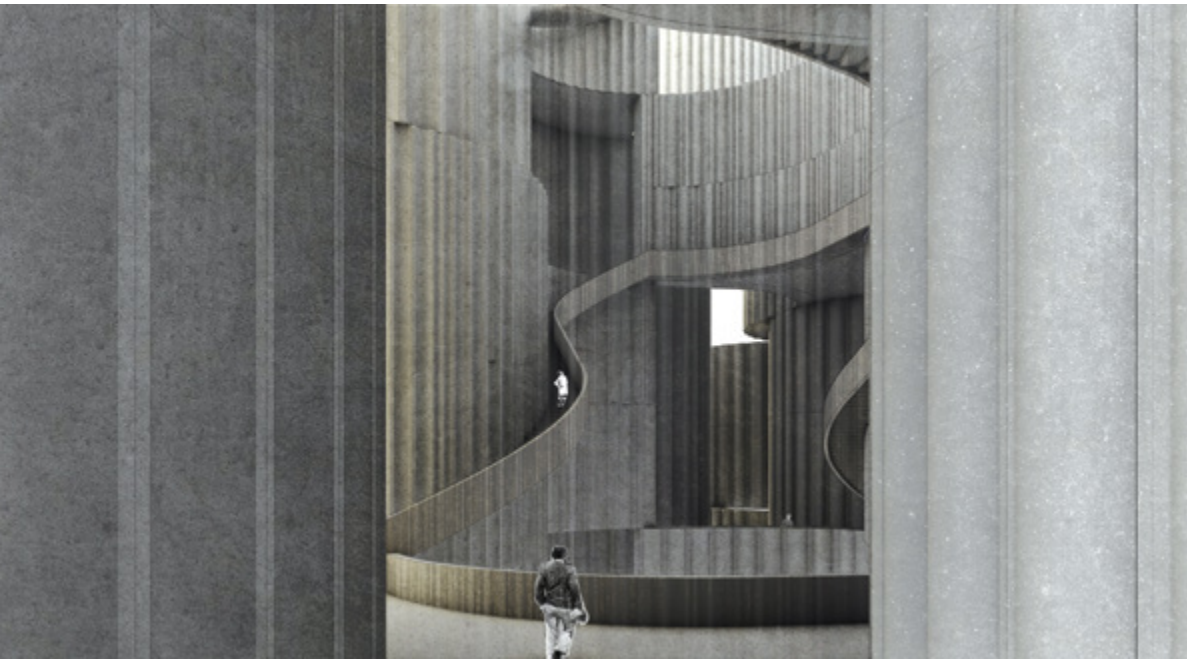
<COPULA HALL> Stephen Cassell, Annie Barrett

China Miéville's novel The City & The City serves as the site, program, and universe of the studio. Beginning with close and rigorous reading, analysis, deconstruction, and re-composition of the text through analytic drawings/models, each student enters and re-constructs the implied geographies, styles, and site conditions on their terms and in their visual language. The studio progresses



Yixuan Shi

This design of Copula Hall is a rigorous exploration of how spaces carved out of two different curves can be intersected and aggregated to form an experiential centrality of the citizens' life and politics.

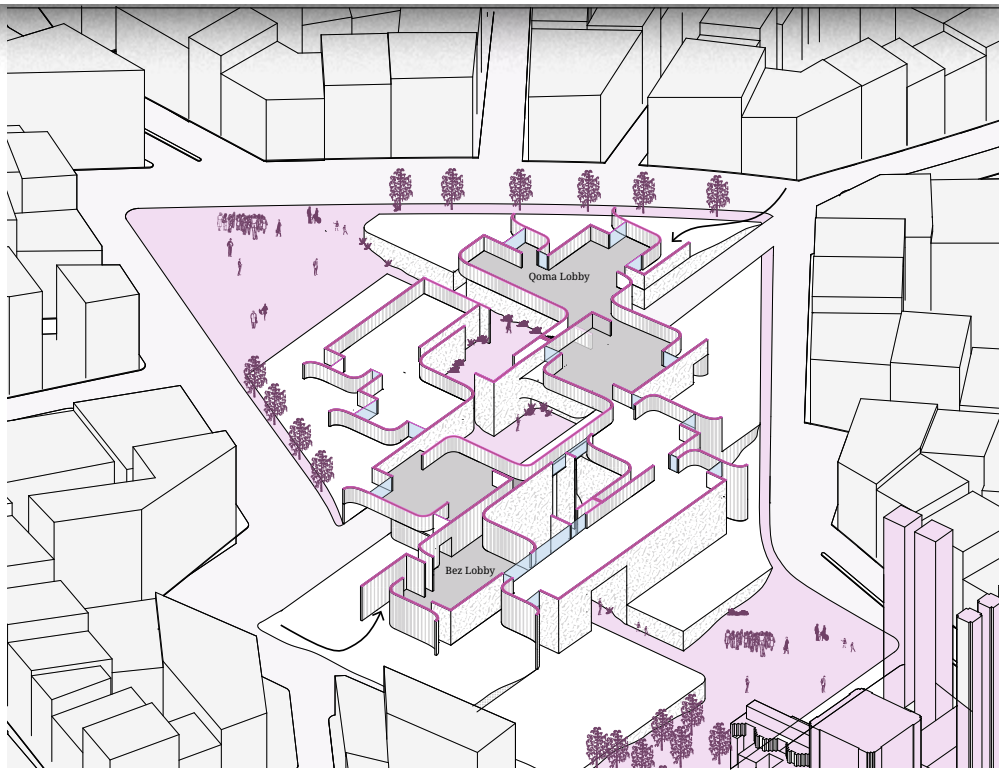


Jingyuan Li

Through the exploration of a simple curved wall, the entire architectural system is constructed. Meanwhile, a sense of indeterminacy is created with the consideration of material, texture, and spatial sequence. In Copula Hall, you are not entirely in one city and will gradually lose your cognition of specific cities, to reach the so-called Orciny.

from this projective cartography into the iterative exploration and design of a 3D formal language that enables the novels' inhabitants to negotiate two opposing and intertwined cities.

Sara AlMutlaq



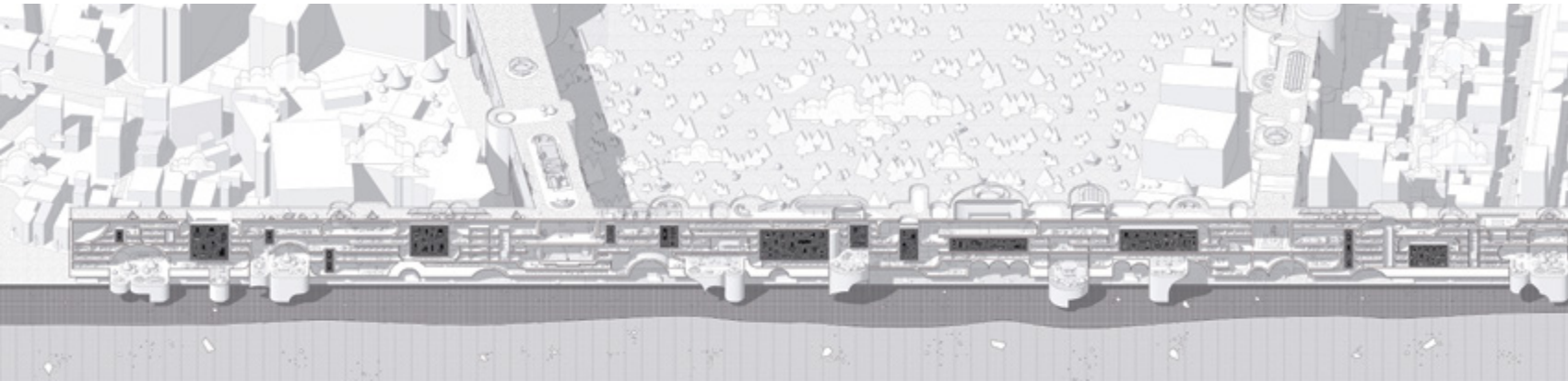
Ericka Song

<WHAT IF . . . ? THEN . . . URBAN-SCALED ARCHITECTURAL SPECULATION IN TOKYO>
Sarah Dunn

The studio engages and explores the formal and programmatic possibilities of invented large-scale architecture in the city. In a back-and-forth process with key historic projects, the studio develops a series of design-based scenarios that leverage specific qualities of the city and seeks to mine these scenarios

Ningxin Huang

The *Anti-University Oasis* addresses the pressures Japanese young people face and the ways they seek relaxation through different subcultures, recognizing the value of these outlets. The mega-structure contemplates a scenario in which subcultures become mainstream.

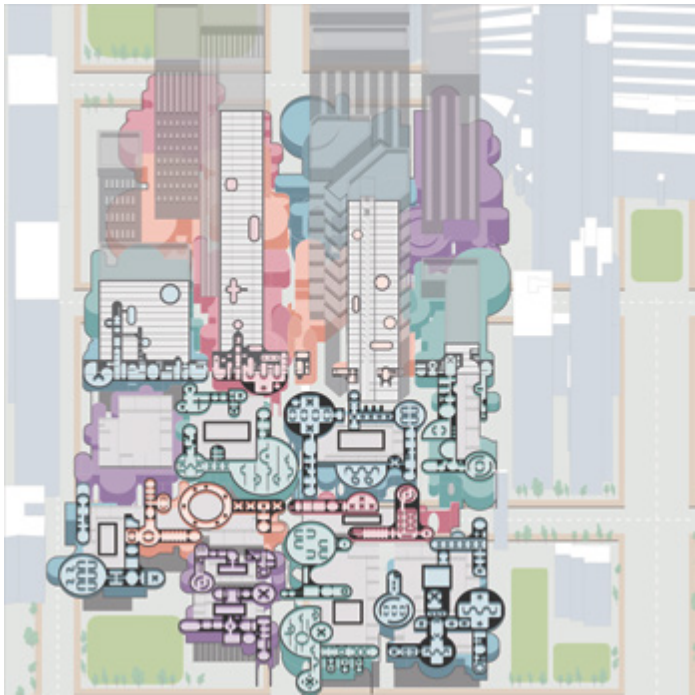


for their formal possibilities. With the addition of infrastructure, the studio posits that architecture can be both/and—it can be both about growth and about the environment—through the manipulation of form and the tactical deployment of social and ecological systems.

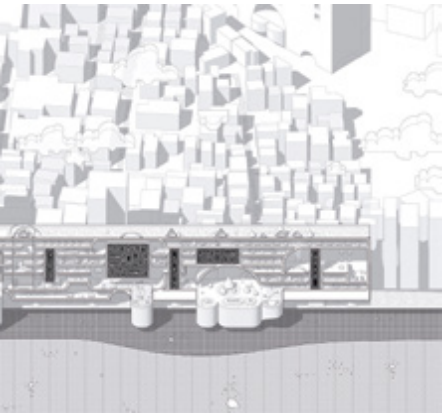
Lena Pfeiffer

Mottainai Tokyo is a new urban typology specifically designed to house and maintain a bustling zero-waste community, serving as an inclusive catalyst for the city. A mega-scale architecture could begin to fulfill the needs of residents, businesses, and service workers, creating a harmonious culture of reuse.

Shiyin Zeng



Timothee Mercier



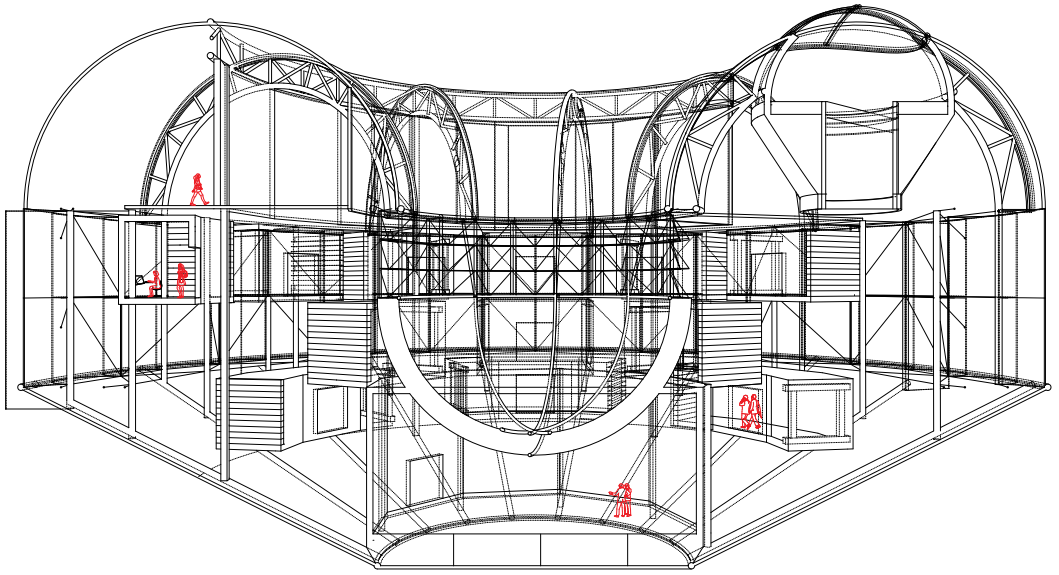
What if . . . an urban scaled intervention could leverage the city's existing infrastructure and provide people with a place to develop healthy sleeping habits while carrying out their daily activities? Then . . . Inemuri could be celebrated and practiced more sustainably, helping to alleviate Tokyo's dependence on permanent exhaustion.

<THE SPACE OF WATER> Mario Gooden

The studio is informed by the history of radical thinking about architecture in the 20th century yet looks beyond to the Afro-Imaginary to present an experimental curriculum deploying techniques culled from the visual arts as well as design theories of geography, infrastructure, engineering, and architecture to initiate dialogues about geography and spatiality in an era of global crisis due

Katherine Ye Xiong

How to Adapt is a self-propelling, 360-degree rotating marine observatory.



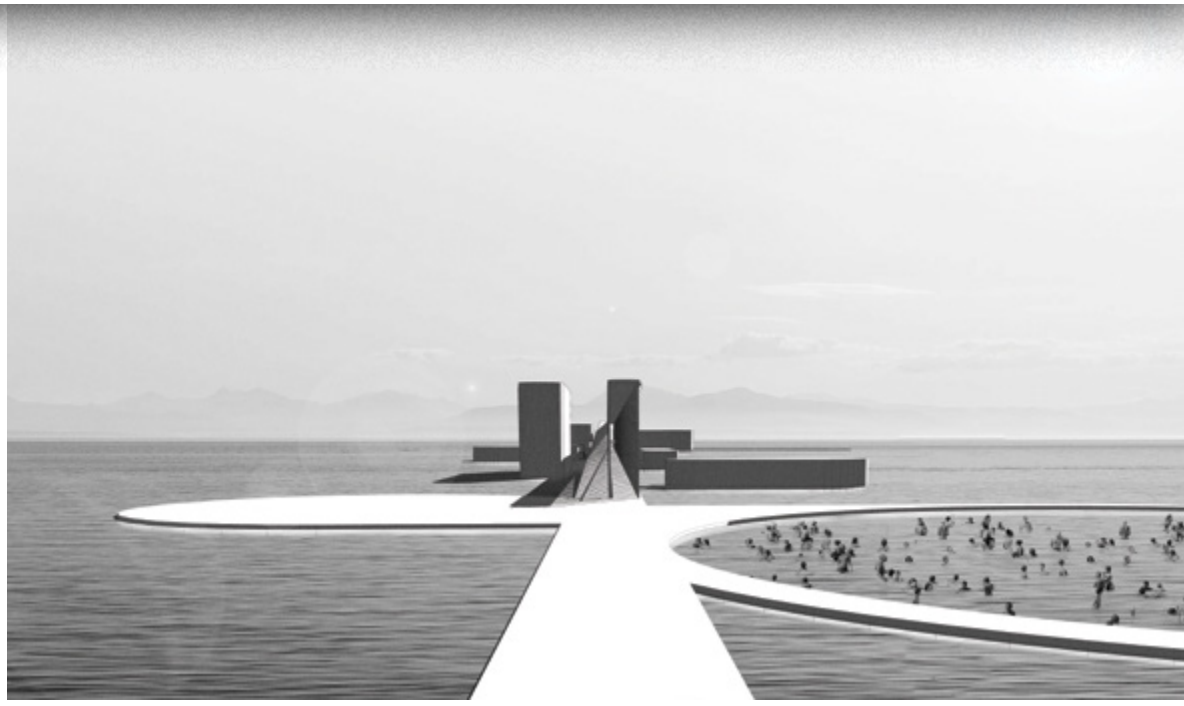
Jolene Jussif

Phoenix shelters the community from fires and provides a place to view both fires and the ocean.

to human-induced climate change. More specifically, the studio investigated the cultural topographies of water informed by the line from colonialism to climate change in consideration of forced-migration, resource extraction, environmental degradation, and water scarcity. The studio investigates film techniques of narrative, fragment, and structure as analytical and generative tools to speculate towards the design of architectural interventions upon either the land or the sea.

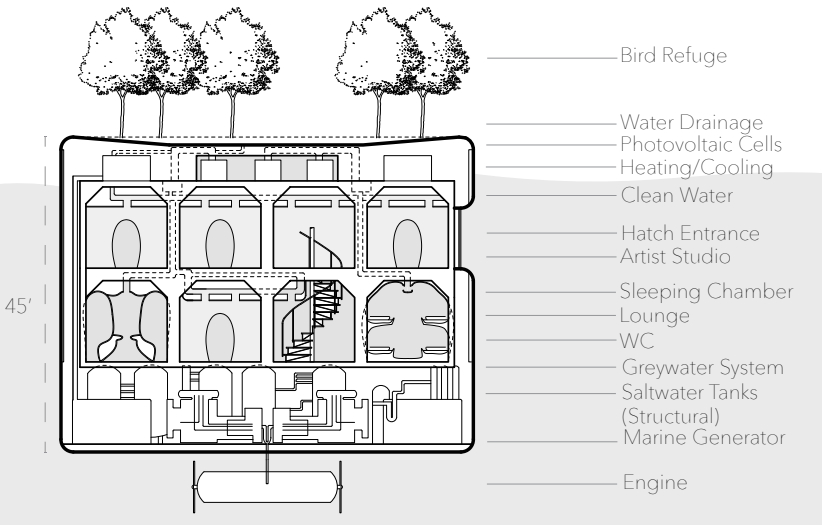
Benjamin Gomez Arango

This two-kilometer-long pier connects the community of Khayelitsha to the sea and functions as a device for the generation of energy, knowledge, and recreation.



Sultan Alfaisal

Toxic Sea provides research spaces and a refuge platform for birds and sea life.



<INFRASTRUCTURAL GEOGRAPHY> Juan Herreros

What is the role of architecture in an environment that needs to invest a lot of energy to get a significant transformation? Where are the limits of scale, amount of architecture, and technification of the territory? What are the pertinent typologies, construction systems, and preservation protocols? The studio *Infrastructural Geography: Water, Leisure, and Every Policies* imagines a new

Yixuan Cheng, Michael McDowell

The *Center for Agricultural Knowledge* seeks to improve the conditions of depopulation and water scarcity in rural Spain. By providing a framework for a new type of water-efficient agriculture, the project redefines the economic model of the small town of Buendia, transforming it into an agricultural hub for the region.

Federico G. Castello Branco

Drawing from the scale of the existing infrastructural architecture distributed across an empty stretch of Spain, the project —an archive of this abandoned territory— renders separation between people, infrastructure, and memory impossible. Opposite to the culture that has been centralized in large cities, this proposal institutionalizes a parallel local memory.

generation of low-impact clean industry nurseries, research centers, pedagogical institutions, and residential complexes that bring new ways of living to re-equip this geography in an endeavor to redefine its character. This studio wants to design and build a new “rural-urban culture” that takes advantage of dualities such as isolation-connection, natural-artificial, hybridization-specificity, individual-collective, sophisticated-elementary technologies, density-porosity . . . to create new forms of living, working, leisure, and socialization.

Xiaoxuan Li

Guillermo Hevia, Alex Hudtwalcker

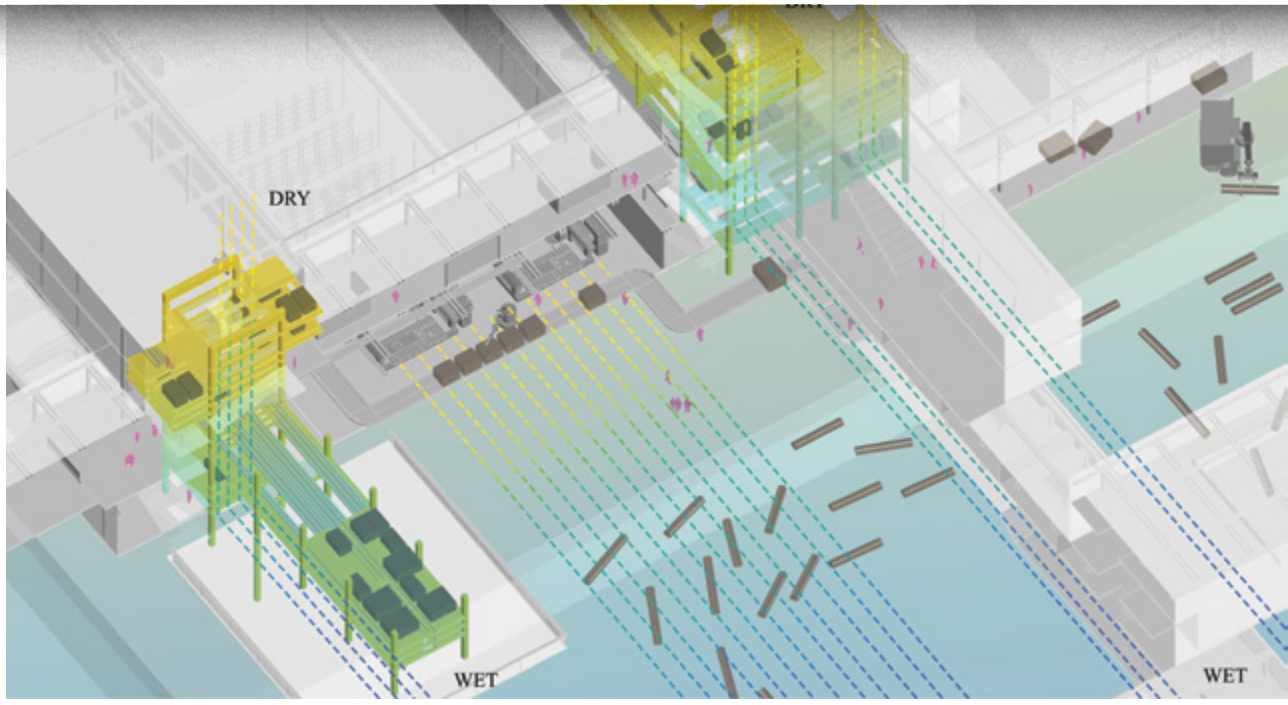
The project proposes to build a network of archives through the “empty Spain” bullrings to decentralize culture and memory.

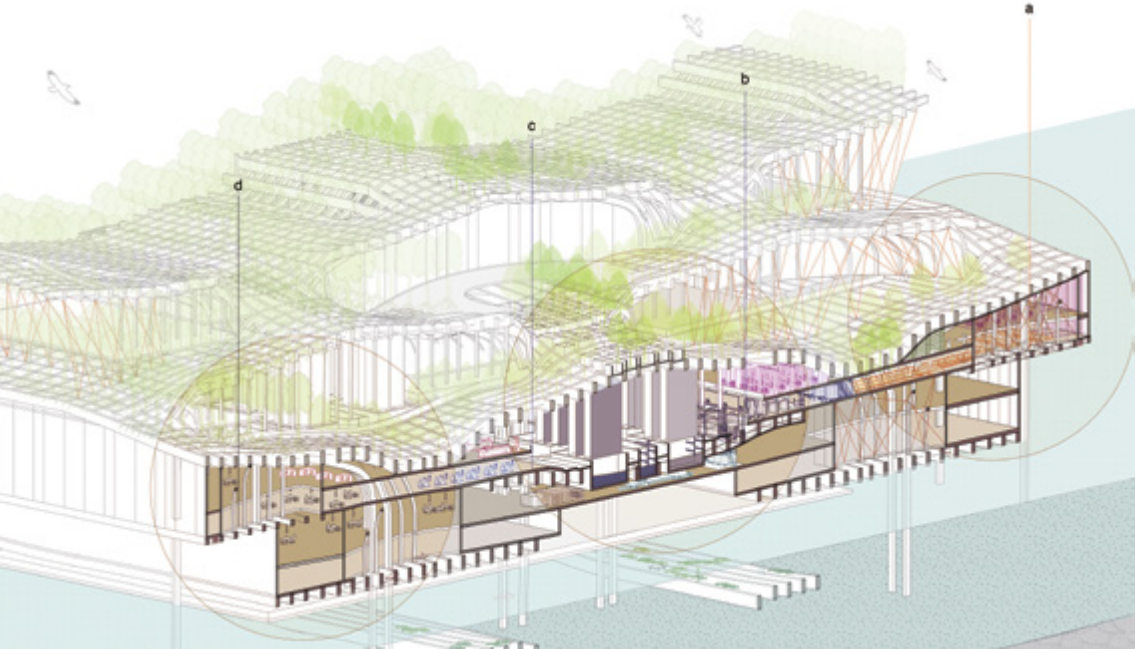
<FACTORY> Mimi Hoang

Students design an urban factory complex that creates collective spatial structures for the manufacturing of artifacts and the shaping of exchanges. The work requires critical engagement with the many historical, social, economic, and technological contexts influencing the design of factories; the studio asks students to re-frame these conditions as innovative spatial formats for manufacture ↗

Feibai An, Xueqi Hu

The *Wood Factory* recycles wood waste from the city and invites local designers to fabricate furniture. Using both universal components and joints, the interlocking system can be interpreted as a structure, enclosure, and product. The microclimate, working spaces, and coastline are controlled to create an efficient production process within an urban context.



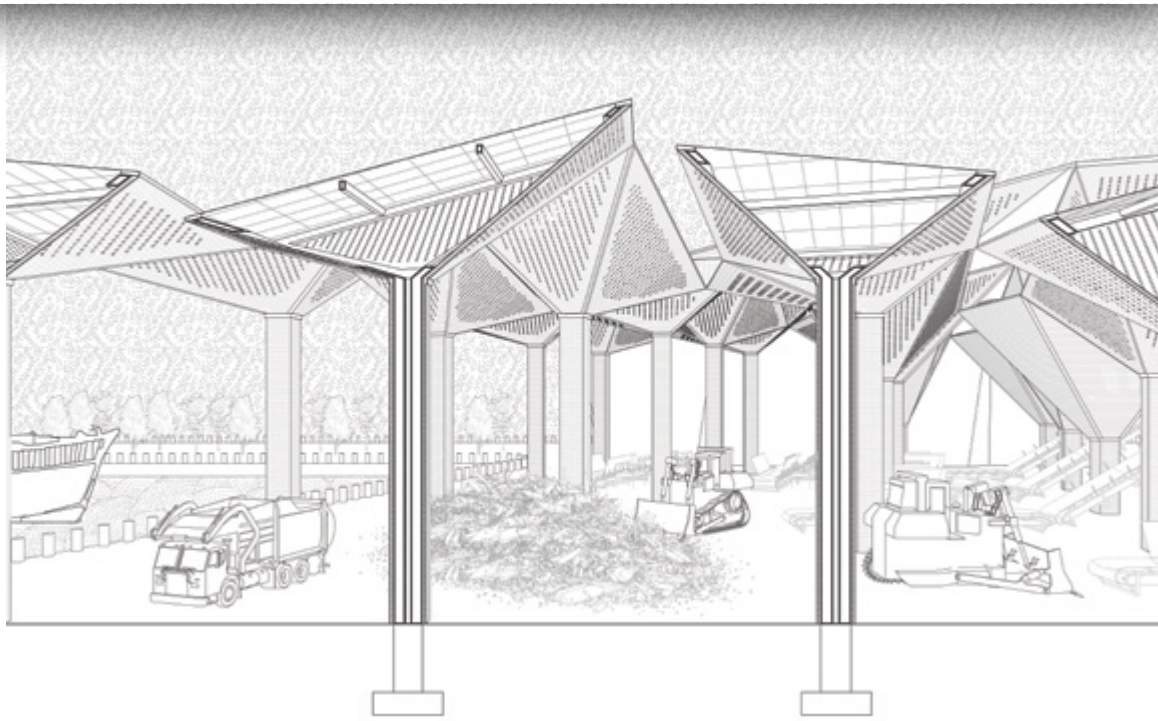


Rui Wang, Qingying Wang

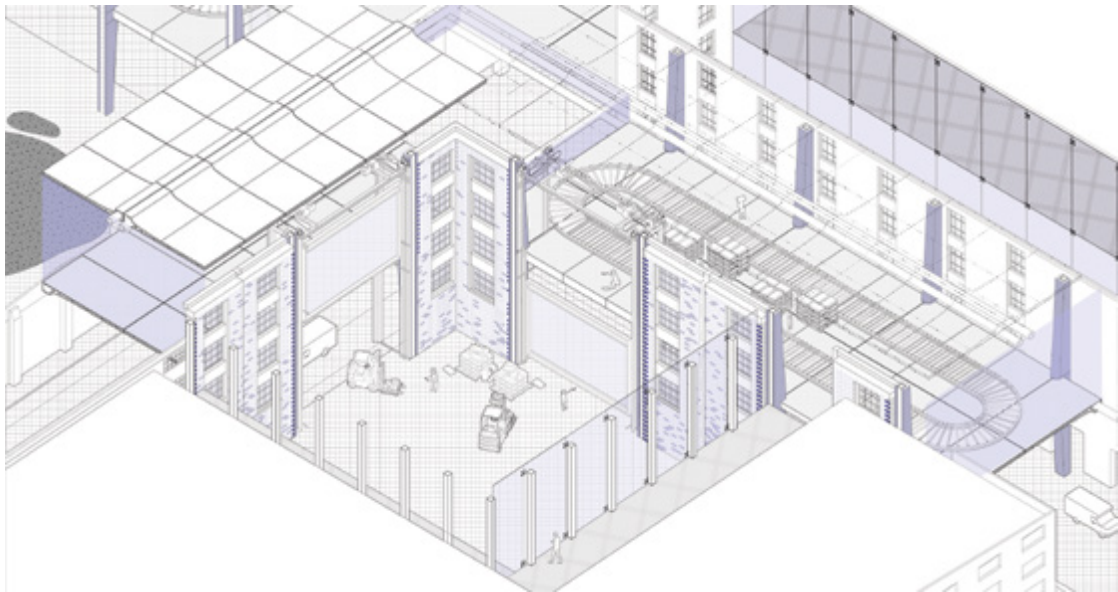
Factory Habitat reinvents the typology of the pier, factory, and park by interweaving the production spaces of silk with the coastline habitats. The landscaped structure creates a thickened city edge that resists the degradation of the harbor, and challenges the dichotomy between nature and city, and between efficiency and natural cycles.

in their architecture. The site is the Bush Terminal; the studio reconsiders this entire complex and envisions a future for it as a center for new industries. The studio considers how each project connects to or informs others in the studio as the semester unfolds—ie. an exquisite corpse, collage, or as part of a master plan—to define the unifying and anomalous criteria of each project in relation to the whole.

Tianyu Wang,
Wenya Liu

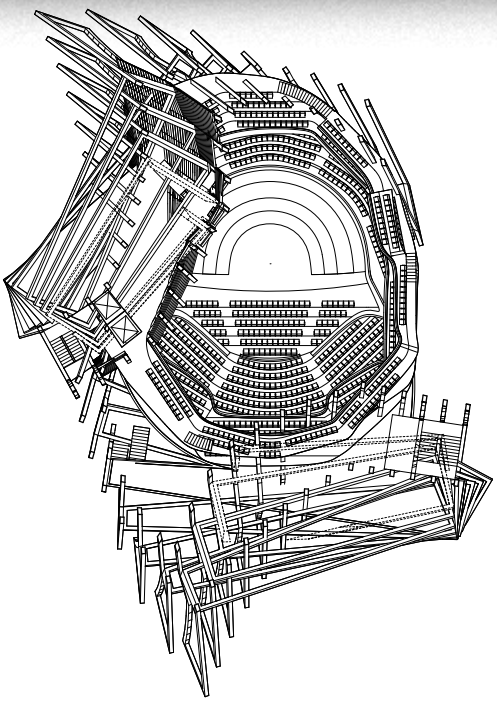


Jingyuan Zhang,
Chun-Chang Tsai



<ARCHITECTONICS OF MUSIC: A CONCERT HALL IN PRAGUE> Steven Holl, Dimitra Tsachrelia

The studio makes a typological analysis of 12 different halls presented by student teams. Based on a musical fragment from a composer (Dvořák, Pärt, Saariaho, Feldman, Ravel, Cage) the students build a model in 20”×20” cube of space focusing on interior geometry with acoustic potential for midterm. Driven by their



Peizhe Fang, Wei Wang

The design comes from the movement of a linear glissando model and develops its potential of translation to structure, space, light, and material, building a link between rhythmic glissando music and concert hall.

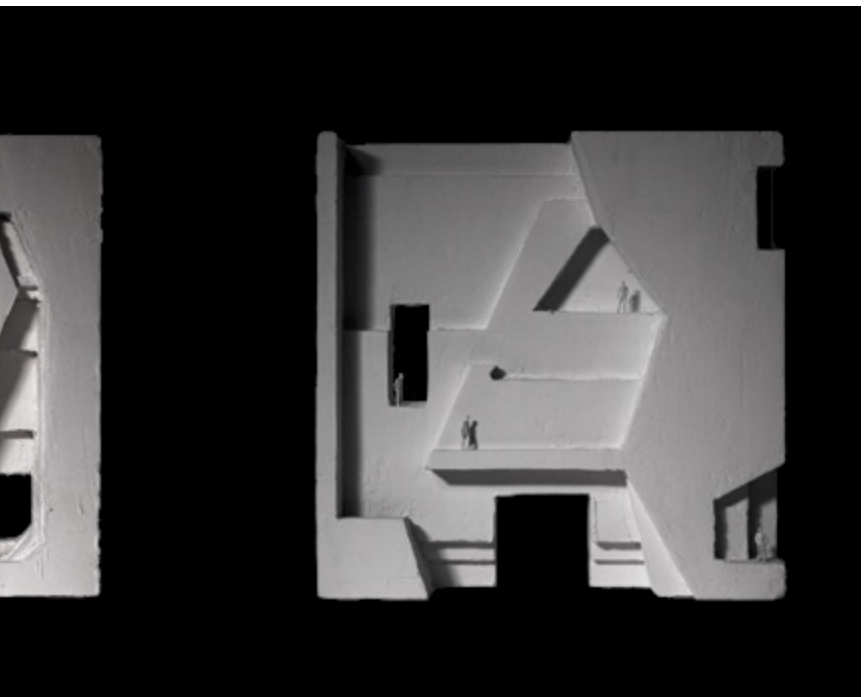
Yining He, Yuxin Hu

This concert hall reinterprets the *New World Symphony* composed by Antonín Dvořák. The duality and recurring melodies in the music are transformed into a uniform spatial language with two contrasting expressions. Solids carved by continuous yet ever-changing voids form both the interior and exterior expression of the architecture.

composition and language experiments, each team then designs a 1200-seat concert hall sited in Prague.

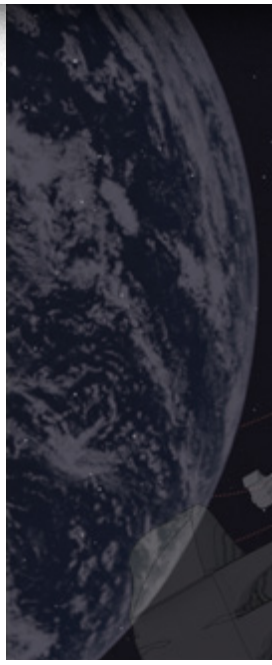
Siying Chen, Shuchang Zhou

Inspired by two music pieces, Kaija Saariaho's Laterna Magica and Morton Feldman's Rothko Chapel, this project translates music as an intangible matter to represent time with different durations. The rhythm and tempo in the music are translated into lines in the space.



<MAKERGRAPH> Ada Tolla, Giuseppe Lignano

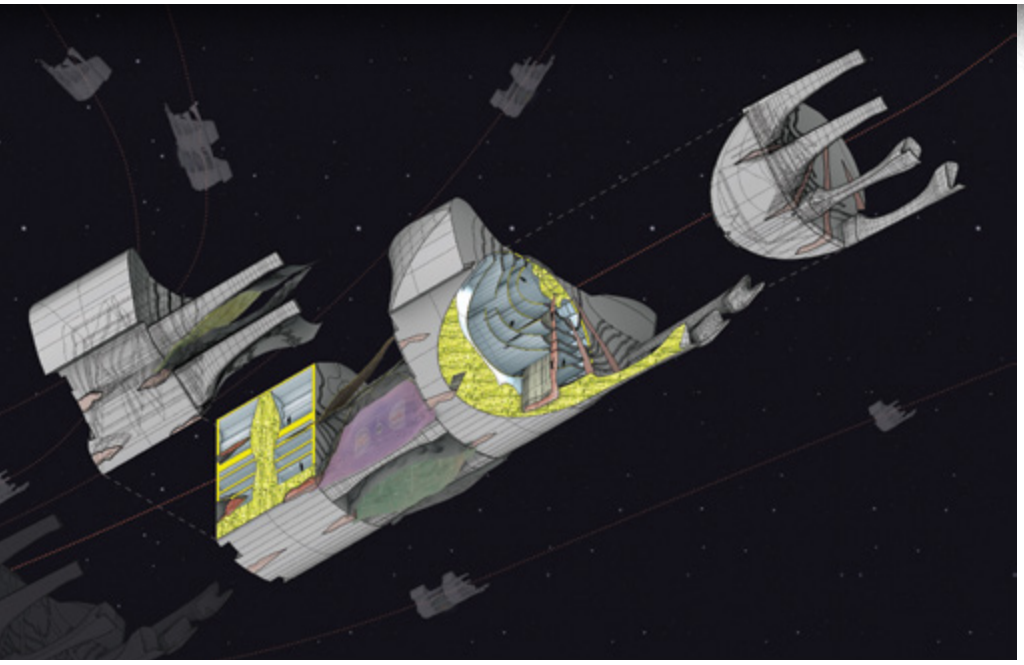
This studio is a personal, actual, material, and physical investigation of how materials become things, how things make places, and how places shape people. Operations like forging, molding, weaving, and stitching are metaphors for how we invent and discover ourselves. By paying attention to how you make things, you will understand more about how you make yourself.



Dylan Goldweit-Denton

Shaolin Feng

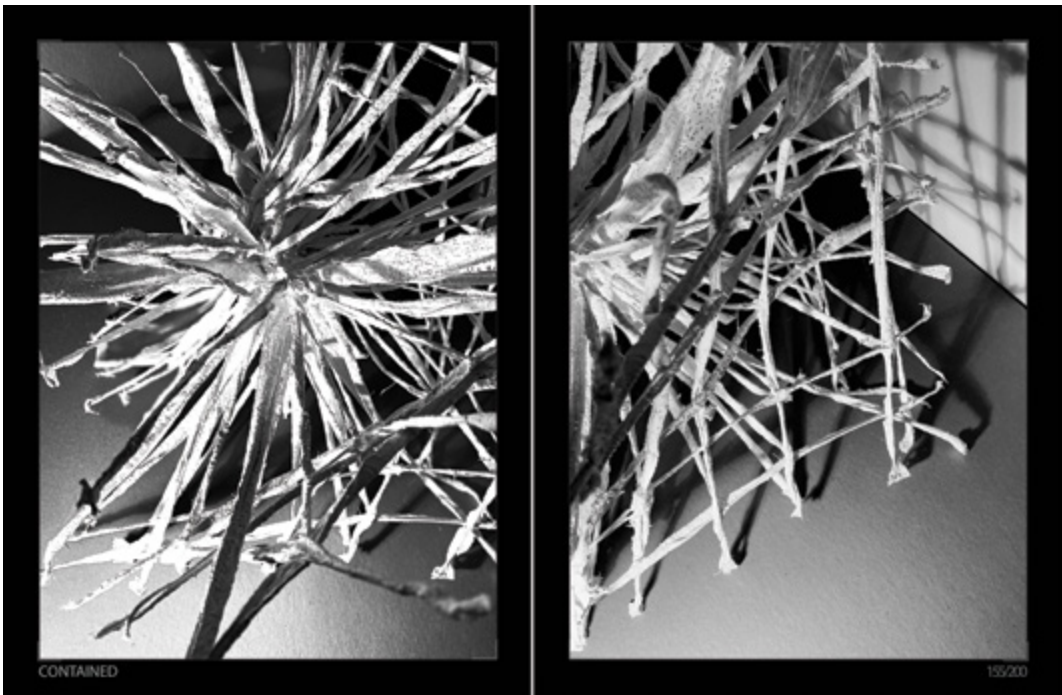
Inspired by my daily food journal, this project relates to food and the way it shows my love for life and reflects my state of life. Taking the elegant textures of a dumpling as a starting point, I translated these into four material objects to compose my dream kitchen—a crucial connection between parts of a house.



Christopher Spyrakos

Welcome to *Introspective Futurism*, built over and with the essence of time. This project consists of a series of creations that reflect on the concept of time and were based on preoccupations and occupations that were generated through time and have left a mark on me.

Sofia Rivera Saldaña

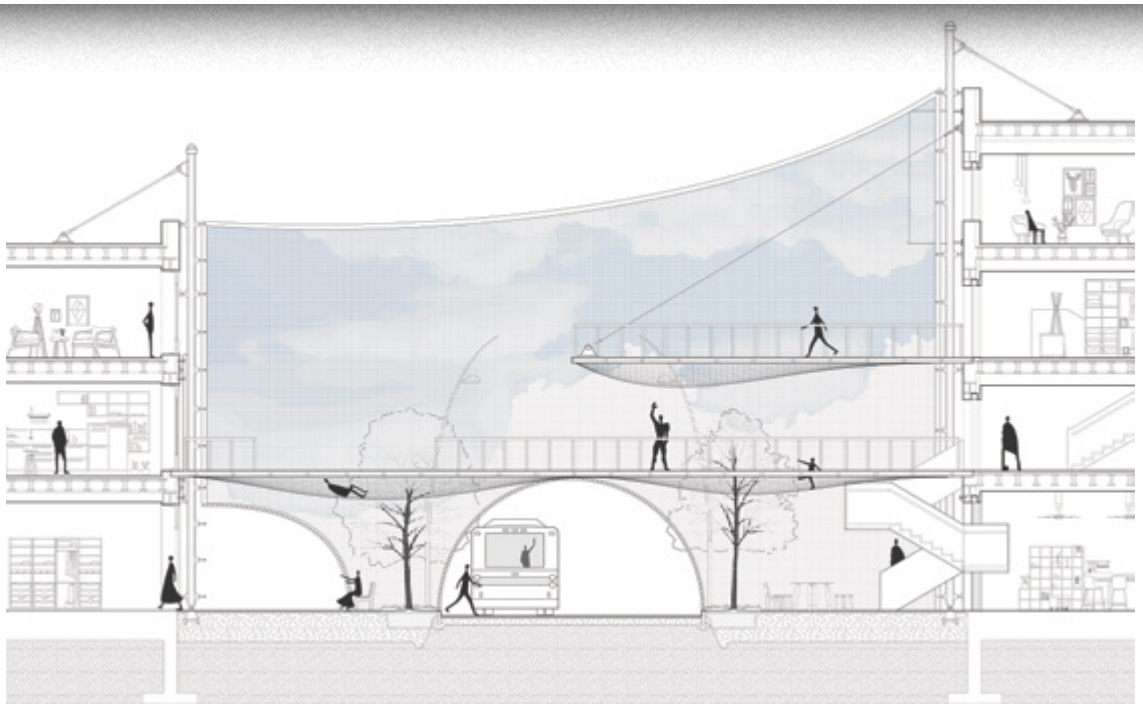


<THE STREET STUDIO> Jing Liu

In late Modern city planning, street design was almost entirely driven by traffic planning parameters with moderate consideration for vegetation. Today, from the homeless population in LA's Skid Row and London's tunnels, to the surveillance system deployed via street cams in Beijing and Hong Kong, from Google's much-contested Sidewalk Lab pilot in Toronto to the pink pussyhats and the yellow vests,

Byungryoung Lee

This project expands the public realm of Fulton Street into the void spaces between its diverse commercial and historic buildings. It reveals invisible but present interactions on the street by introducing light mesh structures that can be occupied.



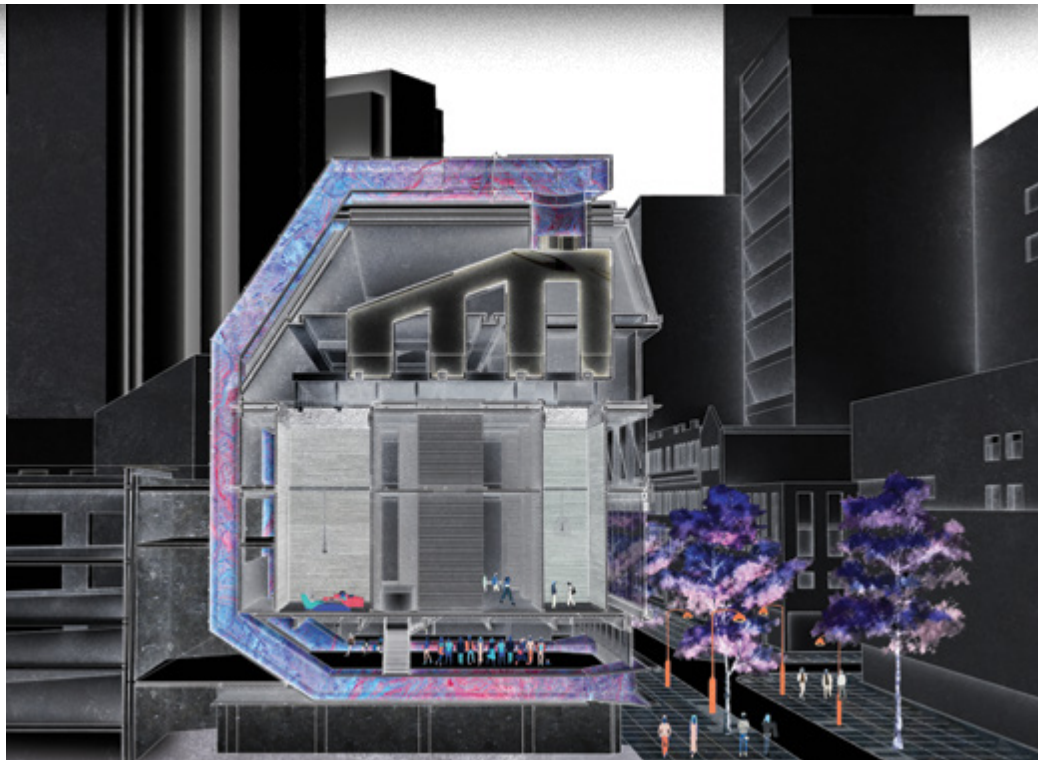
Haeri Choi

Bubble Puddle Cuddle is an imagination of utopian space for both people and cars. Let's enjoy the transformation of the parking lot—which used to be full of dead cars—into an amusement park combined with a car wash (bubbles) and pool (puddles) cuddling your company!

the street in the new millennium is nothing short of the new frontier of cultural expression, public discourse, and technological transformation. Thus in the streets around the world, along with the apparent as well as latent fault lines of social fabrics and technological apparatuses, profound fractures can be seen everywhere. This studio researches the new players in the street, rediscovers past experimentations that might still offer relevance, and studies possible new typologies that might be constitutive of contemporary discourse.

Euna Song

Facades are not simply a costume covering a building, but a medium covering the street. Buildings are objects that soak up energy in protected, private areas and dump trash into streets. To reverse this circulation, this project creates a public area that merges infrastructure and spaces to improve the street environment.



Wendy Yunting Guan

<KITCHENLESS STORIES> Anna Puigjaner

This studio looks at the contemporary reality of the city of Lima as a radical trial-and-error urban and architectural experiment. Studying the current community kitchens as a starting point for architectural speculation, the studio researches and understands how these urban infrastructures operate to imagine possible futures for the city of Lima. As a response, the students speculate and

Adina Bauman, Luiza Furia

The Reclaimed Domestic addresses the lost economic value of domestic work by bringing it into the urban realm. Lima's communal kitchens are expanded to include communal domestic work and education as a way to redistribute the labor burdening young girls and tackle biases.

Luna Yue Zuo, Jamie Vinikoor

design a contemporary domestic landscape where homes rather than being isolated entities are part of a complex whole of shared infrastructures. The students understand the home not simply as an isolated space but as a part of a wider system where the boundaries between public and private, urban and domestic spheres are blurred, but also understand the kitchen as a tool able to redefine preset social, political, and economical systems.

Azul Klix, Ibrahim Kombarji

We propose *Kitchen Parliament* to empower displaced social sectors through a network of strategically positioned spaces. Within the context of these open parliaments, we help visualize some of the forgotten issues that constantly reshuffle the political power-play in Peru.

Andrew Keung, Kabir Sahni

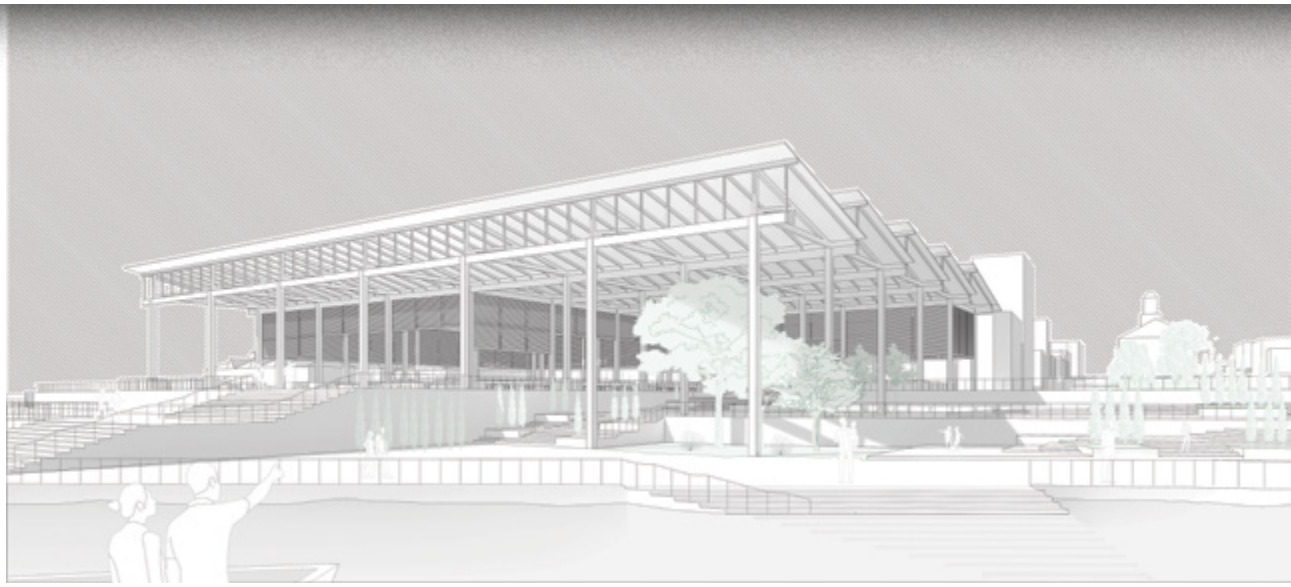
Potluck Publics is the hyperlink of domesticity, open-ended props, and platforms to confront quotidian life in Lima. Considering the future projection of self-made barriadas, they hope to amplify the potential of open-work and existing descendant-ascendant negotiations. These barriadas are re-engineered as improved co-capitalists, yet foster inter-social contracts and communal piquancy.

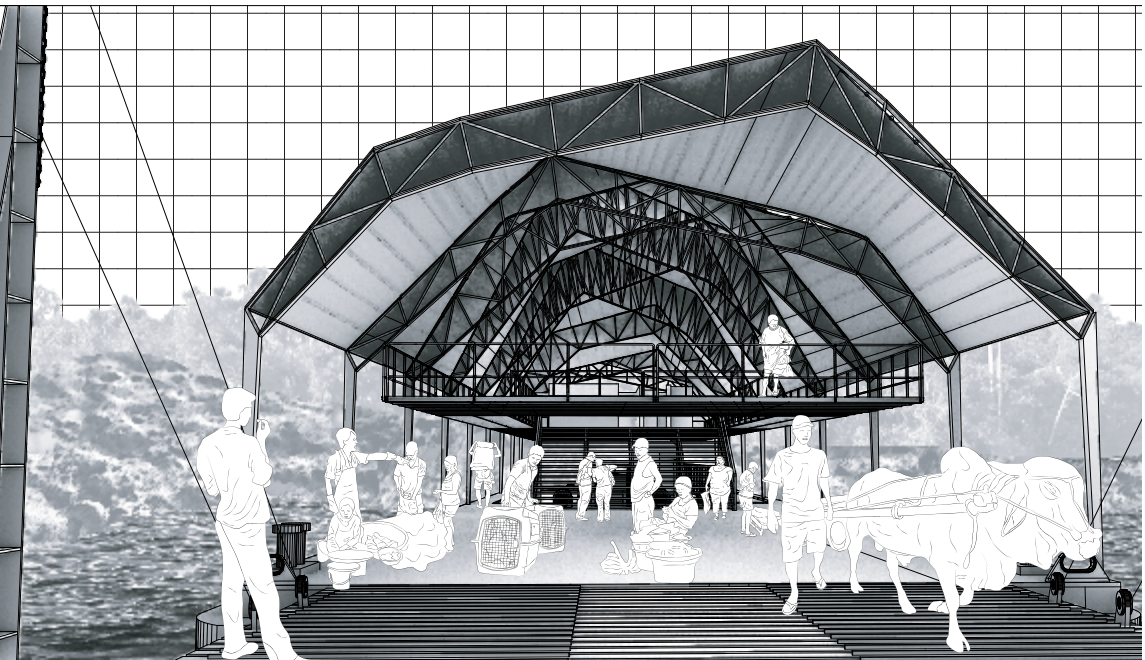
<AMAZONIA AFTER FITZCARRALDO> Pedro Rivera

In 1982, Werner Herzog went to Amazonia to shoot Fitzcarraldo. The character decides to take a shortcut and transport his ship up a muddy hill to avoid water streams. The scene illustrates the clash between the time of the river and western civilization. Five hundred years after the first European expeditions, the forest, its populations, and cultures are still understood as enemies to be

Hongyi Chen, Xinyi Zhang

The market is a connection point between city and rural areas; it is no longer a one-way trade market. Co-Market utilizes the advantage of the city to feed back to farmers, financing and educating them to facilitate more efficient and healthier methods of land management.





Lucy Navarro, Gauri Bahuguna

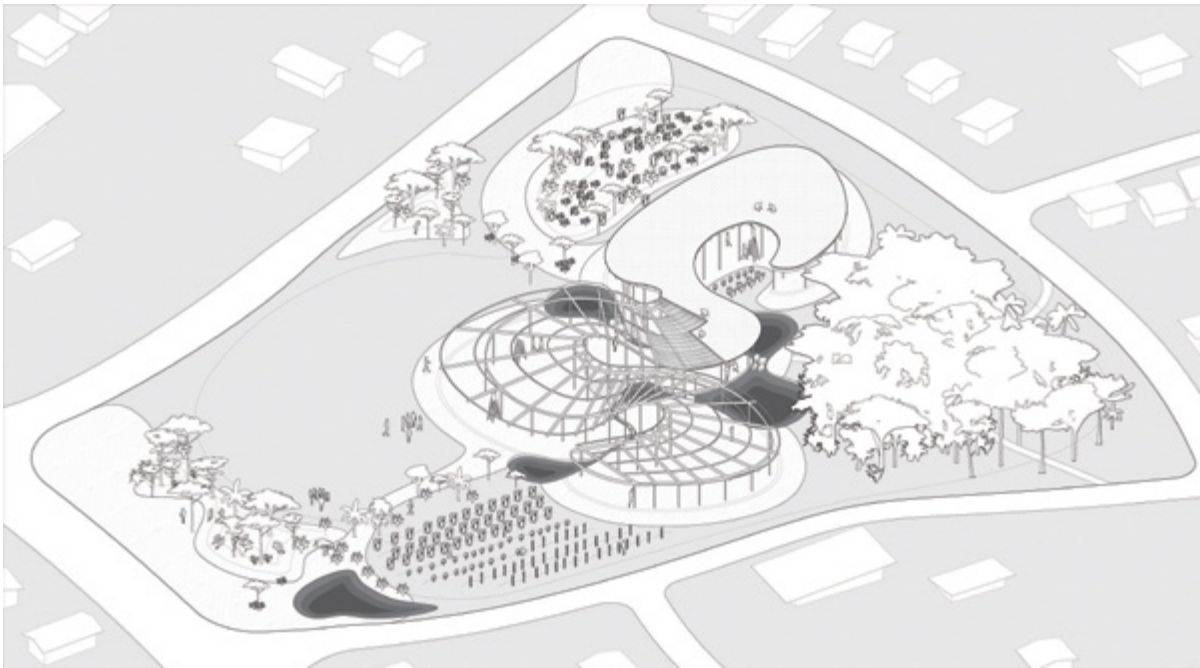
Our proposal operates as a collective in the waterways of Para, introducing a series of architectural interventions that connect remote ribeirinhos. It aims to develop social cohesion and collective bargaining strength by configuring and reconfiguring the relationships of those involved in a complex supply chain.

defeated and exploited. In this context, what does it mean to design for Amazonia? In the studio, students investigate networks and systems at a local and global scale and propose alternative development scenarios through buildings, infrastructures, and public spaces.

Maxime St. Pierre, Hector Garcia

Marc Francl, Julia Pyszkowski

Manaus Dialogues Network proposes a network of community centers focused on the strengthening and adaptation of urban indigenous culture through language revitalization by providing audio/visual recording and broadcasting programs, education, archive, and gathering spaces.



<MIXED-USE, STAIRCASES, SOCIAL> Hilary Sample

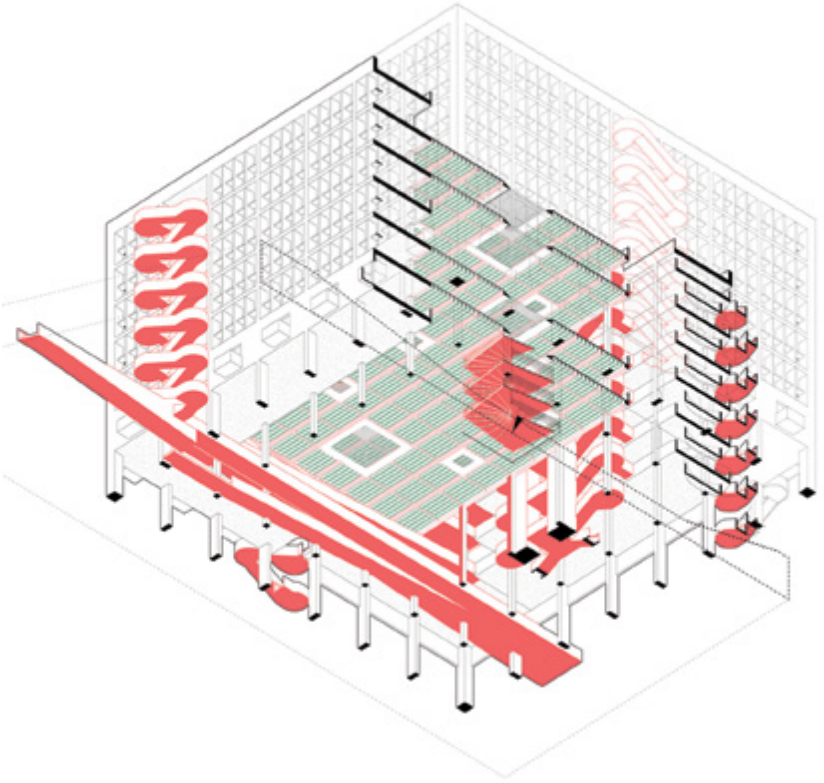
This studio investigates the qualities of “large scale public spaces contrasting with the small private-scale patterns required within.” Given a generic structural grid and nondescript facade, that signals an architecture that is adaptable in the future. This studio researches, examines, and designs a new paradigm for social spaces within a proposed mixed-use program. Staircases, passageways, and

Bokang Du

This project aims to propose a sculpture museum from a generic circulation element: the staircase. Based on the Brion Cemetery by Carlo Scarpa, which expands the realm of steps into the sense of monumentality, this project explores the potential of steps in the urban context, while maintaining its sculptural qualities.

Qiazi Chen

Open Staircase discusses notions of flexibility, mixed-use, and interior-versus-exterior through vertical circulations: staircases. With a corresponding generic and repetitive structure, the design responds to questions of social interaction in today’s public and shared spaces, from single stairs to a multiple circulation design.



associated vertical circulation elements can be rethought as interconnected social collective circulation space(s) instead of discrete, or residual spaces. This studio explores the intersection of the social, technological, and cultural practices within the discipline of architecture. The final design problem is a set of connected, collective circulation spaces, stairs, elevators, escalators, ramps, landings, handrails, walls, etc . . . that propose a paradigm for reimagining the interior life of a building.

CJ Wang

This project explores the monumentality and publicity in Washington, D.C., and questions and speculates a new mixed-use building typology. Monument, community, residential, and commercial space composite and redefine new normality. Progressive architectural solutions as such must combine the dynamics of evolving economic and social systems with urban place-making.

Guangwei Ren

Luyi Huang, Yanan Cheng

Cultural Nest is a cultural community center located in downtown Washington, D.C. In contrast to surrounding luxury blocks, we use wood, a renewable building material, to address climate change.

<SOMETHING OF VALUE: ARGUMENTS FOR ARCHITECTURE AS A VALUE PROPOSITION>
Galia Solomonoff

The studio's mission is to design Something of Value. The students design for an assumed "client," who is in charge of the "X" company, comparable to Related or SL Green in the US, that is headquartered in London. The "X" company owns millions of square feet of real estate around the world, the majority of which is

Alexandros Prince-Wright

The Underground is designed to activate commuting to improve physical and mental health, and to increase mass transit use by giving more space to riders and pedestrians. It becomes a space to suspend modern-day reality, to just discover and explore.

Gin Jin, Munise Aksoy

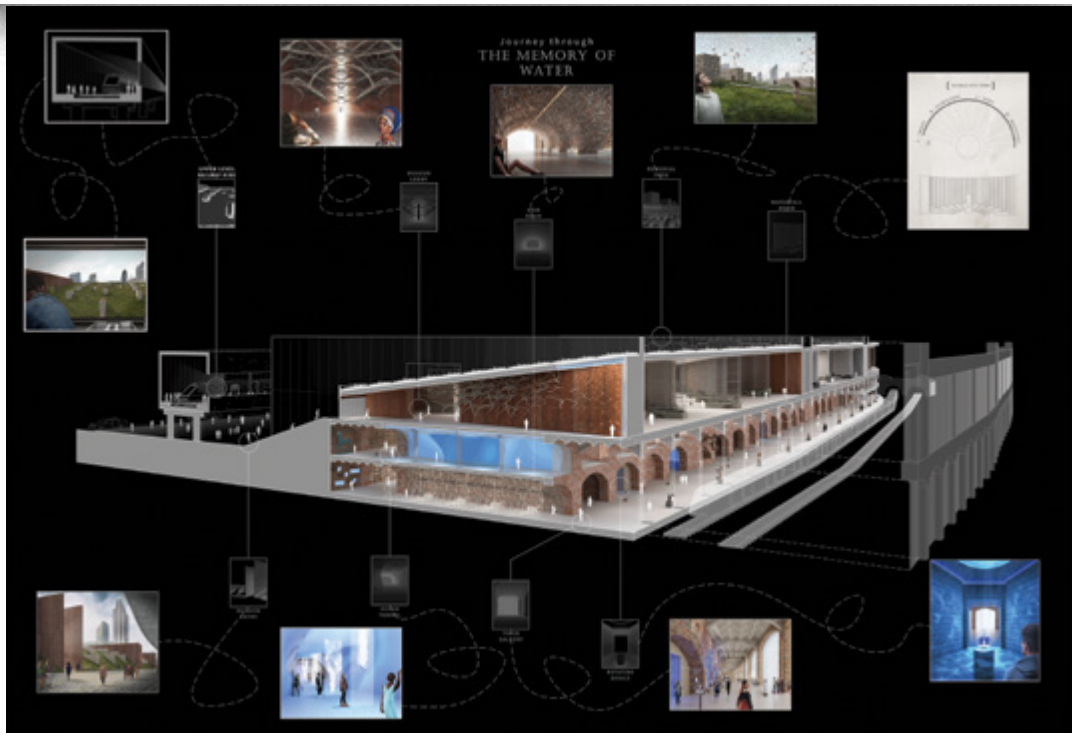
arTech is designed to contribute value to London City's economy by connecting art and tech creatives and, ultimately, the public through observation, participation, and consumption. This new typology breaks the premise that in 21st-century production design and engineering must take place at different locations and in the hands of specifically trained expertise.

Yoonwon Kang

commercial office space. With commercial office space currently shifting towards sharing types, the client wishes to experiment with new hybrids that combine work, art, commerce, and education, but not residential use. The project is to design a building(s) as a “gift”, Something of Value, for the city of London, which would give the “X” company additional development rights in return, with the exact program to be defined by each student or team.

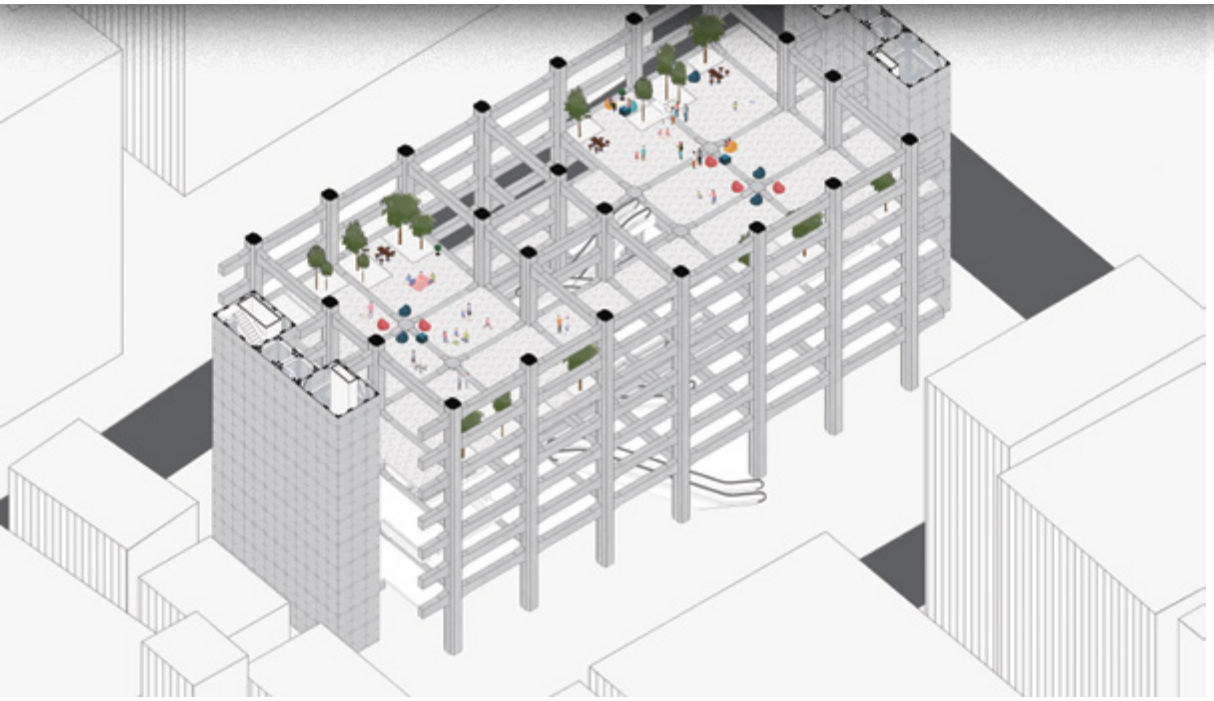
Oscar Caballero

By following the liquid traces of the British Invasions, this project navigates through the memory of water to tell the stories of the stolen heritage objects taken during British Colonialism. It aims to re-contextualize the pieces from other museums in London and open the possibility of a rightful place for resemblance and celebration of history and culture.



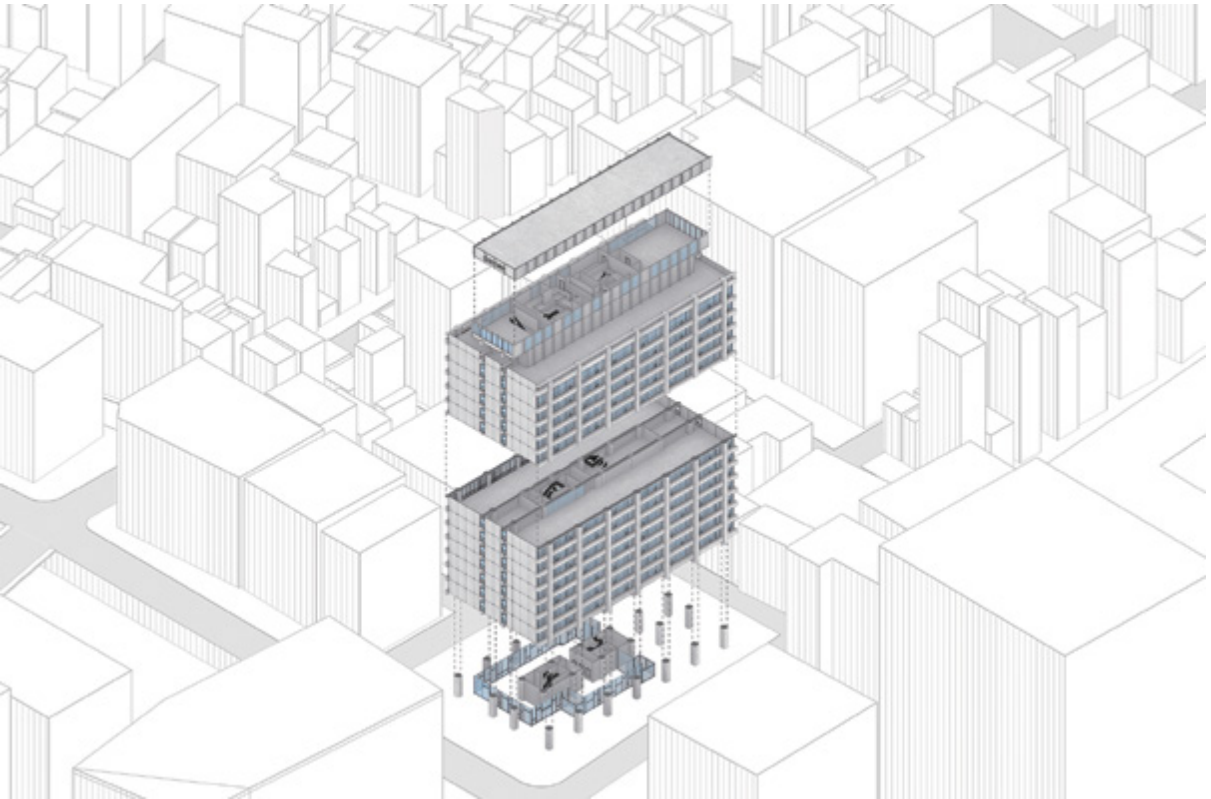
<OPEN WORK> Enrique Walker

This studio addresses three open-ended buildings in Japan, namely: Masato Otaka's Sakaide Artificial Ground, Sachio Otani's Kawaramachi Housing Project, and Kenzo Tange's Dentsu Headquarters Building. The studio brief is simple. Each student joins a team, is assigned to a building, and is asked to double its surface. Do you endorse openness, and observe, refine, or redefine the original script? Do



Chenyan Zhou, Yu Kon Kim, Kyu Chan Kwak, Helena Urdaneta

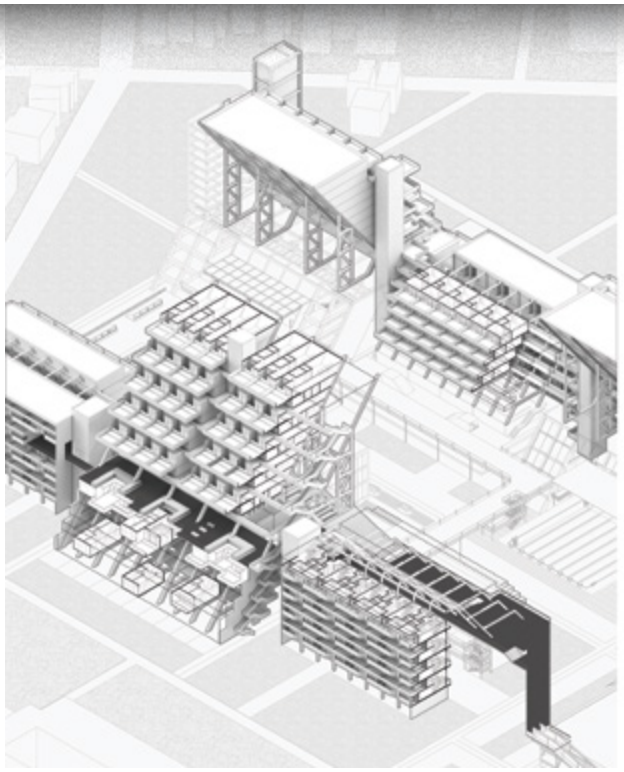
Dentsu Headquarters by Kenzo Tange was originally envisioned to generate a condition in which the city would happen below as programs float above the ground. We aim to bring back this public quality. Now, services, mobility, and structure engage with the public. Flexibility, light, and movement become the new language.

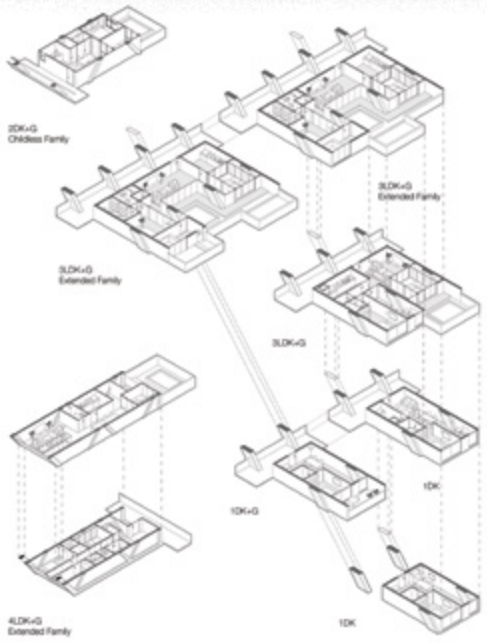


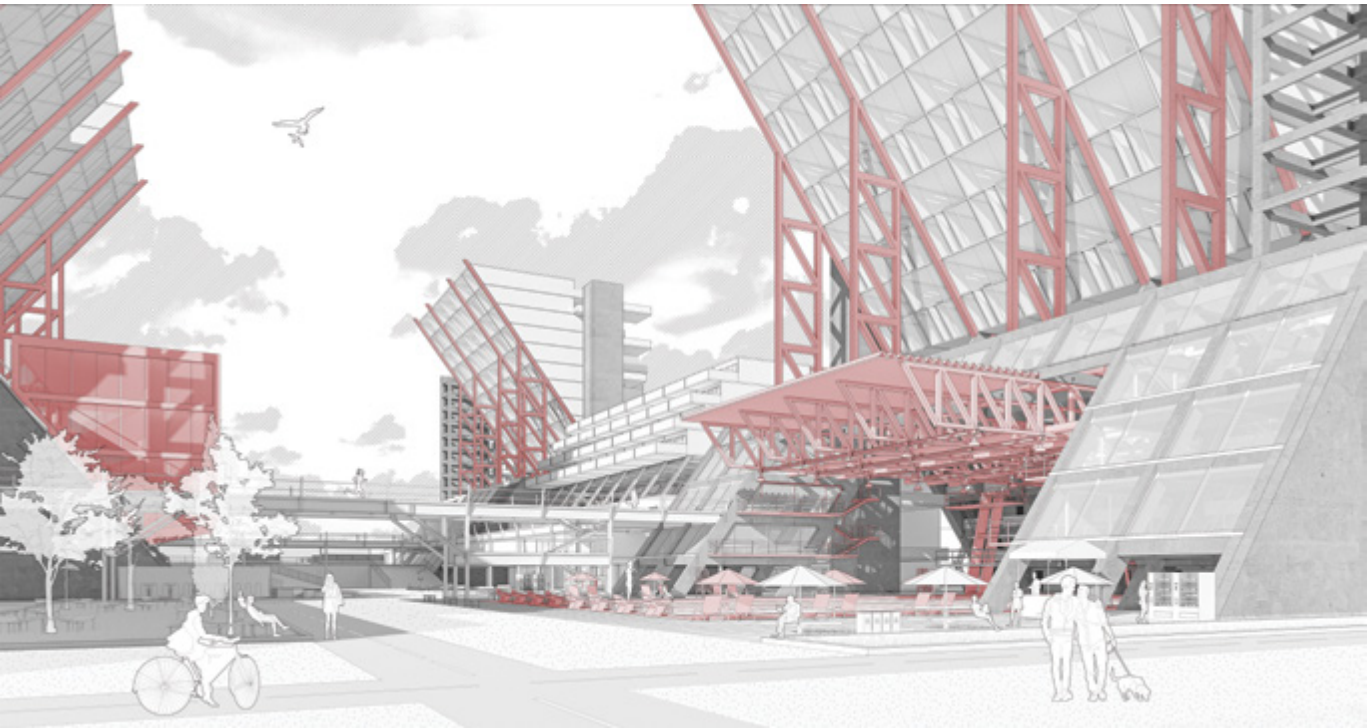
you argue against it, and monumentalize? What is at stake is to design in conversation with, and take a position on, a building and the arguments it advanced, and to tackle a longstanding question within the field, again, half a century later.

Qifeng Gao, Xinning Hua, Yechi Zhang, Haitong Chen

Japan's aging population is prone to loneliness and depression due to a lack of close family ties—this is the case for some residents of the Kawaramachi Housing Project megastructure. By doubling its public space and transferring the existing interior A-frame building into a larger campus, college and residential communities combine to increase vitality among the aging population.

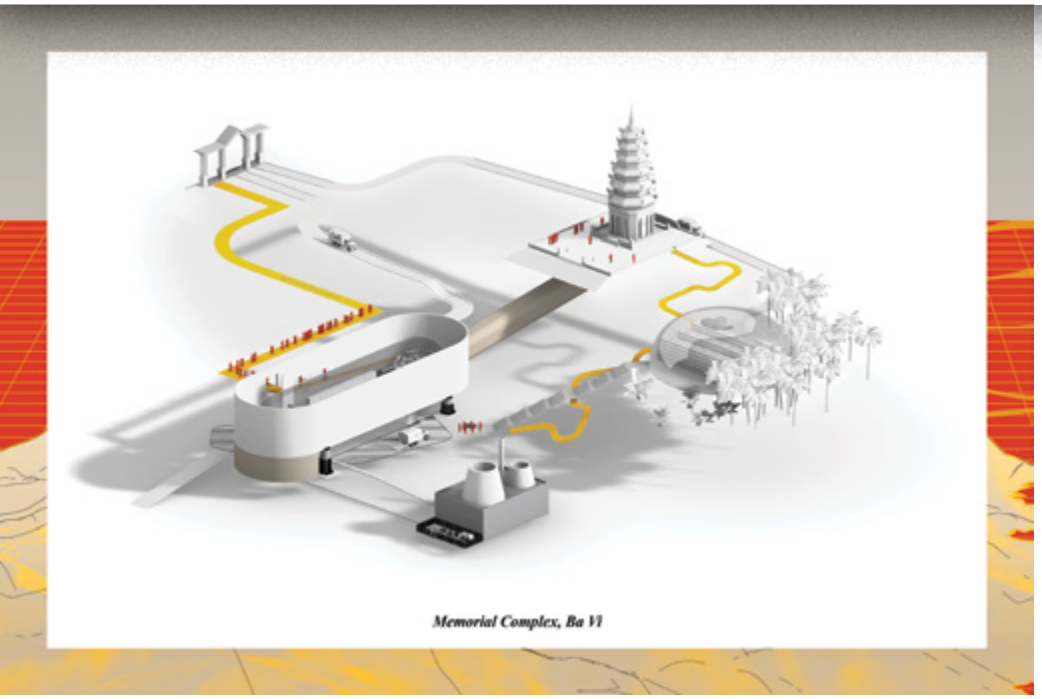






<CULTURAL AGENTS ORANGE (VIETNAM)> Mark Wasiuta

With the Vietnam war and its legacies as a persistent reference, in light of Vietnam's new antagonisms with China and other neighbors, and with the intertwining of culture and environment at stake, this studio worked through the architecture and cultural agency of concentrations. Through concentration the studio analyzed and reconceived cultural institutions, archives, and processes that



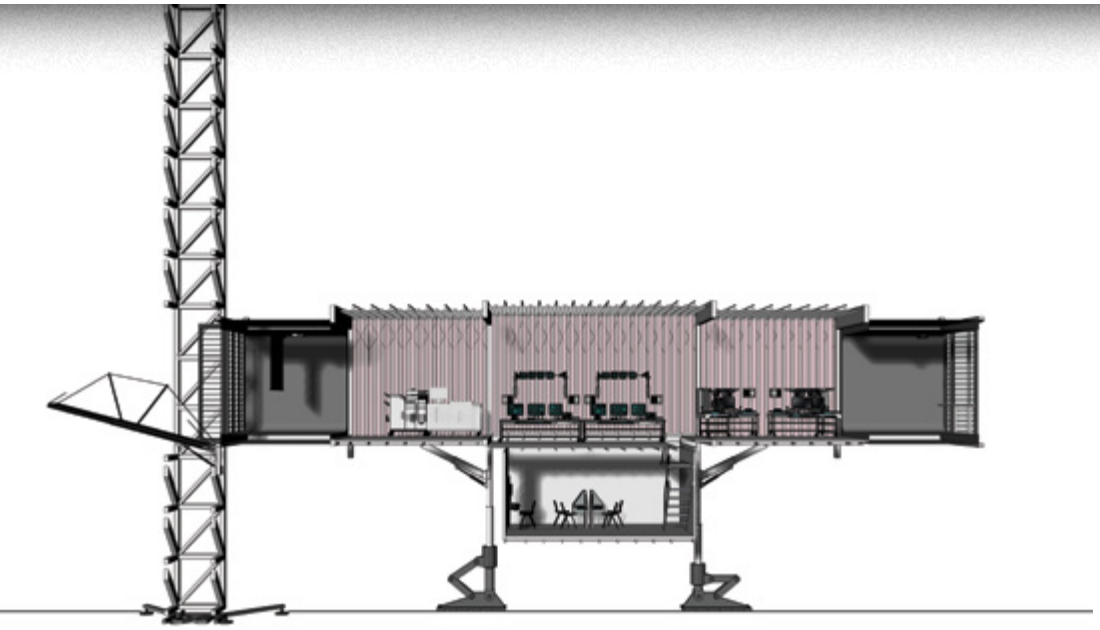
Grace Alli

Re-orienting the state's sacred and memorial core away from a mausoleum towards an additional center, the project proposes an expansion to the commemorative state-apparatus: a memorial complex to the long-term preservation of Ho Chi Minh located at Ba Vi Mountain in Vietnam—the site of the original act.

Sritoma Bhattacharjee

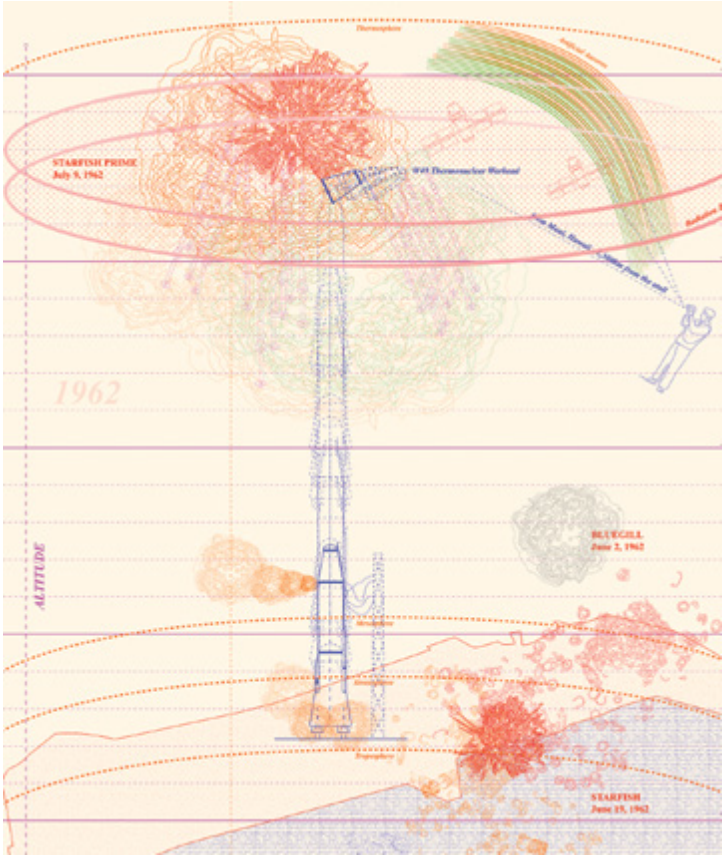
The proposal imagines the U.S. Embassy in Vietnam as a space of saturation: of messages and messaging devices. The architecture of this embassy employs media dispersion techniques that were used by the US in the Vietnam War, to physicalize and advance the narrative of diplomacy that the US plays out in Vietnam today.

assemble artifacts, objects, and bodies. It also studied Agent Orange, carpet bombing, and other elements of the chemical war that so drastically altered the Vietnamese environment and that continue to communicate their histories and effects. Hence, for this studio, concentration served as a marker of environmental contamination and alteration, cultural institutions, political histories, and their architectural and spatial manifestations



Sneha Aiyer

The project commemorates the mediatic devices of the military and marks the histories of bombing as mediated by scopic and informatics systems explicating ongoing decontamination processes. The juxtaposition of the two ends on the spectrum of the history of data visualization creates a symbiotic system, i.e. the exhibition loop and decontamination plug-in mobile modules.



Manuela Porto

Johnston Atoll can be read as an accumulation of toxic memories. Besides other military missions, it was used as a high altitude nuclear testing site and as Agent Orange storage ground. This project proposes three architectural instruments that safely enable scientists and visitors to visualize and understand the traces of toxicity and the history of this constantly injured territory.

Advanced Archi

Rosalie Genevro, Phu Hoang,
Tei Carpenter, Sara Zewde,
Peggy Deamer, Ziad Jamaleddine

Justin Garrett Moore,
Peter Mabeo, Yutaka Sho

Amale Andraos, Karen Fairbanks,
Theodore Prudon, Clelia Pozzi,
Barry Bergdoll, Mabel O. Wilson,
Galia Solomonoff

Christoph Kumpusch, Kate Ascher,
Patrice Derrington, Amanda
Bearcroft, Howard Goebel,
Amina Blacksher, Erica Goetz

Fall

Studio V

Cara Cragan, Julia Molloy-Gallagher,
Dominic Leong, Stan Allen,
José Aragüez, Philip Parker

Bernard Tschumi, Claudia Tomateo,
William Pearce, Thomas de Monchaux,
Jimenez Lai, Mark Wigley

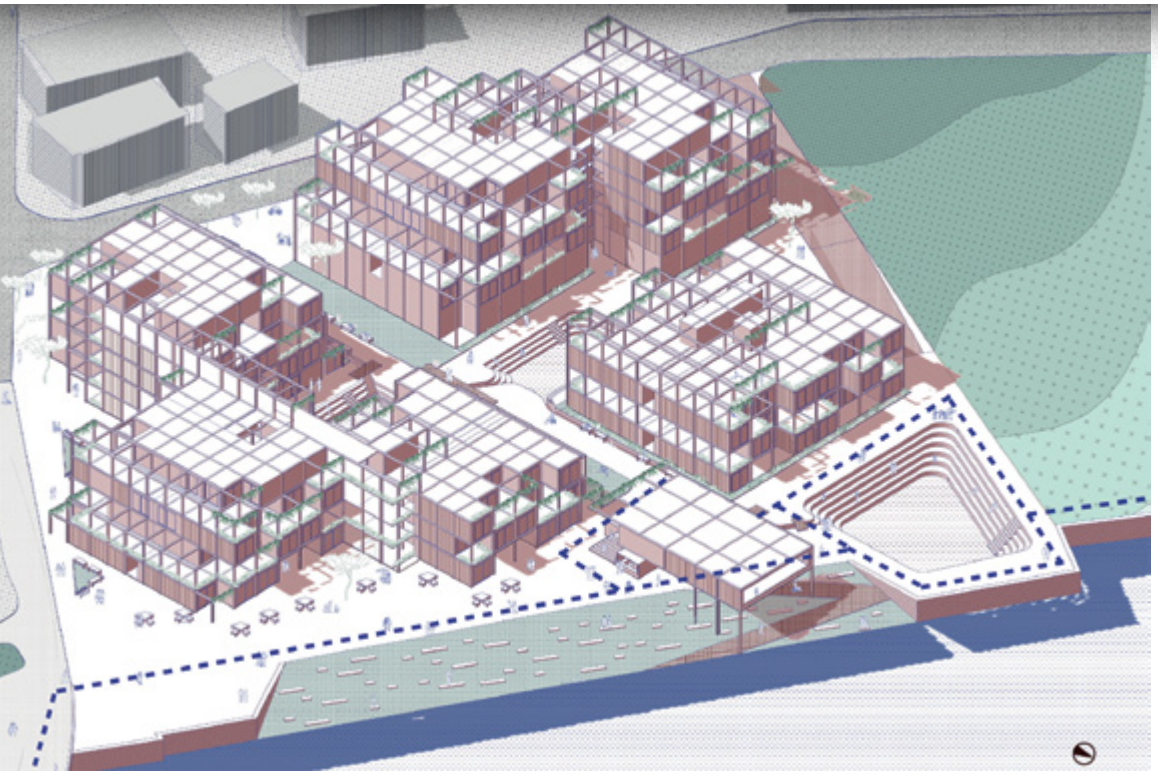
Andrés Jaque, Mabel O. Wilson,
Jerome Haferd, Marylynn Antaki,
Lydia Kallipoliti

Rachely Rotem, Nahyun Hwang,
Dominic Leong, Kristi Cheramie,
Mimi Hoang

2019

<A[X]*2> Kate Ascher, Christoph Kumpusch

This studio applies The Netherlands' "make room for water" approach as a foundation to inform a water-based development plan for a series of sites in Amsterdam, New York. Real estate and architecture students research the history, urban geography, and hydrology of this city and work in teams to identify development strategies and interventions underpinned by flood reduction initiatives.

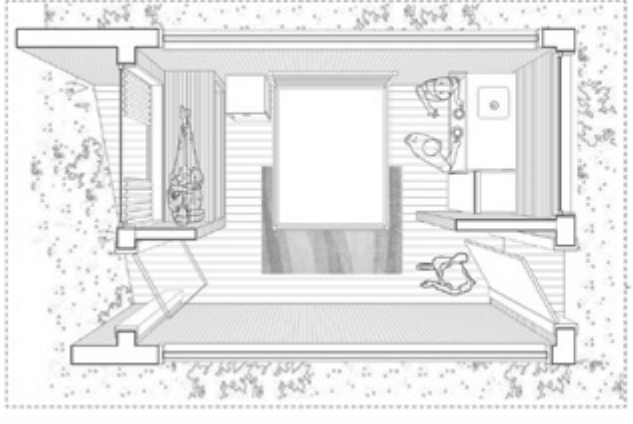


Sritoma Bhattacharjee, Sofia Rivera Saldaña, Jingchen Liu, Eunji Kang

This project revives the historic Guy Park Manor as a hospitality destination, anchoring the site as a heritage attraction.

Tarun Tony Abraham, Mohammad Ghassan Attar, Ye Xiong, William Zheng

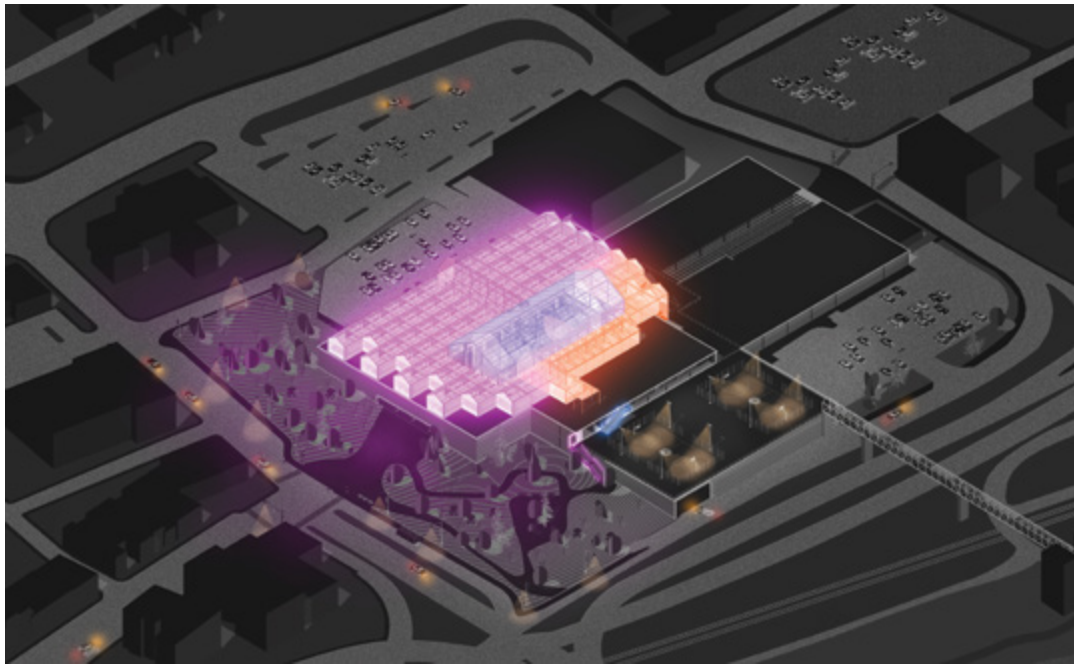
Through rigorous mapping, data-analytics, projections, animations, renders, and the production of a working augmented reality (AR) iPad application, *Post-Capital Architecture* produces a wide variety of representations of the current and future life of the fueling station, and the role of the architect in re-imagining such places.



The studio includes a week-long visit to Amsterdam, the Netherlands that focused on identifying alternative flood-reduction strategies and potential development opportunities. Students produce conceptual designs for a site and justify the feasibility of their proposed program based on high-level financial models.

Dylan Mo, Daniel Mauricio Bernal

Riverfront Cannabis Campus transforms the Amsterdam, New York-based project site into a place where cannabis is grown, processed, and sold.



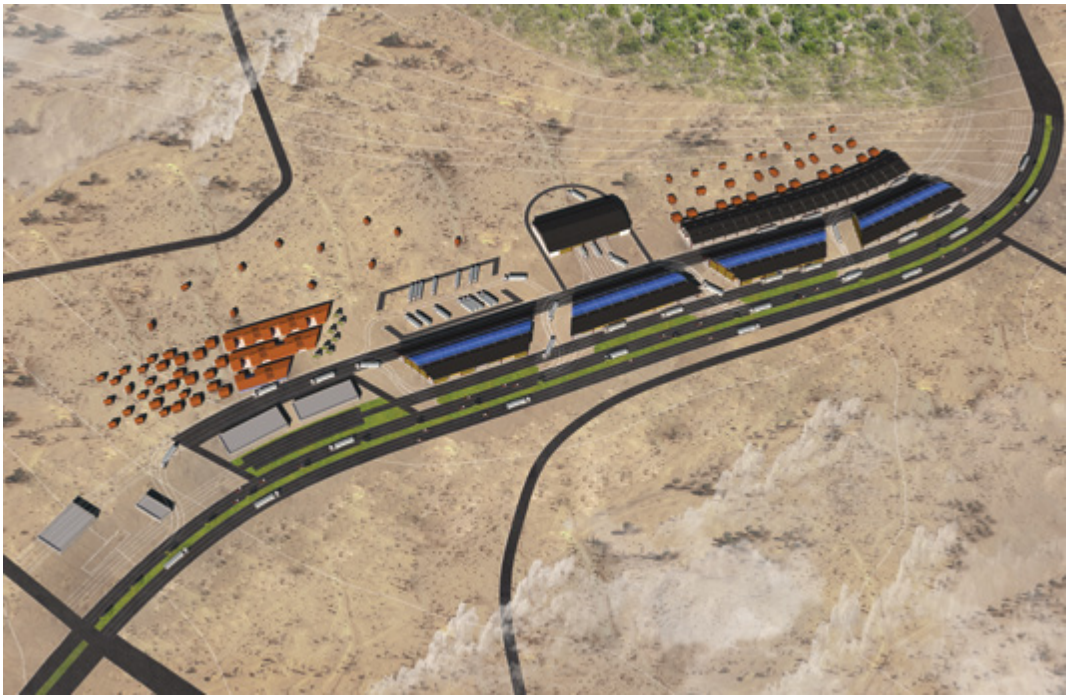
<EVERYTHING MUST SCALE: EMPATHY AND ENERGY> Michael Bell

This studio explores the realms of empathy at a close range in terms of detailed equipment and industrial design; at the architectural/industrial ground of a future fuel (energy) stop or a mobility station; and at the confluence of macro-economic and technological change. The site brings all this to bear in a realm where people are increasingly living and working beside robots; where truck

James Piacentini

Through rigorous mapping, data-analytics, projections, animations, renders, and the production of a working augmented reality (AR) iPad application, *Post-Capital Architecture* produces a wide variety of representations of the current and future life of the fueling station, and the role of the architect in re-imagining such places.

Alex Zhibin Li

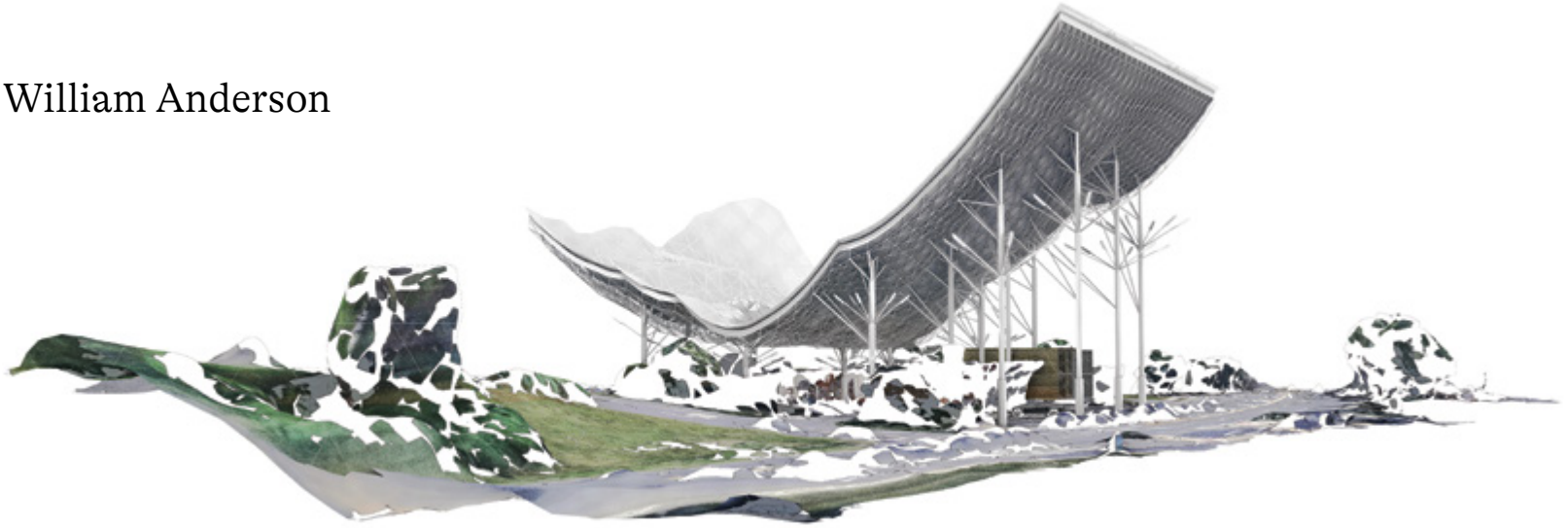


drivers are emerging from newly sophisticated near computer-driven trucks (if we still call them that); and where the public travelers mingle with the once-gritty realm of trucking. The studio focuses on the future of the nation's approximately 120,000 fueling stations and, in particular, a new form of fueling stations for electric and near-autonomous would-be cars and trucks. Trucks today are re-emerging as quasi-robots; their interiors mirror high-tech offices and become in effect architectural as the drivers are more passive residents of motion.

Dexter Gao

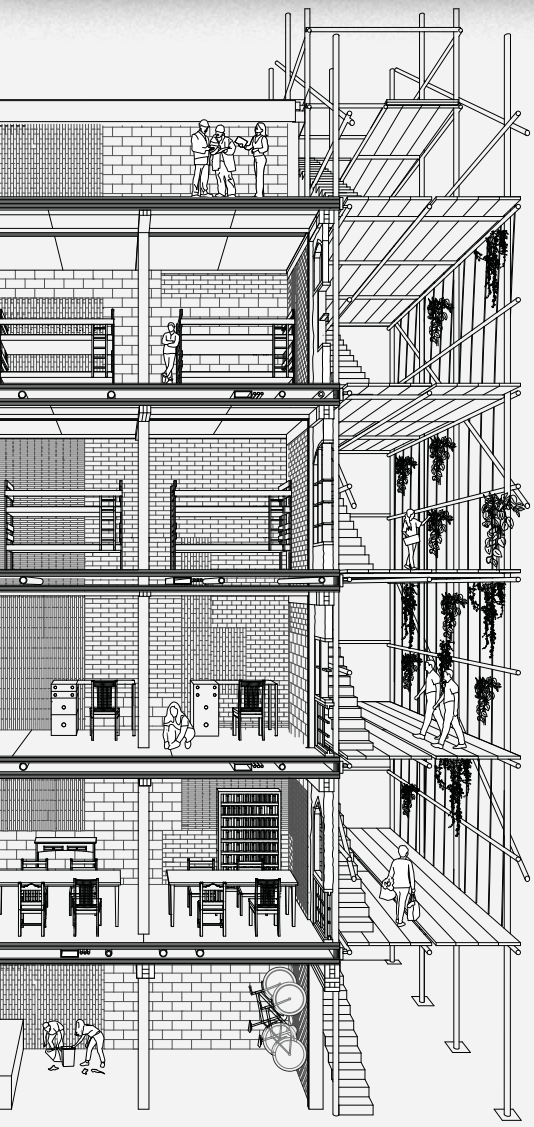
The project aims to balance the integration between the industrial demands of a large-scale truck stop with 90 parking spaces and a sustainable design proposal that merges infrastructure with the desert landscape in the Tahoe Reno Industrial Center. The objective is achieved by playing with current topographic situations to sustain a flat space for truck parking and circulation while developing recursive volumes interlocking one another above with firm supports of long-span structural systems to make sure the building mechanism works well for the concept of camouflage architecture.

William Anderson



<CLIMATE DESIGN CORPS: REINVENTING ARCHITECTURE, LABOR, AND ENVIRONMENT>
David Benjamin

This studio is structured as a mini-thesis project; each student designs their own site, program, position, and 11-year impact in terms of both carbon emissions and equality. They explore new modes of practicing architecture. In addition to re-imagining the approach to the climate crisis, this studio reimagines the

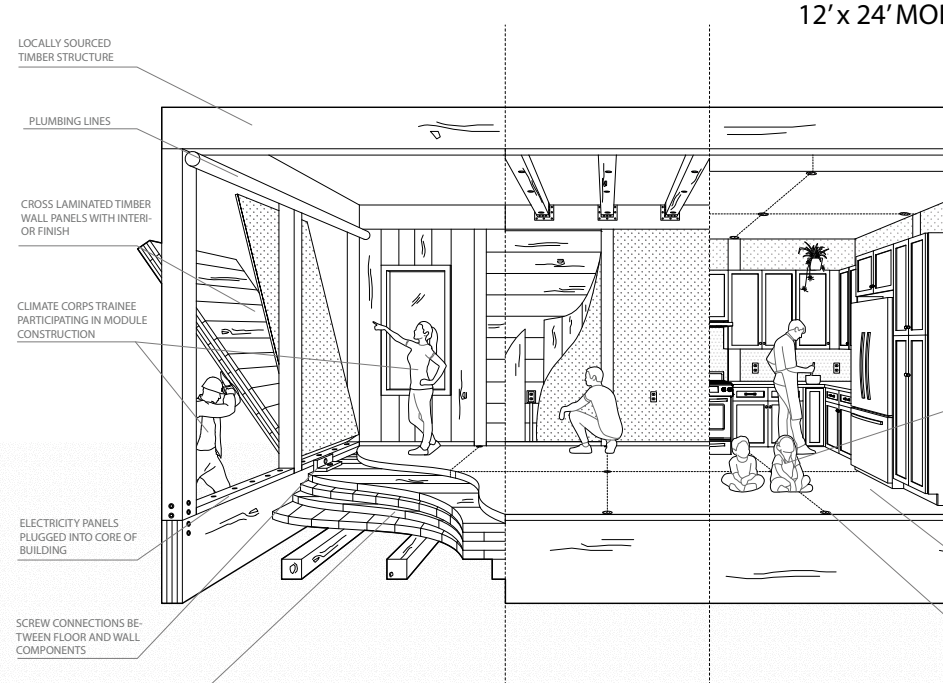


Adina Bauman

The Zero Waste Condition implements a policy that would prevent waste from leaving Manhattan.

Lena Pfeiffer

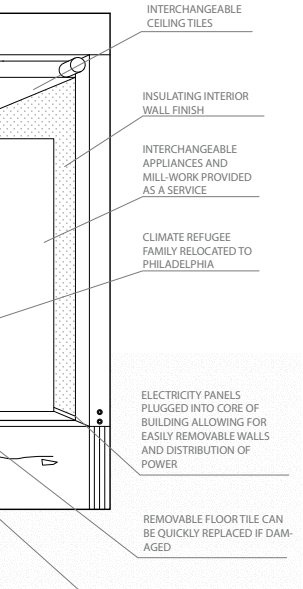
12′ x 24′ MOD



discipline. It challenges the hierarchies in the field. Building off the urgent need to reduce greenhouse gas emissions, the studio also addresses jobs and the way architectural work is structured and carried out. The studio reinvents materials, architecture, labor, and ways of life.

Qi Yang

DULE CONSTRUCTION



Julia Pyszkowski

High Time for Low Tech aims to cut U.S. household energy consumption in half by 2030 by eliminating the need for mechanical heating and cooling.

<PEDAGOGY IN THE POSTCOLONY: A WOMEN'S COLLEGE IN URBAN RWANDA>
Sharon Davis, Tyler Survant

The studio considered the role of architecture today in supporting or challenging tertiary education agendas in Rwanda, using the expansion of the Akilah Institute, a non-profit women's college based in Kigali, as the basis for the program. The studio explored contemporary pedagogical models, the legacy of

Gin Jin

The design concept—an open-air campus—derives from the comfortable local climate and the constructivism-based learning model adopted by the client which doesn't rely on traditional classroom spaces and schedules. Instead, learning takes place informally through the active participation and social engagement of students.

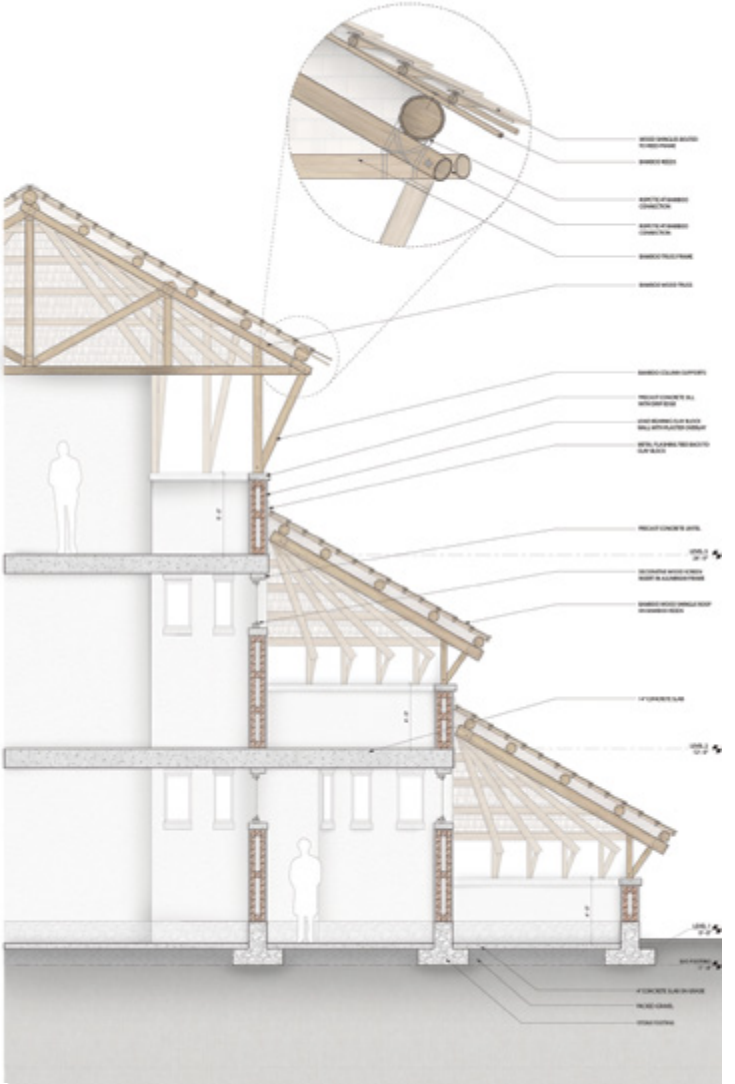
Niki Kourti, Xinyi Zhang

The new university is conceived as a combination of three distinct typologies and forms: a planted yard with circular rammed earth volumes, an uninterrupted curved concrete slab, and a monolithic brick volume.

colonialism in Africa, developmentalism and the impact of foreign aid, local materials and low-tech construction methodologies, regionalism, and passive environmental strategies.

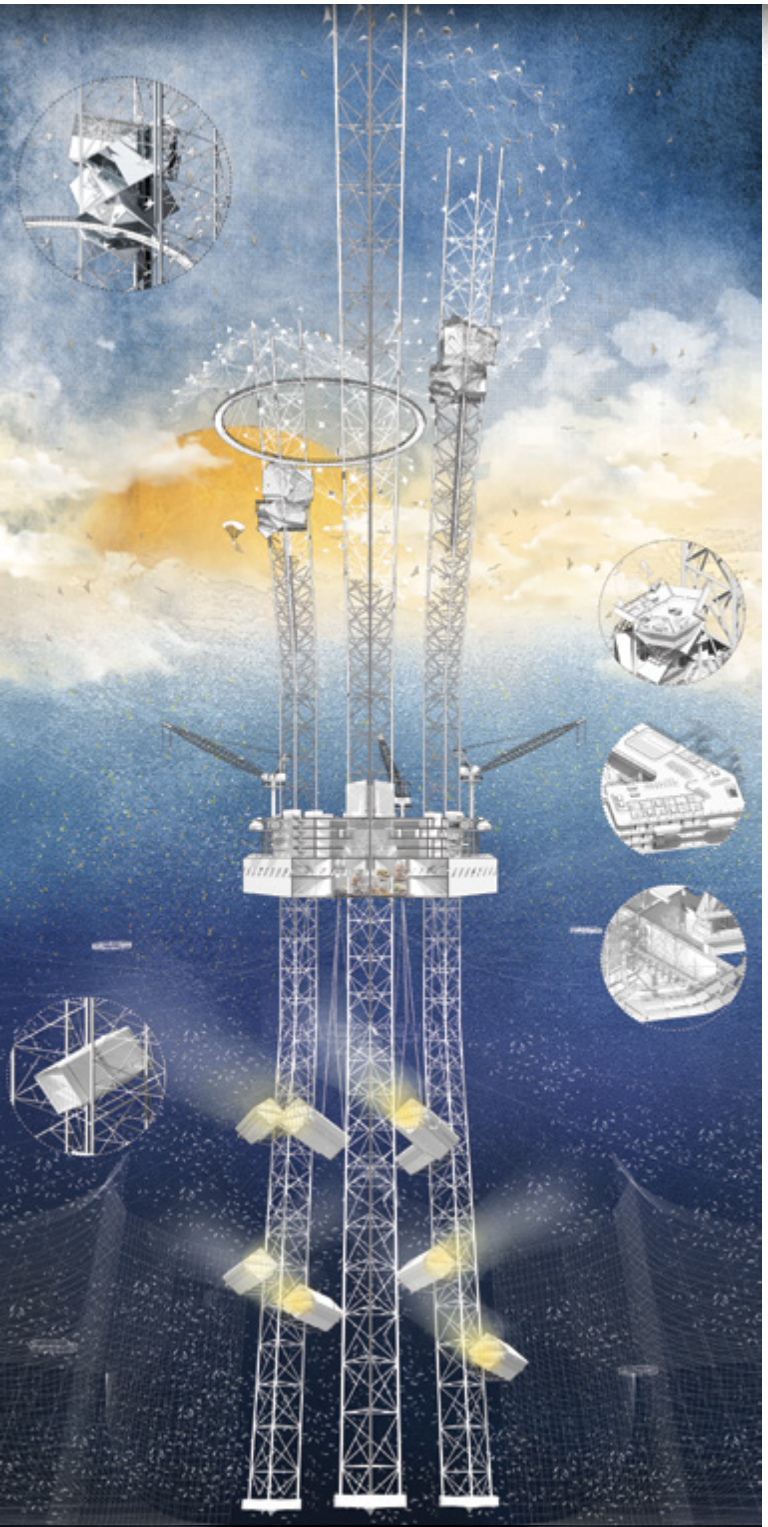
Becky Greenberg

Inspired by traditional African basket weaving, the project uses woven programmatic relationships to create a blended learning environment in which learning, coaching, and gathering spaces are intertwined for a holistic educational experience.



<BEING-WITH: COEXISTENCE AT A PLANETARY SCALE> Phu Hoang

This studio expands the boundaries of what are typically considered to be “public” and “works.” Rethinking public works as multi-species at both architectural/infrastructural and planetary scales, the studio proposes ecological imaginaries in response to the Green New Deal. Speculating on a carbon-free climate future in coastal Louisiana requires students to design at both habitat and planetary



Haitong Chen, Peizhe Fang

The design of *Post-Oil* focuses on deserted oil rig networks. We transform original rigs into vertical bio-habitats to facilitate instant responses to oil spills, a shelter for different species, and introduce public recreational programs.

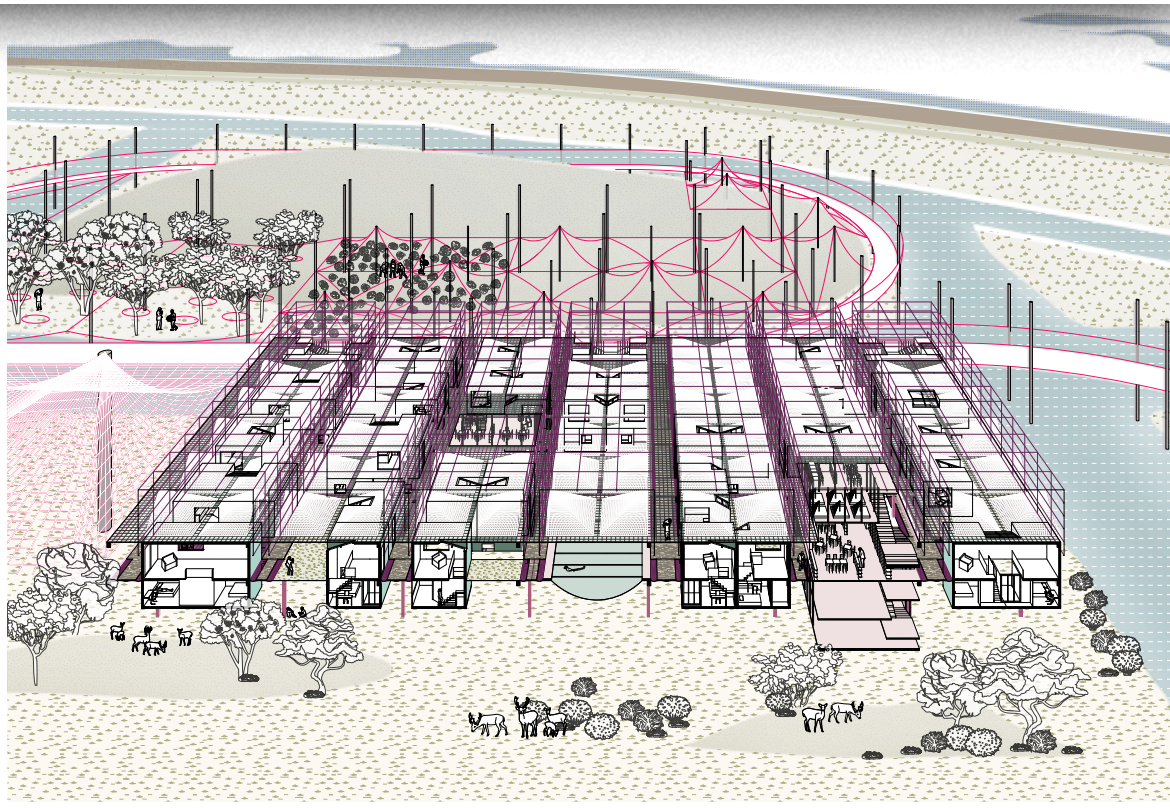
Yechi Zhang, Qiazi Chen

We are proposing a new decentralized power-grid prototype for Green New Deal—a mixed-use reverse electrodialysis power plant—and replacing the previous program with public works that include a farm, laboratory, and harbor to support the idea of “post-coalism”.

scales while avoiding thinking in binary terms of environmental relationships—human vs. animal, society vs. nature, organism vs. environment, even wild vs. domestic. The studio commits to a different view: that architecture is an extension of the environment and, conversely, that the environment is found within architecture. Rather than thinking either/or, students will design for a state of "being with"—multi-species coexistence as climate action and envisioning ourselves as a part of, not separate from, the environment.

Chang Pan, Lu Xu

Floods resulting from sea level rise will soon force animals and residents into southern towns of Coastal Louisiana protected by the levee system, necessitating a new strategy of coexistence among multiple species. We propose a vertical netting system and safe haven for survival which relies on salinity farming and solar energy.

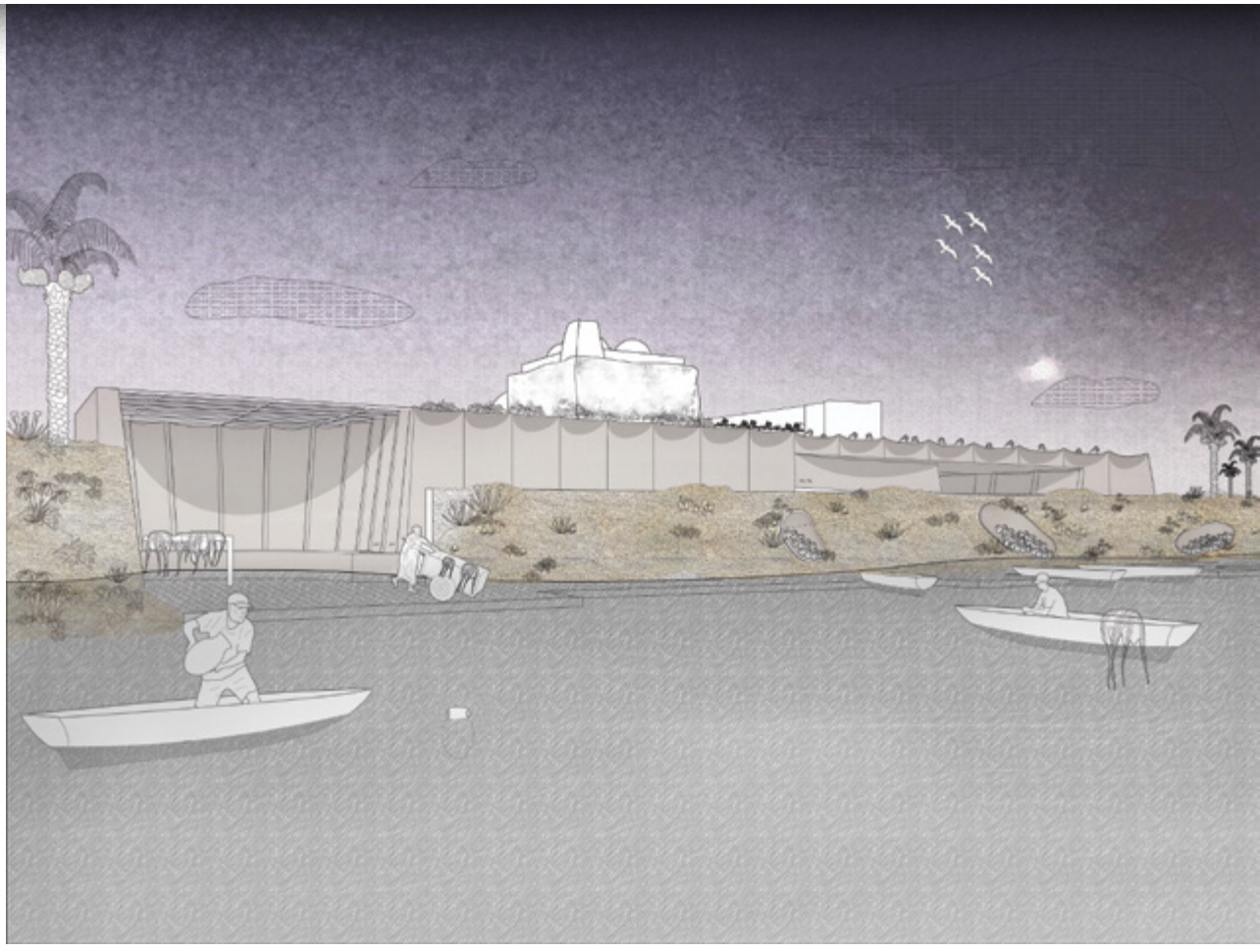


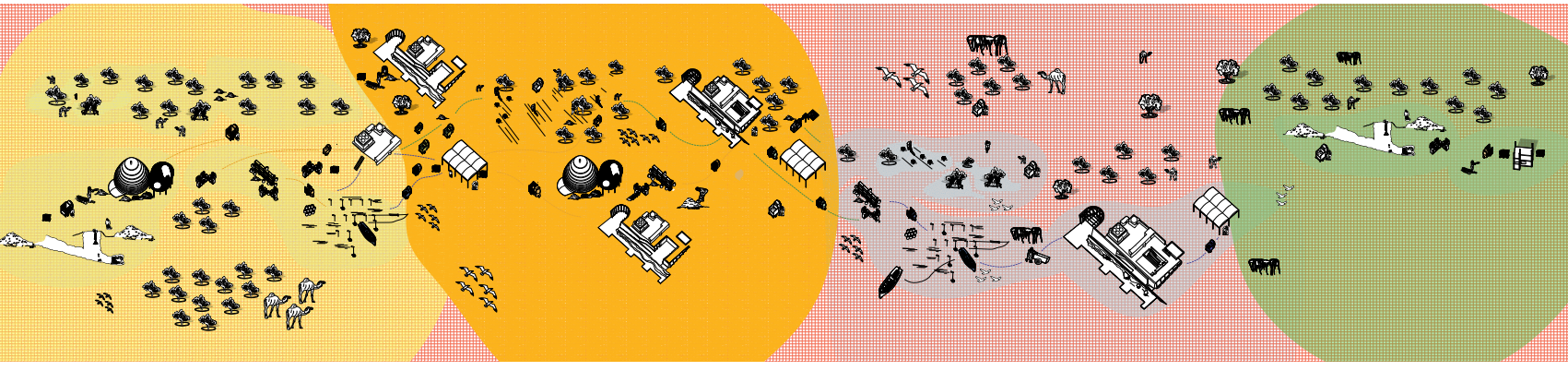
<DE-FENCING THE MOSQUE: INVESTIGATION INTO RURAL RELIGIOUS EDIFICES AND SETTLEMENTS OF DJERBA ISLAND> Ziad Jamaleddine

The island of Djerba, situated off the southeastern shores of Tunisia, has been ecologically and economically shaped by three landscapes: geological, maritime economic, and geographical. The arrival of the Ottomans during the 17th century and the French colonial powers in the 19th century prompted and then spurred the ↗

Max St. Pierre, Sara AlMutlaq

This project links Djerba's pottery and olive oil industries, proposing a "transect of operation" by which each economy can trade, grow, and survive.

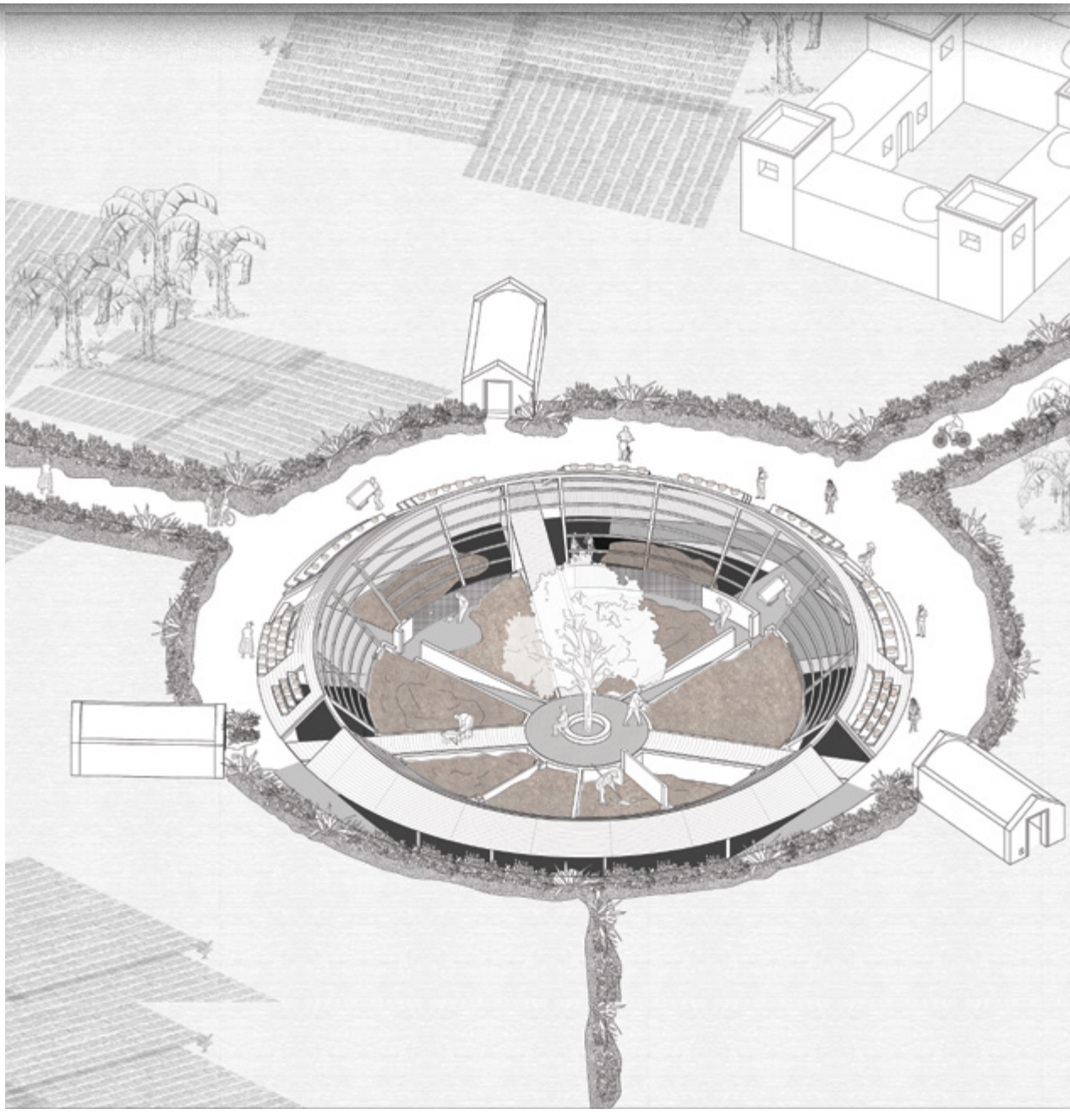




growth of the island's first city: Houmt Souk. Urban migration to the city has caused the abandonment of rural living and the desertion of vast numbers of mosques across Djerba's flat landscape. This studio revisits Djerba's mosques (and synagogues) as an architectural entry point towards addressing those territorial concerns, identifying critical sites of interventions, and re-inventing alternative model(s) of settlement that would bolster the resilience of the local communities, while fulfilling their spiritual needs.

Yuxin Hu,
Xiaoxuan Hu

This project investigates and intervenes on deserted rural mosques and other religious structures that are no longer required to perform traditional defensive functions on Djerba.



<TRANSSCALAR TOWERS, THE ULTRA CLEAR-GLASS PLAN> Andrés Jaque

This studio investigates projects that are a product of material research and exploration. Students work with earth materials and basic processes and configure them into a building that does not reference or represent anything. It's not an abstraction or a metaphor but exists as a physical reality, it is it. The very reality of the architecture lays with the material produced and the process of

Anam Ahmed, Victoria Macchi, Rafaela Olivares

Powerscapes addresses the gendered dimensions of the climate crisis by focusing on women and the disruption of their socio-economic conditions which consequently forces them to migrate. It functions as a prototype to propose a new urbanism that is an urgent need to adapt to this crisis.

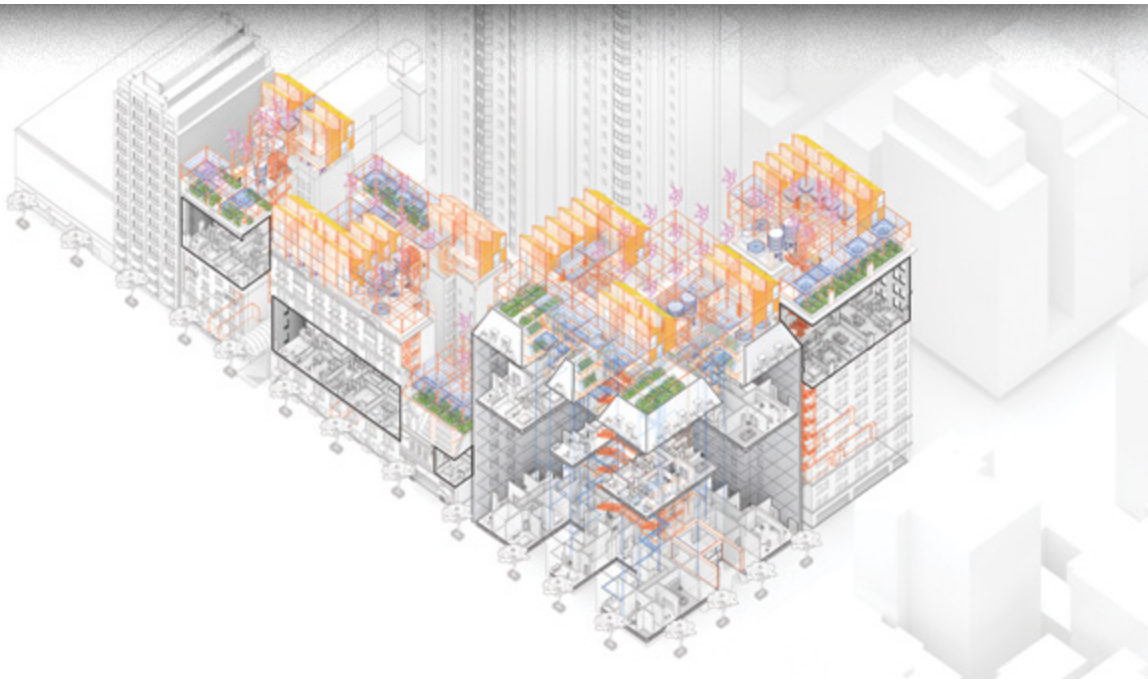
Frederico Branco, Frank Mandell, Christopher Spyrakos

Toxic Entanglements proposes a skyscraper at 50 Hudson Yards as an alternative for New York City's $2 billion waste treatment infrastructure currently in use.

its production. The design for a new Public Hall using unadulterated excavated materials, or unambiguously produced common materials, and simple approaches towards structure and massing offers a unique opportunity to the studio. The user populations of weary residents, recreating foreigners and goal-driven transients open a world of confusing social space, transactions, and negotiations which need a proper home.

Qifeng Gao, Zifan Zhang

Rebooting the City proposes "the crust," a new utilization of air rights that addresses climate change and functions as a socio-ecological urban infrastructure. The site comprises a block running from 54th to 55th Street between 6th and 7th Avenue, which is home to 683 residents and 233 apartments.



Xinning Hua, Yining He

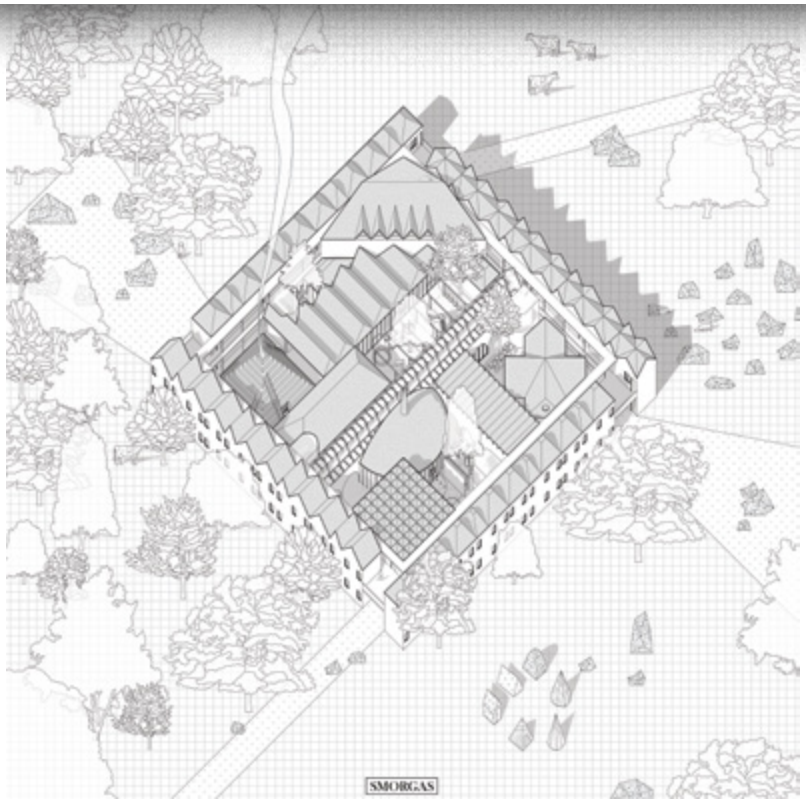
Mining the City proposes an alternative to conventional building upgrading strategies that incurs less embodied energy.

<THE CHEYENNE FREE STATE> Jimenez Lai

This studio is an applied-utopia. The students design a small collection of speculative arch-characters upon scattered urbanism like a smorgasbord of treats. This project is an independent commune for the cultivation and advancement of art, technology, and culinary arts. Alongside the architecture and urbanism, the studio also develops a series of short stories to consider the cultures contained ↗

Kabir Sahni

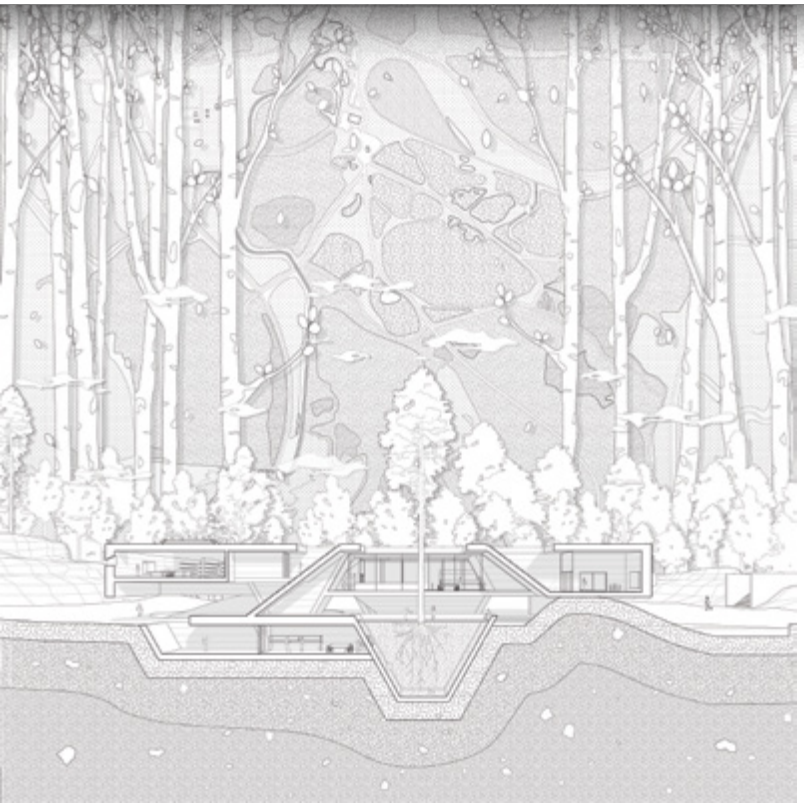
Daily Soaps is a piece of fiction. Or maybe a blueprint for a revolution. There is a need for new social contracts. Or just a revival of fossilized values. A social, professional, and architectural hyper-link is drawn to establish new social contracts–collective living.



Sultan Alfaisal

Angle of Repose is a building technique invented by using a pile of material, such as sand or corn, to create a natural cone that becomes formwork to create a concrete shell structure. Different materials moisture and particle sizes produce unique cone forms. This project creates habitable spaces using techniques such as stacking, overlaying, layering, and multi-pours.

within and between the buildings. Additionally, the studio develops a book to communicate the research, analysis, and speculations on the future of Wyoming.



Timothee Mercier

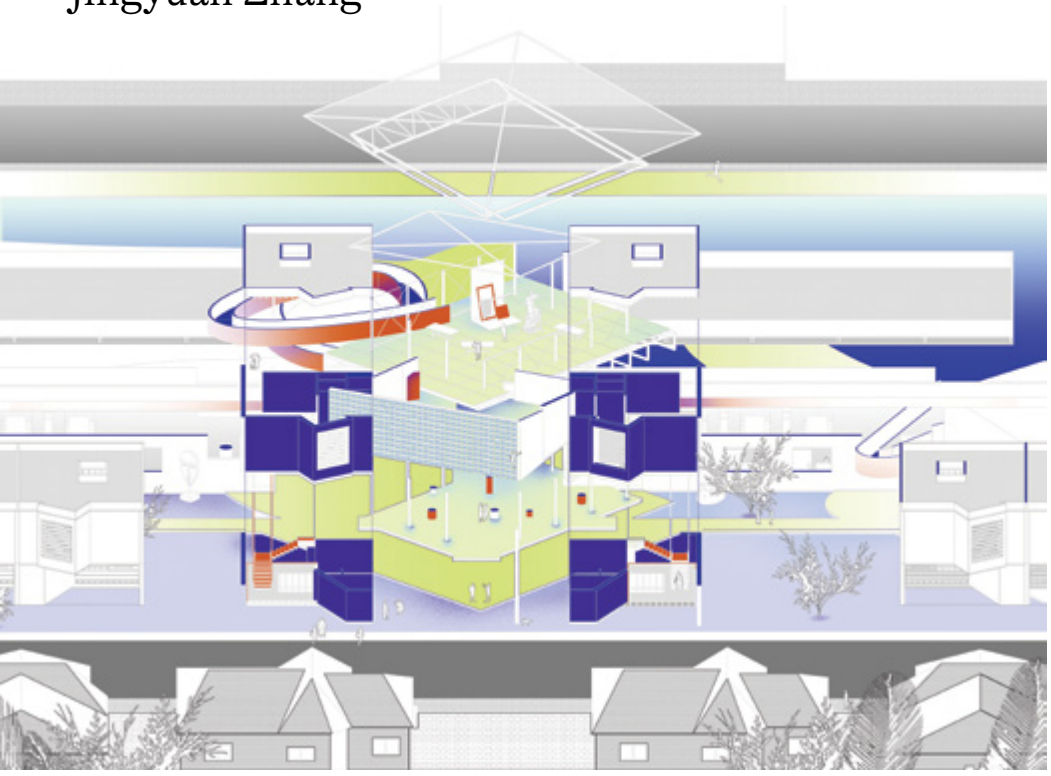
The Soil Institute is a research center for soil health and phytoremediation. Through its laboratories, archives, and landscape, the center will test and monitor soil from coal surface mines in the State of Wyoming and beyond.

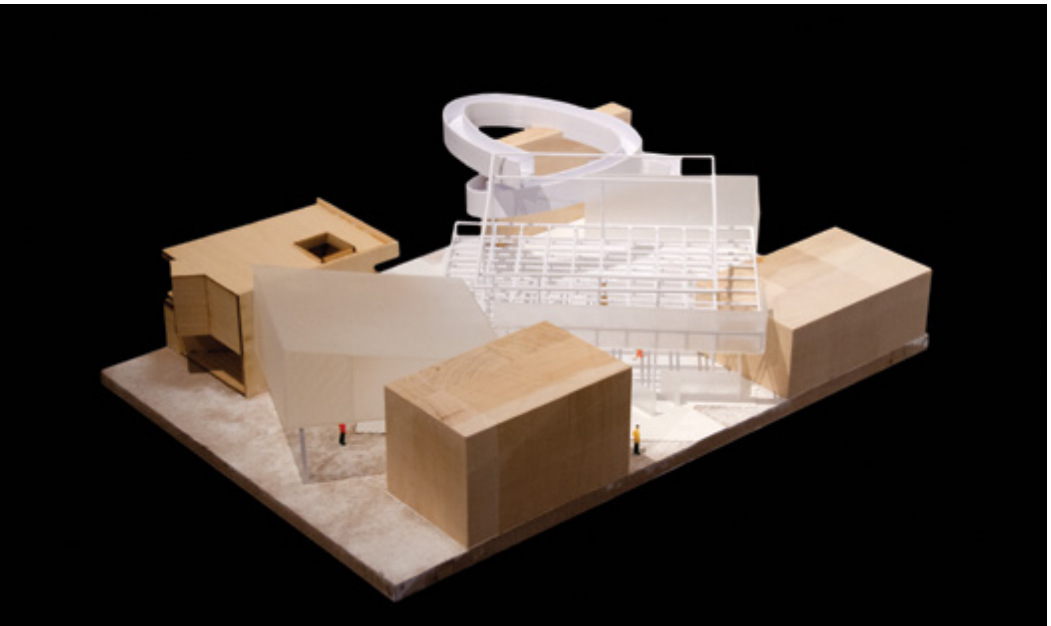
Ge Guo

<CULTURE CONTAINERS II> Dominic Leong, Christopher Leong

This studio speculates on the relationship between architecture and the contemporary art institution as a space of collectivity. The shifting political climate in recent years has led many museums to reevaluate their role as civic platforms, especially in cities like Los Angeles that have rapidly grown as incubators of art practices, galleries, and formal initiatives. The studio explores the capacity ↗

Jingyuan Zhang





Munise Aksoy

of architecture to work both within and against the institution. Projects engage in a dialogue between the formal and informal dimensions of collectivity, approaching architecture as both an aesthetic and social practice through research into contemporary art spaces and practices of radical hospitality.

Xin Qin, Haoming Li

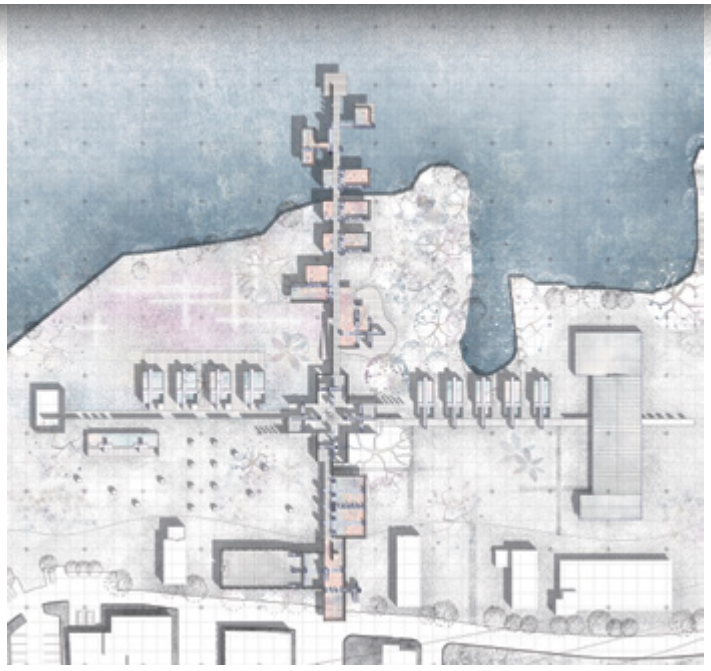
This is a non-institution for the local Latinx and Black community around South Los Angeles Wetlands Park. The design focuses on traditional and radical craft and it also serves as a collective living space for artists to collaborate and engage the community through workshops and other educational programs.

<ART HOUSE: COMMUNITY BUILDING> Catherine Pease, Tatiana von Preussen, Jessica Reynolds

The studio examines the relationship between the creation of architecture and the creation of an artistic community. It interrogates the meaning of an intentional community through precedent studies and scrutinizes the gap that is invariably formed between the intentions of the architect and the unscripted act of living. The studio develops concepts and tools that can be deployed to design spaces that ↗

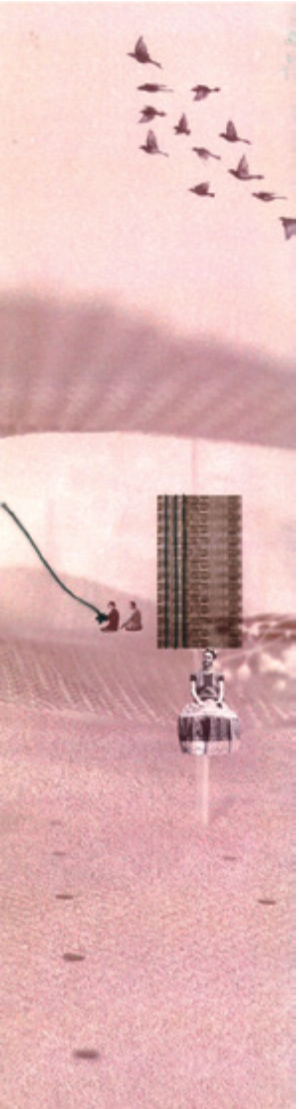
Yixuan Shi

Pilgri-House proposes a meditative community offering retreats, introspection, and connection for artists from New York. The design reinterprets and deconstructs Lucy McKenzie's work.



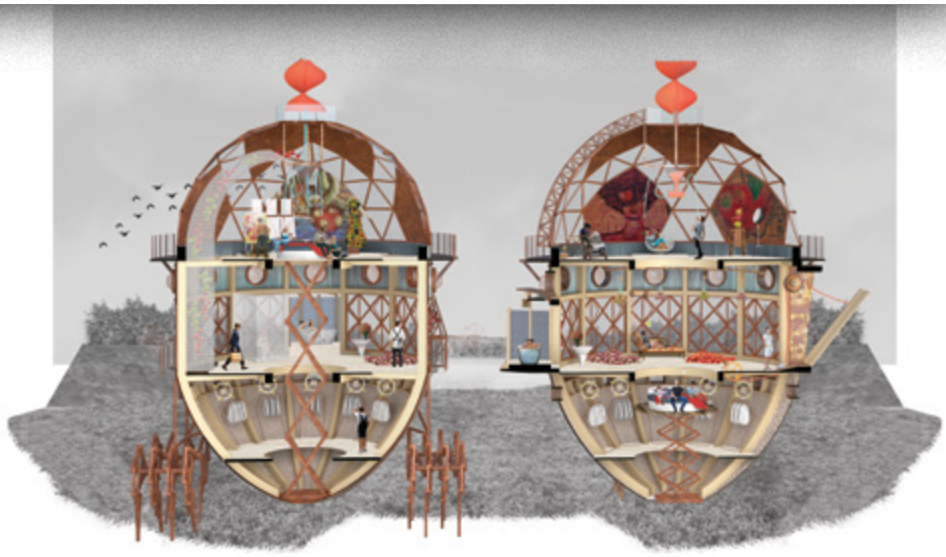
Manuela Siffert

can allow individuals and communities to flourish on their own terms and accommodate collective and individual needs through a gradient of public to private space.



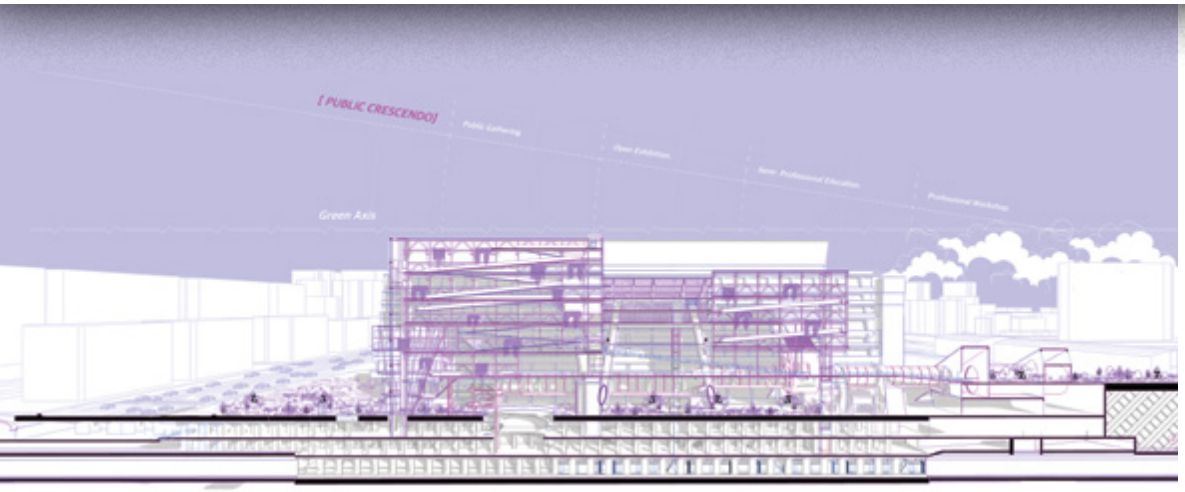
Oscar Caballero

Automated Haven is a creative retreat for artists going through a phase of self-discovery, rethinking their life, and art. It celebrates the banal and primitivity of being surrounded by nature in a techno-social context and embraces automation technologies to redefine domesticity and social intercourse.



<AFTER SHOPPING: SEOUL EXPRESS BUS TERMINAL> Richard Plunz

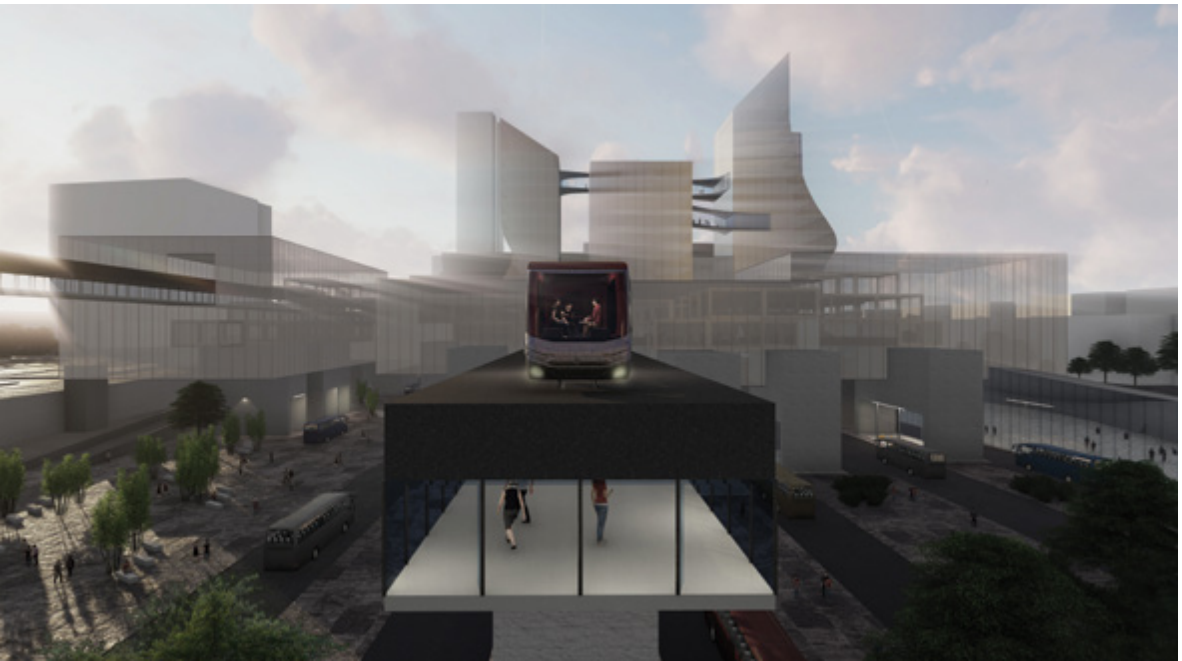
The Express Bus Terminal site is the largest open area remaining in Seoul—over half the size of Central Park. Centrally located, it serves as the nation's nexus for bus transportation, connecting to 60 cities in South Korea. The terminal serves 300 thousand persons per day, inclusive of buses and metro. This studio dovetails directly with an architecture studio and Urban Lab at Korea University.



Euna Song

An obsession with final products disregards and overlooks the importance of manufacturing processes, human behavior, and imperfection. Instead of simply revealing processing activities, I propose a program in which they're integrated into educational experiences and public areas.

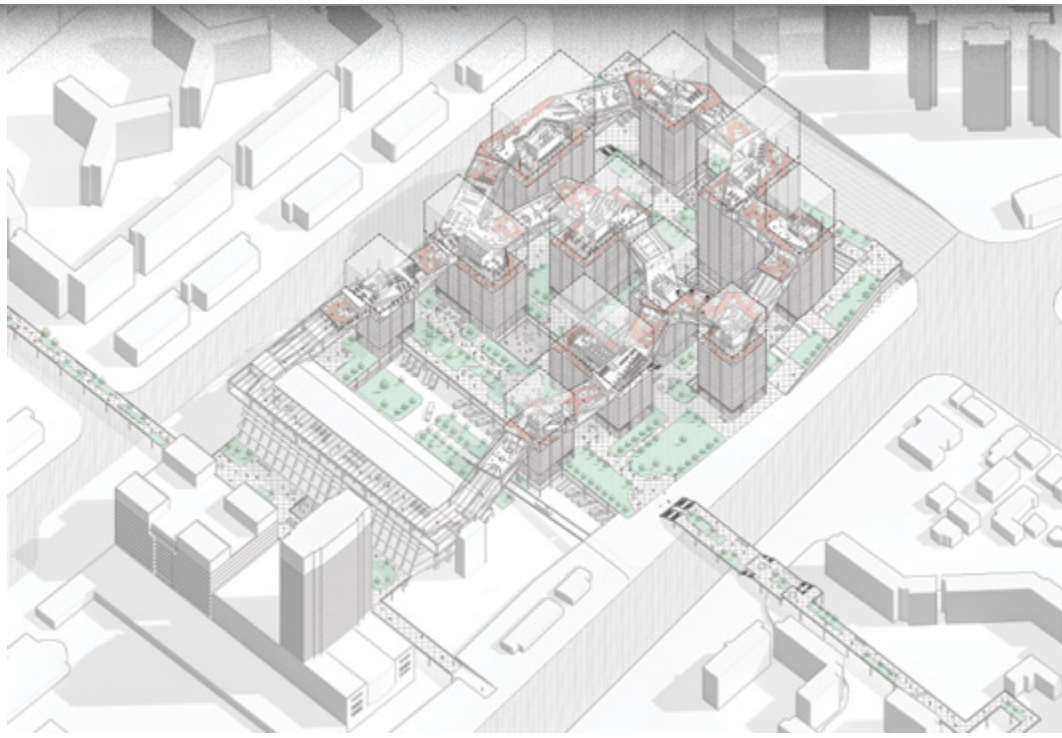
Ambra Gadda, Mingyang Aki Yu



CJ Wang

The principal stakeholder, Shinsegae Group (SSG), is the partial owner of the site and engaged with revolutionizing the Korean retail industry. This studio directly addresses their concerns within the context of the revitalization of major urban infrastructure.

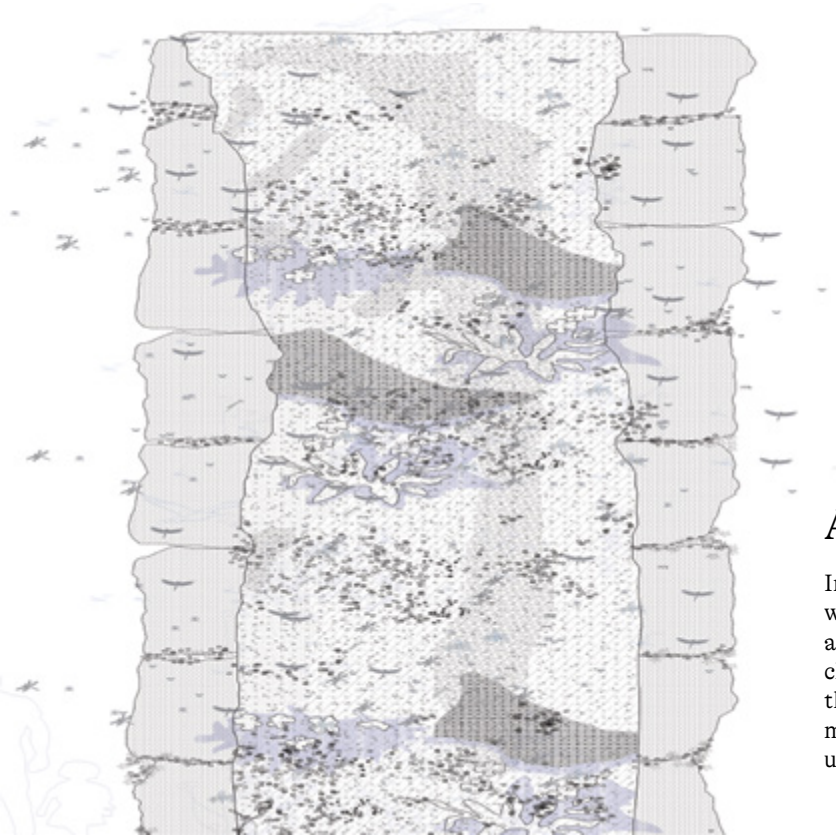
Luo Qingkai,
Hongyi Chen



<A HALL MADE OF CONCRETE AND ROCKS AND MAYBE MUD OR DIRT AND POSSIBLY WOOD AND THEN ALSO PROBABLY SOMETHING ELSE> Paul Preissner

This studio investigates projects that are a product of material research and exploration. Students work with earth materials and basic processes and configure them into a building that does not reference or represent anything. It's not an abstraction or a metaphor, but exists as a physical reality, it is it. The very

Luiza Furia



Azul Klix

In the *Garden of Columns*, I worked on the integration and combination between clay and concrete. In this process, I learned to manage and work with unpredictability.

reality of the architecture lays with the material produced and the process of its production. The design for a new Public Hall using unadulterated excavated materials, or unambiguously produced common materials, and simple approaches towards structure and massing offers a unique opportunity to the studio. The user populations of weary residents, recreating foreigners, and goal-driven transients open a world of confusing social space, transactions, and negotiations that need a proper home.

Morgan Parrish

<JOINT HISTORIC PRESERVATION AND ARCHITECTURE STUDIO: ADAPTIVE RE-MODULATION>
Mark Rakatansky, Kim Yao

The decommissioned Marcel Breuer-designed U.S. Embassy in the Hague is being developed as a hotel and museum dedicated to M. C. Escher. Both Breuer and Escher developed techniques of iterative, recursive, and transformative plays of identity through modular geometries, of spatial re-orientations of vertical and horizontal ↗

Huanlun Cheng

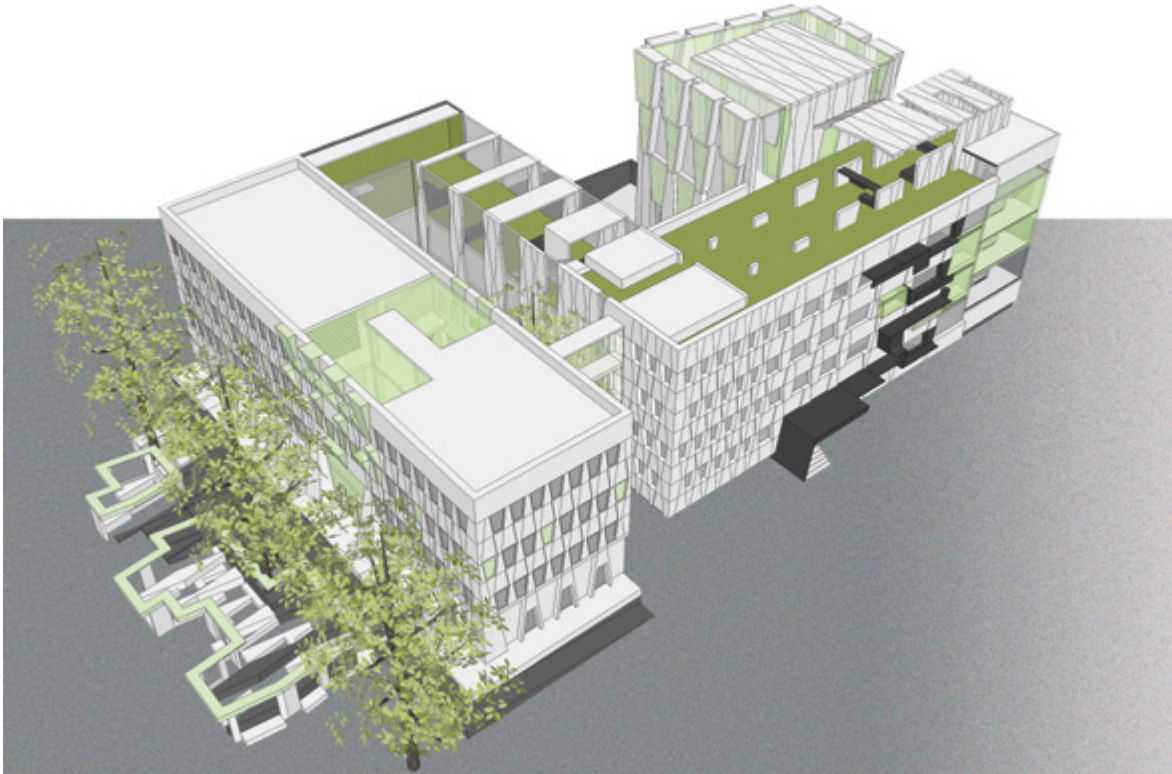
A set of trapezoids are extracted from the structural facade and folded to create structural components as well as interior veneer and furniture.

structure, of 2-D inscribed surfaces inflecting into 3-D volumes, and both developed reciprocal formations of mass and suspension. In contrast to modernist glass buildings, Breuer experimented with concrete and masonry forms of construction, engaging iterative forms of modular geometric patterning in low and high relief. This studio explores the dynamic and iterative modulation not only of tectonic and structural modules but the assumptions regarding the modularity of rooms, programs, civic identities, and urban formations.

Christian Pineda

This proposal explodes two wings into four independent buildings that are tied together by circulation bridges that house the Escher Museum.

Soyeon Kim



<STRUCTURES OF CARE> Bryony Roberts

This studio addresses the social justice dimensions of the Green New Deal, focusing on the connection between social and environmental sustainability. Taking inspiration from the “ethics of care,” a position cultivated by social justice activists and eco-feminists, the studio explores methods of sustaining complex human and ecological systems. Developing situated and relational

Rui Wang

Childcare + focuses on employing a cultivation volume as an intermediate space to combine a childcare center and the community garden, which also serves as the infrastructure for the community to reinvigorate the underutilized backyard green space for a new garden city.

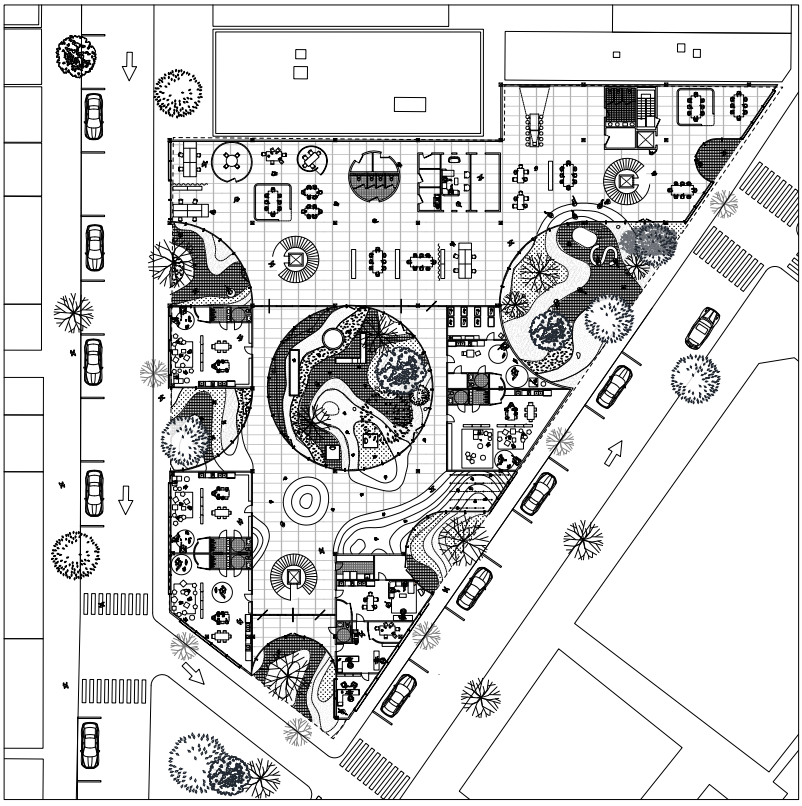
Jack Lynch

approaches to design across a range of scales, the students create proposals for a childcare center as part of a community land trust in Jackson Heights, Queens. Investigating reciprocities between childcare, affordable housing, and small businesses, the students propose new configurations ownership and labor through architectural and programmatic imagination.

Jamie McCormick

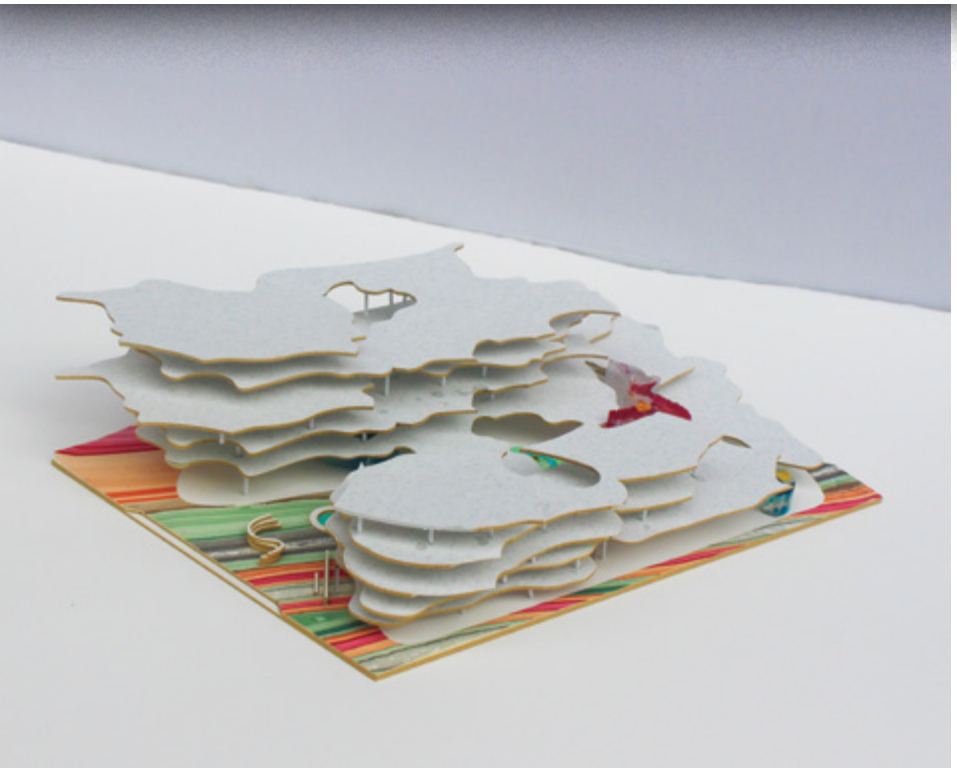
Emily Tobin

Work Hard, Play Hard integrates childcare with the workplace through the Community Land Trust model which employs collective ownership to support affordable community services. Throughout the design, a series of subtractions from the building footprint return valuable outdoor public space to the neighborhood, offer an array of green play spaces for users of all ages, and promote a strong relationship with a diverse streetscape.



<ANALOG: AT PLAY> Oana Stanescu

The studio is an exploration of architecture through the perspective of the physical, analog experience. It observes, articulates, and measures the impact and implications of objects, surfaces, and space onto the human body, from the individual to the urban scale. The explorations are done through reiterative physical models that are documented in videos, adding variables like time, lights and

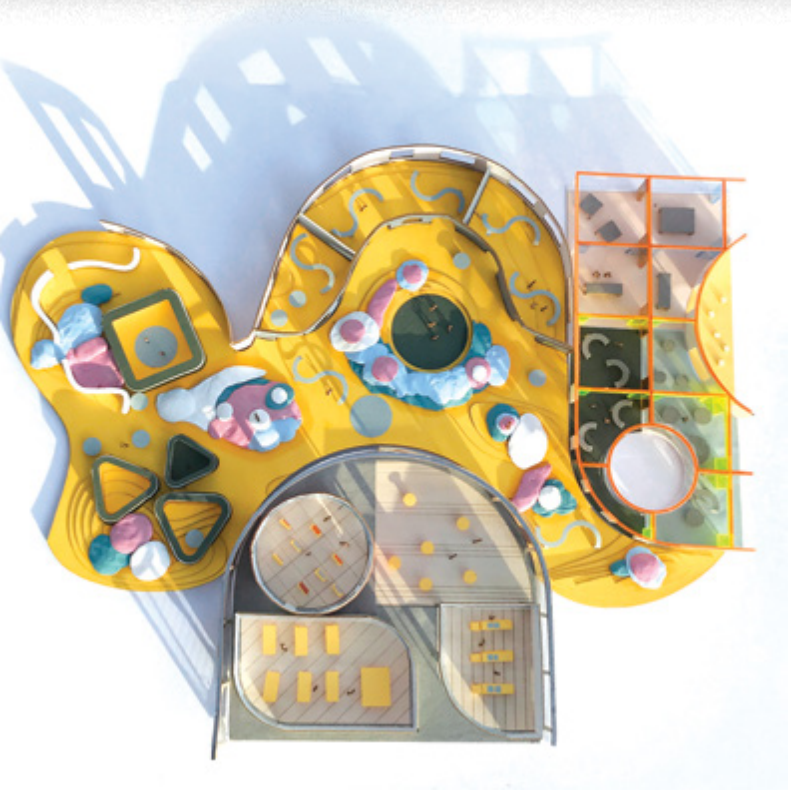


Yulin Peng

Scribbly Drizzle Learning Center includes a learning center for children with special needs and a dormitory for homeless students in Lower East Side, NY. The design arrives at its physical form through serendipitous ink play. A play device generates serendipitous ink prints by chance and creates architecture through accidents, which are documented through analog.

Qianfan Guo, Ningxin Huang

sound to our perception of space. Digital tools are used to enable analog building methods but remain backstage. With an open and experimental mindset, the studio uncovers the consequences of gestures, looking for the unexpected and unplanned.



Karen Choi

Structured around the Waldorf education system, *Learn to Play* distributes grade levels Pre-K to 8th grade into sectors that focus on the body, the hands, and the mind so that children can develop their creative thoughts through different stages of learning.

Tim Zhou, Hyung Rok Do

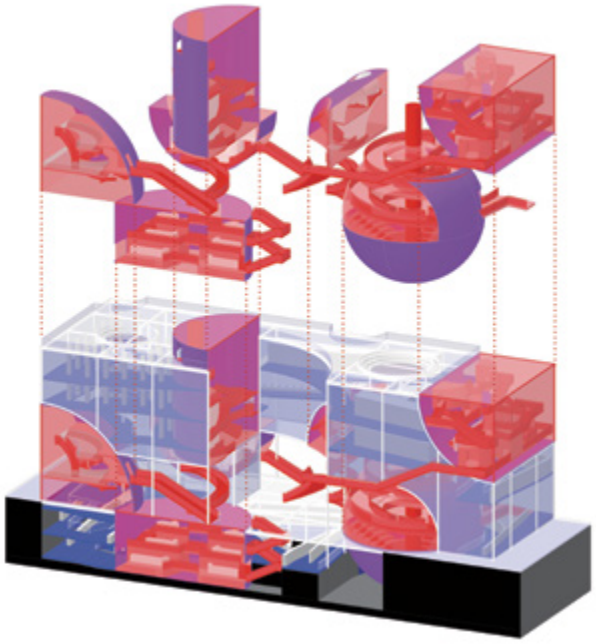
The (Floating) Island School is located on top of the existing PS188. This scheme addresses new needs and privacy concerns for the School and transforms the site into a neighborhood landmark. A layered wall structure and organically-shaped openings provide flexibility to accommodate a range of activities.

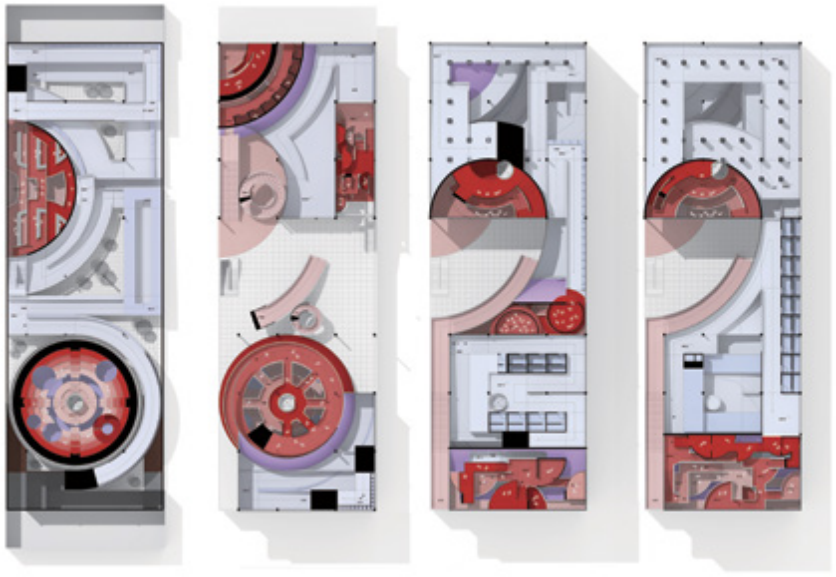
<CONCEPT AND “THE NEW TYPE OF”: NEW PROGRAMS FOR THE 21ST CENTURY>
Bernard Tschumi

The studio embraces the incessant mutability of the city, focusing on its impending needs and asking: what happenings can establish new links, connections to public use, social relations and so on, that can reframe architecture and its cultural relevance? Each student group is assigned a major theoretical framework: ↗

Ziyue Wang, Siying Chen

This project is a shopping center for online shopping, which is a new typology to encourage social activity through the metaphor of seven deadly sins while keeping the convenience in consumerism to improve customers’ shopping experience.

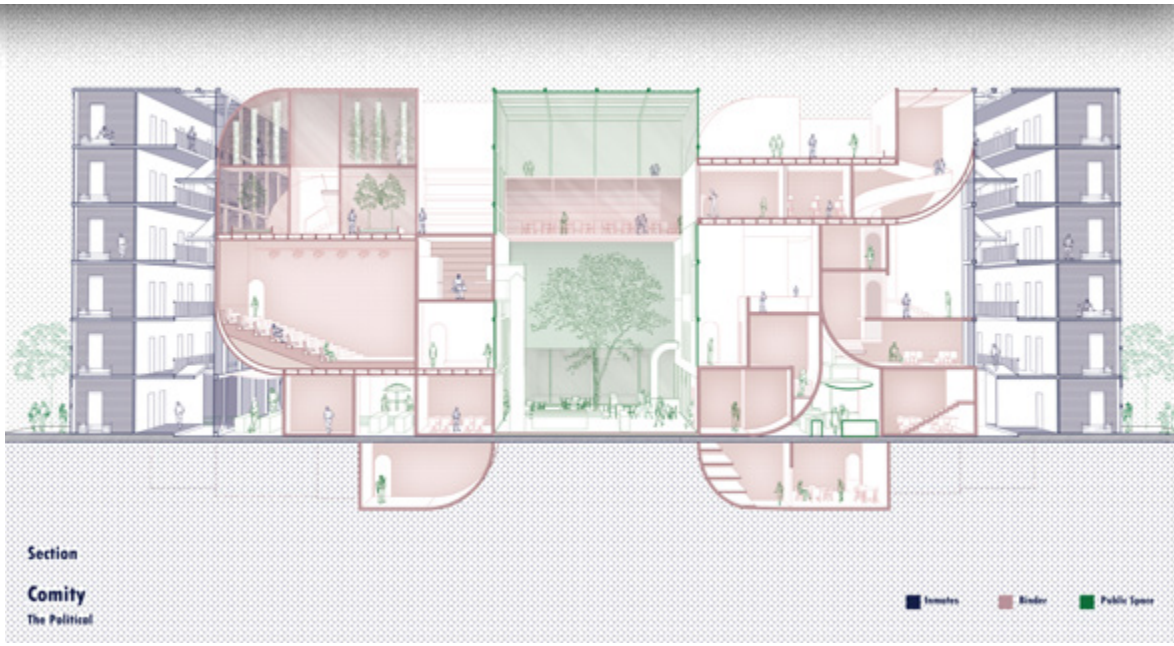


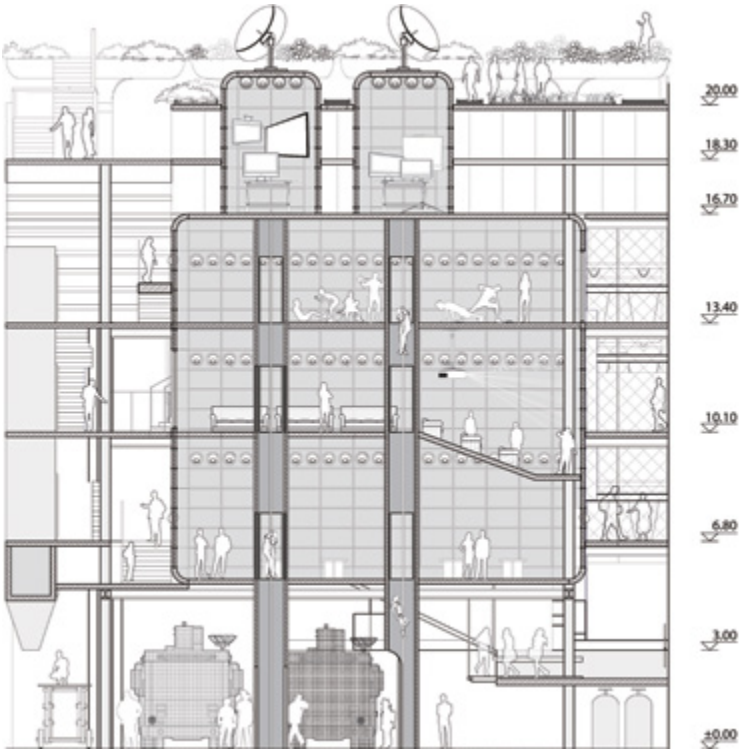


political, environmental, social, infrastructural, recreational, or educational. Based on the contemporary challenges that these backgrounds raise, each group proposes an unnamed program in a generic Manhattan block. The new programs are then weaved by a collectively designed underground component. The studio explores how a program can regulate architecture's relationship with society and how space can contribute to it and challenge it. It thinks about what architecture does, and about the effect.

Aayushi Joshi, Ghaida Gutub

This site represents a cooperative relationship between the government and the public. It creates a symbiotic system, helping society to maintain political engagement.





Sneha Aiyer, Xutian Liu

Two programs (food collective and fire station) are proposed next to one another in a typical and hypothetical Manhattan block. The food collective is a place where food is grown (farm), and stored (warehouse), processed (factory), and sold (market). In the case of a disaster, the fire station serves a safe space. On regular days, it benefits from public participation garnered by the food collective.

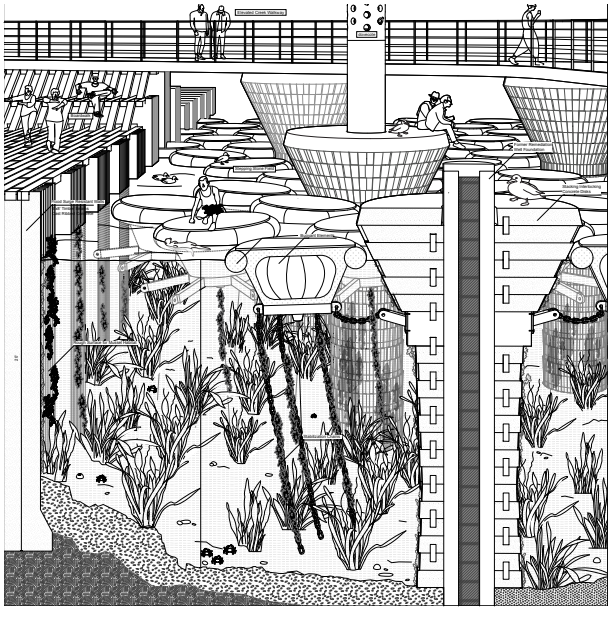
<IMAGINATIVE REALISM CLI-FI, THE SUBLIME AND THE PUBLIC IMAGINARY>
Marc Tsurumaki

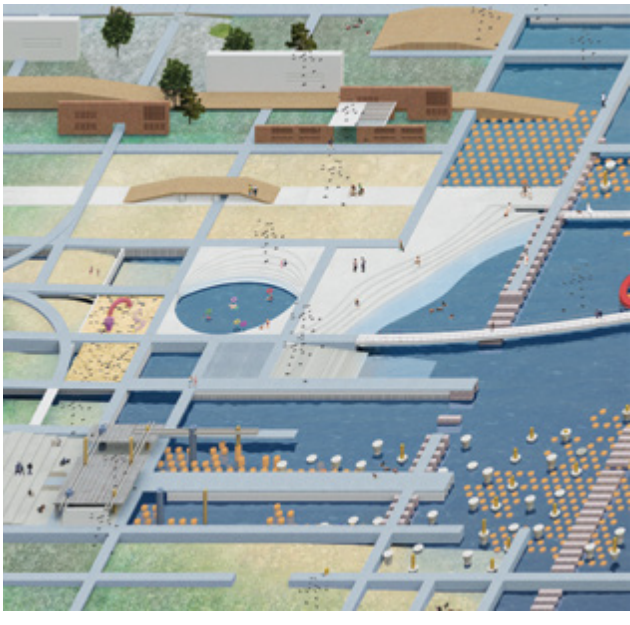
This studio examines if and how an encounter between the historical notion of the sublime and the emergent genre of climate fiction might provide a lens through which to view our current crisis, examining the ways climate change is imagined, envisioned, and represented to understand how alternate narratives might be

Joud Al Shdaifat, Kathleen McNamara

Andrew Keung, Brenda Lim

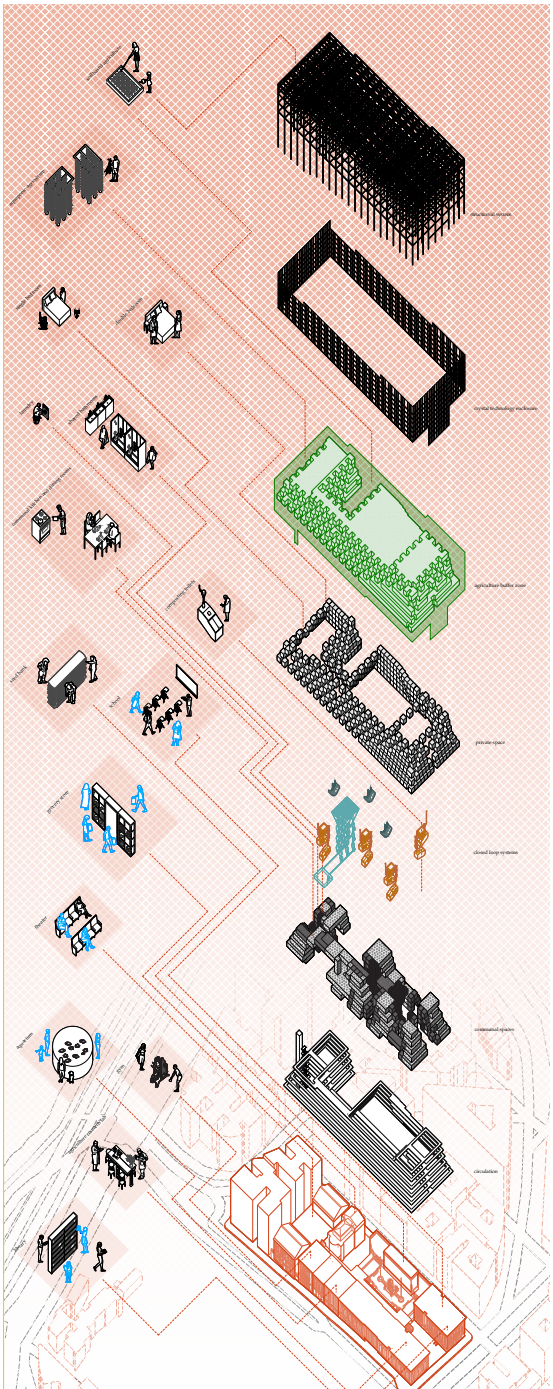
is an exercise in architectural succession, wherein each built element is considerate of its own past, present, and future in the timescale of toxic land remediation. Can we maximize temporary architecture, in this case, remediation structures, to become substrates for future social, natural, infrastructural environment? Our project explores the concept of porosity across all scales, from the building element to urban infrastructures to create conditions where both wildlife and humans exist not in opposition but in a parallel manner.





formulated and advanced. It constructs scenarios predicated not on nature as an “other” to be feared or exploited but on the reciprocity between the human-made and the natural. These speculations recognize and catalyze the interdependency between biological, climatological, infrastructural, social, and economic systems, challenging the categorical divisions that have engendered our current predicament.

Sanggyu Shin, Isaac Kim

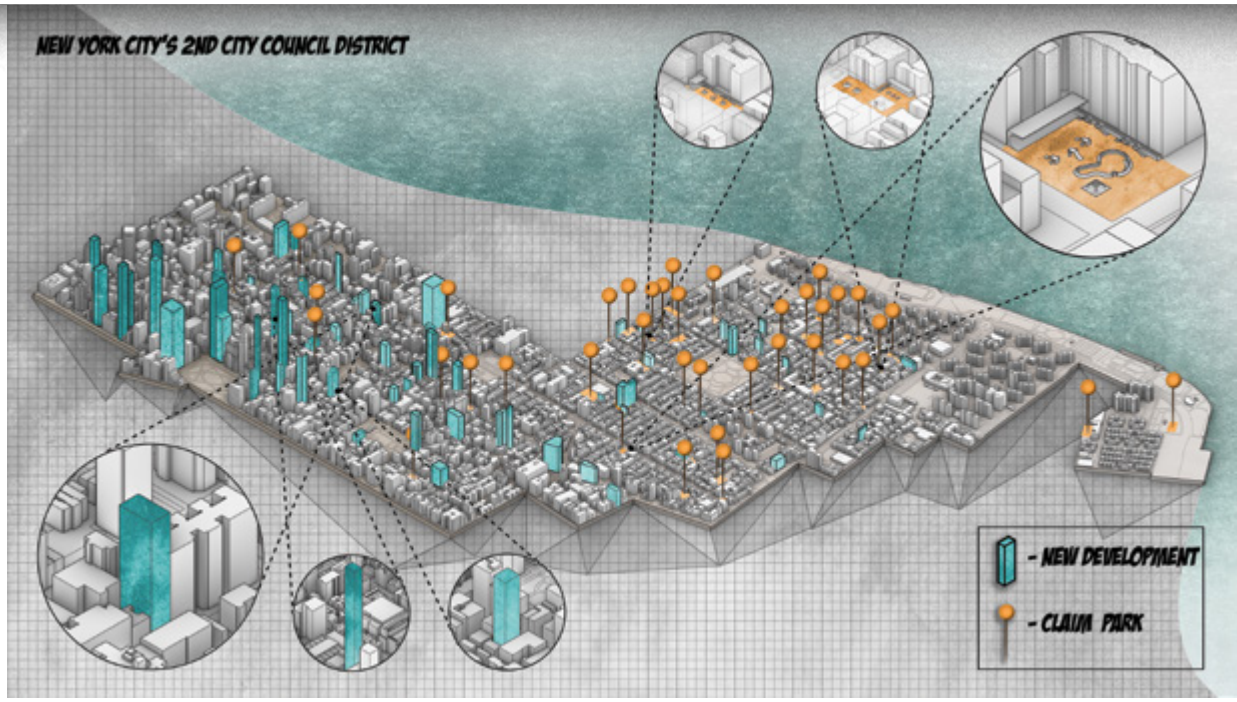


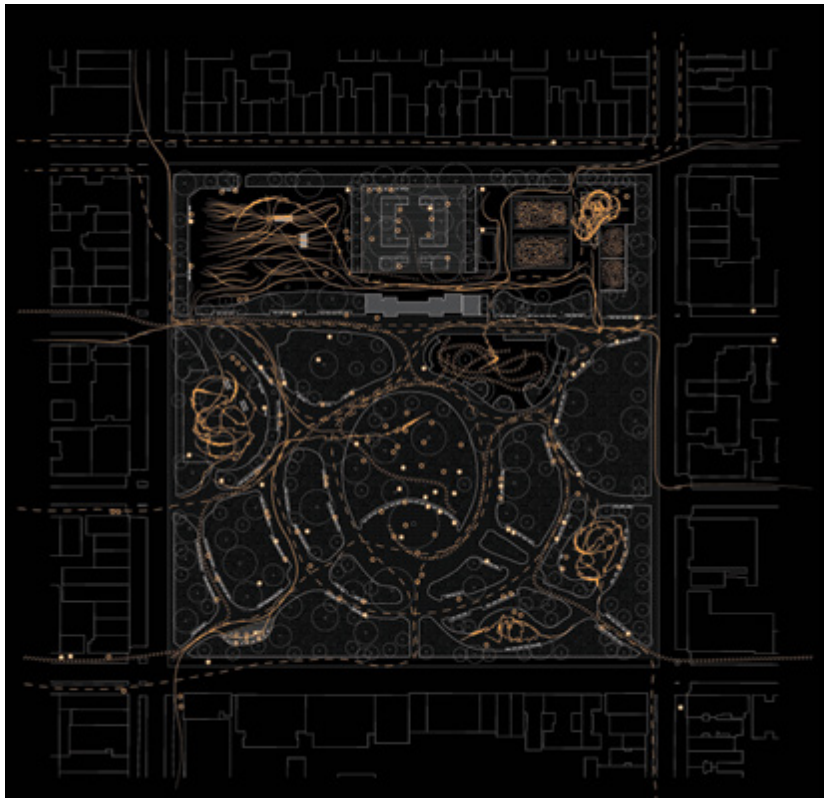
<URBAN FUTURES/FUTURE ARCHITECTURES USA 3.0> Mabel O. Wilson, Jordan Carver

The studio develops an understanding of how architecture can contribute to the discourse on redress, reparations, and civic restoration that have been reconceptualized, to many different ends, over the last decade. To transform divided neighborhoods and urban landscapes over time, new rules of engagement—Protocols of Repair—need to be formulated and tested. Because this studio unpacks how

Dylan Denton

Claimed Space investigates Boundaries that are propagated and dismembered first in Tompkins Square Park, and then throughout the East Village and New York's second city council district. The delicate balance between boundaries, which form subcultures, and common space, which allows these cultures to clash or coalesce gives the opportunity for transference of power from the few to the collective. Decision-making by the collective, in a dialectic trending towards equity, may lead to the repair of social and economic wounds that characterize the current urban condition.





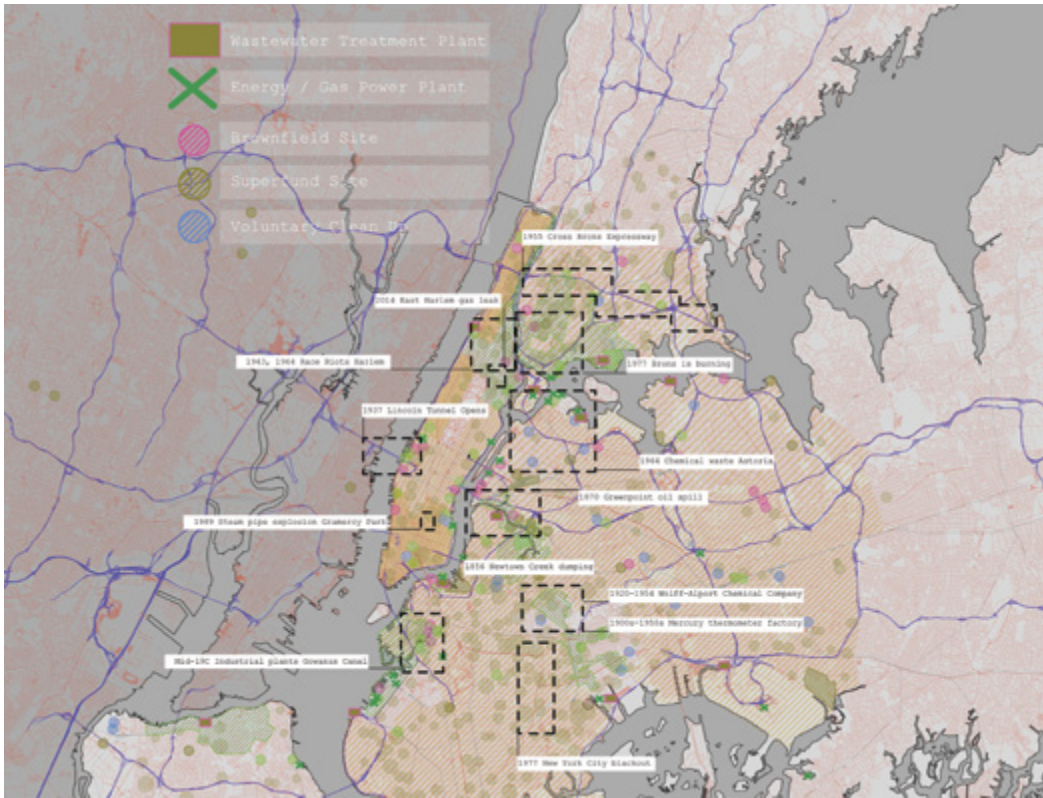
racism and social discord is spatialized, it's vital to take measure of its historical manifestations. The studio begins with a study of how art(s) of repair operate at various scales of intervention. The remainder focuses on designing architectural interventions that manifest protocols into the world. The projects test those protocols by imagining New York City in 2120 and, through animation and video-based works, final projects narrativize and establish a cadence for how their protocols of repair incrementally change the city.

Farah Monib, Uthra Varghese

The Bronx is a site of recurring violence, where its resident's voice has been suppressed in the past and remains unheard today. *Civicspeak* catalyzes local repair tools by translating the Bronx's soundscape into a spatialized platform.

Lucy Navarro, Kachun Alex Wong

The Bronx is a site of recurring violence, where its resident's voice has been suppressed in the past and remains unheard today. *Civicspeak* catalyzes local repair tools by translating the Bronx's soundscape into a spatialized platform.



M.S. Advanced Architectural Design
Andrés Jaque, Program Director

The Master of Science in Advanced Architectural Design (MSAAD) degree at Columbia GSAPP is a three-term program consisting of summer, fall, and spring semesters. It provides an ecosystem where leading voices in the field of architectural practice and outstanding young professionals—who hold a Bachelor of Architecture or Master of Architecture degree—together explore architecture as a crucial player in the evolution of major contemporary modes of defiance.

The program has long been a site for architects from around the globe to test concepts and confront changes that affect architecture, cities, and territories worldwide.

Utilizing an environmental paradigm, the program serves as a cauldron for rigorously-curated pluralism, where faculty and students work together on eight areas of knowledge and action:

1. Rendering technological systems accountable
2. The architecture of climate crisis
3. Modes of environmental engagement
4. Materiality as a territorial practice
5. Interspecies relationships and non-anthropocentric otherness
6. Design for social inclusivity
7. The articulation of offline and online interaction
8. Decolonizing geopolitical design

The program pairs a set of required studios with elective courses that are shared with other programs in the School, promoting interdisciplinary transferences and collaborations. Furthermor , by extending beyond the Columbia University campus into the urban matrix, New York City becomes the milieu where the MSAAD is installed, making the program a learning experience that not only uses New York as its principal case study, but is enacted in direct participation with the rich network of laboratories, research centers, design agencies, organizations, and independent practices that the city concentrates together.

Advanced Archi

David Eugin Moon, Nahyun Hwang,
Nerea Calvillo, Seda Oznal

Eric Bunge, Mimi Hoang, Jing Liu

Emanuel Admassu, Dan Taeyoung

James Graham, Daniel Perlin, Manan Ahmed,
Laura Gonzalez Fierro, Marco Ferrari,
Ala Tannir

Summer

tectural Design

Dean Amale Andraos, Tei Carpenter,
Rami Abou-Khalil

Ana Paula Ruiz Galindo,
Thomas De Monchaux, Can Sucuoglu,
Jerry Figurski, Victoria Oeye,
Marco Ferrari

Miriam Peterson, Adam Frampton,
Stephanie Lin, Stephen Froese

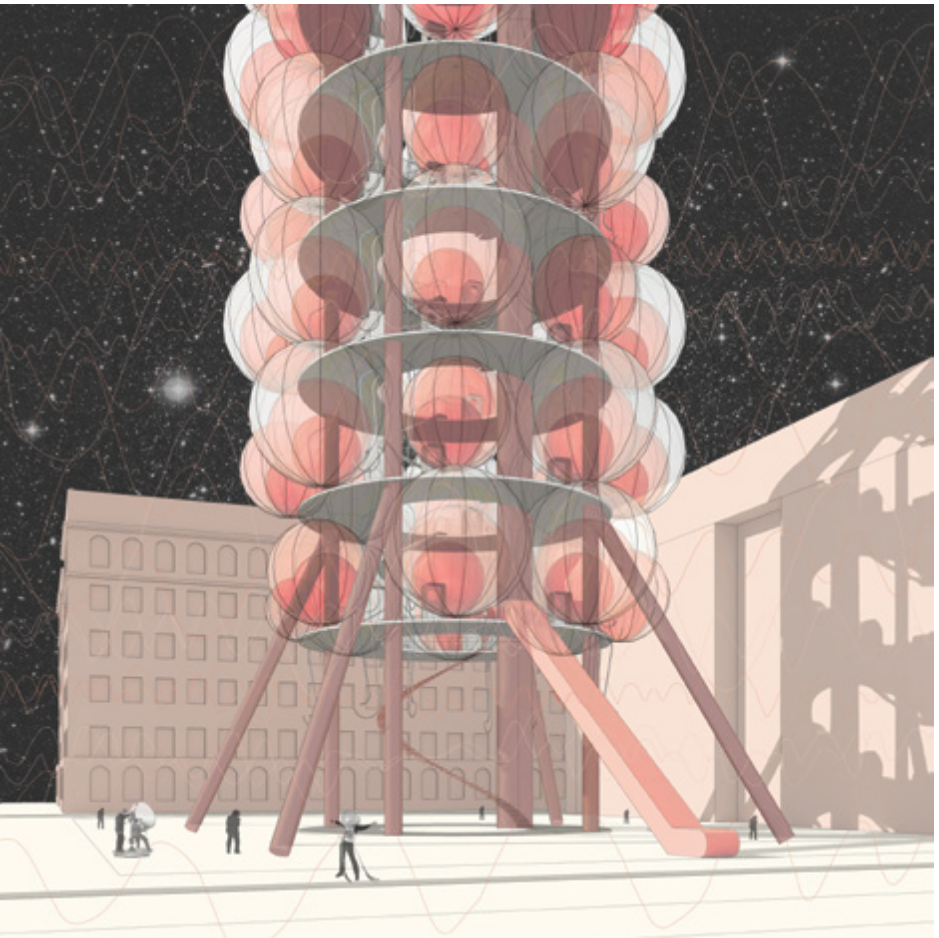
2019

<ON STRATA, ECOLOGY, AND METAPHORICAL PERCEPTIONS OF THE CITY> Jorge Ambrosi, Gabriela Etchegaray

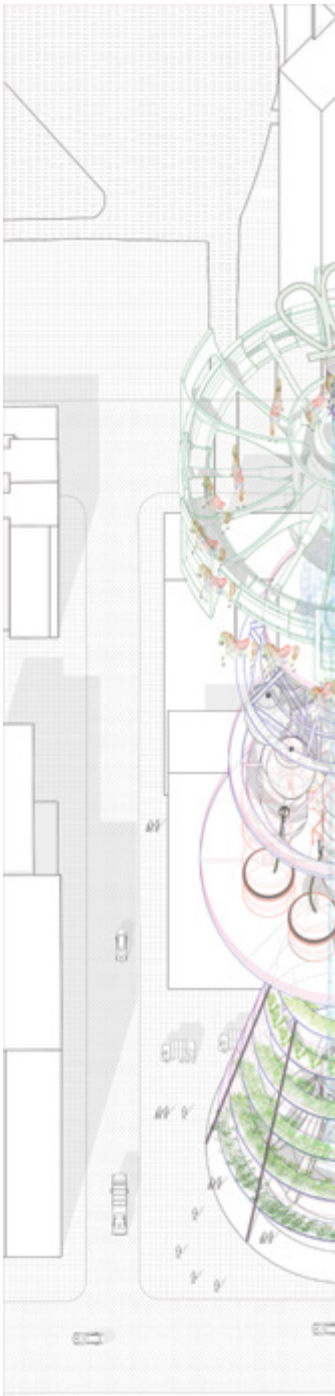
The built environment covers layers that took millennia to transform and sediment into the ground upon which the city is built. Can architects nurture this awareness of cities in relation to their natural origins? Is there a way that buildings can serve as receptacles for the natural conditions from which the city

Azul Klix, Guillermo Hevia

These architectural devices reflect on the notion of sounds in the city to generate discussions among society and explore how to shape cities in relation to the soundscape.

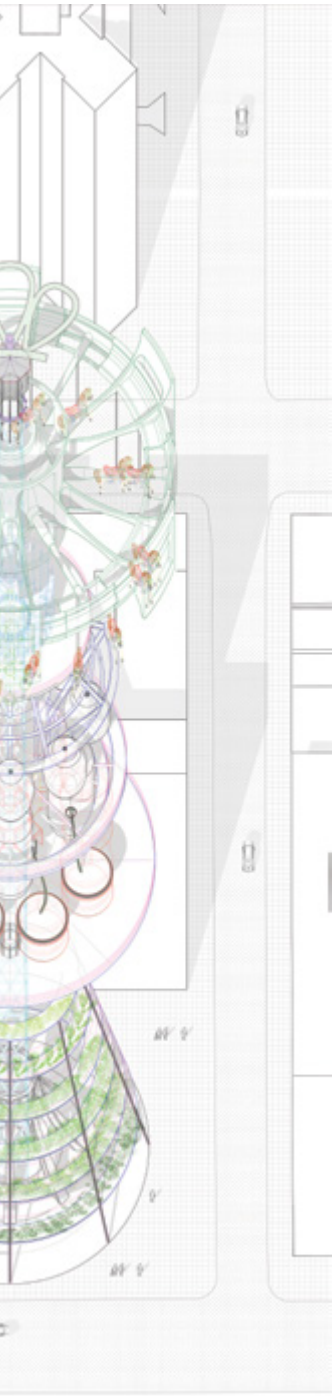


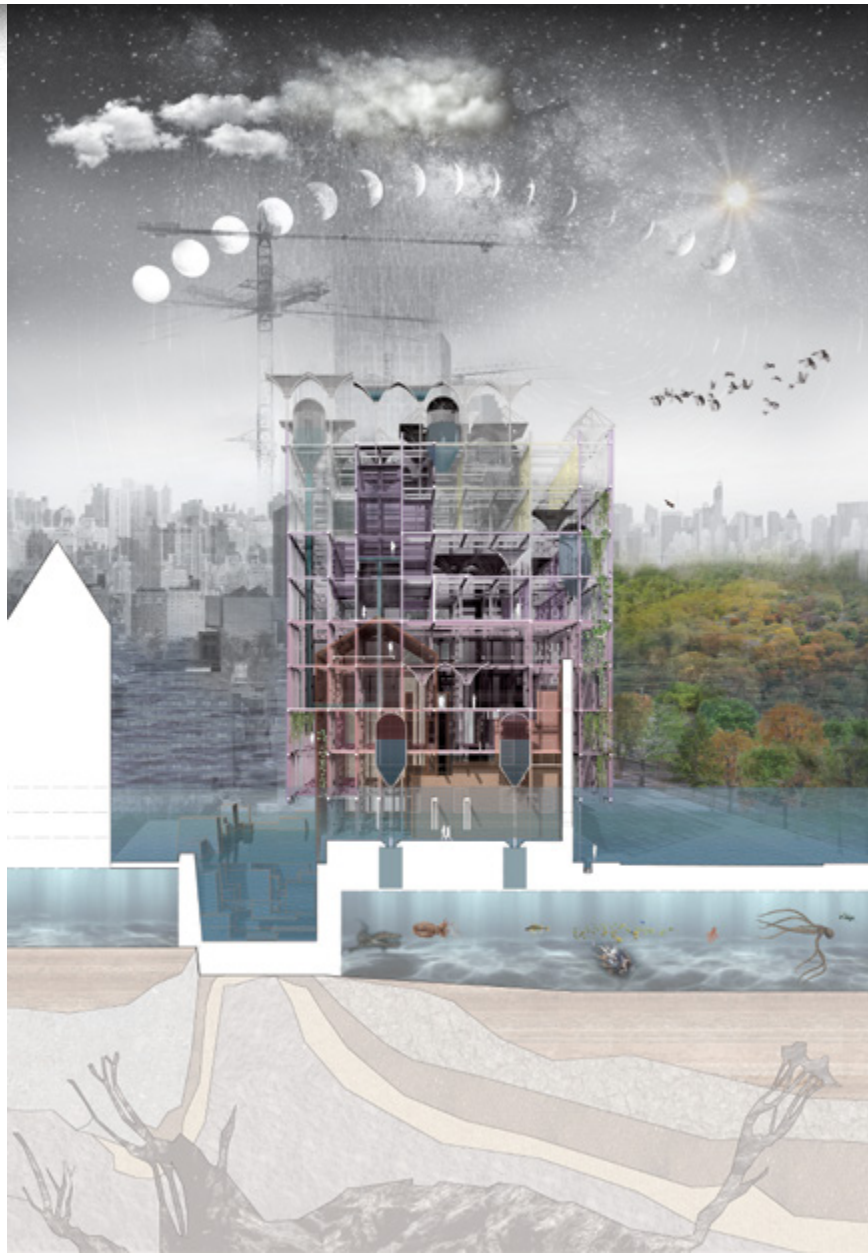
Xueqi Hu



emerged? This studio invites reflection on the places we live at various temporal scales. The aim is to understand place as an extension of the natural environment and to propose ways of building that are part of its stratigraphic layer. We want to understand cities metaphorically as geological stratification, where various forces and strata intervene across time to create the city. This studio looks for critical proposals that envision ways that buildings connect us with a paradigmatic vision of nature and city as a whole.

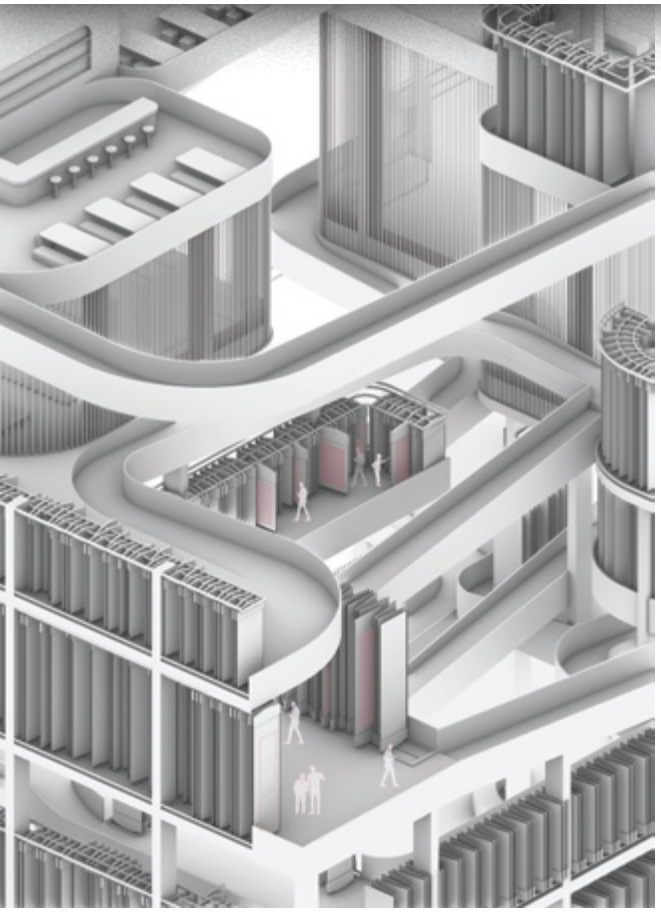
Sneha Aiyer

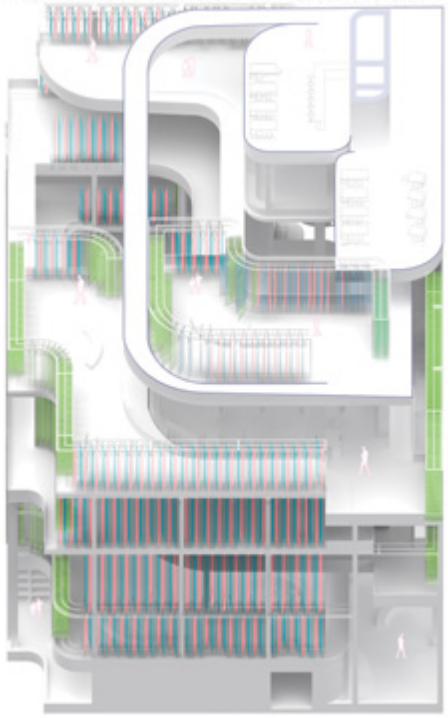




<THE MUSEUM STRIPPED BARE BY (OR TO?) ITS GALLERIES> Eric Bunge, Mimi Hoang

As with most cultural and technological shifts, the transformation of the museum as a type has been gradual enough to go largely unnoticed, or at least incrementally accepted, by the public. Meanwhile, the development of new art forms either outpaces or is sometimes constrained by the spatial and technical capacities of the spaces in which they are displayed or enacted to the public. Has the museum



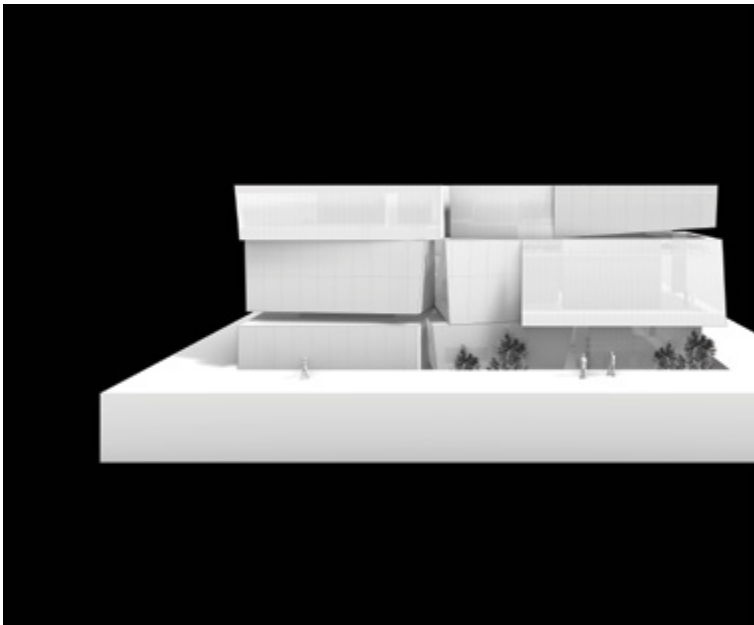


Ghaidaa Gutub, Rohan Parekh

This proposal rethinks the museum as an art warehouse that provides storage for other museums and a range of viewing experiences.

Yining He, Yanxi Fu

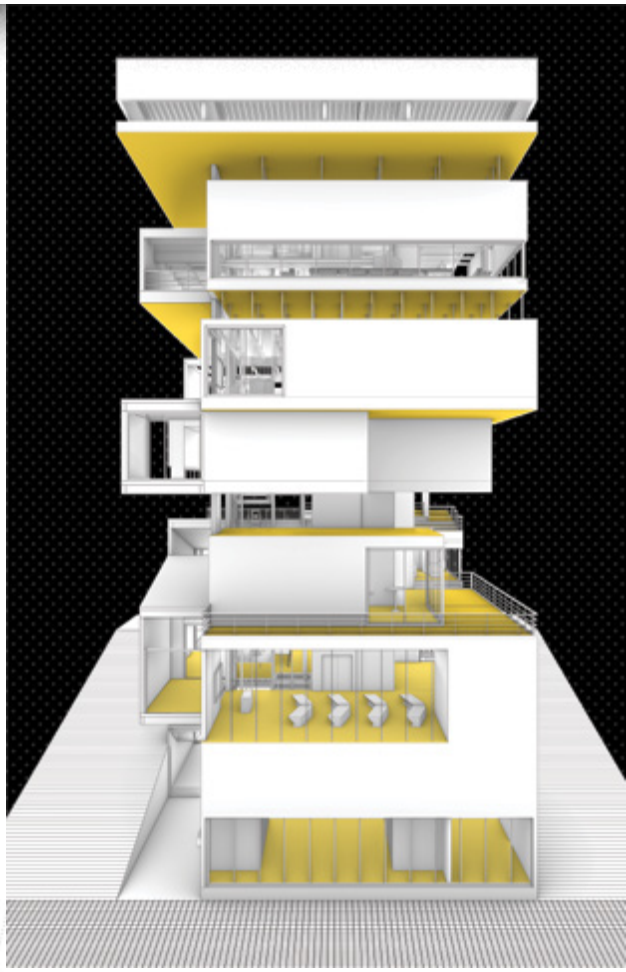
We proposed a prototype in which the back-of-house wraps the front-of-house. The wrapping acts as an armature for art; its spatial quality contrasts with the neatness of the front-of-house.

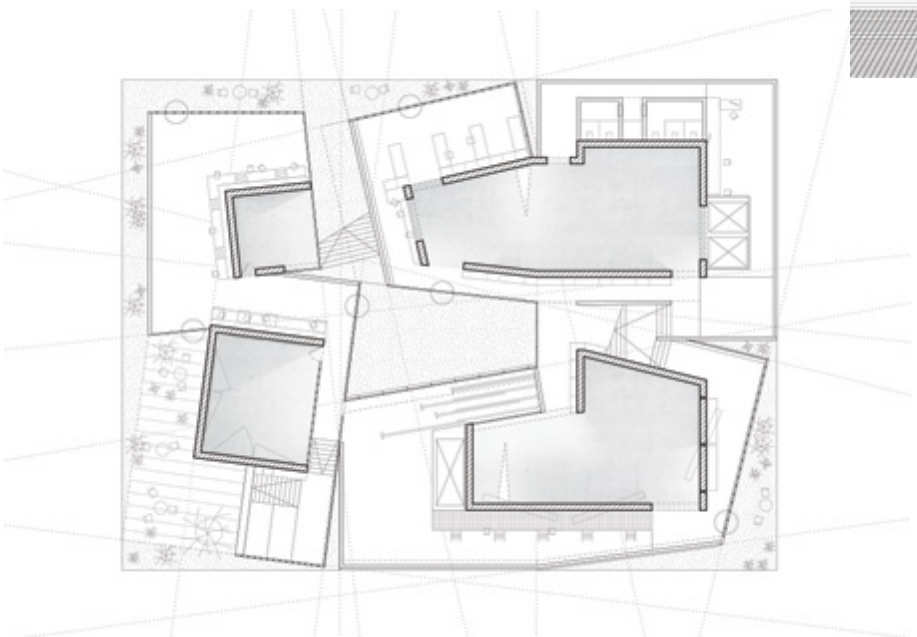


as a building type grown too complex? Or should architects embrace this increasing complexity? This studio proposes a brief and counter-brief—envision a hypothetical art museum without galleries or envision a hypothetical art museum with only galleries. The intention is to design a medium-sized museum that challenges traditional spatial and organizational qualities of galleries and support spaces in a search for a rigorous and inventive architecture.

Yuxin Hu, Zihan Yu

The design strategy for this project explores the movement of both people and artwork.





<BORDERLINE EXTREME MAKEOVERS: OR HOW NATURE CAN BE BUILT OTHERWISE>
Nerea Calvillo

This studio explores new imaginaries, typologies, technologies, and forms of inhabiting that change the focus from polluting less to contributing to the environment positively and optimistically. It looks at urban parks that have emerged between Manhattan's urban fabric and rivers. They are borderline

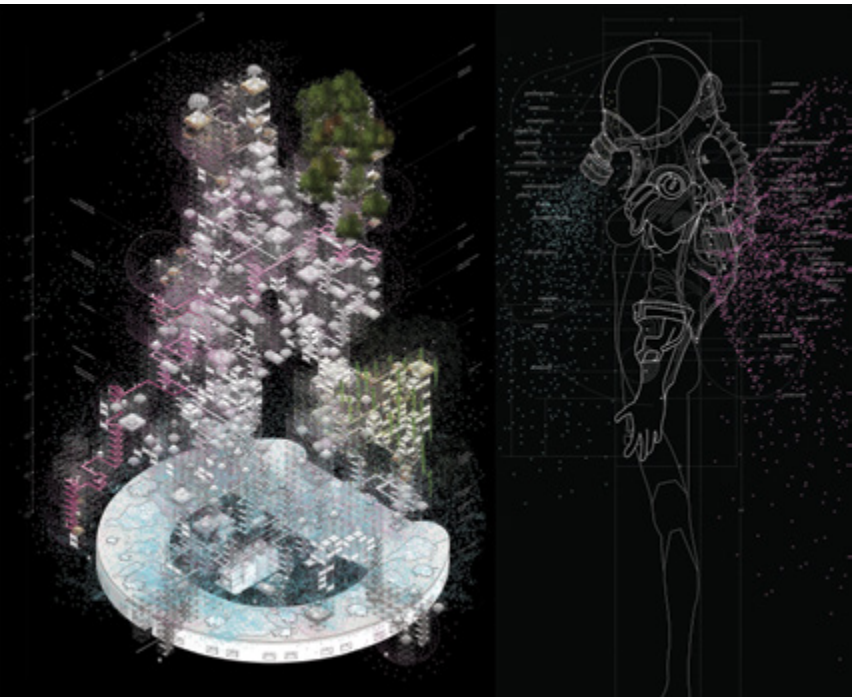
Uthra Varghese, Farah Monib

The intervention activates invasive and poisonous species found on-site through digital and physical networks to dismantle Rockefeller Jr's iconic status and establish nature-cultures.

Christopher Spyrakos, Arvin Mirzakhanian

environments, many grown on top of previous infrastructures or on leftover land, which have become valuable and constantly redeveloped. The studio hacks, expands, and transforms existing facilities (or create new ones) as makeovers of the parks, to speculate with alternative forms of living through realistic architecture projects that put the environment at the center whilst taking humans into consideration.

Ambra Gadda, CJ Wang



Mingyang Aki Yu, Dylan Denton

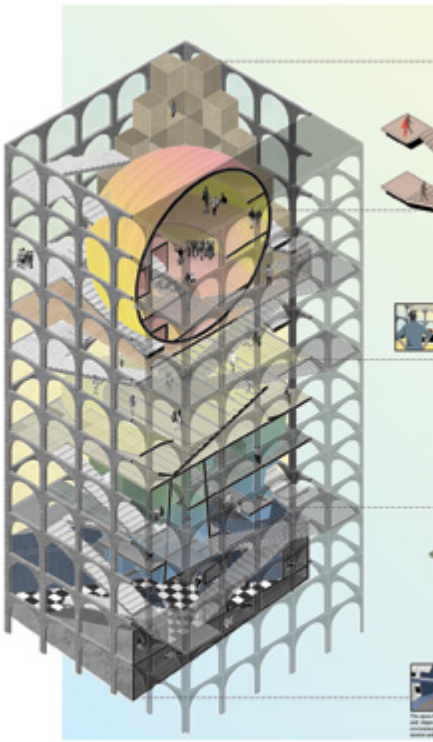
Climate Wall addresses issues related to borders, boundaries, and migration by expanding the capacity of a wall to house migrant birds through an atmospheric and horticultural intervention.

<MARKET VALUES: NEW ECONOMIES FOR NEW YORK> Tei Carpenter

This studio designs sites of transaction and exchange—a marketplace—as a way to reflect upon its corresponding new societies. Unchecked capital accumulation and economic growth has accelerated effects on climate crisis, carbon emissions, resource extraction, and encouraged a culture of discard and increased social inequity, overconsumption, overconnection, and political disinformation have

Joyce Chen, Yixuan Shi

Plastic Nation takes place in the future when NYC outlaws plastic products and a new circular economy emerges based on the existing supply.



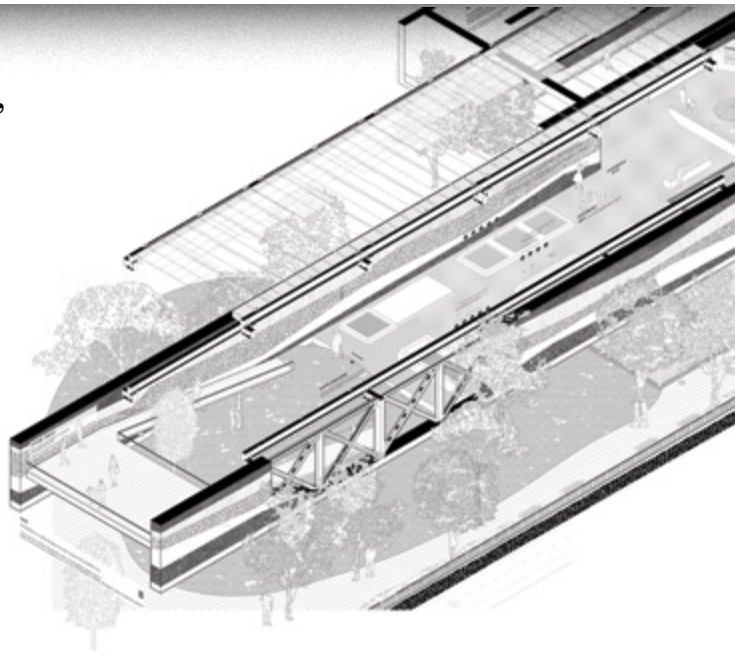
Xutian Liu, Feibai An

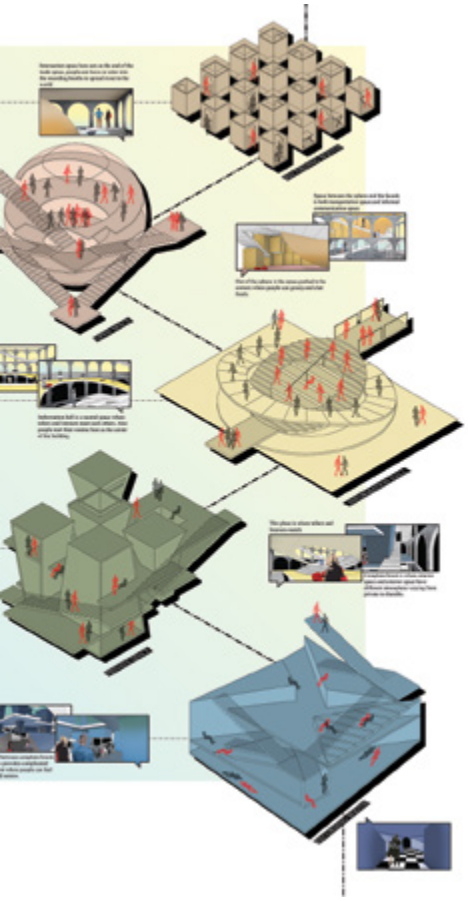
Story Fair is an NYC-based incubator that addresses the vulnerable relationships among people in the virtual world.

impacted peoples' anxiety, happiness, and sense of belonging. This studio imagines and visualizes a marketplace with economies that suggest shifts in behavior and attitudes for an alternative model of society. Building on case study research of social models and organizations, students develop a future-oriented and speculative design for a marketplace in NYC as a manifestation and index for a new economy and value system that it facilitates.

Chun-Chang Tsai, Xinyi Zhang

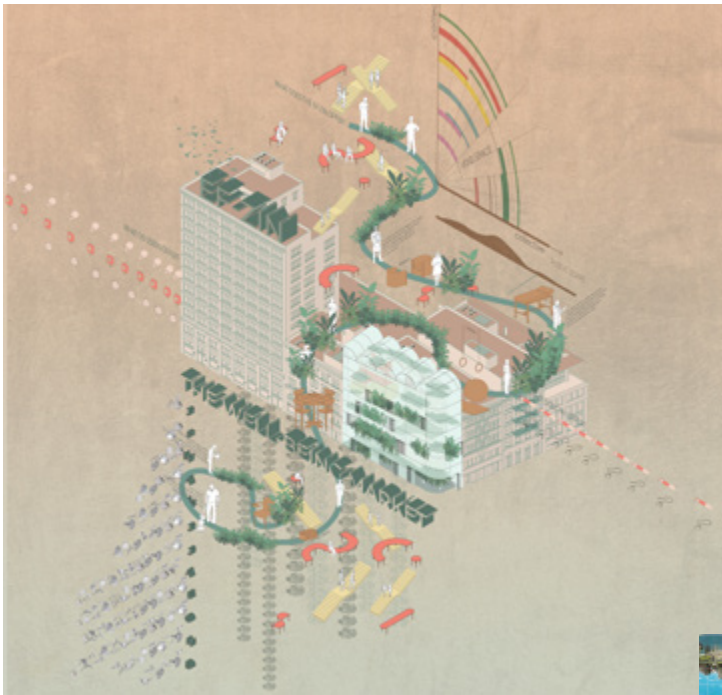
Wall Market raises public awareness of land pollution issues, specifically heavy metal contamination hazards, through exhibitions and experiences.





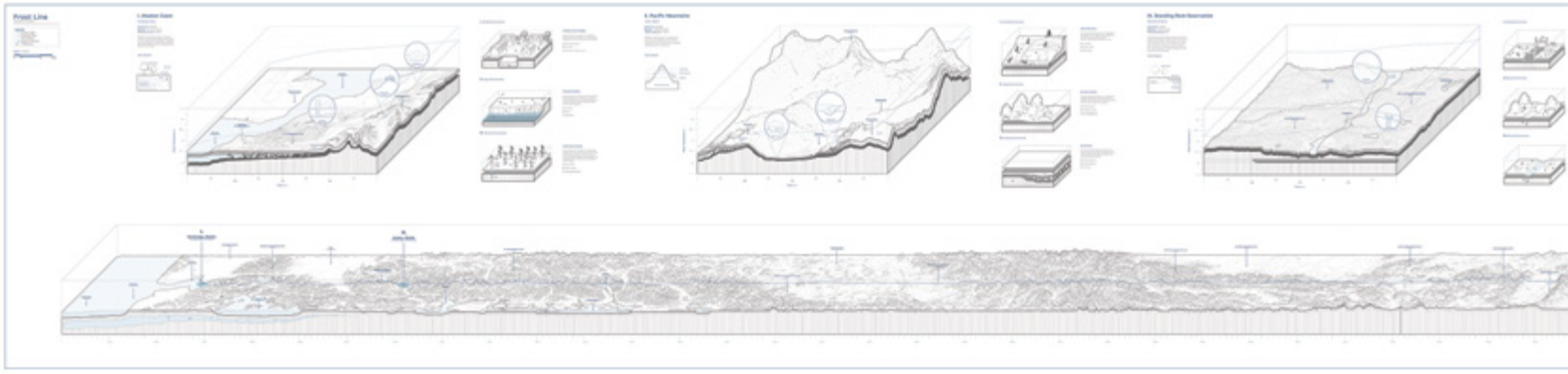
Anam Ahmed, Niki Kourti

Ef Zin challenges the notion that wellbeing is a luxury by making it accessible to all NYC residents.

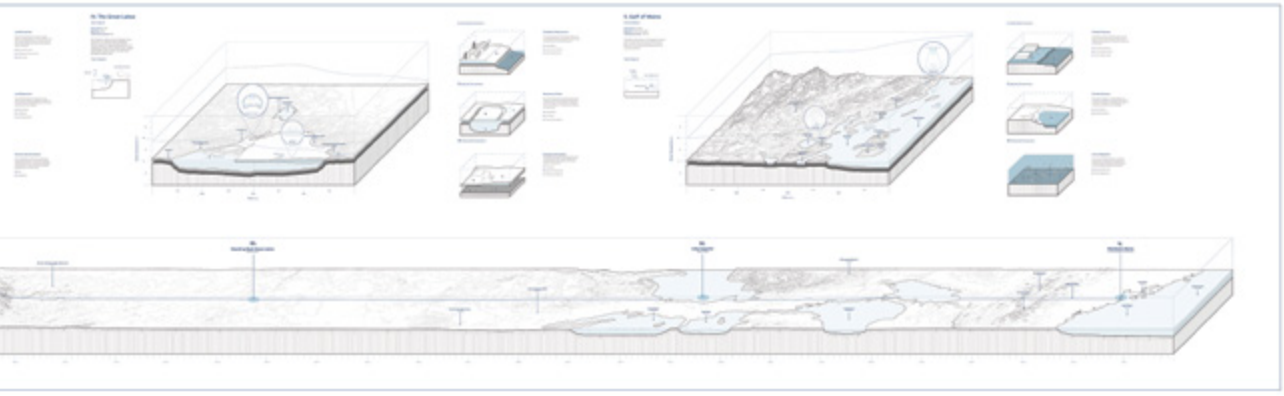


<THE ISOLINE: OR THE RISE AND FALL OF THE STATISTICAL LANDSCAPE> Marco Ferrari

This studio explores the concept of the isoline from a historical, cultural, and mathematical perspective. It charts how the statistical view of nature and ecology has risen over past centuries and has been used as a predominant blueprint for mapping, planning, and the management of space, societies, and the environment. It outlines different isoline systems through their epistemologies, the language



through which they have been crafted, and their methods of calculation and then focuses on a specific geographic perimeter to investigate how isometric surfaces have been at play across the North American landscape. If isolines represent fields of equal values, how can we define alternative equalities? What other metrics can we think about? What is the relationship between the sensing and mapping of a territory and the claims upon it?



Matthew K Acer

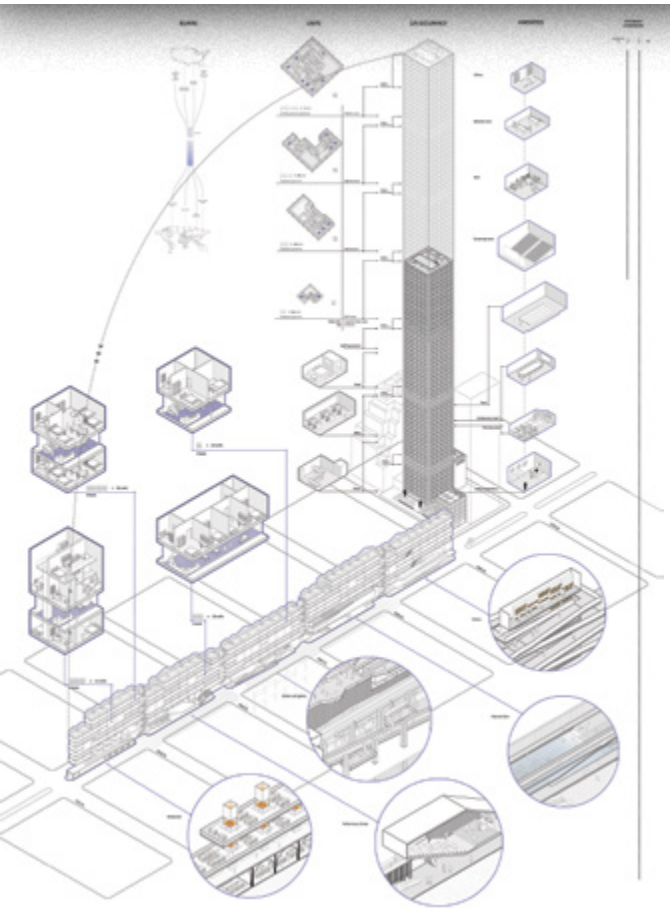
Frost Line aims to act as a laboratory of sorts that analyzes, predicts, and manipulates different ecosystems to bring to life issues of the built, natural, and chemical environments.

Ibrahim Kombarji

This isoneph projects on the future of the sovereignty of water between states, measuring cloud coverage through invisible latency, institutionalizing cloud reserves, and sensing ephemerality and carbon dioxide as a partisan political device.

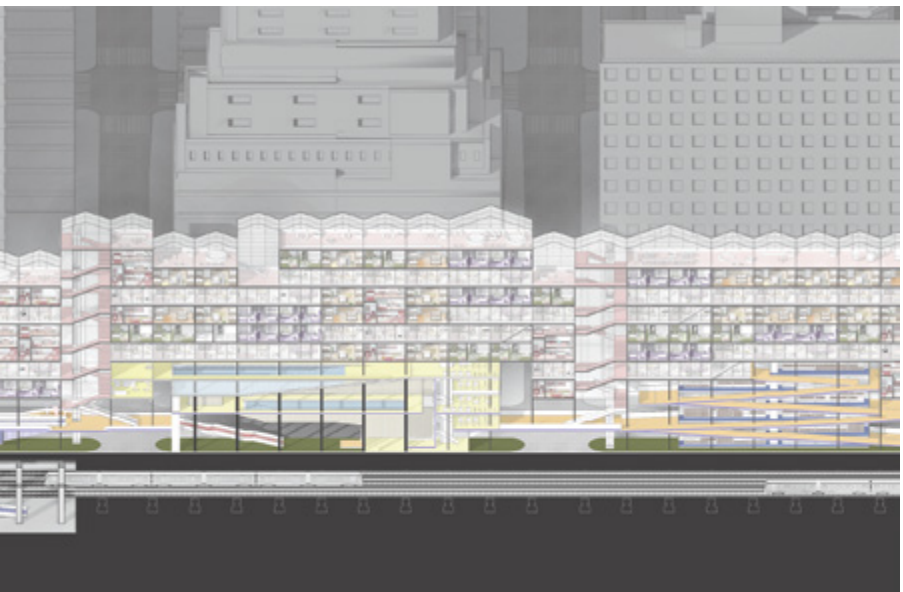
<LINES X CITIES: ARCHITECTURE OF THE THOROUGHFARE> Nahyun Hwang, David Eugin Moon

At once organizing and participating in the larger network, urban infrastructures connect and fragment at the same time. A spatialized socio-political device built in the language of necessity and economy, infrastructure is an ideal apparatus of governance. This studio investigates the possibility of an architecture that actively challenges the construct of pure utility and engages Park Avenue, a



Mengzhe Zhang, Lu Xu

This project proposes an inverted version of 432 Park Avenue which has been largely criticized for its luxury prices and low occupancy rate.



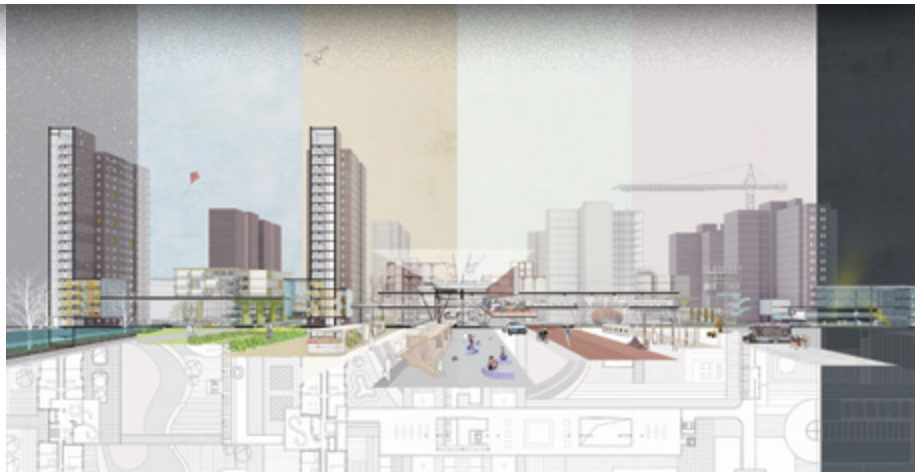
Aayushi Joshi, Wei Wang

This design investigates the underutilized alleys of Lenox Hill at Park Avenue, and proposes different functional spaces for the community.

transect that cuts through the island's most rooted mechanisms and familiar manifestations as well as its hidden and connected geographies, time frames, and potential transformations, as a testing ground. The goal is to suggest the possibility of bringing forward an alternative spatial structure, and thus, the behavior of the city, through the redefinition of the Architecture of the Thoroughfare.

Rui Wang, Xinning Hua

To activate the aging NYCHA public housing and reconnect it to the neighborhood, *Seaming the Gap* proposes a plug-in system with multi-layered programs that connect each tower on both sides of Park Avenue.



<FOR YOUR ENTERTAINMENT> Mecky Reuss, Ana Paula Ruiz Galindo

This studio studies how leisure has changed over time against what happens when architecture is put on display, and what being on display means for architecture. It questions how architecture expresses itself beyond the everyday functional building. Through concurrent research of the site and responding designs for a contemporary context, the studio creates architectural gestures that engage form,

Hyeokyoung Lee

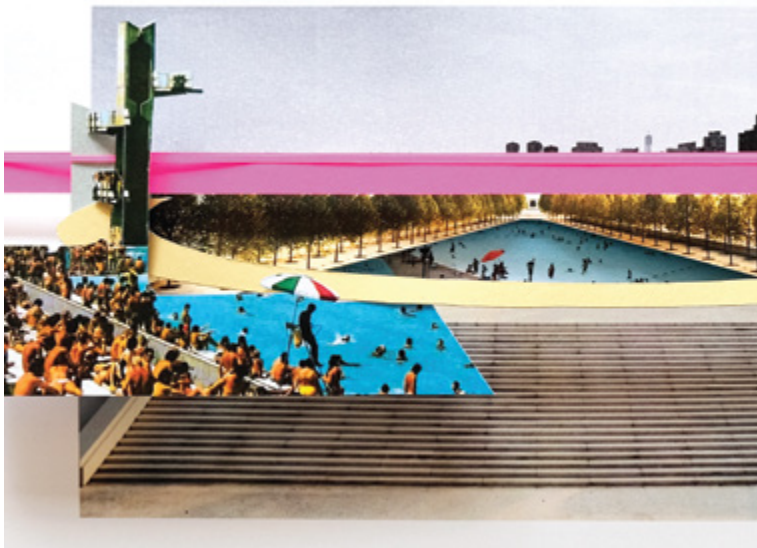
The architectural space for AR gamers relies on a map of the retro game Whirl Islands, Pokemon-Silver (1999).

Shailee Kothari, Shanti Gollapudi

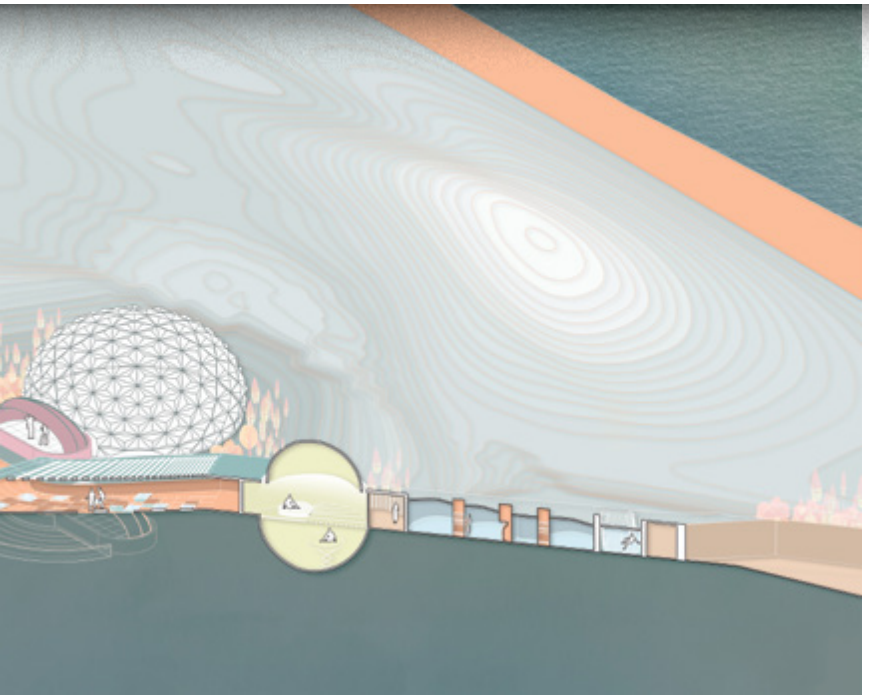
Our proposal introduces an entertainment device for millennials suffering from social anxiety. Users embark on journeys, following a sequence of colors and complementary activities.

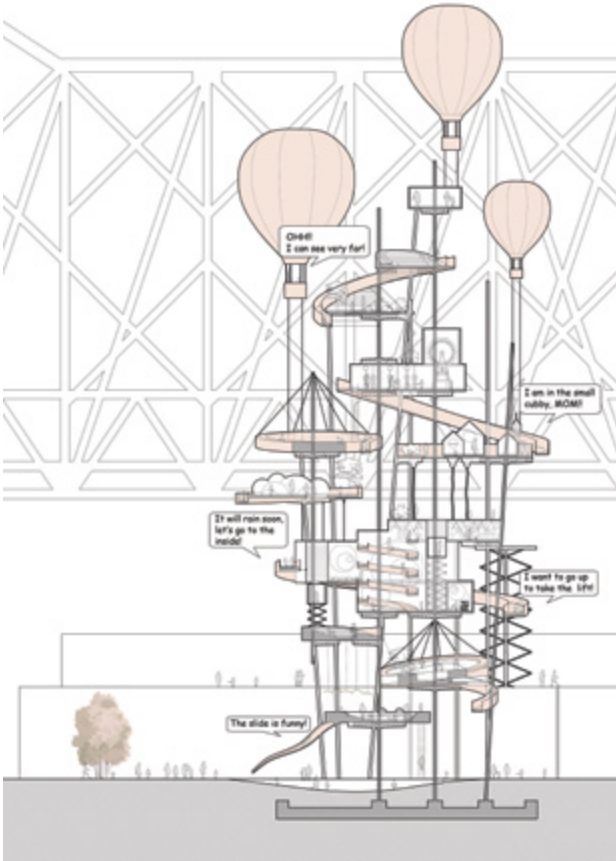
Stephan van Eeden, Bassam Kaddoura

United States of Leisure investigates how leisure can redefine a city and respond to public citizens rather than private consumers.



texture, and color in tandem with the sociopolitical ramifications uncovered at each site and program. The site is Franklin D. Roosevelt Four Freedoms Park. The aim is to create the new Coney Island, the new World Expo, a place for looking at architecture.





Shiyin Zeng

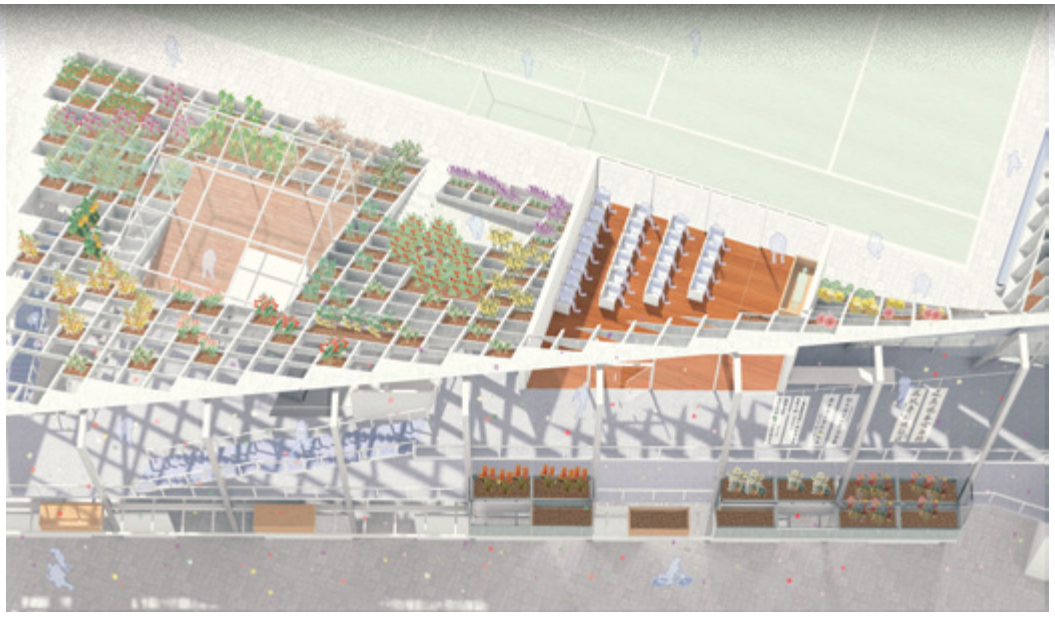
This playground stimulates the imagination of its users during the early stages of their childhood.

<URBAN PALIMPSESTS> Karla Rothstein

Burial grounds receive remains of the deceased but also synthesize spiritual conceptions and aesthetic tendencies across time and culture. The urban and architectural spaces of death and remembrance embody evolving priorities, shifting practices, and external pressures, including dramatic displacements, replacements, and renewals. The urban cemetery has physically and figuratively

Guangwei Ren, Zoey Wang

The serpentine vertical farm and cemetery system in *Synchrony and Diachrony* respond to physical and programmatic contexts and contain cyclical transformations of life.



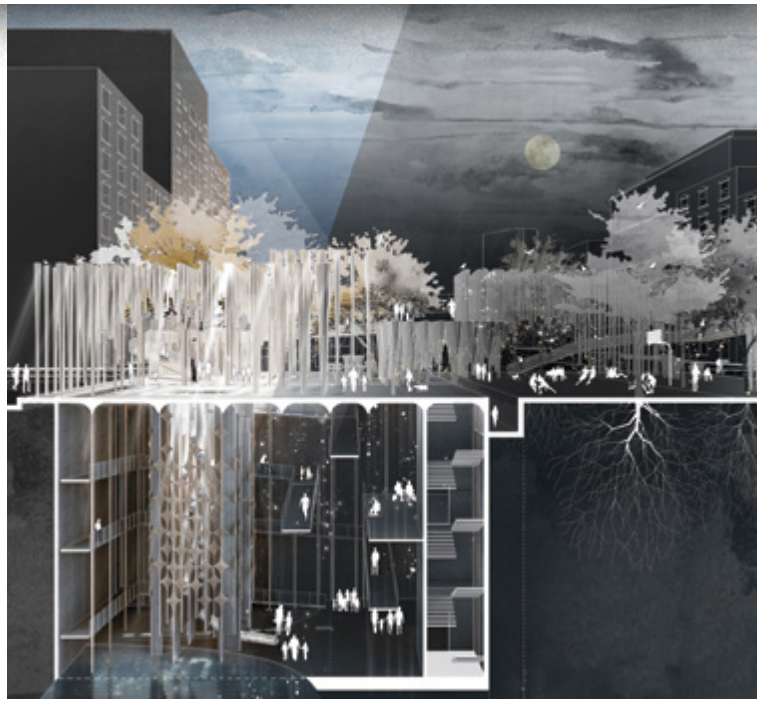
Yanan Cheng, Sirenia Kim

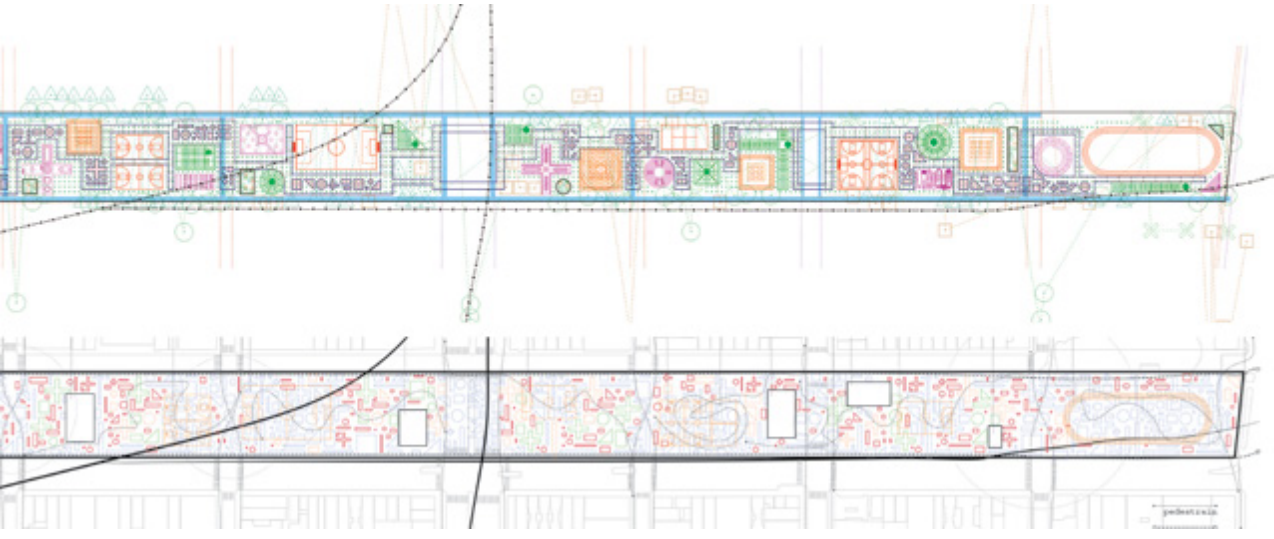
Through anaerobic bioconversion, the deceased are converted into energy, encircling occupants in halos of light.

oscillated between central and marginal, celebrated and disregarded, democratic and elitist. This studio translates the existing programs of Sara Delano Roosevelt Park, interweaving public activities with a sustainable cemetery for the 21st-century. It explores how relationships inform structures of space and social interaction, how complex phenomena emerge out of precise organizations, and how strategic rules function to promote exploration and surpass perceived limits.

Peizhe Fang, Linxiaoyi Wan

This project introduces new tranquil spaces of death in Sara D. Roosevelt Park as ripples that softly reach the ground of the existing site.



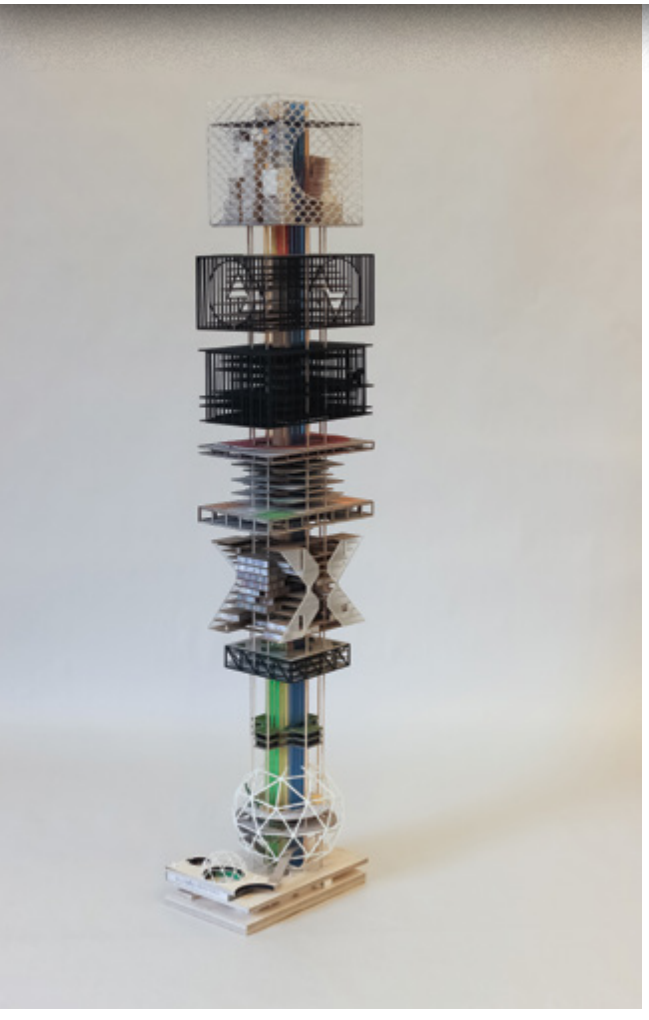


Kabir Sahni, Seid Burka

Acknowledging the human corpse as biological material, the urban and architectural field in this project performs liminally—coalescing resources, spaces, experiences, and programs of life and death.

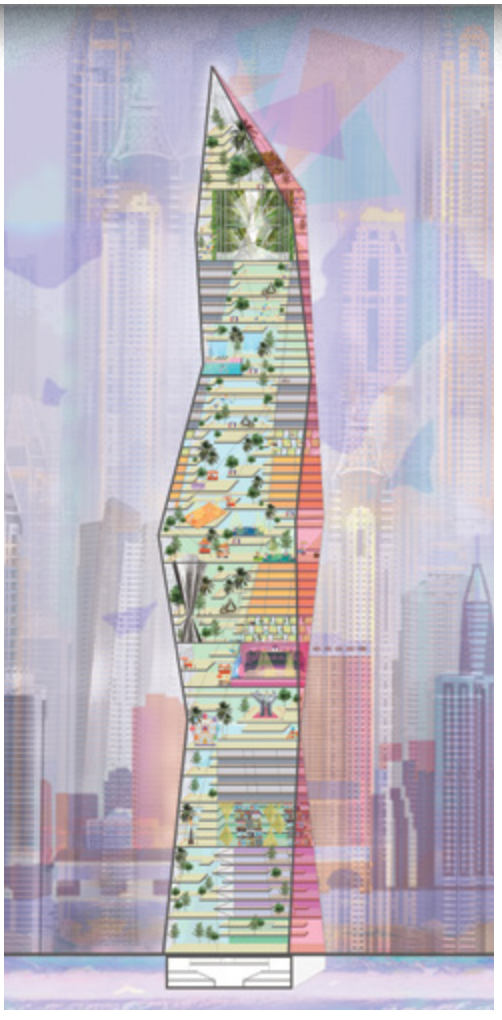
<GOING UP! VERTICAL DENSITY/THE SKYSCRAPER STUDIO> Dan Wood, Maurizio Bianchi Mattioli

The premise is to research, test, probe, imagine, and design skyscrapers. Height is the statistic most obsessed over and essentially stands in for bragging rights for the developer and privatized removal from the streets for its occupants. This studio uses one metric above all others to create our skyscrapers: performance. ↗



Christian Pineda

Cadaver Esquisse invites the public to enjoy city views in an observatory connected through a series of elevators, ramps, and platforms.

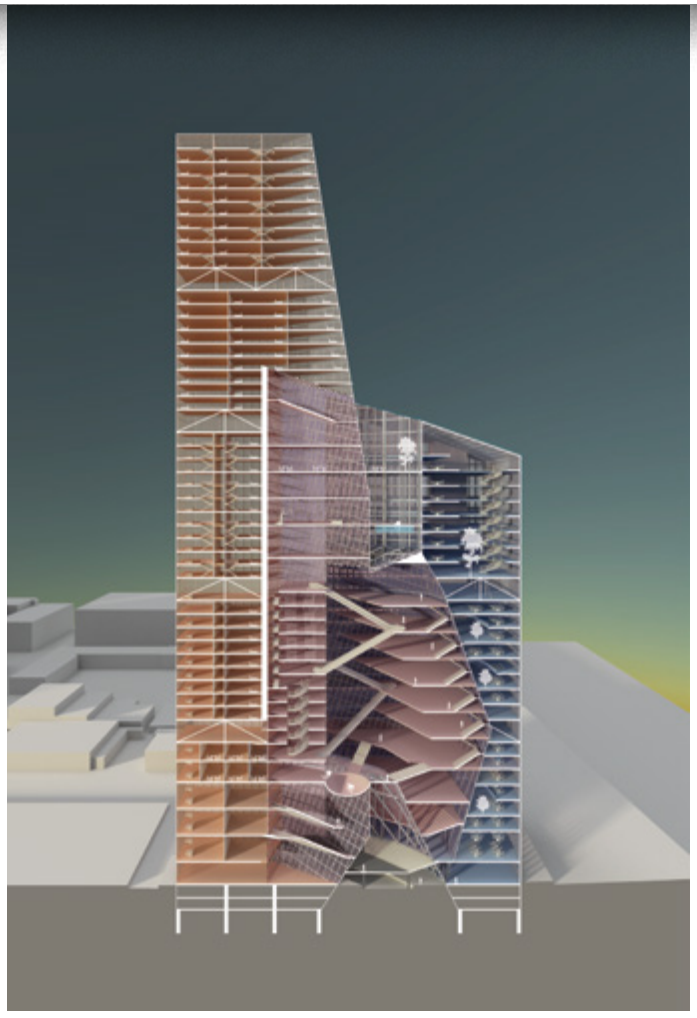


Helena Urdaneta

Occupants in this prismatic glass tower can live a full life without ever having to leave.

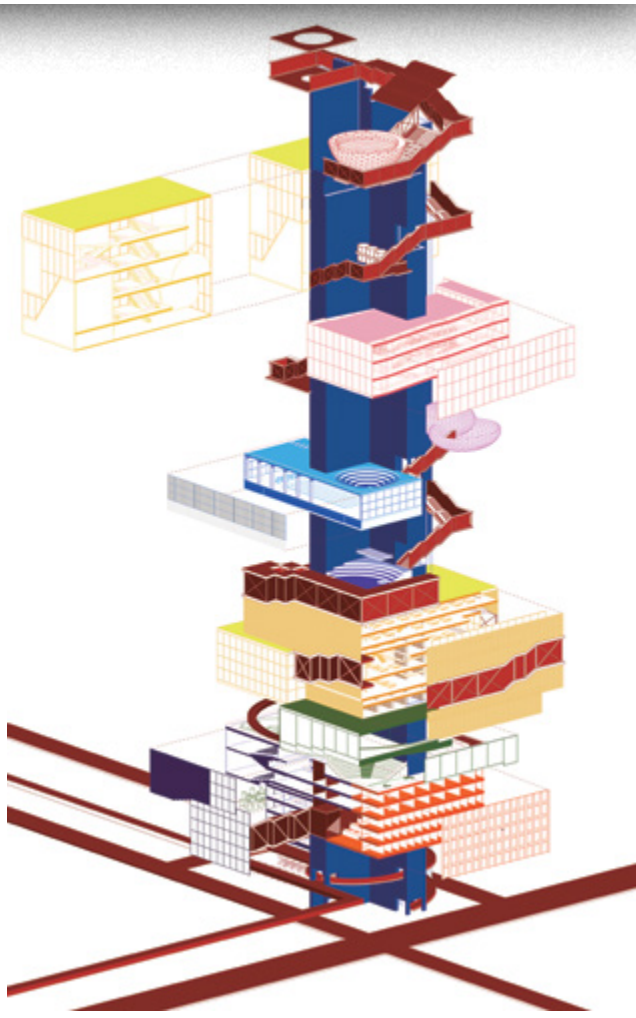
Jay Li

Performance in terms of density, ecology, publicness, program, circulation, engagement with the street, quality—and equality—of life. With the world population continually growing while at the same time under the threat of climate change and increased competition for land, cities will need to become more vertical, and skyscrapers can be an efficient way to multiply ground space. The project site is Hudson Yards.



Siying Chen

The project site for *The Intersection* is divided in half by the High Line which serves as a stage, engaging with an auditorium located in the two towers.



Zifan Zhang

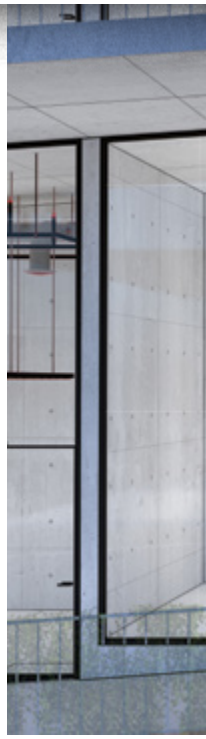
<TOWARDS A NEWER BRUTALISM> Emmett Zeifman

This studio revisits the “new brutalism” articulated by Alison and Peter Smithson and Reyner Banham in the early 1950s: a legible synthesis of spatial, structural, and material organization; individual buildings conceived as urban theses; directly express new technologies and social relations through architectural form. Where “new brutalism” sought to give form to the emerging welfare state and

Byungryoung Lee, Haeri Choi, Hajir Al Khusaibi

Yu Kon Kim, Kyu Chan Kwak

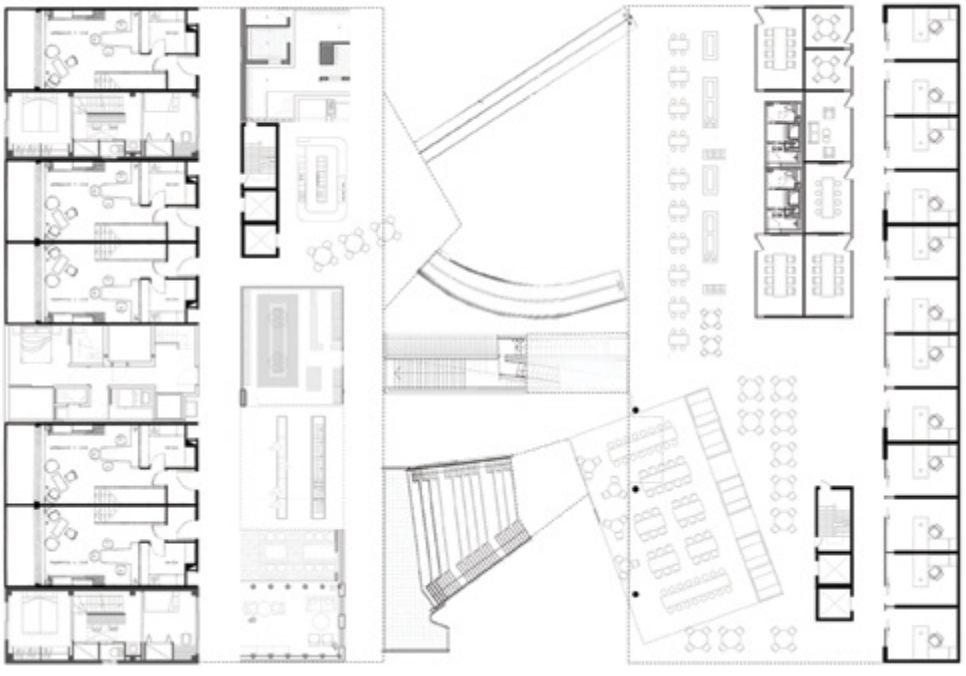
The living area in this project—the outer world—is private, visually connected to the city, and receives natural light. The work area—the inner world—is public and connects to the city.



consumer society of the postwar period, the newer brutalism might express and challenge the transformed economies, social relations, and environments of the new millennium. Working between 10th Ave and the High Line, these experiments challenge the ongoing development of an area laden with financial and cultural capital. The studio defines alternative structures, offering new possibilities of living, working, and building in the 21st century.

Ruochen Ji, Shengyang He

Home Office Plus provides units of vertically stacked living and working areas with customizable LED panels that allow users to share ideas and advertise activities.



Advanced Architecture Studio IV Ziad Jamaleddine, Sequence Coordinator

Scales of Environment
The Advanced Architecture Studio IV framework looks at the varied scales of the environment through the lens of a specific geographic context. During the spring 2020 semester, studios focused on the fragmented "rural" geography of upstate New York (Mid-Hudson Valley region), unpacking its environmental history and its relationship to the city of New York. Each of the eight studios defined its own territorial boundaries and sites, resulting in a range of investigations that reconsidered the relationship between architecture and "nature." The studios examined and speculated on: agriculture and food production systems; extractive, infrastructural, and logistical sites; lumber forests; parks; man-made and natural bodies of water; and settlements formed by intentional communities. The interrogation of this range of topics resulted in the development of a variety of incisive approaches that re-imagined the "rural" in a new light.

Throughout the semester, students engaged in rigorous quantitative and qualitative research and pursued design strategies operating at multiple scales. This entailed mapping exercises; experimentation with innovative, renewable material and methods of constructions; manipulation of topographic terrain; exploration of water flows and water holdings strategies; the study of the impact of seasonal cycles on built forms; and an understanding of the performative capacities of architecture and landscape through the lens of social and environmental stewardships.

The current extraordinary circumstances imposed on the student body and faculty by COVID-19 have had a deep impact on studio culture this semester. Despite this, the Advanced Architecture Studio IV community exhibited a true resilience and a strong will to support each other, turning the semester into a genuinely meaningful experience that resulted in a remarkable group of design projects. The student work is rigorous, intelligent, and daring. The studio concluded with exciting experimentations with online presentation tools coupled with healthy debates on the mandates of architecture studios, repositioning both the contemporary responsibilities of architecture and the agency of the architect.

Advanced Graduate Spring

Anna Dietzsch, Gregory Haley,
David Eugin Moon, Daisy Ames, David Smiley

Robert Marino, Shuping Liu, Andrew Heumann,
Lindsey Wikstrom, Jaffer Kolb

Douglas Woodward, Yadiel Rivera-Díaz,
Paul Lutton, Dulce Del Rio Pineda,
Maria Paola Sutto, Richard Plunz
Work by Camille Esquivel, Regina Alcazar

Pedro Rivera, El Hadi Jazairy, Juan Herreros,
Alessandro Orsini, Maryam Eskandari,
Ziad Jamaleddine
Work by Leah Smith, Ashley Esparza,
Reem Yassin

cture S

Jacob Moore, Adam Elstein,
Karolina Kalliopi Bourou, Debbie Chen

Amy Shell, Marc Norman,
Lindy Roy

Kate Orff, Adam Frampton, Ed Eigen
Work by Jared Payne, Brian Turner

2020

<FROM LANDSCAPE TO ARCHITECTURE AND ARCHITECTURE TO LANDSCAPE> Adam Frampton

Based on a critical understanding of the urban park as a type, this studio has investigated the interrelationship between architecture and landscape, the relative autonomy of each discipline, and the possibility for translations of techniques, forms, and materials from landscape to architecture and vice versa. Operating within Downing Park, located in Newburgh, New York, a 35-acre

Anoushae Eirabie, Yaxin Jiang

Slow Down proposes to change the pace of Newburgh. The intervention prioritizes pedestrians and reinstates the park as a neighborhood destination.

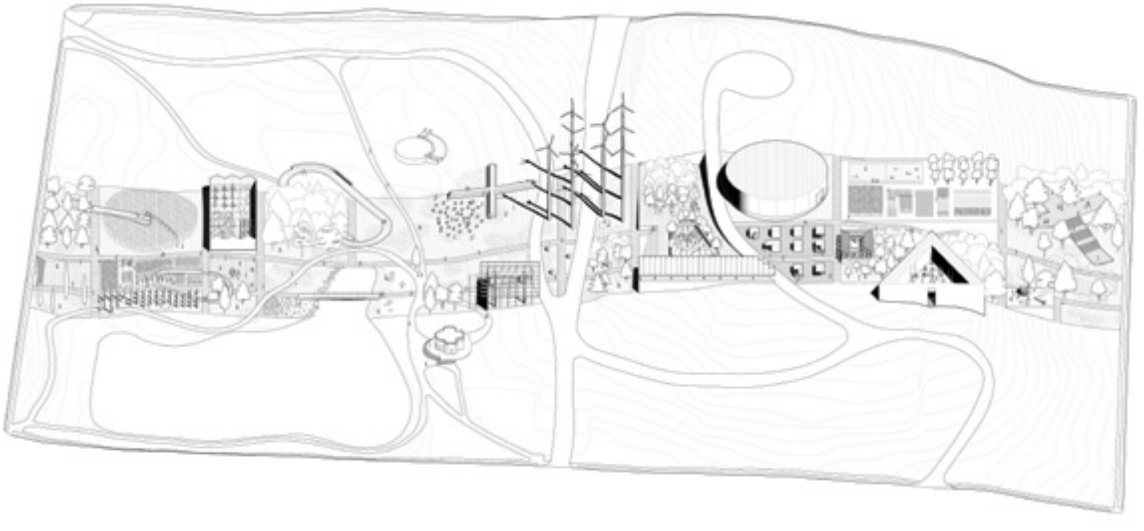
Maxwell Chen, Charlotte Sie Wing Ho

Liquid Matter responds to Newburgh's water pollution and the lack of active green space by activating Downing Park with water that performs socially, environmentally, and sustainably.

landscape designed by Frederick Law Olmsted, Sr. and Calvert Vaux according to the late 18th and early 19th-century theory of the Picturesque, students proposed additional programming and landscape adaptations to revitalize the park and catalyze larger social and economic changes for Newburgh.

Talia Jialun Li, Lauren Scott

Natural Mediums carefully amplifies existing intrinsic or latent characteristics of Downing Park through a series of fragmented interventions scattered throughout the park that act as microclimates.

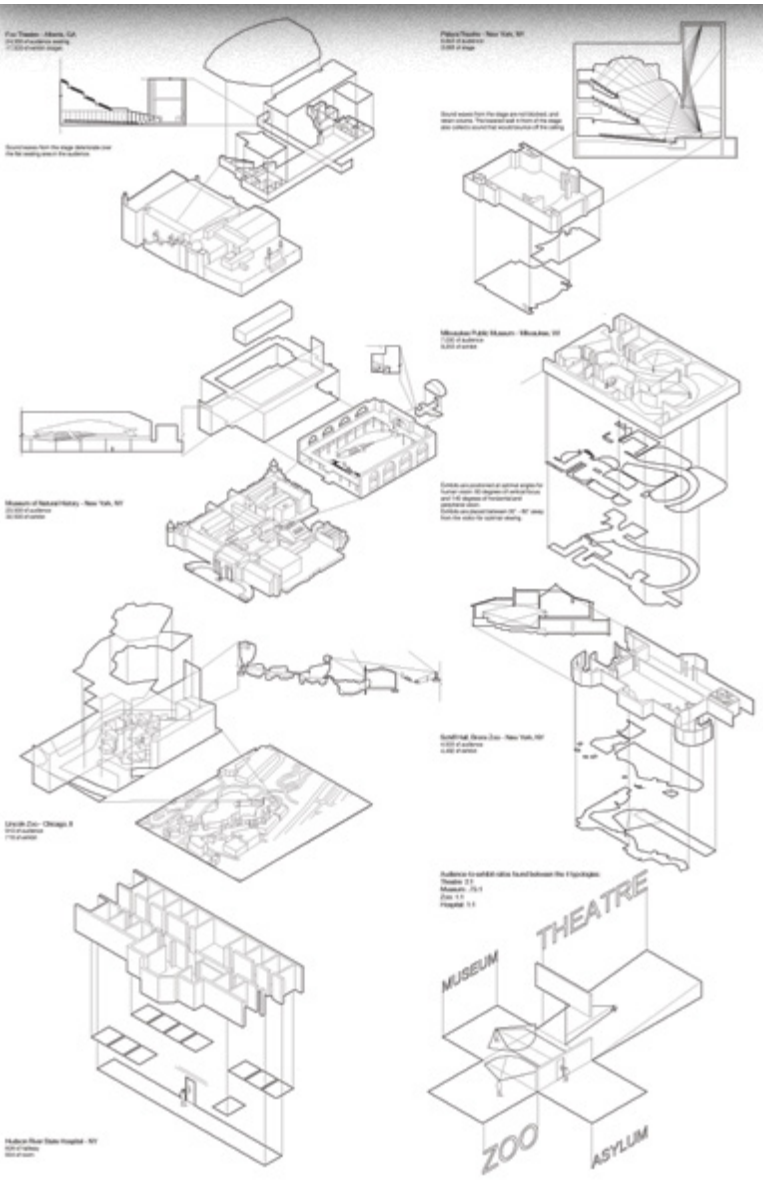


Cam Fullmer, Mark-Henry Decrausaz

Superposer is a "boots on the ground" initiative for the Green New Deal and imagines how this political proposition could materialize in Newburgh as an entity with positive social, ideological, and economic impacts.

<DESIGN FOR OBSOLESCENCE: DUAL FUTURES OF PARKING DECKS, PRISONS, ZOOS> Phu Hoang

The studio explores the concept of dual futures that require designing for two building types that transform from one to another. The studio's near futures involve building types that are common today but are hypothesized to become obsolete in the future. The distant futures require adapting the original types to a future program of education. Students select sites along a high voltage ↗



Jihae Park, Lu Liu

This project proposes an urban zoo that uses the natural resources of Newburgh and adapts the city's abandoned houses.

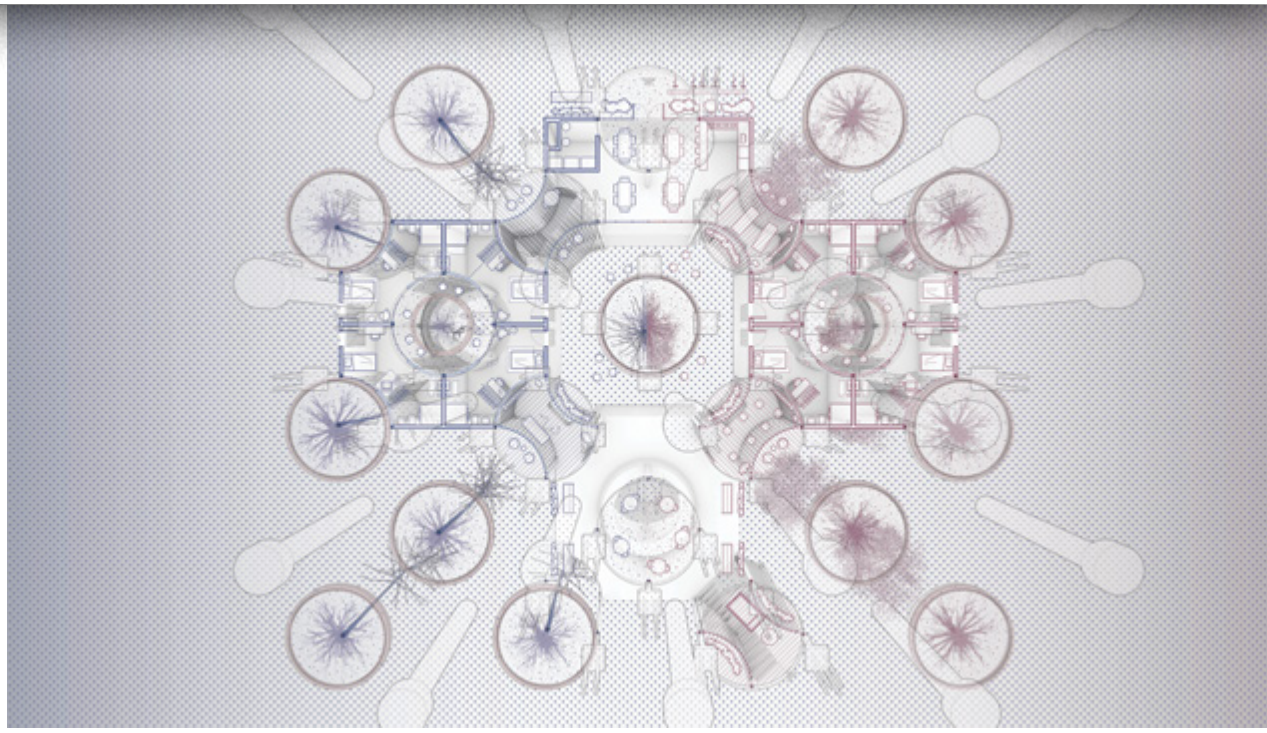
Hao Chang

The Room Ride aims to embrace the future of mobility— autonomous and electric vehicles— by transforming a resting area into a market where travelers meet locals.

power corridor in the rural areas surrounding Newburgh and imagine a future in which the above-ground transmission lines will be replaced by below ground lines and the corridor will be developable. They imagine that sites along the corridor can be designed to meet the current needs of their communities while transforming over time to the needs of future communities.

Alice Fang, Luis Miguel Pizano

This project comprises a timber nursery, community land trust, and dual-future correctional network focused on compulsory reformation (near future) and voluntary rehabilitation (distant future).

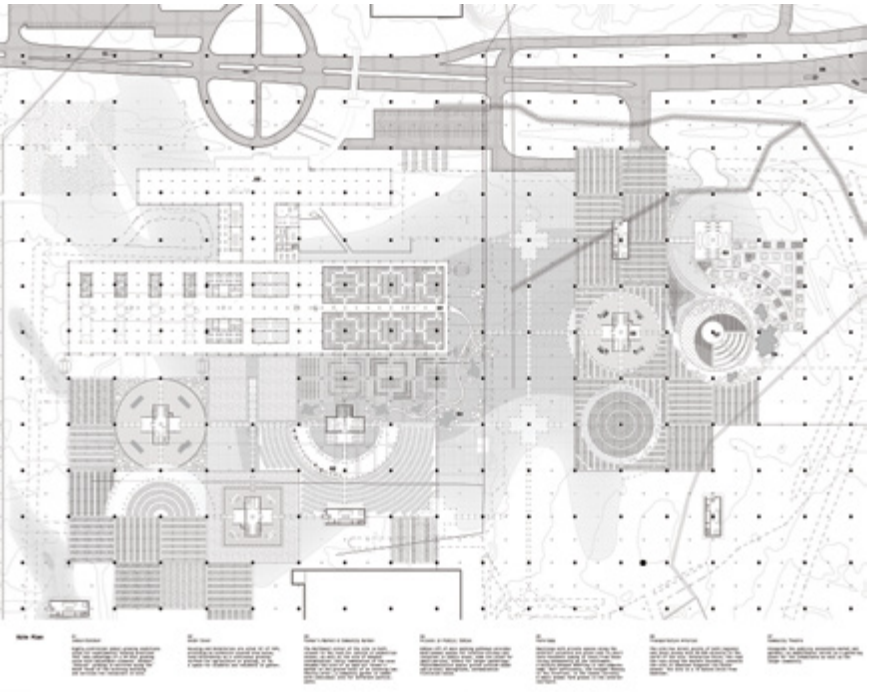


<KNOWLEDGE TERRITORIES> Nahyun Hwang

The city and the countryside have been often placed at the opposite poles, dynamic and densely populated vertical metropolises with maximum productivity on one side, and the timeless and restful countryside that promises simple lives surrounded by pristine “nature” on the other. The studio centers its investigation on the “elsewhere,” on the space beyond the dramatic binarism of the

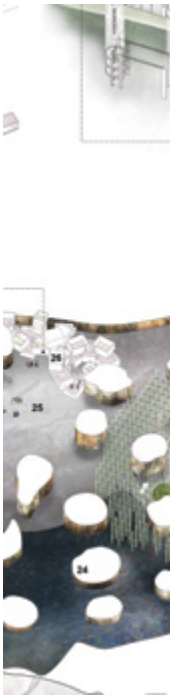
Genevieve Mateyko, Ian Wach

Our proposal takes over the former IBM manufacturing facility and EPA Superfund site outside of Kingston, NY. It imagines a campus that manifests a mutualistic relationship between ecological processes and digital technology to remediate the site and adapt it for agricultural use.



Jacob Hu, Cherry Qu

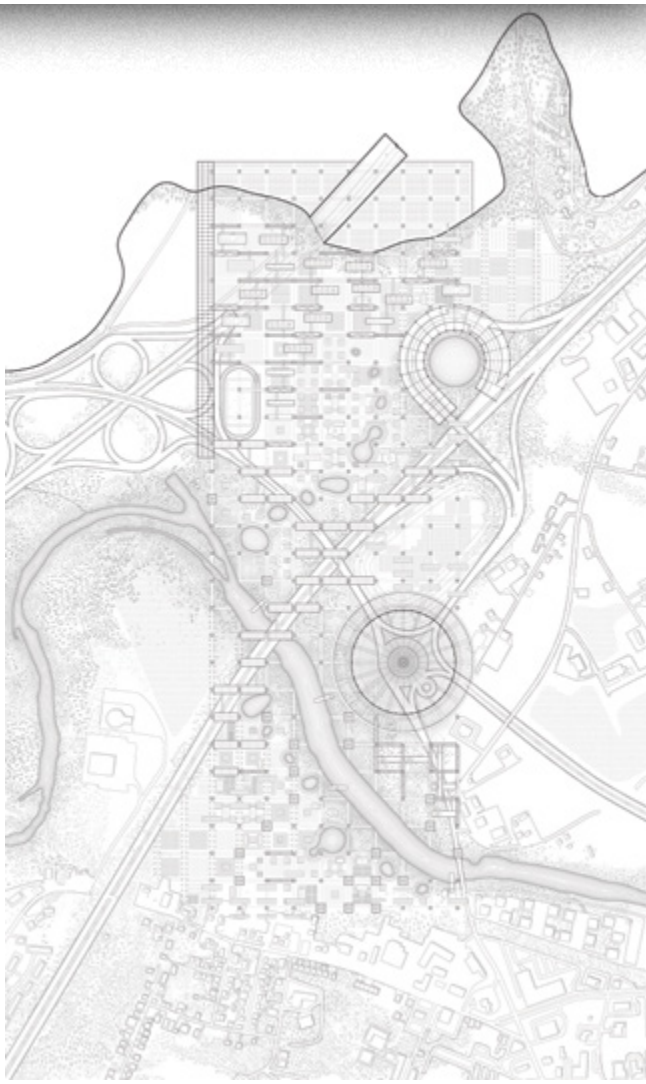
This proposal establishes a shared experimental schoolyard for the Kingston City School District within the post-natural geological environment of Kingston Cave, engaging its unique history, form, and materiality.

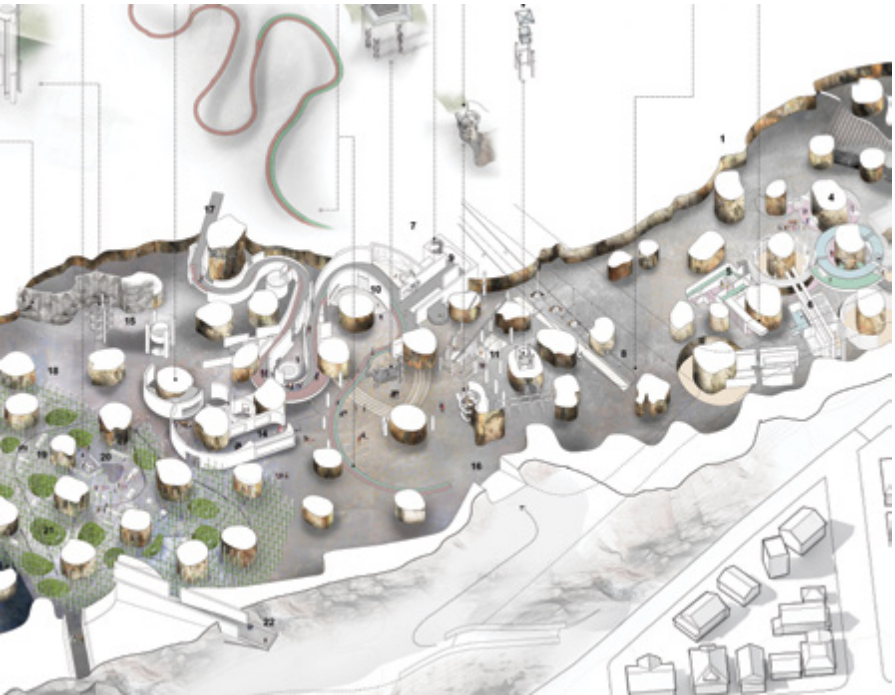


bucolic (or alternatively hyper-futuristic) hinterland and the endlessly growing city. Engaging the complex geographies of the mid Hudson Valley region and its entanglements, the studio investigates the concept of “R/Urban,” or the idea of the multitudes of open relationships between, or beyond, the imaginaries of absolute rurality and absolute urbanity, and more comprehensive notions of “Ecologies” of new and networked nature, to explore the often inscrutable yet expansive territories, of spectra, of in-betweens, overlaps, and intersections.

Jiazhen Lin, Helen Winter, Tianyu Yang

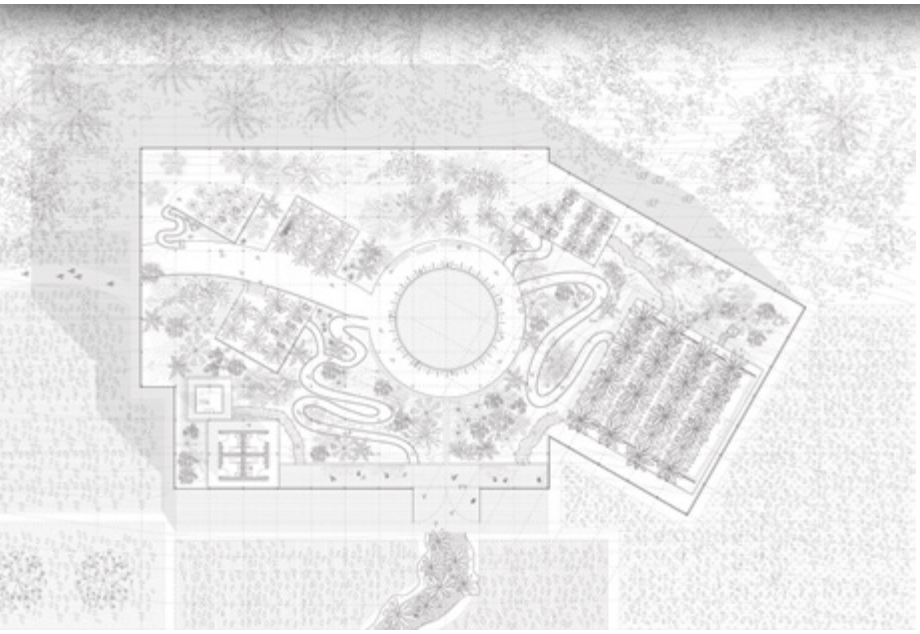
Critiquing the redundancy and disconnect between three parallel infrastructures—agritourism, logistics, and migrant labor—of agriculture, a new experimental campus serves as an independent prototypical zone that designs for moments of intersection through overlapping layers of an ecological corridor, agriculture, housing, and infrastructure within the urban context.





<IN THE NAME OF GOD: AN INVESTIGATION INTO A RURAL RELIGIOUS SETTLEMENT, NY>
Ziad Jamaleddine

The studio scope consists of an investigation of the architectural and programmatic capacity of forms of rural settlement developed by religious communities in upstate NY. First, the studio maps and studies the physical architectural, and territorial typologies of rural religious settlements. These settlements are understood as

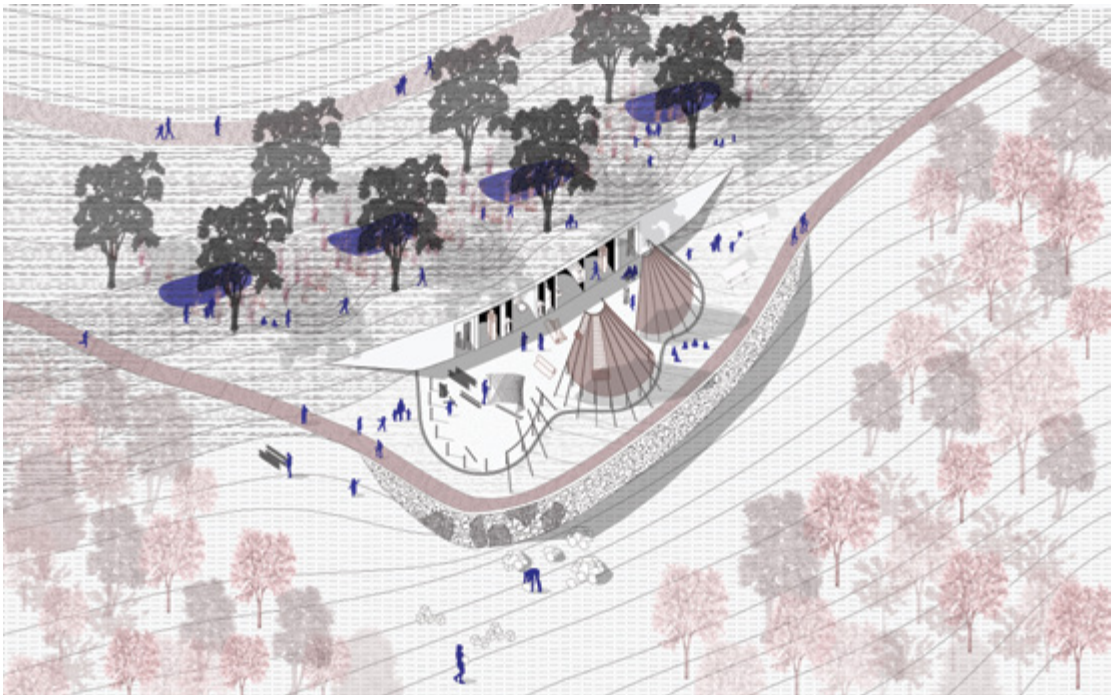


Alina Abouelenin, Matthew Brubaker

Processions of Water interrogates the exploitative relationship between the rural and the urban through the lens of exclusive water systems and latent potentials.

Ashley Esparza, Leah Smith, Reem Yassin

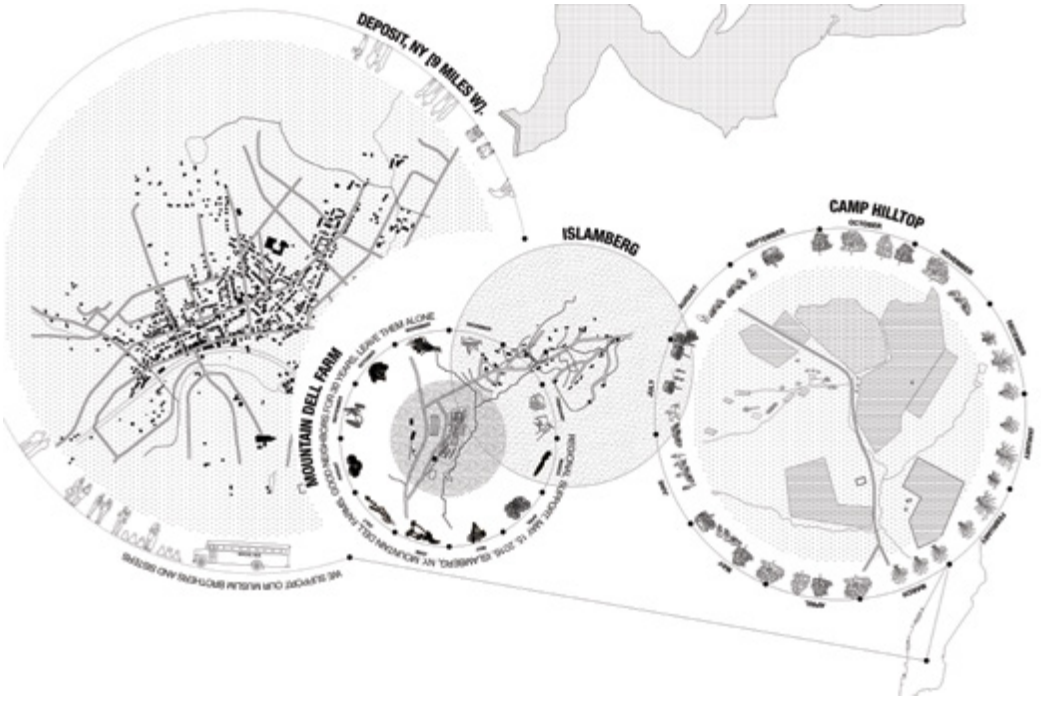
Bioswale campsites, filtration pavilions, and aqueduct tree harvesting transform the landscape through the phasing of pathways and infrastructure capacity for temporal and permanent tactile learning environments, facilitating practices of religiosity and cross-cultural stewardship.



exemplars of a type of “intentional community” and as a potential form of resistance to the increasingly commodified and fragmented territories of the countryside. Second, the studio identifies sites and proposes physical interventions in the Muslim community hamlet Islamberg, Delware County, NY. These interventions are proposed only after having first critically unpacked Islamberg’s historical evolution and probing the hamlet’s architectural and territorial relationships to its environment.

Begum Karaoglu, Yasmin Ben Ltaifa

By reinterpreting the existing threshold at the entrance of Islamberg, the project bolsters relations the community has with its neighborhoods, while also providing Islamberg’s youth with educational prospects that break down the socially constructed reality of “religious vs. secular” education.



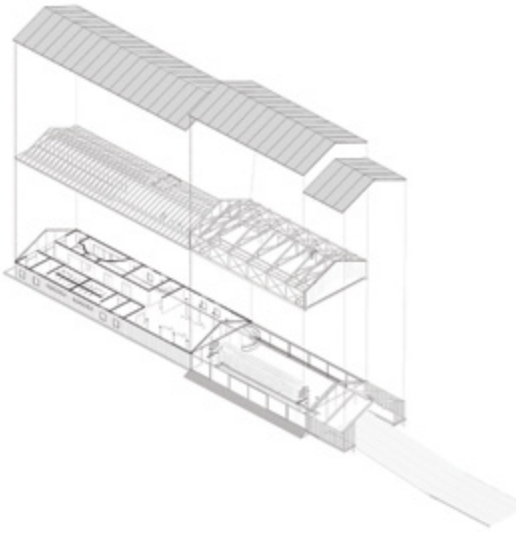
<THE SHELLS OF NEWBURGH: THE NEWBURGH ROWING CLUB> Robert Marino

This studio proposes a Newburgh Regional Boat Association that not only includes the existing Newburgh Rowing Club but also expands its mission to include boat repair and new boat construction. It also roughly triples its size to include nearby rowing and boating clubs as well as high schools and colleges. The new construction has many uses: storage, river access, a workshop for boatbuilding

Isabella Bartenstein

This project expands the square footage of an existing club by encasing the footprint and enclosure with an exoskeleton structure to build two additional levels.

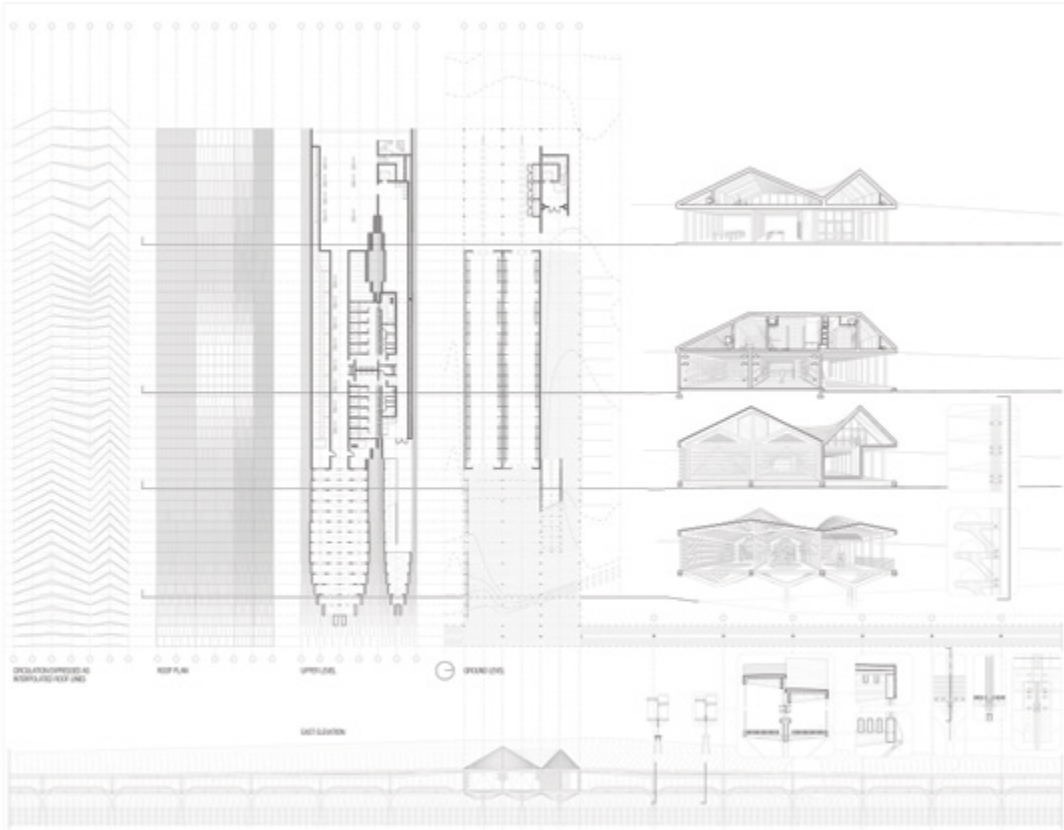
Camille Lanier



and repair, and rowing fitness. The proposed program is understood as a way to return the environmental uses of the Hudson River to a tactile, physical one. The former uses, primarily industrial, have been supplanted. A recreational, athletic, and craft use is proposed. It is hoped that the new uses enhance an appreciation of the river as a natural resource to be protected and appreciated.

Zachary Bundy

This boathouse expansion provides a direct link to a nearby park along a boardwalk, re-establishing the rowing club as a public amenity.

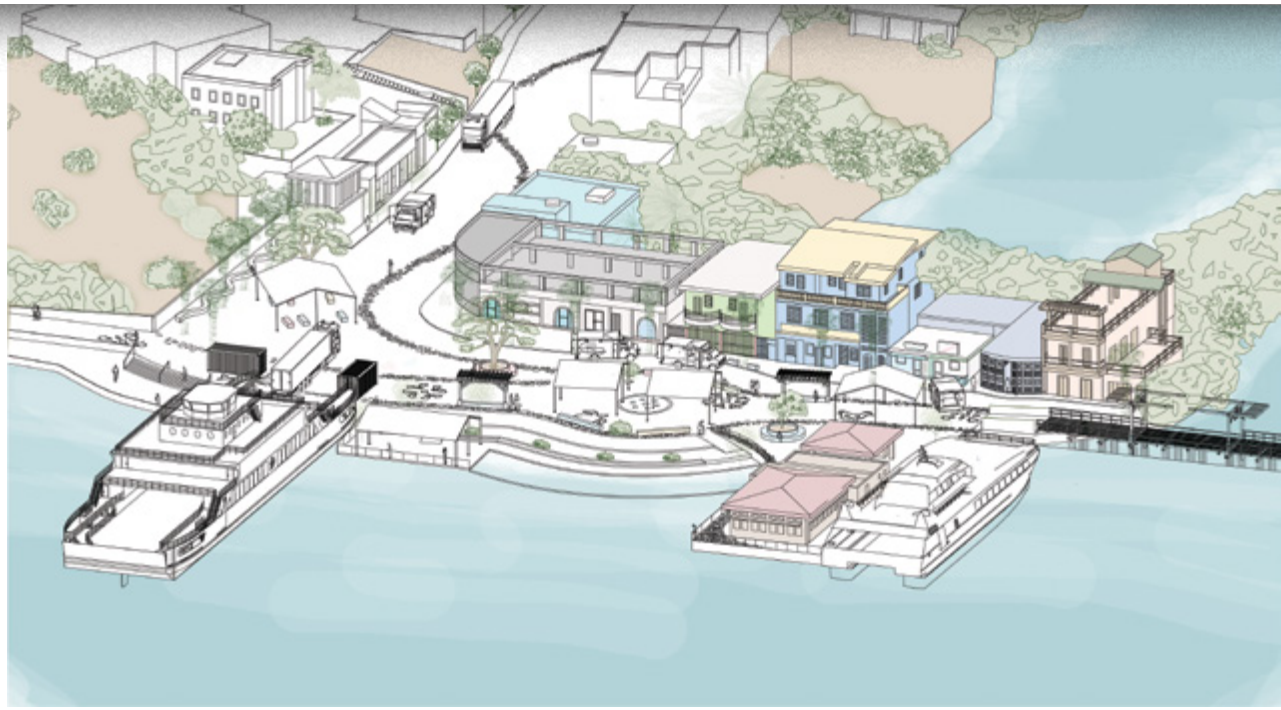


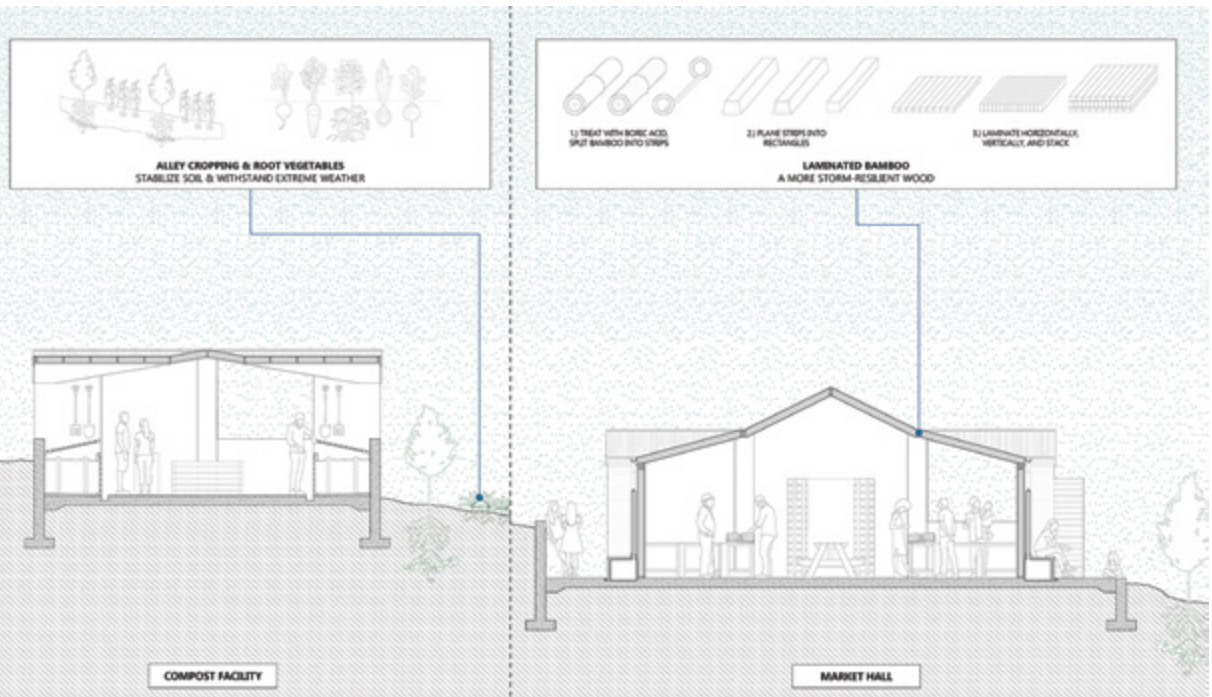
<CARIBBEAN RECONNECTIONS: A SUSTAINABLE FUTURE FOR PUERTO RICAN ISLANDS>
Richard Plunz, Douglas Woodward

This joint urban planning and architecture studio is part of a series focusing on the island of Vieques, Puerto Rico. The studio focuses specifically on the neighboring island of Culebra and the Main Island at the Municipality of Ceiba—all three sites share problems related to transportation and general developmental

Melissa Chervin, Caili Li

Gateway to Culebra considers tourism development through the lens of the community as a way to enhance local business and explore productive use of vacant land and underused space in Dewey and its shoreline.





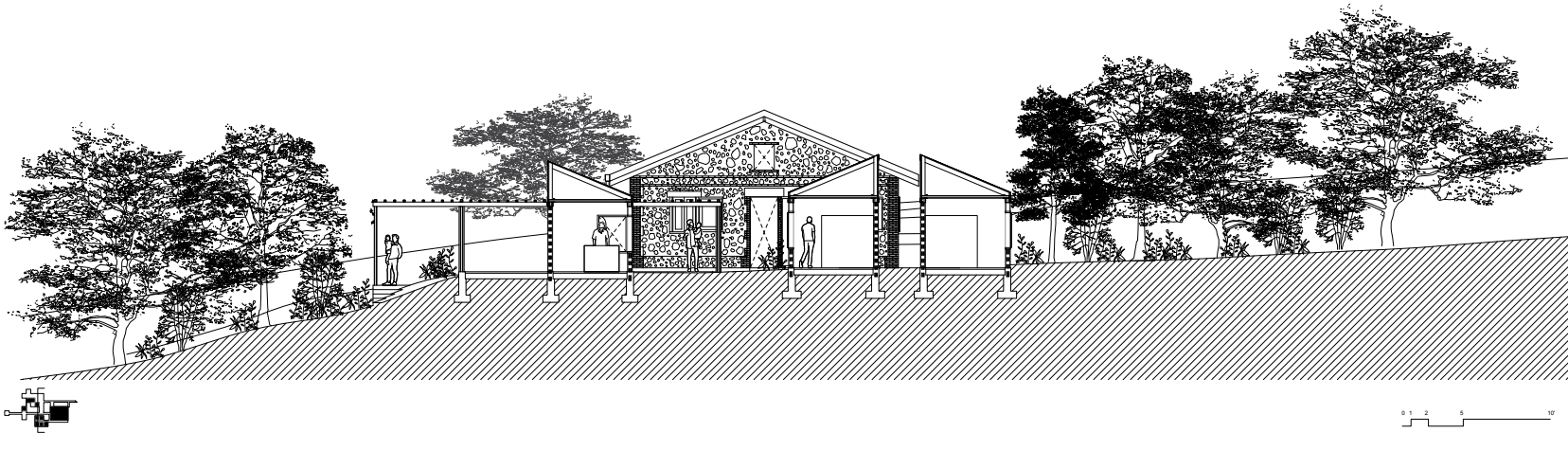
Sarah Zamler, Aria Ling

This design consists of several modules, which combine to create market halls, composting facilities, greenhouses, tool sheds, and gathering places to create a more sustainable food system in Culebra.

issues. This studio continues to engage the study of infrastructure, building, and livelihood futures begun in Vieques while expanding the scope of architectural design to include planning, policy, and implementation issues. The core concerns of infrastructural development remain. An overriding concern of the studio is exploring the developmental advantages of infrastructural improvements in maritime-related infrastructure.

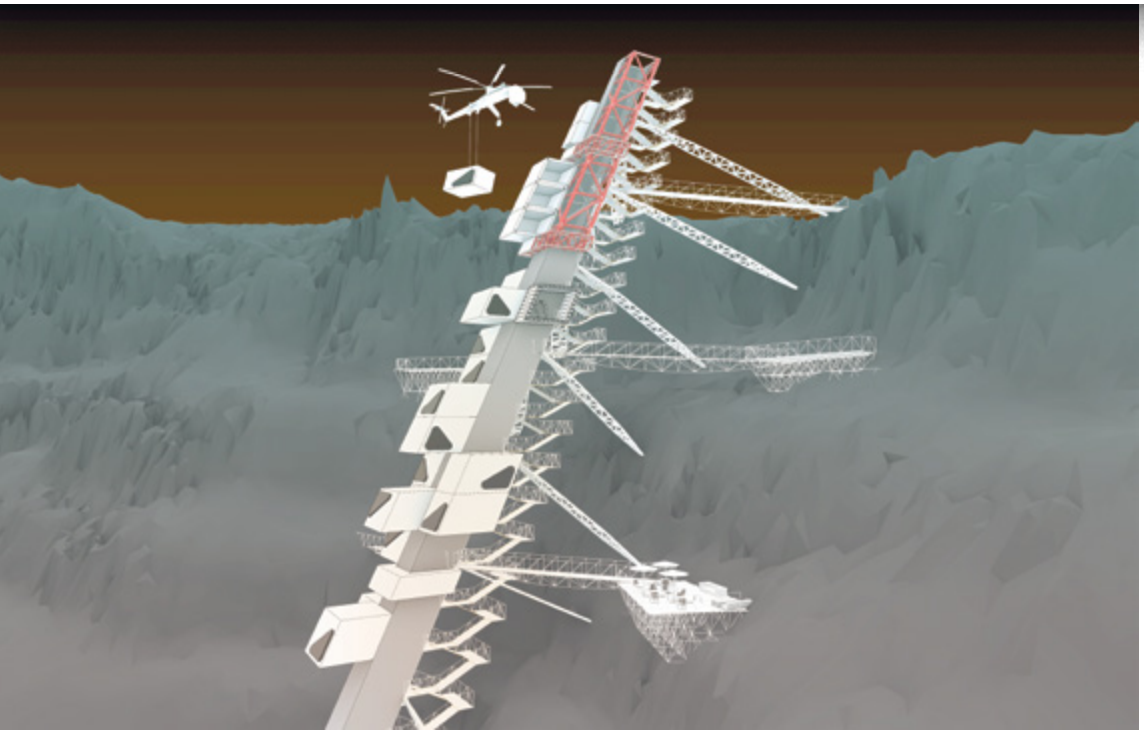
Nelson De Jesus Ubri

The Museum of History and Resiliency is a series of site-specific micro-museums that memorialize residents' struggles to fight the US Navy oppression and become self-sufficient. It also educates tourists about the lasting effects of the Spanish colonization and the US invasion.



<TOMKINS COVE QUARRY: EXTRACTION, SUCCESSION, RETREAT> Lindy Roy

This studio takes this form of ecological restoration as a partial given and considers possible futures for Tomkins Cove Quarry. The interplay of three time scales direct the enquiry and govern the speculations: the geological, the ecological, and that of human activity. Architects are engaged in an energy economy usually confined to the thermodynamics of materials and bodies in space.

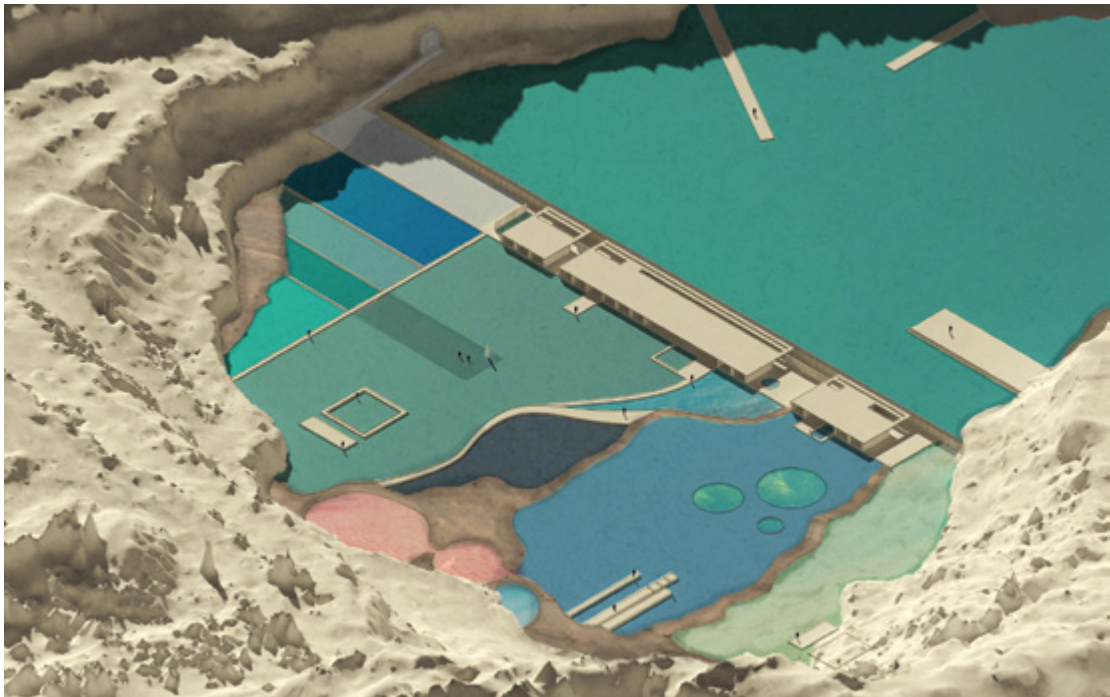


Jacob Chengjie Li

Anthropocenery is a short-term residency for new media artists to project installations on the quarry, transforming it into a performative object.

Maria Pérez Benavides

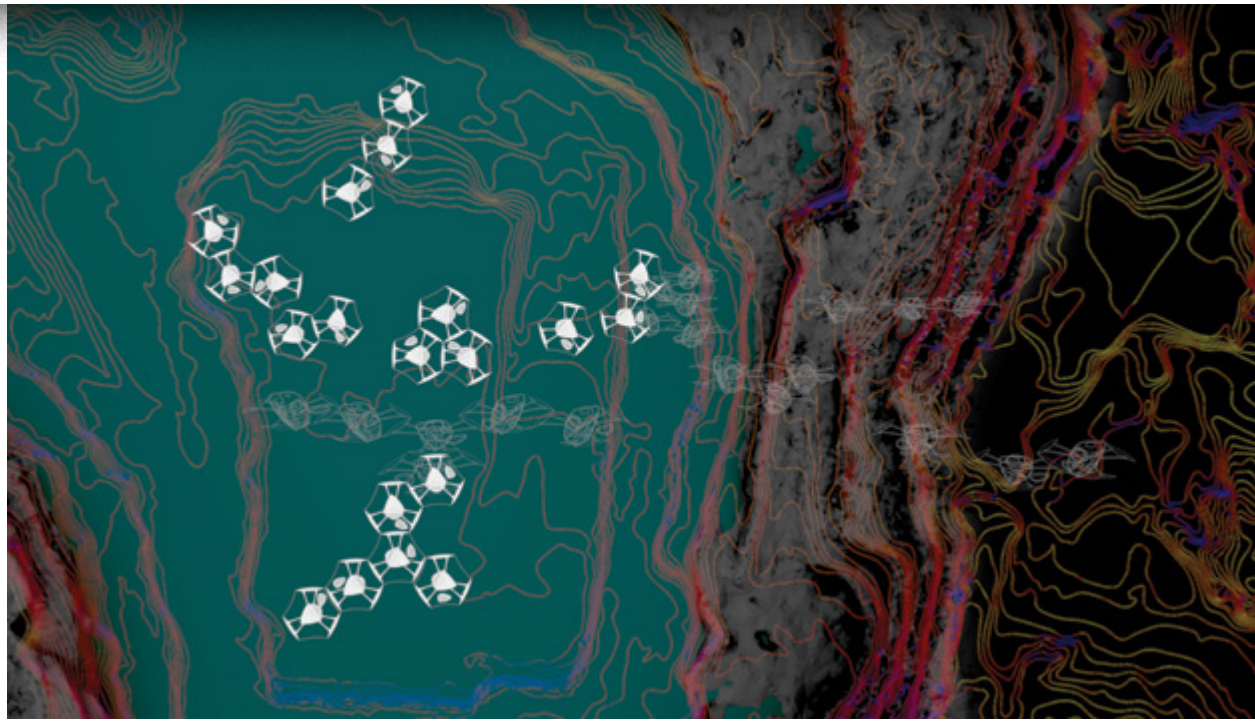
Liquid landscape introduces a water ecosystem that generates a range of physical, chemical, and biological compositions of water to create a spectrum of blueness in the Tomkins Cove Quarry.



The studio expands this view to encompass the reality that every encounter with the environment, every sense, movement or decision be it at the retina, neuro-muscular junction or cortex, is a constant transfer from one form of energy to another. To Vernadsky's biogeochemical we will add the prefix neuro. The program of a residency or a retreat is the starting point for proposing low impact/low density occupation of the site.

Taylor Urbshott

Utilizing the site-specific conditions of a post-productive quarry, this project aims to increase the influence of natural sensorial aspects on the user for therapeutic purposes.



Shuang Bi

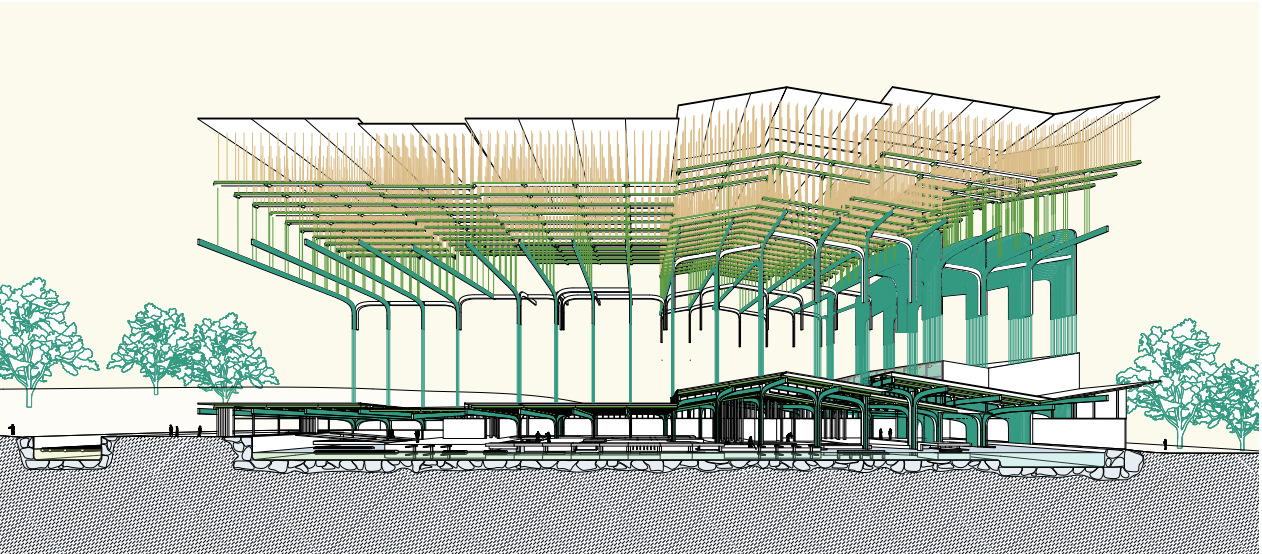
By casting on the waste piles in Tomkins Quarry, this project creates a new concrete landscape that hosts a short-term residency for performing artists.

<FRINGE TIMBER: A WILDLAND URBAN INTERMIX LABORATORY SCHOOL> Lindsey Wikstrom

Building from the 2018 Timber Innovation Act and 2021 IBC Engineered Timber update, the studio considers the future of engineered timber, working landscapes, and the subsequent built environment in the Hudson River Valley. Here, most trees are privately owned, growing on land at the fringe of urban development, designated Wildland Urban Intermix. Under these conditions, a diverse local ↗

Angela Sun, Tung Nguyen

Crown Shyness explores knowledge-sharing in three dimensions: between forest and non-forest, humans and machines, and home and work.



Sixuan Liu, Sarah Shi

Cultivating the knowledge of the biological intelligence of living trees, our living lab engineers a flow of hardwood timber production whose process and product moves and filters water.

timber economy is one way to incentivize private landowners to keep forests as forests; and to care for new forests, potentially increasing our capacity to sink carbon. Through the design of a regional Timber Flow and a Living Laboratory, projects explore cultivation and harvest, manufacturing and automation, species driven design and new ways of life. By designing sites of extraction and sites of consumption in tandem, reciprocal and cyclical relationships are formed, blurring obsolete boundaries and advocating for a more aptly scaled future.

Adela Locsin

This proposal for a new timber flow focuses on changing our perception of manufacturing as a process that must be distanced from the activities of everyday life.

Spenser Krut, Charlotte Yu

The Timber Living Lab selectively harvests trees from forest owners in Newburgh and uses the crop to produce hardwood CLT to refurbish idle properties.

Core Architecture Studio III
Hilary Sample, Sequence Director

States of Housing

Housing, as a design studio, is the last semester within the required series of Core Studios. It serves as a conclusion to the Core sequence, as well as a transition to the Advanced Studios and specifically building up to the Advanced Studio IV: Scales of Environment. While the studio is structured to present knowledge about the fundamentals of architecture as it applies to designing housing projects, the studio aims to inspire a shift in thinking about architecture in relation to the world-at-large. There is perhaps nowhere better to study housing than at Columbia GSAPP with its nearly 40-year history of offering housing studios focused on the deeply rich history of New York City. So, while this term, the studio focused on a select site within the Bronx, the studio continually thinks beyond the familiar—reaching globally, never out of touch with the Advanced Studios. While the Core Studios are structured sequentially, housing, because of its unique placement within the sequence, is also situated to absorb and be influenced by research in the advanced studios, while at the same serving to produce serious thinkers and designers about design through the problem of housing types.

This year's housing studio focused on the many different states of housing that we, as architects, typically encounter in practice. Students examined the significance of public housing models—both past and present—that are found in New York City and abroad, and, through team projects, speculated on the rich potential for contemporary urban housing types. The studio was organized through two principal means—research and analysis and an architectural proposal—and operated as a laboratory in which to explore new possibilities for urban living, specifically in the Melrose neighborhood of the South Bronx. Each studio was introduced to housing typologies through two specific assignments that focused on site, infrastructures, and typology using a cross section from Manhattan to the Bronx, followed by a precedent assignment that examined housing units and unpacked their designs through environmental conditions, building programs and systems, and cultural and social factors. The final project consisted of designing high-density, mixed-use housing and public space with community amenities. Each assignment built upon the other, starting with the urban scale and gradually zooming into the scale of the unit, aggregating all systems into a design project that brought together the different states of housing in the development of the main studio site.

Core Architec

Brad Zizmor, Hana Kassem, Paloma Hernaiz, Jaime Oliver

Mario Gooden, Jerome Haferd,
Ife Vanable, Karla Rothstein,
Joel Sanders

Jorge Ambrosi

Fall

ture Studio III

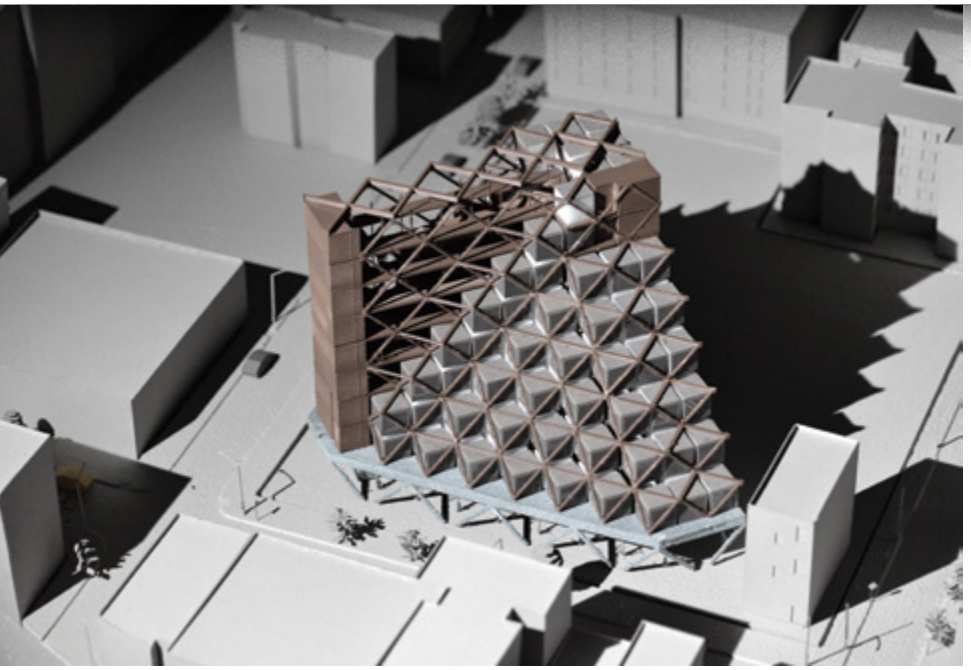
Kim Yao, Bethany Mahre, Stacie Wong, Oana Stanescu, Diana Agrest

Eric Bunge, James Wines, Kriz Kizak

2019

<ACCELERATION> Daisy Ames

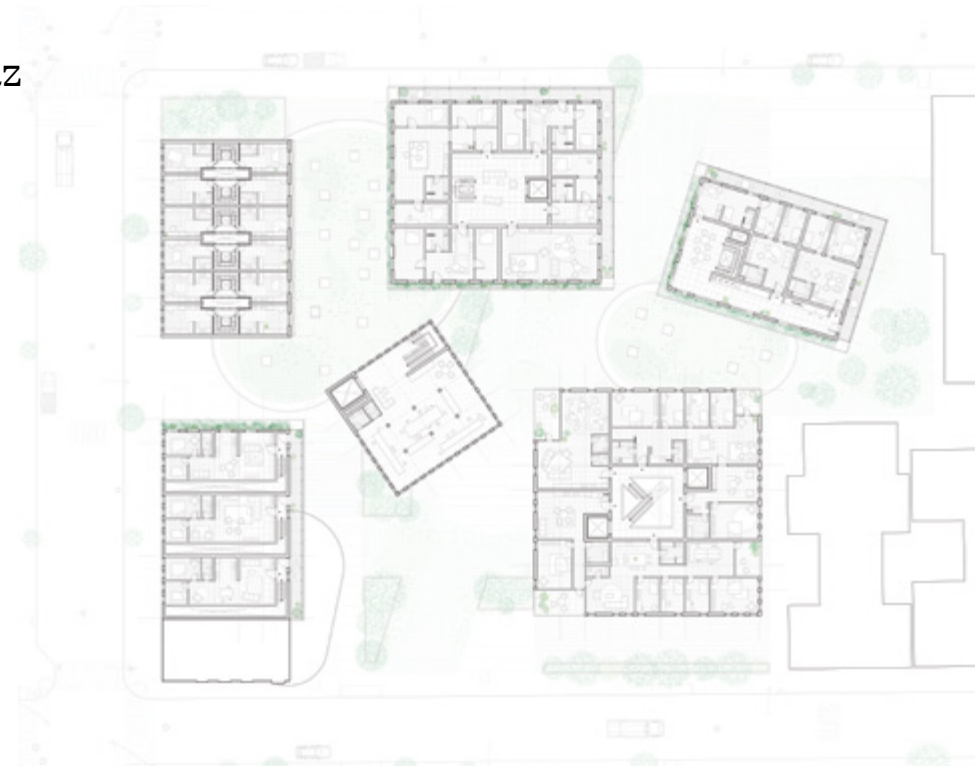
At this particular moment in time, students of architecture must face sets of data that articulate what some scientists and authors refer to as “The Great Acceleration” (McNeill, 2016)—a period since 1945 in which humans have been the greatest driver of change on Earth. This studio asks students to hold in mind this data, along with other important socio-historical moments, and in situ



Anirudh Chandar, David Musa

A diagrid structure allows for aggregation along a diagonal, optimizing access to light and air.

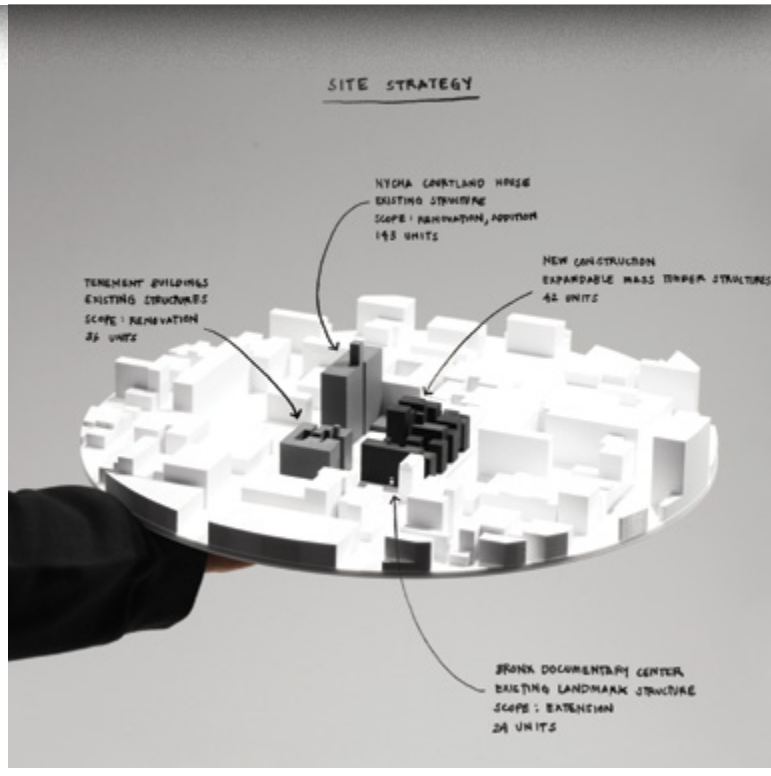
Audrey Dandenault, Mark-Henry Decrausaz



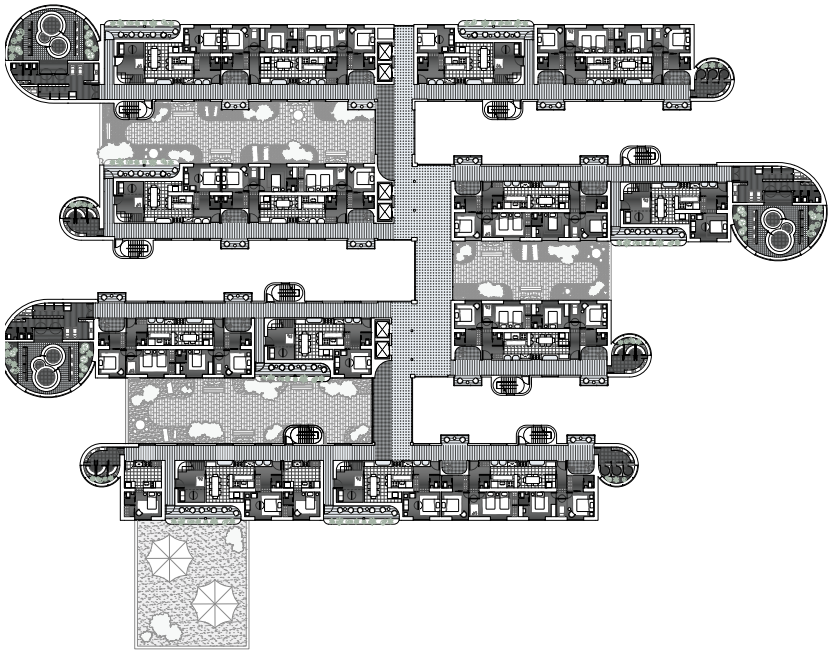
observations, and put forth a model of living that reimagines the way that we live with water, air, and waste to promote healthy communities.

Alek Tomich, Nelson De Jesus Ubri

The goal of this project was to improve light and air quality in existing buildings while providing new housing stock using construction techniques designed to densify and offset carbon emissions.



Alice Fang, Angela Sun



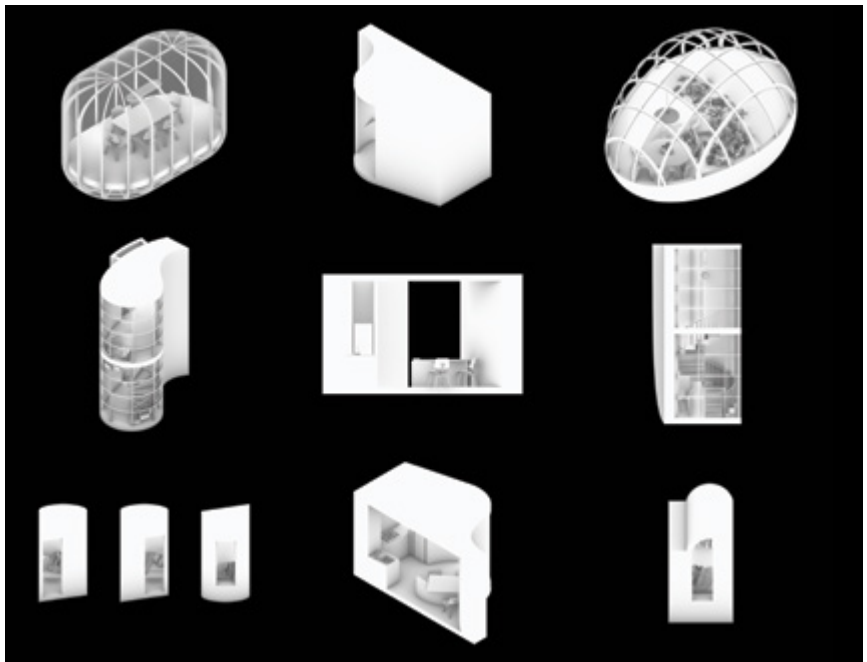
<ROOM/NOT-ROOM> Eric Bunge

This studio reconsiders the role of the room and its various potential implications for housing, and evolving notions of domesticity. Students wishing to reject the room in this context argue for its opposite. A paradox of the word “room” is that it refers both to the idea of space —or enough space— and its partitioning. The evolution of housing since the communal living types at its origin continues

Hao Chang, Yuan Li

This housing project is organized by five courtyards that house five different collective spaces: a gallery, senior garden, theater, shared offices, and playground.

Abhinav Gupta, Helen Winter



to operate on this duality, as it balances needs for autonomy and density, i.e. making room for the individual within the collective

Jun Ito, Sarah Shi

We propose an organization of rooms into three layers based on function and privacy level. Sharing increases from the private to the public layer.

<THE GOOD LIFE> Benjamin Cadena

Reclaiming the lost optimism of the modernist project, the studio explores alternatives for housing that aspire to satisfy more than the base needs of its inhabitants to shape new and novel environments for living that may bring us closer to the good life. The studio asks students to design housing as a project for a community. Each pair defines a small community and designs an architectural

Lauren Scott, Rahul Gupta

Camille Brustelin, Ian Wach

response that, in conversation with its site, can sustain it over time. Through all scales, from part to whole, each proposal demonstrates its design ambitions through three lenses: Inner Life, Common Life, Urban Life.

Maxwell Chen, Amber Shen

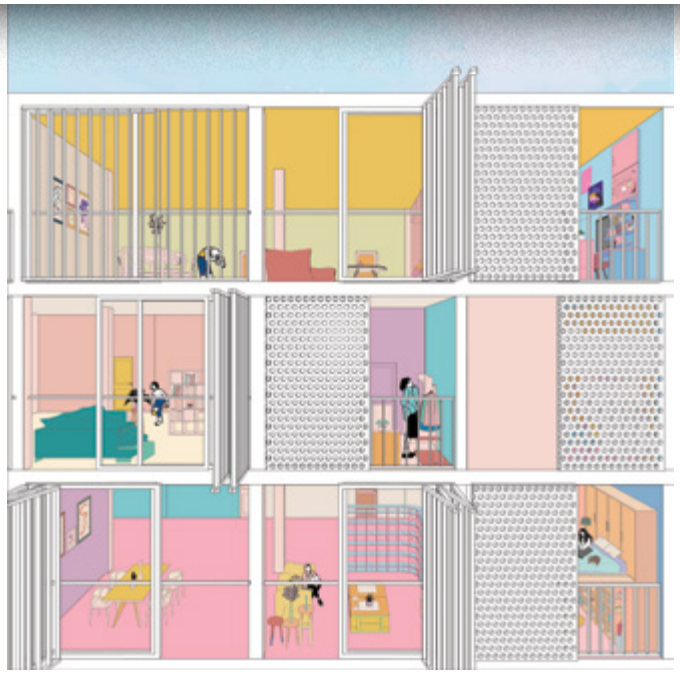
Co-Caring Housing seeks to distribute multiple tasks and roles to share burdens and to alleviate the pressure of raising children with limited physical, emotional, and financial means under single parenthood.

<COLLECTIVE INSTRUMENTS> Gabriela Etchegaray

This studio rethinks housing projects as collective instruments. It designs not only sustainable and healthy spaces in balance with the individual, collective, and entrepreneurial activities that serve the idea of domesticity but also the idea of a neighborhood. Moreover, students approach the idea of collective instruments as machines that fulfill a particular purpose within a larger

Eva Jiang, Jessie Park

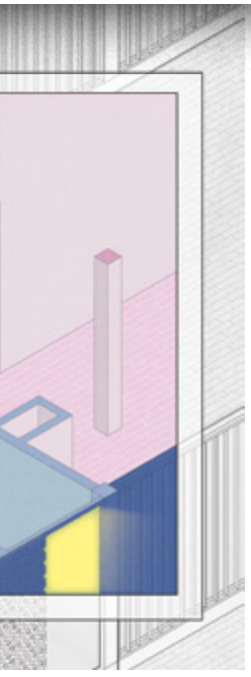
This project offers micro-units with wet walls to provide flexibility for residents seeking privacy. Every third or fourth unit accompanies a public living-room, kitchen, and bathroom.



Tristan Schendel, Steve Corsello

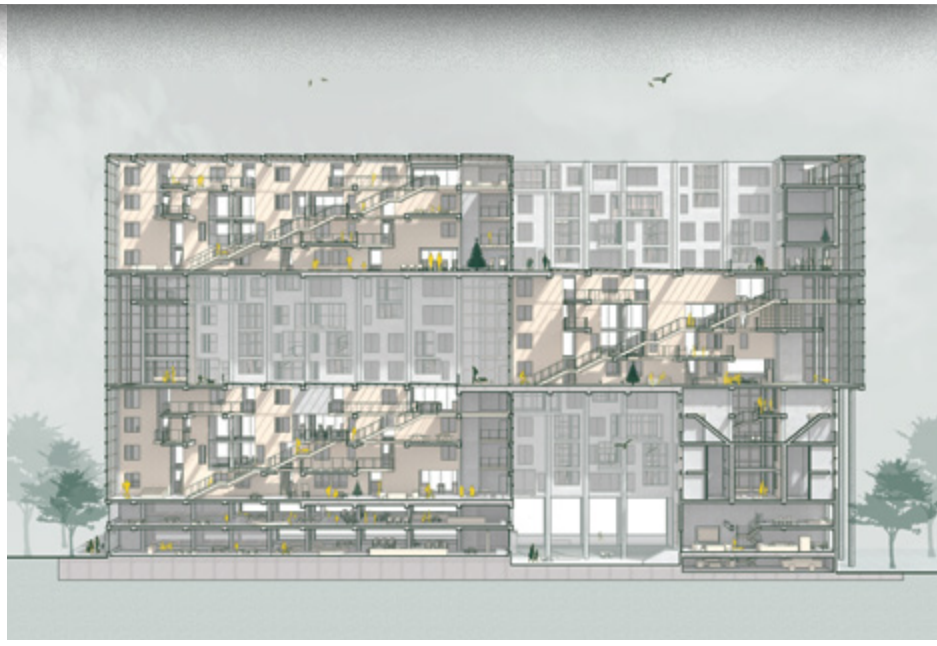
To address environmental neglect and healthcare insecurity in the South Bronx, we proposed a mass-timber residential facility with an integrated, active wellness program to break down the barriers between residents and clinicians.

collective crisis, addressing issues under climate change, common values, and even strategies to empower human and non-human conditions. Housing under the idea of collective instruments challenges the ways we perceive space and place, inside and outside, intimacy and distance, real and imagined, natural and artificial, private and public, individual and collective, uses and users, the formal and informal, control and choice.



Cherry Qu

Living Street Room introduces two street-space modules, each flanked by four-level apartments on either side, that connect to create a loop to support a continuous flow.



Tianyu Yang

<PART TO WHOLE, AFTER THE NUCLEAR FAMILY> Adam Frampton

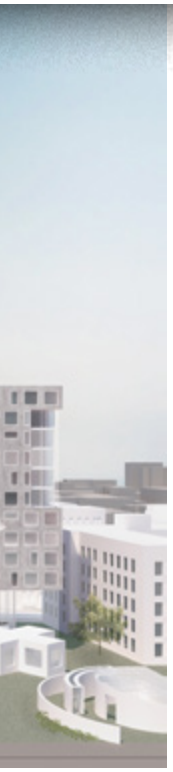
In NYC, the definition of family is encoded in legislation such as the Housing Maintenance Code, the Multiple Dwelling Law, and the Zoning Resolution. These definitions and current practices have further codified the typical formulations of housing. As such, the conventional “parts” of housing have become a studio, one-bedroom, two-bedroom, three-bedroom, etc. This studio considers a set of

Alina Abouelenin, Maria Perez Benavides, Begum Karaoglu

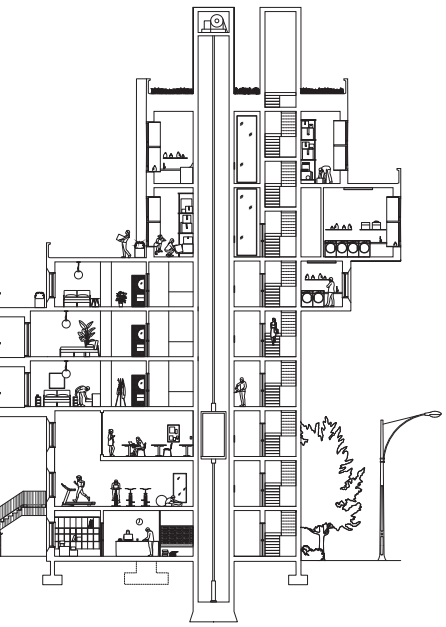
The Slab is conceived as a vertical collage of New York City housing typologies in a single slab building to allow for a community of eclectic groups of individuals to co-live.

Liza Tedeschi, Genevieve Mateyko

hypothetical residents and new “family” compositions, including, but not limited to, individuals living alone, single parents and their children, traditional nuclear families, unrelated individuals living together, elderly individuals living collectively, and multigenerational (extended) households. As such, the studio investigates new “parts” of housing and attempts to define new models of aggregation.

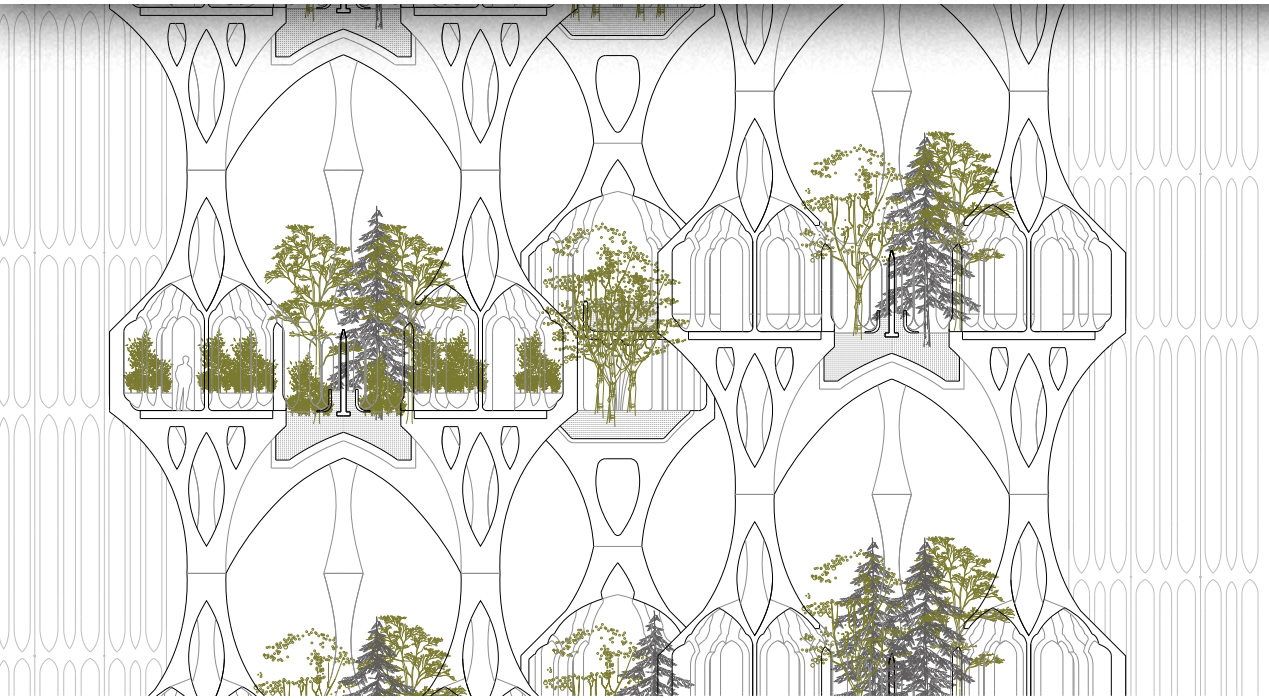


Camille Lanier, Oliver Bradley



<ALTER (I.) BODIES/PERFORMING DOMESTICITY> Mario Gooden

The design of housing is much more than the fulfillment of political or social policy and equally more than the static solutions of architectural typologies. To consider the places and spaces where the body dwells is to consider the movement and physicality of the body as well as its functions, constructs, and identity within its socio-political, cultural, and technological contexts. These parameters ↗



Jonathan Foy

Garden Cloister Complex is a compound of hyper-dense single-story stacked private garden modules with limited inter-communal access. The configuration prioritizes privacy and refuge regardless of wealth accumulation.

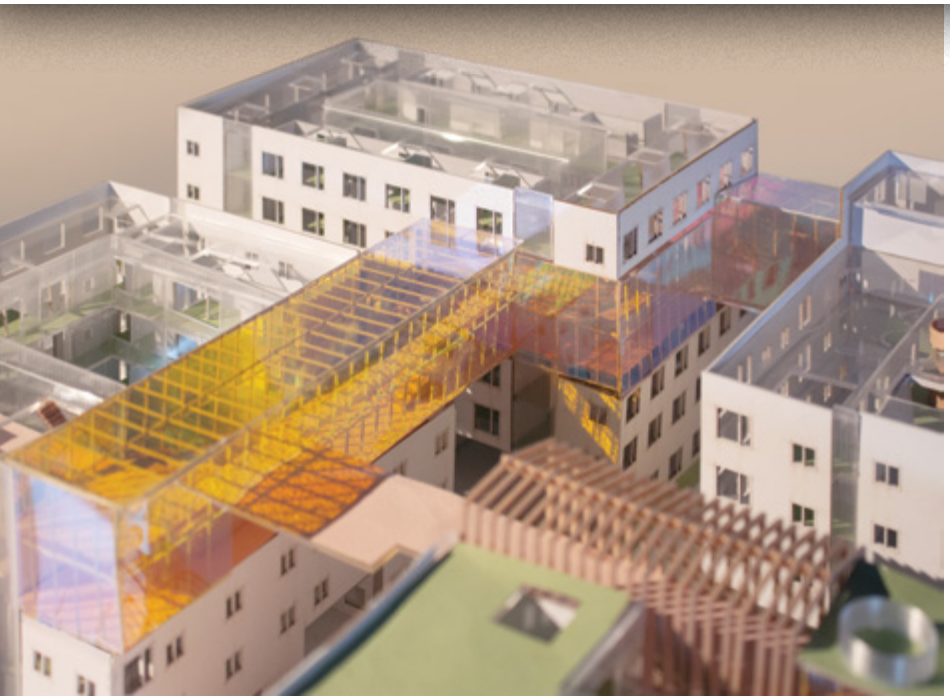
have become increasingly fluid and thus result in questions of the very definitions of “domestic” and “domesticity” as relating to the idea of home, household, or family. Hence, beginning with Kolbe’s Dancer to the work of contemporary choreographers, the studio examines contemporary issues of the body and identity, dwelling in the city including abled-bodies, dis-abled bodies, gendered and non-gender-conforming bodies, and other abject and non-compliant bodies.

Florencia Yalale, Rory Macfarlane

Domestic spaces are planned around generous winter gardens that are organized by a series of occupant-controlled thresholds: thermal curtains, large operable windows, and sliding glass doors.

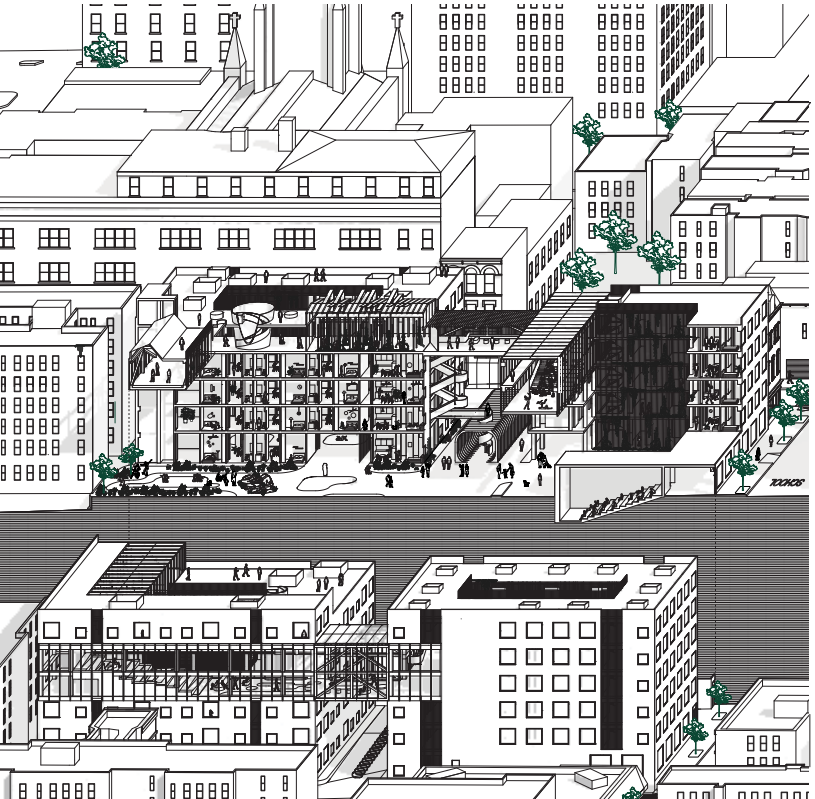
<GRIDS, WINDOWS, PLANTS, UNITS, FACADES> Hilary Sample

This studio explores collective housing and the natural world as it intersects with architecture. Grids, windows, and facades, are thought of in an elementary way in the design of a mixed-use residential building. Looking at a set of historical New York City housing types—specifically the courtyard through precedent research and site analysis—demonstrated how the form could be reworked to fit

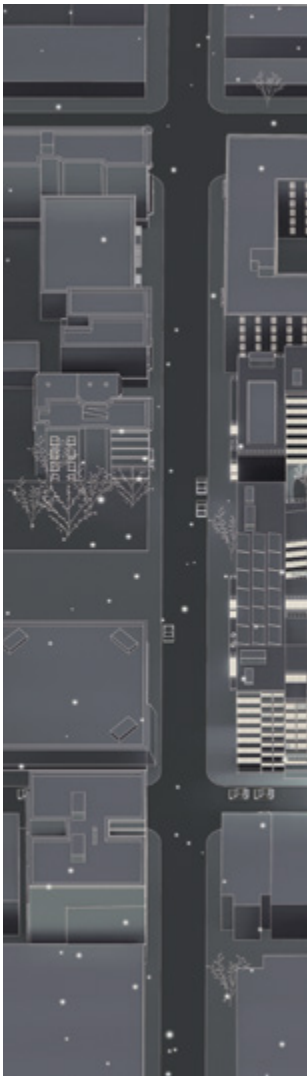


Erin Biediger, Tung Nguyen

Green Link creates varying scales of natural spaces and corridors to intimately connect residents, while also emphasizing the presence of the Bronx Documentary Center on the site.



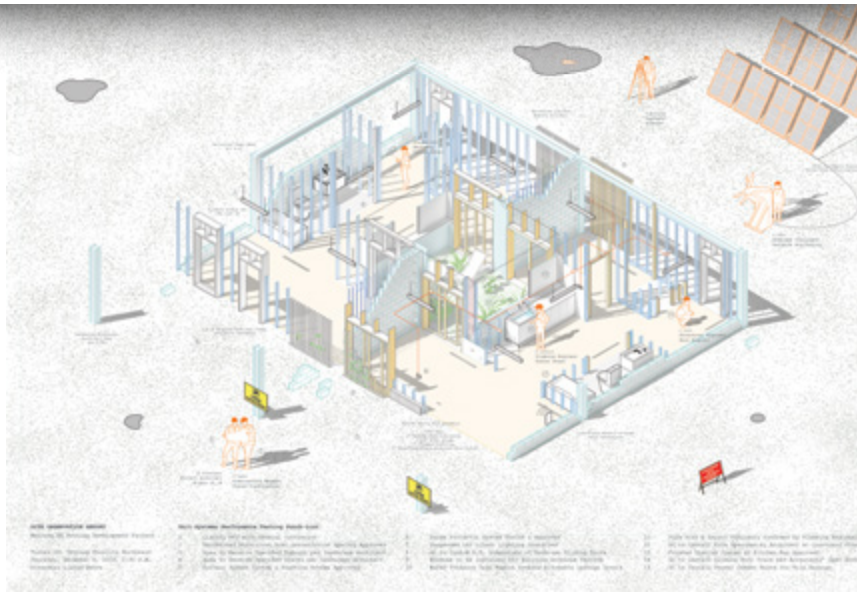
Lu Liu, Yaxin Jiang

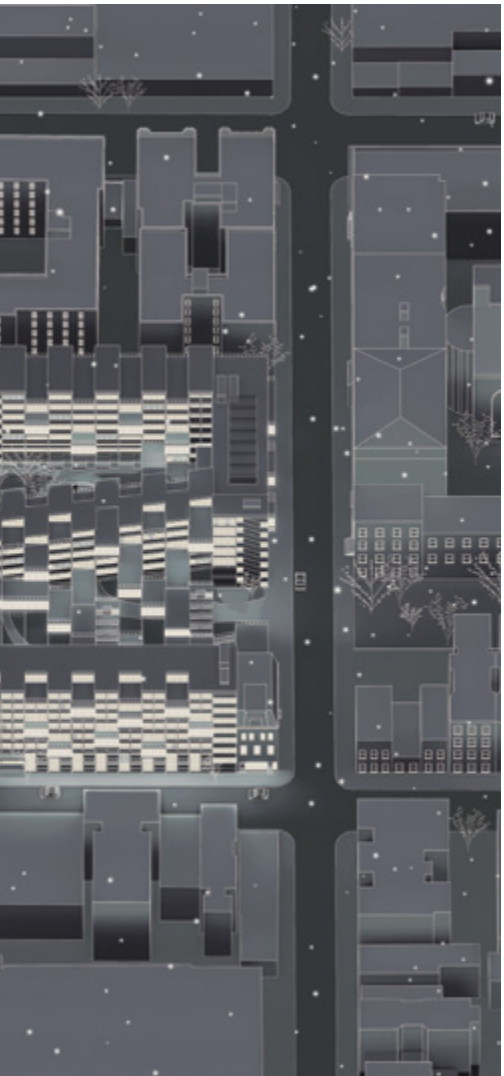


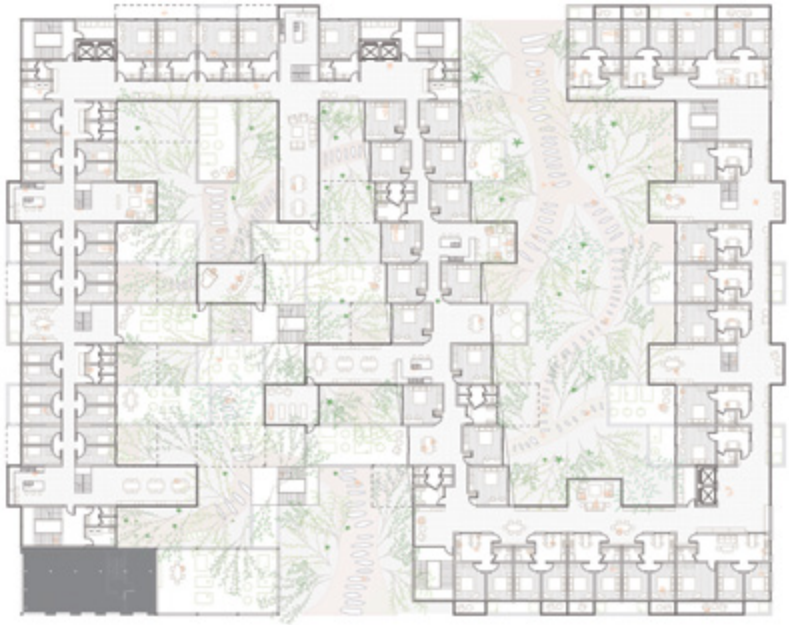
this low-rise, dense neighborhood. Ground plans included a series of open courtyards with interconnected civic spaces. Courtyards that were complete at the ground became incomplete as the building stacked upward, opening to views of the city and sky.

Isabella Bartenstein, Luis Miguel Pizano

IBX introduces a multiplicity of open voids at different scales through dense urban housing to maximize light and ventilation.





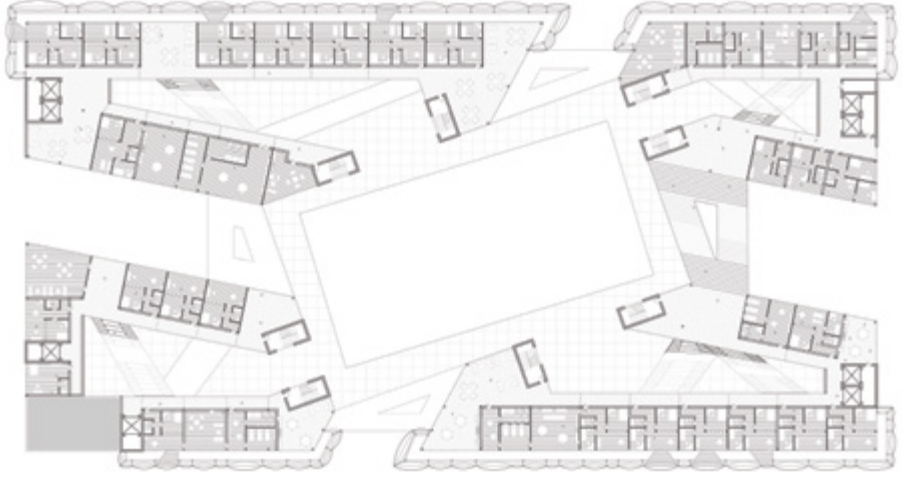


<HOUSING: THE COMMONS> Galia Solomonoff

Sharing allows closer proximities and more opportunities, but also conflict. Now that sharing—cars, workspaces, living spaces, tools, childcare, eldercare—is on the rise, what is at stake for Housing? How can society maximize the efficiency of resources while maintaining individuation and freedom of expression? *How can Housing be made better, more beautiful, for more people?* By better, we mean

Chengliang Li, Lin Hou

The project breaks the block to bring the neighborhood in, and reconnects tenants to create a sustainable community for four groups of tenants: children at risk, families, students, and artists.



Yuchen Qiu

allowing more opportunity for expression, creativity, wellness, and a new kind of fluency. A fluency where each person can access what they need; and give back what they produce; where work and leisure have room, one does what one is best at, and things get done more efficiently and at a higher level than ever before. We aim for high-density, low-rise, environmentally sound, and sustainable development, with shared access to natural light, air, and outdoor space.

Charlotte Sie Wing Ho, Talia Jialun Li

Marcell Sandor, Vera Montare Savory

Every apartment in *ID_ID Houses* features direct access to a garden space shared with two or three other units, a private front door accessible from the street, and private outdoor patio.

Core Architecture Studio II
Erica Goetz, Sequence Coordinator

Environment as the Third Teacher
A school is more than just its students, teachers, and textbooks; it also includes a building, which is essential to a child's education and personal growth. Loris Malaguzzi, founder of the Reggio-Emilia educational philosophy in the early twentieth century, called the environment the "third teacher," together with a student's parents and teachers. In its full manifestation, the multi-dimensional school environment inspires and nurtures children by activating all their senses—a position that Core Architecture Studio II explored this semester.

All eight Core II studios focused on the design of a K-8 public school on the site of P.S. 64, located on the Lower East Side of Manhattan. Designed by C.B.J. Snyder in 1906, P.S. 64 served as a New York City public school for seventy years before it was shuttered. Today, the building remains abandoned. As part of the research for their design projects, Core II students visited the vacant building, studied its history, and evaluated its current condition in order to envision ways to revitalize the site as a contemporary school.

How can a building both react to and affect pedagogy? When a child feels safe and supported, he or she will take risks and embrace challenges. How do we design spaces that nurture and inspire individual children so they can reach their fullest potential? At the same time, how does a school, as a civic institution, connect to its community and promote fruitful interactions between the students and the community? How do our schools reflect our cultural values and prepare children for their own futures (not just our present)? How do we build a school today that will not only serve this generation of children, but also the next?

Through many scales of engagement—from the site in general to the detail of a brick—students devised careful interventions in the existing structure. An essential aspect of the curriculum prompted students to emphasize low-embodied carbon structural design. In response, projects reused the existing building or elements of it, integrating new materials with low-embodied carbon footprints and thoroughly considering the future use and lifespan of the structure.

The 2020 spring semester proved to be a transformative one, as we dispersed from our own learning environment—notably, our studio spaces in Avery Hall—to many corners of the globe. But remarkably, we created a new environment across the filigree of the ether: a "fourth teacher" that emerged in the form of a virtual forum in which those key tenants of community, cooperation, and life folded together into a tactile space of our own.

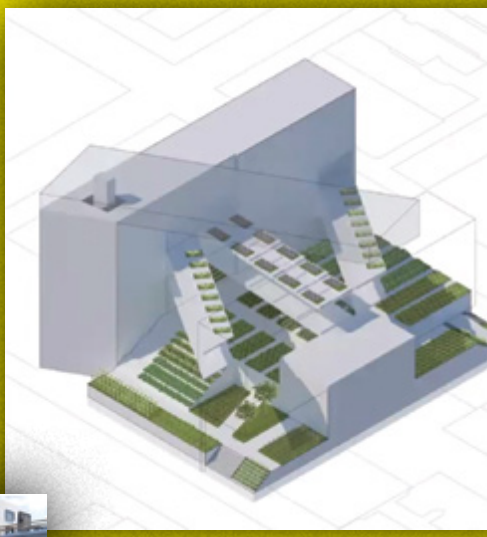
Core Architec

Karla Rothstein, Lyn Rice,
Amale Andraos, Emmett Zeifman,
Jorge Otero-Pailos
Work by Bianca Jui Yu Lin

Enrique Walker, Lizzie Hodges

Gordon Kipping, James Slade,
Amina Blacksher, Dan Wood,
Mar Granados
Work by Karen Chen

Tung Dinh Nguyen, Tina Manis, Mario Gooden,
Juan Herreros, Nicholas McDermott
Work by Cohaul Chen



Spring

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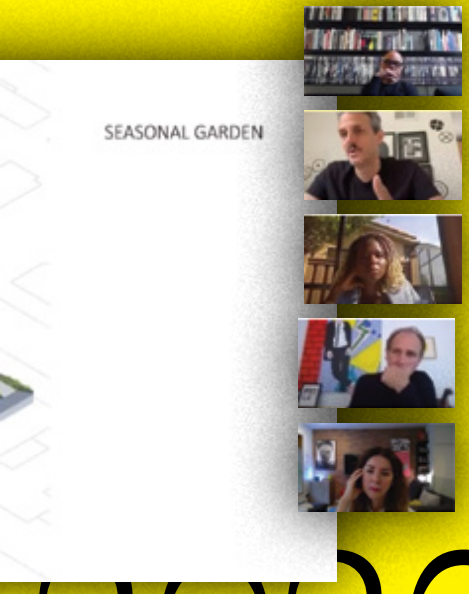
Ivy Hume, Todd Brown



Bill Arbizu, Lily Wong, Daisy Ames

2020

Core Architec

Christoph Kumpusch, Gordon Kipping,
Shawn Rickenbacker, Lyn Rice

Erica Goetz, Hayley Eber,
Anthony Titus, Stella Betts
Work by Lucia Song

Mitesh Dixit, Lori Galili,
Nicholas Karytinos, Emmett Ziefman

Spring

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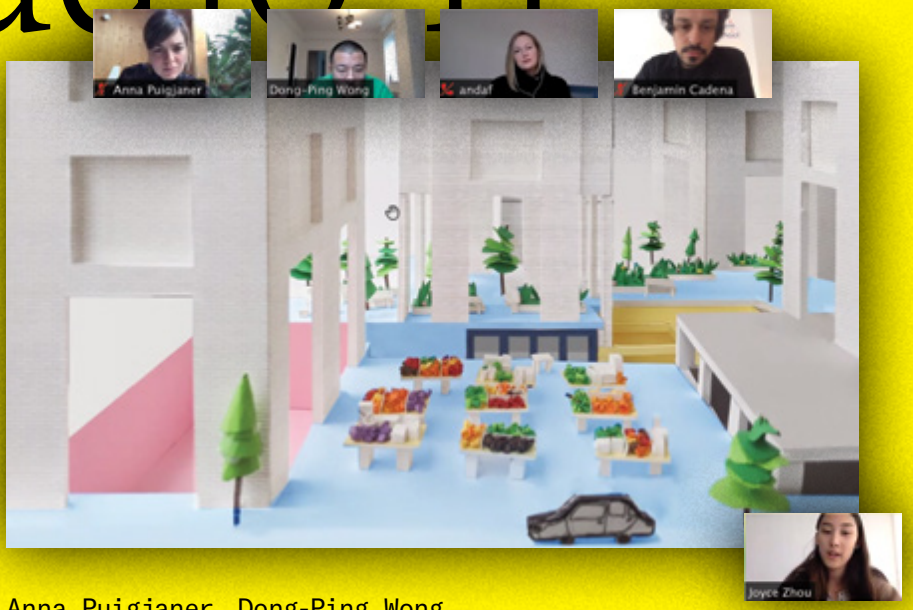
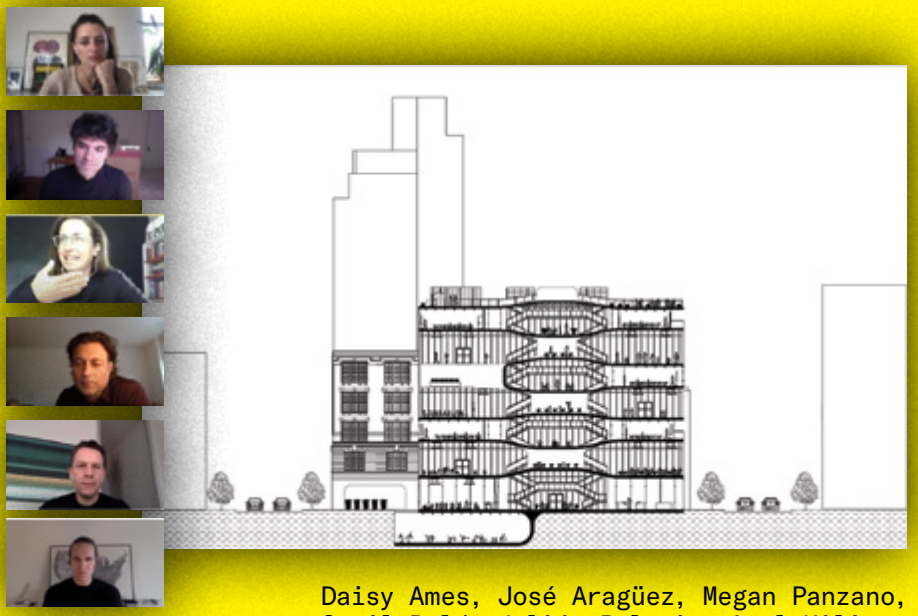
Jaffer Kolb, Marcelo López-Dinardi,
Stephanie Lin, Will Prince,
Nick McDermott



Anna Puigjaner, Dong-Ping Wong,
Anda French, Benjamin Cadena
Work by Joyce Zhou

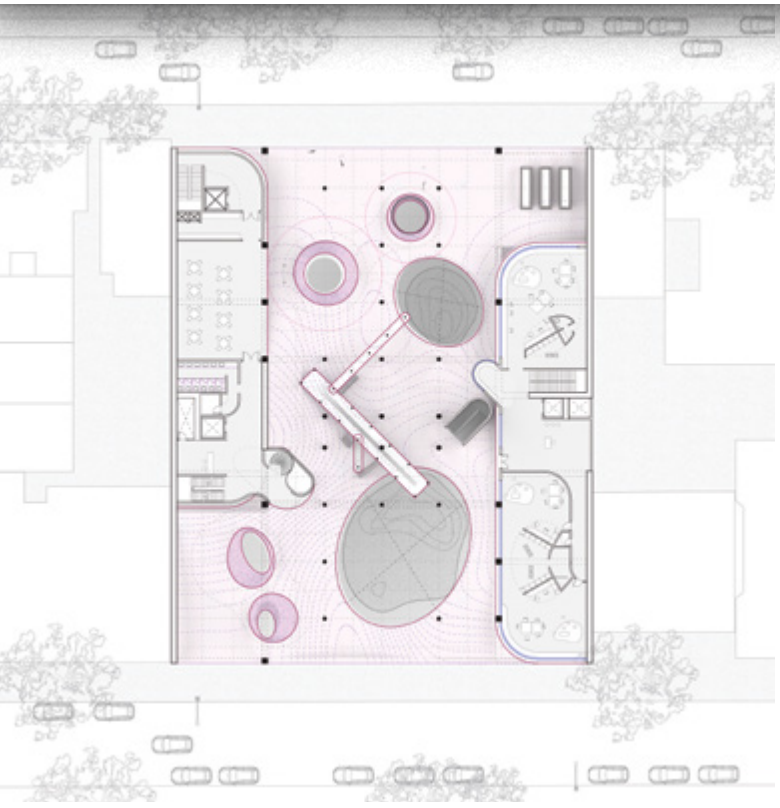


Daisy Ames, José Aragüez, Megan Panzano,
Sunil Bald, Julián Palacio, Axel Kilian
Work by Shuhan Liu

2020

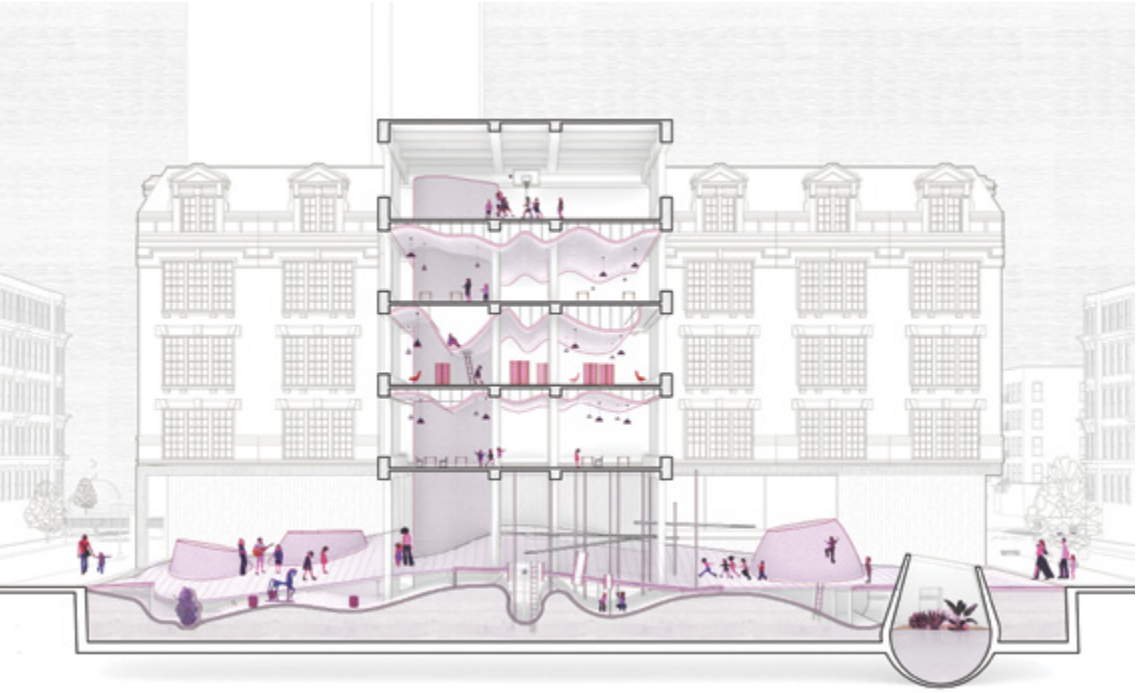
<ADAPTATION> Daisy Ames

This studio explores how society might transition from outdated learning environments and outdated construction processes, toward new learning and construction processes for the future. While there are many definitions of the term adaptation this studio engages specifically in the general, biological, and evolutionary interpretations. This studio acknowledges that given the fast-paced nature of the

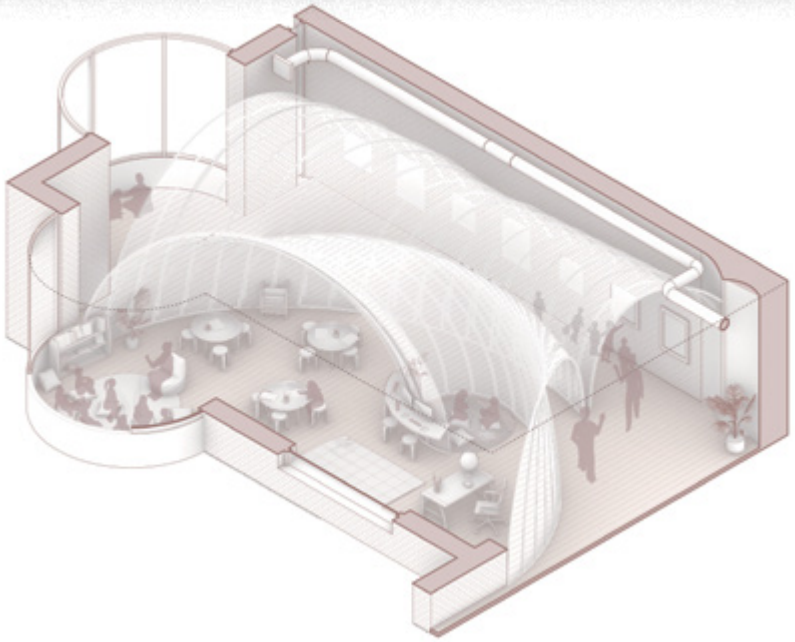


Nupur RoyChaudhury

This project challenges the physical dissociation between the school and the neighborhood by demonstrating the potential to integrate community activity into the framework of an educational institution.



current social, educational, and environmental climates, society is in a constant state of transition between what was and what will be. Therefore, thinking simultaneously about what we can learn from the past and what we imagine for the future is necessary. Students are asked to consider various adaptations, or flows, through a building—from spatial/bodily flows to experiential/physiological flows.



Sierra Heckman

Mind, Body, Classroom reinforces the importance of associative learning, beginning with recycling the structural form of arches into a catalyst for shelter, play, and embrace.

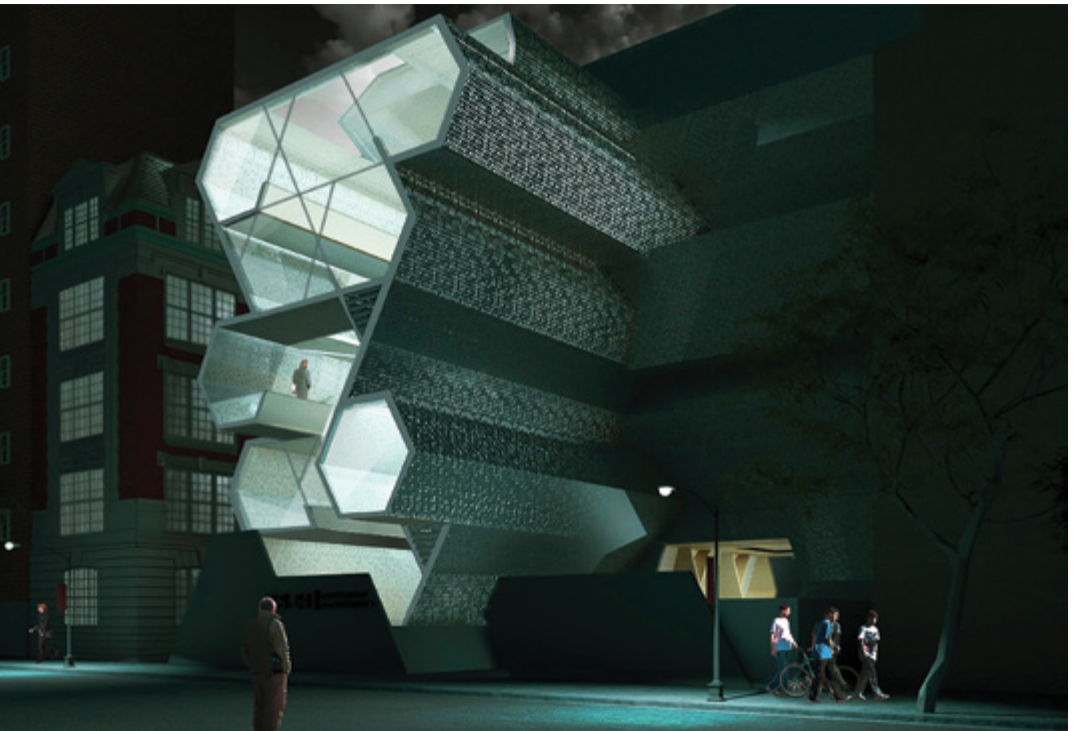
Yuchen Qiu

<CONCEPTUAL ARCHITECTURE> José Aragüez

This studio explores a conceptual approach to architectural thinking on the grounds that such an approach, when rigorously undertaken, is particularly effective for finding alternatives to received modes of spatial organization in architecture. As a particular heuristic device toward conceptual architecture, the section focuses on the notion of spatial infrastructure. Spatial infrastructure

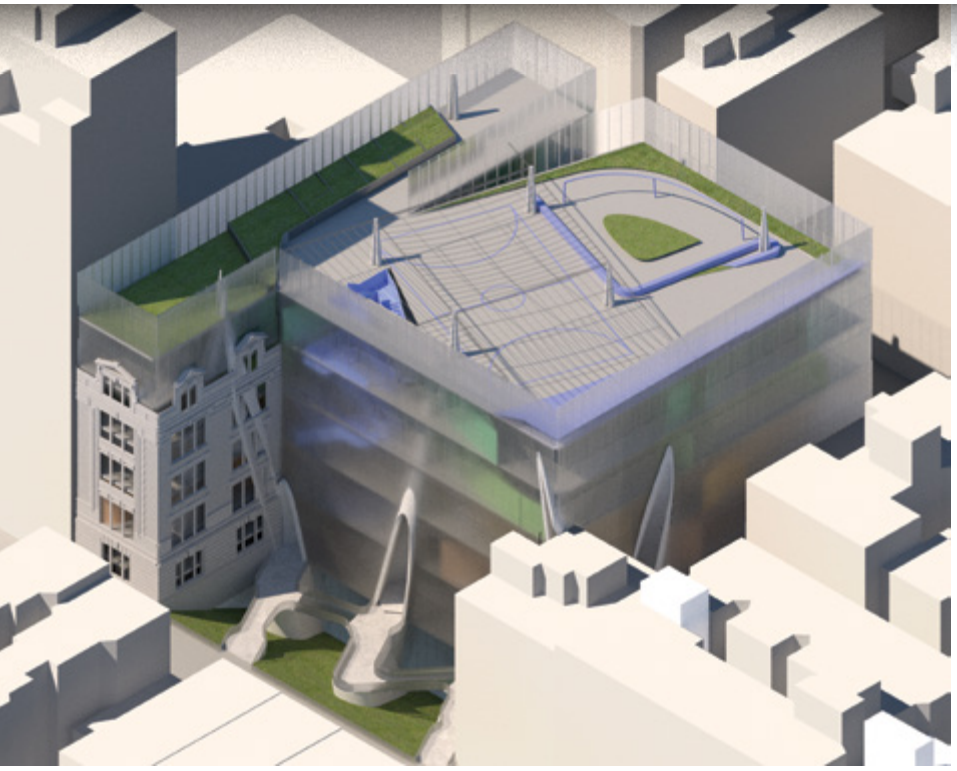
Chuqi Huang

This project makes use of the void, which is supported by the lattice structural system, to stimulate the interactions among people and with the city.



Gustavo Lopez Mendoza

refers here to the ensemble of three-dimensional material elements providing a building's primary articulation of space, before the introduction of partitions. The school happens to be a very flexible programmatic package and therefore lends itself to be explored through the notion of spatial infrastructure (one that rejects any identity between spatial typology and program) in especially productive ways.



Nash Taylor

The rooftop of the school serves as a playground and urban farming lab for the children's recreation.

Jo Hee Lee

The school is housed in a cube-like enclosure and subdivided by two diagonals. Void spaces represent the "on-zone" for active and noisy programs; the dividers represent the "in-zone" for silence and concentration.

<MORE SCHOOL> Benjamin Cadena

Integrating school, life and city, this studio focuses on designing for a new type of educational facility that extends its program to double as a community hub for the neighborhood. Revisiting, reinventing, and expanding on historical examples, students devise contemporary alternatives for learning and civic life. The studio explores form and structure at various scales, and against the measure of

Estefania Serrano

The intervention carves the existing H-plan structure to create different spatial experiences, inserting open-air, green spaces as part of each classroom and play spaces along circulation paths.

Mickaella Pharaon

Public Smore 64 provides NYC kids with a home base—their own little world and classroom community—for a sense of comfort and stability within the concrete jungle.

Agnes Anggada

different senses, as a means to deliver multivalent environments able to recast the school as a place of community and exchange. Negotiating inherent conflicts and contradictions that arise from the classroom to the street, students define a new spatial ecology for the school that enables it to become a more active part of the public realm for all.

Danielle Nir

This proposal incorporates continuity of spaces with the fragmentation of vertical platforms to shape a school that is informed by human activities and relationships.

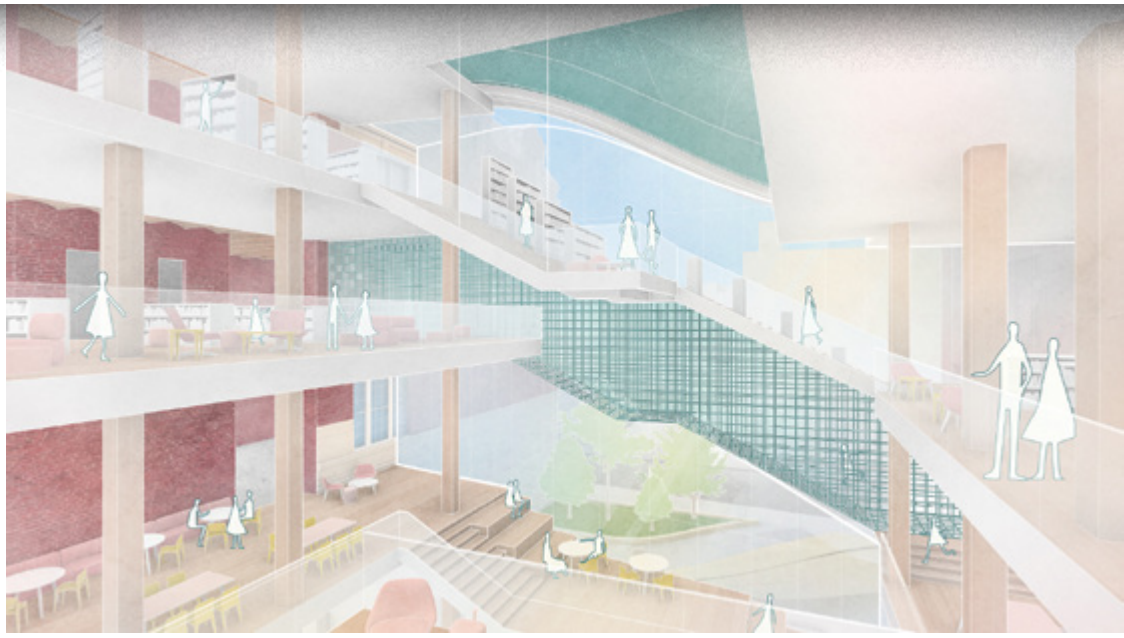
Asher McGlothlin

<GROUNDS FOR PLAY> Erica Goetz

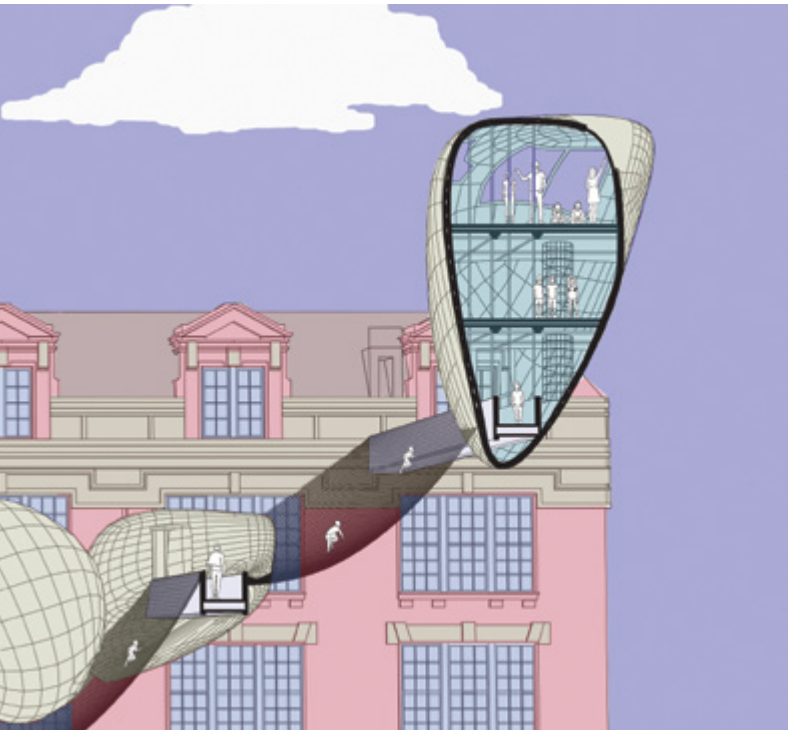
Play is our human instinct. We play to experience joy, to exercise our creativity and to explore the world. We play to learn cooperation, flexibility and grit. And, perhaps most critically, it is through unfettered play that we learn. Over the last three decades, there has been a growing body of research on the emotional,

Lucia Song

The project uses the CBJ Snyder scissor stair to establish new meandering landscapes for play between the existing H-plan wings, interweaving two paths throughout the addition while opening a mid-block connection underneath.

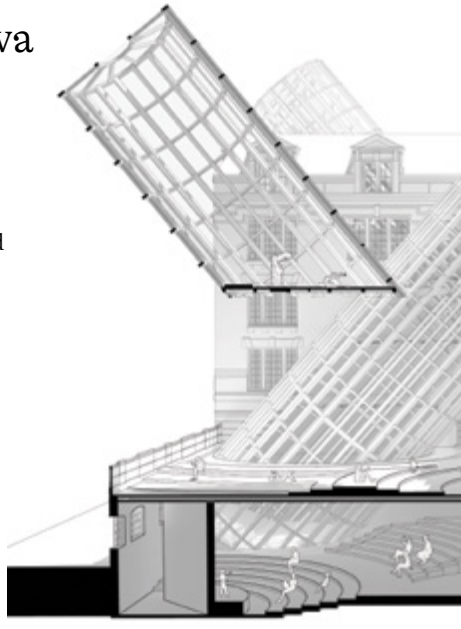


Benjamin Diller-Schatz



Takashi Honzawa

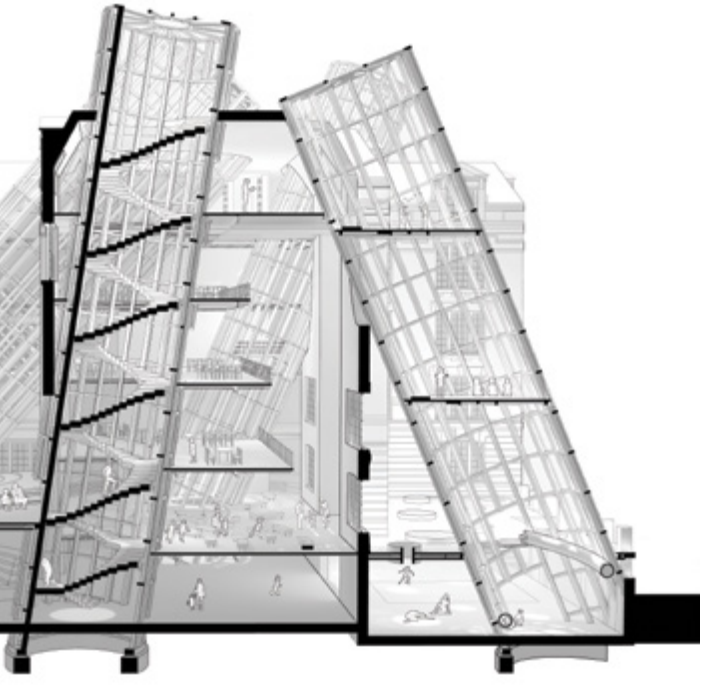
The Illumination School reorients the educational experience around a series of six glass tubes serving as organizational cores; the existing masonry is removed and the wood-framed glass cylinders are inserted.

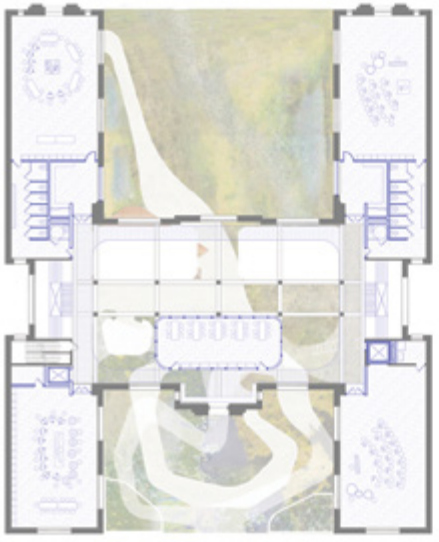


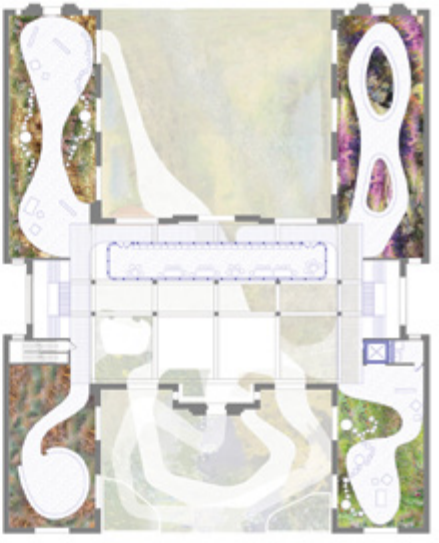
social and neurological benefits of play for children. In the context of a New York City school today, the available space and time for play is limited. Our studio will explore materials and geometry to activate volumetric space for play and learning experiences to co-mingle. We will propose new typologies of play spaces by deliberately bringing the public realm into the walls of the school –the child's realm– in hopes of nurturing the next generation of great minds.

Adeline Chum

The open atrium creates a continuous playscape from the wetlands to the roof garden. Suspended pods and open walkways provide intimate moments for students to immerse themselves in this environment.







<THE XR SCHOOL> Gordon Kipping

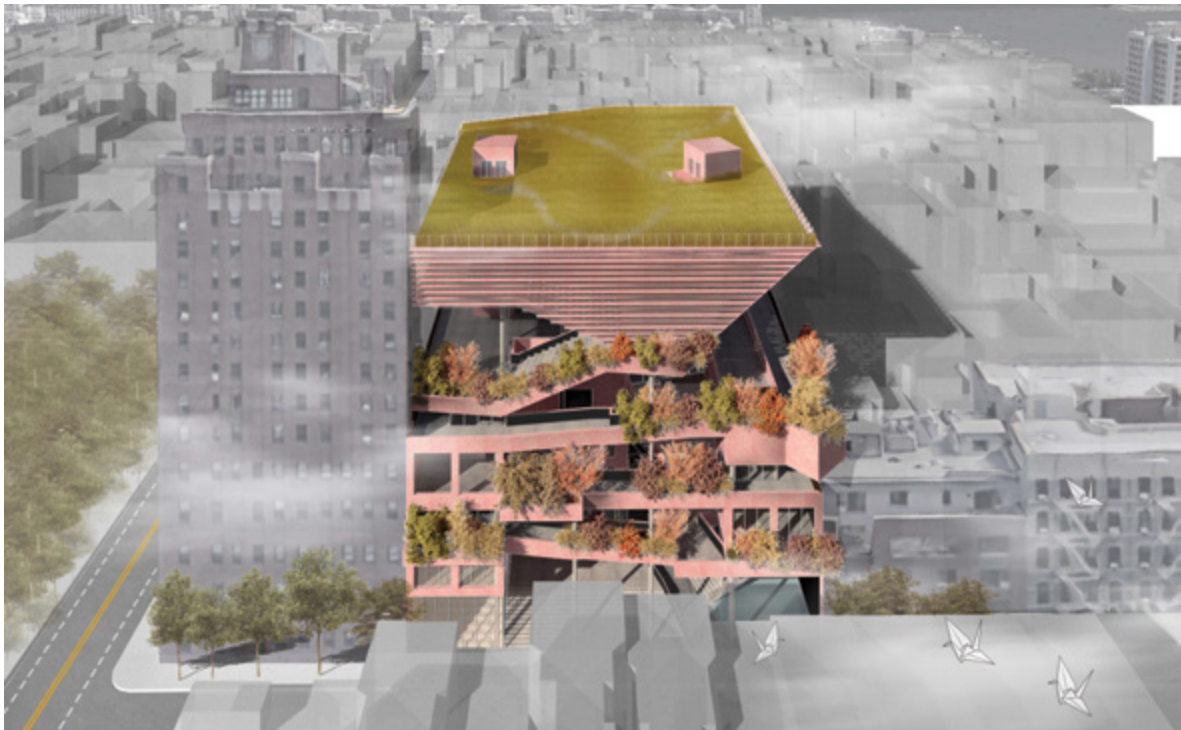
We have seen monumental efforts to reverse climate change by international organizations, governments, corporations and individuals but these efforts are simply not enough. Those in a position to mitigate this disaster are letting us down. As we have seen of late, youth are emerging as the greatest hope for change and survival. While we can only hope that the situation doesn't get too disastrous

Bisher Tabbaa

Classrooms are organized as staired terraces where the rooftop of each space is used for planting, creating a non-hierarchical urban farm that impacts the environmental and social aspects of the neighborhood.

Minghan Lin

XR school is conceived as part of the urban landscape with an open-air ramp that carves out of and overlaps the existing building to connect public and school programs.

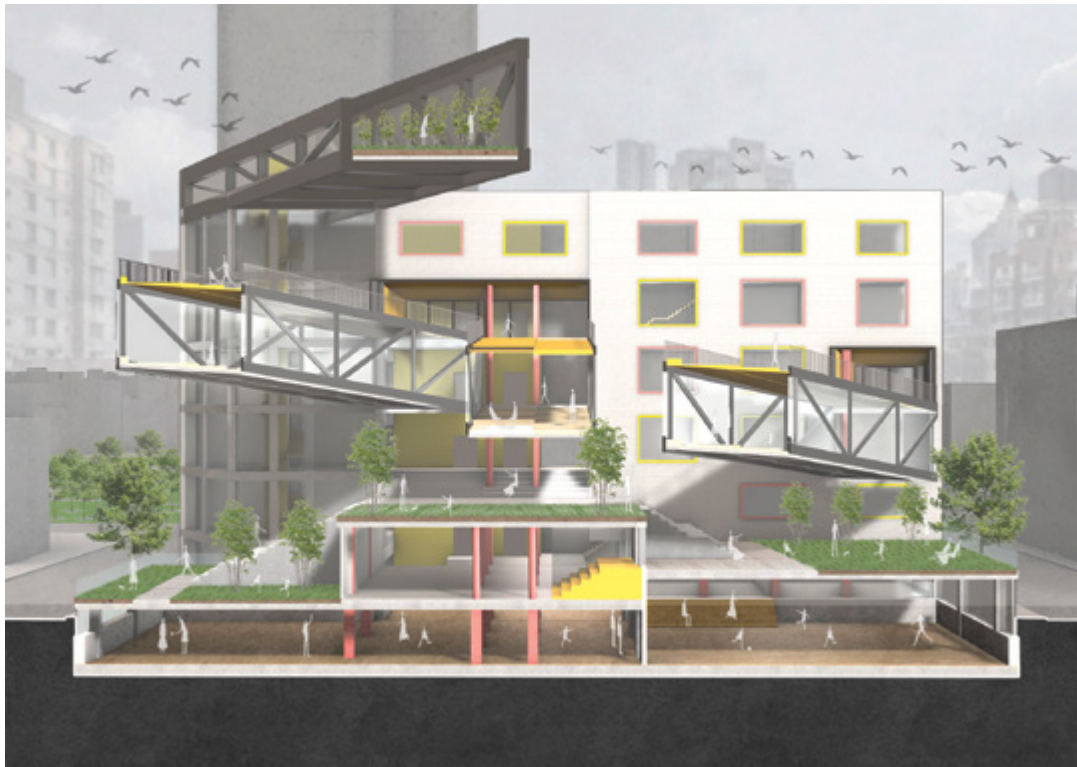


before it gets better, it is the education of the next generation that will eliminate the pending disaster and establish a climate neutral planet. The XR School is a NYC public elementary school with a curricular focus on climate change. The building is designed as an integral lesson tool. It will be the first net zero energy building in NYC. It plants and harvests its own food for school meals.

Andrew Magnus

XR school encourages student activism by proximity with nature to engender a sense of environmental responsibility.

Karen Chen

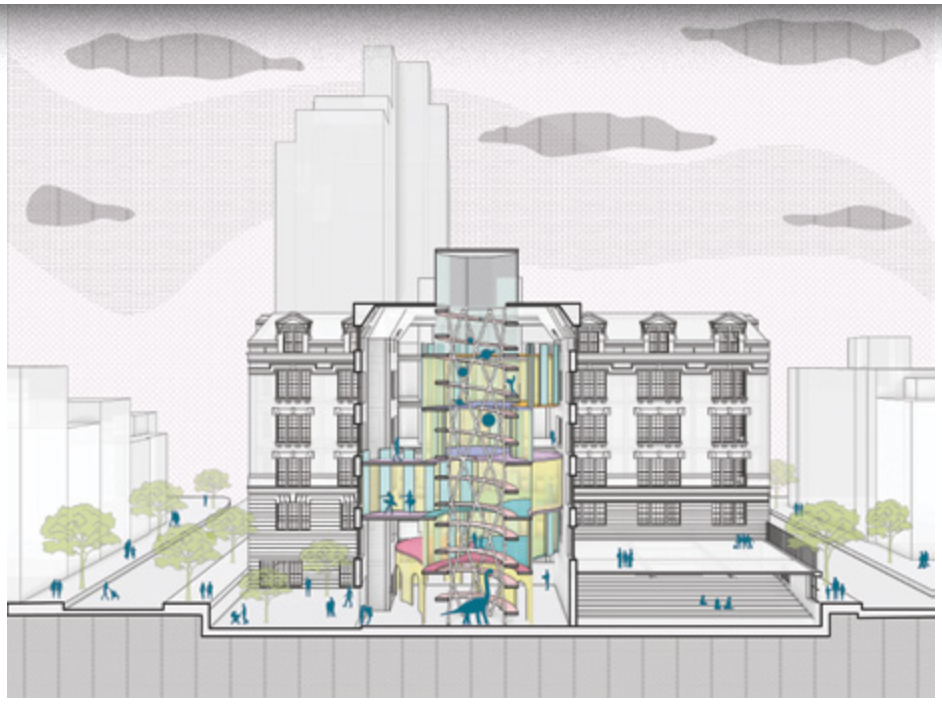


<SCHOOL OF OUTSIDERS> Christoph Kumpusch

American public school systems are unable to adjust and account for the societal, cultural, and socio-economic pressures applied to its student bodies. As a result, many groups fall outside of the conventional curriculum and structures. These are students underserved by current curricula and protocols. This studio encourages students to identify and advocate for people or persons in their project.

Meissane Aude Kouassi

By playing with gravity, colors, light, and forms, *School of Insight* aims to equalize the experiences of seeing and non-seeing individuals.

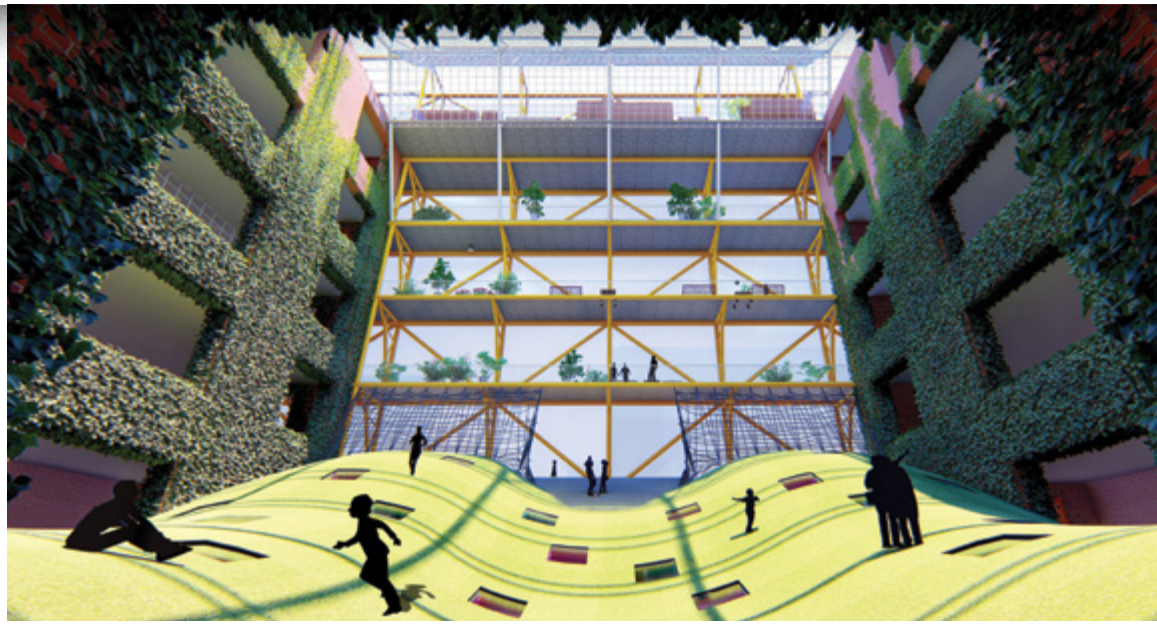


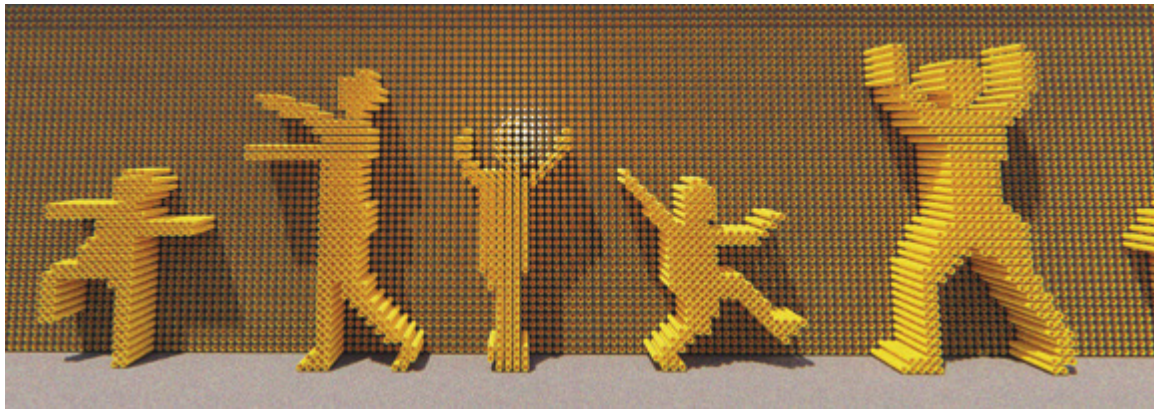
Gene Han

In conjunction with this work, students envision and integrate the architectural elements necessary to adapt the curriculum and spatial logics of the school. Each work should also incorporate a component of public space and programming of the studio members' choosing. By folding the public into these projects, an opportunity to devise a productive interchange between the school constituents and the community appears.

Keneilwe Ramaphosa

School for Burns Survivors provides a refuge for survivors and facilitates their reentry into society.



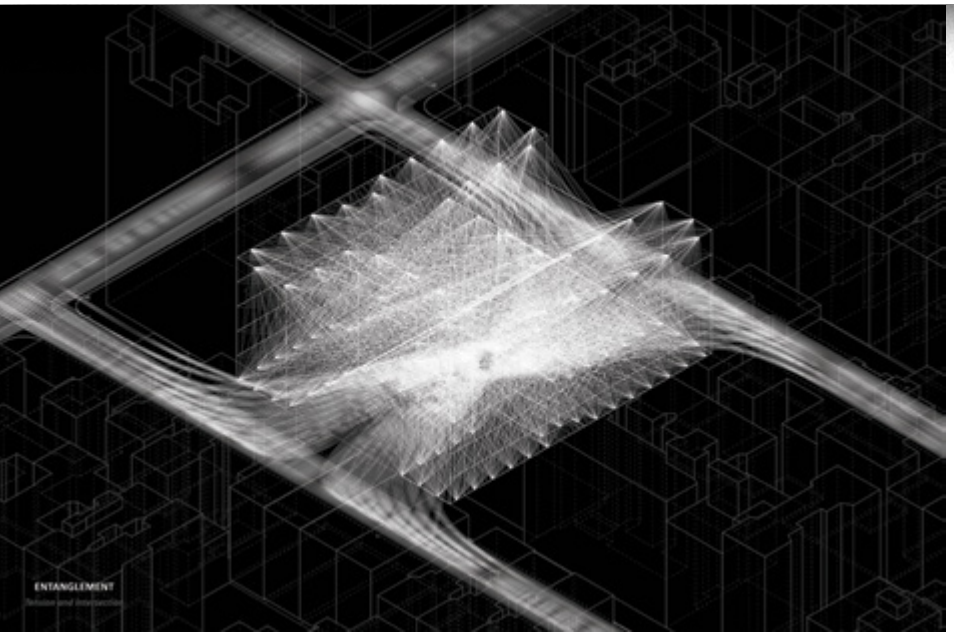


Henderson Beck

Sanctuary School offers a combination of 73 student dorms and 97 affordable housing units for housing 300 students.

<TENDING: INTERTWINED IMPACT> Karla Rothstein

To tend is to pay close attention. To contribute. To cultivate. To grow. To produce. This studio designs social infrastructures that are resilient to the unstable and unpredictable contexts of our time. Democracy requires recognizing and strategically opening edges and borders—sometimes to embrace things we do not fully understand. Architecture frames diverse activity to support civil behavior,



Cohaul Chen

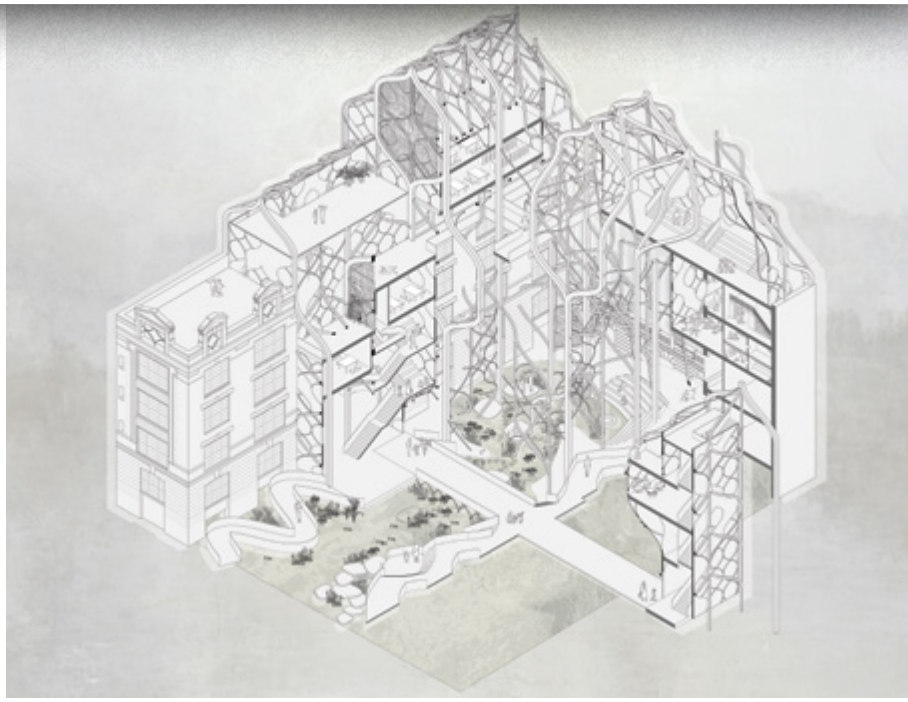
This project adapts an existing patio into an urban garden, welcoming locals to share this communal space.

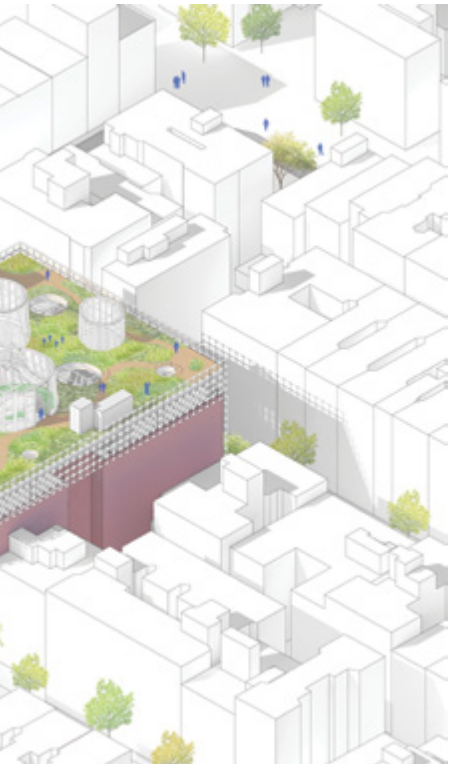
Hao Zhong

critical discourse, contemplation, celebrations, and mourning. Learning at all stages requires attentive engagement—tending to the work at hand. In this studio, schools are immersive yet porous oases comprising both interior and exterior spaces—environments benefiting from integration with restorative landscapes and the city at large.

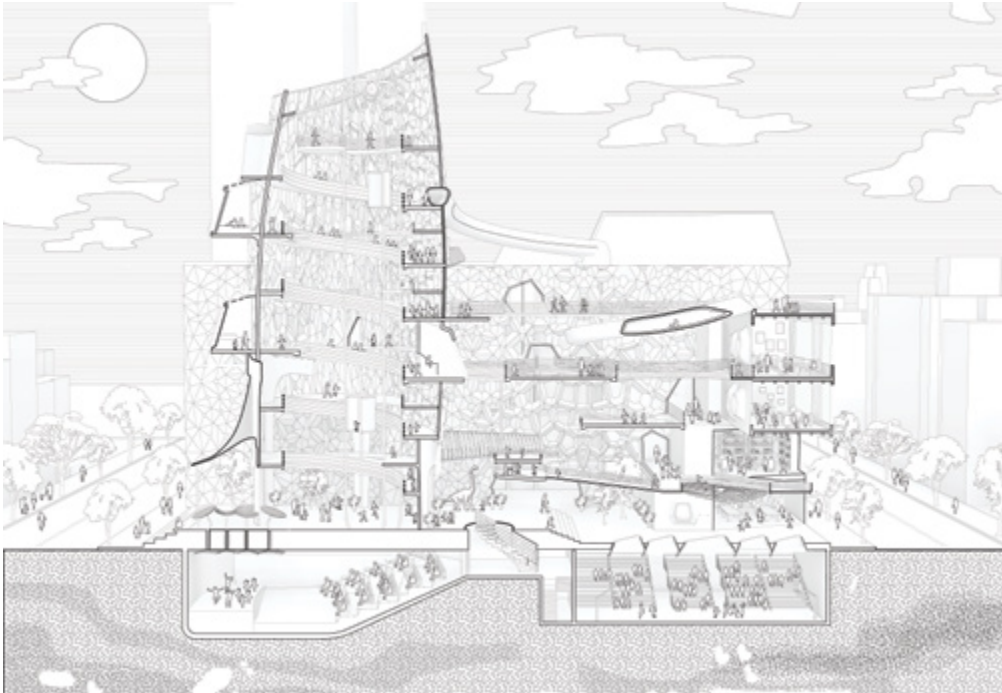
Zakios Meghrouni

Interspecies Sanctuary erodes the existing building to create an intermittent marsh, an alluring terra incognita for children to discover a respect for the natural world around them.





Hazel Villena

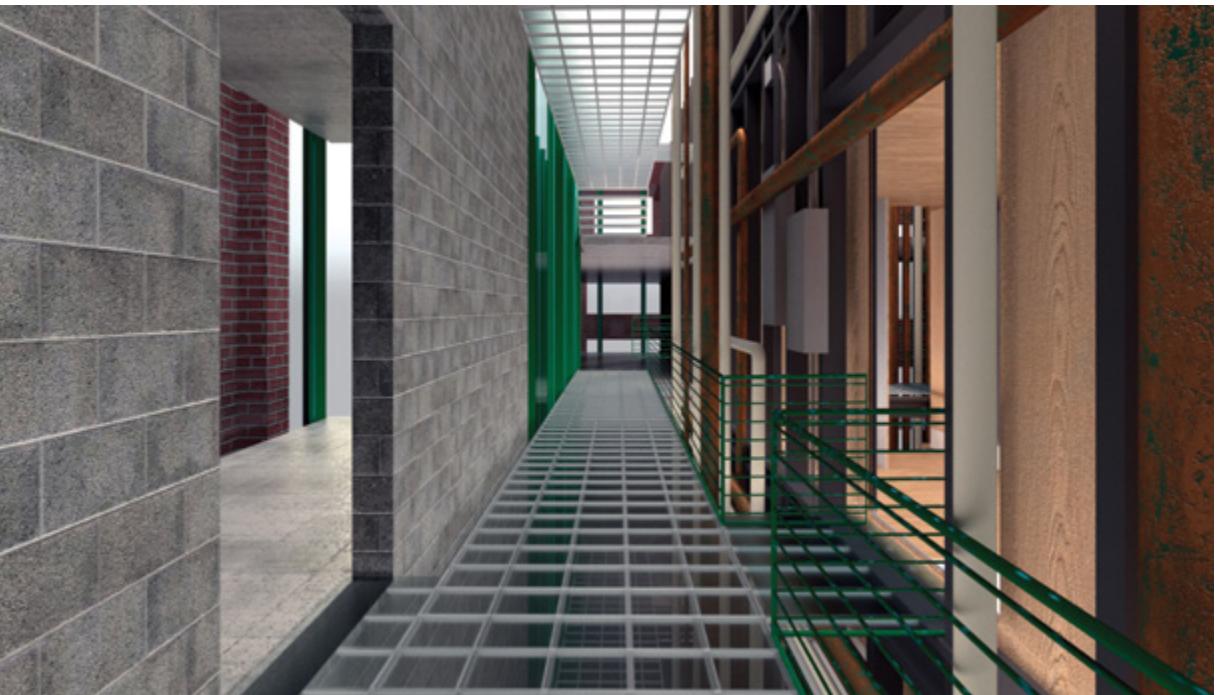


<A BUILDING MADE OF BUILDINGS (AND OTHER READYMADES)> Emmett Zeifman

This studio makes a building, a primary school, out of other buildings, among them: significant historic and contemporary examples, generic types, and the former school building that occupies the site. Through a variety of techniques involving the selection and combination of readymades—objects found on site, in studio, in books and magazines, on the internet, in stores and product

Livia Calari

The existing building is treated in three phases of demolition and openness, from fully restored and private to gutted and exposed.



Jordan Readyhough

This project proposes delaminating wall systems to reveal the facade is functionally meaningless and creating a new organization of spaces and experiences driven by the materiality of the project.

catalogues, at home—the studio challenges tendencies towards synthetic part to whole relationships, repeated spatial modules, and geometric motifs. It strives wherever possible not to design buildings in the conventional sense but to find them, to collectively construct rules and methods rather than pursuing singular expressions of individual authorship. It considers the studio a form of play, an experiment in pedagogy about pedagogy.

Bianca Lin

The New PS 64 enables a new layer of transparency to the community by opening up the plinth and basement for visual and physical connectivity.

Jiageng Guo

Core Architecture Studio I
Anna Puigjaner, Sequence Coordinator

The Grand Interior

Today, digital technologies are undeniably modifying the way we use and live in the city. Due to the actual cyber reality, the classic dichotomies between public-private, collective-individual, night-day spaces that characterized a great part of the architectural discourse of the twentieth century have lost their connotation. Today, architecture cannot be understood as detached from an interconnected reality, where buildings, more than isolated entities, are part of a larger system of common spaces and services that link the micro with the macro and have consequences on the social, the economic, and the environment at large.

The increasing mix among public and private spheres allows us to think of the world as a continuous interior or following Peter Sloterdijk's image of a "grand interior," an endless domestic landscape defined by spaces, objects, and technologies where the public space is being redefined, moving from the archetype of the street—as the paradigm of the common—to a more complex situation where public and private merge all along with the city. In this scenario, the home is also becoming part of this public realm.

This new public condition might be an opening to rethink preset architectural limits and urban classifications that were used to assure benefit in detriment of social rights. Architecture has been traditionally used as a tool to define and perpetuate colonial processes. It is an effective agent of restraint able to assure the power of certain social sectors over others. It is not neutral and might consequently be perceived as such. The division of public and private has not only been a driving force for the development of biased social structures but also other urban planning and building processes.

In Core I, we understand the shift of public space as an invitation to redefine social structures for the better common welfare. We address the course looking to our actual and close reality, taking the everyday life of Broadway Avenue, Manhattan, as a starting point and base for an architectural proposal. We look at buildings and their urban context, understanding the quotidian as a platform for deeper research that allows us to comprehend the complexity of the built realm, its actual functioning, and requirements concerning economic, climatic, environmental, social, and political issues. And we design architectures that answer to those realities: transgressing, empowering, complementing—existing networked spaces. We produce architecture from the urban towards the detail, from the drawing towards the construction, and during that path, we always foster graphic, formal, and material experimentation as an intrinsic part of the design process.

Core Architecture Fall

Amina Blacksher, Brandt Knapp, Jerome Haferd, Tal Schori, Kadambari Baxi

Lindsey Wikstrom, Bryony Roberts, Colleen Tuite

Mario Gooden, Viktoria Usui-Barbo, Josh Uhl, Miku Dixit

cture Studio I

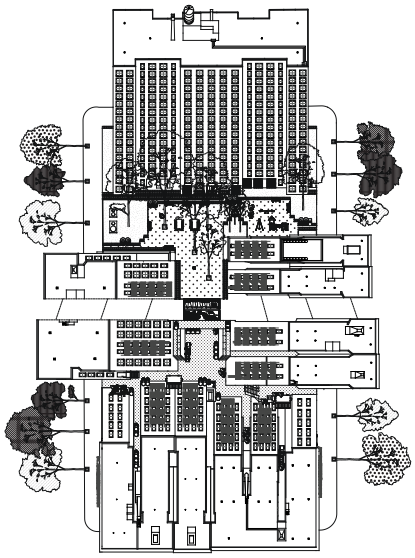
Julián Palacio, Kyle Dugdale, Gabriela Etchegaray,
Stephen Rustow, Kenneth Frampton

Ultan Byrne, Lara Kaufman, Andy McGee, Jesse Catalano,
Mabel Wilson, Hilary Sample

20

Novak Djogo

Theatre in the Block comprises three separate but interlinked theaters within the leftover space of a Manhattan block. It re-interprets typical infrastructural elements, notably the fire stair.



Maxim Kolbowski-Frampton

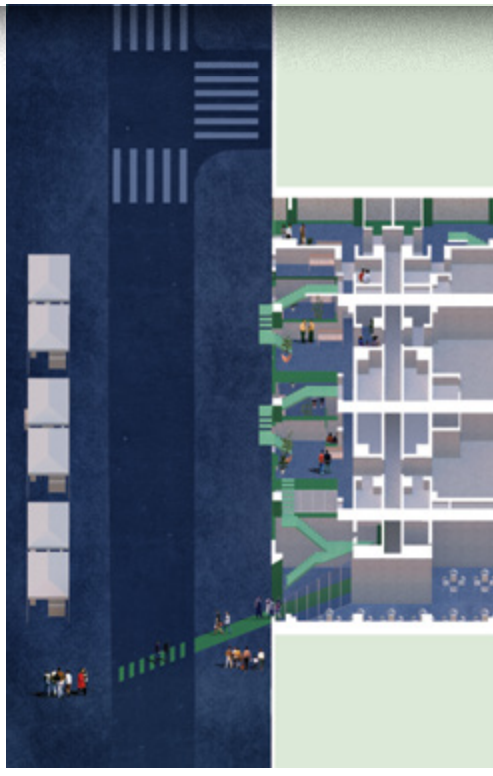
Jordan Readyhough

Joyce Zhou

This Upper Westside intervention looks at the differing levels of privacy afforded to occupants of Tudor homes, and those who reside elsewhere— a series of gardens were designed to reflect these differences.

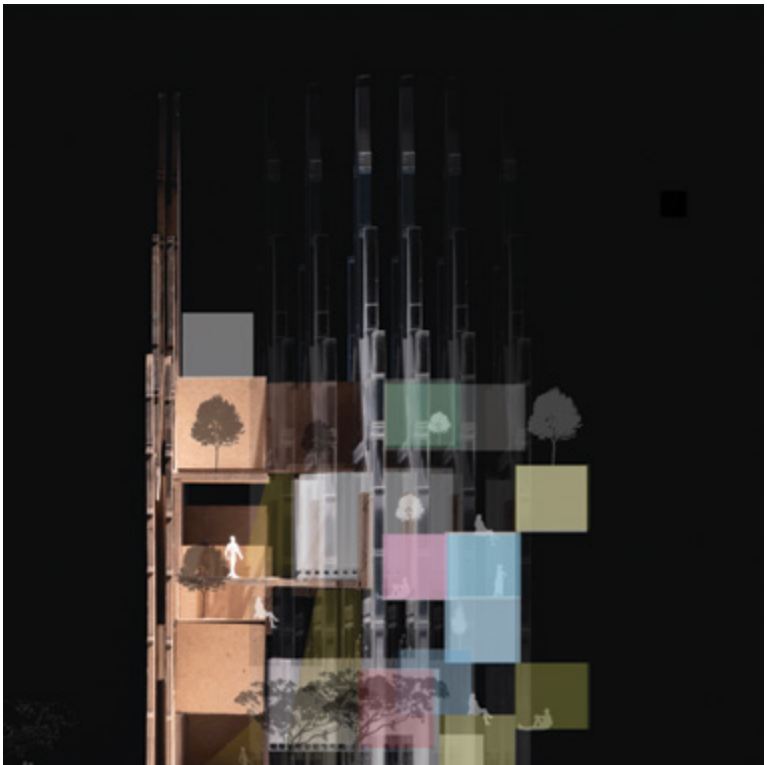
Sixuan Chen

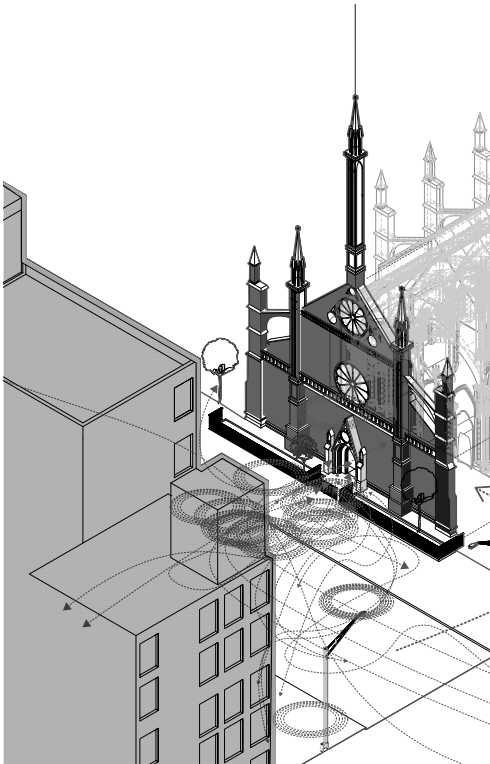
Similar to how Broadway cuts through the Manhattan grid and connects public squares, this project carves out secret public spaces within the existing vertical “grid” of residential units.



Farouk Kwaning

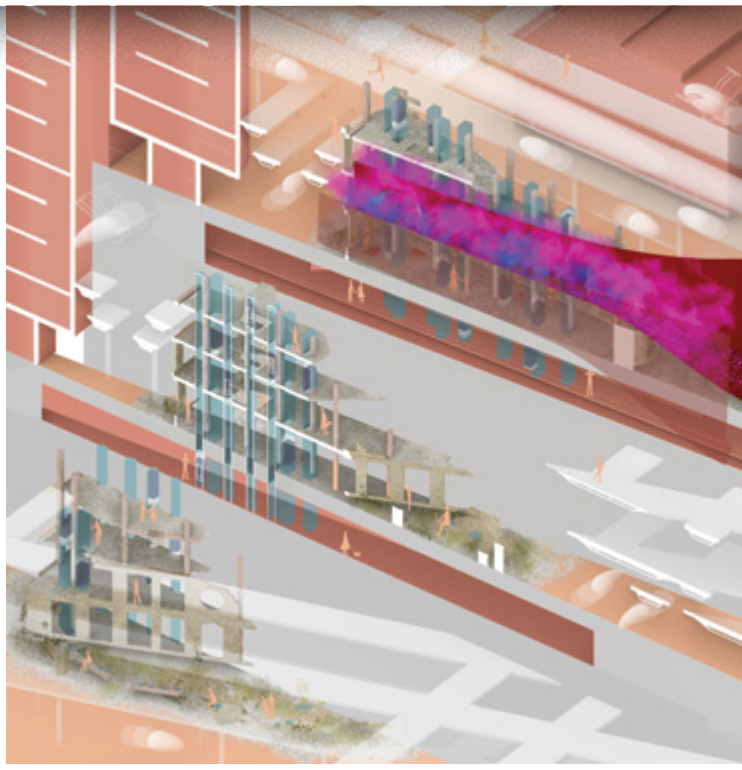
The proposal is located in the dimly-lit interstitial space between two “faces” on 12th St. and 4th Ave. The seemingly disconnected architectural pieces—the 150-year-old St. Ann Church and a 21st century NYU dormitory—are situated in a dialogue of cohesive tension.

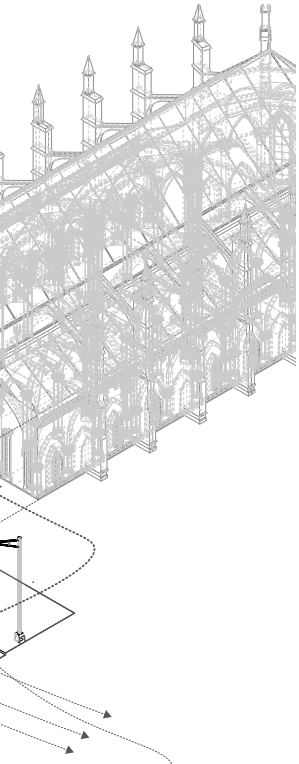


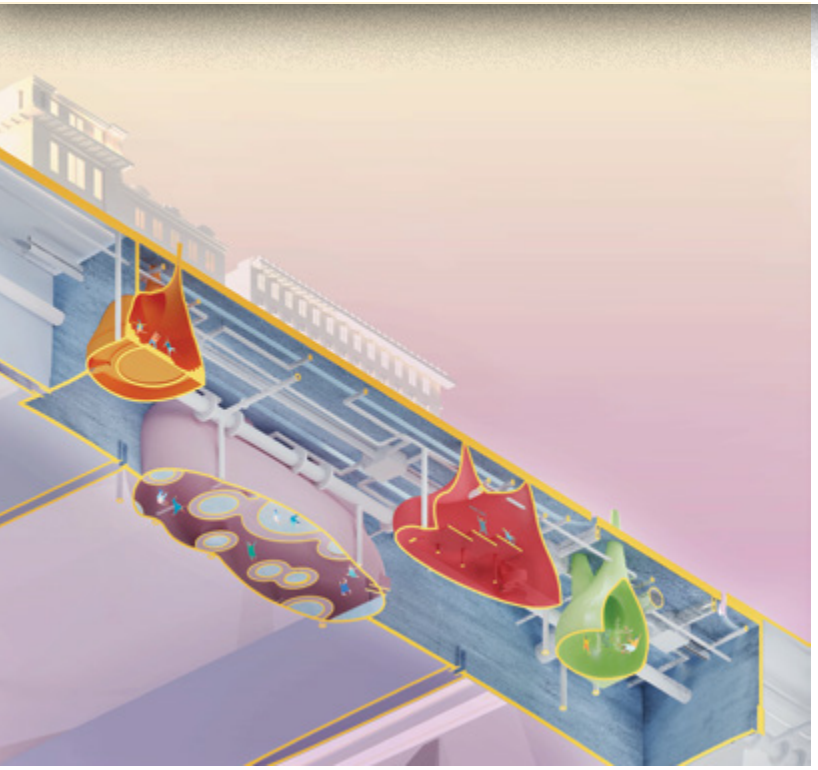


Alya Abourezk

Wind resulting from a catastrophic storm event has left the Flatiron building in ruins. My intervention explores the aftermath of a landmark and utilizes the principal actor in the building's demise, wind, as a tool for design.



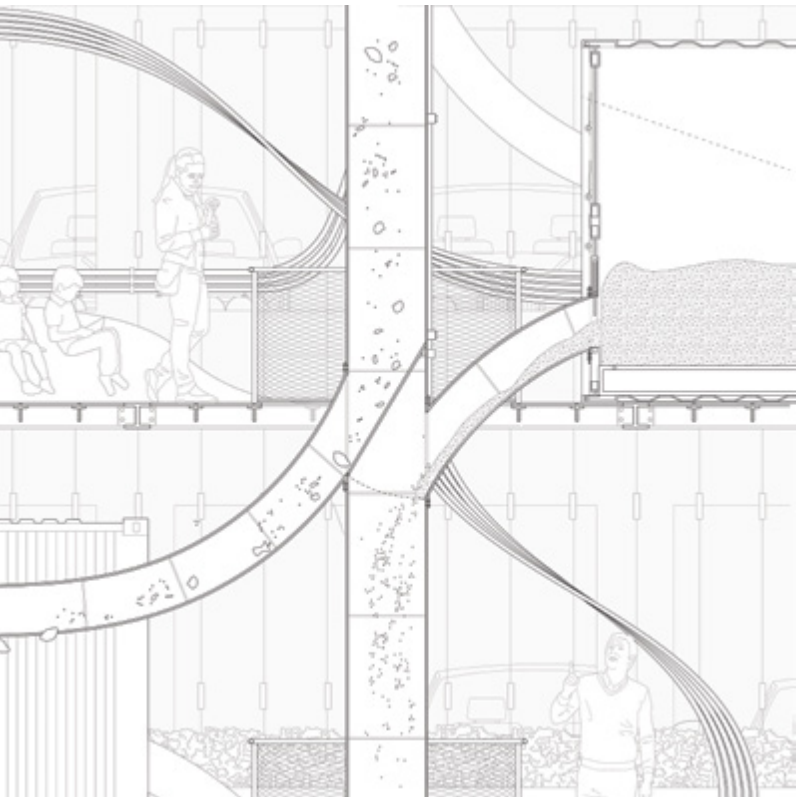




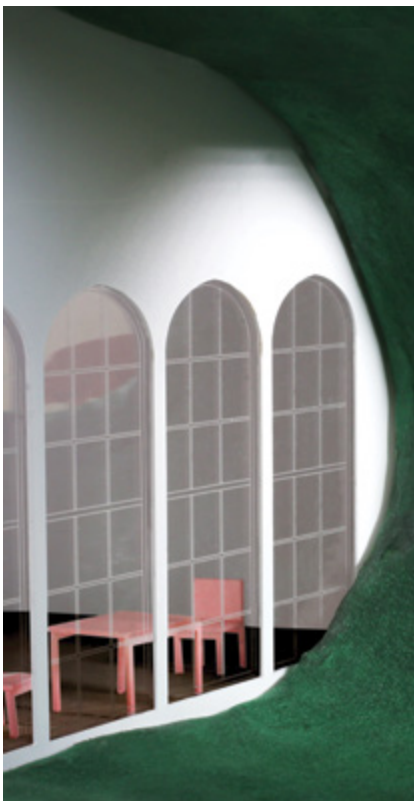
Jiageng Guo

By combining two city agencies— the Department of Transportation and Children's Aid Society—this project proposes a geological excavation underneath the street in Washington Heights to create an alternative public space that exposes the "guts" of the city.

Nayef Alsabhan



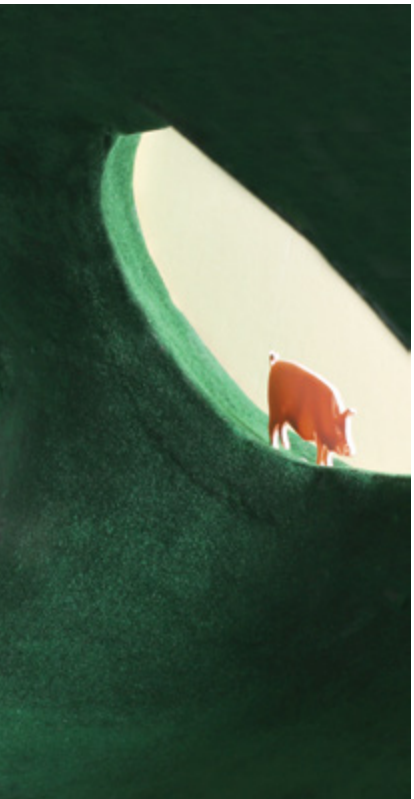
Yerin Won

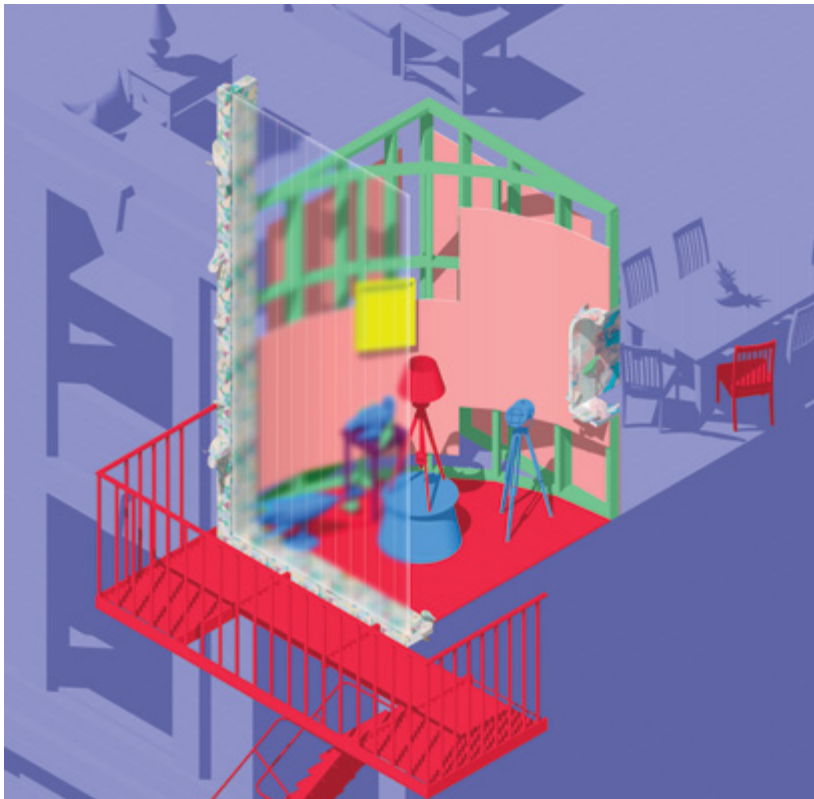


Yumeng Liu

This design proposes the distribution of an infrastructure that reveals zero waste education to the public by collapsing exterior and interior environments.

Osvaldo Delbrey



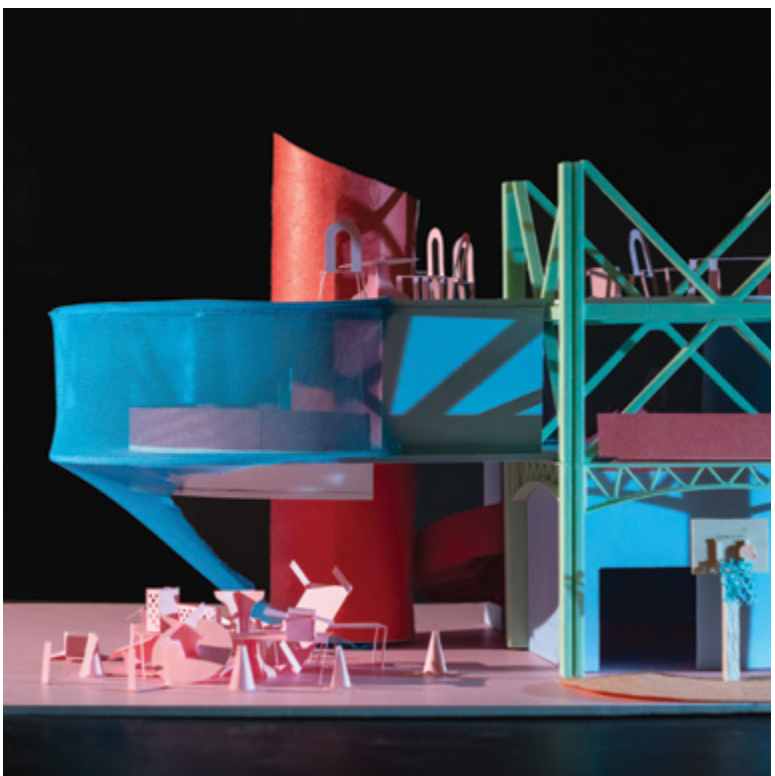


Andres Alvarez Davila

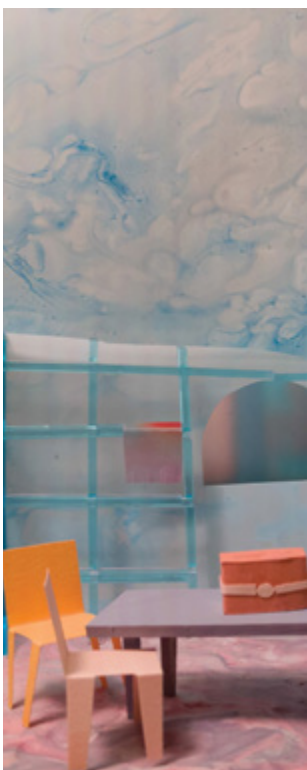
Libromat posits a new typology: a laundromat-library, derived from the relationship between private labor and public space in the laundromat and from recent studies that show that books in laundromats can improve childhood literacy.

Jules Kleitman

This scheme is a leisure and recycling center under the 125th subway viaduct.



Adeline Chum



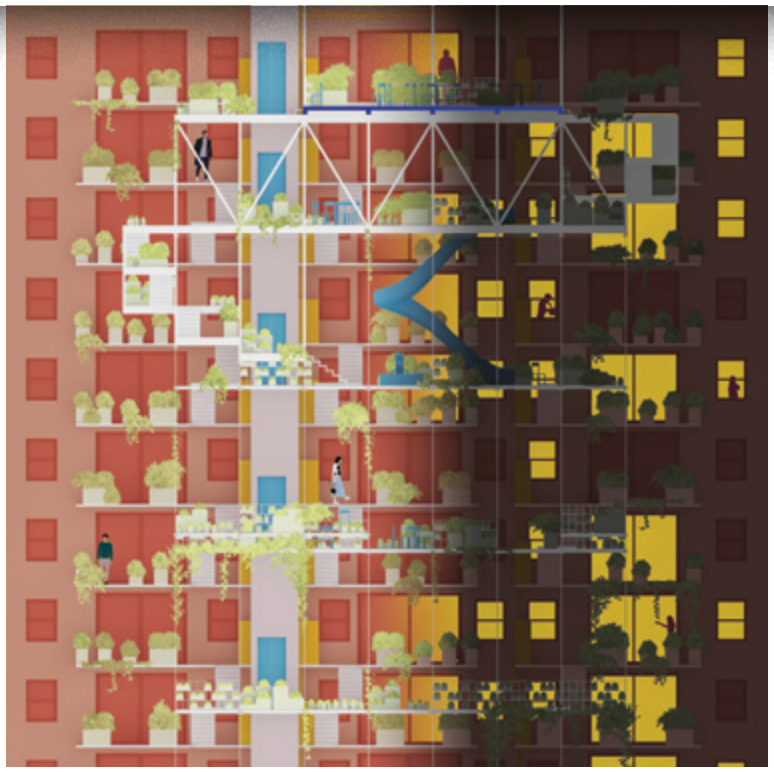
Bianca Lin

Reclaimed Threshold reclaims unused median space, using it to up-zone the area by providing mini housing units for the transients, and a hub for long and short-term residents.

Adam Vosburgh

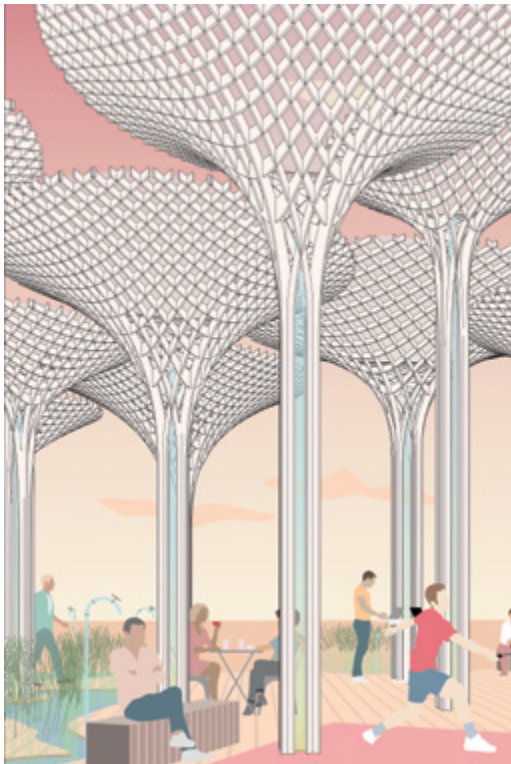
Ruisheng Yang

This proposal for the 18-story prewar apartment building located on W 73rd St and Amsterdam Ave reimagines food waste processing infrastructure by installing it on a facade.



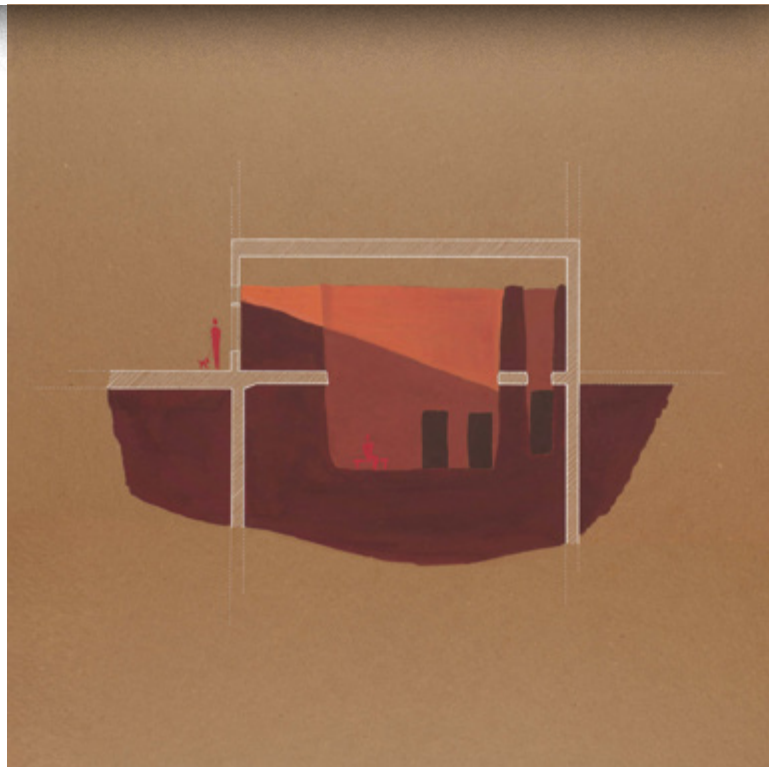
Mickaella Pharaon

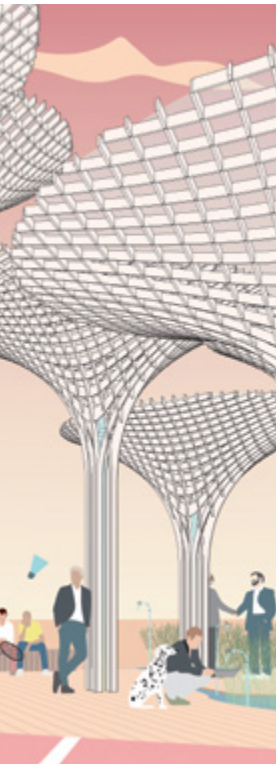
This project, which aims to give rainwater a life before it joins NYC's sewer system, comprises a modular rainwater collection and filtration system that is installed with minimal intrusion on existing structures.

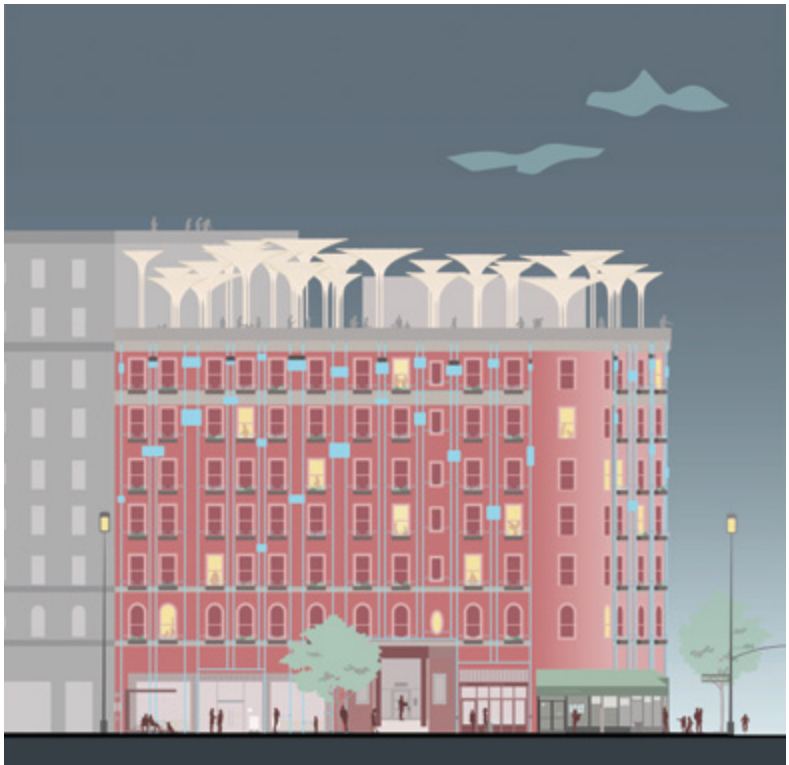


Sonny Han

As a challenge to the endless digitization and abstraction of the urban fabric—the death of death—*A Room to Write a Will* is a system of scattered interventions on existing storefronts throughout the city that provides a space in which one is invited to write their last will.







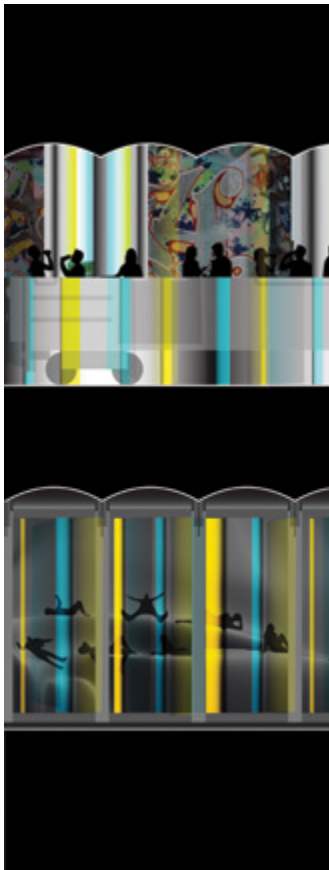
Anays Gonzalez

Referencing the 1968 university protests, this proposal occupies the windows and ledges of the facades and connects them as a way to create a public assembly space.

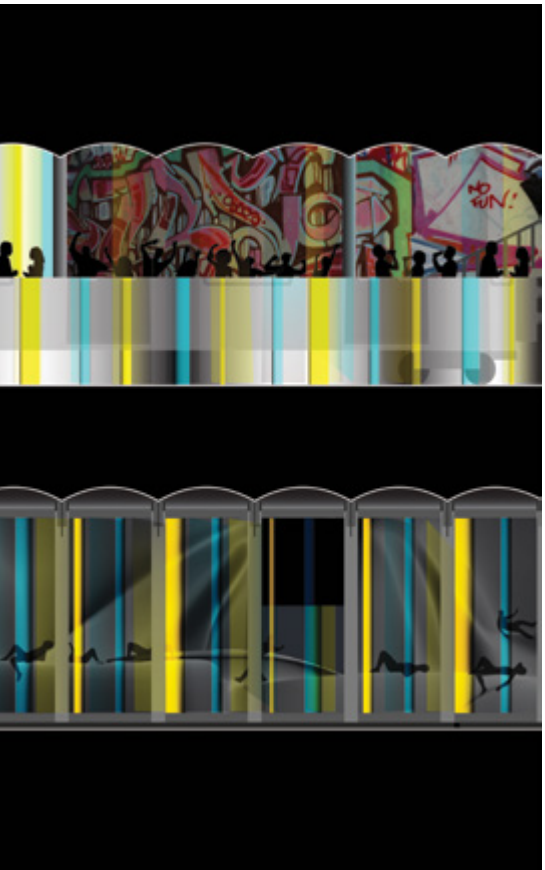
Kaeli Alika Streeter

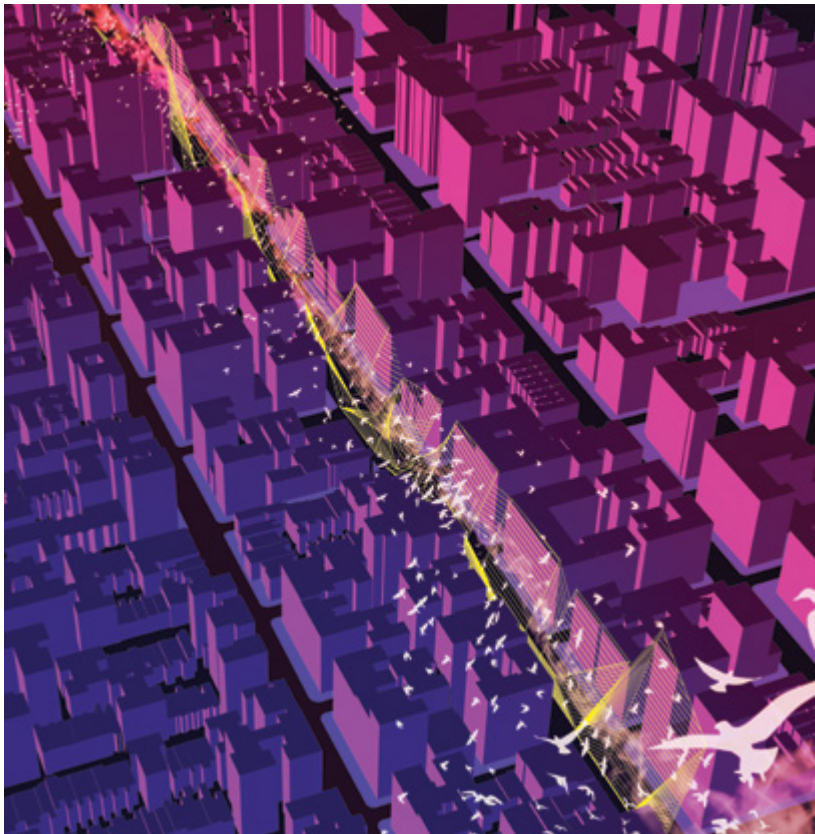
Working to facilitate a predator-prey ecosystem between raptors and rats, this project proposes a species-specific design be installed along the Broadway medians.

Gene Han



Aya Abdallah



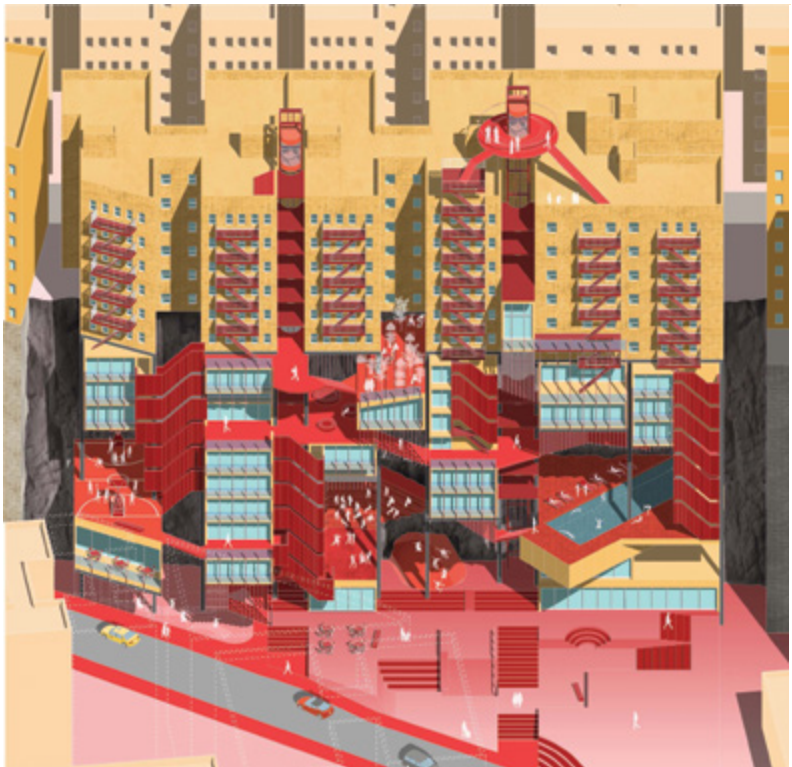


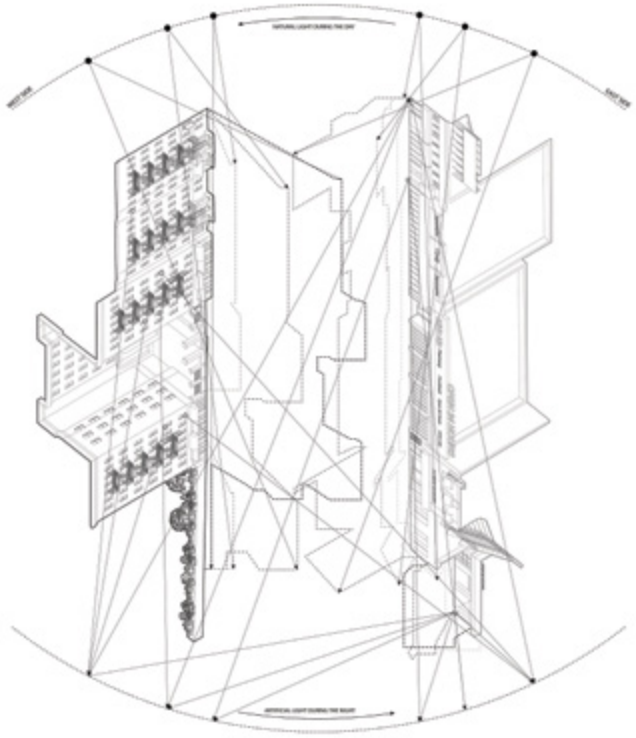
Keneilwe Ramaphosa

Estefania Serrano

Livia Calari

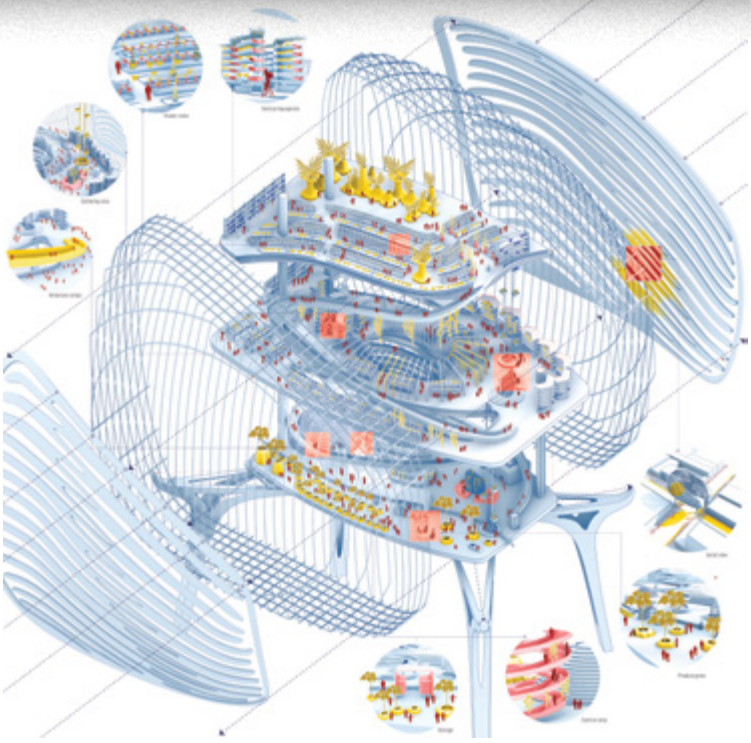
Minghan Tom Lin





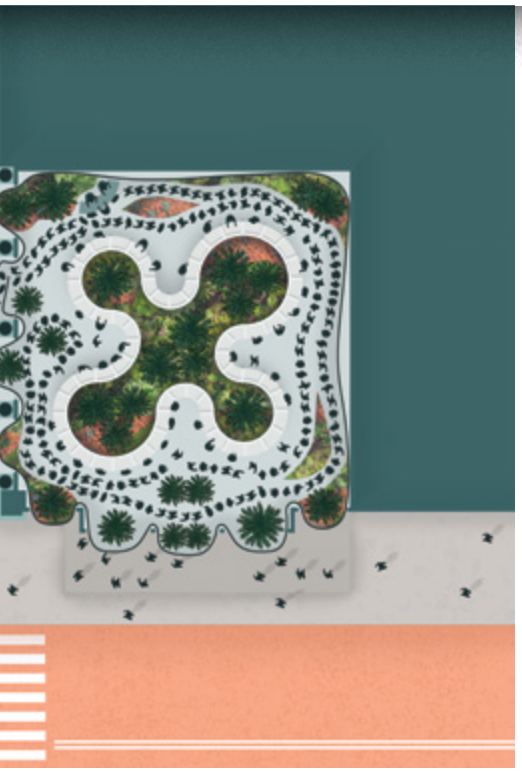
Hazel Villena

The Timekeeper is a co-op close-loop agronomic center of the future that seeks to preserve what we might have lost by that time. This engineered mini-environment of its own is designed to be a kit of parts that sequentially takes care of nature and fosters horticultural practices, both from the past and emerging ones.



Chuqi Huang

Enabled Pool is a public pool for people in wheelchairs. Circulation ramps spiral up and around the edge of the pool with small gathering pods arranged nearby, to multiply interactions along the vertical axis and cultivate a nuanced dimension of public.



Alexa Greene

Climate Bubble is a pop-up, inflatable structure that functions as an election polling location. It's accessible, flexible design aims to increase election visibility and voter turnout.

Cohaul Chen

Public Works for a

Sponsored by the Temple Hoyne Buell Center for the Study of American Architecture as a part of its project "Power: Infrastructure in America," "Public Works for a Green New Deal" assembled a series of courses from across programs at GSAPP during the fall 2019 semester to consider the social, technical, and political contours of the ambitious—but still largely undefined—proposal known as the Green New Deal (GND).

Courses for "Public Works" were adapted to address the GND proposal directly, with all design studio sites being U.S.-based and all briefs responding directly to the text of the Green New Deal resolution. The courses also responded, in various ways, to the call for imagination in Kate Aronoff's recent article, "With a Green New Deal, Here's What the World Could Look Like for the Next Generation."

[P. 76] <CLIMATE DESIGN CORPS: REINVENTING ARCHITECTURE, LABOR, AND ENVIRONMENT>
David Benjamin, Faculty

[P. 80] <BEING-WITH: COEXISTENCE AT A PLANETARY SCALE>
Phu Hoang, Faculty

[P. 84] <TRANSSCALAR TOWERS, THE ULTRACLEAR-GLASS PLAN>
Andrés Jaque, Faculty

[P. 98] <STRUCTURES OF CARE>
Bryony Roberts, Faculty

[P. 104] <IMAGINATIVE REALISM: CLI-FI, THE SUBLIME, AND THE PUBLIC IMAGINARY>
Marc Tsurumaki, Faculty

[P. 328] <URBAN DESIGN STUDIO II: THE CLIMATE CRISIS. IMAGINING A GREEN NEW DEAL IN THE HUDSON VALLEY>
Faculty: Kaja Kühl (Coordinator), Anna Dietzsch, Justin G. Moore, Jerome Haferd, Liz McEnaney, Shachi Pandey, Raafi Rivero, David Smiley, and Dragana Zoric

[P. 348] <RESILIENT URBAN PLANNING PRACTICUM: A GREEN NEW DEAL FOR APPALACHIA>
Thaddeus Pawlowski, Faculty

[P. 321] <RESILIENT URBAN DESIGN PRACTICUM: A GREEN NEW DEAL FOR APPALACHIA>
Kate Orff, Faculty

[P. 347] <PLANNING AND THE GREEN NEW DEAL: A PRACTICUM>
Ariella Maron and Douglas Woodward, Faculty

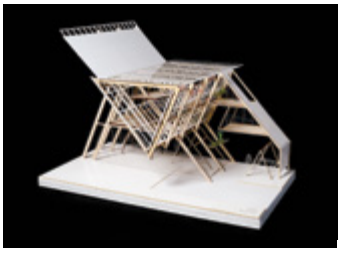
Julia Pyszkowski

Alvi Rahman Khan, Asiya Maaviah, Zhen Hua, Yuan Qin

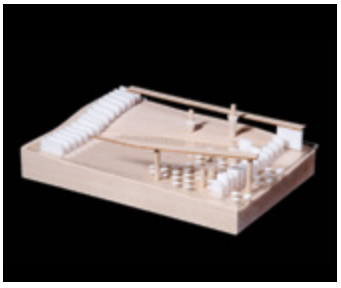
a Green New Deal

Peizhe Fang,
Haitong Chen

Christopher Spyrakos, Frank Mandell, Frederico Branco



Rui Wang



Brenda Lim, Andrew Keung

Hugo Bovea, Lino Caceres,
Stuti Ganatra, Sophie Lee

Students in the Resilient Urban Planning and Design Practicums led by Kate Orff and Thaddeus Pawlowski traveled to Johnstown, Pennsylvania to host a workshop with locals and political leaders to discuss how the river could anchor new vectors of local resilience.

The following abstracts summarize white papers that were authored as part of the *Planning and the Green New Deal: A Practicum course* led by Ariella Maron and Douglas Woodward.

Puerto Rico and the Green New Deal: Reactions to Climate Change and Resiliency Efforts
Alanna Browdy

The island of Puerto Rico stands to suffer some of the worst effects of climate change. Its centuries-long history of neglect as a U.S. colony, combined with its precarious location in Hurricane Alley, make it particularly susceptible. This paper examines how the Green New Deal, as well as U.S. and global conversations on climate change, apply to Puerto Rico. It argues that as climate justice dialogue flourishes, we must include Puerto Rico, while giving special attention to its history, existing conditions, and local community efforts. Larger systemic changes must also be made.

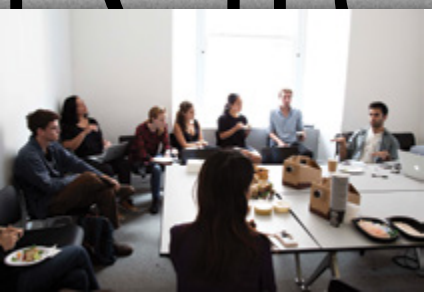
Shrinking Cities and the Green New Deal: Lessons from Detroit's Climate Action & Economic Development
Sam Kraus

This paper considers the implications of a Green New Deal in terms of its implementation for cities experiencing chronic economic and population decline. By considering data on urban shrinkage and revitalization, the evidence will show that particular climate mitigation strategies may not suffice in providing a just transition for vulnerable communities. While the Green New Deal would provide these municipalities with the fiscal capacity to augment services which have been diminishing for decades, there is a clear risk that a high skill workforce would benefit relatively more from that urban revitalization compared to vulnerable communities. Declining cities must address the problems at the root of the vicious circle of urban decline: poor public services, especially education, urban blight and distressed housing, and equitable connectivity to the rest of the city.

Planning a Just Transition in Agriculture
Dare Brawley

HR Res 109 or The Green New Deal (GND) lays out a vision for a mobilization against the dual challenges of climate catastrophe and economic inequality. One component of this vision is to reform the agricultural sector in ways that promote small scale agriculture, reduce greenhouse gas emissions, and increase access to a more sustainable and healthy food system. This white paper reviews the vision for agriculture in the GND through examples from concrete proposals that have emerged since the resolution, and examples of existing programs whose goals align with those of the GND.

a Green New Deal



DESIGNING A GREEN NEW DEAL

September 13, 2019

A simulcast of the conference “Designing a Green New Deal” at the University of Pennsylvania was hosted at GSAPP alongside a discussion of the Green New Deal, its aims, and its relationship to the built environment hosted by Jaffer Kolb.

PUBLIC WORKS FOR A GREEN NEW DEAL

September 27, 2019

This event featured presentations by faculty participating in the curricular initiative as well as a presentation on public housing by Daniel Aldana Cohen; public transportation by Hayley Richardson; and public electricity by Abby Spinak. A closing discussion was moderated by Alyssa Battistoni.

THE GREEN NEW DEAL: A PUBLIC ASSEMBLY

November 17, 2019

This public event gathered a wide array of advocates, organizers, and elected officials to explore the GND’s relationship to society, policy, and the built environment. It focused on modeling democratic debates that seriously consider the ambitions and challenges of the GND by thinking systemically and across scales. The event included morning workshops and an afternoon series of discussions to encourage exchange among guests representing a range of disciplines as well as the general public. Located at the Queens Museum, the event took place within US Congressional District NY 14, jurisdiction of the GND Resolution’s sponsor Representative Alexandria Ocasio-Cortez, who joined the assembly with a pre-recorded video. Photography by Corey Torpie.

PUBLIC WORKS FOR A GREEN NEW DEAL SUPERCRIT

November 22, 2019

Participants in the “Public Works” courses gathered for a supercrit. Students and faculty were joined by guest critics Kate Aronoff, Francisco J. Casablanca, Billy Fleming, and Gabriel Hernández Solano.

Abstract 2020

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Laura Kurgan,
Sequence Director
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and Technology
Craig Schwitter,
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Dean

Visual Studies
Laura Kurgan, Sequence Director
Josh Uhl, Sequence Coordinator

The Visual Studies sequence brings together a series of courses which link computational design, data analysis, and visualization, with a series of tools, methods and media for design and the built environment across a range of scales. Uses of computation in design—like data visualization, sensors and data analysis, simulation, optimization, procedural modeling, rendering, app design, Geographic Information Systems (GIS), Building Information Management (BIM)—are embedded in much of what architects, urbanists, and designers do. Yet simply training students to use and think with these technologies is insufficient. From the scale of the project to that of the planet, the uses of computational design methods and tools are most successful when their limits and their contexts—technical, social, political, aesthetic, and ethical—are confronted and surpassed to show us new ways of imagining and creating space. The tools, data, and technology we deploy in the design process are never neutral. Faculty in the sequence take on discrete parts of this array and expose students to technical, critical, and creative ways to transform and develop their processes of design.

The courses and workshops are divided into three broad sets of methods in visualization: quantitative, qualitative, and translational (hybrid). The variety of trajectories possible within the sequence of classes—required and elective—promotes an individual exploration of visualization, fostering innovation and creative methods. Teaching generally follows a "flipped classroom" format with students acquiring skills in tutorials outside of class and devoting class work to methodological and creative discussions exploring the limits and underlying concepts which guide those techniques.

After spring break this year, as our work and teaching moved online, the limits and potential of our communication and creative tools became glaringly obvious. As we all worked from home to flatten the curve, we also understood the ways in which data and space come together in palpable ways—politically, economically, socially, and personally. The #flattenthecurve diagram, first conceived by microbiologist Dr. Siouxsie Wiles (@SiouxsieW published on Twitter) has drawn together, choreographed, assembled and destroyed more than one ever possibly could have imagined with two curves (peaked and flat), two axes (time since first case of COVID and number of cases), and a horizontal line in between (showing the capacity of a healthcare system). The work this year in Visual Studies reflects a radical transformation in where, how, and with what tools and resources we managed to finish our work.

<ARCHITECTURAL DRAWING AND REPRESENTATION I>

[Fall 2019] Josh Uhl, Bika Rebek, Lexi Tsien, Zachary White

This course investigates the current concepts, techniques, and working methods of computer-aided “drawings” in architecture. The focus of the course is the construction of architectural representations. However, rather than just experimenting with technique, the course encourages one to define how these new operative techniques are changing the role of drawing in architecture. To this end, students study the operative relationship between 2d and 3d data, exploring the reaches of their analytic and representational potential.

<ARCHITECTURAL DRAWING AND REPRESENTATION II>

[Spring 2020] Dan Taeyoung, Andrew Heumann, Lexi Tsien-Shiang, Quentin Yiu, Violet Whitney

The ultimate goal of this course is to incubate students’ relationship with drawing, representation, and architecture by considering drawing as a practice. ADR II is an opportunity to play, explore new methods of representation, consider diverse points of view, test alternative outcomes, and experiment with how our methods of representation shape our relationship to architecture. This semester the class produced Spatial Quaranzine, an ongoing online publication/zine about our present moment and near future, using spatial and architectural representations.

<FUNDAMENTALS OF DIGITAL DESIGN>

[Fall 2019] John Cerone, Mark Green

This course investigates the concepts, techniques, and representational methods of computer-aided drawing in architecture. Students study the operative relationship between 2D and 3D data, exploring the reaches of their analytic and representational potential.

<USER-CENTERED DESIGN FOR EMERGING DIGITAL PHYSICAL ENVIRONMENTS>

[Spring 2020] Agnes Chang

This course takes a critical and experimental approach to designing mixed reality experiences. It examines principles of human-computer interaction and “design thinking” together with qualitative and quantitative strategies in architectural research. Students survey the latest technology developments and examine their implications for design and society. They develop skills in user research, rapid prototyping, usability testing, and data collection as methods for excellent interaction and spatial design.

<VIRTUAL ARCHITECTURE: WORLD-BUILDING AND VIRTUAL REALITY WORKSHOP>

[Spring 2020] Nitzan Bartov

This workshop borrows tools and workflows from the gaming and VR industries to explore architectural production through the lens of speculative physics, causality, and interaction. Our built environment represents the limits of physics and material properties. What types of architecture emerge from the exploration of alternative physical constraints? If cause and effect could be re-imagined, what would be the new modes of interaction with one’s environment?

<TECHNIQUES OF THE ULTRAREAL>
[Fall 2019, Spring 2020] Joseph Brennan, Philip Crupi
This class challenges the participants to not only think of rendering and perspective as a method of presentation but also a design tool, implemented early and often in the design process. In addition to learning techniques for creating photorealistic renderings, it teaches a workflow that encourages early exploration. The class focuses on color, light, material, context, reflection, and opacity throughout the entire design.

<GRAPHIC ARCHITECTURE PROJECT I: DESIGN AND TYPOGRAPHY>
[Fall 2019, Spring 2020] Yoonjai Choi
GAP is a way of thinking about the intersection of the flat and the deep. We examine the visual rhetoric employed to convey design concepts. Typography is fundamentally the procedure of arranging type but it can also be the particular art of traversing meaning with form. It considers the visual tone of how messages are conveyed, and explores ways to appropriately control and manipulate that tone through typography.

<GRAPHIC ARCHITECTURE PROJECT III>
[Fall 2019, Spring 2020] Whitney Dow, Michael Rock
How do we tell and read stories? The answer to those questions reveal essential aspects of the narrative, the way parts can stand for wholes, the distinction between mood and plot, the difference between things that happen in sequence and things that happen simultaneously, and the way details reveal truths. This class looks at both how to tell the story of an architectural project and how thinking about narrative informs the design process.

<MAPPING FOR ARCHITECTURE URBANISM AND HUMANITIES>
[Spring 2020] Emily Fuhrman
This hybrid theory/practice course provides an introduction to critical mapping discourse and geographic information systems tools. It examines both historical and contemporary questions about the technology of mapping. Additionally, through the use of open-source GIS software (QGIS), browser-based technologies (Mapbox), and open data (OpenStreetMap), students learn how to critically use mapping tools and geographic data for spatial analysis and representation.

<RE-THINKING BIM>
[Fall 2019, Spring 2020] Jared Friedman
This course provides foundational knowledge of relevant modeling software and visual programming interfaces, while also discussing contemporary applications of these tools in the industry. Each lecture is split into two parts: the first being a discussion about a particular topic, and the second part being an instructional demo. In the first third of the semester, students utilize Revit to model an existing piece of architecture in NYC. Students then re-design their initial draft with this new toolset according to a conceptual proposal. This course is cross-listed with Building Science and Technology.

<POINTS UNKNOWN: CARTOGRAPHIC NARRATIVES>

[Spring 2020] Michael Krisch, Juan Saldarriaga

Through pairing the processes of architecture and techniques of journalism, this course explores sites of NYC and the Hudson Valley Region. Students propose a site to investigate from a set of site topics identified for their unique connection to the city, their centrality to demographic populations, and their environmental impact. Groups work under the direction of a journalist who serves as editor to help groups explore and report on their site, spending the semester researching and constructing a geospatial narrative.

<LINES NOT SPLINES: DRAWING AS INVENTION>

[Fall 2019] Christoph Kumpusch

TThis workshop is rooted in three propositions: Drawing is as much a way of seeing as it is a means of representation; drawing is not bound to digital versus analog categorizations; and drawing remains the primary vehicle to record, communicate, and create architecture. The class reviews the "Top Twenty Great Architectural Drawings" as a series of case studies linked to a film project on the drawing process. Participants draw what they see, what they cannot see, what they want, and what they wish we could achieve.

<MAKE>

[FALL 2019] Giuseppe Lignano, Ada Tolla

The premise of this seminar is to produce work that is experimental, personal, difficult, ugly, dirty, weird, and investigative—rather than definitive in presenting evidence and conclusions. The seminar is about making, and the work is physical, produced within the precise constraint of a 12” × 12” × 12” volume through 5 materials—the basic components of architecture: concrete, plastic, metal, wood, fabric. Through making students explore and question their obsessions. They discover and invent, follow and drive, command and listen.

<HACKING THE URBAN EXPERIENCE I AND II>

[Fall 2019] John Locke

This course collaborated with both the UNI Project, a non-profit that creates learning environments in public spaces across NYC, as well as local Harlem organization Brotherhood/Sister Sol, to design, build, deploy, test, and defend a 1:1 scale prototype intervention intended to facilitate interactive participation in public life. The students created a neighborhood radio communication device, centered on Brotherhood/Sister Sol’s public plaza.

<REAL-TIME>

[Fall 2019] Farzin Lotfi-Jam, Greg Schleusner

This course explores, modifies, and develops a suite of real-time architectural design assist tools using the Unreal Gaming Engine. To date, real-time software has predominantly been used in the architecture field to visualize environments and allow users to experience projects at the end of the design process. This course reverses this

process and uses real-time software as the generator of architectural design. We do this by problematizing the application of external constraints on the production of architecture.

<COMPOSITE MODELLING>
[Fall 2019] Jackie Martinez
This course explores the connections among drawing, modeling, and thinking by exploiting traditional representation methods as a means of conceptual exploration. The goal is a structured exploration of different media and methods that work in composite towards the production of an installation, as well as the development of a toolkit of graphical, spatial, and experimental modeling techniques that drive innovative acts of making. These understandings inform the composite model—a mixed media work and a multi-layered narrative.

<GEOGRAPHIC INFORMATION SYSTEMS>
[Fall 2019] Leah Meisterlin
The course covers technical skills associated with and required in spatial analysis, conceptual issues in geographic thinking and research design, as well as practical examples and case studies of GIS as applied in urban contexts. The first part of the course focuses on the basics by leading the students through skills-based GIS exercises alongside lectures and readings that discuss pertinent geographical concepts. The last part focuses on individual student projects requiring that each student find data and design methods of analysis based on the techniques and approaches learned in the course.

<GENERATIVE DESIGN I>
[Spring 2020] Danil Nagy
This course explores how technology can leverage nature's design methods to create new workflows. Instead of designing objects, students design systems that encode a range of possibilities of a design concept. They learn methods for measuring and quantifying their performance so that designs can be evaluated automatically by a computer. Finally, they create automated evolutionary processes that allow the computer to search through a design system to find novel, high-performing designs. This course is cross-listed with Building Science and Technology.

<TOOLS FOR SHOW>
[Spring 2020] Bika Rebek
This course is a technical and conceptual exercise in copying. Mediating between digital media and physical full-scale replicas, it explores the multiplication of objects, bodies, and spaces as a creative process in itself. Each student created a detailed photogrammetry scan of a section of their interior and then used a set of optimization and filtering methods to display it on the web. These glimpses into the routine of life in quarantine allow for a reflection of what it means to share three-dimensionality online.

<METHODS IN SPATIAL RESEARCH>
[Spring 2020] Carsten Rodin
This course provides an introduction to the critical use of geographic information systems (GIS) and the use of spatial methods for urban humanities research.

<NARRATIVE URBANISM>
[Fall 2019] Cassim Shepard
All designs and plans are representations. Before designers and planners can intervene in urban space, they must learn the tools to observe and interpret urban dynamics and to create documentary evocations of existing conditions. This course focuses on developing qualitative tools of analysis and representation, informed by a deep dive into the history of mutual influence between documentary media and urban discourse over the past century.

<META TOOL>
[Fall 2019] Dan Taeyoung
We are aliens from another solar system, observing a group of architects. These architects seem to be thinking about a location in space that they call a site. Armed with an arsenal of tools, they visit the location, talk to people, take photographs, sketch, model, look at the computer. Where do their tools come from? The core thesis of Meta Tool is: to design critically, intentionally, intelligently, and playfully, designers must have the ability to design new critical, experimental, and playful design tools.

<SEMINAR OF SECTION>
[Spring 2020] Marc Tsurumaki
This seminar re-conceives the section as an instrumental and projective device. The goal is to provide students with techniques through which they can develop their approaches to the section as a vital analytical and design tool. The seminar also investigates the section to raise broader questions on representational techniques architects deploy and the complex interrelationship between delineation, ideation, and materialization.

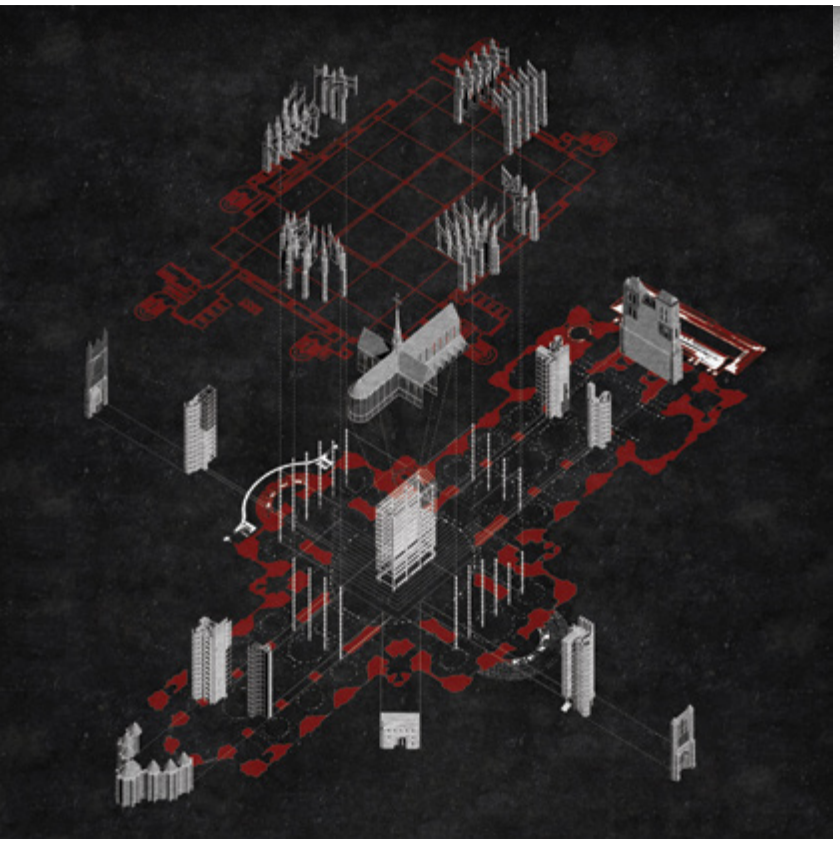
<ARCHITECTURAL PHOTOGRAPHY>
[Fall 2019] Michael Vahrenwald
This class looks at ways of photographing architectural models from standard depictions in which the images are meant to closely resemble a full-scale construction to alternate approaches. It addresses themes beyond the presentation of a finished building or a rendering. It also focuses on photographing various constructed exterior and interior spaces. The class discusses approaches to photography from “objective” to “expressive” and explores notions of the iconic, the narrative, and digression in architectural photography.

<DATAMINING THE CITY I>
[Fall 2019] Violet Whitney
This course focuses on encoding spatial analytical processes that enable designers to speculate creatively about the urban environment. Students develop a critical understanding of the social, economic, and political dynamics caused by these technologies as well as technical training in simulation, sorting, and visualization techniques. They hypothesize about the relationships of tools and space, as well as develop models and simulations so designers can gain a foothold in the changing landscape of a platform city.

<URBANISMS AND ALGORITHMS I>
[Spring 2020] Luc Wilson
This course explores the data/urbanism gap and attempts to hybridize, spatialize, and subvert the two approaches of inquiry. Students develop projects to investigate new methods of design, development, and policy in NYC. It introduces a range of data collection, exploration, analysis, and visualization techniques. Projects are framed through a single theme: How can we use the tools and techniques of this course to explore the potential impact and ethics of urban augmented reality/mixed reality and propose projects and policy for New York?

<DATA VISUALIZATION FOR ARCHITECTURE, URBANISM AND THE HUMANITIES>
[Fall 2019] Jia Zhang
This class introduces key concepts in the design of information visualization and interactivity. Students put theory to practice in discussions that critically engage with the visualizations. They also produce visualizations by hand and by code that are interactive, public-facing, and live on the web. Specifically, they learn and use the javascript library D3.

<ARCHITECTURAL DRAWING AND REPRESENTATION I> Josh Uhl, Bika Rebek, Lexi Tsien, & Zachary White



Minghan Lin

Alyna Karachiwala

Keneilwe Ramaphosa

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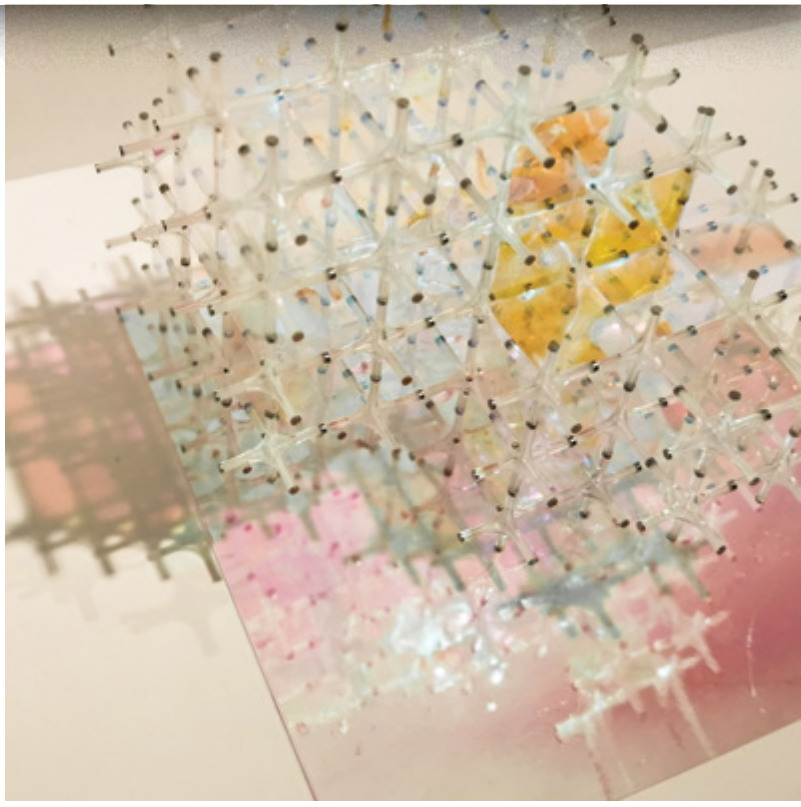

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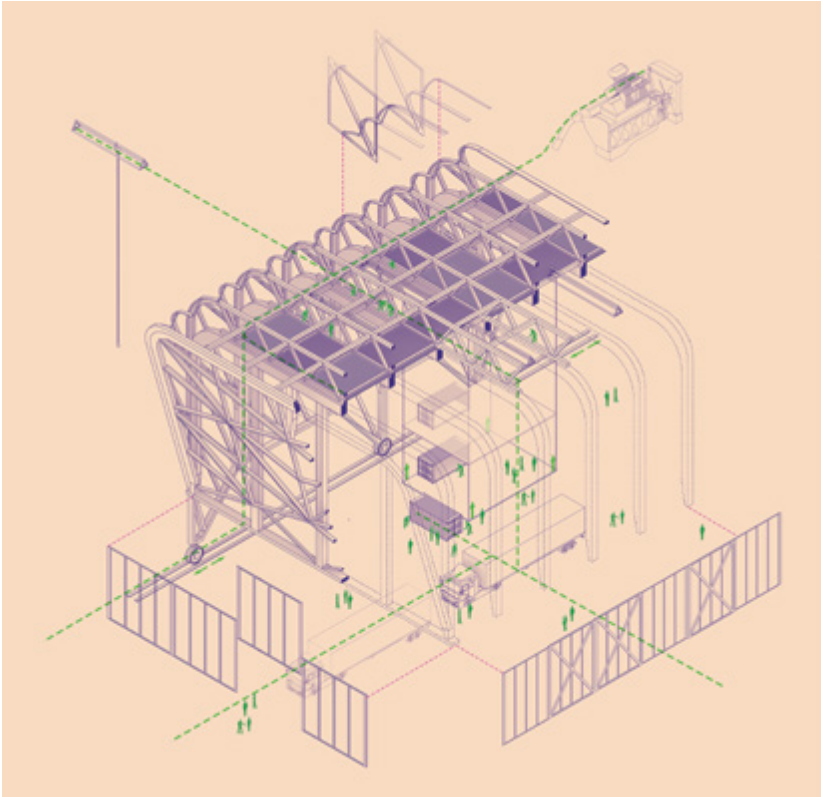
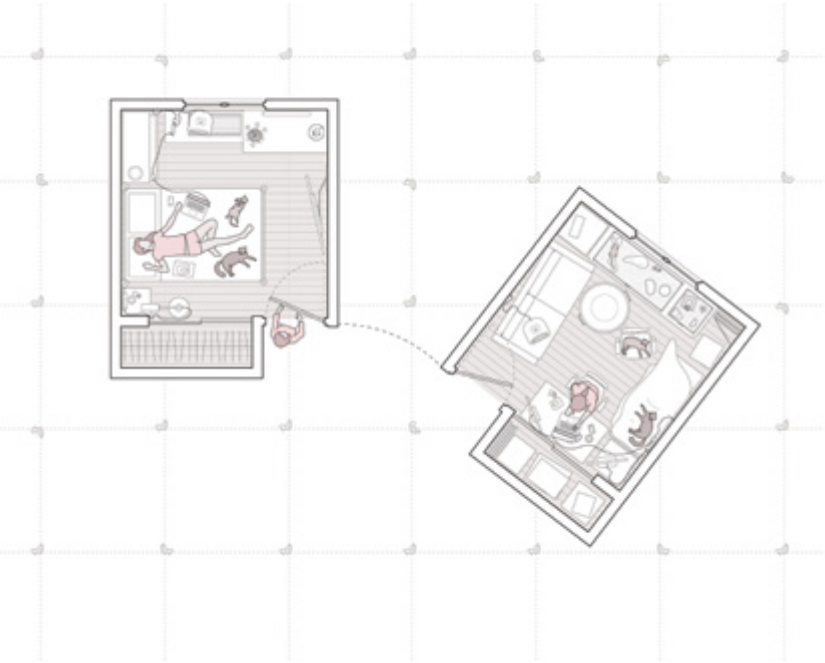
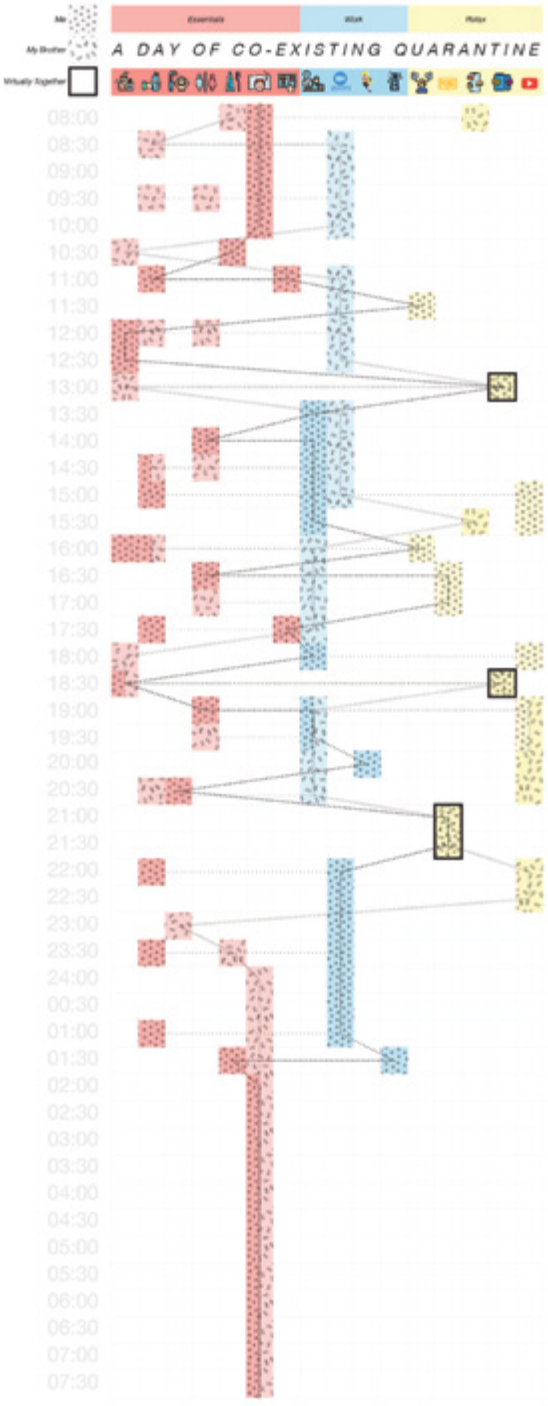


<ARCHITECTURAL DRAWING AND REPRESENTATION II> Dan Taeyoung, Andrew Heumann, Lexi Tsien-Shiang, Quentin Yiu, & Violet Whitney

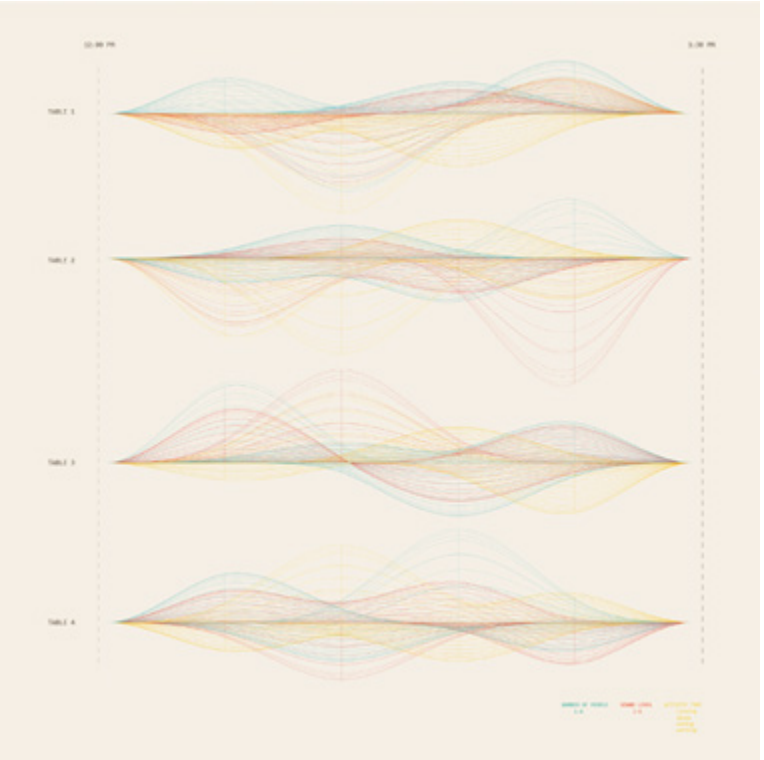
Sierra Heckman

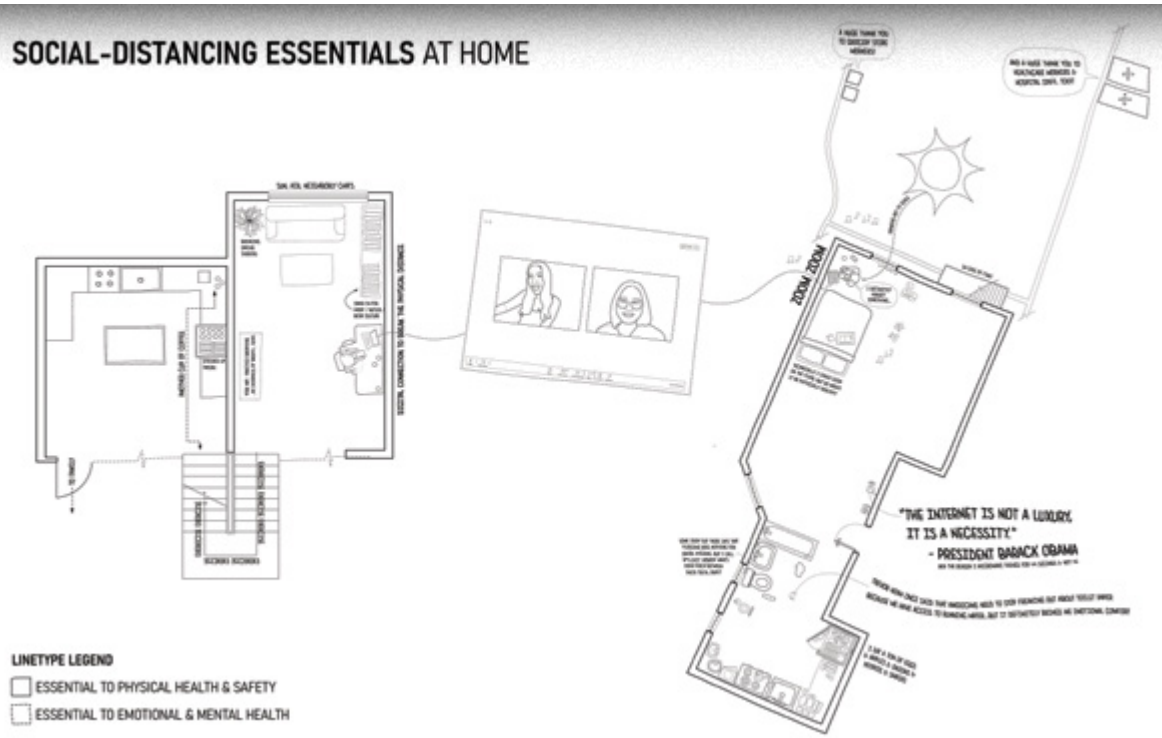


Karen Chen



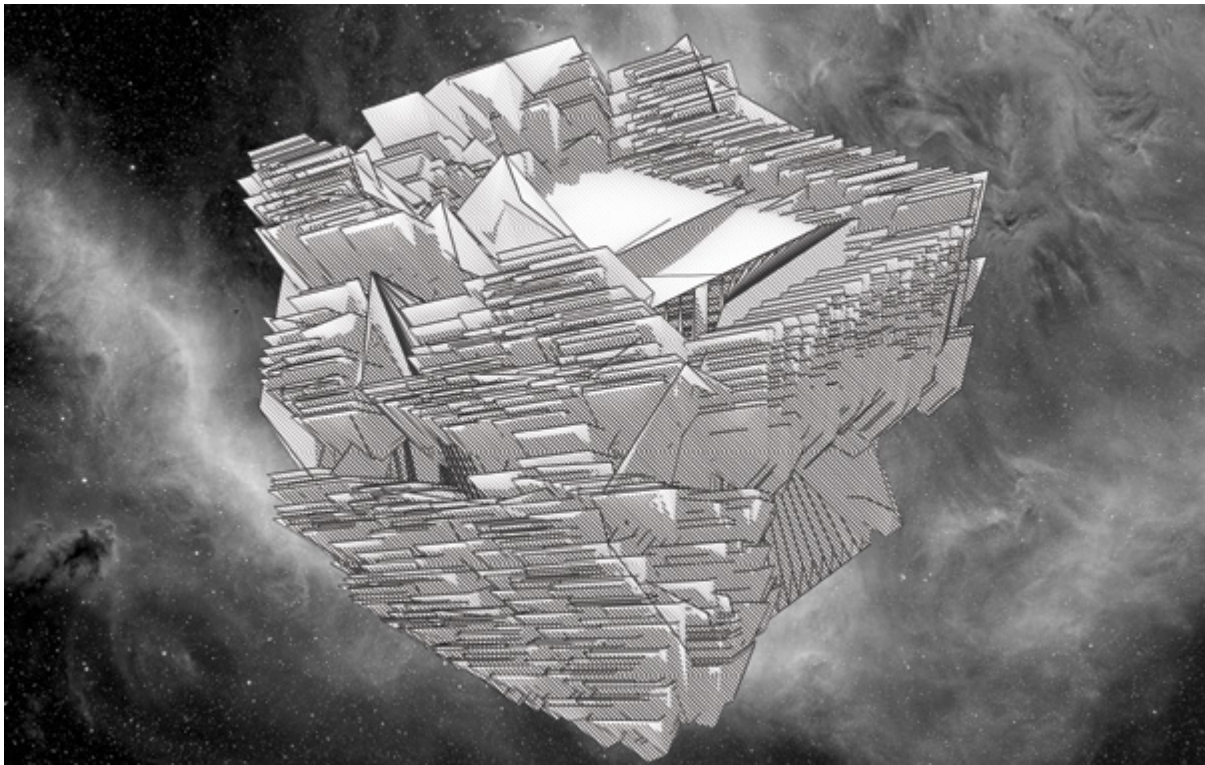
Danielle Nir





Lucia Song,
Gizem Karagoz

Ben Diller-Schatz



Ye Xiong, Yuanyang Teng, Hajir Al Khusaibi, Ri Le, Ian Wach

Ian Wach, Yuanyang Teng, Yasmin Ben Ltaifa, Troy Williams Gelobter

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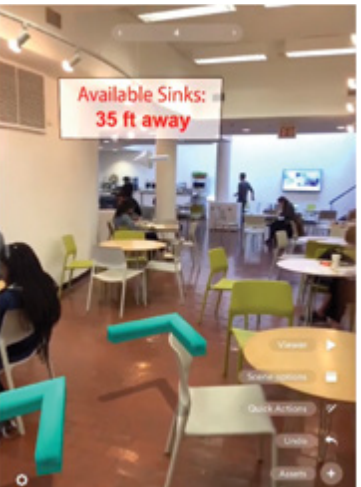

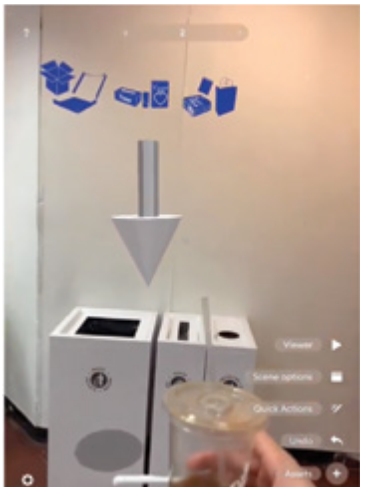

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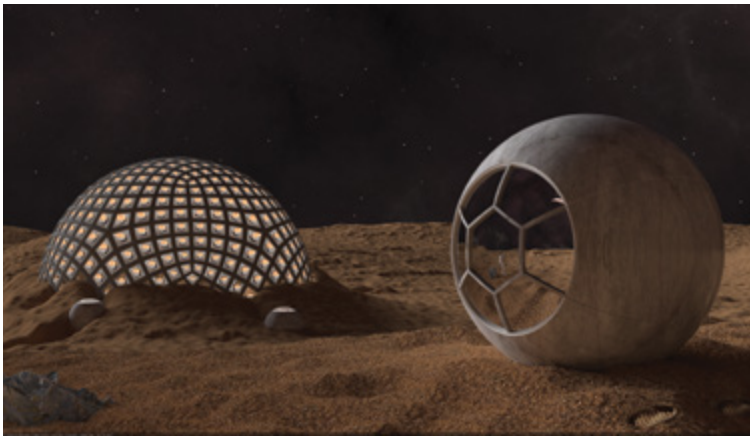
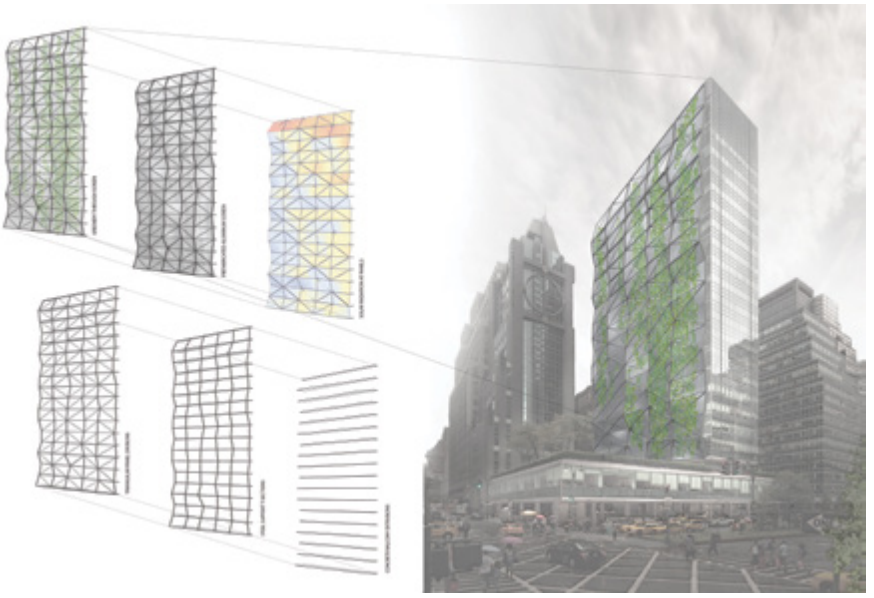
Sierra Heckman



Maria Pérez Benavides,
Eva Jiang

Berkhan Eminsoy,
Becky Greenberg



Sanggyu Shin,
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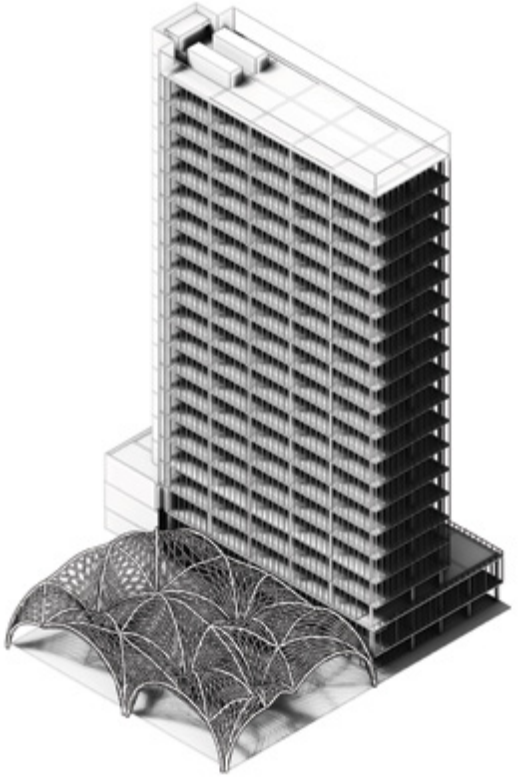
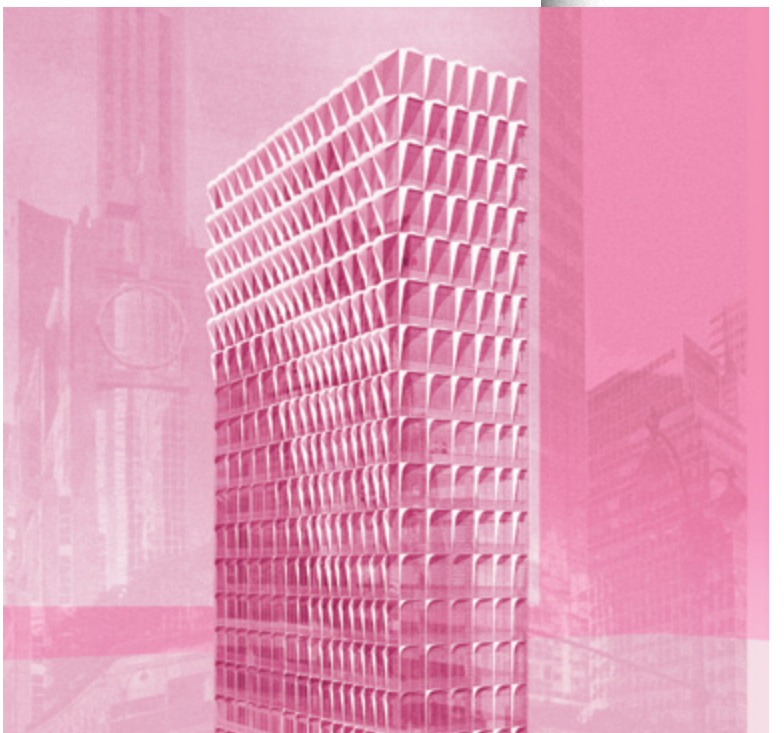


Lihan Jin, Jun Ito



<POINTS UNKNOWN: CARTOGRAPHIC NARRATIVES> Michael Krisch & Juan Saldarriaga

Ashley Esparza,
Aayushi Joshi,
Gustava Gruentuch

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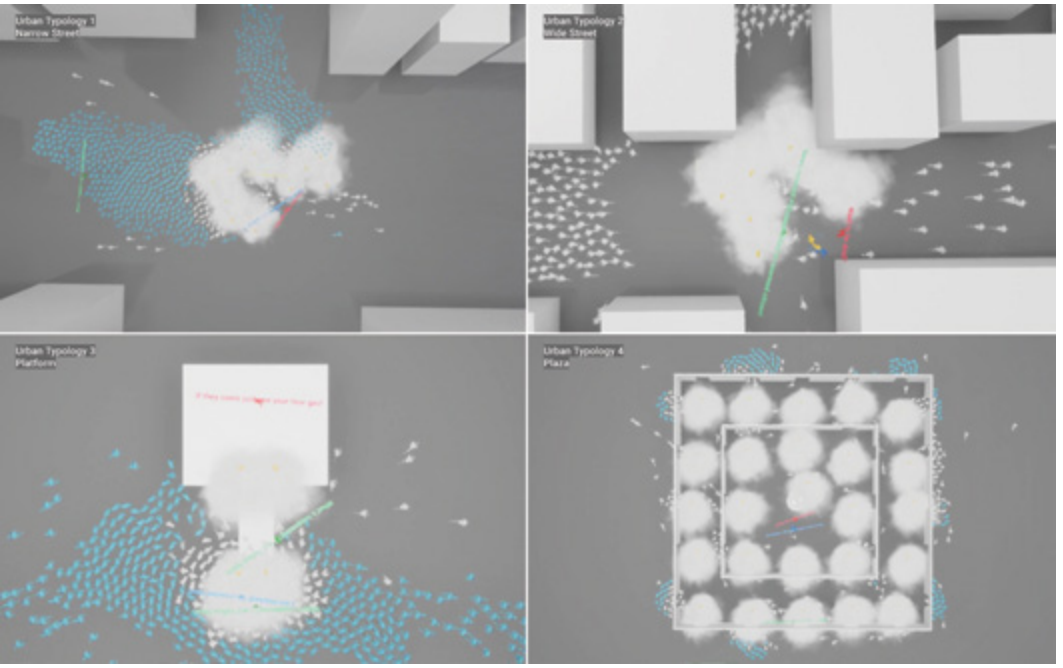
Sharvari Raje, Anays Gonzalez

<REAL-TIME> Farzin Lotfi-Jam, Greg Schleusner

Guangwei Ren



Kunal Mokasdar, Elie Zeinoun

Alex Hudtwalcker Rey

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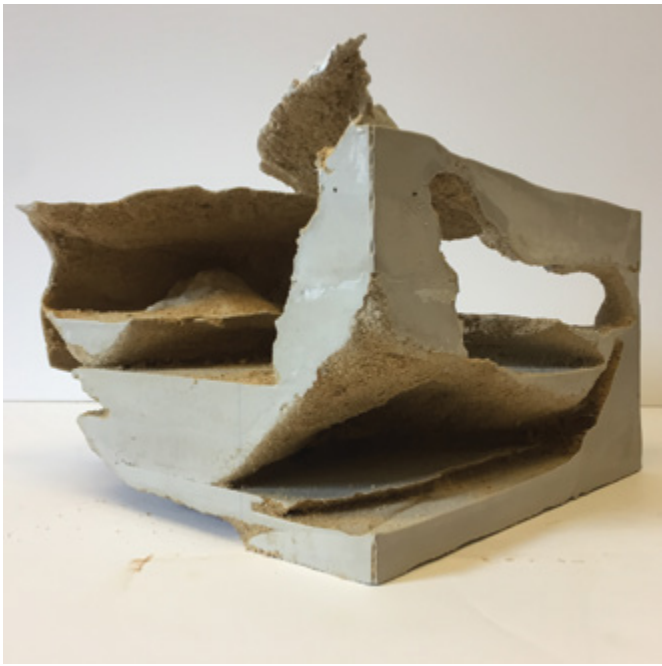
Guillermo Hevia

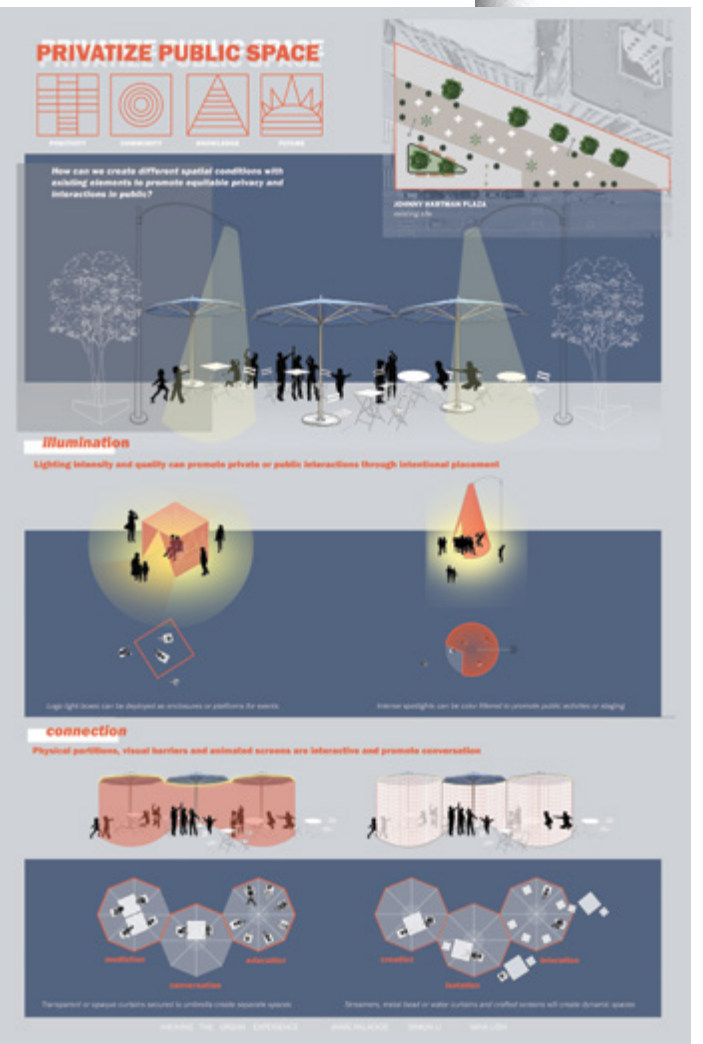
Sara AlMutlaq



<HACKING THE URBAN EXPERIENCE I AND II> John Locke

Lino Caceres, Ian Callender, Tola Oniyangi

Simon Li, Nina Lish, Jaime Palacios Anaya



<COMPOSITE MODELLING> Jackie Martinez

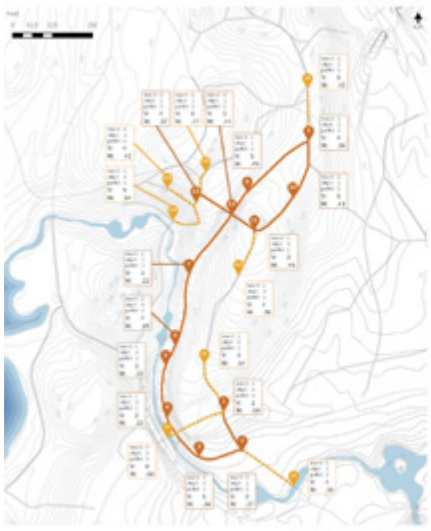
Mingyue Zhang

Peizhe Fang

Dylan Denton

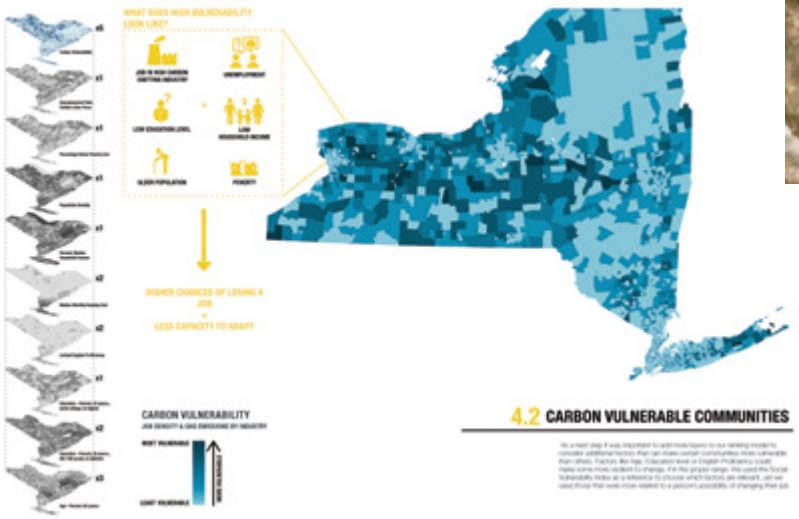
<GEOGRAPHIC INFORMATION SYSTEMS> Leah Meisterlin

Spenser Krut



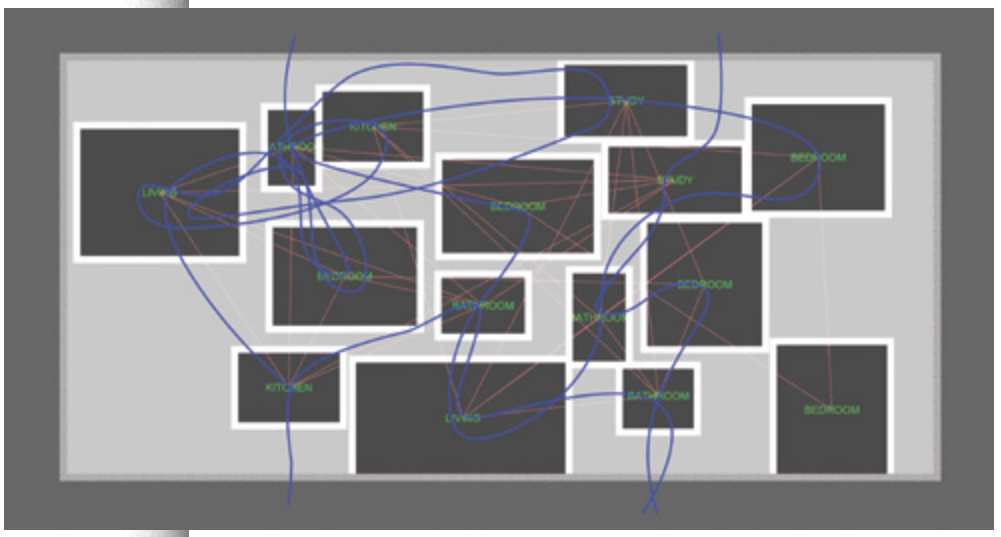
Annie Wu, Chris Zheng

Antonia Medina Abell, Mary Allen, Claudia Kleffman



<GENERATIVE DESIGN I> Danil Nagy

Sritoma Bhattacharjee, Shailee Kothari



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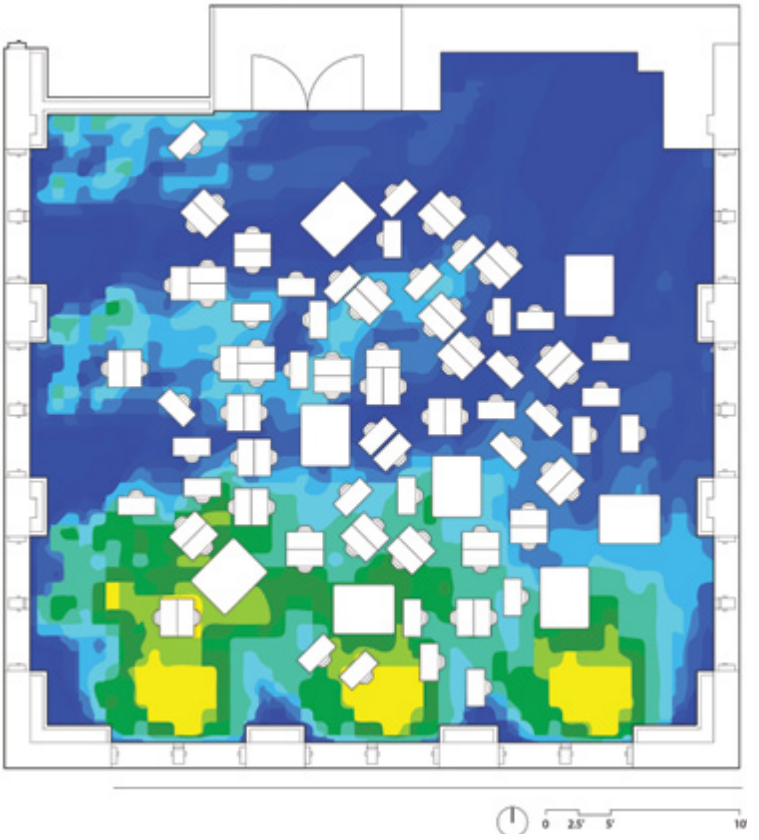


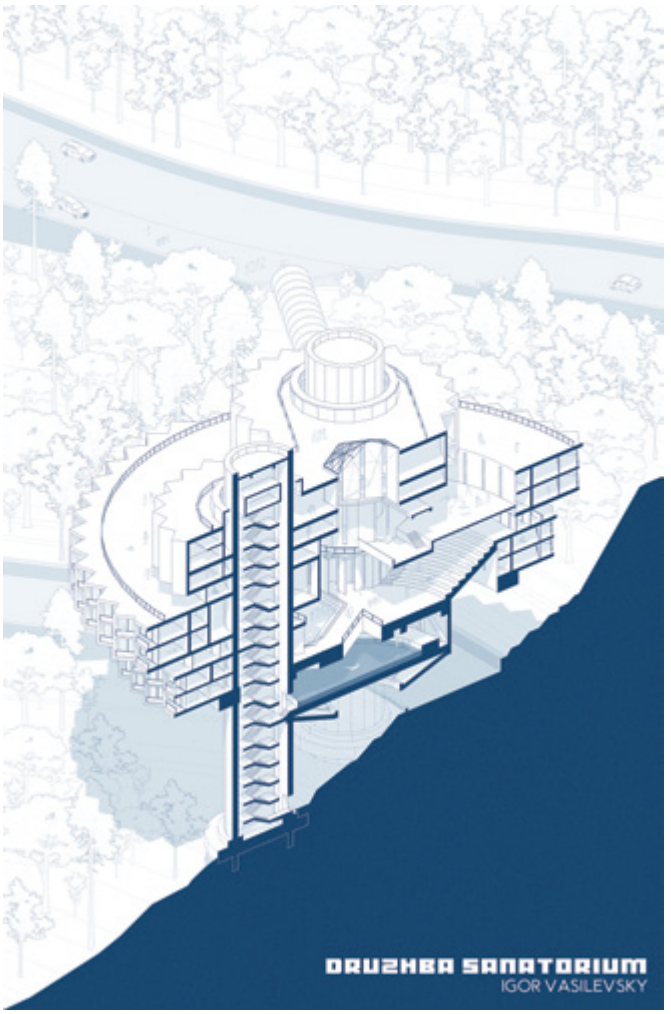
<TOOLS FOR SHOW> Bika Rebek

Dylan Denton

Ibrahim Kombarji

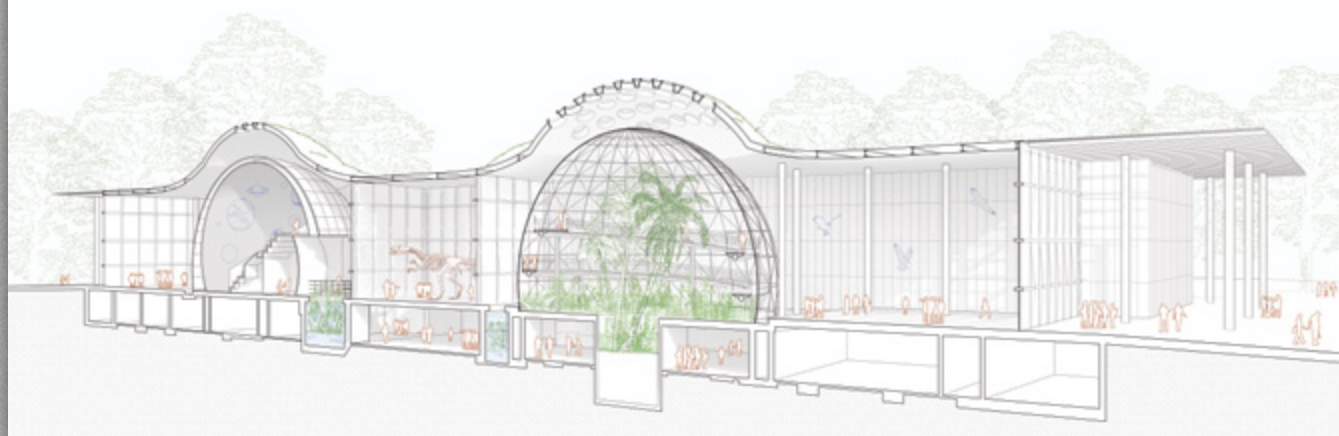
Bassam Kaddoura

Benjamin Gomez



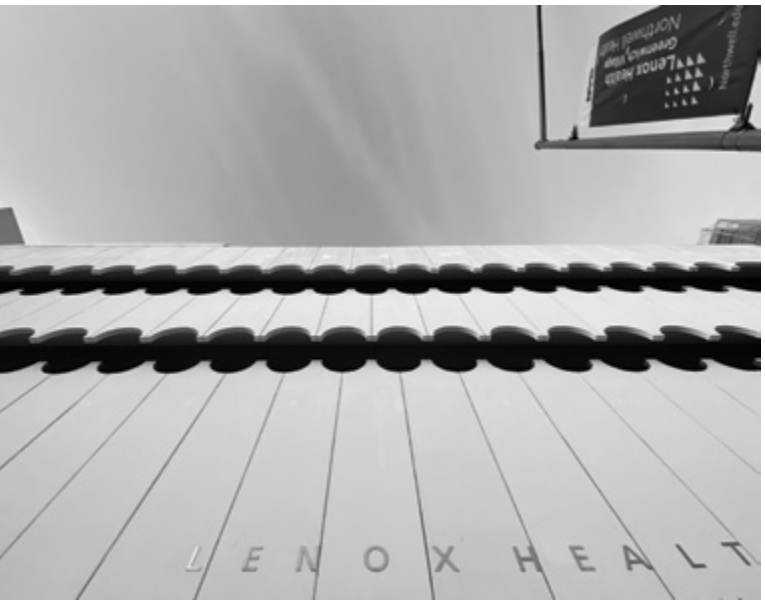
Kate McNamara

Adina Bauman



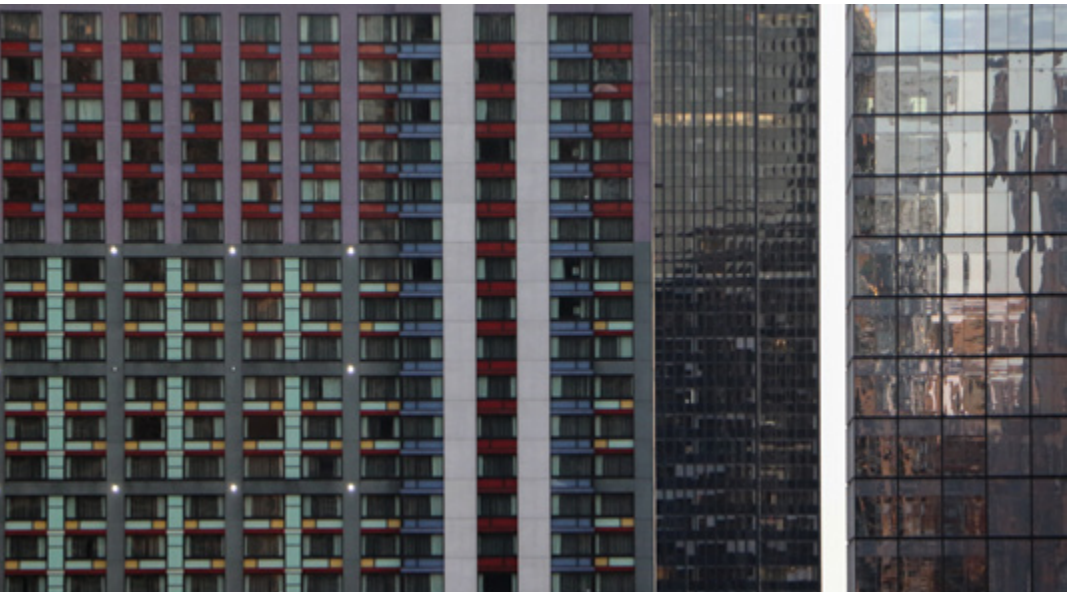
<ARCHITECTURAL PHOTOGRAPHY> Michael Vahrenwald

Aseel Sahab



Jing Scott Guo

Rohan Parekh



<DATAMINING THE CITY I> Violet Whitney

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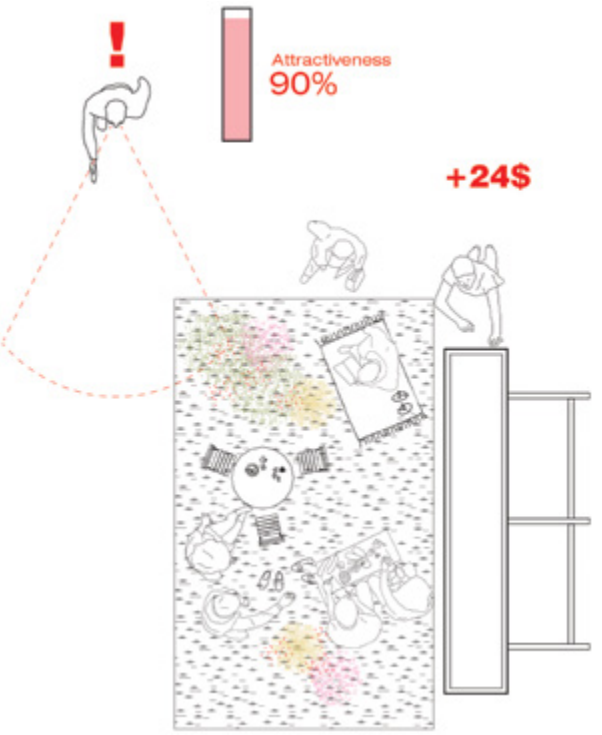
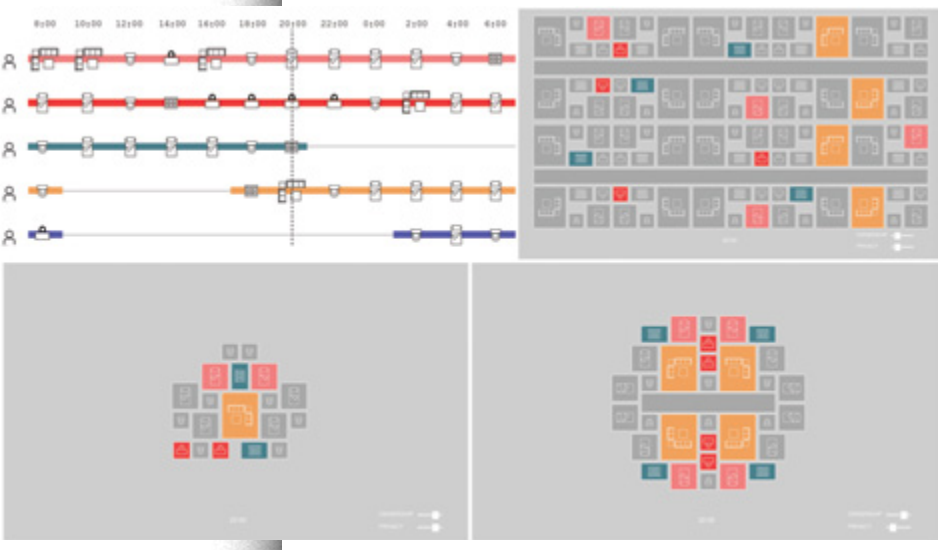
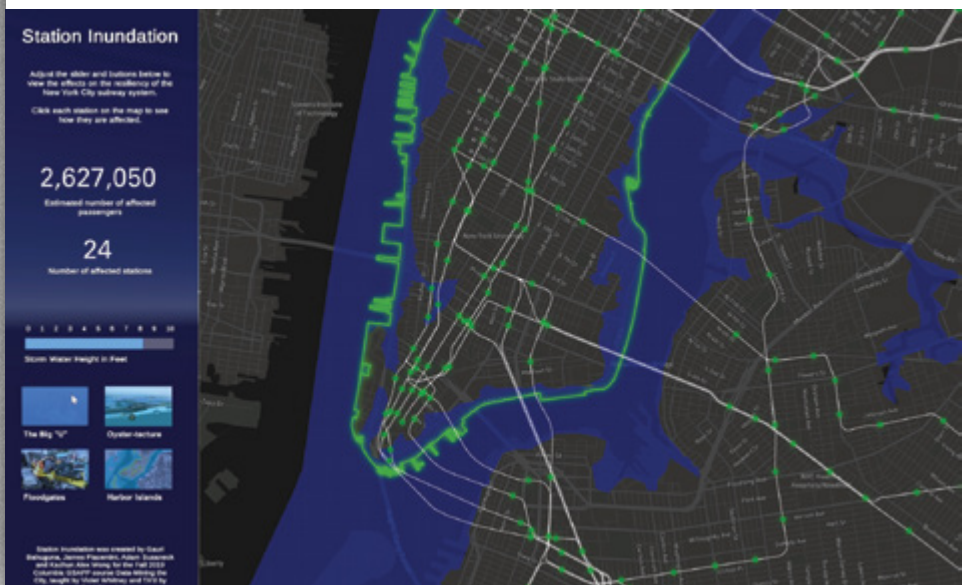


Shailee Kothari,
Sritoma Bhattacharjee

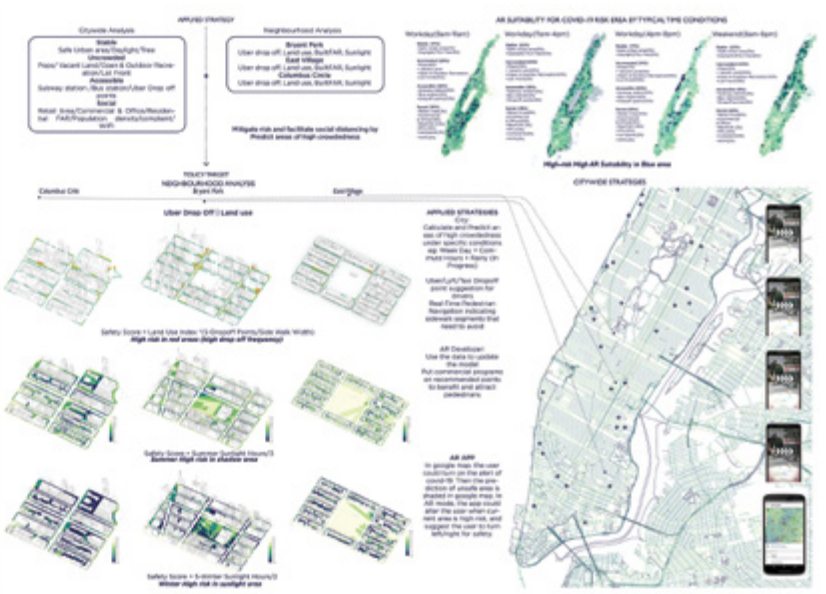


James Piacentini, Adam Susaneck,
Gauri Bahuguna, Alex Wong



<URBANISMS AND ALGORITHMS I> Luc Wilson

Guangwei Ren, Xinyue Liu, Yuxin Hu



Haitong Chen

Building Science and Technology
Craig Schwitter, Sequence Director

For the next generation of architects, technology has become a greater and more differentiating force than ever before. As computational power increases at exponential rates and data become ubiquitous, formal methodologies in architectural design are giving way to an evidence basis. New modes of making in architecture are being disrupted through changes in manufacturing, materials, and information technologies in a globalized world. What bricks and mortar may have been to earlier methods of architecture, today the focus is squarely on the performance of design in the built environment. Does design drive greater productivity? A better sense of community and well being? Lower energy use? Less material waste? Broader and shared economic development? The subjective narratives of decades past on these subjects are today turning into data and hard facts. Performance and its measurement and verification have become a function of an architecture searching for the right solutions.

Urban conditions continue to drive the discourse on the global stage. As cities grow globally and see the effects of unprecedented migration, the effects of design are ever-present. Scarcity of resources, driven by rapid population growth and demographic change, need to be addressed head-on by the architectural community. Energy and its efficient performance in buildings have become the critical issue across architecture to address the questions of global climate change. And even while working harder inside the building construct, architects must think outside the building boundary, to wider notions of integration in systems including water, transportation, waste, and energy. These are the pieces of a global puzzle that will be waiting for them as they graduate.

The technology sequence is an integral part of the school and part of the training for the next generation of architects that will shape our built environment. Students must explore and experiment as always but realize that abilities to rationalize and prove are more interconnected with design as it touches every aspect of development across the world.

<ARCHITECTURAL TECHNOLOGY I: ENVIRONMENTS IN ARCHITECTURE>
[Fall 2019] Craig Schwitter
This course addresses the fundamentals and the application of environmental control systems in buildings. Heating, cooling, ventilation, lighting, and acoustics are discussed based on the physical laws that govern the exchange of energy between building and environment and how they relate to human comfort. Electrical, plumbing, fire protection and circulation are introduced as required systems to make buildings fit for occupation. The goal is to enable students to understand the interaction of natural and constructed environments in order to develop and quantify appropriate responses that create comfortable and efficient buildings.

<ARCHITECTURAL TECHNOLOGY II: STRUCTURES IN ARCHITECTURE>
[Spring 2020] Zak Kostura
This course provides students with an understanding of what structural design means and how it's carried out. Students gain familiarity with basic elemental forms, structural assemblies and systems, and new and emerging materials. Through project-based and hands-on work, students gain an understanding of the structure, empowering them to integrate their newfound technical knowledge including load-resisting systems into architectural concepts.

<ARCHITECTURAL TECHNOLOGY III: ENVELOPES>
[Fall 2019] Gabrielle Brainard
This course covers the tools and methods of facade design, starting with system typologies and design principles and moving on to performance criteria, documentation methods, and project execution strategies. The schematic design phase focuses on façade types and materials. The design development phase introduces performance criteria, especially structural and thermal requirements. For the construction documentation phase, students review the enclosure design and construction process and consider the relationship between design and cost.

<ARCHITECTURAL TECHNOLOGY IV: BUILDING SYSTEMS INTEGRATION>
[Fall 2019] Sarrah Khan
This capstone course asks students to develop a design proposal with integrated technical systems including structural form, environmental systems, materials, construction methods, and fire protection elements. It brings together key areas of study from environmental systems, structural systems, and enclosures. Previously learned concepts and principles are applied to the comprehensive design of a fully detailed building, and deliverables include the comprehensive schematic design, design development, and construction document drawing sets.

<ARCHITECTURAL TECHNOLOGY V: URBAN SYSTEMS INTEGRATION>
[Spring 2020] Craig Schwitter
This course begins by zooming out to study technical systems that operate outside the walls and the site of a building. Beginning at the city and regional scale, students consider the processes building

users undertake to move around the city and into the site. By progressively studying urban systems at an increasingly granular scale starting with the entire city, moving down to the neighborhood, site, and immediate building perimeter, a full understanding of the interplay between a building and multiple urban systems is developed.

<FOOTPRINT>

[Fall 2019] David Benjamin

This seminar and workshop conduct research into carbon accounting, examine the history and relationships between various systems of environmental measurement, invent new forms of visualizing the footprint of architecture, develop strategies for designing low-carbon architecture, and create material for exhibition at the Museum of Modern Art in NYC and the United Nations Climate Convention (COP25) in Santiago, Chile.

<MEASURING THE GREAT INDOORS>

[Fall 2019] Gabrielle Brainard, Violet Whitney

This course explores techniques for working with data from the physical world, with the aim of understanding and manipulating dynamic, interactive environments. Students use hardware, software, and observation to characterize the great indoors. Investigations focus on heat, light, and motion: shifting temperature gradients, changing qualities of light, and traffic patterns in a busy hallway. We interpret data using industry standards for indoor environmental quality, and consider how standards may or may not capture human experience.

<TRANSFORMABLE DESIGN METHODS>

[Fall 2019] Matthew Davis

This course provides a theoretical overview and practical methods for designing objects that can change size, shape, and surface. Students build a systematic methodology for the creation and development of transformable mechanisms. The starting point draws on purely geometric tools, then moves to the basics of kinematic analysis and synthesis, ultimately leading towards a parametric approach that joins form and movement through an integrated design process.

<SUPER-TALL>

[Spring 2020] Nicole Dosso

The class follows an analytical approach by dissecting individual super-tall building components and their interrelationships to each other to build a comprehensive understanding of how these buildings behave using NYC as a laboratory. Teams assigned to vertical circulation, enclosure, and building maintenance; superstructure; building services including mechanical, electrical, and plumbing; fire and life safety; and construction logistics develop 3D infographics that represent the categorical fundamental building blocks of the super-tall.

<RE-THINKING BIM>
[Fall 2019, Spring 2020] Jared Friedman
This course provides foundational knowledge of relevant modeling software and visual programming interfaces, while also discussing contemporary applications of these tools in the industry. In the first third of the semester, students utilize Revit to model an existing piece of architecture in NYC. Students then re-design their initial draft with this new toolset according to a conceptual proposal. This course is cross-listed with Visual Studies.

<MAN, MACHINE, AND THE INDUSTRIAL LANDSCAPE>
[Fall 2019] Sean Gallagher
This course examines past, present, and future strategies for meeting the growing industrial and infrastructural demands of our urban environments. It explores the emerging post-industrial relationships between the public, local ecology, and industrial activities to begin to define how human civilization can thrive locally and sustain globally within the planet's biospheric constraints.

<ADVANCED CURTAIN WALL>
[Spring 2020] Rober Heintges, Daniel Vos
This course offers an intense exposure to the custom curtain wall. It provides students with a comprehensive understanding of the technical concepts and specific skills necessary to undertake in actual practice the design, detailing, specification, and construction administration of the custom curtain wall. The course emphasizes current and emerging technologies of the curtain wall and discussions focus on specific technical issues and methodologies that directly inform contemporary architectural design.

<TRANSITIONAL GEOMETRIES>
[Fall 2019] Joshua Jordan
This course is a workshop in tiling and modularity, as well as an exploration of the potential architectural systems and effects that arise from a hands-on study of those organizational practices. Emphasis is placed on techniques and applications of mold-making: as a method of repetitive production, as a problem-solving act of constructability, and as an analog of building construction systems writ large.

<MATERIAL THINGS>
[Spring 2020] Josh Jordan
This course introduces students to the fundamental properties of materials and fabrication techniques. It provides hands-on experience in individual and cooperative building skills, focusing on the connectivity of analog and digital methods, as well as encouraging a type of analytical and creative engagement in making physical things.

<TENSILE-COMPRESSION SURFACES IN ARCHITECTURE>
[Fall 2019] Robert Marino
The architectural history of tension and compression surfaces is the beginning point for this course. Research is conducted through continuous analogous modeling methods. Surfaces are determined through the interactions of forces and materials and a methodology for surface generation is determined. This tactile knowledge is then used to produce shells or other types of structures that, when combined, create shelter at model scale.

<HISTORY, IN THE MAKING>
[Spring 2020] Rustam Mehta, Tal Schori
The goal of the course is to engage with historical approaches to surface embellishment in a contemporary context. Students create new modular architectural elements suitable for mass production. Architectural elements are versatile, non-structural, low-relief three-dimensional modules suitable to serial production as castings or extrusions. In a word—tiles.

<GENERATIVE DESIGN I>
[Spring 2020] Danil Nagy
This course explores how technology can leverage nature's design methods to create new workflows. Instead of designing objects, students design systems that encode a range of possibilities of a design concept. They learn methods for measuring and quantifying their performance so that designs can be evaluated automatically by a computer. Finally, they create automated evolutionary processes that allow the computer to search through a design system to find novel, high-performing designs. This course is cross-listed with Visual Studies.

<SUSTAINABLE DESIGN>
[Fall 2019] Davidson Norris
This course recognizes that the architect's primary challenge is the poetic integration and inspired balancing of multiple technologies, and sometimes conflicting, sustainable options. Students learn core technical principles that govern the sustainable design and, in parallel, apply them to the design of a three-story classroom block, part of the High School for Environmental Science (HSES).

<ARCHITECTURAL DAYLIGHTING>
[Spring 2020] Davidson Norris
The masterful play of light depends on the designer's grasp of both the technical requirements and spatial opportunities of natural light. Topics include daylight and health; energy and productivity; daylight and perception; daylight in the atmosphere; daylight and the site; daylight and the section; architectural shading; calculating the daylight factor graphically; and calculating daylight luminance and illuminance digitally using Rhino/Diva. Students test an architectural daylighting phenomenon using physical models and natural sunlight.

<FACADE DETAILING: A MATERIAL UNDERSTANDING>

[Spring 2020] Kevin Schorn

This course explores the detailed design of building cladding through an understanding of materials and their physical properties. There is an emphasis on sketching details at large scales (often 1:1) by hand to facilitate a proper understanding of everything involved at the interface between the interior and exterior environments and the other necessary building systems. Students develop an understanding of different cladding materials and what it takes to remain in command of the building process from design concept to built work.

<MODULAR ANATOMY>

[Spring 2020] Andreas Tjeldflaat

The modular construction industry is predicted to grow at a staggering rate in the coming decade. However, current modular construction practices present inherent weaknesses: a severely limited design range and restricted capacity for customization. This course proposes a framework for capitalizing on this inflection point by leveraging a system-based, modular approach to architectural design in conjunction with emerging material and manufacturing technologies.

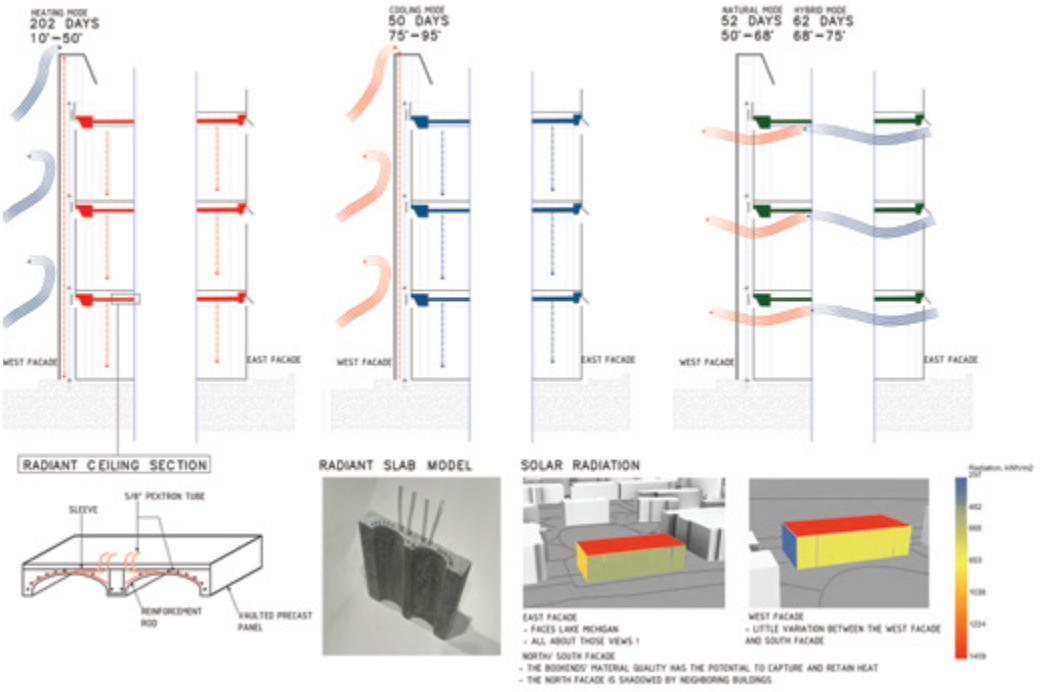
<CROSS-SPECIES TEST SITES>

[Fall 2019] Chris Woebken

This course investigates the complex relationships between humans and non-human urban inhabitants. Students study urban animal wildlife, indicator species, and microbial communities and work with biologists and ecologists to identify new potentials in designing for biological systems. Through the process of fabricating, situating, and testing prototypes, the class aims to create a reflective space for deeply considering the details of these new interactions and to discover unforeseen opportunities, twists, and challenges.

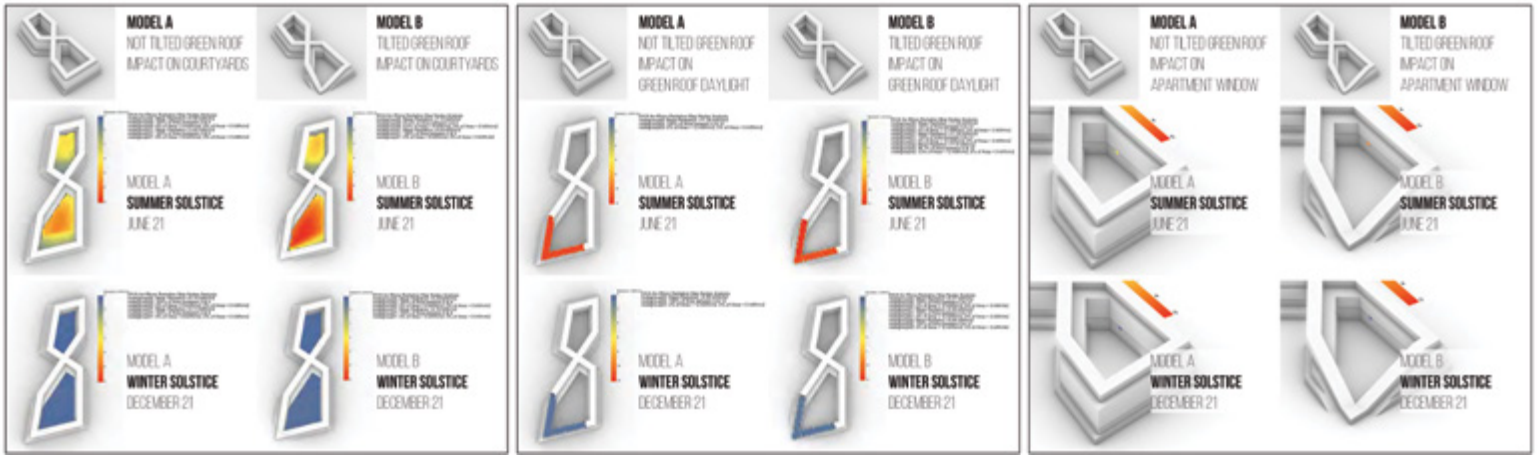
Gene Han, Johane Clermont, Kaeli Streeter

Environmental design strategy analyses of the Loyola Information Commons in Chicago designed by Solomon Cordwell Buenz & Devon Patterson.



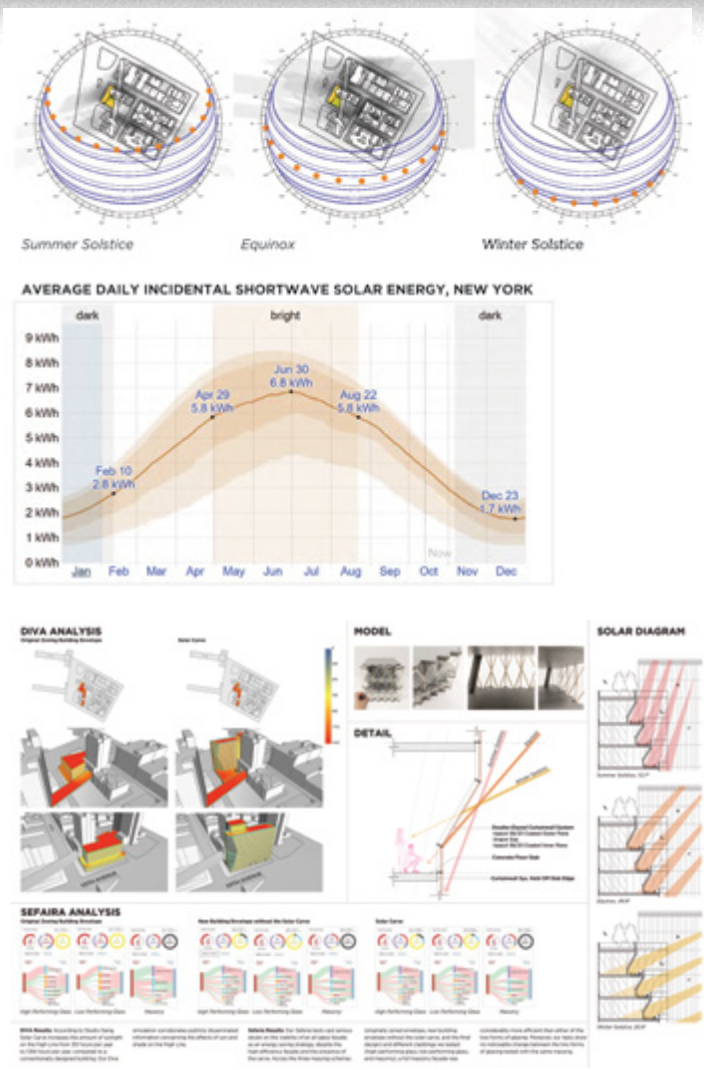
Lucia Song, Ally Shahidi, Stephanie McMorran

Computational model studies analyzing the daylighting performance of the 8 House in Copenhagen, Denmark designed by BIG.



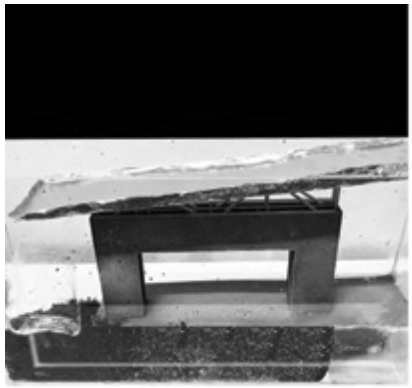
Aditi Shetye,
Andres Alvarez-Davila,
Camille Newton,
Zakios Meghrouni-Brown

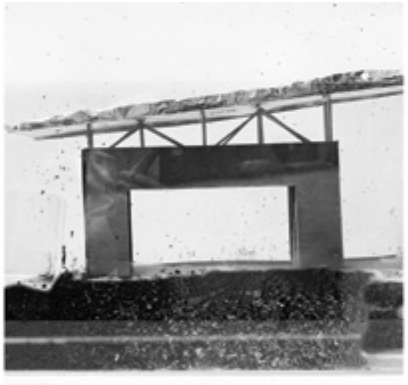
Daylighting and solar energy analyses of the Solar Carve building in New York City designed by Studio Gang.

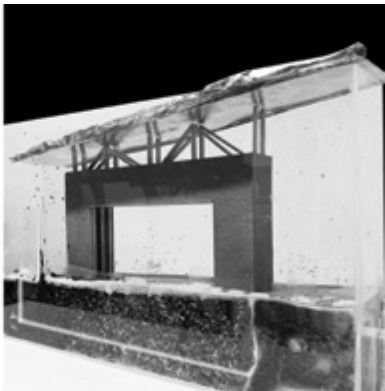


Andrew Magnus,
Hannah Stollery,
Alexa Greene,
Hazel Villena

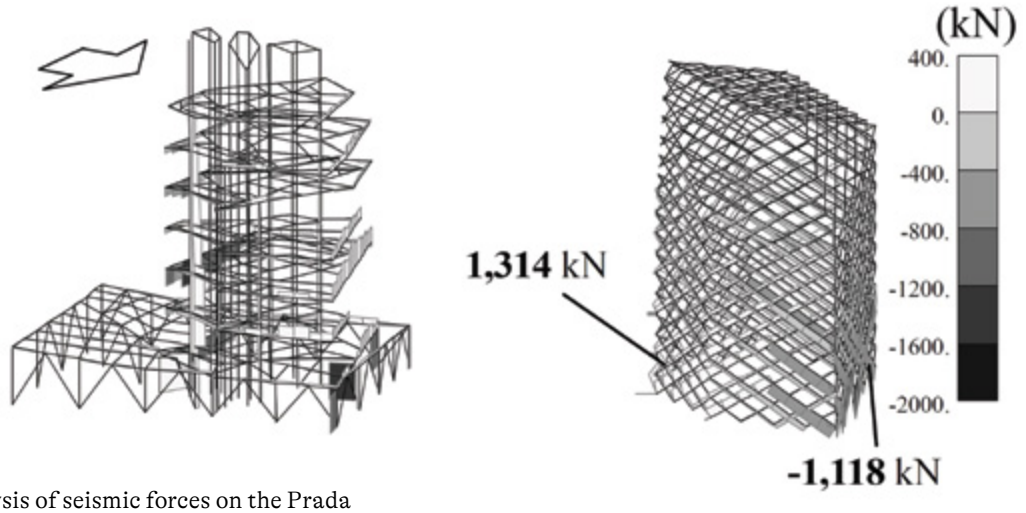
Physical model of the Asilong Christian High School in Kapenguria, Kenya designed by BNIM.





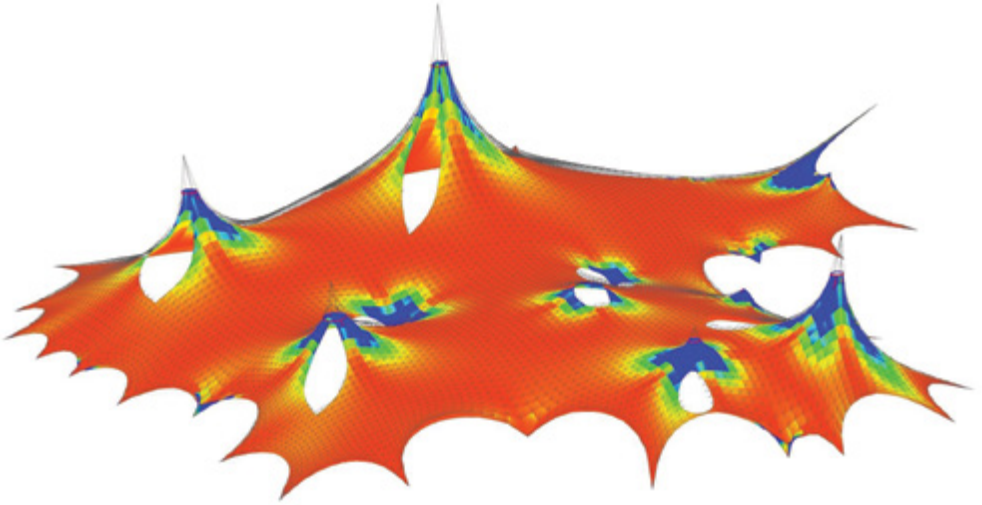


Alexis Zheng, Jean Kim, Johane Clermont, Lucia Song



Analysis of seismic forces on the Prada Tokyo building designed by Herzog and de Meuron.

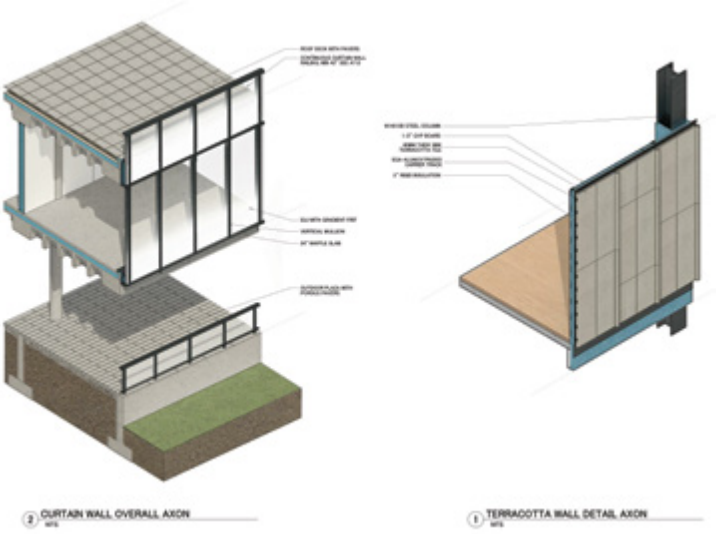
Camille Newton, Andres Davila, Gene Han, Zakios Meghrouni-Brown, Aditi Shetye



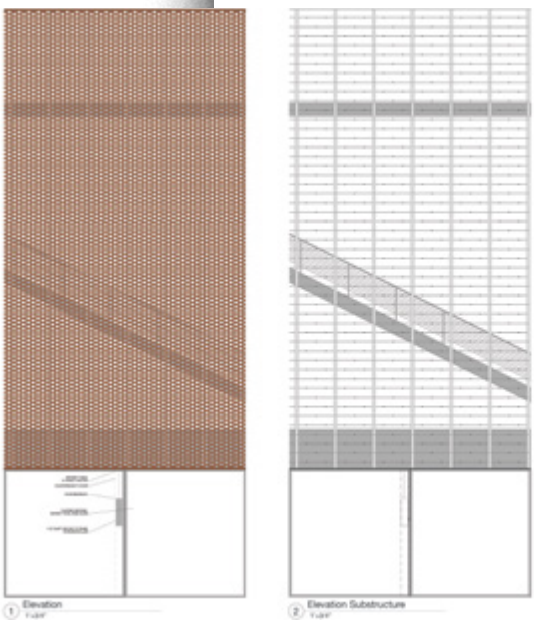
Gaussian curvature analysis of the relationship between the form and forces of the German Pavilion at Expo 1967 in Montreal designed by Frei Otto.

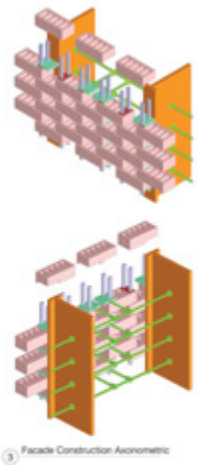
<ARCHITECTURAL TECHNOLOGY III: ENVELOPES> Gabrielle Brainard

Alina Abouelenin, Shuang Bi, Camille Brustlein, Sarah Zamler

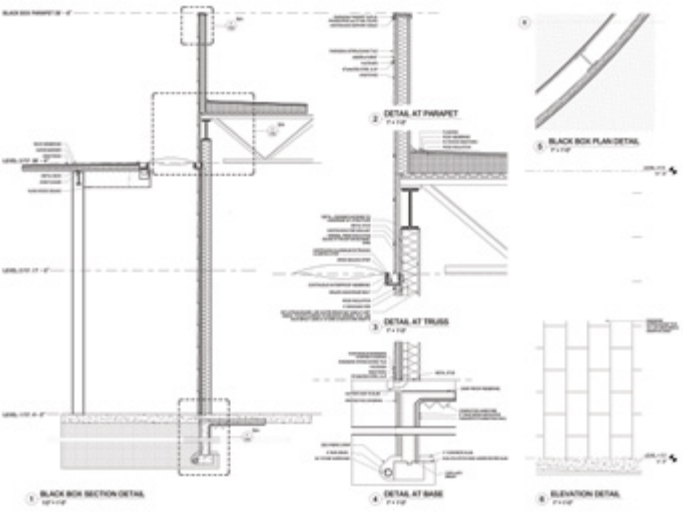


Matthew Brubaker, Michael Kolodesh, Helen Winter, Charlotte Ziye Yu

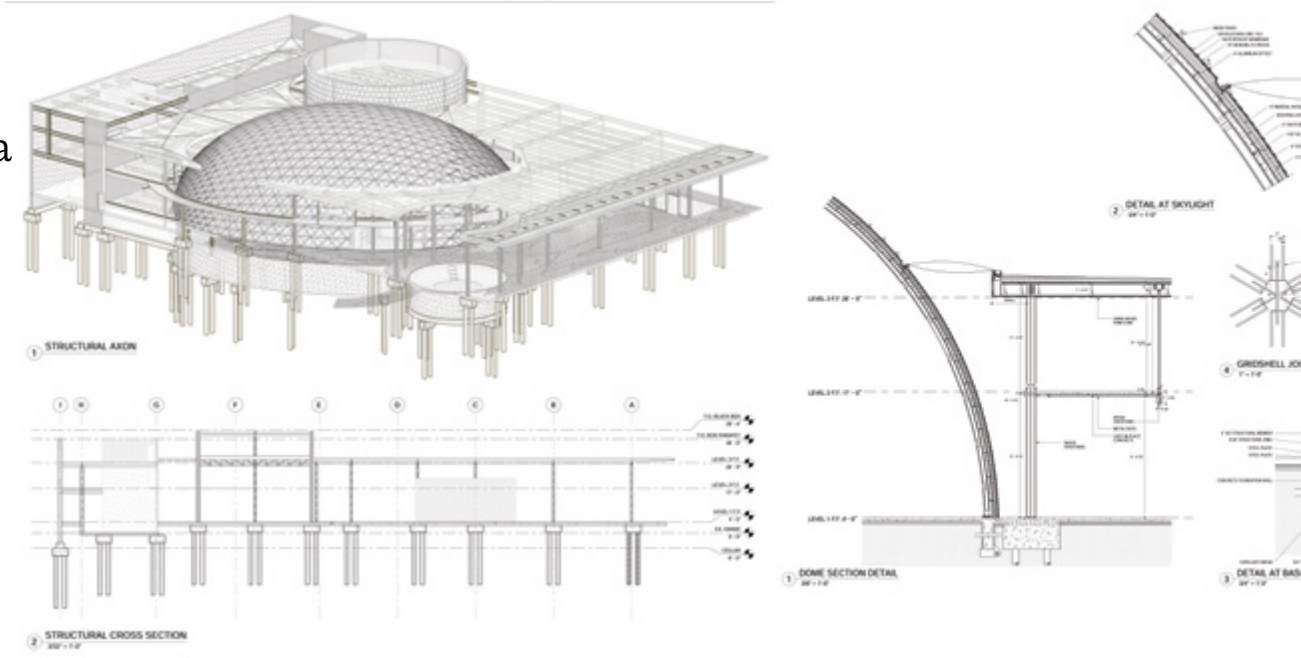




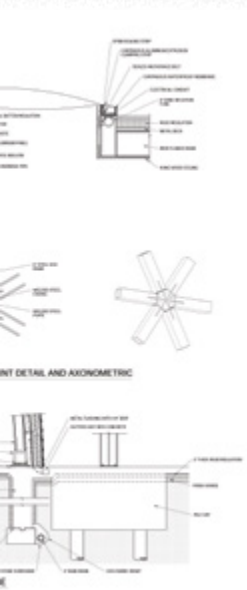
Jared Payne, Lauren Scott, Taylor Urbshott, Yasmin Ben Ltaifa



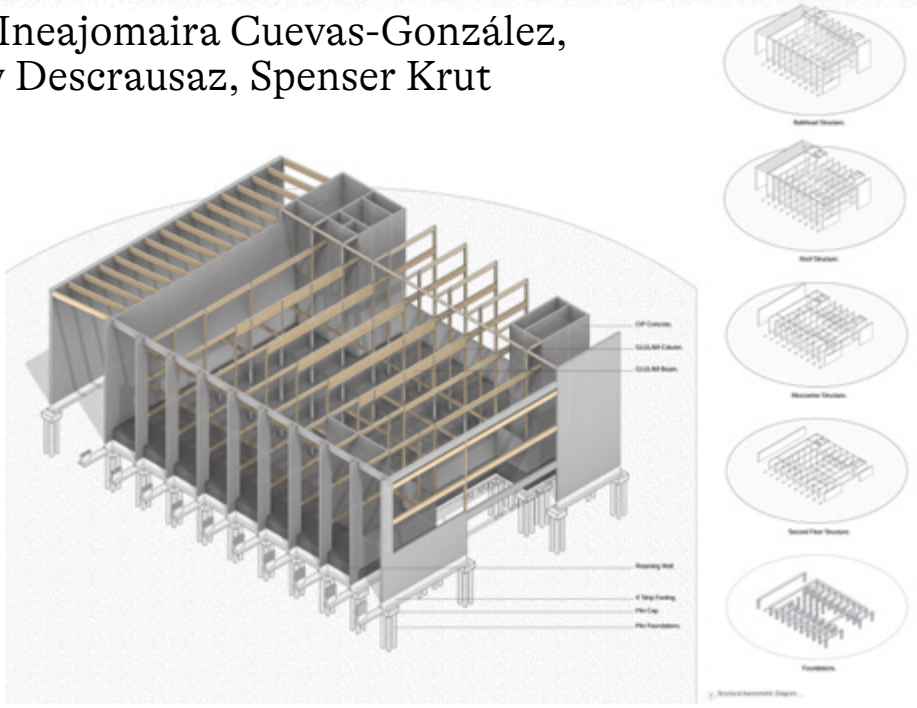
Jared Payne,
Lauren Scott,
Yasmin Ben Ltaifa



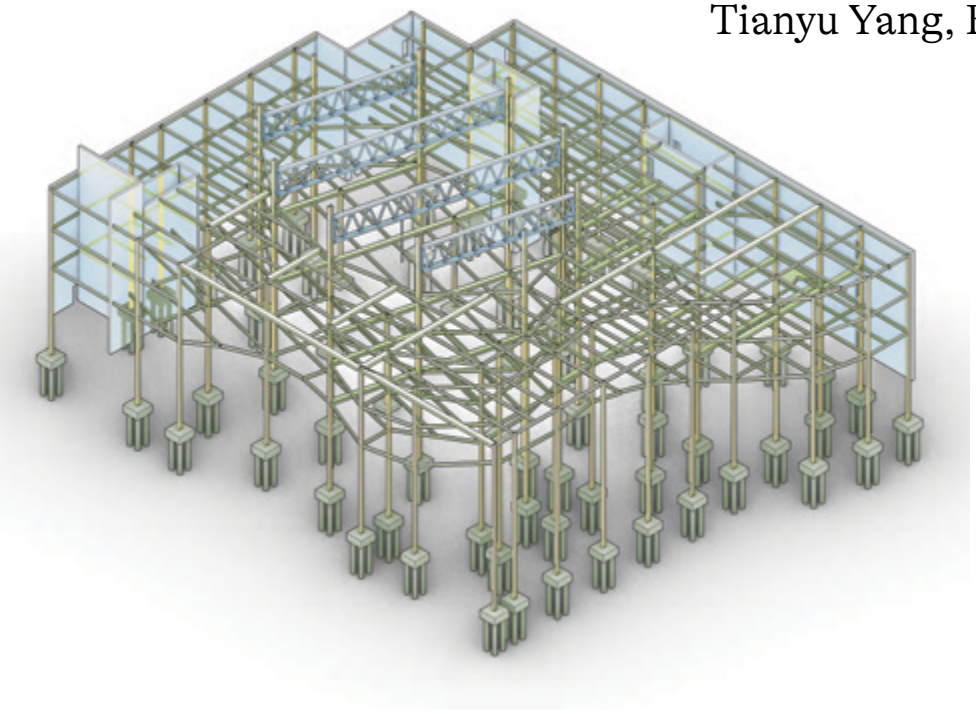
Alice Fang, Ineajomaira Cuevas,
Mark-Henry Descrausaz,
Spenser Krut

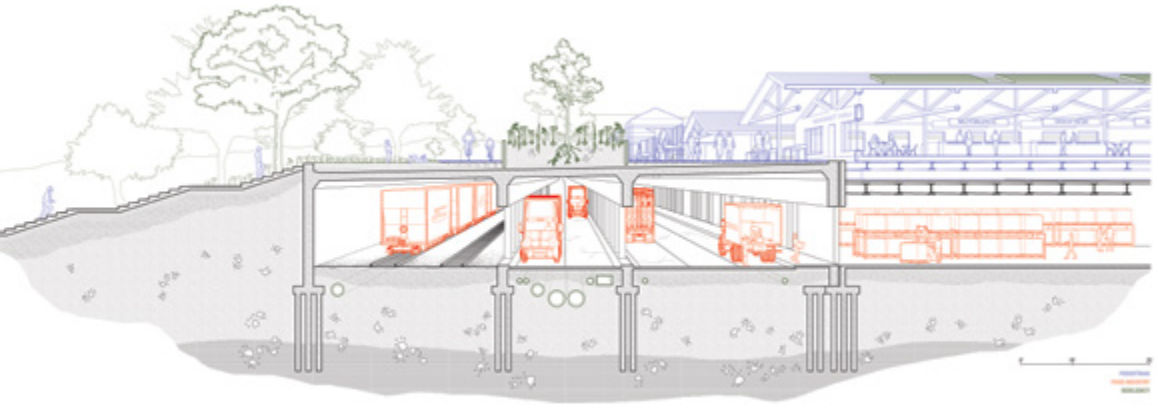


Alice Fang, Ineajomaira Cuevas-González,
Mark-Henry Descrausaz, Spenser Krut



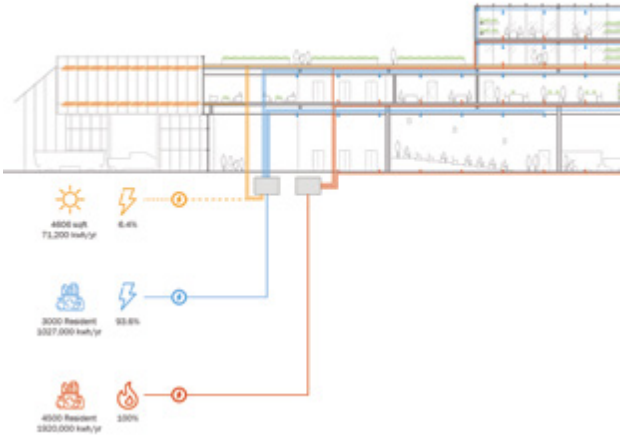
David Musa, Luis Miguel Pizano,
Tianyu Yang, Reem Yassin

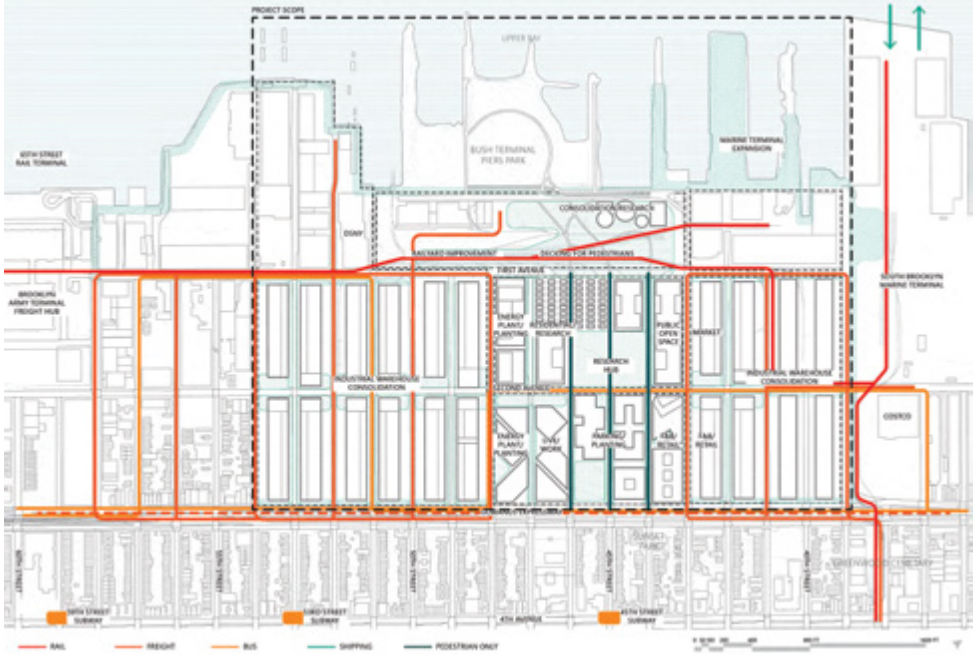




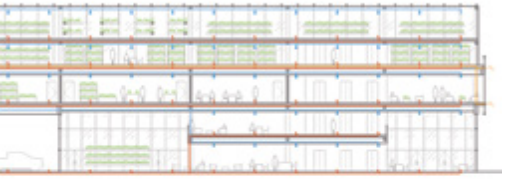
Alek Tomich,
Nelson De Jesus Ubri,
Genevieve Mateyko,
Jacob Chengjie Li

Erin Biediger, Thom Chiu,
Ineajomaira Cuevas-González,
Lihan Jin, Ochuko Okor

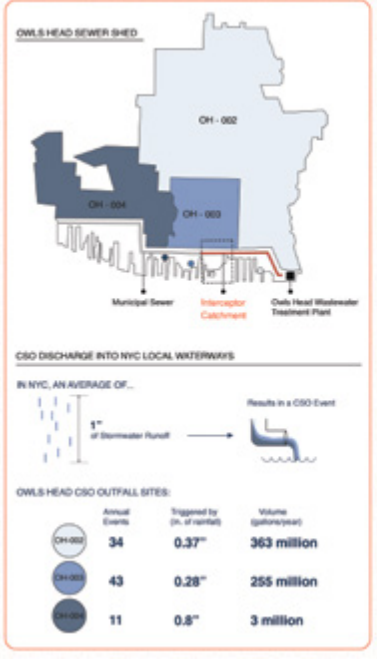


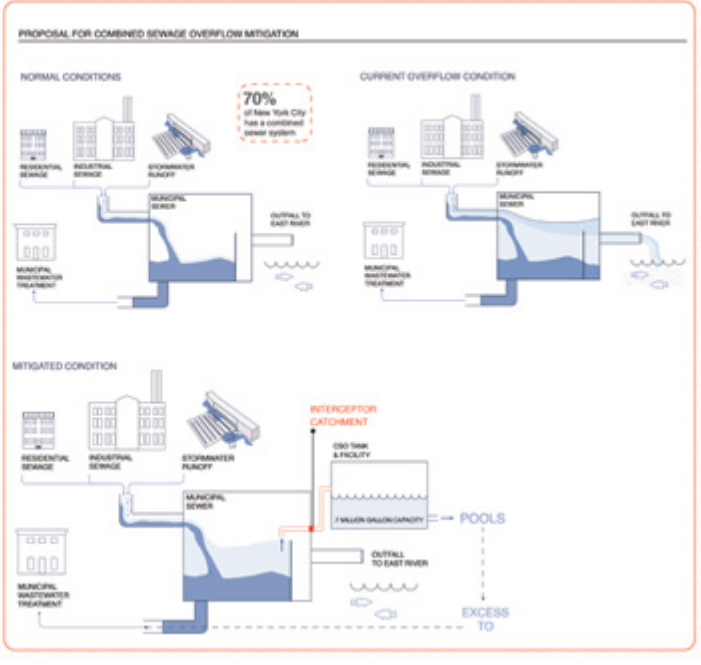


Alice Fang, Yaxin Jiang,
Tung Nguyen, Angela Sun



Hao Chang,
Melissa Chervin,
Ashley Esparza,
Florencia Yalale,
Sarah Zamler





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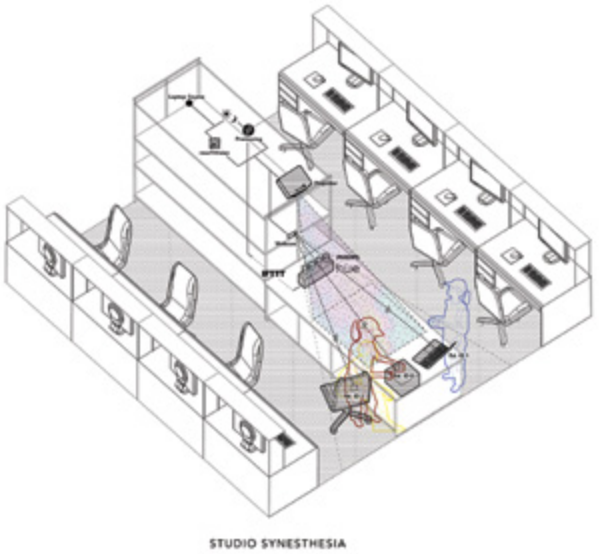

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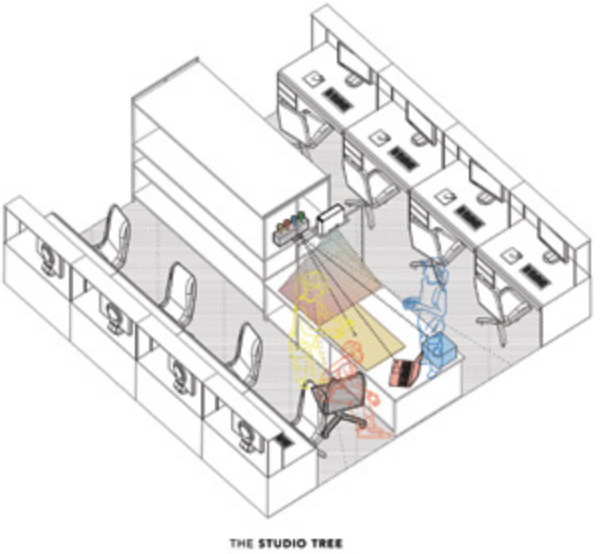

THE STUDIO TREE

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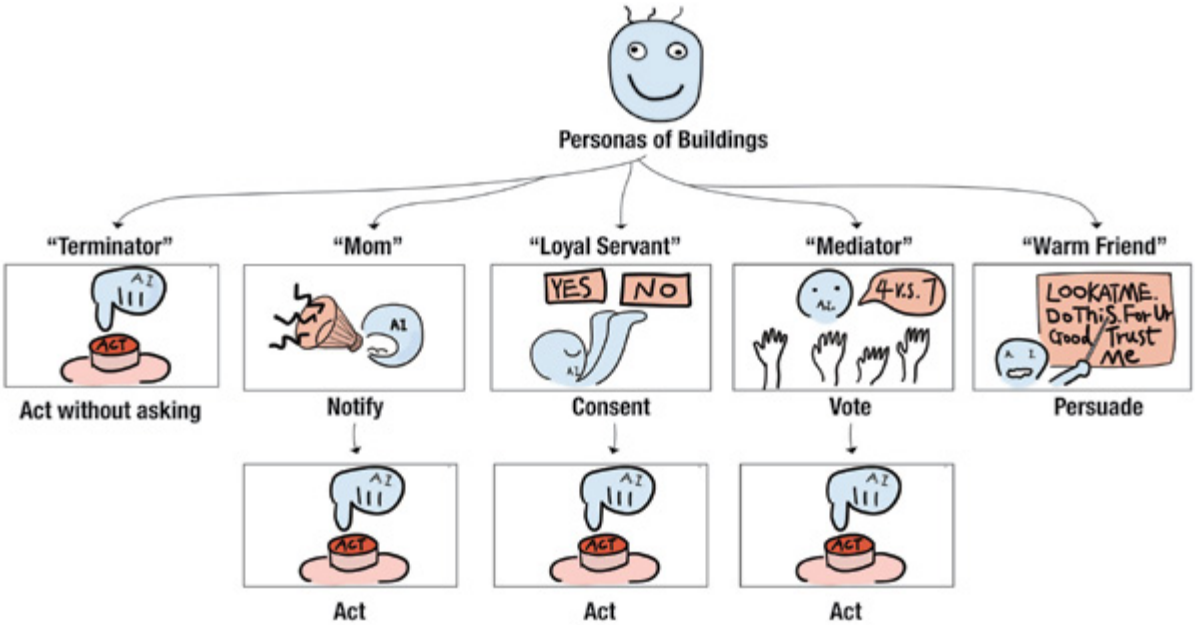

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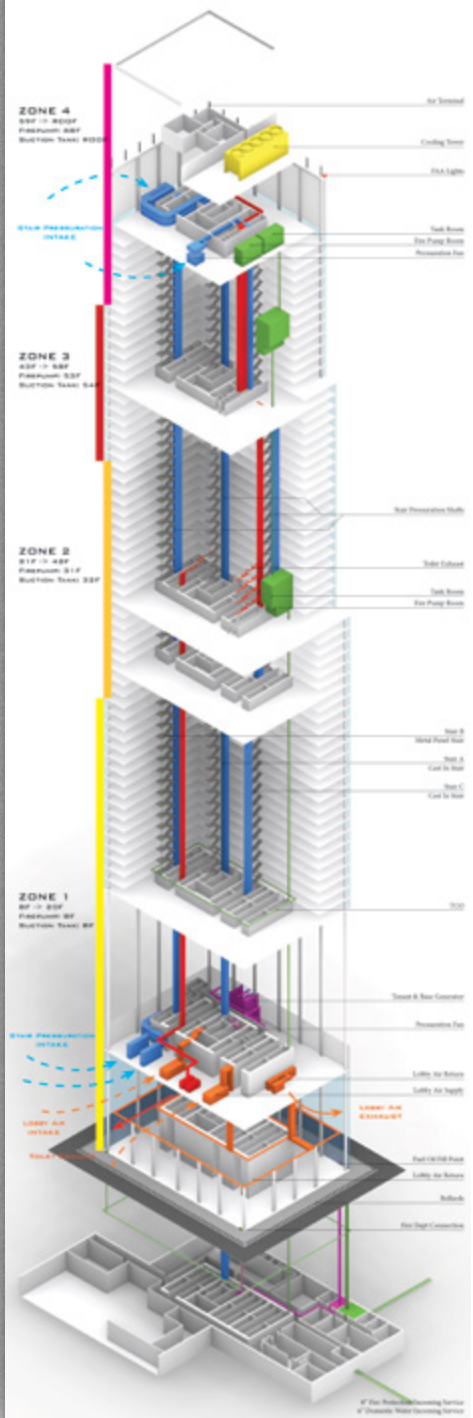

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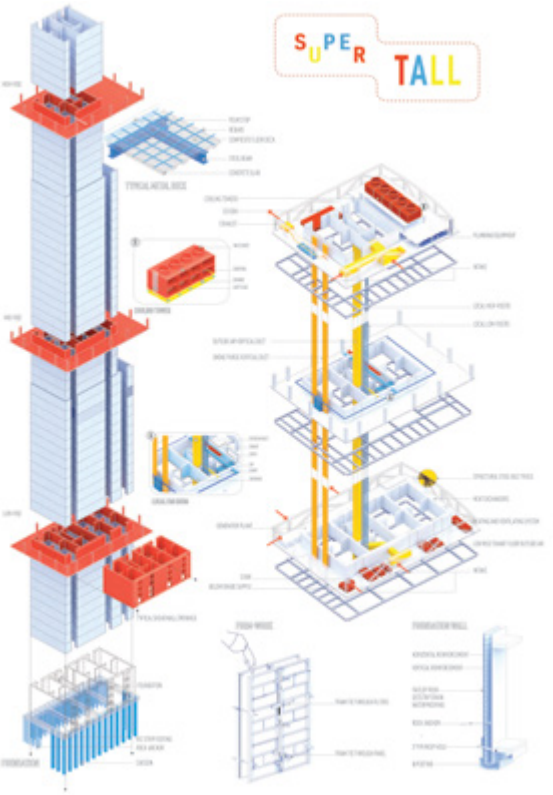

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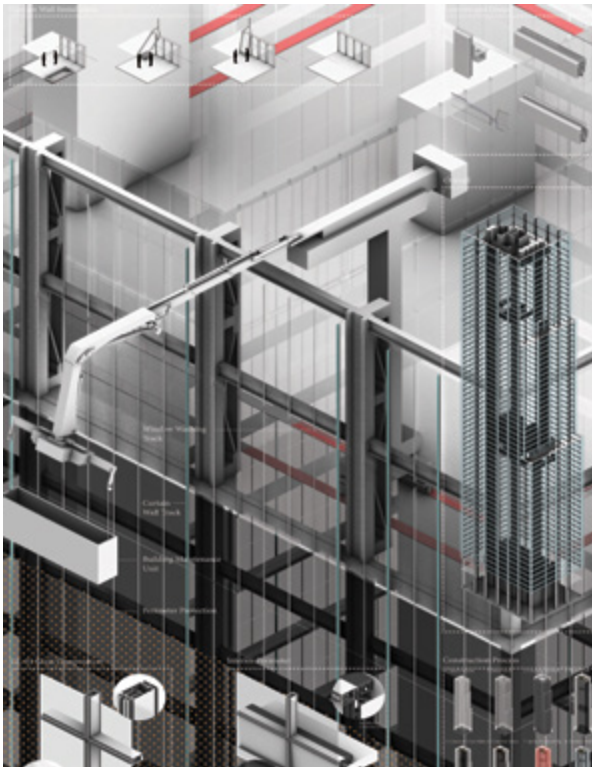

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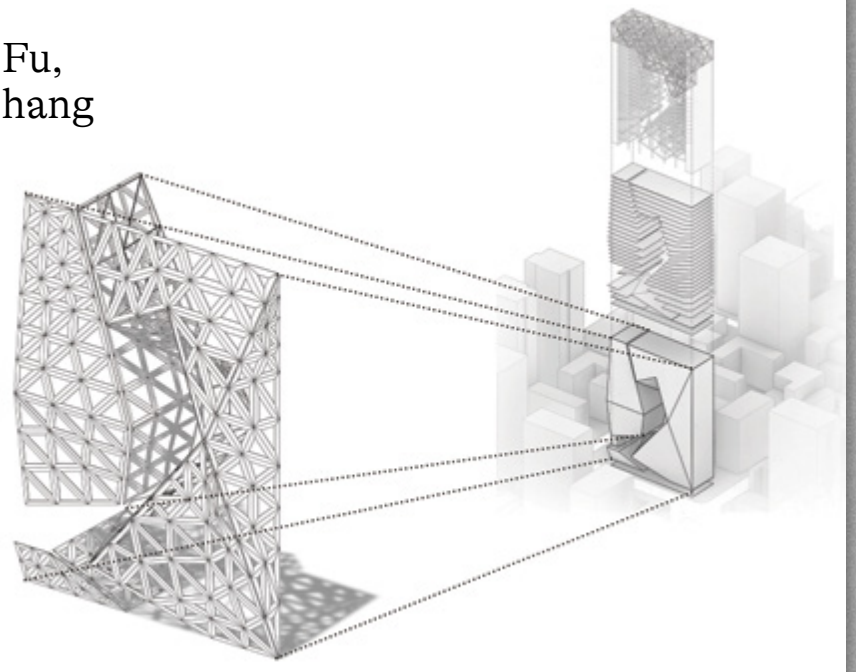

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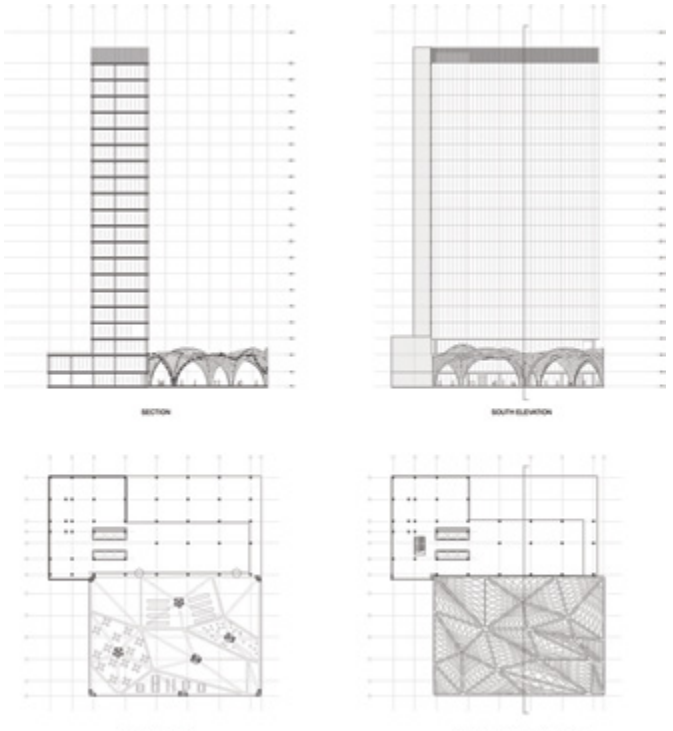

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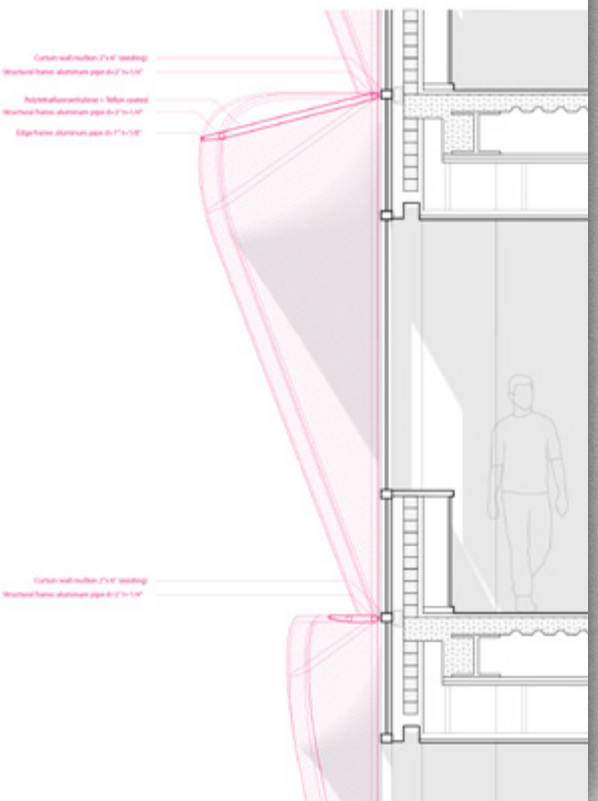

<ADVANCED CURTAIN WALL> Robert Heintges & Daniel Vos

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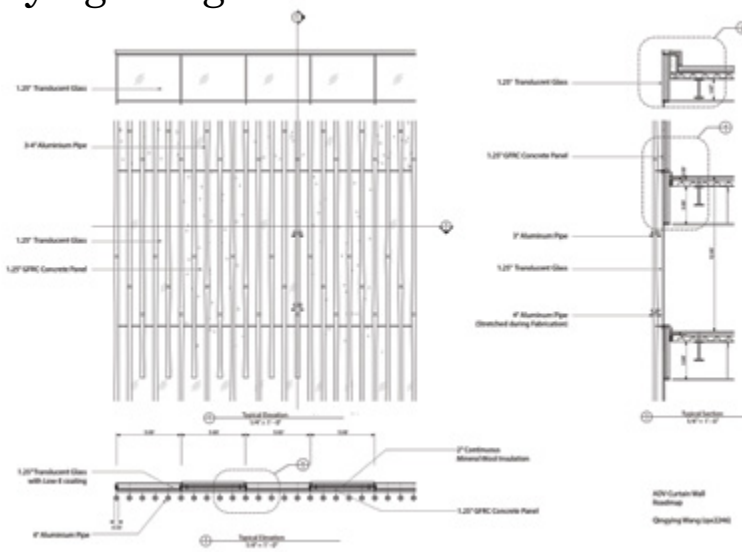

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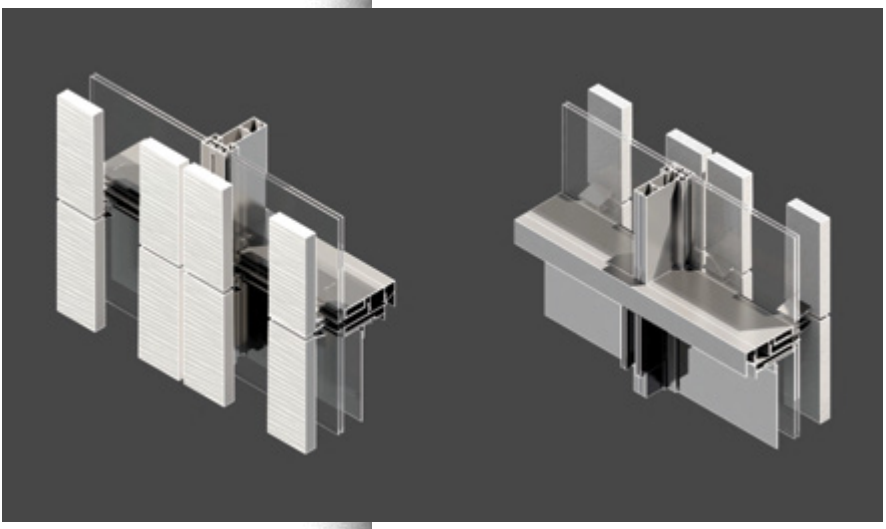
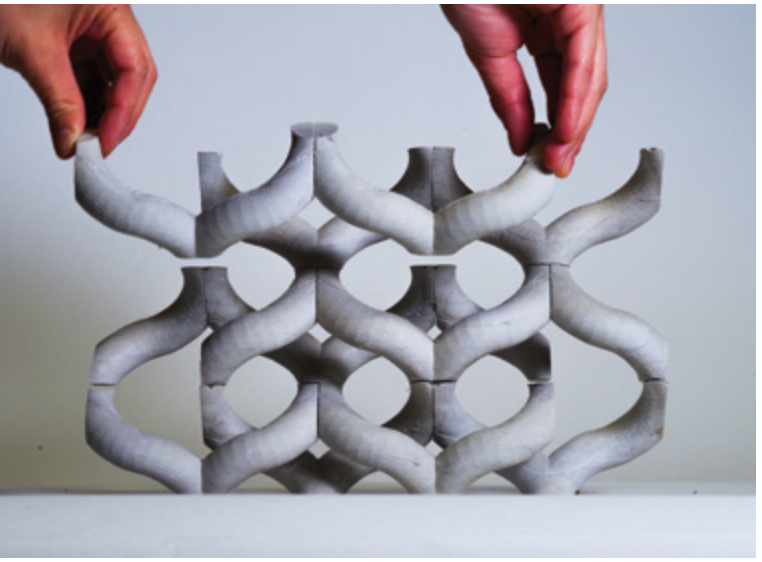


Andrew Keung

Anam Ahmed

Wendy Guan

Ansel Sidiadinoto



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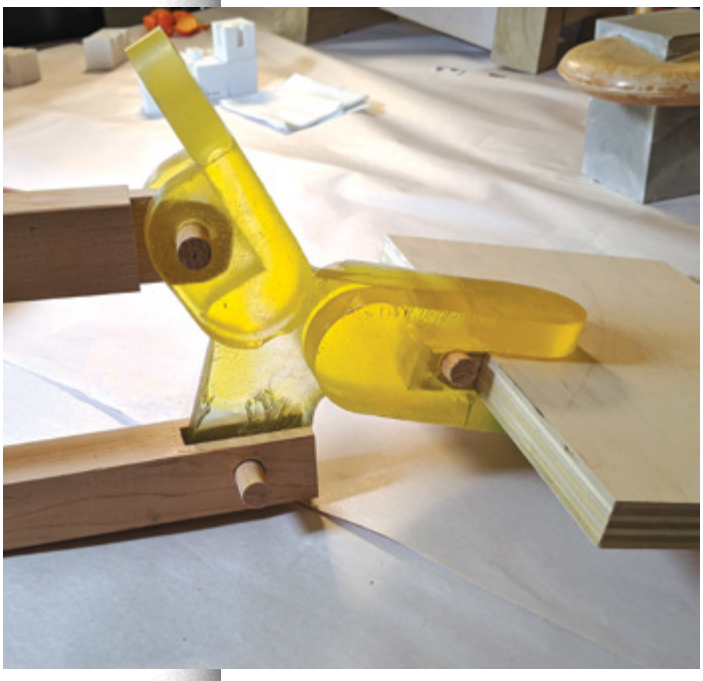
Jules Kleitman

Anam Ahmed



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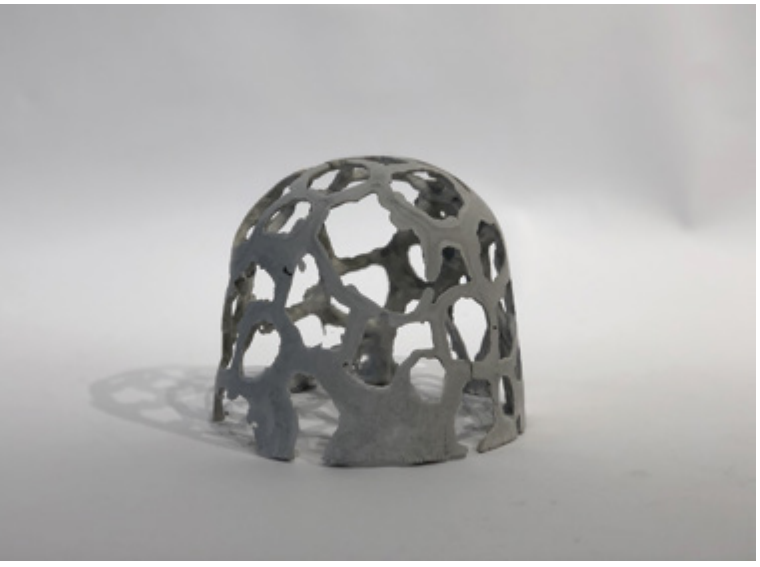

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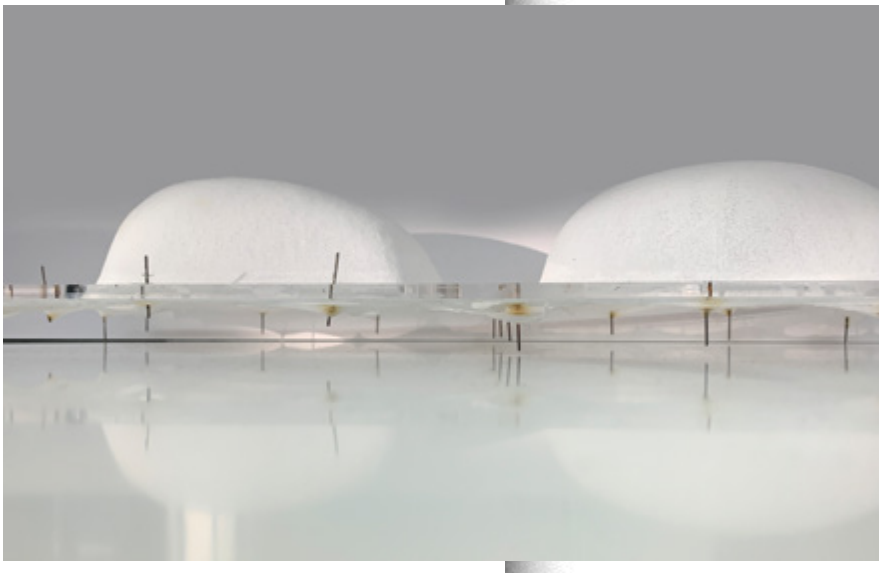

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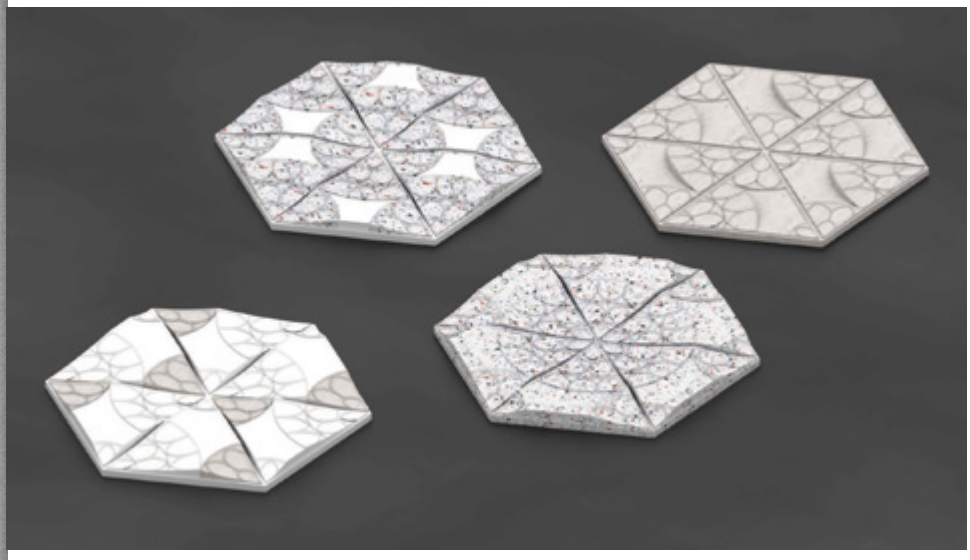

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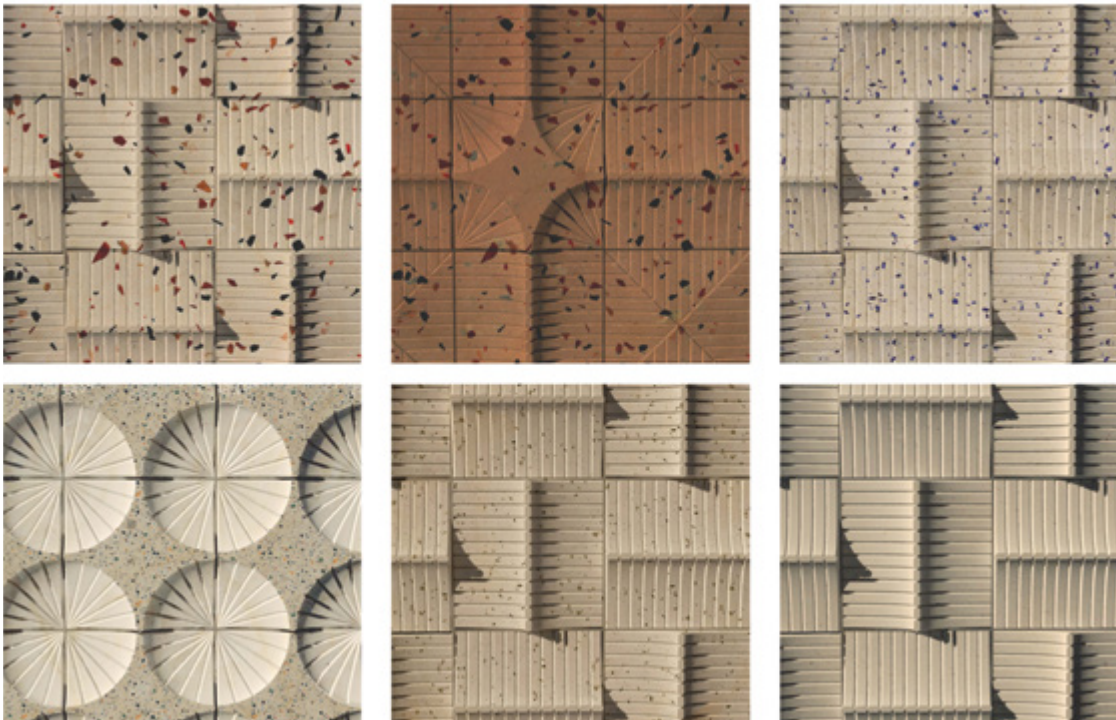

<GENERATIVE DESIGN I> Danil Nagy

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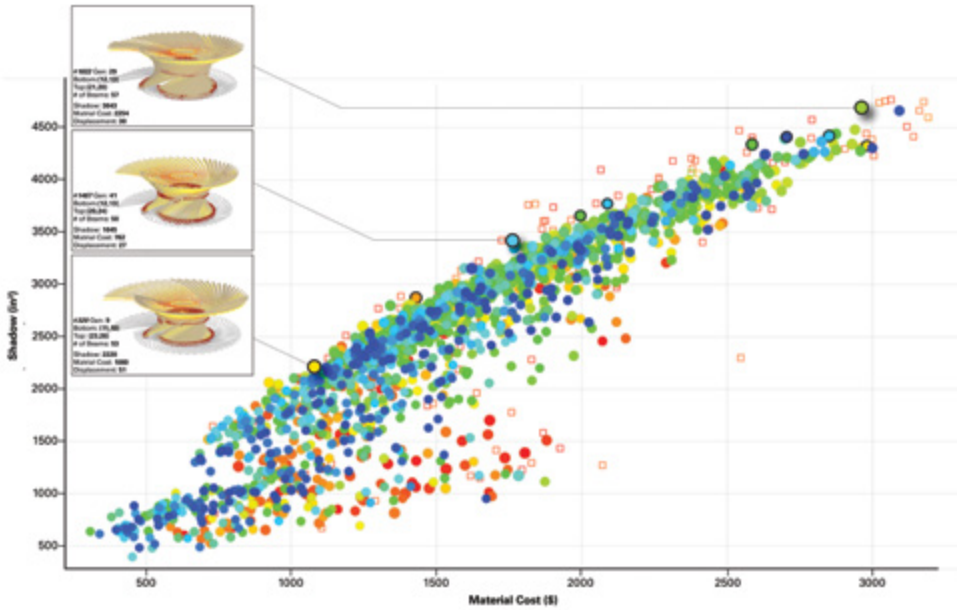

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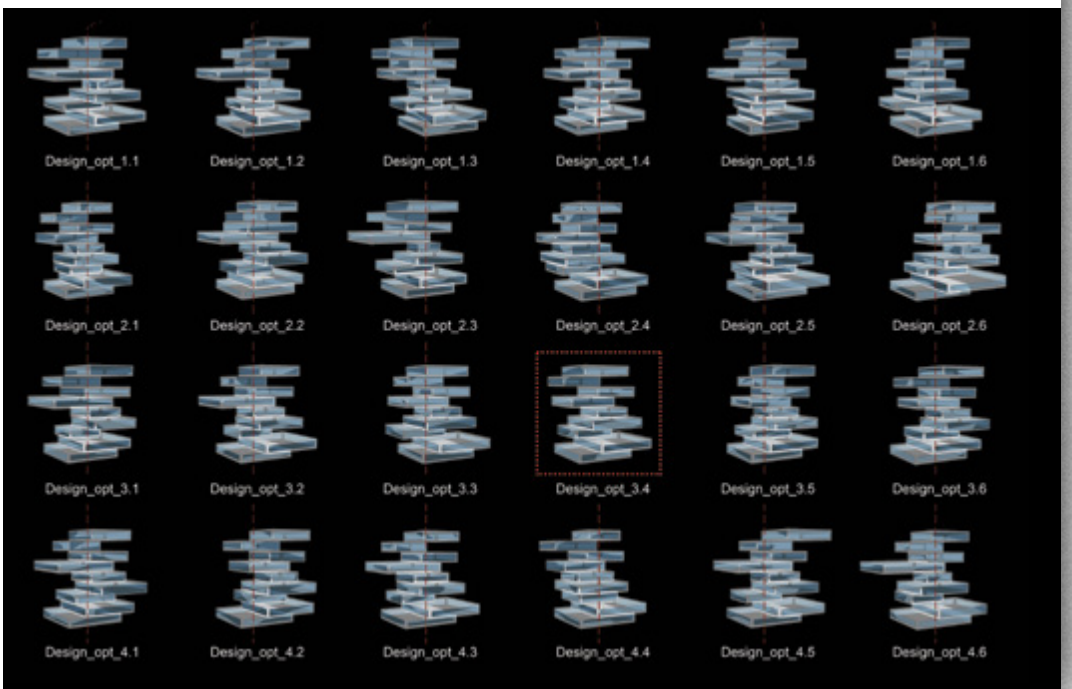
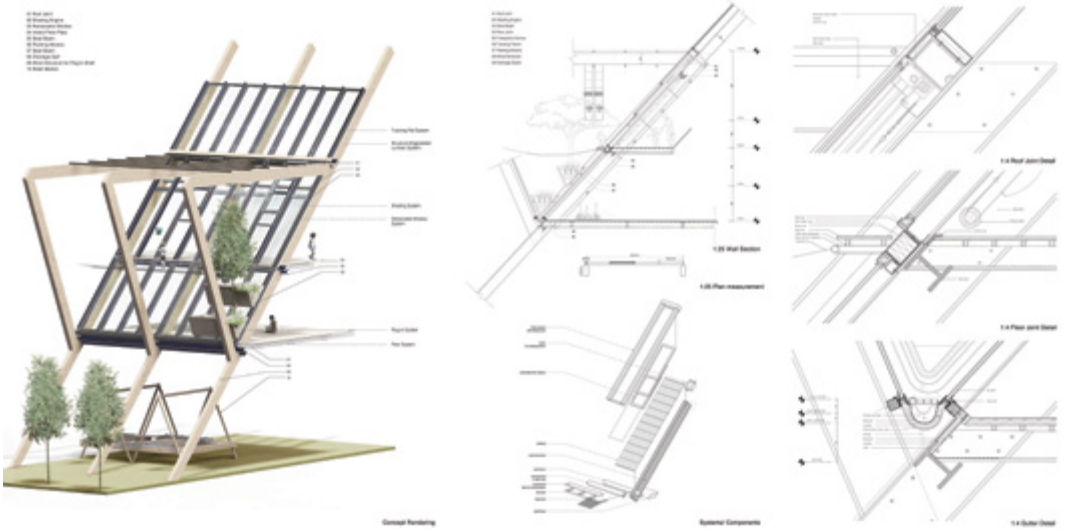


<FACADE DETAILING: A MATERIAL UNDERSTANDING> Kevin Schorn

Rui Wang, Yining He



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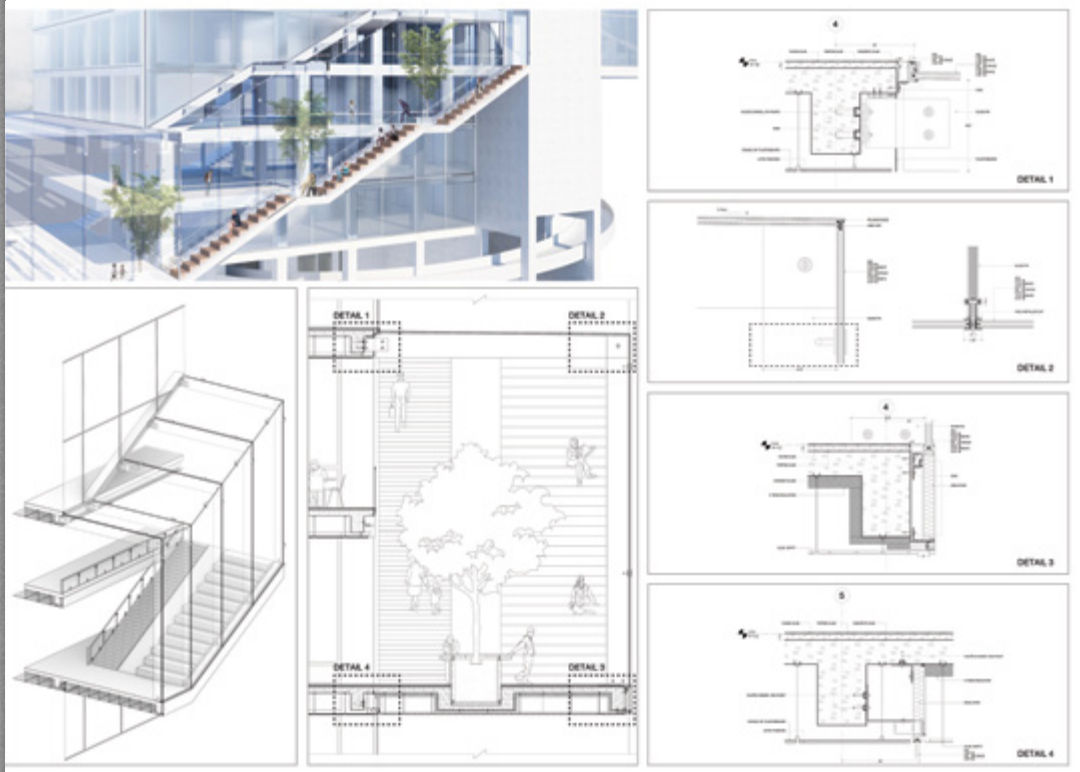
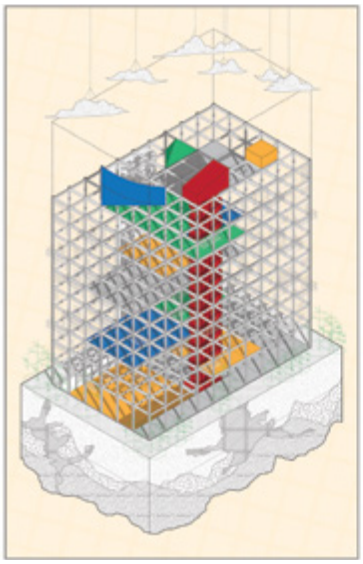
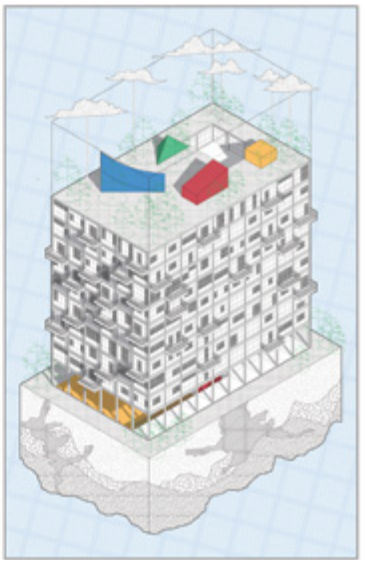


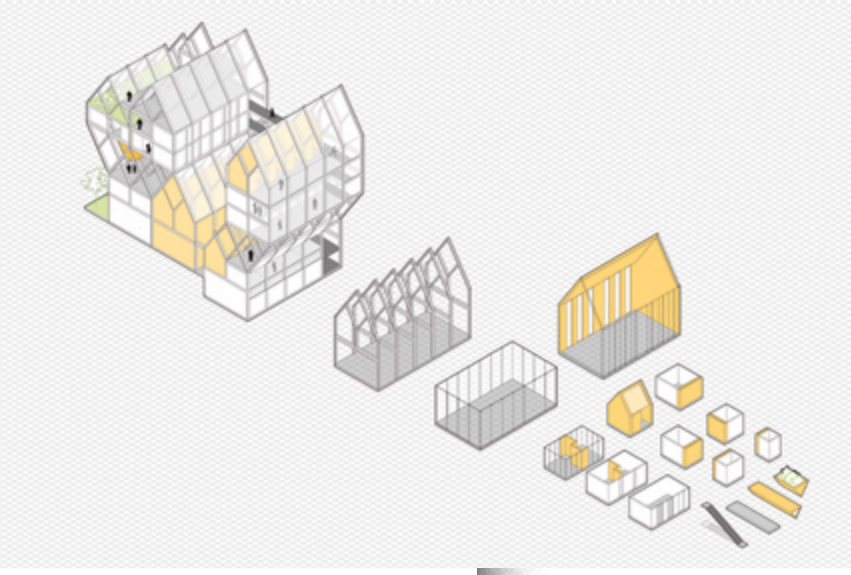
<MODULAR ANATOMY> Andreas Tjeldflaat

Tarun Abraham, Kabir Sahni





Ericka Song, Morgan Parrish



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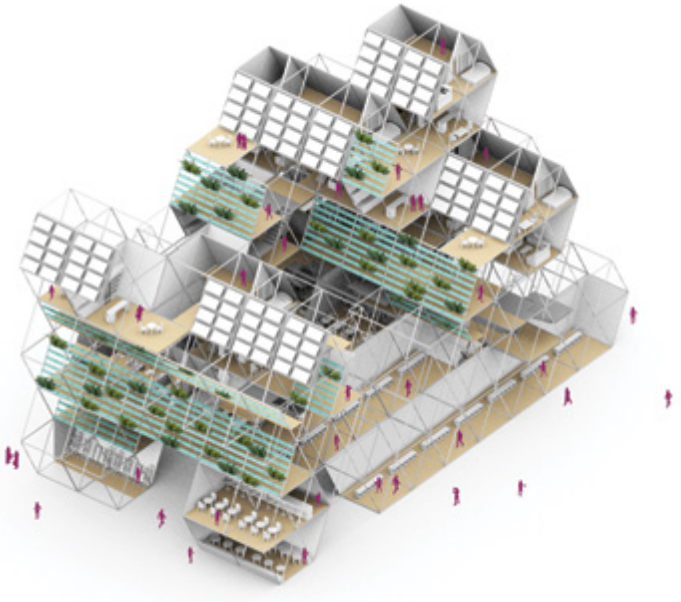
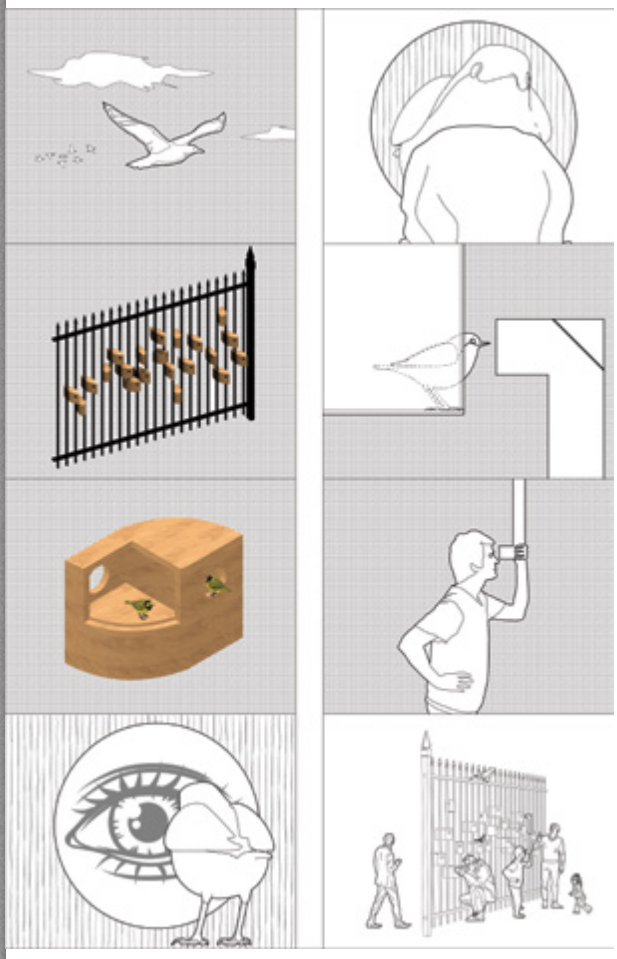
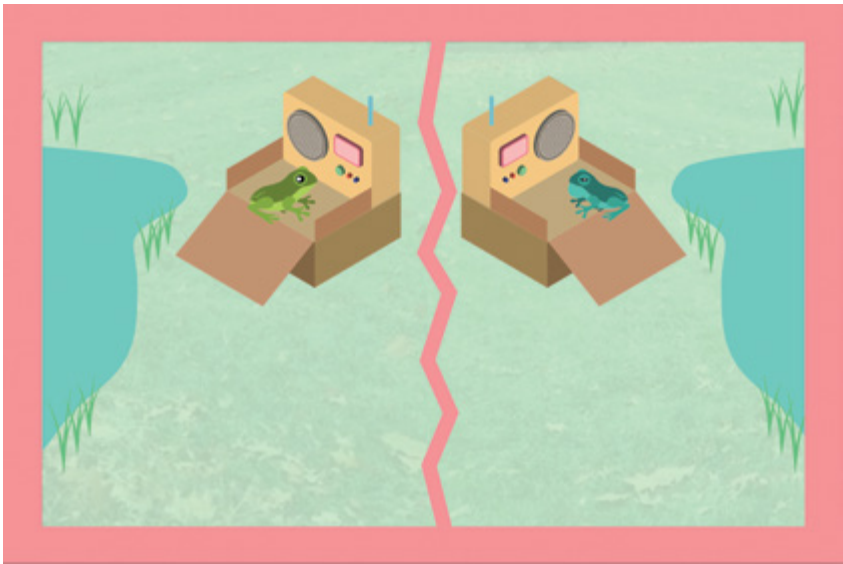


<CROSS-SPECIES TEST SITES> Chris Woebken

Xin Qin



Jules Kleitman



History and Theory
Reinhold Martin, Sequence Director

The History and Theory of Architecture curriculum at Columbia GSAPP aims to develop a critical, historical consciousness among students preparing for diverse forms of architectural practice. Central to this is a worldly understanding, in depth and in breadth, of a complex cultural, social, ecological, and technological past. The bearing of that past on contemporary debates and practices is an important focus, as is the relation of architectural history to other disciplines. From the outset, the curriculum equips students with questions suited to ongoing inquiry into "global" or planetary history, with an emphasis on both continuity and change.

The process of critical inquiry begins in the first year, with the two-semester core sequence, "Questions in Architectural History," focused on the interaction of architecture and modernity across two centuries and taught by a group of senior history and theory faculty. In addition to introducing students to key examples, themes, and relationships, the course asks whose history is being studied, how, and why. The sequence continues into the second and third years with a series of distribution requirements that allow students to pursue selected topics in greater depth, while ensuring exposure to a range of geographically, culturally, and historically diverse contexts and subject matter. Students may also take related courses in humanities departments across the University to meet or supplement these requirements.

<DESIGNING FOR ENERGY: HOUSING, MOBILITY, ENERGY>
[Spring 2020] Michael Bell
This course is intended to help set a stage for innovation in housing. The goal is to establish a scope of means and views into what constitutes how we manifest housing today but also how its interrelated to energy, to mobility, and to where and how innovation has occurred. To do this it follows a historical path but a curated path that relies on a series of parallel studies and withholds directly relying on any one pivot point. The path is based in part on parallel path engineering and creativity.

<ARCHITECTURE AND SETTLER COLONIALISM: TERRITORIES, INFRASTRUCTURES, AND INSTITUTIONS>
[Spring 2020] Caitlin Blanchfield
This seminar addresses the relationship between architecture and settler colonialism across the 20th century. Understood as a specific strain of colonialism, settler colonialism here refers to historic and ongoing strategies of land dispossession through processes of permanent settlement. Departing from recent protest movements at places like Standing Rock, Maunakea, or the West Bank, the course examines how settler colonial governance, and violence, operates through architecture. It also looks at resistance to, and organization against, such forms of state power. How do we situate events like these in a long history of settler colonialism and the built environment?

<EPHEMERAL ARCHITECTURES AND FALSIFIED CITIES: UTOPIAN VISIONS FOR LATIN AMERICA>
[Fall 2019] Luis E. Carranza
This research seminar sets out to study utopias and utopian communities conceived and planned throughout Latin America in the 19th and 20th centuries. The class looks in depth at the different forms proposed, the manifestos of their designers, and the context that engendered them and to which they responded.

<(RE)INVENTING LIVING: MODERN EXPERIMENTS IN LATIN AMERICAN HOUSING>
[Spring 2020] Luis E. Carranza
This course looks at experiments centered around how to solve housing needs and new living practices for Latin America during the 20th and 21st centuries. Depending on the political and social influences of the place and its geographic, climatic, historic, and material context, the forms that collective housing took varied dramatically yet reflected the central concerns and investigations of its architects regarding domestic life. At the core is the discussion of how architects, planners, landscape architects, and interior or furniture designers reconsidered the roles, norms, and strictures of the domestic environment to alter living and social relationships that preceded them.

<THEORY OF CITY FORM>
[Fall 2019] Vishaan Chakrabarti
This survey course examines the myriad forces and factors which directly govern, or indirectly influence the size, shape, and nature

of cities. The class covers explicit theories regarding the form of cities and explores many interdisciplinary, critical approaches to understanding urban outcomes that can loosely be categorized under the broad umbrella of “urban studies.”

<QUESTIONS IN ARCHITECTURAL HISTORY I AND II>

[Fall 2019] Christopher Cowell, Reinhold Martin, Mabel O. Wilson

[Spring 2020] Ateya Khorakiwala, Felicity Scott, Mark Wigley

This two-semester introductory course is organized around selected questions and problems that have, over the course of the past two centuries, helped to define architecture’s modernity. The course treats the history of architectural modernity as a contested, geographically and culturally uncertain category, for which periodization is both necessary and contingent. The fall semester begins with the apotheosis of the European Enlightenment and the early phases of the industrial revolution in the late eighteenth century. From there, it proceeds in a rough chronology through the “long” nineteenth century. Developments in Europe and North America are situated in relation to worldwide processes including trade, imperialism, nationalism, and industrialization. Sequentially, the course considers specific questions and problems that form around differences that are also connections, antitheses that are also interdependencies, and conflicts that are also alliances. The resulting tensions animated architectural discourse and practice throughout the period, and continue to shape our present.

<BABEL>

[Fall 2019] Kyle Dugdale

This seminar examines the many lives of this extraordinary architectural figure. It studies the arenas of Babel’s appropriation—archaeological, art-historical, theoretical, theological, philosophical, ideological, and literary—as a means of understanding the multivalence of architectural ideas as they circulate within a culture. It ends with Babel’s dramatic reassertion under the conditions of modernity as a marker both of aspiration and doubt; it aims to speculate on the Tower’s potential future.

<ARAB MODERNISM(S): EXPERIMENTS IN HOUSING, 1945–PRESENT>

[Spring 2020] Yasser Elsheshtawy

Housing more than any other building typology encapsulates themes of displacement, identity, urban growth, and inequality. The home is a very specific space through which one can read a society’s sense of itself, indeed its very essence. This applies to both state-led initiatives and informal forms of dwelling. In looking at housing forms across the region, and the various experiments that were carried out over the 20th and 21st centuries, this course explores the very nature of the Arab city.

<STUDIES IN TECTONIC CULTURE>

[Fall 2019] Kenneth Frampton

Although it is rather self-evident that my use of the term Late Modern Architecture is designed to avoid evoking the idea of the Postmodern in terms of style, it nonetheless has to be acknowledged that the concept of the liberative, socialist modern project is as remote today from being realized than it ever was when we compare it in both social and architectural terms, to the modern project of the 1920s and 1930s; the golden era, so to speak, between the two world wars, when the potential of the Modern Movement in every conceivable respect was at its height, particularly as this is revealed in the housing hospitals and schools, etc. designed during this period. So that while this seminar is addressed to revealing how the various works under consideration address themselves to the latent tectonic dimension of all built form, attention also has to be paid to how the works of each architect answer to the Arendtian charge of creating spaces of public appearance since given the privatization of modern life it is exactly this dimension which has been and still is being undermined by the current processes of universal civilization.

<LE CORBUSIER>

[Spring 2020] Kenneth Frampton

This course deals with Le Corbusier's life and works both chronologically and thematically. In this regard, the emphasis is as much ideological as it is architectural.

<DARK SPACE: ARCHITECTURE REPRESENTATION & BLACK IDENTITY>

[Spring 2020] Mario Gooden

The seminar examines the spaces of exclusion of Black and African American histories from architectural discourse and how modernist architecture participates in racial hierarchies in terms of representation. Furthermore, the seminar recovers the narratives of Black subjectivity and African American architectural production with regards to architectural theory to reveal liberation is a spatial practice.

<HISTORY OF AMERICAN CITIES>

[Fall 2019] Jennifer Gray

This course surveys urbanism in the U.S. from the colonial era to the present. During these years, industrialization, urbanization, and mass migrations, all fueled by an expanding market economy, transforming the built environment. Students learn about ambitious urban plans, exceptional architects, and iconic buildings, but also about everyday spaces, such as shopping malls, suburbs, and highways. Questions about race, gender, inequality, and militarism as they relate to urban space are explored. Students unpack the meaning of terms such as modernism, democracy, and American and consider them in a global context, especially the geopolitical relationship between North and South America. They also engage topics in critical preservation, such as ecological conservation and curatorial practices.

<A BUILDING OF ONE'S OWN: FEMINIST PERSPECTIVES ON ARCHITECTURAL PRACTICE, HISTORY AND CRITICISM>

[Fall 2019] Eva Hagberg

This course focuses on a feminist critique as a locus of multiple avenues of inquiry. What does it mean to take a feminist approach to the history of modern and contemporary architecture? Can we apply a feminist lens to theoretical, ethical, and historiographic issues? What is the value, intellectual and historical, of a feminist approach to the study of architecture? The goals to explore whether there can be an explicitly feminist reading of architectural practice and history, and to begin to articulate what that feminist reading might feel like.

<NATURE, INFRASTRUCTURE, AND THE MAKING OF SOUTH ASIA>

[Spring 2020] Ateya Khorakiwala

This course pushes back against the notion of infrastructure as a technological elixir or an agent of global capital inserted into landscapes like a deus ex machina. Instead, readings approach infrastructure and nature as intertwined theoretical categories as well as material and conceptual systems upon which industrialization and modernization depended. Beginning in the 19th century, readings explore colonial aesthetics of environmental improvement; the political deployment of the sublime and the picturesque, the hygienic modernity of early 20th-century architecture; landscape's role in agricultural and industrial development in the new nation-states; "tropical" modernism of the post-war period; and contemporary discourses around sustainability and ecological infrastructures.

<ARGUMENTS>

[Summer 2019] Andrés Jaque with Ashraf Abdalla, Óskar Arnórsson, Benedict Cutter Clouette, Jana Beránková, Laura Diamond Dixit, Jonah Rowen, Aaron White, Alex Wood

This course interrogates the way architectural devices and architectural practices gain collective relevance by participating in the making of contemporary realities by facing current environmental, technological, and representational challenges and by being part of ongoing interactions, collaborations, disputes, and coexistences. It explores how architectural practices evolve by confronting and partaking in shared concerns. It scrutinizes agendas, tools, and methodologies and how they take part in the advancement of architecture.

<TRANSSCALARITIES>

[Summer 2019] Andrés Jaque, Bart-Jan Polman (Coordinator), Ultan Byrne, Charlette Caldwell, Robin Honggare, Yara Saqfalhait, Samuel Stewart-Halevy, Elliott Sturtevant, Ife Vanable

This course queries how architectural devices of reference, which have shaped the discourse of the field over the last three decades, are characterized by their transitioning through spatial and temporal scales. The course explores the agency architectural devices unfold through this transscalar condition—this is to say, the specific

political modes that architectural devices perform, and the way they multiply their reach, influence, and sensitivity: for instance, from the microbiological to the mineral, the atmospherical, the ecosystemic, the genetic, and the planetary.

<CONFLICT URBANISM>

[Spring 2020] Laura Kurgan

This seminar looks at how cities have long been arenas of friction, difference, and dissidence, as well as how their irreducibly conflictual character manifests itself in everything from neighborhood borders, to differences of opinion and status, to ordinary encounters on the street. Student work takes place through a single city or by comparing a series of cities examining the role conflicts of all sorts play in the making and remaking of cities around the world. Conflicts can (and should) be investigated with maps and data, but they often turn out to be propelled or propagated by them as well. Bringing humanistic inquiry together with spatial data and basic mapping technique allow us to produce powerful representations as well as challenge conventional narratives of cities and conflict today. Cities are “seen” through a number of lenses including mass incarceration, infrapolitics, urbanization of war, language ecology, migration(political, economic, and climate), debt, algorithms, and surveillance.

<BUILDING CHINA>

[Fall 2019] Amy Lelyveld

This seminar investigates experiments in Chinese building run across China’s last two dynasties—the Ming (1368–1644) and Qing (1644–1912). Students mine this long span ending in the 20th century for the distinct mindsets and innovations of each dynasty, how they were reimagining, representing, and radicalizing Chinese architecture and China itself.

<GREATS: CHINA’S BIG PROJECTS 1949–1980>

[Spring 2020] Amy Lelyveld

The course focuses on the large-scale experiments in new Chinese “building” run under the gaze of Mao Zedong from the decade preceding the 1949 inauguration of the People’s Republic of China through Mao’s death in 1976. Over this roughly 40-year time span, many sites and fundamental notions of daily life—language, expression, family, education, countryside, and city—were redefined and radically tested. The mass campaigns used to inculcate such new conceptions represented often sharply distinct—sometimes opposed—mindsets but through all of them, fundamental Chinese “sites” and the structure of China itself were starkly reimagined.

<METROPOLITAN SUBLIMES>
[Fall 2019] Sandro Marpillero
The seminar is divided into three interdependent threads which we posit as central to the metropolitan sublime. First, questioning naturalism and the formation of modern dichotomies (subject/object, nature/culture, etc.) that constitute the framework for the sublime. Second, reinterpreting the pictorial traditions set by the Hudson River School of painting, as they expanded to include the representation of landscapes, buildings, and engineered artifacts, through the notion of the infrastructural sublime. Third, exploring alternative paradigms of art practices—assemblages, sculpture, landscape—that weave together heterogeneous elements in time and space, to re-position architecture.

<MODERNISM AND THE VERNACULAR>
[Spring 2020] Mary McLeod
This class explores the intersections between modern architecture and what is sometimes called “vernacular” building from the early 20th century to the present. The working hypothesis of the seminar is that modern architecture, despite its commitment to technology and modernization, was deeply involved with ideas about vernacular buildings and that the nature and meaning of this fascination with indigenous structures changed in the century.

<STRUCTURAL DARING AND THE SUBLIME IN PRE-MODERN ARCHITECTURE>
[Spring 2020] Rory O’Neill
Many works of pre-modern architecture are daring, poised at the very edge of structural stability. Others are well-supported but strive to give an illusion of precariousness or even of levitation. This seminar invites students to explore the sublime effects of precarious architecture through visual and literary representations, as well as simulation models that examine the dynamic behavior of ancient and medieval monuments.

<ARCHITECTURE AND ETHICS IN THE POST-TRUTH, NEOLIBERAL ERA>
[Spring 2020] Nicolai Ouroussoff
This seminar takes a close look at how a variety of technological, social, and economic forces have shaped contemporary architecture since the end of the Cold War and the ethical challenges it has raised. The idea is to begin to develop an ethical framework for future practice.

<FABRICS AND TYPOLOGIES: NY/GLOBAL>
[Fall 2019] Richard Plunz
This course explores the social and economic origins of urban building typology and fabric in the evolution of cities worldwide. It questions the canons of architectural and urban historiography that tend to overemphasize the isolated monument rather than fabric. It scrutinizes the evolutionary history of the anonymous urban fabric which comprises the major building volume of this and all cities. It focuses on the culture of housing with the intent to grasp the political and tectonic devices that lead to specific fabrics in specific urban contexts.

<RECOMBINANT RENAISSANCE>
[Fall 2019] Mark Rakatansky
Engaging the media of our own time, students explore new forms of investigation in the digital humanities, to which the digital visualization techniques of architecture can make a fundamental contribution by evolving beyond merely documenting a building to provide innovative modes of critical and historical analysis. The course investigates the diverse ways digital visualization can be a crucial new lens of perception and communication.

<READING BUILDINGS, WRITING BUILDINGS>
[Spring 2020] Mark Rakatansky
This seminar explores a variety of visualization and written techniques in the close reading of buildings, contemporary as well as those of prior centuries, that have been engaged to investigate the significance of the built environment. Students not only explore written techniques of close-reading that have proved influential in the past but also investigate new forms developing in the digital humanities.

<GENDER AND ARCHITECTURE>
[Spring 2020] Bryony Roberts
Contextualizing past discourses on gender and sexuality, the course reconsiders Second Wave feminism and examines how gender theory expanded with work on gender performativity, intersectionality, and decolonization. Exploring the implications for architectural discourse and practice, students examine architectural theorists, historians, and practitioners who have addressed gender through planning cities and buildings, introducing alternative material practices, and restructuring the architectural design process. Every discussion of these undertakings in historiography, planning, materiality, and process address the specific contexts in which these projects emerged. The goal of the course is for students to develop critical views of existing discourses and to gain exposure to the wide range of available discursive, projective, and material tools of engagement.

<MILITARY URBANISM IN THE EARLY MODERN ERA>
[Fall 2019] Victoria Sanger
The technology of gunpowder artillery caused a military revolution in Early Modern Europe (ca. 1450–1800). Innovations in warfare created a new type of fortification, bastioned, more geometrical and solid, dense and efficient infrastructure and building typologies, and shifted and vastly expanded Europe’s border networks. At the end of the course, students make spatial and philosophical comparisons with forms of current urban design, warfare, and surveillance, such as the use of drones and cyber warfare. Throughout, participants make trans-historical comparisons and discover how the past impacts the present while trying to understand the specific character of this period.

<EUROPEAN URBAN CARTOGRAPHY 16TH-19TH CENTURIES>
[Spring 2020] Victoria Sanger
The 16th through the 19th century witnessed expansion and mechanization of cities and their maps evolving from the Age of Discovery and the invention of the printing press to the Industrial Revolution. Maps are not objective vehicles of data. They are tools combining planning, documenting, and governing while also being artistic and symbolic form in their own right. The first half of the semester covers different techniques of cartography and the major cartographers of the period across countries. The second half focuses on case study cities and their most famous maps (Rome, Paris, London, New York).

<ARCHITECTURE AND HUMAN RIGHTS>
[Fall 2019] Felicity Scott
This seminar investigates contemporary trajectories of architectural research and practice that intersect with questions of human rights, notions of democratic public space, and spatial politics. It asks what role the discipline plays (or might play) in current debates over questions of political representation, defense, the organization of the territory, surveillance, warfare, political conflict, and cultural heritage as well as in questions of citizenship, diaspora, humanitarian intervention, and justice. These questions mark out a profoundly fascinating and highly complicated field of study, and there is a growing body of important literature about them. The seminar provides a forum for considering aspects of this literature and practices associated with it, as well as for identifying new lines of research and further critical prospects for the discipline of architecture.

<ENVIRONMENTS OF GOVERNANCE: ARCHITECTURE, MEDIA, DEVELOPMENT>
[Fall 2019] Felicity Scott
Focused on the decades after World War II, this seminar investigates discourses and techniques of environmental governance addressed to the so-called “Third World,” those seeking to regulate not only economic production but spatial arrangements, social reproduction, and forms of subjectivity. It does so through interrogating the intersection (or often co-constitutive realms) of architecture, media, and development aid. What role, it asks, did architects and other experts in the built environment play not just in the design, construction, and management of rural and urban environments but also in the emergence of a global governing apparatus during this period, a period marked by the transition from late-colonial rule to neocolonial counterparts informed by, and often continuing that legacy of violence?

<PROFESSIONAL PRACTICE>
[Fall 2019] Paul Segal
This course gives students an understanding of the framework and processes by which designs become buildings. Topics include the relationship between Owners and Architects and Owners and Contractors,

covering the duties, obligations, rights, and remedies of each. It also covers the public constraints or the public/private relationships by which individuals—owners and architects—have their rights limited for the sake of the public good. Students learn how to protect their designs from concept to realization, as well as some of the ethical and moral issues of practicing architecture. They also discuss the current state of the profession, where it is headed, and how to shape its future.

<NARRATIVE URBANISM: STRATEGIC STORYTELLING FOR DESIGNERS AND PLANNERS>
[Fall 2019] Cassim Shepard
All designs and plans are representations. Before designers and planners can intervene in urban space, they must learn the tools to observe and interpret urban dynamics and to create documentary evocations of existing conditions. This course focuses on developing qualitative tools of analysis and representation, informed by a deep dive into the history of mutual influence between documentary media and urban discourse over the past century.

<PUBLIC SPACE: RHETORICS OF THE PEDESTRIAN>
[Spring 2020] David Smiley
To refine an examination of public space, this seminar focuses on the pedestrian, the walker in the city, and the prime user of public space. Yet the pedestrian is not a generic category: pedestrians are shoppers, workers, tourists, vendors, residents, demonstrators, or homeless, of different races, classes, and origins, of different capacities and with different expectations. None have the same access to, or status in, public space. How do pedestrianized spaces evidence these differences? How are forms of power or authority articulated in particular spaces?

<ARCHITECTURE: THE CONTEMPORARY>
[Spring 2020] Bernard Tschumi
This seminar takes as its starting hypothesis that there is no architecture without a concept and that concepts are what differentiates architecture from mere building. It attempts to demonstrate that the most important works of architecture in any given period are the ones with the strongest concept or idea rather than simply those with the most striking form or shape. We discuss one hundred projects or buildings and city plans from 1968 to the present, in terms of their ability to mark the history of ideas and concepts in architecture. It also discusses differences between concepts, “partis”, diagrams and compositions as well as between concepts, percepts, and affects. For each historical moment in the past forty years, we also intend to identify one or several major concepts that have either become out of date (“against”) or are still relevant today (“for”), as measured in relation to today’s moral, ideological, economic, or formal standards. We question whether, after modernism and postmodernism, we are witnessing a phase of “hypermodernism” or modern iconism.

<PROGRAM (PRACTICES)>
[Fall 2019] Enrique Walker
This seminar examines the trajectory of the notion of program as a design question. Specifically, it traces a series of terms mobilized in the field since the mid-sixties to describe—in fact, to reduce—actions in space: from function to behavior, from situation to event, from use to organization. The seminar is structured around ten exemplary buildings regarding questions of program; each session interrogates one building, and scrutinizes the arguments it articulated, the objectives it pursued, the critiques it entailed, and the theories it implied. Ultimately, this seminar traces definitions and strategies formulated to program architecture.

<PROGRAM (THEORIES)>
[Fall 2019] Enrique Walker
This seminar examines the trajectory of the notion of program as a design question. Specifically, it traces a series of terms mobilized in the field since the mid-sixties to describe—in fact, to reduce—actions in space: from function to behavior, from situation to event, from use to organization. The seminar is structured around ten exemplary books regarding questions of program; each session interrogates one book, and scrutinizes the arguments it articulated, the objectives it pursued, the critiques it entailed, and the practices it implied. Ultimately, this seminar traces definitions and strategies formulated to program architecture.

<OPEN WORK>
[Spring 2020] Enrique Walker
This seminar addresses the ways in which the architecture field theorized openness, from the 1960s to the 1980s, both as a design question about unfinished structures and a cross-disciplinary question about unstable content. The seminar is structured around a series of projects and buildings; each session will interrogate a pair, and scrutinize the design questions they raised, the arguments they advanced, the critiques they entailed, the design techniques they mobilized, and the notions of authorship they implied. Ultimately, the seminar will trace the trajectories of openness as a design question.

<COLLECTING ARCHITECTURE TERRITORIES>

[Fall 2019] Mark Wasiuta

This seminar is a continuation of the evolving research project Collecting Architecture Territories. The project contends that collecting is a term, practice, or condition that allows us a glimpse of the emerging cultural logic of the early 21st century. It argues that one of the most significant developments reshaping the intersection of art and architectural practice over the last three decades is the veritable explosion of institutions and foundations that have emerged out of private art collections.

<ARCHIVES OF TOXICITY>

[Spring 2020] Mark Wasiuta

This course reads environmental and cultural texts, records, and archives to outline a recent history of toxicity and to relate architecture to chemical accumulations and traces. The seminar asks how toxicity—in all its forms, from petrochemicals to particulates, and from opiates to air pollution—became a salient and defining feature of the last century and an environmental, psychological, and cultural force conditioning our chemical subjectivities.

<EXTREME DESIGN>

[Fall 2019] Mark Wigley

This seminar recovers and explores the thinking and designs of the architects and artists who thought about the anti-architecture of TV, from Ivan Leonidov and Buckminster Fuller in the 1920s to Konrad Wachsmann, Cedric Price, Ugo de la Pietra, Francois Dallegret, Hans Hollein, Takes Zenetos, Archigram, Ant-Farm, Denise Scott-Brown and Robert Venturi in the ’60s and ’70s – along with artists like Dan Graham and Walter Pichler. The idea is to build up a kind of catalog of architectural thinking about TV over the last century to start thinking more precisely about the architecture we inhabit today.

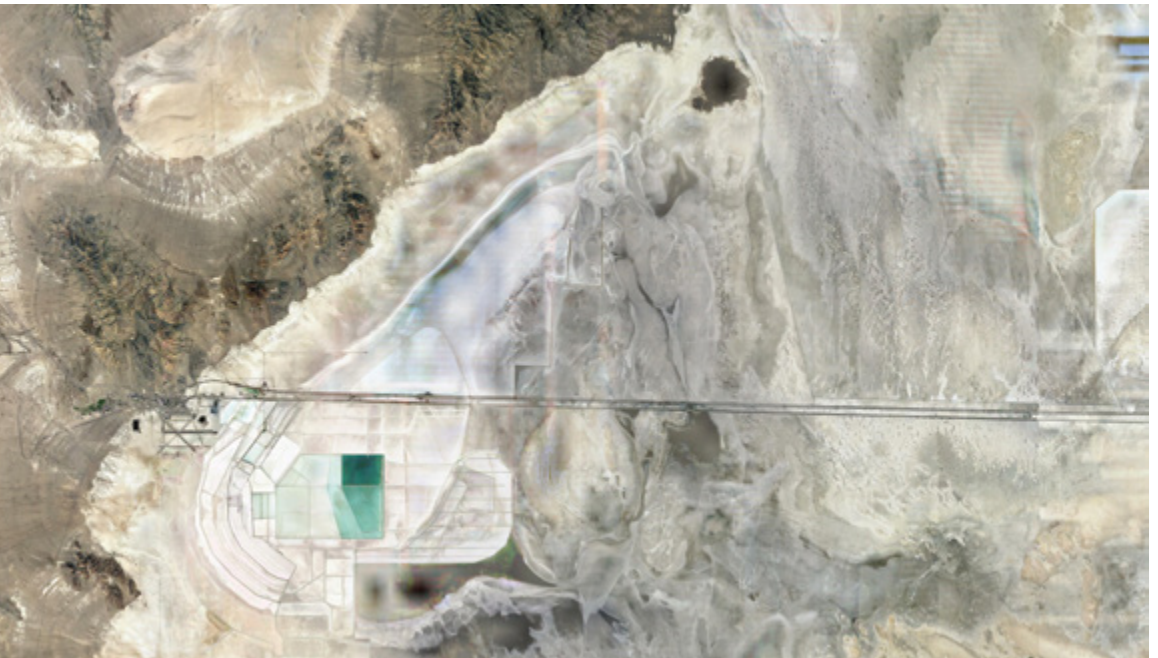
<THE HISTORY OF ARCHITECTURE THEORY>

[Fall 2019] Mark Wigley

Architecture emerges out of a passionate and unending debate. Every design involves theory. Indeed, architects talk as much as they draw. This class explores the way that theory is produced and deployed at every level of architectural discourse from formal written arguments to the seemingly casual discussions in the design studio. A series of case studies, from Vitruvius through to social media, from ancient treatises on parchment to flickering web pages and tweets, are used to show how the debate keeps adapting itself to new conditions while preserving some relentless obsessions. Architectural discourse is understood as a wide array of interlocking institutions, each of which has multiple histories and unique effects. How and why these various institutions were put in place is established and then their historical transformations up until the present are traced to see which claims about architecture have been preserved and which have changed.

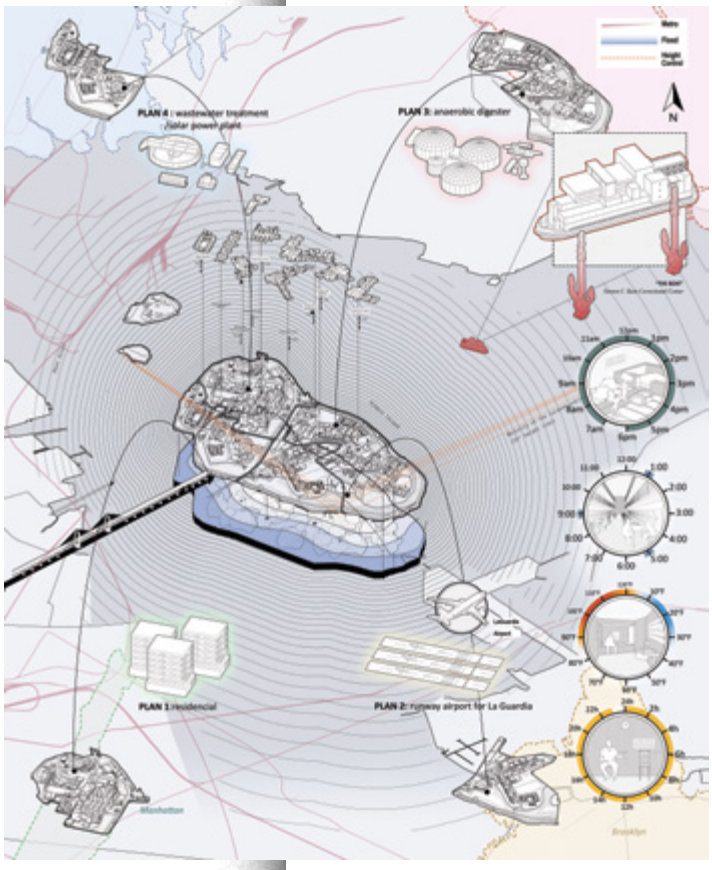
Adina Bauman,
Ericka Song, Jolene Jussif,
Zhou Wu, Zhen Hua

Laszlo Kovacs, Manuela Hansen,
Dylan Belfield, Yerin Won,
Mengzhe Zhang, Ting Zhang

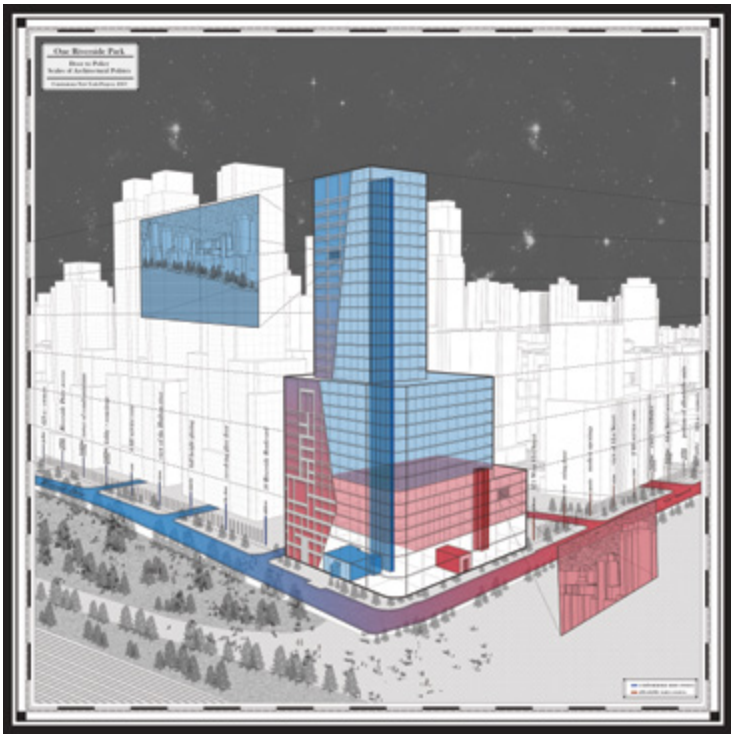


<TRANSSCALARITIES> Andrés Jaque, Bart-Jan Polman (Coordinator), Ultan Byrne, Charlette Caldwell, Robin Honggare, Yara Saqfalhait, Samuel Stewart-Halevy, Elliott Sturtevant, Ife Vanable

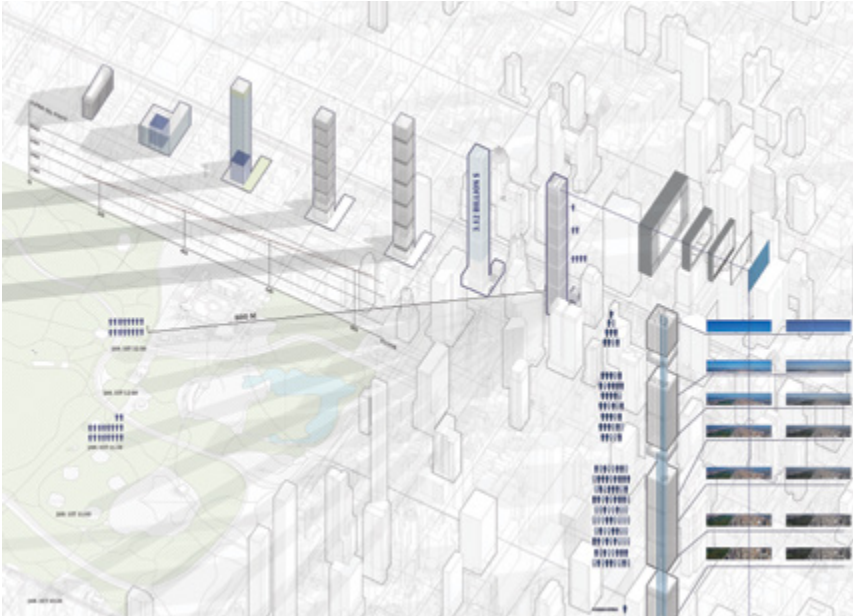
Mengzhe Zhang,
Ibrahim Kombarji,
Jingyuan Zhang



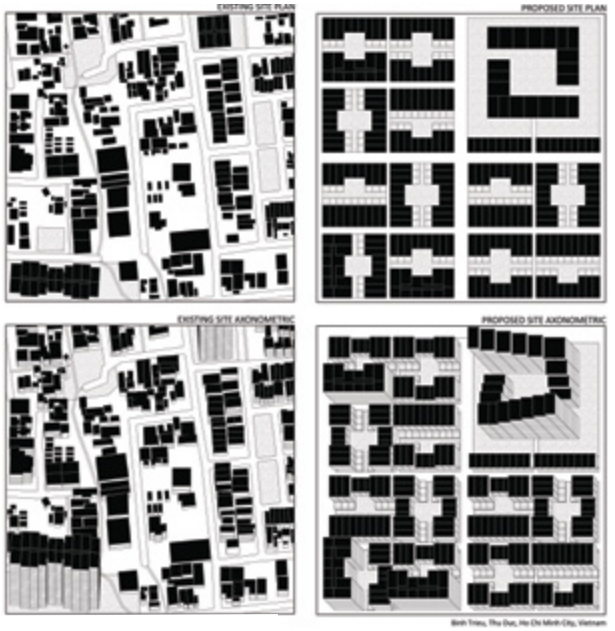
Kabir Sahni, Shuchang Zhou,
Xinglu Zhu



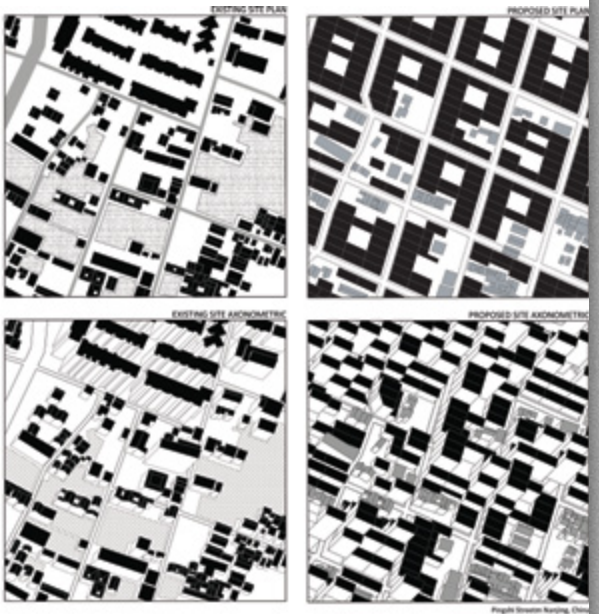
Han Zhang,
Rohan Parekh,
Helena Urdaneta,
Rui Wang



Tung Nguyen, Sarah Zamler



Zheyu Liu, Brian Turner



Jaime Palacios Anaya, Aasiya Maaviah

<RECOMBINANT RENAISSANCE> Mark Rakatansky

Blithe Archbald, Ugur Tan

Interdisciplinary
Amale Andraos, Dean

Today, we understand technology as constantly and rapidly changing. Recognizing the limitations of traditional track-based programs to keep pace with these changes and foster further exploration, curriculums at GSAPP are instead predicated on this evolution. They move towards hybridization, blurring the boundaries of each sequence and program to create new possibilities for intersections but also entirely new types and formats for teaching and learning. Informed by perspectives from different fields, these interdisciplinary studios and courses not only expand the space between the material, architectural, and urban scales but also invite an ongoing critical perspective—always pushing the boundaries of each curriculum and the nature of the curriculum itself to become something else. We might not know what the "else" is yet, but we can already begin to recognize it in the faculty syllabi and in the work of the students. These classes encourage this evolution as seeds for engaging the future.

<JOINT ARCHITECTURE AND REAL ESTATE DEVELOPMENT ADVANCED STUDIO: A[X]*2>

[Fall 2019] Kate Ascher, Christoph Kumpusch

This studio applies The Netherlands' "make room for water" approach as a foundation to inform a water-based development plan for a series of sites in Amsterdam, New York. Real estate and architecture students research the history, urban geography, and hydrology of this city and work in teams to identify development strategies and interventions underpinned by flood reduction initiatives. The studio included a week-long visit to Amsterdam, the Netherlands that focused on identifying alternative flood-reduction strategies and potential development opportunities. Students produce conceptual designs for a site and justify the feasibility of their proposed program based on high-level financial models.

<JOINT HISTORIC PRESERVATION AND URBAN PLANNING ADVANCED STUDIO>

[Fall 2019] Erica Avrami, William Raynolds

The Heritage and Sustainable Urbanization: Freetown, Sierra Leone Studio, in collaboration with students from Fourah Bay College, embarked on a study of the intersection of heritage conservation and urban planning. To describe the current and potential uses of heritage in the social and physical fabric of the city and inform current efforts to improve planning governance and update heritage laws and policies, the team presents the results of their field survey and subsequent analysis. Their work sheds light on the opportunity to instrumentalize heritage as a tool in promoting civic dialogue, equity, and sustainability in the urbanization of Freetown. Students: Mariana Avila Flynn, Sreya Chakraborty, Fei Deng, Maya Ephrem, Aline Estefam, Shreya Ghoshal, Scott Goodwin, Emily Junker, Sarah Sargent, Micah Tichenor, Savanna Wu.

<JOINT ARCHITECTURE AND URBAN PLANNING STUDIO:
CARRIBEAN RECONNECTIONS – A SUSTAINABLE FUTURE FOR PUERTO RICAN ISLAND>

[Spring 2020] Richard Plunz, Douglas Woodward

This studio is part of a series focusing on the island of Vieques. It focuses specifically on the neighboring island of Culebra and the Main Island at the Municipality of Ceiba—all three sites share problems related to transportation and general developmental issues. This studio continues to engage the study of infrastructure, building, and livelihood futures begun in Vieques while expanding the scope of architectural design to include planning, policy, and implementation issues. The core concerns of infrastructural development remain. An overriding concern is exploring the developmental advantages of infrastructural improvements in maritime-related infrastructure.

<JOINT ARCHITECTURE AND HISTORIC PRESERVATION STUDIO:
ADAPTIVE RE-MODULATION – MARCEL BREUER'S US EMBASSY IN THE HAGUE, NETHERLANDS>
[Fall 2019] Mark Rakatansky, Kim Yao

The decommissioned Marcel Breuer-designed US Embassy in the Hague is being developed as a hotel and museum dedicated to M. C. Escher. Both Breuer and Escher developed techniques of iterative, recursive, and transformative plays of identity through modular geometries, of spatial re-orientations of vertical and horizontal structure, of 2-D inscribed surfaces inflecting into 3-D volumes, and both developed reciprocal formations of mass and suspension. In contrast to modernist glass buildings, Breuer experimented with concrete and masonry forms of construction, engaging iterative forms of modular geometric patterning in low and high relief. This studio explores the dynamic and iterative modulation not only of tectonic and structural modules but the assumptions regarding the modularity of rooms, programs, civic identities, and urban formations.

<THEORY OF CITY FORM>
[Fall 2019] Vishaan Chakrabarti

This survey course examines the myriad forces and factors which directly govern, or indirectly influence the size, shape, and nature of cities. The class covers explicit theories regarding the form of cities and explores many interdisciplinary, critical approaches to understanding urban outcomes that can loosely be categorized under the broad umbrella of “urban studies.”

<CIRCULAR CITIES: A NEW URBAN FUTURE>
[Spring 2020] Malo Hutson

This course introduces students to the theories and practices underlying circular cities. Moreover, it attempts to not just highlight the challenges for cities to develop resource flows that are cyclical through closed loop, integrated systems, but focuses on solutions. This means investigating the latest attempts to transform institutions, policies, practices, and strategies at multiple jurisdictional levels and scales.

<MAPPING FOR ARCHITECTURE, URBANISM, AND THE HUMANITIES>
[Spring 2020] Emily Fuhrman

This hybrid theory/practice course provides an introduction to critical mapping discourse and geographic information systems tools. It examines both historical and contemporary questions about the technology of mapping. Additionally, through the use of open-source GIS software (QGIS), browser-based technologies (Mapbox), and open data (OpenStreetMap), students learn how to critically use mapping tools and geographic data for spatial analysis and representation.

<POINTS UNKNOWN: CARTOGRAPHIC NARRATIVES>

[Spring 2020] Michael Krisch, Juan Francisco Saldarriaga

Through pairing the processes of architecture and techniques of journalism, this course explores sites of NYC and the Hudson Valley Region. Students propose a site to investigate from a set of site topics identified for their unique connection to the city, their centrality to demographic populations, and their environmental impact. Groups work under the direction of a journalist who serves as editor to help groups explore and report on their site, spending the semester researching and constructing a geospatial narrative.

<BUILDING SENSE: PROVOCATIONS FROM NEUROSCIENCE>

[Spring 2020] Leah Kelly, Lindy Roy

In this seminar, an architect and a neuroscientist explore convergent concepts from their respective fields and critique their default meanings. By exploring how these ideas are understood from a neuroscientific perspective, we reframe the environment as not only stimuli to be perceived and navigated but as an evolving extension of the self and driver of behavior forming an ecology of habit, novelty, and attention.

<SPECULATIVE CITY: CRISIS, TURMOIL, AND PROJECTIONS IN ARCHITECTURE>

[Spring 2020] David Eugin Moon

This seminar outlines changes in the discourse and practice of architecture responding to crisis and uncertainty as an opportunity for new potentials, exploring social, political, and economic contexts and their influences on visionary architecture and urbanism. It studies the current practices of the architecture of crisis and disruption as well as the historical significance of previous post-traumatic yet productive periods from the post-war periods in the U.S., the nadir in New York in the late 70s, and other seminal moments that projected and shaped the modern environment.

<KITCHENLESS STORIES>

[Fall 2019] Anna Puigjaner

Historically, the idea of home has mirrored a faithful image of society’s deeper social structures. Consequently, housing (and in particular the kitchen) has often been used as an effective tool for the ideological construction of power relations. Albeit traditionally thought of in the west as a protective apparatus against externalities, by serving as a vehicle for the capitalist division of productive and reproductive labor, the archetype of the home has played a central role in the creation of gendered relationships within domestic and social spheres. This seminar explores and unveils capitalist hetero-patriarchal asymmetries that have been empowered through domestic architectures.

<METHODS IN SPATIAL RESEARCH>
[Spring 2020] Carsten Rodin
This course provides an introduction to the critical use of geographic information systems (GIS) and the use of spatial methods for urban humanities research.

<ARCHITECTS WRITERS>
[Spring 2020] Hilary Sample
Taking stock of the architecture profession today, this seminar brings together a select group of architects who have written about their design work as a means to better understand the built environment while reflecting on the field of architecture as a whole. It is designed to invite students to intently focus on ten twentieth and 21st-century women architects, from around the world, to examine their buildings, built work, proposal projects, installations, objects, design writings, lectures, as well as critical essays about their work.

<ART AND SOCIAL INFRASTRUCTURE>
[Spring 2020] Galia Solomonoff
This seminar seeks to investigate the relationship between art, architecture, community, and real estate development. It proposes to evaluate the models and tools used to deploy art in the service of a community and economic prosperity, recognizing that sometimes what is good for some is not good for everyone. The premise is that as cities around the world seek to nurture 21-century industries, lively urban centers, and harmonious communities—while simultaneously adapting to a whirlwind of social, technological, and environmental changes, all under severe budgetary constraints—it is imperative to better understand how a city express its values, enhances its identity, and grows.

<NARRATIVE URBANISM: STRATEGIC STORYTELLING FOR DESIGNERS AND PLANNERS>
[Fall 2019] Cassim Shepard
All designs and plans are representations. Before designers and planners can intervene in urban space, they must learn the tools to observe and interpret urban dynamics and to create documentary evocations of existing conditions. This course focuses on developing qualitative tools of analysis and representation, informed by a deep dive into the history of mutual influence between documentary media and urban discourse over the past century.

<(RE)PROGRAMMING MUSEUMS>
[Spring 2020] David Van der Leer
This interdisciplinary course examines how institutional clients and designers can develop skills to jointly create (space) programs for buildings for the 21st century. Students examine the value of hybrid institutions, and the change in museum directions over the last 150 years. They analyze briefs and space programs for existing museum and cultural buildings; meet with museum professionals, trend forecasters, data analysts, negotiation experts and architects; and we visit three case study museums in NYC.

<BUILDING SENSE: PROVOCATIONS FROM NEUROSCIENCE>

[Spring 2020] Leah Kelly, Lindy Roy

In this seminar, an architect and a neuroscientist explore convergent concepts from their respective fields and critique their default meanings. By exploring how these ideas are understood from a neuroscientific perspective, we reframe the environment as not only stimuli to be perceived and navigated but as an evolving extension of the self and driver of behavior forming an ecology of habit, novelty, and attention.

<DATA VISUALIZATION FOR ARCHITECTURE, URBANISM AND THE HUMANITIES>

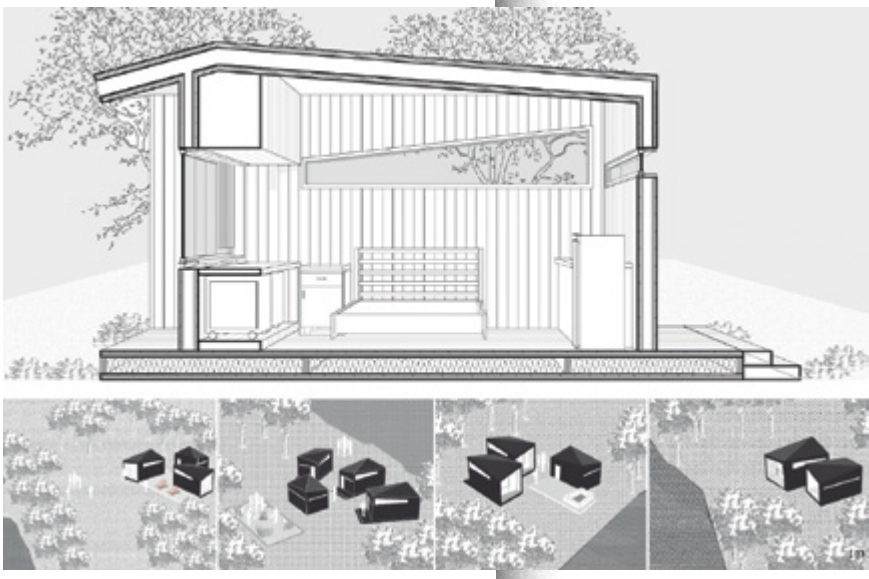
[Fall 2019] Jia Zhang

This class introduces key concepts in the design of information visualization and interactivity. Students put theory to practice in discussions that critically engage with the visualizations. They also produce visualizations by hand and by code that are interactive, public-facing, and live on the web. Specifically, they learn and use the javascript library D3.

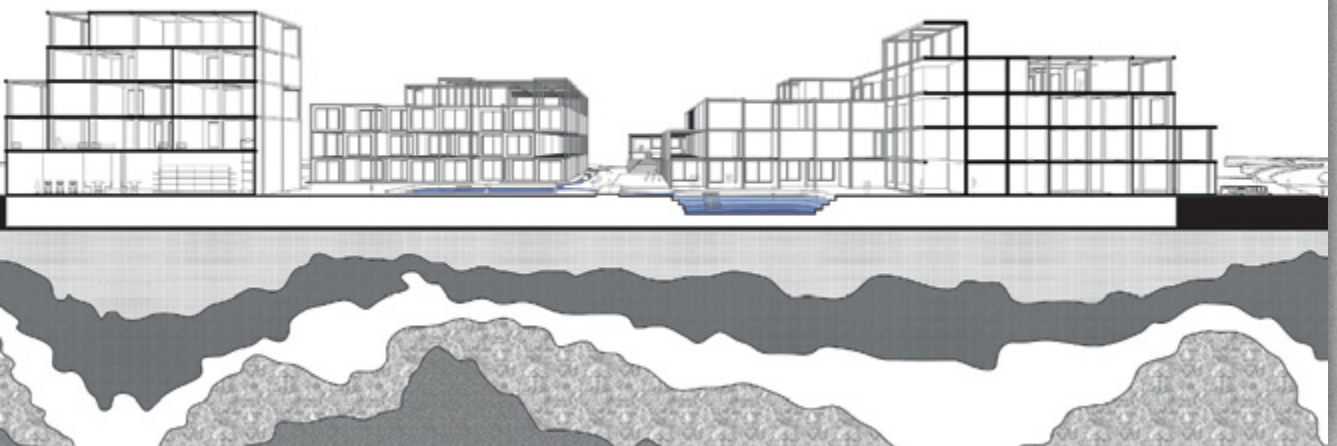
<JOINT ARCHITECTURE AND REAL ESTATE DEVELOPMENT ADVANCED STUDIO: A[X]*2>
Kate Ascher, Christoph Kumpusch

Alan Braun, Hajir Saleh Al Khusaibi

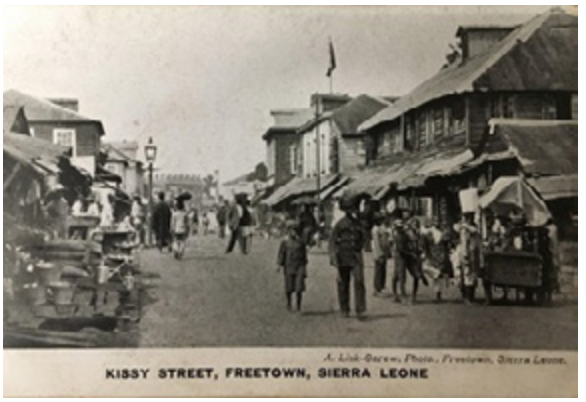
Tarun Abraham, Mohammad Ghassan Attar, Ye Xiong, William Zheng



Sritoma Bhattacharjee, Eunji Kang, Jingchen Liu, Sofia Rivera Saldaña



<JOINT HISTORIC PRESERVATION AND URBAN PLANNING ADVANCED STUDIO>
Erica Avrami, William Raynolds



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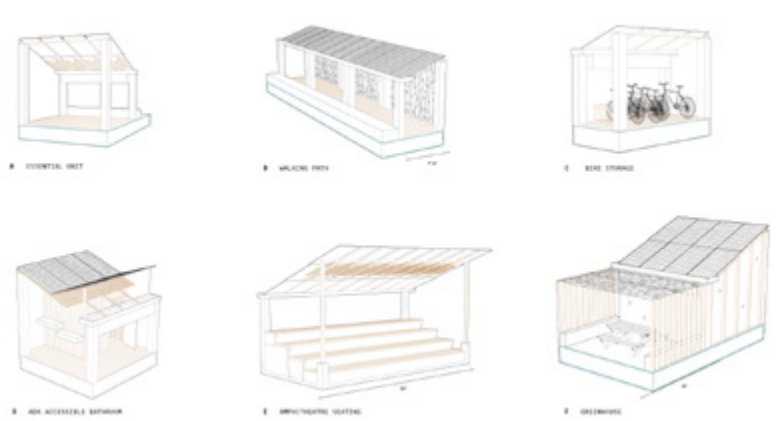
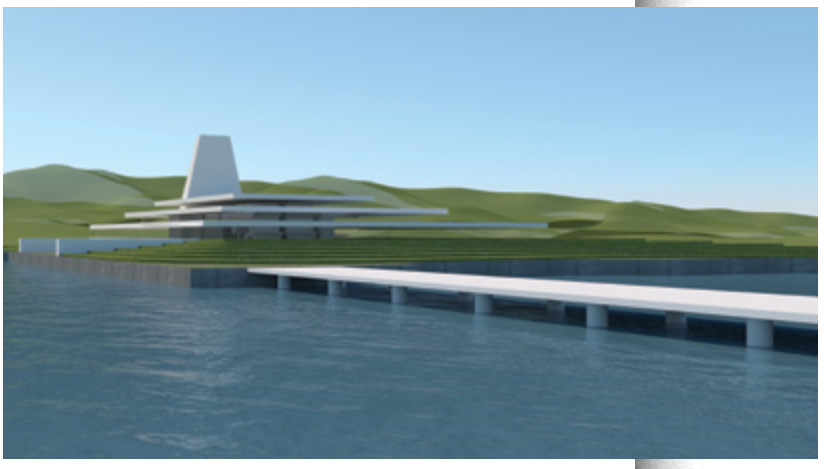


Camille Esquivel,
Regina Joy Alcazar

Steven Corsello



Nelson De Jesus Ubri,
Hayes Buchanan

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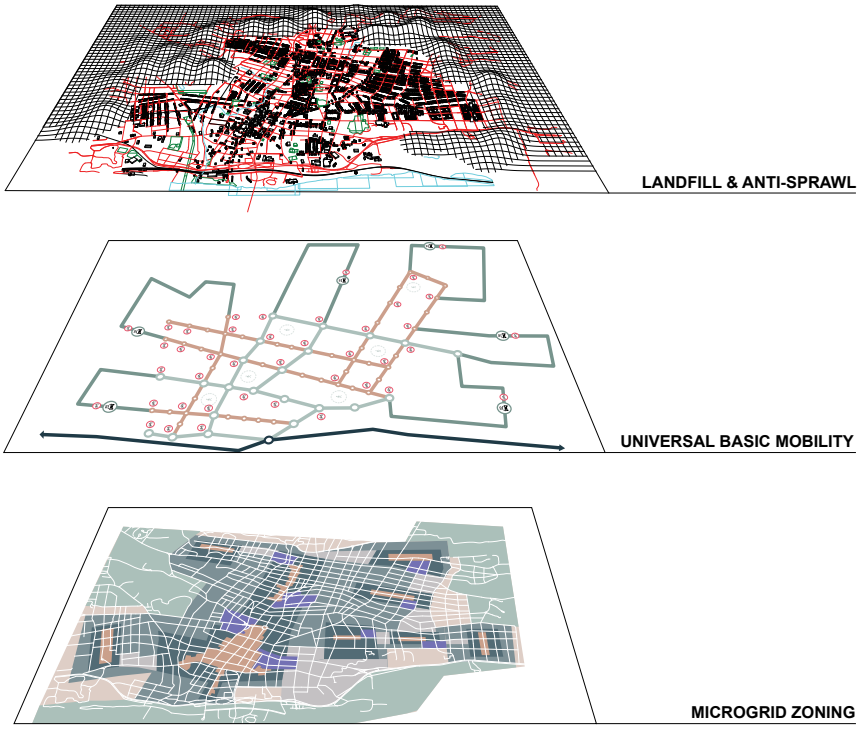
Mark Rakatansky, Kim Yao

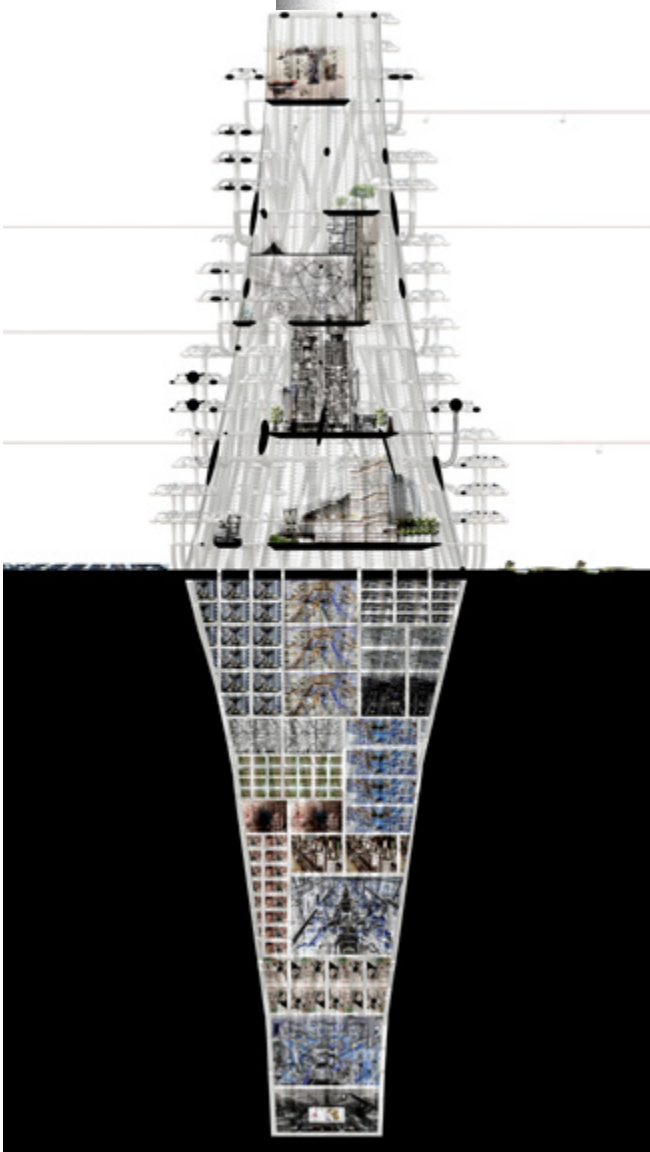
Shenyang He, Xueqi Hu

Aseel Sahab, Yanxi Fu

<THEORY OF CITY FORM> Vishaan Chakrabarti

Adina Bauman, Ericka Song,
Jolene Jussif, Zhou Wu,
Zhen Hua





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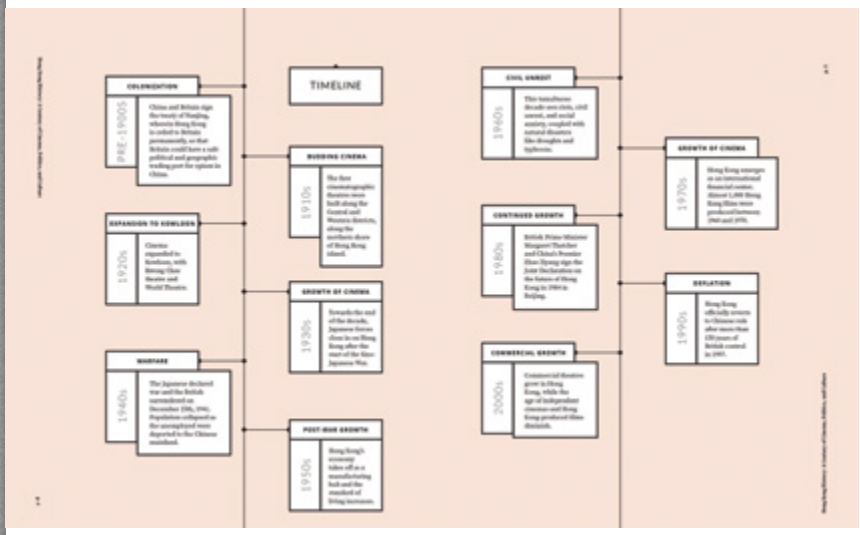
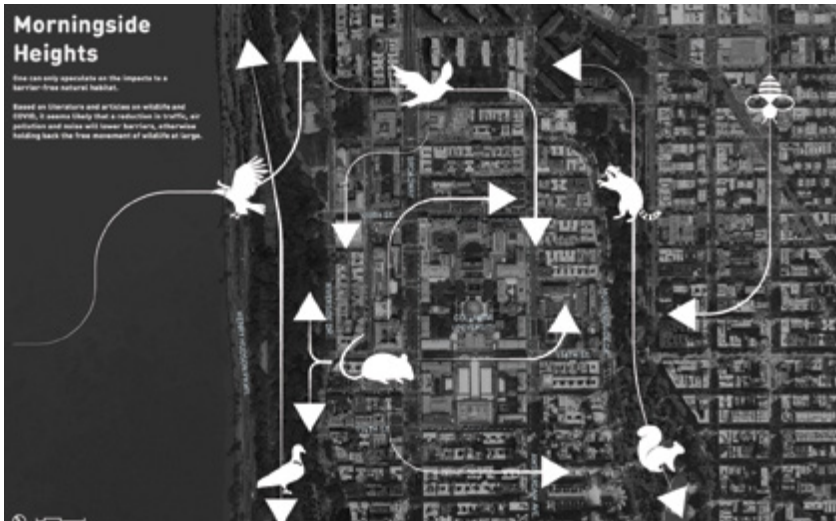
Dylan Belfield, Yerin Won,
Mengzhe Zhang, Ting Zhang

Hai Lun Tan

Joy Lee



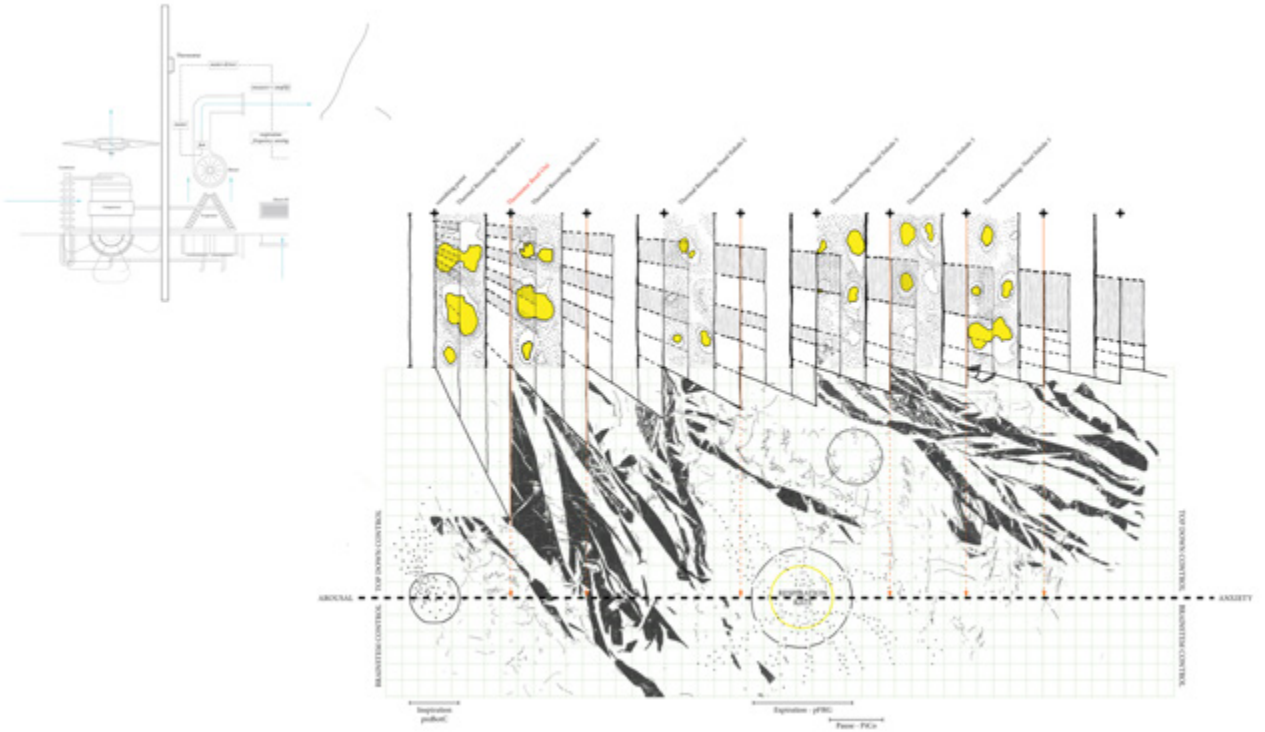
Tristan Schendel



Ashley Esparza, Aayushi Joshi, Gustava Gruentuch

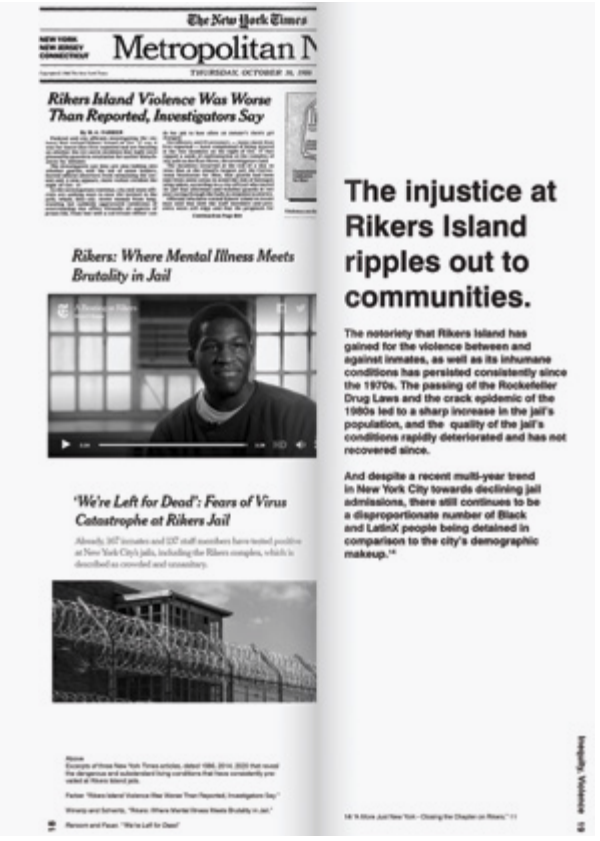
Candelaria Mas Pohmajevic, Sharvari Raje, Anays Gonzalez

Luiza Furia



Nikita K.

A.U.R.A (Augmented User Radiated Association) explores the creation of a feeling of being safe inside one's own AURA amid the COVID-19 pandemic.



Ericka Song

This project details the adverse existing conditions at Rikers Island and advocates for incremental environmental remediation of the Island and a new rehabilitation-based system.

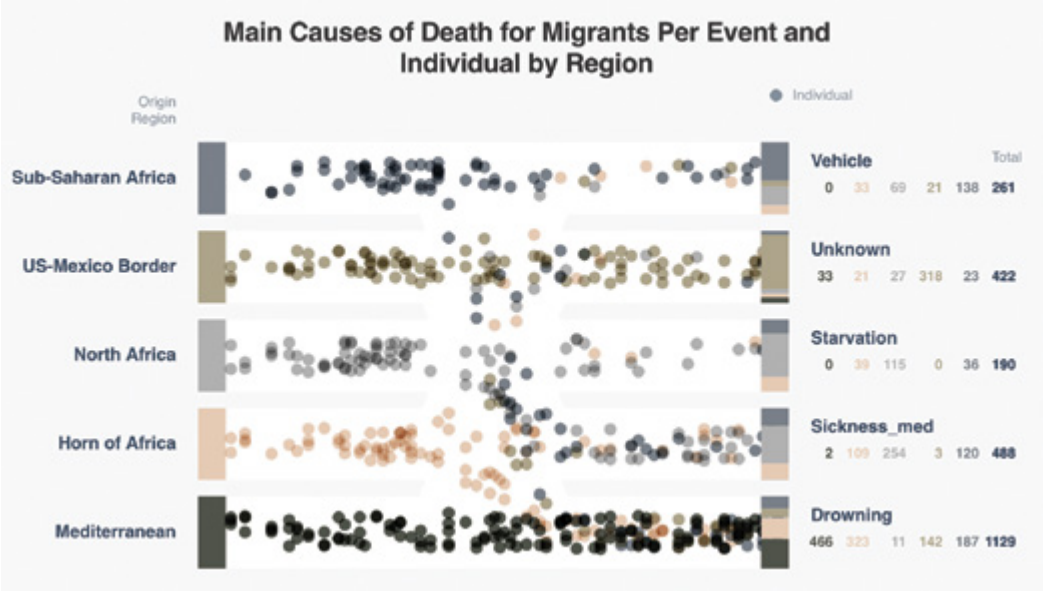
Michael McDowell

This proposal replaces the Mexico–US border fence with nature reserves, asylum supporting programs, and education centers.

Prahtiba Singh

This proposal imagines circular bio-economies at the Amazonian frontier.

Pia Deshpande, Mary Marsh,
Anne-Laure Razat, Matthew Lawhon



Chang Lei, Ismael Barry,
Ziyi Liu, Yeon Kwon,
Yiqian Wang

317 M.S. Architecture
and Urban Design
Kate Orff,
Program Director
337 M.S. Urban Planning
Weiping Wu,
Program Director
381 M.S. Historic Preservation
Jorge Otero-Pailos,
Program Director
409 M.S. Real Estate Development
Patrice Derrington,
Program Director
429 Introduction to Architecture
Danielle Smoller,
Program Director
435 New York—Paris
Danielle Smoller,
Program Director

M.S. Architecture and Urban Design

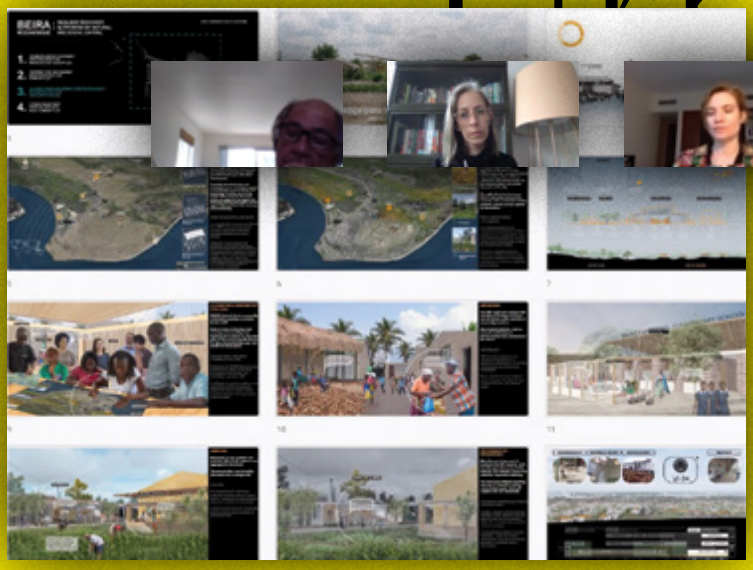
Kate Orff, Program Director
David Smiley, Assistant Director

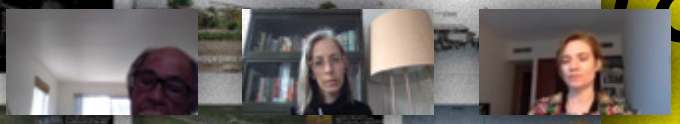
The Urban Design Program at Columbia GSAPP is a one-year postgraduate degree program that engages the complex processes of global urbanization amid the emerging stress of the climate crisis. Ways of living in cities and landscapes around the world are increasingly untenable, and now require new forms of research and attention. What is the agency of design in these rapidly shifting conditions? The Urban Design program frames the city not as a fixed, delineated territory but instead as a gradient of landscapes supported by networks of energy, resources, culture, mobility, and capital. It addresses near and long-term threats to local, regional, and global ecosystems, positioning design as both an inclusive, activist, tools-based project for specific sites and communities, and as a critical project examining urban form, process, and knowledge.

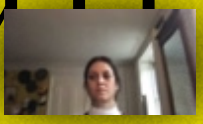
Students and faculty worked together across three intensive semesters to weave multi-scalar analyses of urban-regional fabrics and infrastructures with on-the-ground, detailed scenarios for real places and lived conditions. New York City served as the first site for urban design advocacy and methodology. The scope expanded in the second semester to regional research and innovation in New York's Hudson River Valley, and concluded in the final semester with explorations focused on three cities along the Great Rift Valley: Tel Aviv-Yafo, Israel; Addis Ababa, Ethiopia; and Beira, Mozambique.

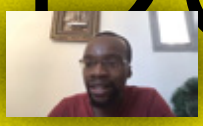
The following presentation of student work from the 2019-2020 academic year illustrates the critical and creative ambitions that students brought to a variety of sites and a national audience for Green New Deal policy and practice. Students brought a multi-scalar analysis of urban-regional fabrics and infrastructures together with on-site interactions, communities engagements, and local conditions.

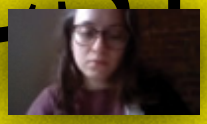
Urban Desig

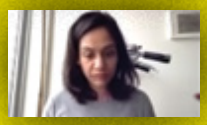


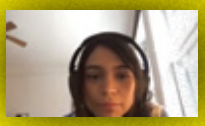


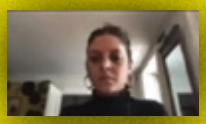


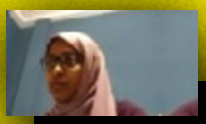


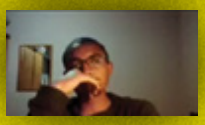


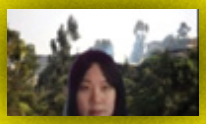


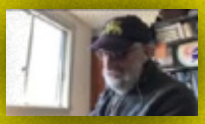


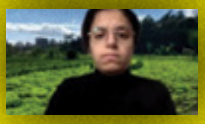


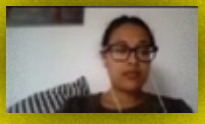


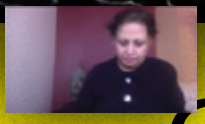


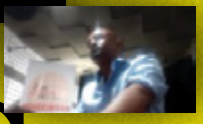


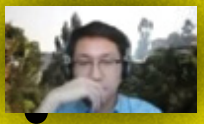


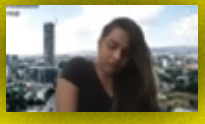


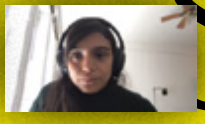


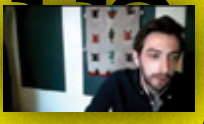












Guest critics for this review session focusing on Addis Ababa, Ethiopia included Aziza Abdulfera, Emanuel Ademasu, Alazar Assefa, Vanessa Barchfield, Susan Blaustein, Maheder Gebremedhin, Tigist Kassahun, Jesse Lecavalier, Kelley Lynch, Damu Radheshwar, Caroline Raes, Francesco Rossini, and Kratma Saini. GSAPP Faculty Noah Chasin, Jerome W. Haferd, Sagi Golan, Carmelo Ignaccolo, Kaja Kühl, Justin Moore, Austin Sakong, Grahame Shane, Nans Voron, and Sara Zewde also participated in the review.

Spring

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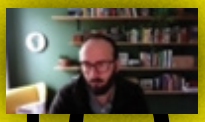
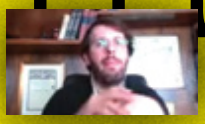
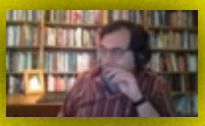
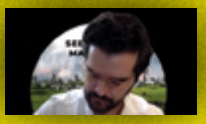
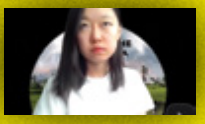
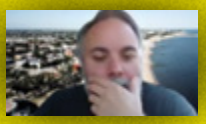
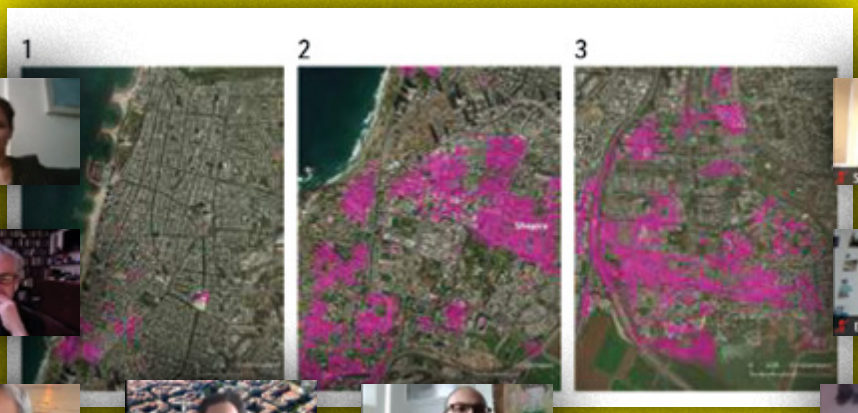



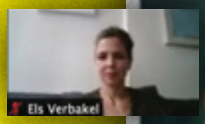


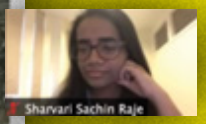



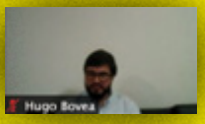


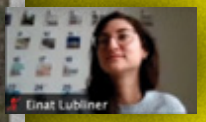
Guest critics for this review session focusing on Beira, Mozambique included Sreoshy Banerjea, Ryan Bartlett, Michael Ben-Eli, Susan Blaustein, Oscar Oliver-Didier, Kelley Lynch, Deborah Morris, Judy Oglethorpe, Betsy Reyes, Francesco Rossini, and Alima Taju. GSAPP Faculty Noah Chasin, Anna Dietzsch, Carmelo Ignaccolo, Kaja Kühl, Grahame Shane, and David Smiley also participated in the review.

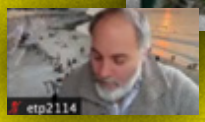


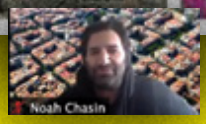


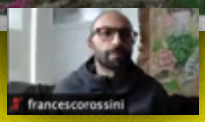


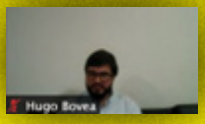


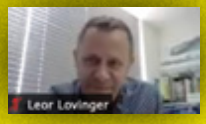


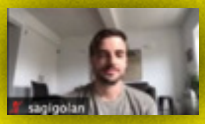






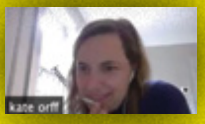


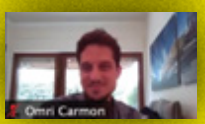




2020

Guest critics for this review session focusing on Tel Aviv included Michael Ben-Eli, Omri Carmon, Liat Eisen, Sari Klaus, Francesco Rossini, Els Verbakel, Tali Wexler, and Leor Lovinger. GSAPP Faculty Noah Chasin, Jerome W. Haferd, Sagi Golan, Kaja Kühl, Justin Moore, Austin Sakong, Grahame Shane, David Smiley, and Nans Voron also participated in the review.





<STUDIO III: WATER URBANISM | THE GREAT RIFT VALLEY>

[Spring 2020] Kate Orff (Coordinator), Lee Altman, Adriana Chavez, Dilip da Cunha, Fitsum Gelaye, Geeta Mehta, Thad Pawlowski, Julia Watson

This studio explored how three cities along the Rift—Tel Aviv-Yafo, Israel; Addis Ababa, Ethiopia; and Beira, Mozambique—might forge systems and spaces to span this divide amid rapid urbanization and while grappling with the unique impacts of the climate crisis. Student design projects imagined creative alternatives to address the interrelated risks faced by vulnerable populations. These include extreme heat in Tel Aviv, flash flooding due to river floodplain development in Addis Ababa, and coastal inundation and disaster recovery in Beira, which was struck by Cyclone Idai in 2019. Marked with fossil evidence from the beginning of human civilization, the Great Rift Valley encourages bold thinking about the Earth's next 100 years of habitability and urban design response.

<STUDIO II: DEFINING THE REGION | A GREEN NEW DEAL FOR THE HUDSON VALLEY>

[Fall 2019] Kaja Kühl (Coordinator), Anna Dietzsch, Jerome Haferd, Liz McEnaney, Justin Moore, Shachi Pandey, Raafi Rivero, David Smiley, Dragana Zoric

This studio explored the Hudson Valley's rural/urban socio-spatial ecosystems to address the global climate crisis as part of a GSAPP-wide collaboration "Public Works for a Green New Deal." Students worked in teams to investigate the region's various layers of social and physical infrastructure. Working closely with local stakeholders, elected officials, organizations, non-profits, community groups, and planning and design professionals these provocations identify pathways for systemic changes to the cities, towns, villages, and landscapes of the region and envision just and equitable pathways towards decarbonizing the region.

<STUDIO I: THE FIVE BOROUGHS>

[Summer 2019] Tricia Martin and Nans Voron (Coordinators), Hayley Eber, Sagi Golan, Quilian Riano, Austin Sakong, Shin-pei Tsay

For American metropolitan regions like New York, the neighborhood as contested social and physical territory is central to popular, journalistic, political, and design discourses. It is also a place of experience and emotion. The neighborhood-focus of the studio underscores our role in an ongoing process of change and through which you can rethink, reshape and regenerate an urbanism of the 21st century. In particular, working in post-industrial and climate-stressed conditions requires the critical interrogation and redefinition of multiple layers of existing and historic fabrics and infrastructures (in and beyond the neighborhood) in order to address the social life of current and future inhabitants.

<URBAN THEORY AND DESIGN IN THE POST-INDUSTRIAL AGE>

[Fall 2019] Noah Chasin

This course is an introduction to the historiographical, theoretical, critical, and formal vocabularies of postwar urbanism throughout Europe, the U.S., and beyond. Students discuss the deployment of new

urban design strategies against the backdrop of rapidly proliferating discursive and technological advances. They measure the merits of various paradigms (and their critiques) against one another to begin to understand the processes that provide the structures and infrastructures for the built environments across the globe.

<DIGITAL TECHNIQUES>

[Summer 2019] Carmelo Ignaccolo

Digital Techniques for Urban Design (DTEQ) introduces representational techniques, design skills, and software platforms for urban designers. In conjunction with the Urban Design studio, students learn how to use digital media as part of the design process, weaving together software platforms, research agendas, and design strategies in smooth, interoperable, and collaborative workflow.

<DIFFERENCE AND DESIGN>

[Fall 2019] Justin Moore

New York, like most cities, has been designed for difference. This difference includes segregation by race and ethnicity in housing and schools, unequal and unjust investment in public spaces, mobility, infrastructure, and services, a lack of agency and representation of the multitude in the public realm, and, of course, by reinforcing the indelible marks of the city's income and wealth inequality. How has the built environment been shaped by difference? How do we make a difference in the design of our spaces, places, and cities?

<RESILIENT URBAN DESIGN PRACTICUM: A GREEN NEW DEAL FOR APPALACHIA>

[Fall 2019] Kate Orff

This seminar focuses on dynamic, systems thinking, and imagines cities of the future as a living field of infrastructure and a hybrid of cultural and natural systems. It discusses and critiques the concept of resilience as a position—does it lack radical change at its core? How does it apply particularly in the context of countries in different stages of the urbanization process and where social justice and democracy are nascent? Can it help to define and catalyze a positive future for a post-fossil-fuel community?

<READING NY URBANISM>

[Summer 2019] Cassim Shepard, Jesse Hirakawa

This course introduces NYC as a laboratory of historical experiments in both designing and understanding the urban environment. The goal is to arm students with the observational and representational tools to read the city and the multiple forces that influence its physical form and social experience and to represent these forces in short documentary videos. The class delves into specific places throughout the City’s five boroughs and analyzes how different actors have interpreted, represented, or intervened in these sites over time.

<PUBLIC SPACE: RHETORICS OF THE PEDESTRIAN>

[Spring 2020] David Smiley

To refine an examination of public space, this seminar focuses on the pedestrian, the walker in the city and the prime user of public space. It includes shoppers, workers, tourists, vendors, residents, demonstrators, or homeless, of different races, classes, and origins, of different capacities and with different expectations. None have the same access to, or status in, public space. How do pedestrianized spaces evidence these differences? How are forms of power or authority articulated in particular spaces?

<COTTON KINGDOM, NOW>

[Spring 2020] Sara Zwede

This seminar investigates the relationship between major contemporary issues in urban discourses with the documented conditions of cities in Olmsted's 1861 book, Journeys and Explorations in the Cotton Kingdom. It positions Olmsted's journey not only as source material but also as a methodological proposition, in reflection on the significance and methods of research and representation in design practice.

<STUDIO III: WATER URBANISM | THE GREAT RIFT VALLEY> Kate Orff (Coordinator), Lee Altman, Adriana Chavez, Dilip da Cunha, Fitsum Gelaye, Geeta Mehta, Thad Pawlowski, Julia Watson

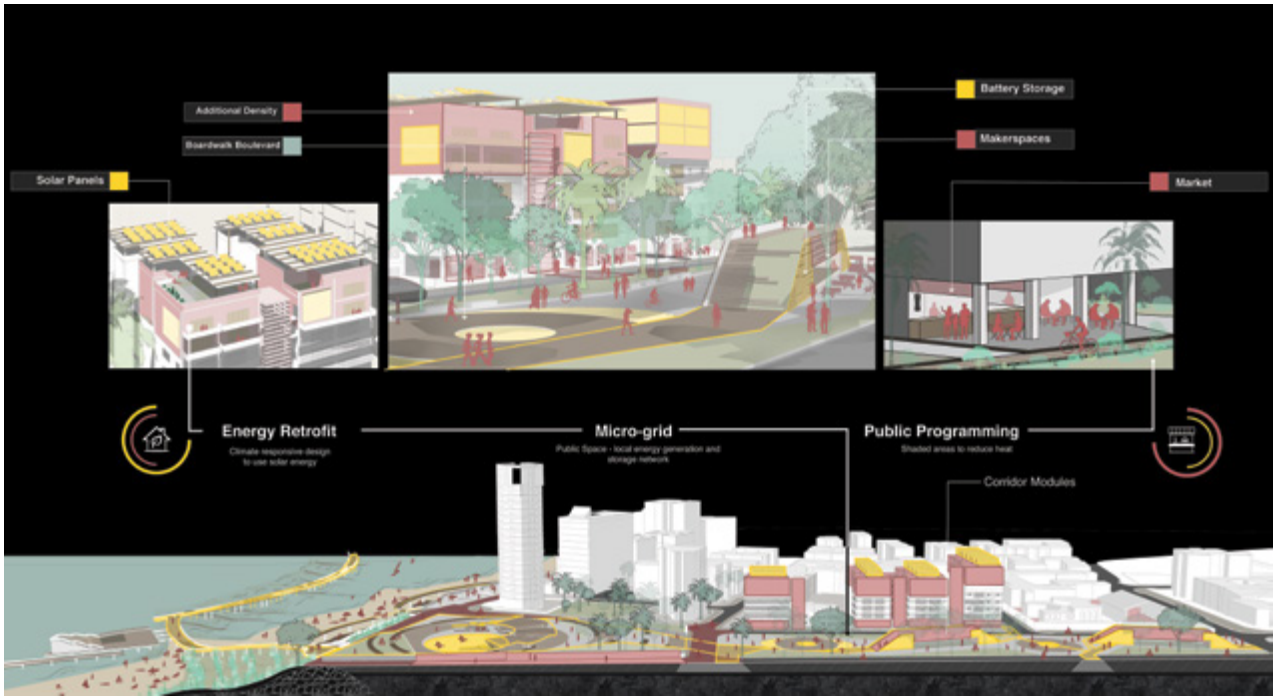
This studio explored how three cities along the Rift—Tel Aviv-Yafo, Israel; Addis Ababa, Ethiopia; and Beira, Mozambique—might forge systems and spaces to span this divide amid rapid urbanization and while grappling with the unique impacts

Ashwin Nambiar, Jaime Palacios, Joy You-Chiao Wu, Ting Zhang, Xinyue Liu

Seeding the Machamba explores community agriculture as water management infrastructure and a framework for resilient neighborhood design.

Hugo Bovea, Nina Ndichu, Kunal Mokasdar, Sharvari Raje

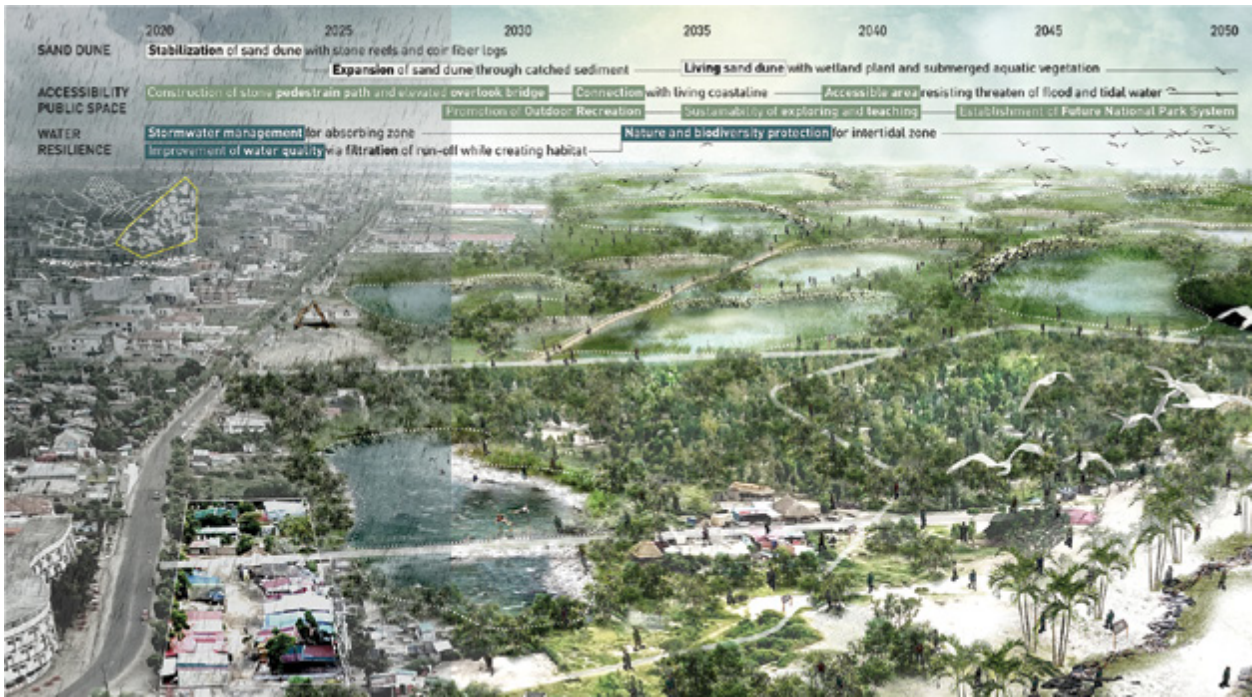
Social Solar combines renewable energy and urbanism in Bat Yam to design a resilient, future-focused city.



of the climate crisis. Student design projects imagined creative alternatives to address the interrelated risks faced by vulnerable populations. These include extreme heat in Tel Aviv, flash flooding due to river floodplain development in Addis Ababa, and coastal inundation and disaster recovery in Beira, which was struck by Cyclone Idai in 2019. Marked with fossil evidence from the beginning of human civilization, the Great Rift Valley encourages bold thinking about the Earth's next 100 years of habitability and urban design response.

Hatem Alkathlan, Einat Lubliner, Sushmita Shekar, Pratibha Singh

Re-defining Capital proposes a Central Business District co-operative in Addis Ababa to enable an inclusive public realm, aerate and clean the river, and improve accessibility.



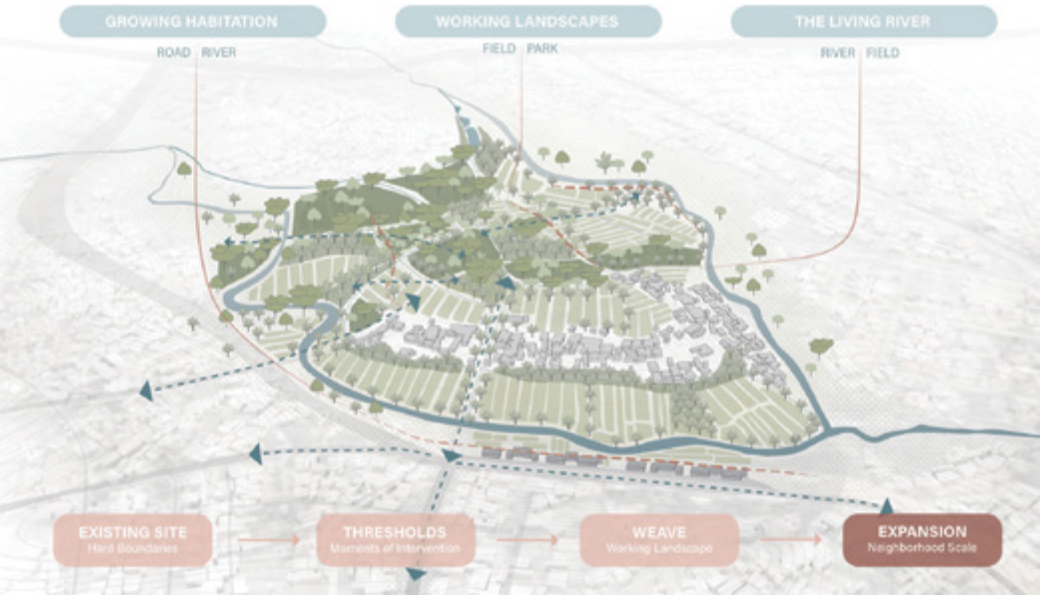
Scott Guo, Alvi Khan, Menghan Zhang, Yao Yao

Living Coastline introduces a strategy for resilient recovery supported by natural and social capital in Beira.

<STUDIO III: WATER URBANISM | THE GREAT RIFT VALLEY>

Tian Hao, Danwei Pan, Kuan-I Wu, Zixuan Zhang

Well House Renaissance combines ancient technologies with the Tel Aviv-Yafo well house network to create a cooling ventilation system.



Moneerah AlAjaji, Mary Allen, Anai Perez, Nikita K

ReciproCITY designs a system of habitation that includes the river, plants, and animals, as well as people.

Sophie Lee, Minjung Lee, Hala Abukhodair, Eleni Kalapoda

Akaki Regional Trust reimagines the Akaki lowlands as a regional water filtration park and working landscape.

German Bahamon, Vasanth Mayilvahanan, Sophia Palvasha Khan, Angus Palmer

Tal Fuerst, Claudia Kleffmann, Laszlo Kovacs, Victoria Vuono

Traversing The Rift builds on the dynamic street life in Piazza, Addis Ababa to create connections to the river and reclaim the natural gorge as a public space.

<STUDIO II: DEFINING THE REGION | A GREEN NEW DEAL FOR THE HUDSON VALLEY>
Kaja Kühl (Coordinator), Anna Dietzsch, Jerome Haferd, Liz McEnaney, Justin Moore, Shachi Pandey, Raafi Rivero, David Smiley, & Dragana Zoric

This studio explored the Hudson Valley's rural/urban socio-spatial ecosystems to address the global climate crisis as part of a GSAPP-wide collaboration "Public Works for a Green New Deal." Students worked in teams to investigate the region's ↗

Vasanth Mayilvahanan, Annie Wu, Wei Zhang, Moneerah AlAjaji

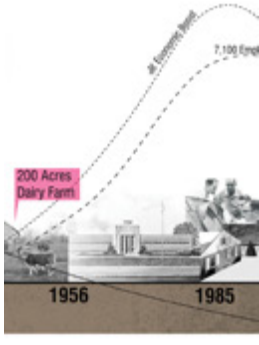
What's on your plate? Food as knowledge aims to change diets of the next generation to influence a shift to low-emission diets.

Lino Caceres, Kunal Mokasdar, Jaime Palacios, Yile Xu

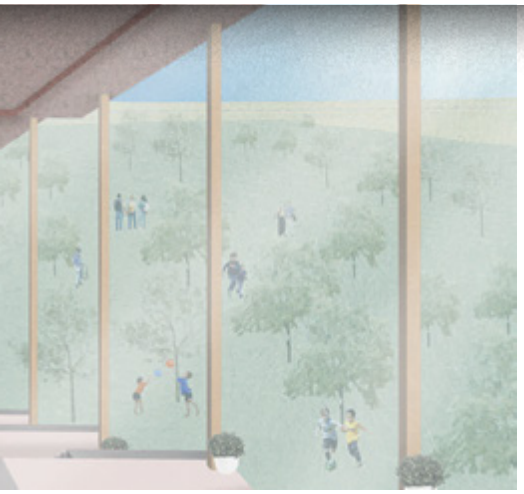
This project explores GND as an opportunity to create programs that empower stakeholders, and redirect resources towards the reversal of urban sprawl.

Anai Perez, Danwei Pan, Pratibha Singh, Zixuan Zhang

Green it, Clean it tackles contamination while improving soil health, sequestering carbon, and restoring the productivity of the land.

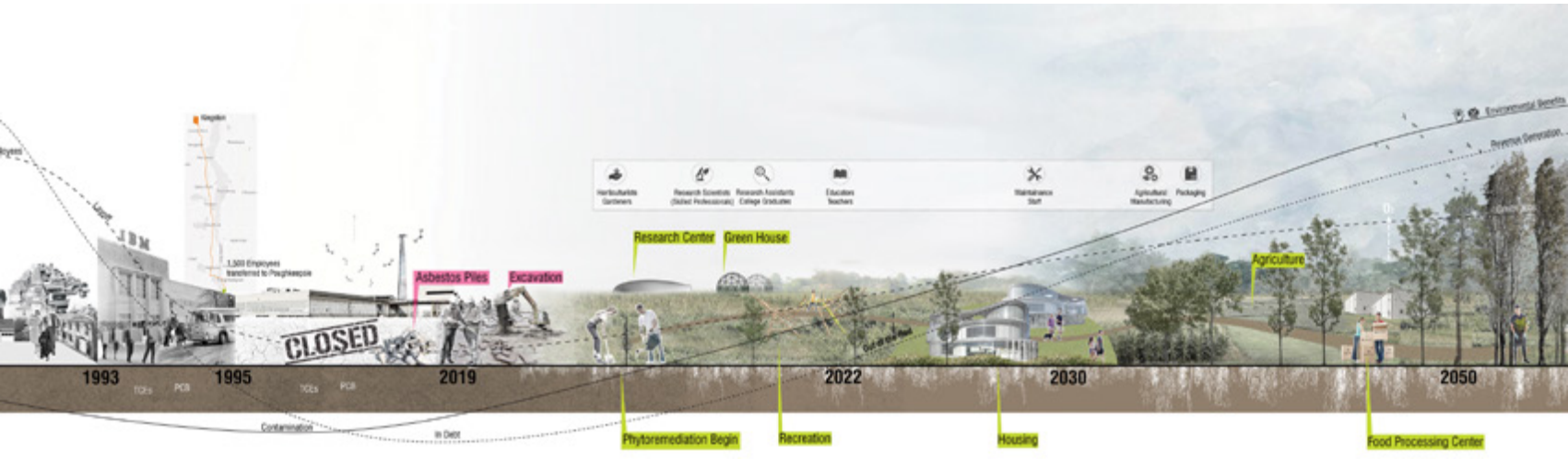


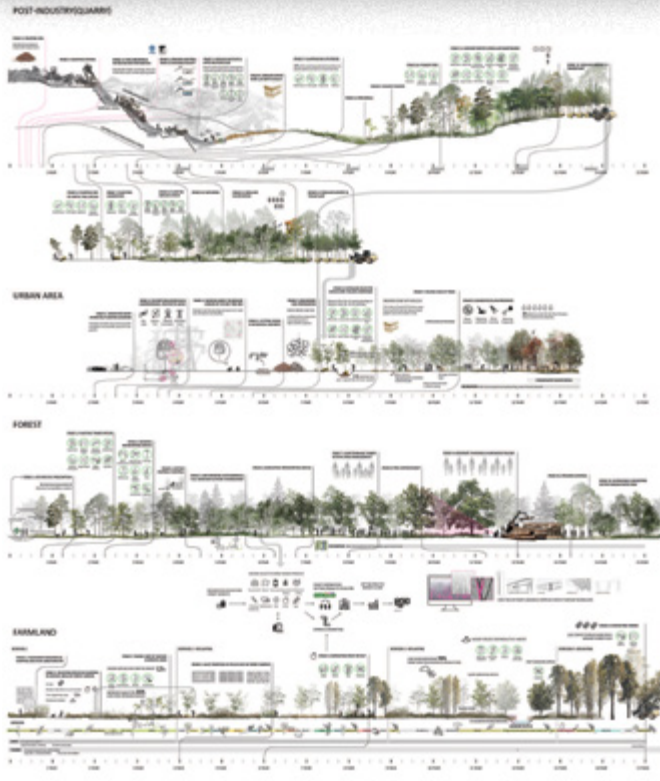
various layers of social and physical infrastructure. Working closely with local stakeholders, elected officials, organizations, non-profits, community groups, and planning and design professionals, these provocations identify pathways for systemic changes to the cities, towns, villages, and landscapes of the region and envision just and equitable pathways towards decarbonizing the region.



Antonia Medina Abell, Hugo Bovea, Tal Fuerst, Sharvari Raje

Good(s) Shift proposes an industrial working waterfront that will agglomerate two vital segments of the Hudson Valley's agricultural operations: processing and distribution.



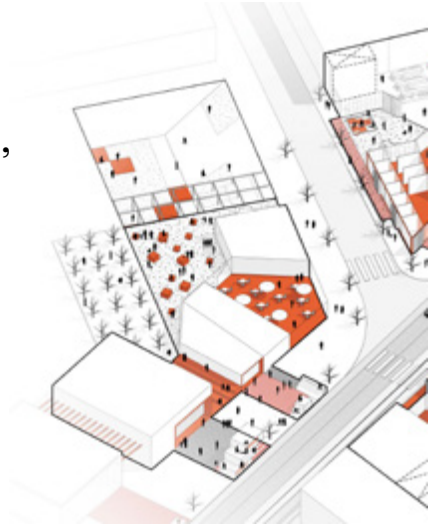


Tian Hao, Eleni Stefania Kalapoda, Kuan-I Wu, Menghan Zhang

Carbon Sequestration roposes to reforest underutilized and inefficient land in Kingston, NY to create a linked carbon sink.

Chris Zheng, Hatem Alkhathlan, Einat Lubliner, Sushmita Shekar

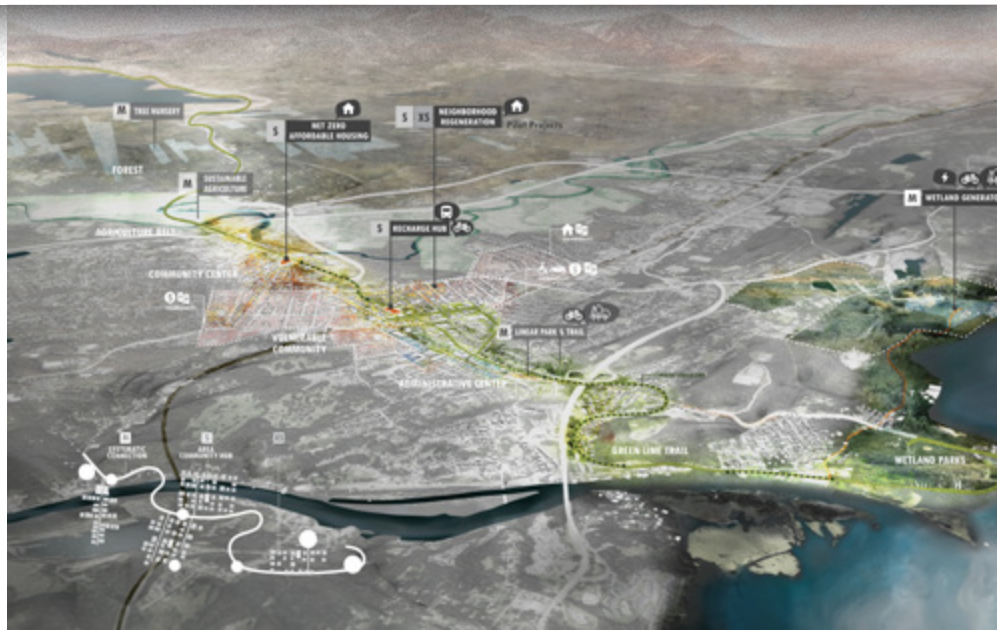
Post Retail Scape establishes a shared collaborative platform for small businesses by sharing space, energy, resources, waste management, and storage.

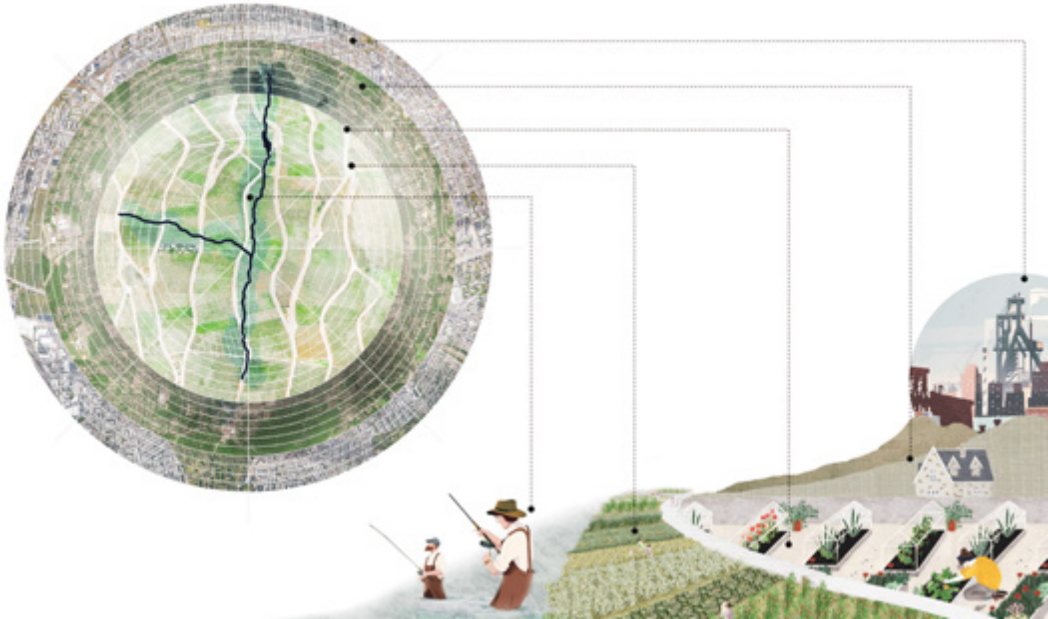


Aasiya Maaviah, Zhen Hua, Yuan Qin, Alvi Khan

A Sentence Rewritten reimagines the Hudson Valley's prison infrastructure in terms of the Green New Deal.

You-Chiao Wu,
Mary Elizabeth Allen,
Minjung Lee,
Candelaria
Mas Pohmajevic





German Bahamon,
Claudia Kleffmann,
Nina Lish, Nina Ndichu,
Angus Palmer

Migroculture relies on regenerative Agriculture, introducing a system that enables farmers to share land and develop social networks.

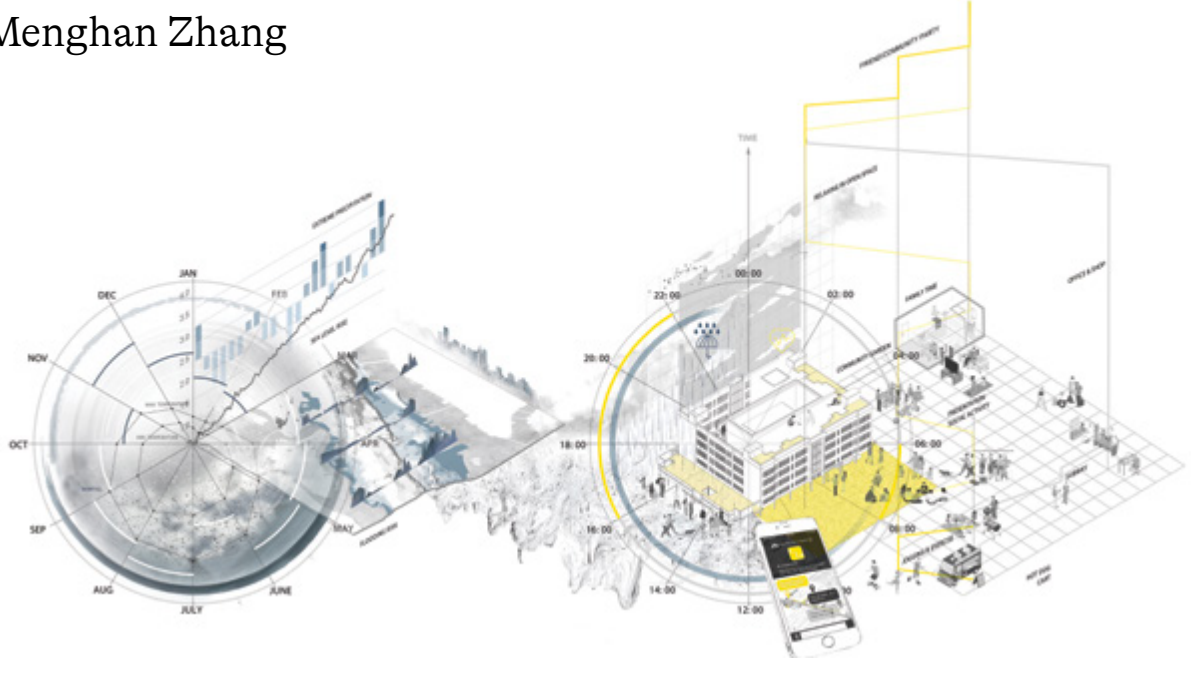
<STUDIO I: THE FIVE BOROUGHS> Tricia Martin and Nans Voron (Coordinators), Hayley Eber, Sagi Golan, Quilian Riano, Austin Sakong, Shin-pei Tsay

For American metropolitan regions like New York, the neighborhood as contested social and physical territory is central to popular, journalistic, political, and design discourses. It is also a place of experience and emotion. The neighborhood-focus of the studio underscores our role in an ongoing process of

German Bahamon

Love Island City re-imagines public space to enable encounters and potential dates.

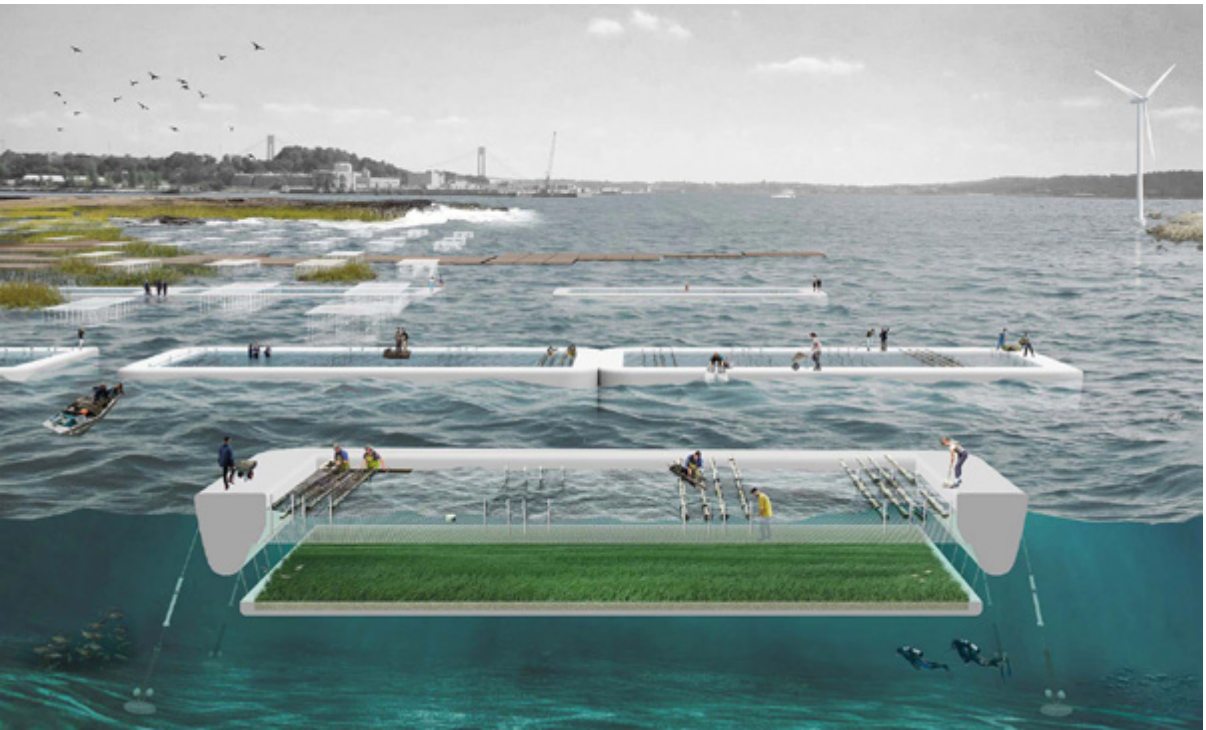
Menghan Zhang



change and through which you can rethink, reshape and regenerate an urbanism of the 21st century. In particular, working in post-industrial and climate-stressed conditions requires the critical interrogation and redefinition of multiple layers of existing and historic fabrics and infrastructures (in and beyond the neighborhood) in order to address the social life of current and future inhabitants.

Einat Lubliner

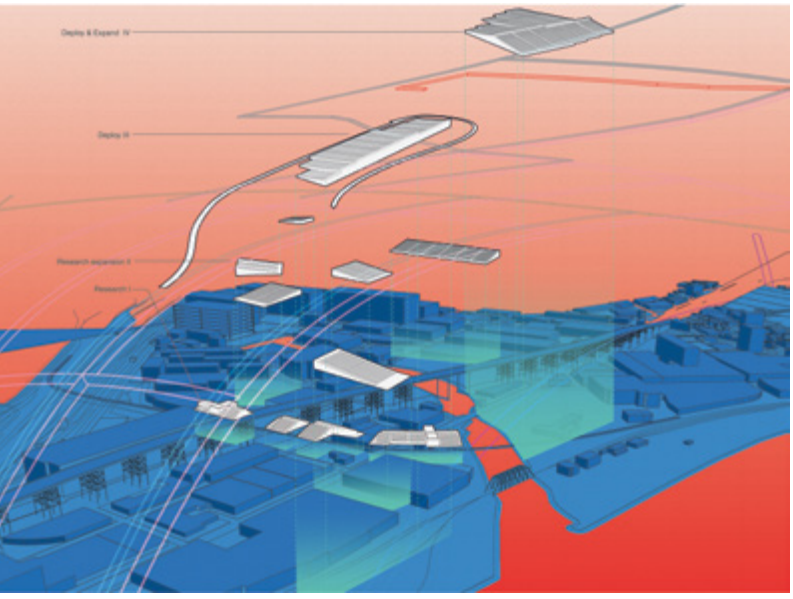
Lot(s) of People proposes temporary pop-up spaces on privately-owned land and permanent structures to address flash flood challenges on publicly-owned lots.



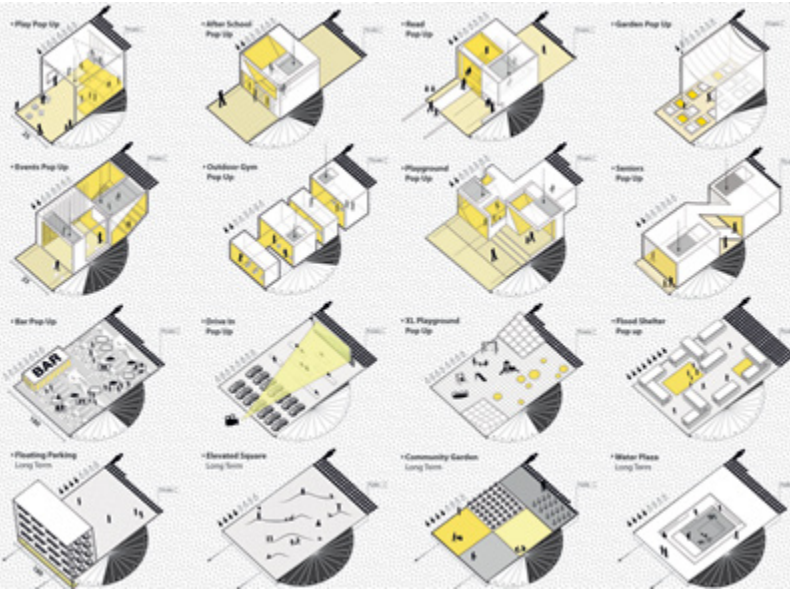
Jaime Palacios Anaya

This project provides a resiliency framework to protect the waterfront IBZs through the lens of ecology, community, and economy.

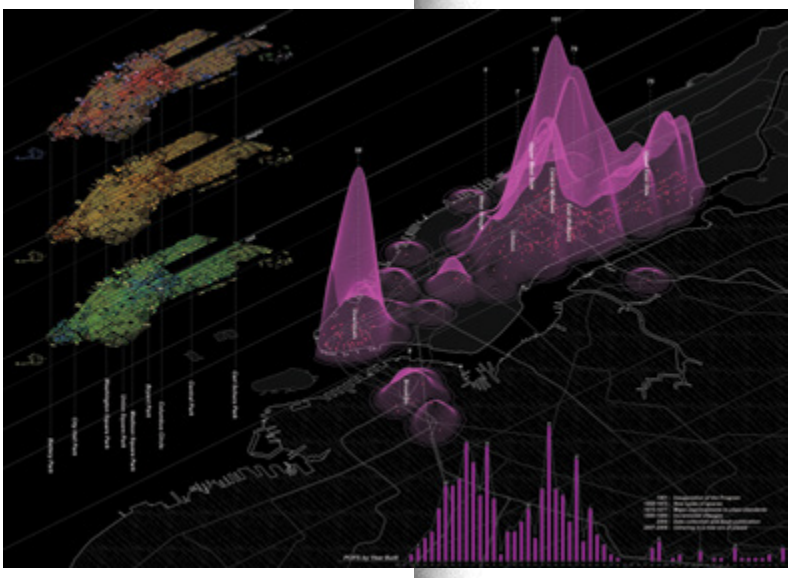
Ashwin Nambiar



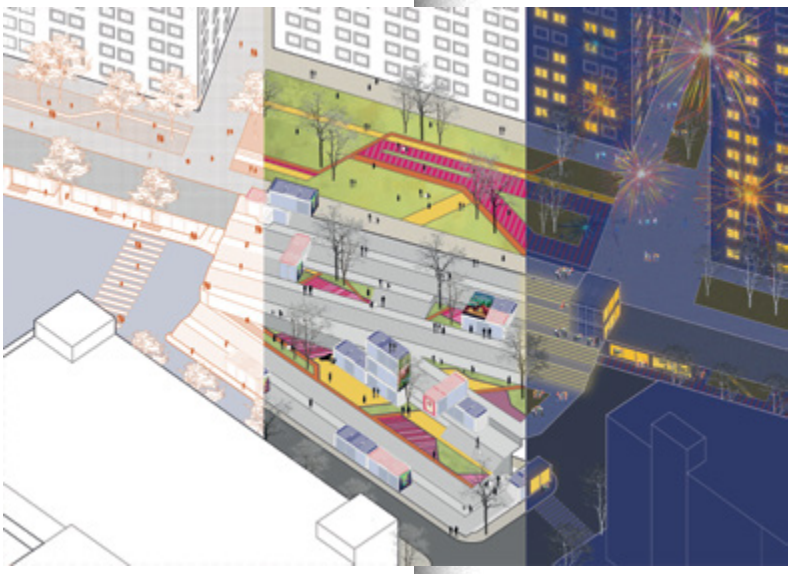
Einat Lubliner



Mansoo Han



Shuo Han



M.S. Urban Planning
Weiping Wu, Program Director

The Master of Science in Urban Planning (MSUP) is an accredited two-year professional degree program. Actively engaged in practice and globally minded, the Urban Planning curriculum connects the study of the urban built environment with a grounded analysis of socioeconomic and political conditions. Paying particular attention to the role of urban analytics and the quest for social justice, we explore the tensions between market forces, civil society, and the goals of planning. Our students collaborate and learn to evaluate, shape, and lead efforts to develop and enhance cities and communities in ways that promote healthy, resilient, and sustainable living. By studying the impact of global linked processes (e.g. immigration and climate change) as well as local conditions on cities and communities, students also think creatively about approaches to improve processes and outcomes of planning. Students are required to choose at least one concentration area among four options:

Built Environment
Planning of the built environment balances competing demands on the land and environment brought about by urban and rural growth. This concentration prepares students to work with stakeholders to guide public and private development processes in ways that ensure an adequate supply of land and resources to meet people's present and future needs, while complying with environmental and fiscal requirements.

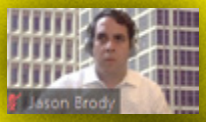
Community and Economic Development
Planning education promotes the redistribution of resources and social justice in cities as much as the creation of wealth. This concentration prepares students to undertake community and neighborhood planning and decision-making, local economic development, and/or housing and redevelopment activities.

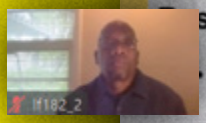
International Planning and Development
This concentration prepares students to work with governments, NGOs, consulting firms, and international development agencies around the world. Students receive multidisciplinary training to understand the impact of global flows as well as local conditions on cities and communities in various world regions and to think creatively about planning approaches in developing countries.

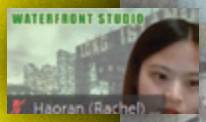
Urban Analytics
This concentration prepares students to engage and assess the increasing abundance and availability of data to address urban problems, collaborate on design projects for the built environment, and inform planning efforts within a variety of contexts and practices.

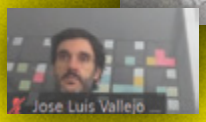
The work completed during the 2019–2020 academic year shows how MSUP students have prepared to become visionary thinkers and change-makers. Faced with uncertainties that COVID-19 brings, they embraced the professional challenges and responsibilities with sensitivity and courage.

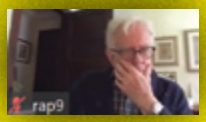
Urban Planning Spring



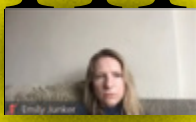


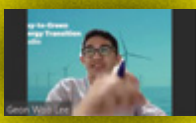


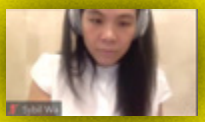


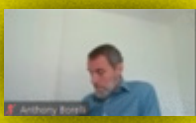


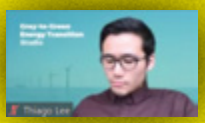
Waterfront Development in Long Island City
Jason Brody (Studio Critic), Lance Freeman, Shinichi Yoshihara '20 MSUP, Haoran Zhang '20 MSUP, José Luis Vallejo, Richard Plunz

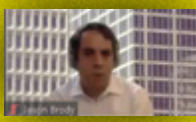


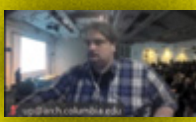


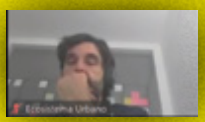


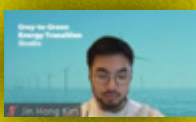


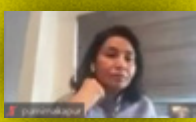


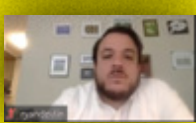




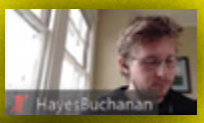


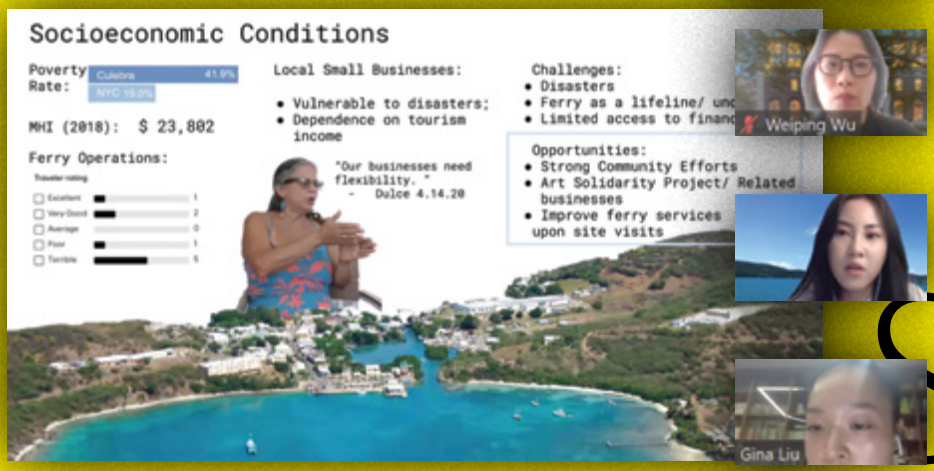






Caribbean Reconnections–A Sustainable Future for Puerto Rico
Hayes Buchanan '21 MSUP, Weiping Wu, Lisa Li '20 MSUP, Gina Liu '20 MSUP





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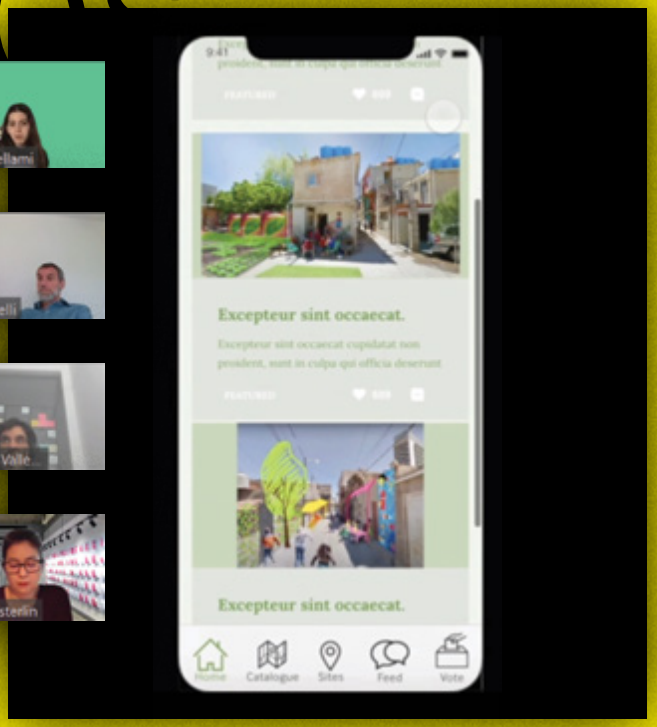
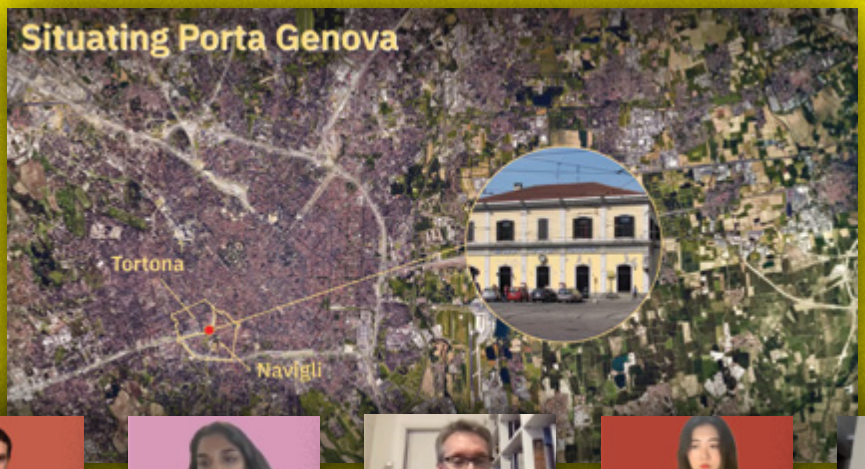


Weiping Wu (Program Director), Geon Woo Lee '20 MSUP, Michael Montilla, Emily Junker '20 MSUP MSHP, Ryan Devlin, Tara Heidger, José Luis Vallejo, Peter Kim, Sybil Wa, Leah Meisterlin, Douglas Woodward, Anthony Vanky, Thiago Lee '23 MArch MSUP, Xifan Wang '20 MSUP, Brent Ryan, Purnima Kapur, Anthony Borelli, Jason Brody, Priska Marianne '20 MSUP, Jin Hong Kim '20 MSUP

Reimagining Informality thru Public Space in Buenos Aires and Informal Vending in NYC
Natalie Baldacci '20 MSUP, Madeline Ariel Pena '20 MSUP, Zeineb Sellami '20 MSUP, Anthony Borelli (Studio Critic), José Luis Vallejo (Studio Critic), Leah Meisterlin



Reimagining Porta Genova Station Area in Milan / Meatpacking BID for COVID Recovery
Jason Mencher '20 MSUP, Sanjukta Hazarika '20 MSUP, Gabriele Masera, Zixuan Zha '20 MSUP, Ryan Devlin

2020

<JOINT HISTORIC PRESERVATION AND URBAN PLANNING ADVANCED STUDIO III>

[Fall 2019] Erica Avrami, William Reynolds

The Heritage and Sustainable Urbanization: Freetown, Sierra Leone Studio, in collaboration with students from Fourah Bay College, embarked on a study of the intersection of heritage conservation and urban planning. To describe the current and potential uses of heritage in the social and physical fabric of the city and inform current efforts to improve planning governance and update heritage laws and policies, the team presents the results of their field survey and subsequent analysis. Their work sheds light on the opportunity to instrumentalize heritage as a tool in promoting civic dialogue, equity, and sustainability in the urbanization of Freetown. Students: Mariana Avila Flynn, Sreya Chakraborty, Fei Deng, Maya Ephrem, Aline Estefam, Shreya Ghoshal, Scott Goodwin, Emily Junker, Sarah Sargent, Micah Tichenor, Savanna Wu

<STUDIO: NYC GREY TO GREEN ENERGY TRANSITION>

[Spring 2020] Anthony Borelli, Graham Trelstad

This studio identifies strategies and opportunities related to the eventual closure of peaker power plants in NYC, specifically balancing community priorities with future energy-related demands. In doing so, the studio analyzed 311 complaints to understand community concerns, created an index to identify “disadvantaged communities,” developed strategies for “benefits of spending,” conducted feasibility studies on solar and batteries, and proposed repurposing scenarios demonstrating new ideas of energy infrastructure on 3 peaker power plant sites in Port Morris and Sunset Park. The client is the NYC Department of City Planning, Strategic Planning Division. TA: Gayatri Kawlra. Students: Justin Barton, Riley Burchell, HK Dunston, Yuning Feng, Yiyi Jiang, Jon Hong Kim, Geon Woo Lee, Hongsong Lee, Thiago Lee, Priska Marianne, Xifan Wang, Angel Yin

<STUDIO: WATERFRONT DEVELOPMENT IN LONG ISLAND CITY>

[Spring 2020] Jason Brody, Sybil Wa

This study seeks to provide the client, NYC Department of City Planning Queens Office, and the community a vision for LIC Waterfront that can untangle three pressing issues: economic development, public realm, and resilience. Through direct and indirect community engagement processes and examination of previous plans, the proposal aims to balance public value as well as private development rights. Recommended interventions that follow are expected to create a synergistic effect as a whole and bring people back to the Waterfront. TA: Rebecca Noble; Students: Ryan Eustace, Jinkil Lee, Qi Lin, Shinichi Yoshihara, Haochen Zhang, Haoran (Rachel) Zhang

<STUDIO: REIMAGINING INFORMALITY THROUGH PUBLIC SPACE IN BUENOS AIRES AND INFORMAL VENDING IN NYC>

[Spring 2020] Ryan Devlin, Jose Luis Vallejo

This studio project began as a study of informality and public space in Barrio 31 in Buenos Aires, in which a proposal was developed to build a unified community and increase green space, thus allowing it to become an integral neighborhood. Halfway through the semester, due to travel restrictions related to COVID-19, the studio expanded its scope to include the study of informal street vending in Jackson Heights and Corona in Queens. The research aims to explore the different restrictions that hinder the operation of street vendors and bridge the gap between these regulations and the reality of selling on the street. TA: Tara Heidger; Students: Myles Aguadelo, Natalie Baldacci, Xiyu Chen, Colin Hancock, Mariana Hinojosa Ronquillo, Elaine Hsieh, Soyeon Kim, Qingyuan (Lily) Li, Juan Moreno, Madeline Pena, Yuan Qin, Vicky Zhou

<JOINT ARCHITECTURE AND URBAN PLANNING STUDIO>

[Spring 2020] Richard Plunz, Douglas Woodward

The Caribbean Reconnections: A Sustainable Future for Puerto Rican Islands Studio is part of a series focusing on the island of Vieques. It focuses specifically on the neighboring island of Culebra and the Main Island at the Municipality of Ceiba—all three sites share problems related to transportation and general developmental issues. This studio continues to engage the study of infrastructure, building, and livelihood futures begun in Vieques while expanding the scope of architectural design to include planning, policy, and implementation issues. The core concerns of infrastructural development remain. An overriding concern of the studio is exploring the developmental advantages of infrastructural improvements in maritime-related infrastructure.

<STUDIO: REIMAGINING PORTA GENOVA STATION AREA IN MILAN/MEATPACKING BID FOR COVID RECOVERY>

[Spring 2020] Francesco Rossini, Weiping Wu

This proposal seeks to unify urban fragments by concentrating development and activity along a “green corridor”, creating a soft but significant buffer. Station infrastructure is set to become a festival marketplace and the iconic waterfront will be extended. Further, this plan includes a Social Housing development for university students and young adults in Tortona, a population that is set to grow. This project aims to achieve many of the city’s goals such as increasing the amount of green space, reducing neighborhood fragmentation, and promoting inclusivity, all while protecting its rich industrial heritage. The clients are Sistemi Urbani and the Meatpacking Business Improvement District. TA: Emily Junker; Students: Sebastian Andersson, Mengqi Cao, Lanier Hagerty, Sanjukta Hazarika, Hui Lu, Jason Mencher, Nicholas Perry, Zeineb Sellami, Jiuyu Wang, Hanzhang Yang, Zixuan Zha

<TECHNIQUES OF PROJECT EVALUATION>

[Fall 2019] Moshe Adler

The course has two parts: cost-benefit analysis and economic development. Cost-benefit analysis deals with the taxpayer as a consumer while economic development, which has become an important function of government, deals with the taxpayer as a worker in need of employment and with businesses as a source of tax revenues.

<ECONOMICS FOR PLANNERS>

[Spring 2020] Moshe Adler

This required course reviews the basic concepts and methods of urban economics with a major emphasis on location and land-use economics. It provides an examination of both equilibrium-based models and the new critical models derived from analyses of the production process and spatial organization.

<URBAN DESIGN FOR PLANNERS: FROM URBANIZATION TO NETWORKED URBANISM>

[Spring 2020] Stefan Al

This course helps students acquire the principles that can inform urban design practice. It has three major pedagogical objectives. First, it helps students understand the contemporary city through a series of urban design tools. Second, it covers both historical and modern urban design principles. Finally, it includes all the scales in which urban designers operate, ranging from the fundamentals of social interaction in public space to environmental sustainability of a region.

<SUSTAINING ACCESS AND MOBILITY IN CITIES>

[Spring 2020] Jitendra Bajpai

This course covers planning practices to achieve access and mobility in global cities. The lectures and project-based case studies prepare students to address the key issues under three interconnected themes: accessibility management at regional and local (e.g., Transit-Oriented-Development) levels to nurture growth, inclusiveness, and a healthy environment; mobility planning covering emerging transport technologies, modal integration, pricing, incentives, regulations and zoning measures to promote efficient, affordable and low-carbon travel; and governance and funding to strengthen synergies between land-use planning and transport.

<ON SPATIAL EXCLUSION AND PLANNING>

[Fall 2019] Hiba Bou Akar

This course investigates the idea of geographies of exclusion through a multi-disciplinary inquiry that locates spatial production and planning practice at its center. The course cross-thinks issues of spatial exclusion and social justice across cities in the Global North and the Global South. What are the geographies of exclusion? Who gets excluded, why, by whom, and how? What are some of the legal, spatial, socio-economical, moral, and political apparatuses that get articulated in producing segregated spaces of poverty and lavishness, violence and fear, connectedness and confinement? What are the roles of state agencies and “experts” such

as planners, architects, and policymakers in producing such geographies, and how are these practices reproduced in the everyday? To that end, students examine the mechanisms through which certain populations in our cities are left “outside” (through gated communities, “mean” streets, policing, security barriers, segregated parks, etc.), or kept “inside” (prisoners, refugees in camps, locked-in domestic workers, etc.).

<PRACTICUM: PLANNING IN THE CULTURAL SPACE>

[Spring 2020] Vin Cipolla, Peter Flamm, Douglas Woodward

This practicum provides a complete picture of the current trends and issues in planning for cultural spaces, especially performing arts centers (PACs), cultural innovation districts (CID), and creative clusters. Students investigate the paradox of the tremendous surge in cultural planning and development in the face of the dwindling appeal of the traditional performing and visual arts. As competing options in all the arts and the increasing accessibility of personal digital platforms for popular music and performances are changing the ways the arts are curated, produced, and consumed, cultural organizations are facing existential questions about the shape of what their future should be.

<FUNDAMENTALS OF URBAN DIGITAL DESIGN>

[Fall 2019] Jennifer Chang, Andrew McGee

This course provides conceptual and practical tools to enhance the visual literacy of urban planners and an overview of how to understand and communicate projects that range from the scale of the building to that of the city. Classes observe and discuss techniques of effective visual communication and explore the methods and details of realizing such work using the Adobe Suite, AutoCAD, and SketchUp. Students develop an urban argument through the design of visual instances: photos, series, maps, plans, sections, diagrams, charts, renderings, and video.

<PROTOTYPING FOR URBAN POLICY AND DECISION-MAKING>

[Fall 2019] Clara Chung, Kaz Sakamoto

The objective of this course is to teach students the process of conceiving and executing a prototype or MVP for urban policy and decision making purposes. It also teaches how to leverage technological tools such as R, Tableau, and other wireframing tools to build a product. The final outcome is a demo of a novel product and a product guide.

<HISTORY AND THEORY OF PLANNING>

[Fall 2019] Ryan Devlin

This course provides a survey of key historical moments and contemporary theoretical debates that have shaped the field of urban planning. It emphasizes how the profession has been shaped simultaneously by local socio-economic, political, and spatial processes as well as transnational and global circulations of capital, commodities, services, and people. First, the course introduces students to key paradigms in planning thoughts and provides insights into the struggles and complexities that have shaped the field. It focuses on how planning practices have been implemented, negotiated, transformed across cities of the Global

North and Global South. Second, the course enables students an in-depth understanding of how spaces are developed, governed, lived, and contested, by foregrounding debates on spatial justice that have been central to planning practice. Third, it invites students to reflect on the role of the planner-practitioner by examining the various spatial formations that planners aim to professionally engage and transform and the ethical implications of planning interventions.

<URBAN INFORMALITY>

[Spring 2020] Ryan Devlin

In cities of the Global South and Global North, informal practices play an important role in the urbanization processing and the structuring of urban space, social life, and economic activity. Students learn about the informal city from a variety of perspectives. They review the history of the concept of informality in the social sciences, analyze various examples of informal practices (e.g. housing, income-generating strategies, transportation), and critically evaluate past attempts by cities to address informality. In addition to surveying empirical examples, the class also delves into theoretical questions about informality.

<PRACTICUM: RESIDENTIAL PLANNING IN GLOBAL CITIES>

[Spring 2020] Kate Dunham

This seminar provides students with a hands-on opportunity to understand how planning regulations—specifically residential codes—shape the design and function of urban neighborhoods. Students are exposed to an array of different approaches to residential planning from around the world. They work in teams to develop zoning case studies of distinctive residential districts selected from global cities and explore ideas about how regulatory codes can address the challenges that accompany the unprecedented urban expansion.

<WRITING THE CITY>

[Fall 2019] Charles Euchner

This writing-intensive course explores the practice of writing and the experience of the city and planning simultaneously. First, it explores the nature of the city with special attention given to the greatest of them all. It also explores other dimensions of NYC's urban life through its people, places, and processes. Second, it focuses on the craft of writing.

<COMMUNITY OUTREACH AND ENGAGEMENT: A HARLEM PRACTICUM>

[Fall 2019] Flores Forbes, Maxine Griffith, Victoria Mason-Ailey

This course provides students with an opportunity to actively participate in the community engagement process, guided by a set of lectures, readings, and case studies, as well as the experiences of knowledgeable practitioners. In teams, students undertake a semester-long exchange with stakeholders around one of three university-sponsored projects. They learn standard techniques of engagement; how to determine who truly represents a given community; how to conduct public meetings and presentations; the use of oral, graphic, written, and social media tools and approaches to cope with racial, ethnic, and class sensitivities. The

Fall 2019 projects are: cloud enhanced open software-defined mobile-wireless testbed for city-scaled deployment COSMOS, post-incarceration reentry plan for West Harlem, and Community Promises Kept.

<QUANTITATIVE METHODS>

[Spring 2020] Lance Freeman

The purpose of this class is to introduce students to the concepts, techniques, and reasoning skills necessary to understand and undertake quantitative research. Students learn how to design a quantitative research proposal; conceptualize a quantitative statistical model; estimate a quantitative statistical model; interpret the results of descriptive analyses, t-tests, chi-square, and multivariate regression analyses; conduct statistical power analysis; and learn to use R for Statistical analysis.

<THESIS/CAPSTONE I AND II>

[Fall 2019, Spring 2020] Lance Freeman

This course is an essential part of the planning curriculum. It is an individual study or investigation of the student's own choice but with close supervision by a full-time faculty member. The thesis demonstrates the student's ability to structure an argument surrounding an issue or problem significant to planning practice, planning theory, or the profession itself.

<INTRODUCTION TO HOUSING>

[Spring 2020] Lance Freeman

This course provides students with the analytical skills and knowledge to understand what is necessary to plan for housing. In doing so, it addresses many of the housing issues that have vexed planners and policymakers for decades.

<PUBLIC FINANCING OF URBAN DEVELOPMENT>

[Spring 2020] Richard Froehlich

This course explores how public entities finance urban development on a pay-as-you-go budget basis and by issuing public securities. By examining different kinds of financial tools, the class reviews how investments are made in mass transit, healthcare facilities, schools, public utilities, airports, and housing. The class also delves into rating agency requirements, security disclosure rules, current market dynamics, and the mechanics of offering bonds for public sale. Students discuss criticism of public financing and look at failures and bond defaults. They also review offering statements and related financial information for actual financial transactions in the public markets.

<GLOBAL PRACTICES AND POLICY IN URBAN RISK, RESILIENCE, AND CRISES>

[Fall 2019] Ebru Gencer

This course provides an overview of the state-of-the-art practice and policy for urban risk reduction, resilience building, and engaging with urban crises on the global stage. Students gain an in-depth understanding of how such practices and policies are integrated into the planning

and design process, discuss commonly used planning methods such as zoning and building codes, and understand how these subjects relate to urban issues, such as governance, finance, and participatory planning among others. Enabling conditions and challenges to resilient and equitable planning are also explored.

<PLANNING METHODS AND LAB>

[Fall 2019] Malo Hutson, Valerie Stahl

This introductory course prepares students for common analysis methods used in planning practice. Students explore common methods of analysis using publicly available data sets and data collected through assignments and gain a basic understanding of the tools and skills required in planning practice.

<EXPLORING URBAN DATA WITH MACHINE LEARNING>

[Spring 2020] Boyeong Hong

Urban planning decisions are inherently difficult, as cities comprise systems of immense complexity and increasingly large volumes of data. While planners aren't new to qualitative and quantitative tools to model such decisions, this course engages the role of technologies in the planning process by focusing on challenges and advantages gained from data munging, machine learning, and data visualization. Students describe, model, and evaluate their results alongside the history and theory intersecting technocracy and urban planning.

<AFFORDABLE HOUSING IN HIGH DEMAND CITIES>

[Fall 2019] Purnima Kapur, Adam Weinstein

This course offers an investigation into the policies and practical tools that are used to create affordable housing in NYC, the birthplace of affordable housing in the US. It follows the evolution of affordable housing policy and practice, beginning with its origins as a purely governmental undertaking to the largest public-private partnership in NYC. Students gain an understanding of the varied and complicated tools used by practitioners, including financing techniques, land use, tax policies, and regulation.

<PLANNING LAW>

[Spring 2020] David Karnovsky

This core course provides a working knowledge of the history and legal foundations of land use regulation in the U.S. including zoning, historic preservation, and environmental review. Through an investigation of judicial opinions, municipal zoning ordinances, and secondary sources, it explores the regulatory techniques used by the government to regulate land use as well as the legal and policy issues they present.

<PROJECT MANAGEMENT: FROM IDEA TO EXECUTION>

[Fall 2019] Rebecca Karp

This practitioner-led course exposes students to fundamental project management concepts and the behavioral skills necessary to launch, lead, and actualize benefits from projects across sectors. Planners,

designers, policymakers, real estate developers, and those working in adjacent industries are often in a position of leading, supporting, or influencing projects and initiatives with multiple moving pieces.

<PLANNING FOR URBAN ENERGY SYSTEMS>
[Spring 2020] Peter Marcotullio
This class explores planning for urban energy systems. The first section examines the history of energy use in cities. The second section examines the components of contemporary urban energy systems from primary energy supply to end-use. The third section examines the consequences of urban energy use in cities including local to global environmental and health impacts as well as vulnerabilities. In the final section, students examine the politics and planning of these systems, paying particular attention to mitigation efforts.

<PLANNING AND THE NEW GREEN DEAL: A PRACTICUM>
[Fall 2019] Ariella Maron, Douglas Woodward
This course engages the proposed Green New Deal (H. Res. 109) from an urban planning perspective, investigating its political bases, technical feasibility, implementation strategy, and planning and land-use impacts. The course approach concentrates on the socio-technical aspects of the GND as opposed to strictly technical responses to climate change, to mirror the focus of the proposed legislation itself.

<LAND-USE PLANNING>
[Spring 2020] Jonathan Martin
This course presents the nuts and bolts of land-use planning as practiced in the U.S. today and provides the opportunity to develop/design a land-use plan for a small hypothetical city. Through lectures and readings, students are exposed to contemporary land-use planning issues (including urbanization and urban growth trends, ethics, quality of life indicators, ecological land-use planning, and inner-city revitalization).

<DATA SCIENCE METHODS FOR URBAN SYSTEMS>
[Spring 2020] Thomas Matarazzo
This course introduces recent literature on applications of data science and AI in the urban environment and emerging urban technologies. Students formulate specific questions about the urban environment that can be addressed through data science and AI, develop an understanding and the ability to select appropriate data science methods (Python, R, Matlab, etc.), learn to source real city data for analysis, and explain the usage of their methods and the impact of their findings.

<GEOGRAPHIC INFORMATION SYSTEMS>
[Fall 2019] Leah Meisterlin, Kaz Sakamoto, Clara Chung, Grga Basic
This course introduces core concepts of geographic information systems and science (as well as technical skills) critical for working within urban environments. Students learn critical approaches to spatial analysis and visualization techniques as well as data acquisition and

management, spatial research methodologies, and cartographic principles through a combination of lectures and focused lab sessions.

<COMMUNITY DEVELOPMENT PLANNING>
[Spring 2020] Moira O'Neill
This course prepares students to develop strategies for revitalizing forlorn inner-city neighborhoods. Students learn how to understand the various theories of neighborhood change, apply these theories to inform the development of revitalization strategies, and become familiar with techniques for analyzing and diagnosing neighborhood trends relevant to community development.

<RESILIENT URBAN PLANNING PRACTICUM: A GREEN NEW DEAL FOR APPALACHIA>
[Fall 2019] Thaddeus Pawlowski
This course explores the planning practice through the lens of resilience. It focuses on emerging approaches and strategies to climate adaptation in the built environment and integrating ecological imperatives and social justice into next century forms of infrastructure.

<INFRASTRUCTURE PLANNING AND PRACTICE IN DEVELOPING COUNTRIES>
[Spring 2020] Andrea Rizvi
This course covers cross-cutting themes in three types of economic infrastructure—water supply, electricity, and transportation—with a special focus on developing countries. It outlines the importance and difficulties of infrastructure service delivery by reviewing old and new theories of infrastructure and its links to economic development, as well as addressing the "right" to basic services and the politics of infrastructure provision. It then introduces the practice of designing and delivering infrastructure services by exploring the demand for infrastructure from firms and households; infrastructure delivery structures; options for financing services; governance considerations including management and incentives; and thoughts on the infrastructure planning process.

<PUBLIC SPACE IN THE PRIVATE REALM>
[Fall 2019] Ethel Sheffer
This course focuses on physical public space in its many forms: public parks, streets, sidewalks, plazas, and a zoning-created hybrid known as privately owned public spaces. We also examine innovative public spaces established above ground such as the High Line and others which are developed below elevated structures. Our focus is on major planning issues of design, theory and practice, uses, zoning, financing, and government regulation. Equally important is the analysis of pressing social issues of equity, accessibility, and safety for all groups living and working in cities.

<SOCIAL ENTREPRENEURSHIP AND THE URBAN BUILT ENVIRONMENT>
[Spring 2020] Kairos Shen, Kate Wittels
This course relies on a series of cases to illustrate and explore the ways in which cities—and planning—have changed with the acceleration of entrepreneurial activity across sectors in recent decades. Students are exposed to both academic thinking on important questions of ownership and public responsibility, as well as best practices in planning and policy designed to encourage successful integration of new technology and business models to improve how we live, work, consume, and play in cities today and into the future.

<DELIVERING URBAN PUBLIC INFRASTRUCTURE: PRACTICUM ON INDUSTRIALIZED CITIES>
[Fall 2019] Jamie Torres Springer
Many industrialized and post-industrialized cities find themselves with severe infrastructure challenges. This practicum examines key approaches to addressing these challenges, positioning the emerging professional to lead or work within multidisciplinary efforts to plan and deliver infrastructure in the modern industrial/post-industrial city. It includes a practical study of the planning, regulatory and legal environment for public infrastructure delivery, and examines case studies, such as NYC's coastal resiliency projects, the expansions of transit and transit-oriented development in London and Los Angeles, the planned investment by Sidewalk Labs in the Toronto waterfront, and the rollout of broadband and wireless technology.

<APPROACHES AND TOOLS FOR URBAN ECONOMIC DEVELOPMENT>
[Spring 2020] Jamie Torres Springer, Andrea Batista Schlesinger
The course applies a variety of lenses to the theory and practice of economic development in the urban context. It focuses on the evolution of goals and strategies—"traditional" growth-oriented economic development has aimed at attracting and retaining investment, talent, and amenities in cities practice but the practice has gradually evolved to understand that sustainable and equitable urban growth demands focus on quality job creation, inclusive investments, preservation of neighborhood character, and community engagement. The course provides a range of tools and an overview of the framework for analyzing and supporting outcomes of economic development in neighborhoods and more broadly, including regional economic analysis and economic impact analysis.

<SITE PLANNING AND SUPPORT SYSTEMS FOR DEVELOPMENT>
[Fall 2019] Graham Trelstad
Within this course, the specific techniques that planners and developers can employ toward achieving good site development are discussed, and a reasonable degree of skill in application is expected to be obtained by the students. To take specific physical actions alone is not enough—they also need to be understood in terms of their effectiveness and sustainability.

<ENVIRONMENTAL IMPACT ASSESSMENT>

[Spring 2020] Graham Trelstad

This course explores the key procedural elements of NEPA, SEQRA, and CEQR—the key analytic techniques used in impact assessment—and investigates how the application of environmental impact assessment affects project outcomes. Lectures introduce students to the statutory requirements of the laws, important judicial decisions interpreting the laws, and standard methodologies for conducting environmental assessments. Case studies illustrate the effects of the environmental impact assessment on the design and implementation of projects or governmental actions. Practical assignments offer an introduction to the state of practice and the range of analytical techniques used in environmental impact assessment.

<INTRODUCTION TO URBAN DATA AND INFORMATICS>

[Fall 2019] Anthony Vanky

This course provides an introduction to the technical, theoretical, and practice-based dimensions of urban analytics. It is centered around data acquisition, numerical analysis, spatialization, visualization and interaction, and civic technologies. Students learn major concepts, software tools, and analytical techniques to extract meaningful information from various data sources and theoretical underpinnings by which to critique them.

<URBAN DATA AND INFORMATICS II: SENSING PUBLIC SPACE>

[Spring 2020] Anthony Vanky

Participants in this hands-on workshop design and implement prototypes for the creating of data on human activity, and environmental conditions, and quality. Students also learn methodologies to analyze and present the data. This course asks in what ways can sensing technologies validate or challenge these theories of public space and social interaction, and how do we intersect them with aspects of environmental quality and justice, sustainability, equity, and overall general well-being?

<ADVANCED SPATIAL ANALYSIS>

[Spring 2020] Anthony Vanky

This seminar examines and develops techniques of spatial analysis and representation specific to urban contexts. It centers around key methodologies—advanced spatial statistics, spatial decision support systems, feature recognition, and interpolation—interrogating their use and applicability to different contexts in research and practice. It draws upon various disciplines to interrogate the state-of-the-discussion of GIScience as well as into the nascent, but tangential domains of complexity and network science.

<INTRODUCTION TO TRANSPORTATION PLANNING>

[Fall 2019] Rachel Weinberger

This course explores how planners understand transportation by viewing transportation in its historical context. It examines the theoretical underpinnings of the transportation/land use relationship, how transportation supports or undermines the economy, how it affects health and the environment, and finally how transportation planning is practiced. Topics include travel forecasting, travel behavior and demand management, the auto/highway system, public transit, livery, and transportation network companies, sharing (cars, bikes, scooters), equity and environmental justice, mobility pricing, and freight.

<METROPOLITAN PLANNING>

[Fall 2019] Thomas Wright

This course explores strategies for planning metropolitan regions, with a special focus on the institutions and issues that transcend local political boundaries, including transportation, resilience, housing, and governance. Drawing on the experiences of Regional Plan Association's four landmark plans for the New York region and national and international case studies, the course examines the success and failure of various strategies for protecting open space, addressing the challenges of climate change, supporting economic development, and affordable housing, and investing in transportation infrastructure.

<ADVANCED RESEARCH I AND II>

[Fall 2019, Spring 2020] Weiping Wu

Students can plan a course of self-study and inquiry under the supervision of an advisor who reviews and grades the work. This may involve library research, lab work, fieldwork, or other research methods, and the final product could be a paper, digital design, map, or some alternative to the standard paper—whatever the student and advisor agree is the best format for illuminating the results of the research.

<CHINESE URBANISM IN GLOBAL CONTEXT>

[Fall 2019] Weiping Wu

While urbanizing China is undergoing socioeconomic and spatial transformation resembling patterns seen elsewhere in the world, parts of its trajectory clearly push the limits of contemporary urban and planning theories and experience. This course situates Chinese urbanism in the global context, exploring the institutional settings, policy interventions, and urban realities. It focuses on four broad topic clusters and explicitly compares with practices in other countries: China's urbanization path and growth patterns, migration and socio-spatial inequalities, land management and financing of urban development, and the role and practice of planning.

<JOINT HISTORIC PRESERVATION AND URBAN PLANNING ADVANCED STUDIO III>
Erica Avrami & William Reynolds

The Heritage and Sustainable Urbanization: Freetown, Sierra Leone Studio, in collaboration with students from Fourah Bay College, embarked on a study of the intersection of heritage conservation and urban planning. To describe the current and potential uses of heritage in the social and physical fabric of the city and inform current efforts to improve planning governance and update heritage laws and policies, the team presents the results of their field survey and subsequent analysis. Their work sheds light on the opportunity to instrumentalize heritage as a tool in promoting civic dialogue, equity, and sustainability in the urbanization of Freetown. Students: Mariana Avila Flynn, Sreya Chakraborty, Fei Deng, Maya Ephrem, Aline Estefam, Shreya Ghoshal, Scott Goodwin, Emily Junker, Sarah Sargent, Micah Tichenor, Savanna Wu

Semi-Public Krio Houses

Pademba Road: Proposed Street Improvements

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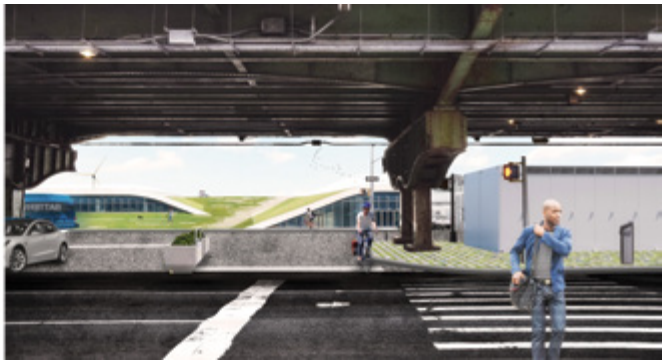
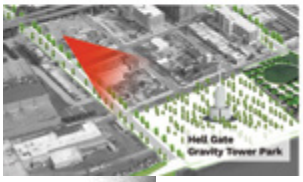
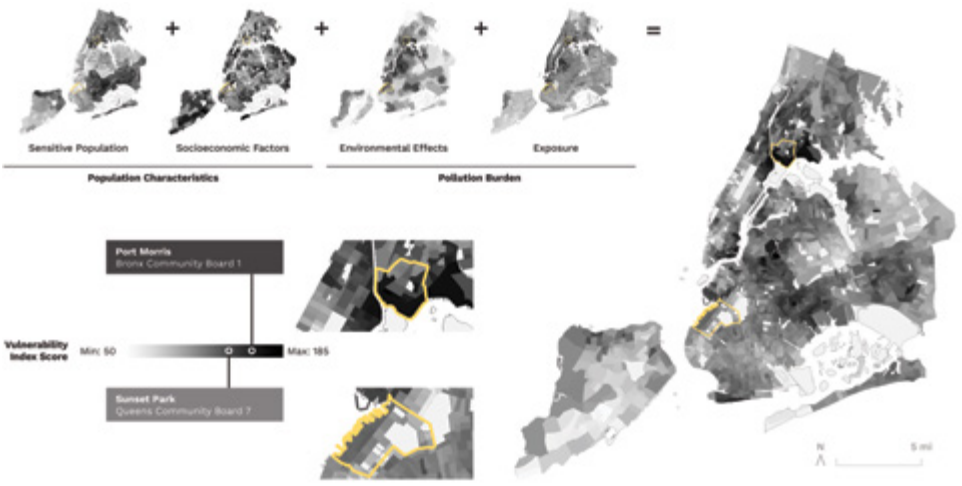
This studio identifies strategies and opportunities related to the eventual closure of peaker power plants in NYC, specifically balancing community priorities with future energy-related demands. In doing so, the studio analyzed 311 complaints to understand community concerns, created an index to identify “disadvantaged communities,” developed strategies for “benefits of spending,” conducted feasibility studies on solar and batteries, and proposed repurposing scenarios demonstrating new ideas of energy infrastructure on 3 peaker power plant sites in Port Morris and Sunset Park. The client is the NYC Department of City Planning, Strategic Planning Division. TA: Gayatri Kawlra. Students: Justin Barton, Riley Burchell, HK Dunston, Yuning Feng, Yiyi Jiang, Jon Hong Kim, Geon Woo Lee, Hongsong Lee, Thiago Lee, Priska Marianne, Xifan Wang, Angel Yin







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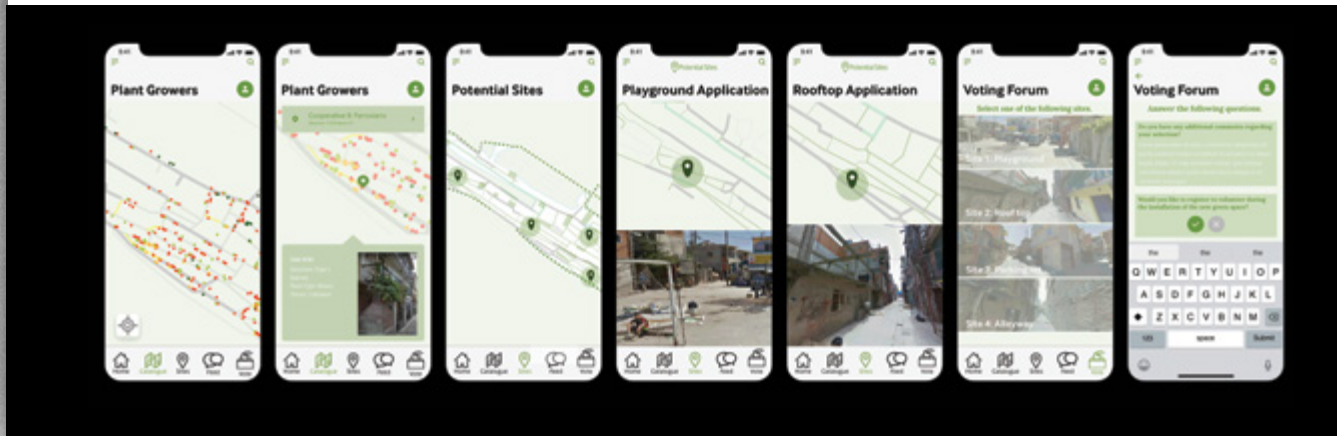
This study seeks to provide the client, NYC Department of City Planning Queens Office, and the community a vision for LIC Waterfront that can untangle three pressing issues: economic development, public realm, and resilience. Through direct and indirect community engagement processes and examination of previous plans, the proposal aims to balance public value as well as private development rights. Recommended interventions that follow are expected to create a synergistic effect as a whole and bring people back to the Waterfront. TA: Rebecca Noble; Students: Ryan Eustace, Jinkil Lee, Qi Lin, Shinichi Yoshihara, Haochen Zhang, Haoran (Rachel) Zhang

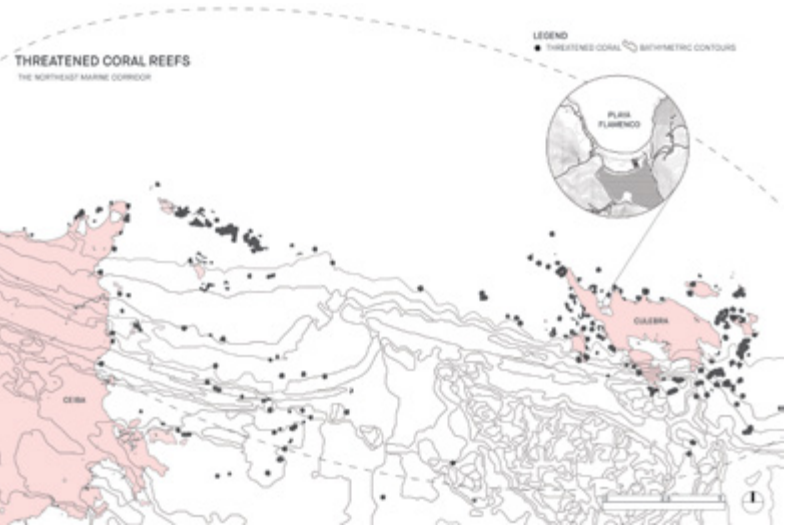
<STUDIO: REIMAGINING INFORMALITY THROUGH PUBLIC SPACE IN BUENOS AIRES AND INFORMAL VENDING IN NYC> Ryan Devlin & Jose Luis Vallejo

This studio project began as a study of informality and public space in Barrio 31 in Buenos Aires, in which a proposal was developed to build a unified community and increase green space, thus allowing it to become an integral neighborhood. Halfway through the semester, due to travel restrictions related to COVID-19, the studio expanded its scope to include the study of informal street vending in Jackson Heights and Corona in Queens. The research aims to explore the different restrictions that hinder the operation of street vendors and bridge the gap between these regulations and the reality of selling on the street. TA: Tara Heidger; Students: Myles Aguadelo, Natalie Baldacci, Xiyu Chen, Colin Hancock, Mariana Hinojosa Ronquillo, Elaine Hsieh, Soyeon Kim, Qingyuan (Lily) Li, Juan Moreno, Madeline Pena, Yuan Qin, Vicky Zhou



<JOINT ARCHITECTURE AND URBAN PLANNING STUDIO> Richard Plunz & Douglas Woodward

The Caribbean Reconnections: A Sustainable Future for Puerto Rican Islands Studio is part of a series focusing on the island of Vieques. It focuses specifically on the neighboring island of Culebra and the Main Island at the Municipality of Ceiba—all three sites share problems related to transportation and general developmental issues. This studio continues to engage the study of infrastructure, building, and livelihood futures begun in Vieques while expanding the scope of architectural design to include planning, policy, and implementation issues. The core concerns of infrastructural development remain. An overriding concern of the studio is exploring the developmental advantages of infrastructural improvements in maritime-related infrastructure.



Tihana Bulut, Kassandra Lee

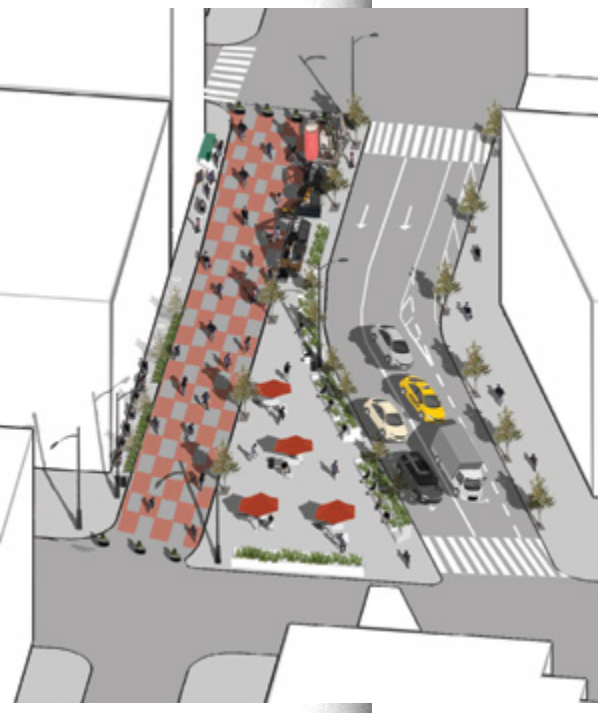
Using information gathered by the National Oceanic and Atmospheric Administration (NOAA), this map illustrates threatened coral reef locations in the Caribbean.

Nelson De Jesus Ubri

<STUDIO: REIMAGINING PORTA GENOVA STATION AREA IN MILAN/MEATPACKING BID FOR COVID RECOVERY> Francesco Rossini & Weiping Wu

This proposal seeks to unify urban fragments by concentrating development and activity along a “green corridor”, creating a soft but significant buffer. Station infrastructure is set to become a festival marketplace and the iconic waterfront will be extended. Further, this plan includes a Social Housing development for university students and young adults in Tortona, a population that is set to grow. This project aims to achieve many of the city’s goals such as increasing the amount of green space, reducing neighborhood fragmentation, and promoting inclusivity, all while protecting its rich industrial heritage. The clients are Sistemi Urbani and the Meatpacking Business Improvement District. TA: Emily Junker; Students: Sebastian Andersson, Mengqi Cao, Lanier Hagerty, Sanjukta Hazarika, Hui Lu, Jason Mencher, Nicholas Perry, Zeineb Sellami, Jiuyu Wang, Hanzhang Yang, Zixuan Zha

Re-use of the rail platform and warehouse as runways and gallery spaces is a highlight of this proposed “fashion zone,” which blends Milan's rich industrial heritage with modern design culture.



This proposal opens up the 9th Avenue slip-lane in Manhattan’s Meatpacking District to provide over 5,800 square feet of walkable space.

This proposal seeks to unify urban fragments by concentrating development and activity along a green corridor to create a soft but significant buffer.

<URBAN DESIGN FOR PLANNERS: FROM URBANIZATION TO NETWORKED URBANISM> Stefan Al

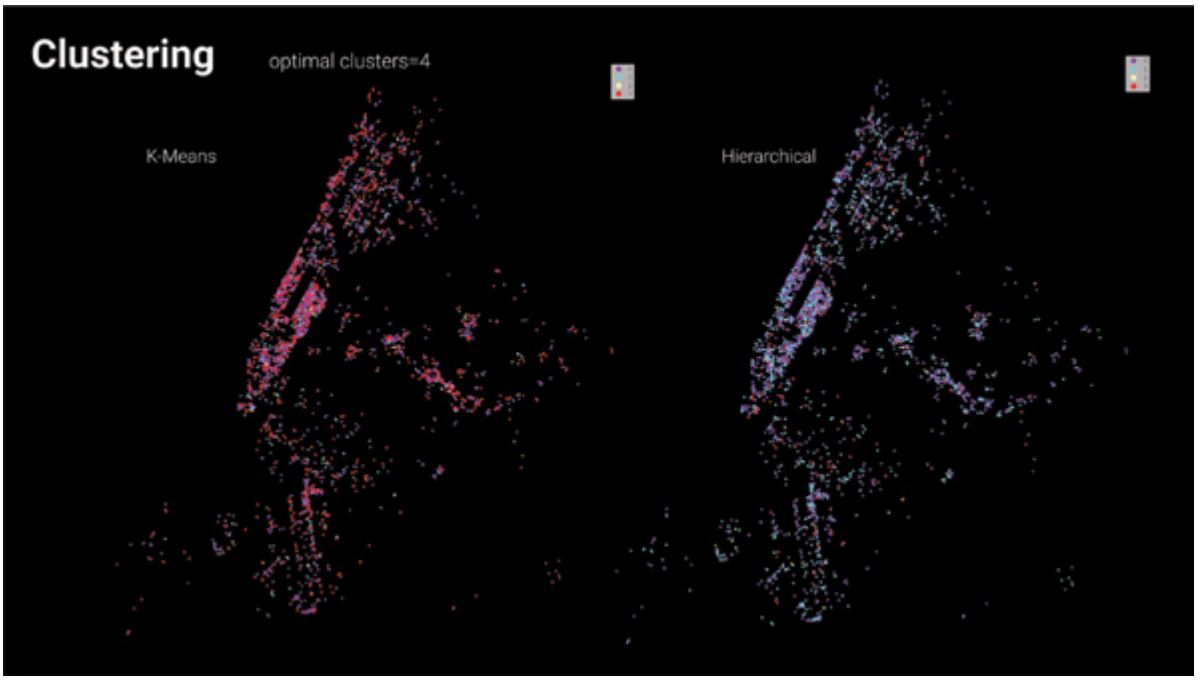
Rebecca Cook, Andrea Partenio

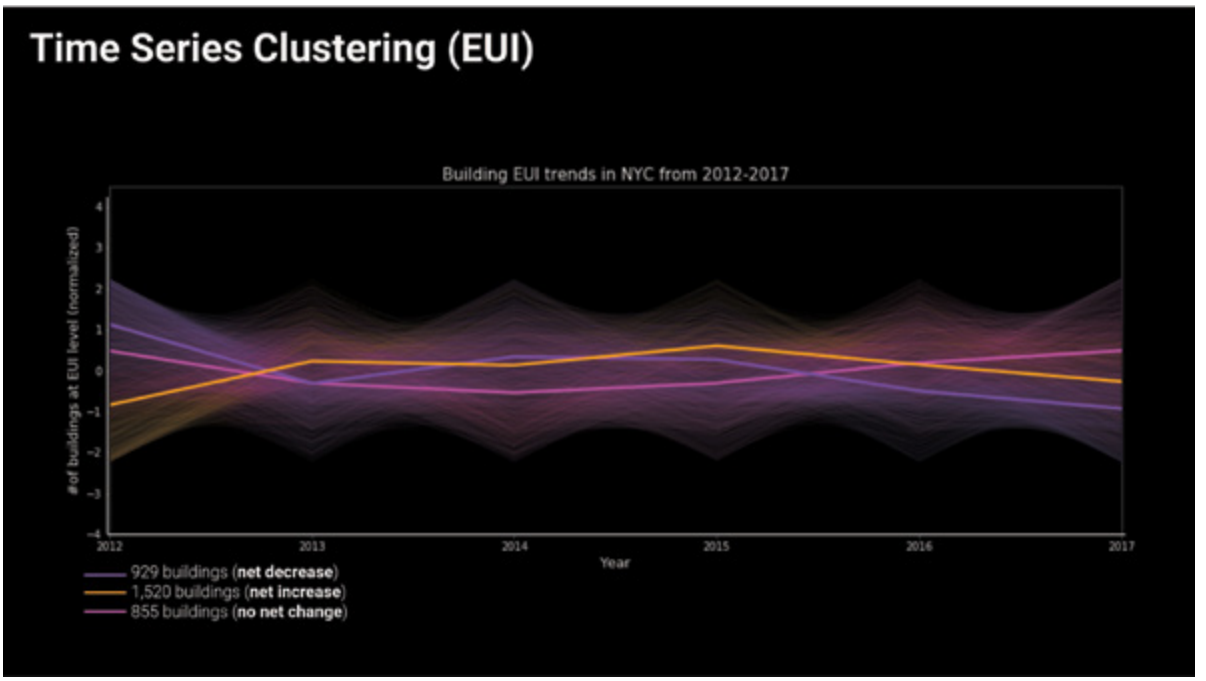
The design weaves the neighborhood street grid through the development to ensure easy access to the proposed waterfront park and promenade.

Shiyu Ma, Xinyue Liu

Kate Galbo,
Niharika Shekhawat,
Savannah Wu

This research examines social and built variables that impact the energy performance of residential buildings in NYC.

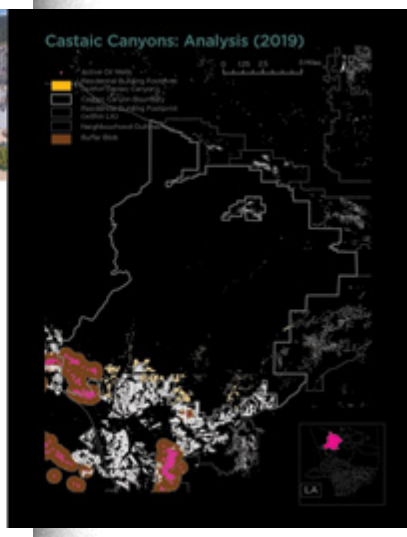




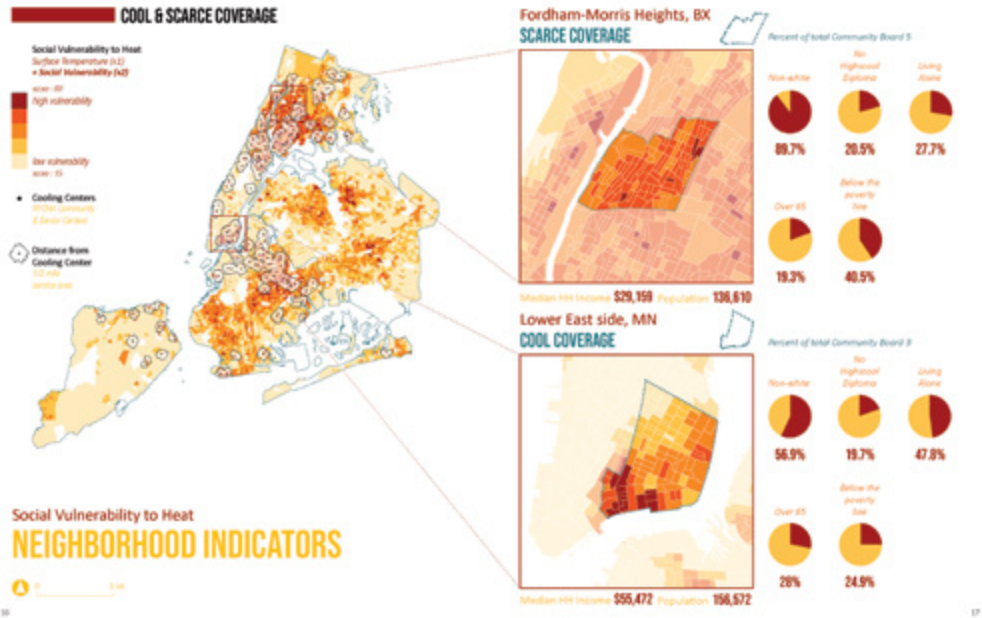
<GEOGRAPHIC INFORMATION SYSTEMS> Leah Meisterlin

Regina Alcazar, Lanier Hagerty, Sanjukta Hazarika

This social vulnerability index ascertains the influence of extreme heat on the most disenfranchised population in NYC.

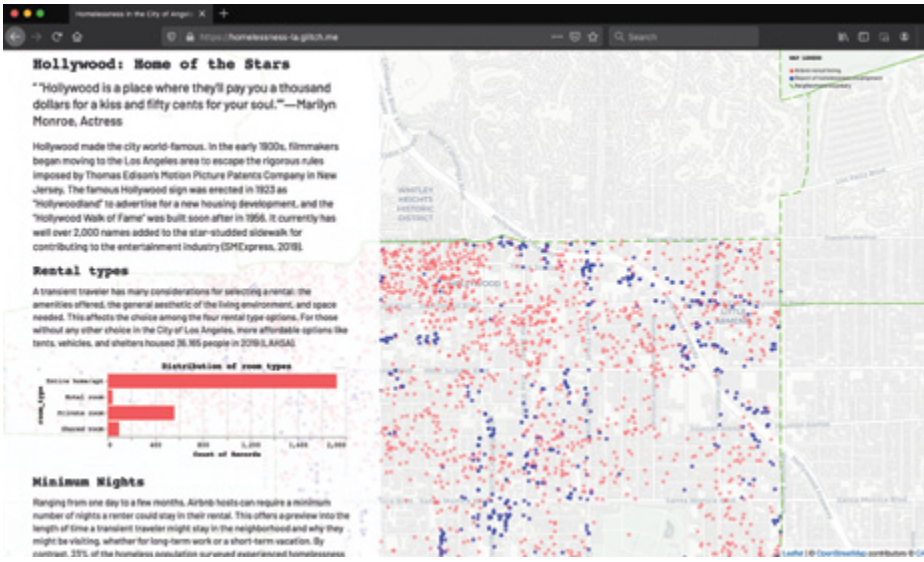


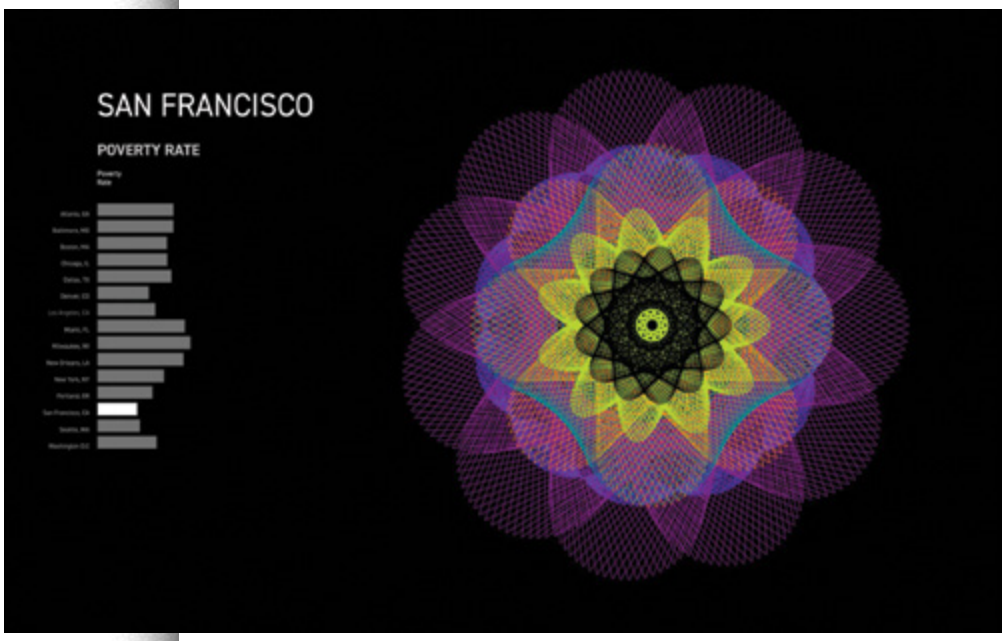
Juan Moreno, Zeineb Sellami



Regina Alcazar, Ri Le

This data journalism project investigates the extent of homelessness in three of Los Angeles'most iconic neighborhoods.





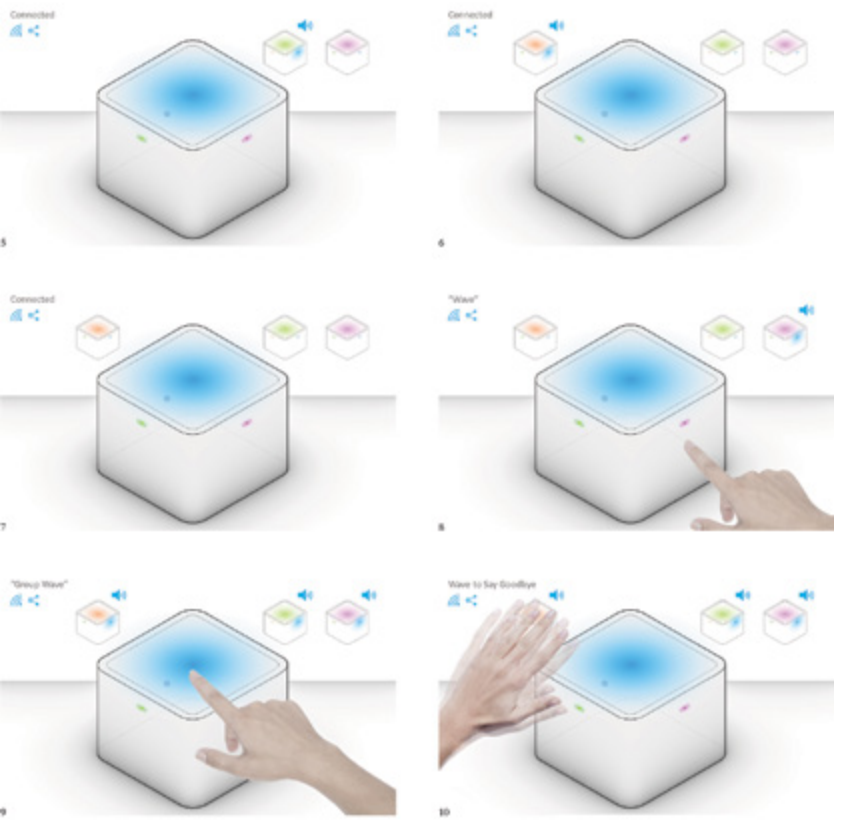
Mariya Chekmarova, HK Dunston

This generated "emblem" is part of a series based on data from about 15 cities in the U.S. and reinterpreted through layers of spirographs.

<URBAN DATA AND INFORMATICS II: SENSING PUBLIC SPACE> Anthony Vanky

Qi David Lin

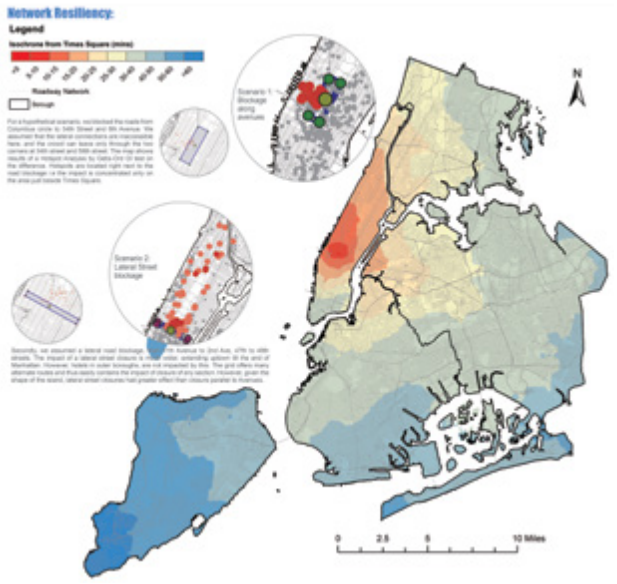
Dorm Environ Lab investigates the relationship between micro-environments and human behavior by monitoring human activities and environmental indices.



James Piacentini

colorWAVE connects to a local wifi network and transmits touch commands into musical messages of up to five seconds using force-touch sensors.

<ADVANCED SPATIAL ANALYSIS> Anthony Vanky

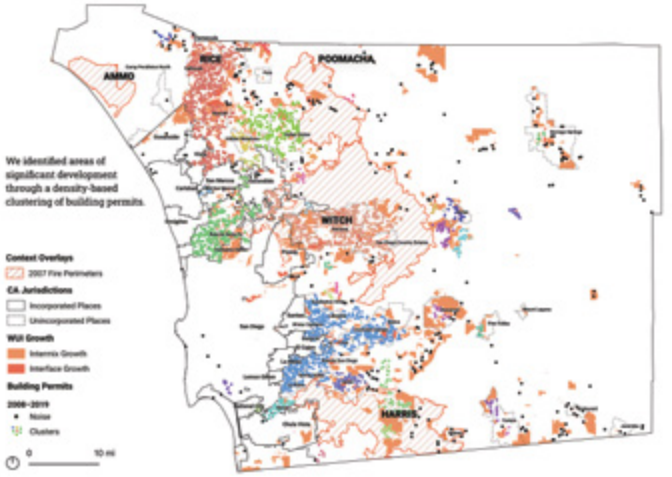


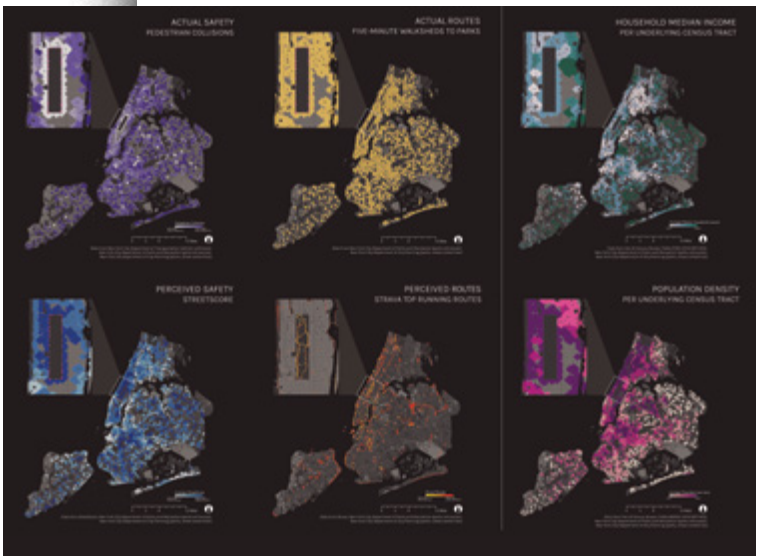
Anish Pendharkar, Chongyuan Wang, Haoran Zhang

Traffic Network Analysis at Times Square uses taxi trip data as a proxy for urban movements and spatial interaction to identify the essential elements of the street network.

Kate Galbo, Ri Le, Rawnak Zaman

This research asks: did recovery after the 2007 San Diego County Firestorm create new spatial compositions of development and social structures?





Christine Ghossoub, Caroline Thompson

This research asks:
How can we incorporate previous qualitative survey findings into quantitative measures of NYC park accessibility using newly available or non-traditional datasets?

Conor Mckay Allerton

Shared Land in High Demand: Community Land Trusts in New York City
Ryan Devlin, Advisor

NYC continues to face a serious crisis in housing affordability. While the city implements a plethora of top-down planning strategies to address this crisis, some are looking to more experimental, bottom-up approaches to not only affordable housing, but larger questions of community control, empowerment, and property stewardship. As the city's stock of public land dwindles compared to decades ago, each parcel becomes increasingly important in the fight against the unrelenting real estate industry. This paper addresses these ongoing frictions through the lens of the Community Land Trust model, a form of shared-equity ownership that seeks to decommodify property and empower local residents. Consultation of relevant literature, a background of the model in the United States, local contextual research on shared equity in New York, and interviews with those most embedded in the CLT movement all inform a set of final findings and recommendations for how the city government might best approach the grassroots energy around the CLT model, and perhaps more importantly, how to not co-opt the movement.◗

Dare Brawley

Tracing Speculation: Real Estate Geographies in Pre- and Post-Crisis Philadelphia
Malo Hutson, Advisor

This project investigates forms of investment in residential property that began to emerge in the lead up to the 2008 financial crisis, which has since morphed and firmly taken hold. Focused on Philadelphia, PA, the analysis traces the new geographies of real estate purchases made specifically by investors who do not intend to live in the homes they are buying. The project uses a mixed-methods approach to uncover how houses purchased as investment vehicles between 2000-2018 have been concentrated spatially, then compares these patterns with the geography of houses that have been purchased as homes. The research shows that investors have consistently focused their efforts on Philadelphia neighborhoods with a higher proportion of residents of color and lower incomes. Over the nineteen-year span of this study, it is clear that investor activity not only plays a large role in the housing bubble in Philadelphia, but is also continuing to grow as a percentage of overall purchases, and is expanding into new areas of the city. Principally, the project reveals that the geographies of purchases by investors and owner-occupants are largely distinct—investor ownership is fueling a separate housing geography and is not merely a part of the overall housing market. To take up these complexities I draw together literature on the political-economic implications of financialization in housing with research on neighborhood-level impacts of house "flipping" as well as the new single-family rental (SFR) asset class. Through this research, the project considers the implications of these patterns in a context where, facing years of disinvestment, Philadelphia community development organizations and city government have largely been eager for the influx of capital brought through speculative investment in housing even as they simultaneously deal with related waves of displacement and evictions.▬

Alanna Browdy

Creating a "Cultural Innovation District" at Lincoln Center
Ryan T. Devlin, Advisor

Lincoln Center and its surrounding area, including the Special Lincoln Square District, Special Clinton District, and Theater Subdistrict, hold one-third of all NYC performing arts spaces, making it the densest collection of performing arts spaces in the world. Despite this high concentration, the area lacks supporting spaces integral to the success of arts and culture activities. Recognizing this need, the Lincoln Center Development Project (LCDP) is producing a technical report on the benefits and feasibility of creating the Amsterdam Corridor Cultural Innovation District (ACCID).

The ACCID will connect the high concentration of existing performing arts spaces with its surrounding neighborhoods. It will produce new support spaces to match this high concentration, as well as incorporate programming into existing spaces that creates value for the community. The primary goal is to provide institutional support for the neighborhood's local performing and fine arts communities through development and stewardship of physical and social infrastructure. Beyond fostering the arts, the ACCID is also intended to drive innovation.

How can Lincoln Center create new and expand existing cultural spaces in order to activate innovation and arts production? It is recommended that LCDP encourage production of rehearsal studios, which are essential to the creative process and can be designed to accommodate a variety of disciplines. It is also recommended that LCDP factor affordability and a variety of open hours into operations, develop a comprehensive plan, create a Liaison position for the district, curate programming under three categories (education, collaboration, and incubation), develop a community engagement strategy, and position the ACCID as a force against artist displacement and inequity.

The ACCID will have the potential to make an impact beyond its boundaries and promote the performing and fine arts across all of NYC. The prosperity of this sector is beneficial to the NYC arts community as a whole. Moreover, by establishing the ACCID, Lincoln Center will not just develop spaces, but create long-lasting connections with local organizations and enable the proximity necessary for artists to collaborate and create.▼

Mariya Martha Chekmarova

The Role of Civic Technology in Facilitating Citizen-Government Engagement
A Study of NYC311
Anthony Vanky, Advisor

NYC311 is a customer relationship management tool that connects citizens to local government agencies whereby citizens access information and submit requests. Government agencies perceive NYC311 as primarily a request management platform that supports service delivery. Though the tool generates data that expresses community needs, it does not necessarily influence strategic agency initiatives. The extent to which this dataset represents community needs as compared to Community Board Budget Requests shows that while there are limitations to representation, 311 is filling a communication gap by providing a low barrier of interaction between citizens and their government. This paper concludes that despite government agencies' perception of NYC311 and the deeper representational challenge communities face, 311 has the potential to increase civic engagement through a reconceptualization and redesign of the tool.▶

Jacey Chon

Planning for the Next Generation: Composting in New York City
Ryan Devlin, Advisor

Growing significance of environmentalism in today's culture has given way to the environment-conscious young generation rising up with youth-led movements and initiatives. While the realization of practical actions may vary from one urban area to another, NYC, with its 2030 Zero Waste goal, can capitalize on this momentum to widely execute the program's key initiative: composting. To that end, this research seeks to identify the factors that NYC's residents face when attempting to compost and explores possible interventions the City can implement to bolster community engagement. With the young generation's demonstrated responsibility and sensitivity to trending environmental issues, the research aims particularly at those aged 20-39 to be effective conduits of the social movement. Online survey responses were collected from those identified as the target group via popular social network platforms. The quantitative data was further complemented by in-person interviews of the City residents, volunteers, and staff at relevant organizations. The findings suggest that the low participation rate in composting programs can be overcome by addressing the following prominent barriers: lack of access to composting sites, limited knowledge and interest on the topic, and perceived inconveniences. Starting with the City's young people, the concept of "nudging" can be employed to influence their proactive behavior and allow their participation in the composting program to be the source of inspiration to other age groups in realizing the 2030 Zero Waste goal.▙

Rebecca Cook

Protest & Public Space: Challenging Notions of Sociospatial Distance in New York City
Anthony Vanky, Advisor

Cities have experienced a resurgence in social movements and public space protests in recent years. Contemporary literature in the fields of sociology and communication provides extensive exploration of the use of online public spaces, often in the form of social media engagement, in support of civic action and social movements. While it has been acknowledged that the fields of architecture and urban design play a fundamental role in the "cultural shaping of spatial forms" that support the offline efforts of these movements, a gap in understanding between the relationship of online and offline public spaces exists (Castells, 2012). Aimed towards that disconnect, this research explores the nature of social movement in public space today - focusing on the use of Manhattan's Foley Square by three distinct social movements in January 2020. This thesis, then, proposes an experimental methodology for exploring this gap in literature. Findings suggest there are palpable relationships between a movement's online social network and its choreography of tangible civic action in the form of public space protest. Discrete patterns exist across movements in the way themes of space, narrative, participating actors, and place are constructed. As such, this study provides planners and designers insight into the power and potential of the built environment to act as an integral communicative device towards civic action and social progress in contemporary urban environments.▚

Grace Dickinson

Mapping Maternal Mortality:
Resilient Journeys in the Face of Disparities
Malo Hutson, Advisor

This capstone project was conducted on behalf of Lynn Freedman and Sang Hee Won at the Averting Maternal Death and Disability Lab (AMDD) at the Columbia Mailman School of Public Health. Their team conducted a two-and-a-half-year study to better understand the experiences of minority women in NYC during pregnancy and childbirth. The AMDD team conducted qualitative research, consisting of interviews and focus groups, with pregnant and postpartum women, their partners, and their providers. Their conversations revealed that on both ends broken trust and, specifically for the women, a lack of social support. For my urban planning capstone project, I used GIS tools to try to better understand the role that the built environment plays in trust and support, in order to better inform policy that could help to rebuild trust and support in communities. With the understanding that most low-income, or generally low-resourced women seek care within their communities, and knowing the role that health insurance, poverty, community understanding, and race play in the choice to seek care and care received, I identified high need neighborhoods and communities within NYC. Upon trying to map the care journeys these women take, our team discovered there was no existing spatial data publicly or privately available locating hospitals, community health centers, or any prenatal care facilities within their communities. I collected information from a wide range of sources to build out such a map, which the NYC Department of Health and Mental Hygiene has already requested access to. These maps, in addition to proposed metrics of spatially measuring social capital, have been useful to AMDD as they plan to embark on targeted interventions and partnerships within the identified high need communities.◥

Maya Ephrem

"Addis Ababa Bete (Home)"
Contesting Socio-spatial Exclusion
and/in Suburban Futures
Weiping Wu, Advisor
Ryan Devlin, Reader

Addis Ababa is undergoing a rapid urban transformation—and at the expense of local communities who are victims to displacement. Since the early 2000s, Ethiopia has pursued a pro-modernist agenda to reimagine the city, while still grappling with structural legacies of exclusion, like social stratification and ethnic tension. Given institutional weaknesses, as evidenced by the lack of urban housing and related services, arrangements between the government and private entities have not only dominated the development process but have dictated spatial and infrastructural outcomes. This research will explore the development of Ayat, a peri-urban neighborhood, formally incorporated into Addis Ababa in 1989, a year after Ethiopia transitioned to ethnic federalism. As the product of a "governance arrangement" with a real estate company, Ayat serves as a compelling crucible of ethnopolitics in the built environment. Meant to serve as an extension of the capital, Ayat's suburban development is at odds with Addis' character of urban mixity—as its residents are largely diaspora or part of Ethiopia's emerging middle to high-income class. This thesis will challenge the governance arrangement that enabled its development and the threat it poses to the city writ-large, namely as emboldening practices of de-facto socio-spatial exclusion. In Ayat, the confluence of the desired city and the spatial constraints of urban growth, as argued in this work, detail a primacy on realizing a modernist urban fantasy typically found in the West and is by default, an incompatible future for Addis Ababa's residents.◆

Aline Faiwichow Estefam

The Fallacy of Consensus: How Conflicts can be
Essential to Determine Community Participation
Ryan Devlin, Advisor

The purpose of the research is to contribute to an emerging body of critique of community participation in planning practice. The critiques in this research are grounded in the analysis of two situated planning practices in NYC. One of them followed the normative decision of the communicative planning, and the other followed the agonistic methodology. The research starts with background research of what aspects led to or helped shape the planning process in both cases. It follows an in-depth analysis of the negotiation and participation processes, outlining differences, and similarities. Several critiques were offered regarding power and the idea that communication can suspend power relations. First, it outlines the importance of previous conditions in political scenarios and community powers to shape planning decisions. Second, it argues that power holders generally lead the negotiation in communicative planning. Third, it argues that communicative practice does not create spaces for the expression of conflictual ideas and end up excluding segments of the population. It concludes that conflicts are fundamental to equity-driven planning practice and outlines several recommendations that planners or government agencies should follow to ensure meaningful community participation.▲

Emilio Flamenco

Slamming shut that Golden Gate: The Role of New Media & the Unlikely Coalitions against Regional Planning in the San Francisco Bay Area

Moira O'Neill-Hutson, Advisor

This paper assesses how opponents of regional planning efforts in the San Francisco Bay Area transcend political party affiliations and established coalitions through an examination of their organization strategies across digital platforms and traditional strategies. Contrary to widespread perception, Bay Area opponents to regional planning are not a monolithic, wealthy, suburban group of "NIMBYs," but instead span a broad spectrum that includes anti-gentrification and tenants' rights advocates, libertarians, environmentalists, Tea Party members, liberal progressives, anti-globalists, and more. With the adoption of the region's first comprehensive housing and transportation plan in 2013, Plan Bay Area, these groups have for the first time joined forces as unlikely allies to oppose the goals of regional planning; namely, transit-oriented development and proposed increases in housing supply. This paper explores these strange bedfellow coalitions—how and why they've banded together, and how they've overcome their many ideological differences to rally so effectively as united fronts against regional planning. It concludes with takeaways for practice—how planners can understand these maligned groups, engage with them non-confrontationally in public fora, and find common ground to advance regional planning while alleviating their fears and addressing their grievances.◖

Kate Galbo

San Francisco Sustainable Neighborhood Dashboard

Moira O'Neill-Hutson, Advisor

San Francisco's commitment to helping reduce global warming by achieving a zero-emission city by 2050 requires multi-scaled action and collaboration between agencies. The City has many plans and policies in place to reduce greenhouse gas emissions across sectors. The San Francisco Planning Department is leading the development of the Sustainable Neighborhood Program, in collaboration with partner agencies, to synthesize the City's many goals, requirements, and targets, create synergies between, often siloed, topics, and maximize mutual efficiencies and outcomes.

The Sustainable Neighborhood Dashboard is a tool created to help demonstrate the potential for data to inform urban sustainability strategy development and prioritization at the community level. The purpose of the Dashboard is to assess and visualize key indicators to provide project sponsors, community stakeholders, and city staff with an understanding of baseline sustainability performance and to facilitate data-driven interventions. The indicators allow users to determine where the largest performance gaps and disparities are and where to focus sustainability-related efforts. This report documents research conducted to create an in-depth assessment of sustainability indicators used in the Dashboard, as well as recommendations for improved data collection and reporting.▬

Yuan Gao

Thermal Comfort Design in Public Outdoor Space: The Influence of Spatial Configuration and Implications in Urban Design

Anthony Vanky, Advisor

Outdoor public space is critical to urban living, and parks serve as valuable assets for all citizens. As there exist extensive research and design practices of urban public areas, the microclimate conditions are essential to thermal comfort at the local level. However, the data collection at this scale is missing, and the current planning paradigm is inadequate to evaluate and respond to local needs for public space quickly. The thesis, focusing on the research gap, adopts a simulation approach to study the influence of spatial configuration. The study first simulated the current design of Paley Park in NYC, combining holistic climate simulation software and digital modeling programs. The validity of the simulation model is completed by comparing the field measurement and simulated output. Further, the study proposes the design iterations of built environment features and construct comparisons between sets of design scenarios. Based on both graphic and numeric results, the research proves the significant roles of vegetation and optimal methods to maximize the thermal effect. Besides, the research also proposes a model-based modification method for space design. These findings provide a new, predictive framework for the local scale urban design, and help offer better guidelines for urban pocket park design.▼

Shreya Ghoshal

Urban Juxtaposition: Balancing Heritage and Development through Transfer of Development Rights in New York City Special Districts
Erica Avrami and Weiping Wu, Advisors

As a policy tool functioning at the nexus between planning and preservation, Transfer of Development Rights (TDR) was created to alleviate some of the pressure placed on historic structures by market forces. Though not uncontested, planners, preservationists, and developers all believe the use of TDR in Special Districts to be successful for its ability to direct new development across a neighborhood while also protecting architecturally and culturally significant resources. But does this determination hold up to contemporary standards for equitable and sustainable development principles? A critical analysis of the history of planning policy exposes inherent biases that stand counter to contemporary planning goals; a similar investigation of the history of preservation policy reveals a prioritization of aesthetic concerns over wider social goals. Despite the layers of protection built into each Special District policy, and clear intentions to continue their use throughout NYC, they have never undergone a deeper level of analysis beyond economic valuation studies. This thesis bridges multiple disciplines by investigating the intent versus outcomes of TDR in Special Districts through a set of new metrics, employing an evaluative framework based on current planning and preservation discourse. This research consequently suggests that TDR does indeed reconcile preservation and planning aims in a single mechanism but has resulted in lasting socio-spatial consequences that were not anticipated as part of the original policy rationale. Special Districts prioritize real estate and economic development as well as aesthetic considerations over social inclusion and environmental concerns. Ultimately, the evaluation of two NYC case studies, the Theater Subdistrict and the Special West Chelsea District, informs a series of key findings and policy recommendations.◖

Christine Ghossoub

Associations of "Eyes on the Street" with the Perception of Safety in New York City
Anthony Vanky, Advisor

NYC has seen major improvements in safety in the past few decades through enhanced policing strategies and camera coverage. However, public spaces and streets remain vulnerable. Recognizing the insufficiency of these strategies in reducing the crime rate, this research sought to identify relationships between elements in the built environment with the "perception of safety." Prior studies have proved that environments that "feel" safer to pedestrians would increase their well-being and street usage which would consequently weaken the likelihood of crime. The elements in the built environment chosen for this study were inspired by Jane Jacobs' "eyes on the street" theory stating that surveillance-generating elements on streets would reduce crime.

To answer the question of how "eyes on the street" conditions may affect the perception of safety on streets in NYC, a street survey was conducted in two selected sites. The results revealed that more people on streets, more street activity, and more mixed-use zoning increased the feeling of safety while elements of disorder (i.e. trash on sidewalks) reduced the feeling of street safety. These findings inspired a set of recommendations on ways to improve street design and planning for creating environments that appear to be safer for pedestrians. A key synthesis is that achieving "eyes on the street" by altering specific urban elements could significantly impact the perception of safety that may lead to actual safety.▲

Jake Mayer Golvin

What is the Range of Impacts Federally Mandated Special Economic Zones Impose on the Socioeconomic Conditions of Low-income New Yorkers?
Lance Freeman, Advisor

This thesis explores the overall impact of NYC's Empowerment Zone initiative and concludes whether or not the policy promoted a significant rise in local employment. Moreover, it expands on data collected from the beginning of the program in 1993 to the present day alongside first-person interviews and obtains a conclusion which reflects on the planning implications set forth by the existing Federal Opportunity Zone program enacted under the 2017 Tax Cuts and Jobs Act. By reflecting on the history and motivations that served as a foundation for these programs existence, quantifying the complete extent to which it affected low-income residents of Central Harlem and the South Bronx, and placing its impact on contemporary policy, this thesis posits a balanced conclusion addressing the exact planning implications Special Economic Zones (SEZs) place on impoverished neighborhoods throughout NYC.◆

Luis Argelis Gonzalez Samot

Stop Filling the World with Trash: A Study of Circular Waste Management Strategies in NYC
Malo Hutson, Advisor

This thesis seeks to understand the impacts and ramifications of solid waste generation and waste management strategies in New York City. It is concerned with the relationship between solid waste and the mass production and mass consumption patterns associated with the take-make-waste industrial economic model. Additionally, the investigation examines the circular economy as an alternative to take-make-waste. Special attention is given to the environmental and societal implications of continuing in the current linear industrial system and the urgency to move towards a circular economy. "Stop Filling the World with Trash: A Study of Circular Waste Management Strategies in NYC" addresses the following questions: what are the current municipal solid waste management strategies? Where does the solid waste go post-collection and how is it transported? What policies are being considered to address the negative externalities related to solid waste and Waste Management? What role can the circular economy play in minimizing the negative environmental and societal impacts of waste management? What are the implications of adopting a circular economy? Does moving to a circular economy require changes to the regulatory framework? The findings suggest that shifting to a circular or sustainable economic model is urgent. If we continue in the linear system of mass production and mass consumption, the negative effects to people and the environment may become irreversible. However, making this paradigm shift will entail a concerted effort among the public and private sectors, and civil society.

Yue Han

How to Integrate Traditional Urban Planning Model and Big Data to Conduct Land-use Survey? Take Shanghai City for Example
Lance Freeman, Advisor

With the advent of the Information Era, an abundance of network terminal equipment occurs in our daily life, and various location services have created a large number of big data too. For the urban planning field, large amounts of big data allow urban planners to be faster, become acquainted with the city more easily, and present new sights from which to study the current situation of the city. Under this situation, research that uses big data to discern functions of the city's land occurs. At present, research on this topic is more based on points of interest and check-in data. The data type, research techniques, and practical aspects of the correlational study still have potential advancement. This research absorbs basic study techniques from previous studies and creates innovative methods on this basis, like adding check-in data to act like a weight in the spatial analysis, using machine language to improve the accuracy of the study result, and so on. At last, it achieves the goal of conducting a land-use survey in Shanghai's downtown area.

Yingwen He

Determinants of Housing Prices: Evidence from thirty-five cities in China
Lance Freeman, Advisor

By comparing housing prices for major cities since the 1998 housing reform in China, the study finds enormous housing prices appreciation. The research aims to investigate the major determinants affecting housing prices in the 35 large cities in China from 2003 to 2018. Based on a panel data set of 560 observations on four variables, the research compared three regression models, including regular ordinary least square, fixed-effects with least squares dummy variable, and random-effects. The main determinants are land price from the supply sector, and GDP per capita, disposable income per capita, population density from the demand sector. The regional difference is studied by adding regional dummy variables, including the eastern, western, northeast, and middle area in the model. The results have further policy recommendations regarding homeownership, fiscal revenue, and income support.

Joy Huang

On Fractured Grounds: The Economic Viability of Planning as a Local Regulatory Tool for Hydraulic Fracturing
Anthony Vanky, Advisor

As states trend towards a legal hegemony on hydraulic fracturing regulations, municipalities are pushing back through the use of zoning codes and setbacks to curtail the proliferation of oil and gas wells. This study looks at the viability of zoning setbacks as a tool to foster better social and environmental outcomes for regions grappling with the encroachment of fracking near public drinking water sources, and examines the shifts in regulatory frameworks that may or may not have led to an unchecked geospatial distribution of unconventional wells. Moreover, this study uses econometric and shift-share analysis to evaluate existing claims of income and employment benefits touted by proponents of increased fracking activity for decreased municipal oversight, focusing specifically on Texas and Pennsylvania. The results of the study point towards a lack of significant impact of an increase in well frequency and well density on median incomes and employment, and that setbacks up to 1 mile from groundwater sources would not significantly diminish extraction rights in Texas or Pennsylvania.▙

Zhengzhe Jia

Evaluate The Impact Of Disruptions On New York City Subway System
Lance Freeman, Advisor

This research aims to evaluate the impact of disruptions on the NYC subway system to passengers in terms of time and financial loss. A network model will be built to represent the NYC subway system, and the passenger flow will be simulated using the shortest-path algorithm. This paper uses the network and the algorithm to check the delay caused by the removal of one or two subway stations, which represents the disruptions on the subway system. The disruption events that happen simultaneously are checked to determine whether and to what extent is greater than it when separate events happen. Delays will be calculated for each scenario, and an economic analysis will be performed to evaluate the financial loss caused to the community and the whole society. The research can be useful for evaluating the loss caused by the disruptions that happen in NYC and contribute to the schedule change decision-making processes.▶

Ju Hwa Jung

The comparative cross-sectional study on the affordable housing finance policy for low-income households: Lessons from NYC and Seoul
Lance Freeman, Advisor

Most of the cities around the globe have suffered from serious housing affordability problems, and the situation becomes worse as economic inequality and social disparity widen. Based on this concern, this paper compares the affordable housing policy of two representative global cities: NYC and Seoul. As the first comprehensive cross-sectional study on the two cities, this paper primarily encapsulates financial tools for the enhancement of housing affordability. Granted their contrasting market contexts and policy strategies, this paper tries to derive some important implications and policy recommendations for each city from the intensive comparisons of demographic and socioeconomic backgrounds, housing policy history, and contemporary representative housing support programs including LIHTC and public housing. As a comparative methodology, the author utilizes his self-developed policy comparison model, coined as the SMART model, whose five major components are Subject class, target Market, policy Approach, Regulation intensity, and policy Tools. This paper portrays that New York's affordable housing finance policy primarily puts weight on indirect subsidy including tax incentives and public-private partnerships as a conduit while specifically targeting low-income households via mixed-income developments. Instead, Seoul centers more on the broader range of classes such as young people and newlyweds via direct support programs including public housing and subsidized loans for rent, mainly utilizing the $163.3 billion National Housing and Urban Fund. In conclusion, this paper makes some policy suggestions for each city to fill the gap of housing inequality through the lens of urban planners, policymakers, and financial experts.▙

Emily Junker

Preservation Through the Self-Help Housing Movement

Carol Clark and Ryan Devlin, Advisors

Older, multi-family, residential buildings were threatened by abandonment, landlord neglect, demolition, and fire in New York City's most distressed neighborhoods before, during, and following the 1975 fiscal crisis. However, several of these resources survived this period through the value that tenants, communities and housing advocates saw in them. In this thesis, I sought to answer these questions: What role did tenants have in the preservation of distressed buildings? How did city agencies and housing advocates enable and help them? How did these actors perceive the preservation of distressed residential buildings through self-help? To what extent have the physical characteristics of the buildings been preserved? How have these actions preserved other aspects such as affordability, community, and continuity of residents? What lessons can be learned from New York City's history of self-help housing?
The thesis is organized into three parts. Part I provides background information about housing issues in the city during this period, the tenant movement, and rehabilitation and low-income tenant ownership policies. Part II presents a narrative of self-help housing experiences—from squatting, sweat equity, and urban homesteading—in Morningside Heights and Manhattan Valley neighborhoods that are connected through key actors and organizations. In Part III, I asses my research findings regarding physical, community, and affordable housing preservation.

I argue that through the self-help housing movement, tenants in New York City preserved physical built characteristics of their residences and neighborhoods. Their collective actions brought and held together communities. They generated affordable housing for themselves and others. These occurrences may not have been possible without the support of advocacy groups and government bodies who provided support, financing, and formality. Most buildings discussed are still standing and attractive neighborhood resources. Yet, not all have been able to preserve their social integrity—the collaborative spirit that saved them and affordability to the lower-income residents they served. ▚

Kevin Kim

Enhancing New York City's Online Service Capacity: Citizen-Centric Service Experience

Anthony Vanky, Advisor

NYC in the past decade has been expanding its e-government capacities to provide better and more accessible services to its citizens. Its effort has been widely recognized by multiple indexes and rankings, allowing NYC to become one of the top cities with e-government performance. However, citizensí perception of the cityís online service contradicts the popular belief. The user satisfaction rate based on resident feedback survey states that only 64% of the users who use the cityís online service (nyc.gov) are satisfied with their experience. To validate the satisfaction rate of the feedback report, a new survey that measures user experience in accessibility, service availability, navigability, and security was conducted to assess the user experience satisfaction. The result of the new survey confirms the sub-par satisfaction level of residents of New York. NYC's effort in developing better online services needs to put more emphasis on enhancing user experiences to ensure citizens can harness digital initiatives implemented by the city.▚

Riassah Kouame

Build Operate Transfer: A Model for Maintaining Abidjan's Markets as Places of Urban Vitality

Lance Freeman, Advisor

In rapidly urbanizing African cities such as Abidjan, bustling markets like the Adjame market thrive on social density revealing their characteristics as places of urban vitality. In order for markets to maintain longevity over time, market management strategies must be efficient. When managed solely by the Adjame municipality, markets lack the means in terms of sustainability and economic productivity to efficiently function as places of urban vitality thus curtailing their longevity and prosperity. In cases such as the Forum des marchés submarket within the Adjame market, the Build Operate Transfer market structure provides in practice opportunities for market efficiency as private entrepreneurs have the funds to curb pollution by improving market environmental conditions as well as the ability to decrease losses in the tax collection process which hinder commercial transactions from fully benefiting the municipality in terms of economic productivity. Through short-term participant observation, comparative market management structure studies, and structured open-ended interviews, the research endeavor reveals the utility of public-private partnerships in advancing market efficiency as a means to support urban vitality in markets in Abidjan presenting a model for cities across West Africa as well as insights on markets for cities around the world.▚

<THESES>

Richard (Ri) Le

"Things That Quicken The Heart": Analyzing the Affective Footprint of Urban Ambient Media
Anthony Vanky, Advisor

Digital media is increasingly pervasive in urban space, with urban screens becoming commonplace features of the built environment. While the world's tech companies have sought after the measuring and leverage of affect at scale, the field of urban planning has hardly considered the various impacts of these public screens—especially their affective qualities. Additionally, there is an absence of methodologies, theoretical frameworks, and applications that define and measure affective qualities in the context of urban planning. This study evaluates the feasibility of novel methods for urban planning research, contrasting the pervasive and ubiquitous computing of big tech with the ethos of the low-cost, do-it-yourself movement sometimes associated with "maker movements" and "citizen science." This was accomplished through a human experiment that used low-cost, self-assembled biosensor equipment in an attempt to measure the stress response of ambient screens in a controlled setting for 5 human subjects.◖

Yining Lei

The Impact of Open Spaces on Residential Property Values in New York City
Lance Freeman, Advisor

The study aims to explore the causal relationship between the open space and the value of its neighboring residential property in NYC. By using hedonic pricing models, the study specifically focuses on analyzing the impact of the open space's size, type, and proximity on residential property values. Results show that open spaces do have a statistically significant impact on the values of residential properties and that different sizes and distances to the residential property have differing despite small impacts. The type of open space, together with the major age group in the neighborhood, has a collaborative impact on home value changes.▬

Lingyu (Simon) Li

Technologies and Urban Traffic - How New Technologies Impact a Conventional Intersection
Anthony Vanky, Advisor

Urban population swelling and the expansion of people's need for transportation make traffic congestion an important urban deficiency faced by cities over the globe. Fortunately, emerging information technologies grant us many possible ways to improve the situation. This research built intersection traffic models in PTV Vissim platform to test the performance of Fluctuated Traffic Light technology, Vehicle to Infrastructure (V2I) technology, and Vehicle to Vehicle (V2V) technology under both peak and bottom volumes. The results indicate that these emerging technologies have the potential to boost traffic performance. The V2I method functions the best under higher traffic volumes, while V2V tested to be the best under lower traffic volumes. Take a step back, from an urban planning perspective, these technologies are still in their early stages and seem far from reality, however, planners should be prepared for the challenges it may pose.▲

Lorraine Liao

Assessing the Publicness of Pedestrian Plazas Built Under the 2007 NYC Plaza Program
Anthony Vanky, Advisor

The purpose of this thesis is to assess the ìpublicnessî of pedestrian plazas under its development guidelines from the NYC Plaza Programs (NYC Office of the Mayor, 2007) through a comparative study of private and public space. Drawing from existing models of publicness, the paper proposed a hybrid model to measure publicness and then investigated how ìpublicî the pedestrian plazas built under the NYC Plaza Programs are using a mix methods approach of geospatial data and literature review. In the process, it simultaneously challenged underlying definitions of publicness and the contentions around privatization in the urban environment. The study suggests that the assessment of publicness for the NYC Plaza Programs demands a context-specific model to the program where metrics are calibrated beyond a simple hybrid of existing models. Ultimately, it is recommended that future studies for measuring publicness should include on the ground observations and fieldwork to account for the individuals who are arguably the true owners of a public space.◗

Xinyu Liu

Stakeholder Analysis of Community Planning in Shanghai: A Case Study of Caoyang New Village
Weiping Wu and Kate Dunham, Advisors

Community planning is a rather new concept in China that did not really arise until the beginning of the 2010s. Shanghai, in recent years, launched its "Community Planner System" which institutionalized community planning and provides us with a channel to understand how this concept is localized and implemented in China. This study strengthens knowledge of community planning by selecting Caoyang New Village as a case study and conducting a stakeholder analysis of the planning process. Interviews are made with different stakeholders, which help identify the stakeholders involved, examine their roles and positions, and investigate their interactions and dynamics. The results show that although having an intention to practice community-based planning and engage multiple entities, the current approach to community planning in Shanghai is dominantly top-down with centralized power, and is short of communication and collaboration channels. This has led to failure to meet the community's most practical demands. Meanwhile, community planners are found at a central position in the stakeholder network, yet are not given the space to assist negotiation among entities. The author thus recommends power decentralization, collaboration establishment, and transformation of planners' role as guidance for the future.▼

Zheyu Liu

Spatial Pattern of Street Vendors: A Case Study of Central Manhattan
Lance Freeman, Advisor

There is always a lack of quantitative analysis of the spatial distribution of informal economy due to very limited data available (Hays Mitchell, 1994; Qadri, 2016). However, as a critical part of the informal economy, street vendors play a crucial role in the urban environment and citizens' daily lives. This research paper explores the spatial patterns of street vendors and the spatial relationship between formal retailers in the central part of Manhattan by using several geospatial statistical methods including Location Quotient, M-function, and kernel density analysis. Spatial data of street vendors and formal retailers comes from two open sources: Google Street View and OpenStreetMap respectively.

We find that compared with formal retailers, informal street vendors show a higher level of agglomeration effect and that the intensity increases as the scale becomes smaller. There is no evidence showing that co-clustering effects exist between street vendors and formal retailers belonging to the same category, though it is not the case for industries such as fresh food groceries. Moreover, street vendors and formal stores display significant differences in their spatial patterns areawide.◖

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Shiyu Ma

Residential Planning at Neighborhood Scale: Global Precedents and China's Neighborhood Life-Circle Planning
Weiping Wu, Advisor

Neighborhood life-circle planning is a relatively new term emerging in China since the 2010s. With visions to enhance walkability and provide adequate facilities that meet residents' daily demands, the implementation of neighborhood life-circle planning is still in its experimental phases. From a global perspective, similar concepts of planning residential areas in smaller units are not uncommon. This paper examines four residential neighborhood planning models: Neighborhood Unit Plan, planning of life zones in South Korea, Traditional Neighborhood Development, and China's neighborhood life-circle planning. Despite major differences in density and building typology, each planning model approaches to address certain perceived urban problems. Four case studies are selected to represent each model respectively. The comparison of the case studies mainly focuses on the physical built environment, including the patterns of the street network, building blocks, parks and open spaces, and community facilities. The analysis reveals how the planning models are applied in the built-up cases with highlighted gestures as well as tradeoffs during implementation. With more progress to encourage public input during the planning procedures, application of urban data to analyze the nuanced daily needs, and innovations in management mechanisms to encourage facility sharing, it is hoped that neighborhood life-circle planning in China could unleash more opportunities in the future.▶

Sean Nelson

Testing Durability: Property Restitution and Refugee Return in Post Conflict Bosnia
Ryan Devlin, Advisor

In post-conflict settings, a network of actors with differing agendas converge to engender a process of re-establishing a viable state. After the Bosnian War, the imposition of the Dayton Peace Accords fostered a post-conflict procedure to ensure the return of refugees and internally displaced persons. The history of ethnic cleansing during the conflict created a unique set of spatial conditions that required a unique process for reconciliation. This thesis investigates the process of property restitution as a post-conflict reconciliation tool. Through understanding the complexities of the conditions produced by conflict and the landscape of post-conflict reconciliation, refugee return through property restitution can be better understood. The unique process and outcome of ethnic cleansing, the insistent international presence in post-conflict Bosnia, and the normative prescriptions for mass displacement amalgamate into a context that inspires the imposition of a property restitution regime. Through quantitative analyses using data concerning refugee return, property repossession claims, and sociodemographic change, I investigate the efficacy of the return-restitution nexus by municipalities in Bosnia. Regression analyses, population proportionality scores, and dissimilarity indices are the tools used to expose the impact of property restitution on refugee return, and the subsequent durability of these solutions for goals of reintegration. Through archival research and secondary sources, I aim to complement the results of the data analyses based on the lived-experiences of Bosnians in their post-conflict setting. The study concludes by applying the case of property restitution in Bosnia to the literature of post-conflict reconciliation, which is followed by recommendations on how to expand upon refugee return as a durable solution to displacement.▛

Tola Oniyangi

Beyond the Blue Dot: A Storytelling Platform for Humanizing Urban Data
Anthony Vanky, Advisor

This capstone project proposes a novel approach to crafting narratives from existing place-based data. By combining elements of creative storytelling with traditional quantitative data, the project provides an avenue for poetism in the urban research process. To this end, the project is a web-based visualization tool for exploring the city at the human scale that stems from the idea that empathy can arise from "walking a mile in a person's shoes."

This project introduces empathy into urban research through a replicable methodology for generating location-based synthetic narratives from existing large-scale data, such as census data. It fills a void in understanding the people who inhabit a location by describing them through stories from their own perspectives. Its central hypothesis is that you can better understand a place by engaging with narratives of its inhabitants. With this platform, I am proposing a humanistic counterpoint to the current dominant paradigm of top-down modernist urban analysis and research that pervades through urban planning and design.▟

Andrea Partenio

Retrofitting Resilience in Red Hook: A Roadmap for Neighborhood-Scale Integration of Green Infrastructure
Ryan Devlin, Advisor

As a piece of research being used to inform the Resilient Red Hookís Comprehensive Resilient Vision Plan, this project builds a case for the wider implementation of green infrastructure solutions in Red Hook, Brooklyn to improve stormwater management strategies to reduce flood risk. The document provides a snapshot of existing conditions that impact flooding within the neighborhood, including a summary of citywide policies and local zoning amendments, an overview of ongoing resilience projects and green infrastructure initiatives, as well as an analysis of Red Hook is built environment and its evolving land cover. In an effort to minimize the volume of stormwater runoff within the community and to ultimately reduce the risk of flood inundation, Resilient Red Hook is advocating for a greater focus on the incorporation of green infrastructure solutions within the City is wider approach to stormwater management.◖

Anish Pendharkar

Exploring Correlations between Groundwater Level Change and Settlement Planning in National Capital Territory of Delhi
Weiping Wu, Advisor

Groundwater in Delhi has been decreasing continuously over the past two decades, with many parts of the state designated as over-exploited or critically exploited. The depletion of groundwater is often attributed to the widespread and mostly illegal extraction through tube wells. Various case studies on water access in Delhi, point toward several factors that lead people to use tube wells, such as the absence of piped water supply, absence of private sources of water, inability to afford the high price of a legal connection, and insecurity of tenure. These factors result in a different level of groundwater dependence in planned and unplanned settlements.

This is a novel exploratory study with two objectives: to develop a quantifiable relationship between these factors and change in groundwater levels and to observe if these relationships vary between planned and unplanned settlements. Such an empirical relationship would help understand primary reasons for groundwater depletion and would help in nuanced estimation of groundwater draft, leading to realistic estimations of future demands and potential of groundwater development. Two kinds of regression analysis are used, one global (OLS) and another local (GWR). Results show that most relationships between these factors and groundwater change are as expected, with some exceptions. Though no significant difference was found in these relationships between planned and unplanned settlements. Future studies with better data availability can help establish conclusive empirical relationships and tools like GWR can help define spatial regimes for groundwater management in Delhi.▚

James Piacentini

Interactive Web Mapping as a Tool for Planning Advocacy: Modeling 21st Century Climate Migration in West Africa
Ryan Devlin, Advisor

The effects of human-induced climate change are already being felt across the world today, particularly by poorer nations and peoples. One of the most critical challenges of our time is understanding how climate change-related hazards will fundamentally affect where and how we can live on this planet, ultimately leading to global shifts in migration as climate migrants and refugees move within and across political and geographic borders. It is necessary to understand how shifts in our planetís climate will affect the hospitability of major areas of inhabited lands if we as a species are to truly engage the effects of climate change and protect those populations most vulnerable to harm. One of the major challenges to this understanding is the necessary complexity of climate and migration data, and the often-burdensome data-driven conclusions and analyses that provide barriers to those seeking to learn. Critical to enhancing the publicís understanding of these complex systems, and the plannerís ability to advocate for proper policy responses, is the transmission of rigorous climate and migration data into intuitive, visually engaging formats that encourage comprehension and interaction. This capstone project entails the development and deployment of an interactive web-based map platform that innovatively and intuitively showcases climate migration data for the West Africa region previously generated by researchers at Columbia University Earth Instituteís Center for International Earth Science Information Network (CIESIN) and The World Bank. This digital web-based project interactively visualizes the spatial relationships between critical climate shifts and the regional populations affected using geoJSON data files organized on the online mapping platform Mapbox, with robust functionality implemented with custom HTML, JavaScript, and CSS code.◖

Helen Pierson

Equity-Driven Outreach for Bicycle Planning and Beyond: Let's Bike Oakland as a Case Study
Weiping Wu, Advisor

As more cities begin to address the lack of bicycle infrastructure through citywide planning efforts, inequalities inherent to the community outreach process threaten to perpetuate inequality of access to biking in cities. This research will explore the ways planners are using equity-focused public engagement to take on the unique challenges of creating an equitable and inclusive bicycle culture, and planning for infrastructure that accommodates the needs of all residents. The research is focused primarily on the public engagement strategies used in the City of Oakland's 2019 Let's Bike Oakland planning process. The primary case study is supported by research on the San Jose Bike Plan currently in development, and the Portland Pedestrian Plan released in 2019. This study uses a mainly qualitative research methodology through interviews with planners and consultants involved in the planning process, and analysis of relevant documentation. Through this research, I identify powerful engagement and outreach strategies to create an equitable planning process, and suggest how those strategies can be applied further.▪

Garrett Riha

Heat Vulnerability and Cooling Opportunities: Recommendations for the City of San Diego
Moira O'Neill-Hutson, Advisor

The expansion and densification of cities change the existing landscapes in ways that significantly alter ecosystems of all scales. Expansion of roads, parking lots, and built structures have increased impermeable surface areas, causing an increase in surface temperatures, a phenomena referred to as the urban heat island. The mechanics of the consequential relationship between urbanization and increased surface temperatures have been well documented in public health and environmental research. This report contributes to the present body of research by providing a framework through which thoughtful planning efforts to reduce the urban heat island (UHI) can be developed.

Specifically, this report unpacks the processes and results of a spatial analysis that identifies geographies within the City of San Diego that are in particular need of cooling efforts. The spatial analysis consists of heat exposure information derived from land surface temperature data from NASA's Landsat 8 satellite, and heat sensitivity information derived from population data from the United States Census Bureau. The spatial analysis is then leveraged in the creation of a decision map that compares census tracts within San Diego according to their relative heat vulnerability. This decision map is advanced further in order to evaluate the expected productivity of various cooling strategies in the target census tracts. In addition to a discussion of the findings and applications of the cooling strategies advocated, this report makes specific recommendations as to which strategies should be pursued in which geographies.▬

Luyun Shao

Social Production of Public Space: A Resettlement Neighborhood in Shaanxi, China
Weiping Wu, Advisor

Against the background of facilitating the urbanization process and driving economic growth after China's reform in the 1980s, relocating farmers from long-established villages to new, concentrated urban neighborhoods has become a common practice. In this entirely new living environment, resettled residents' perceptions and use of public spaces can be different from their urban counterparts. Taking the Yanming neighborhood in Shaanxi Province as a case, this study seeks to understand how resettled farmers are involved in the social production of the public spaces, manifested by their usage and transformation of space.

Through observations of public spaces, interviews with residents, planners, and neighborhood staff, as well as questionnaires gathered from residents, the types of planned public spaces, activities that take place, and residents' spatial transformation practices are summarized. This study reveals a diversity of spontaneous deployment of public spaces by residents, categorized by the adaptation of existing space and the creation of new space. In this social production process, residents are both being disciplined by and resisting the imposed forms in the physical environment. There is a mismatch between the spatial form adapted by resettled residents and the prescribed space of the resettlement neighborhood, and this incompatibility produces a hybrid reality that indicates an incomplete urbanization process.▼

Kirthana Sudhakar

Food and Farming in Hawaii: A study of the obstacles to establishing resilient systems of local food production in Hawaii

Moira O'Neill-Hutson, Advisor

Kazuki Sakamoto, Reader

The purpose of this study is to identify existing obstacles to establishing resilient systems of food production in Hawaii, and to determine what some of the best practices in planning would be to address the same. The obstacles identified, have been bucketed widely into three categories, namely, obstacles related to land-use; policy-related obstacles; and systemic issues.

The methodology employed was primarily in-depth semi-structured interviews, respondents were selected through the snowball technique. This was accompanied by an online survey to determine respondent's food habits and preferences, here, the respondents were selected again through the snowball technique. The third element was the mapping of data using the mapping tool ArcGIS to determine the degree to which land-use related obstacles relate to the research.

The literature indicated that the three most significant obstacles were the military land holdings, the Jones Act, and large-scale crop monocultures. However, the findings indicate that invasive species and pests, the lack of labor, and the high cost of land are the three most considerable obstacles to be tackled.▙

Caroline Thompson

Renewing Renewal: Community Involvement in Redevelopment After the Expiration of Urban Renewal Plans

Moira O'Neill-Hutson, Advisor

Communities impacted by urban renewal in the mid-twentieth century were largely unable to stop the changes brought to their neighborhoods. The plans that operationalized urban renewal remained in place for over 40 years, with significant legislative, legal, and financial effort required to make any alterations. In NYC, many of the urban renewal areas and their governing plans have since expired, ushering in market-driven development and neighborhood changes. This thesis uses a mixed-methods approach to analyze the subsequent built environment changes and to explore community involvement through case studies of redevelopment in the former Seward Park Extension Urban Renewal Area (SPEURA) and Two Bridges Urban Renewal Area (TBURA). While many lots remain unchanged since the urban renewal era, those that have changed reflect local development preferences or the results of major rezonings. The case studies reveal the wide variety of methods of community involvement in site redevelopment, with implications for future participation in redevelopment in the city.▲

Chongyuan Wang

Is Parking Essential to Transit-oriented Development?

Moira O'Neill-Hutson, Advisor

Anthony Vanky, Reader

Transit-oriented development (TOD) is accepted to be a promising urban planning strategy for long-term sustainability, equity, livability, and prosperity in cities. The debates over the balance and interaction continue whether TOD actually increases transit ridership and reduces vehicle miles traveled (VMT) in different sizes of spatial areas. Among those factors that affect the ridership, parking policy appears inconsistent with the underlying benefits of TOD. The thesis intends to examine whether the VMT reduces and transit ridership increases in TOD, and measure the impact of parking on VMT reduction and transit ridership enlargement. The San Francisco Bay Area is chosen as the study area. The thesis places emphasis on spatial analysis and statistical modeling for the methodology. The spatial analysis performed in the thesis utilizes a Geographic Information System (GIS) software to identify the location, scale, and characteristics of TODs in study areas. Thus, what and where the TODs are can be addressed. For statistical modeling, the thesis chooses a multi-level model mixed with random and fixed effects to develop for the analysis. A census tract level and an individual trip level factors are combined as fixed effects to estimate simultaneously. Additionally, the thesis introduces a discussion on parking policies and innovative approaches in the context of the likely future trends.

Through a series of logically ordered questions and approaches, the thesis is aiming to shed new light on the research question that parking is essential to TOD and needs demand management. Developing TOD in suburban areas would help to increase transit ridership and reduce VMT on the regional scale. The results unveil the evidence that parking spaces and distance to transit stations of park-and-ride have a significant impact on transit usage and vehicle miles traveled in the Bay Area. The TOD areas are highly likely to have lower GHG emissions.◖

Jade Watkins

Air Quality Monitoring Along the 14th Street Busway: Public Health Impacts in an Urban Planning Context
Malo Hutson, Advisor
Anthony Vanky, Reader

This capstone, in partnership with the Regional Plan Association, provides an opportunity to assess a methodological process used to measure air pollution in the built environment. In October 2019, NYC converted 14th Street into a "busway" by placing restrictions on the hours cars could drive along 14th Street between 3rd and 9th Avenues. Measured PM2.5 concentrations along 14th Street provided a glimpse into the potential reduction in air pollution attributable to vehicular traffic. Data from low-cost air monitors can be used as a tool for urban planners, elected officials, community advocates, and policy makers to call for greater action. Dynamic sensing such as used in this capstone monitors the air quality along a path in order to replicate the hyper-local air quality environment an NYC resident might experience and subsequent inhalation exposure to particulate matter. Results from this study show differences in air quality between 14th Street and 23rd Street for PM2.5 concentrations, as well as AM versus PM concentration differences within each street. Box-and-whisker plots were used to examine the summary statistics and spread of data collected for each street. The entire quartile range for 14th Street was 2 μg/m3 while the third and fourth quartile ranges for 23rd Street spanned 5-9 μg/m3. Though the difference in acute exposure is relatively small, there is some potential for a difference in negative health outcomes between 14th Street and 23rd Street based on cumulative effects of a double to quadruple increase in PM2.5 exposure long-term. The results from this project are important because they show a measurable difference in PM2.5 concentrations between 14th Street and 23rd Street which may be associated with the recent urban planning intervention to convert 14th Street from 3rd Avenue to 9th Avenue into a busway. It is imperative more studies investigate the relationship between urban planning and public health to better understand how the built environment can be used as a tool for public health.▪

Savannah Wu

Enablers of Circular Economy at the Urban Scale: A Case Study of the Circular Fashion Ecosystem in New York City
Malo Hutson, Advisor

The fashion industry is one of the largest industrial sectors with the opportunity to transform from a linear take-make-waste approach to a circular model that extends a fashion product's lifespan and minimizes nonrenewable resource consumption and landfilling of textiles. This paper examines NYC's circular fashion stakeholders and collaborations that seek novel ways of closing the loop of the fashion value chain. The stakeholders' current strategies and main challenges are analyzed after an overview of NYC's legacy of fashion manufacturing, in order to assess opportunities for collaborations on technological and policy interventions. While innovations such as digital product identification have great potential to increase feedback loops and transparency throughout the fashion product value chain, it is crucial to understand the context in which to apply these technologies and assess policy and regulatory incentives that need to be accompanied. This paper provides an explorative overview of the experiences in NYC to guide policy makers, organizations, and individuals interested in understanding the practices, challenges, and opportunities in applying circular economy principles to the fashion industry.▼

Zheng Xin

Design Methods and Planning Strategies to Enhance Street Safety in New York City
Weiping Wu, Advisor

Streets in the cities are a crucial element of human life. However, they are not safe enough—over 37,000 people die in road crashes in the U.S. annually. The research asks how a planner could design methods and planning strategies to enhance street safety in large cities. It uses mixed methods that combine data analysis and site observation to explore how safety improvements can influence the condition of streets. Several preliminary models have been conducted using data analysis. Site observation supplements the data analysis, merging the theoretical model into the practical world and revealing observations of elements that could not otherwise have been revealed through data. In the end, a framework has been created for future improvement and development. Also, there are some limitations of the study that could be improved by future study.▬

Claire Liu Yang

Curb Value Capture: Tech Enabled Infrastructure on Sidewalks for Community Equity Goals
Moira O'Neill-Hutson, Advisor

We are amidst a digital transformation in our cities. Both private and public sectors are eager to deploy emerging technologies to improve efficiency of processes, infrastructure systems, and quality of life. At the same time, distribution of resources and implementation of new technologies has historically and presently been unequal, typically leaving socially vulnerable populations behind while wealthier and more politically empowered communities advance. Client WSP asks "how can we develop a framework for implementing tech-enabled infrastructure (TEI) to address social equity issues? Can we create a roadmap that empowers municipalities and communities to recognize the benefits of TEI in their own neighborhoods and implement in a way that prioritizes social equity?" The Capstone "Curb Value Capture: Tech Enabled Infrastructure on Sidewalks for Community Equity Goals" applies an equity lens to TEI to fill the existing gap between smart cities and equitable cities practices. Through analyzing three precedents, the COSMOS[1] testbed in Harlem, Sidewalk Toronto in Quayside, small cell in San Francisco, the Capstone developed a set of recommendations for implementing TEI including how to build the relationships, innovate the processes and bridge the capacities. ▞

Rawnak N. Zaman

Around the World in 40 Blocks: Small business perspectives on the effects of diversity on the retail corridor in Jackson Heights, Queens
Ryan Devlin, Advisor

Jackson Heights' small businesses are as diverse as its residents, and with that comes unique priorities for the main retail corridor. This study compared the experiences of businesses that specialize in cultural items, specifically from South Asia, and more general neighborhood businesses. Both categories of businesses valued the role that reputation plays in attracting customers, built over years of operating in the neighborhood, community engagement, or co-ethnic ties. The spatial clustering of South Asian establishments has further enabled those businesses, which are also supported by transnational forces, to draw customers from the same foot traffic. These same advantages become a challenge as the corridor's customers change. These businesses were concerned about staying competitive, citing reduced traffic in recent years and generational changes. Meanwhile, most of the general businesses, especially those near the neighborhood's co-ops, were optimistic. Both categories of businesses expressed a desire for the corridor to modernize and acknowledged that different parts of the corridor seemed to operate independently, with little neighborhood-wide cohesion. Demographics and the built environment helped shape the current ecosystems of these distinct segments of the corridor and can disrupt them, as well.▙

Xuantong Zhang

Comparison of Affordable Housing Financing Policies between China and the U.S.
Lance Freeman, Advisor

China and the United States, as the two largest economies in the world, are facing the shortage of affordable housing, and the key to solving affordable housing is adequate funding. China and the United States differ greatly in the financing of affordable housing. This article talks about a comparative study of affordable housing financing policies between China and the United States, summarizes the differences between the two, explores the reasons for this difference, and compares the advantages and disadvantages of the policies of the two countries.◗

Historic Preservation
Jorge Otero-Pailos, Program Director

The Historic Preservation Program at Columbia GSAPP offers a two-year-long Master of Science in Historic Preservation (MSHP) and a five-year-long PhD in Historic Preservation. The program frames preservation both as an experimental form of creative expression and as a critical form of collective action guided by philosophical, ethical, and critical thinking, supported by evidence of its benefits to society, and enabled by emerging technologies and policy tools. A dedicated Preservation Technology Laboratory supports student and faculty research. It boasts a world-class faculty whose professional practices and scholarship are internationally recognized as setting the standard in the field of historic preservation since James Marston Fitch founded it in 1964 as the first such program in the United States.

The student work presented in *Abstract 2020* demonstrates the diverse intellectual interests, critical historical questions, technological experiments, policy research, and design innovations that have energized our conversations and collective learning this past academic year. In the studios, students engaged in real-world, hands-on projects in architectural heritage sites in New York; Venice, Italy; Freetown, Sierra Leone; and The Hague, Netherlands. In each of these sites, students applied experimental preservation methods to not only extend the physical life of these heritage sites, but more importantly to help improve the societies that use them. Taken together, the studios explored preservation as a way to help societies to remember the justices and injustices of the past, and showed a deep commitment to imagining a better future.

Such forward-thinking commitment is also evident in the year-long theses that each graduating student completed. These scholarly works made original contributions to the discipline of historic preservation: they unearthed the histories of important heritage sites, such as the American missionary churches in China, which have been neglected and forgotten; developed new preservation technologies for repairing lime mortars and conserving architectural monel metals; researched how heritage policies affect cultural politics, such as changing the names of heritage sites; speculated on the future use of sound to facilitate people's attachment to heritage; and critiqued the use and abuse of heritage in geopolitics, such as in Korea's demilitarized zone.

In these studio projects and thesis books, preservation appears as an experimental practice testing the limits of what architectural heritage can do to spark society's collective memory and imagination. Remarkably, the students produced work of extraordinary quality despite the adverse conditions of the pandemic. This presentation is a testament to their determination and creativity. It is also a challenge to the profession and the world to reimagine what is possible and never to settle for the status quo.

<STUDIO I>

[Fall 2019] Andrew Dolkart, Claudia Kavenagh, Kate Reggev

This foundational course for the program's three-studio sequence is simultaneously broad in reach and narrow in focus. It both complements and benefits from other first-semester coursework; it is the space for engaging overarching historical and contemporary issues of preservation, urbanism, planning, and architectural design. The goal is to equip students with skills, techniques, and critical thinking–the means to engage practice and research–to engender leadership, interpretation, and advocacy–the ability to exercise judgment and propose informed solutions.

<STUDIO II: EQUITABLE RESILIENCE THROUGH PRESERVATION IN RED HOOK, BROOKLYN>

[Spring 2020] Erica Avrami, Tim Michiels, Bryony Roberts

This studio involves critically exploring the following questions: How are diverse histories, narratives, and multiple publics represented in the built environment of Red Hook? In what ways have the community values and heritage resources of Red Hook evolved and been challenged—historically and more recently—by environmental factors as well as socio-economic and political factors? How can the preservation enterprise intervene, so as to instrumentalize heritage toward equity and resilience in Red Hook? Students: Bruno Elias, Rachel Ericksen, Katlyn Foster, Emily Kahn, Lai Ma, Will McCallum, Caroline Peters, Thomas Rice, Tucker Simmons, Madison Story

<JOINT HISTORIC PRESERVATION AND URBAN PLANNING ADVANCED STUDIO III>

[Fall 2019] Erica Avrami, Will Raynolds

The Heritage and Sustainable Urbanization: Freetown, Sierra Leone Studio, in collaboration with students from Fourah Bay College, embarked on a study of the intersection of heritage conservation and urban planning. To describe the current and potential uses of heritage in the social and physical fabric of the city and inform current efforts to improve planning governance and update heritage laws and policies, the team presents the results of their field survey and subsequent analysis. Their work sheds light on the opportunity to instrumentalize heritage as a tool in promoting civic dialogue, equity, and sustainability in the urbanization of Freetown. Students: Mariana Avila Flynn, Sreya Chakraborty, Fei Deng, Maya Ephrem, Aline Estefam, Shreya Ghoshal, Scott Goodwin, Emily Junker, Sarah Sargent, Micah Tichenor, Savanna Wu

<ADVANCED TECHNOLOGY STUDIO III>

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This project-based studio explores the potential for advanced applications of technology in the field of digital conservation. Students employ high-resolution 3D scanning, close-range photogrammetry, and cutting-edge fabrication technologies to develop an experimental digital preservation treatment for a complex building in Venice: the Prioral Palace of the Order of Malta. This course questions the potential of facsimiles to facilitate the conservation and dissemination of

Palazzo di Malta and the artworks contained in it, including sculpture, painting, and historic documents. The digital and physical output generated in this Studio will help to reconnect the building with its Venetian and global context.

<JOINT HISTORIC PRESERVATION AND ARCHITECTURE ADVANCED STUDIO III>

[Fall 2019] Mark Rakatansky, Kim Yao

The decommissioned Marcel Breuer-designed US Embassy in the Hague is being developed as a hotel and museum dedicated to M. C. Escher. Both Breuer and Escher developed techniques of iterative, recursive, and transformative plays of identity through modular geometries, of spatial re-orientations of vertical and horizontal structure, of 2-D inscribed surfaces inflecting into 3-D volumes, and both developed reciprocal formations of mass and suspension. In contrast to modernist glass buildings, Breuer experimented with concrete and masonry forms of construction, engaging iterative forms of modular geometric patterning in low and high relief. This studio explores the dynamic and iterative modulation not only of tectonic and structural modules but the assumptions regarding the modularity of rooms, programs, civic identities, and urban formations.

<SUSTAINABLE RETROFITS>

[Fall 2019] Michael Adlerstein

This course explores the response of the building industry to climate change, which presently advocates sustainable construction. The class discusses whether a stronger response is more appropriate—a reconsideration of the financial rewards of new construction in favor of the public benefits of preservation and sustainable retrofits. Students develop public policy proposals to move this initiative forward. The objective is to explore whether building greener buildings or building less is the best we can do to assure our future. This course explores the concepts of preservation/retrofit versus new green construction on a conceptual basis and uses as a case study the recent renovation/retrofit of the United Nations compound.

<PRESERVATION PLANNING AND POLICY>

[Fall 2019] Erica Avrami

This course provides a broad-ranging introduction to preservation planning and policy, and examines the ways in which historic preservation intersects with broader land-use planning, real estate, management of the built environment, and civil society. The course covers heritage typologies and vocabularies, the history of preservation policy development, the assessment of significance/values as a participatory process, preservation planning theory and methodologies, heritage designation and management tools, legislation and regulatory frameworks, codes and zoning tools, property rights, financial incentives, and issues of community participation and social justice.

<SUSTAINABILITY AND PRESERVATION>

[SPRING 2020] Erica Avrami

This course envisions a future for preservation that more directly addresses the environmental, social, and economic issues compounded by both climate change and unsustainable practices in how we develop and manage the built environment. Through an examination of history and theory along with inquiries into contemporary conditions and practice, this course analyzes the shared and conflicting values at the nexus of preservation and sustainability. It explores key issues on the horizon that the preservation field must confront, including but not limited to energy performance and resource consumption, the reduction of greenhouse gas emissions, design for deconstruction, renewable energy production and cultural landscapes, adaptation in situ, forced migration, and planned relocation/managed retreat, and resiliency planning and disaster preparedness.

<THESIS I AND II>

[Fall 2019] Paul Bentel, Christopher Neville

[Spring 2020] Jorge Otero-Pailos

The thesis is a clear, well-researched, and substantial argument in support of a position on a question of general interest in the field of historic preservation. During the fall semester, students articulate and refine their thesis topic and begin research to answer the thesis question. They are assigned faculty advisors who provided support and feedback through meetings and presentations. During the spring semester, students work on their theses, select readers among faculty and practitioners, and present their work to advisors for feedback. The semester culminates in a series of thesis juries, during which students defend their theses before their advisor and readers.

<OLD BUILDINGS, NEW FORMS>

[Fall 2019] Francoise Bollack

The course introduces architectural questions posed by additions and transformations to [significant] old buildings to help students develop a method and an intellectual framework for evaluating the effect of the New Form on our built heritage. The emphasis is on the physical reality of the works and their relationship to the architectural and artistic culture of their time. The subject is rich and fascinating and the body of work to be studied and learned from is extraordinary

<COMPARATIVE HERITAGE MANAGEMENT>

[Spring 2020] Carolina Castellanos

This course focuses on advancing the understanding of heritage management systems by analyzing methodologies that have been used in a variety of contexts worldwide, to enhance student skills related to the development of values-driven site management policies and context-appropriate practices.

<NEIGHBORHOOD PRESERVATION AND ZONING>
[Fall 2019] Carol Clark
This course provides an introduction to how neighborhood preservation goals are being achieved in several American cities. The use of neighborhood conservation district ordinances is a principal focus. Other mechanisms that seek to protect neighborhood character or regulate community appearance are also explored. The class includes an overview of the development of zoning in NYC to illustrate its role in local neighborhood preservation efforts. Contextual zoning, form-based codes, and the preparation of preservation plans are also discussed.

<HISTORIC PRESERVATION THEORY AND PRACTICE>
[Fall 2019] Igor Demchenko
This course aims to provide students with knowledge about the historical development of historic preservation theory and practice. Students learn about the principal schools of thought, defining practices, major figures, and representative projects of western historic preservation since the Enlightenment. The wider objective of the course is to prepare students to deploy the knowledge acquired in class in addressing the challenges posed by real-world preservation practice.

<TRADITIONAL AMERICAN ARCHITECTURE>
[Fall 2019] Andrew Dolkart
This class explores U.S. architecture from the first buildings erected by Europeans in the early seventeenth century through the architecture of the late nineteenth century. Students examine the iconic architectural monuments erected during this period, ranging from surviving colonial homes to the works of amateur and professional architects such as Peter Harrison, Charles Bulfinch, Thomas Jefferson, Benjamin Henry Latrobe, John Mills, A. J. Davis, Richard Upjohn, Frank Furness, and Henry Hobson Richardson. They also explore lesser-known and vernacular buildings reflecting both folk traditions and the spread of architectural ideas from centers of innovation into small towns and rural landscapes. They review the evolving forms and styles of architecture and forces behind developments in American design, discussing the impact of the ideas of such designers and theoreticians as Frederick Law Olmsted, Andrew Jackson Downing, and Richard Morris Hunt.

<HOUSING DEPRESSION-ERA NEW YORK>
[Spring 2020] Andrew Dolkart
This seminar explores privately funded, speculative housing in NYC between the stock market crash and the entry of the U.S. into World War II. Students explore the complex issues of housing during an economic downturn. They examine building types and apartment plan types that developed during the era and investigated issues of real estate finance, neighborhood redevelopment, and apartment marketing.

<NATIONAL REGISTER OF HISTORIC PLACES>
[Spring 2020] Andrew Dolkart
This course introduces the criteria for listing on the National Register of Historic Places and the process for completing a National Register nomination. Each student chooses one building and completes an application including the building description, significance statement, mapping, and photography. These nominations are then submitted to the New York State Historic Preservation Office for review.

<CONSERVATION OF ARCHITECTURAL FINISHES>
[Spring 2020] Mary Jablonski
This course teaches skills to survey, identify, and produce a conditions report on architectural finishes. Students also learn how to research and select treatments for finishes which are then executed in the field.

<DIGITAL HERITAGE DOCUMENTATION>
[Spring 2020] Bilge Kose
This course is designed to give information about different techniques and tools in heritage recording and information management in different contexts and cases according to a place's scale, accessibility, and required outcome. The first part focuses on the digital documentation and information management of heritage places in site and urban scale. The second part focuses on the documentation and information management of heritage places in site, building, and feature scales.

<TRADITIONAL BUILDING TECHNOLOGY>
[Fall 2019] Tim Michiels
This course reviews a variety of building systems and materials with a focus on traditional building technology, such as load-bearing masonry, timber frame structures, and early frame structures in iron, steel, and concrete. The characteristics, interaction, and structural behavior of the components of such buildings are evaluated. The technology involved in different building typologies is discussed, as well as typical decay and basic repair techniques. These aspects are illustrated through a series of New York-based case studies.

<MODERN AMERICAN ARCHITECTURE>
[Spring 2020] Jorge Otero-Pailos
This course is a survey of American Modern Architecture since the country's first centennial. From the standpoint of this relationship between history and modernity, students analyze the American architectural struggle to be progressive and accepted, exceptional and customary, and to simultaneously capture the future and the past. Each lecture analyzes the production and reception of built (and written) works by renowned figures and anonymous builders. The question of History helps us discern the terms of engagement between architecture and other disciplines over time, such a preservation, planning, real estate development, politics, health, ecology, sociology, and philosophy. By considering American architecture's successes and failures in

relation to these multidisciplinary realities, students gain a richer sense of the historical characteristics that have informed its evolving nature.

<CONSERVATION OF ARCHITECTURAL METALS>
[Fall 2019] Richard Pieper
This seminar reviews the structural and decorative uses of metals in buildings and monuments. The metals to be reviewed include iron and steel; copper and copper alloys including bronze and brass; lead; tin; zinc; aluminum; nickel and chromium. The seminar examines the history of manufacture and use; mechanisms of deterioration and corrosion; and cleaning, repair, and conservation.

<MODERN BUILDING TECHNOLOGY>
[Spring 2020] Theodore Prudon
This course analyzes changes in building technology in the context of the history of modern architecture. It examines how these changes and advancements in material technologies influence design capabilities ranging from glass and glazing technologies, reflected in better performance, to improvements in concrete design and use culminating in brutalist architecture. It also focuses on the emergence and development of systems such as ventilation, plumbing, fire protection, and prefabrication.

<MASTER CLASS: THE EMOTIONS AND POLITICS OF HERITAGE MAKING>
[Spring 2020] Laurajane Smith
This seminar explores current critical debates about the nature and social consequences of heritage. The aim is to develop a critical appreciation of heritage as a form of cultural practice. Drawing on research in the U.S., Australia, and England, a range of performative practices of heritage making, and the consequences they have to contemporary social and political debates, is examined. Particular emphasis is placed on the role of affect and emotion on the practices of heritage making and how this intersects with memory, imagination, and ideology to construct and legitimize certain forms of heritage and historical narratives.

INVESTIGATIVE TECHNIQUES
[Spring 2020] Amanda Thomas Trienens, Norman Weiss
The tools and techniques of building investigation in use today are numerous and vary widely from low to high-tech approaches, providing practitioners an array of options to study their structures. In the field some tools include infrared (IR) imaging, rebound hammer strength measurement, Karsten tube testing, ground penetrating radar (GPR), X-ray fluorescence (XRF), and ultrasound. Sampling allows us to carry out additional studies in the laboratory, based on some knowledge of statistics and data treatment. Off-site techniques include microchemistry, mortar characterization by gravimetric analysis, water absorption studies, and freeze-thaw testing. This course will include hands-on site testing, laboratory testing, lectures, and guest speakers.

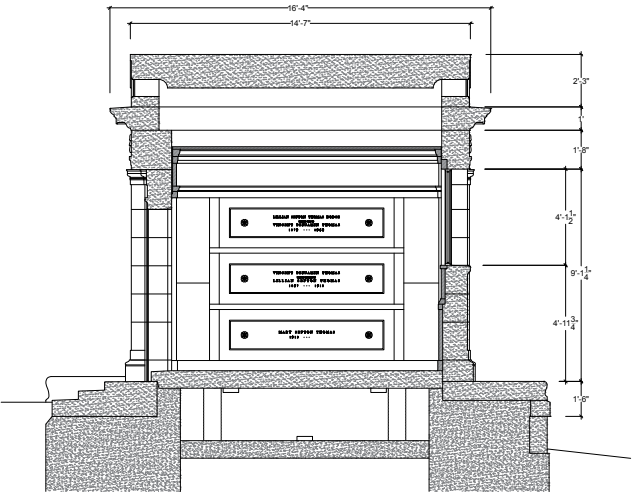
<CONCRETE, CAST STONE, AND MORTAR>

[Fall 2019] John Walsh, Norman Weiss

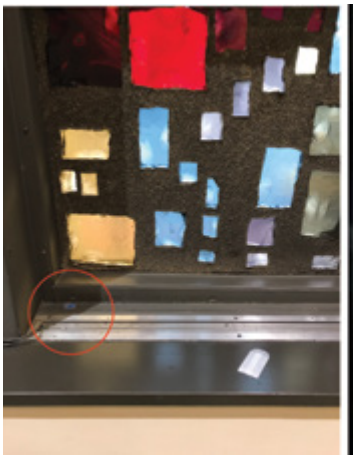
The course discusses the growing importance of these materials and techniques during the Industrial Revolution, reviewing discoveries that led to the development of novel lime- and cement-based compositions from the late 18th century to the present. By the 20th century, advances in technology transformed concrete and precast from functional engineering media into the most expressive and sculptural substances of modernism. Key topics are binder types and curing mechanisms; the role of aggregates and admixtures; building performance criteria; construction and manufacturing methods; and field and laboratory evaluation.

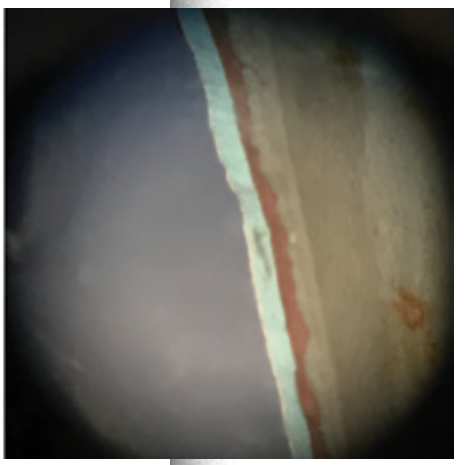
<STUDIO I> Andrew Dolkart, Claudia Kavenagh, & Kate Reggev

This foundational course for the program's three-studio sequence is simultaneously broad in reach and narrow in focus. It both complements and benefits from other first-semester coursework; it is the space for engaging overarching historical and contemporary issues of preservation, urbanism, planning, and architectural design. The goal is to equip students with skills, techniques, and critical thinking–the means to engage practice and research–to engender leadership, interpretation, and advocacy–the ability to exercise judgment and propose informed solutions.



Ziyu Liu





Bruno Elias

This paint sample was taken from the second window from the south along the east-facing elevation interior of St. Mary's Byzantine Catholic Church, NYC.

Rachel Ericksen

Existing and proposed elevation of 296 Third Avenue in New York City.

<STUDIO II: EQUITABLE RESILIENCE THROUGH PRESERVATION IN RED HOOK, BROOKLYN>

Erica Avrami, Tim Michiels, & Bryony Roberts

This studio involves critically exploring the following questions: How are diverse histories, narratives, and multiple publics represented in the built environment of Red Hook? In what ways have the community values and heritage resources of Red Hook evolved and been challenged—historically and more recently—by environmental factors as well as socio-economic and political factors? How can the preservation enterprise intervene, so as to instrumentalize heritage toward equity and resilience in Red Hook? Students: Bruno Elias, Rachel Ericksen, Katlyn Foster, Emily Kahn, Lai Ma, Will McCallum, Caroline Peters, Thomas Rice, Tucker Simmons, Madison Story

Using augmented reality, the loss of the built environment in Red Hook, Brooklyn is spatialized.

This flood interpretive intervention is proposed as a collaboration with local artists.

<JOINT HISTORIC PRESERVATION AND ARCHITECTURE ADVANCED STUDIO III>
Mark Rakatansky, Kim Yao

The decommissioned Marcel Breuer-designed US Embassy in the Hague is being developed as a hotel and museum dedicated to M. C. Escher. Both Breuer and Escher developed techniques of iterative, recursive, and transformative plays of identity through modular geometries, of spatial re-orientations of vertical and

Huanlun Cheng

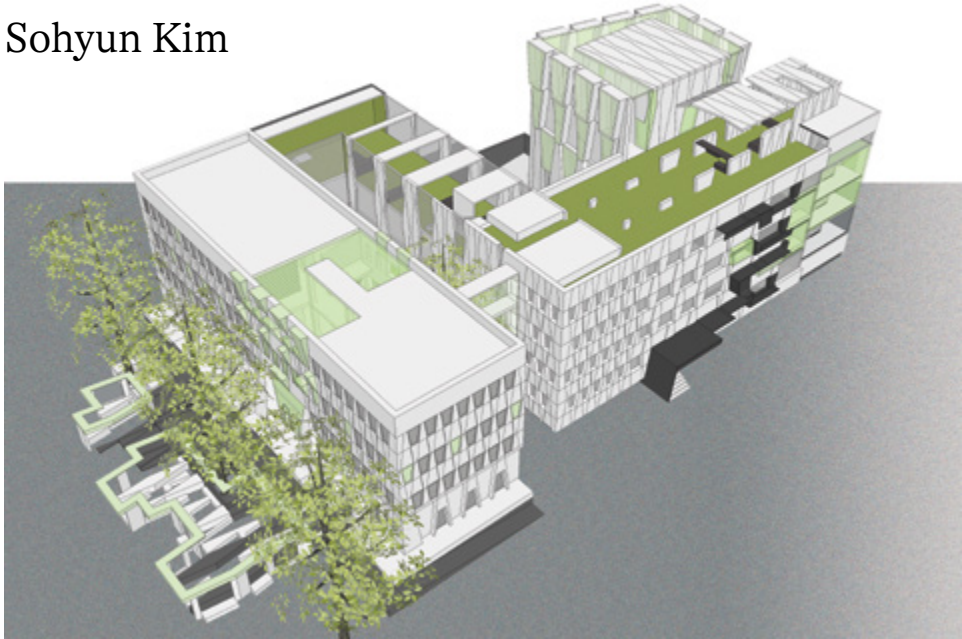
A set of trapezoids are extracted from the structural facade and folded to create new structural components as well as interior veneer and furniture.

Yu Song

horizontal structure, of 2-D inscribed surfaces inflecting into 3-D volumes, and both developed reciprocal formations of mass and suspension. In contrast to modernist glass buildings, Breuer experimented with concrete and masonry forms of construction, engaging iterative forms of modular geometric patterning in low and high relief. This studio explores the dynamic and iterative modulation not only of tectonic and structural modules but the assumptions regarding the modularity of rooms, programs, civic identities, and urban formations.

You Wu

Sohyun Kim



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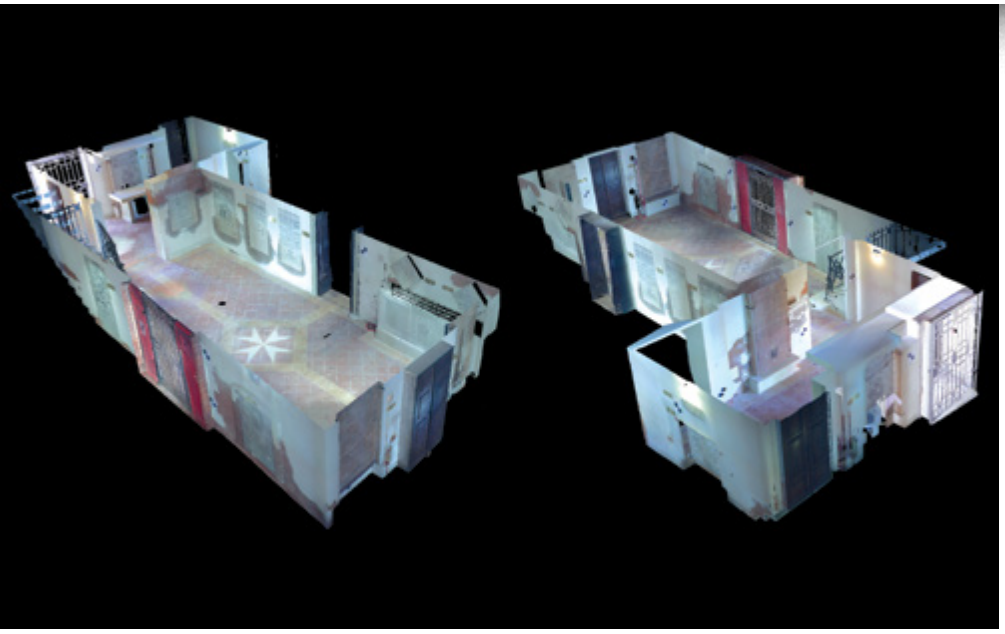
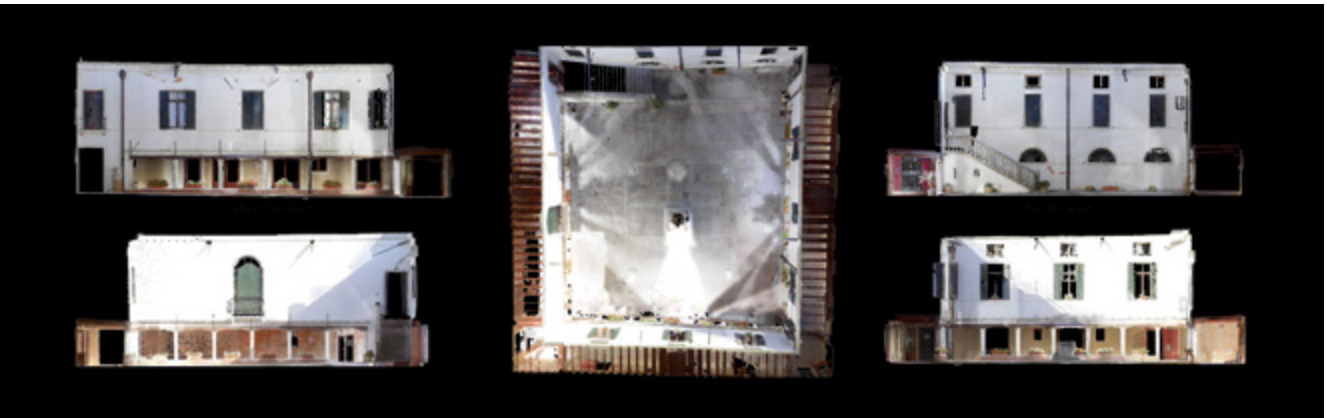
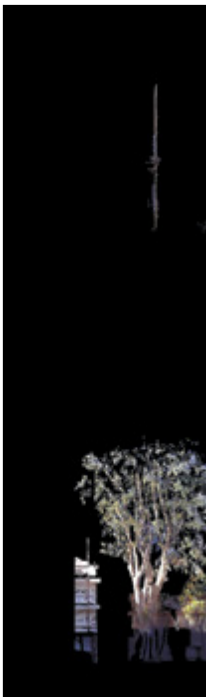


Seo Jun Oh

Bingyu Lin, Qian Xu

Kathleen Maloney, Laura Garnier





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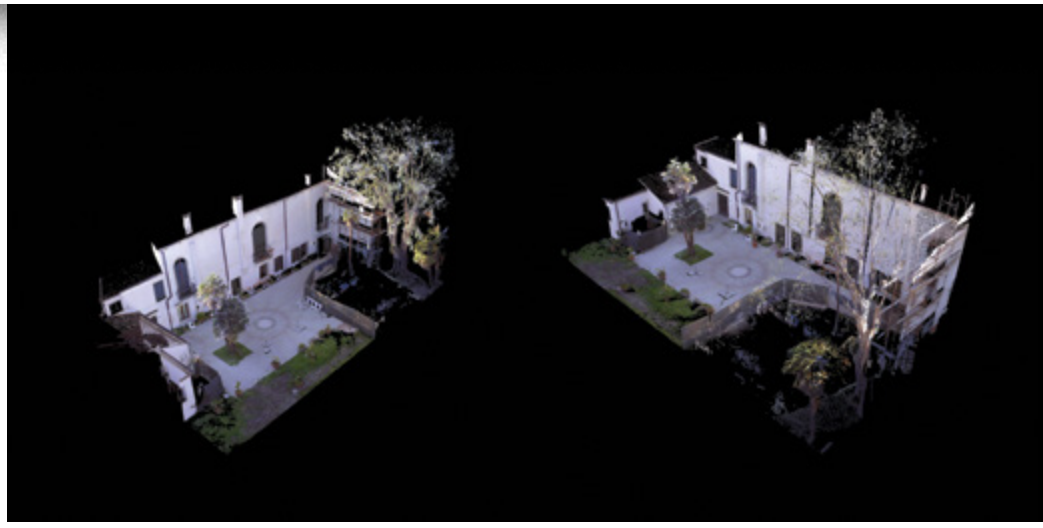

James Churchill

Drew Barnhart, Claire Cancilla

Caitlin Rudin, Erin Murphy

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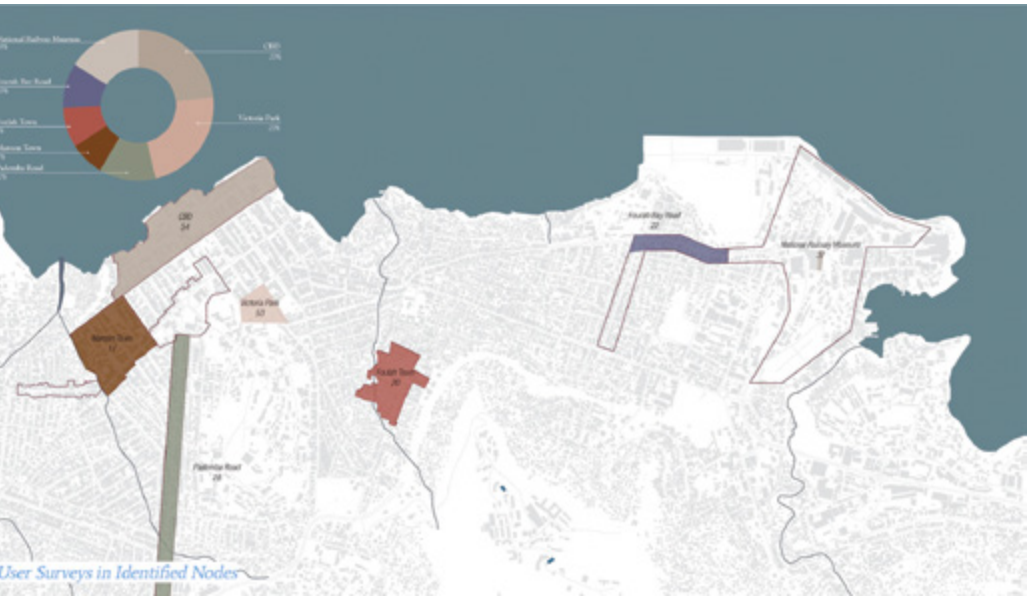


Bingyu Lin

The Buildings and Practices of Fukien Construction Bureau 1916-1949: A Study of Western Missionary Architecture in China and the Preservation of Its Contemporary Legacy
Paul Louis Bentel, Advisor
Jorge Otero-Pailos and Belmont Freeman, Readers

From 1840 to 1949, numerous remarkable buildings designed by Western missionaries in the service of religious organizations were erected in China. The architectural practice of Western missionaries substantially influenced the modernization process of architecture in China in all aspects including architectural style, material and construction technology, and the business methods associated with the practice of architecture. Their work – both in its day and in the legacy of buildings they designed and erected – provides tangible evidence of the important but often unrecognized cultural exchanges between Western and Chinese cultures. As a matter of both architectural and social history, it is regrettable that few of these buildings survive today due to political or social unrest and the rapid redevelopment of the built fabric in recent decades. Given the scarcity of this physical legacy and limited recognition of this history, it is essential that an immediate study of Western missionary architecture is conducted to reveal further its multilayered history and to promote its preservation. This thesis endeavors to uncover the underappreciated history of a particular Western colonial building enterprise, the Fukien Construction Bureau (FCB). As an instrument of the Methodist Mission in China in the first half of the 20th century, the FCB provides evidence of the role architectural design played to affirm and extend the goals of the Methodist Mission. It produced hundreds of buildings, introduced methods of design and construction technology as well as engineering principles and business practices that greatly influenced Chinese architectural system. By examining primary and secondary sources and conducting a field survey and interviews, this thesis traces the work of the FCB, demonstrates its enormous output and its lasting impact on the practice of architecture in China, and argues for the preservation of the few extant buildings as outward signs of this cultural legacy.■

Caitlin Rudin Gardenhire

Spatializing the Stories of Free Women of Color in the Vieux Carré
Carol Clark, Advisor
Andrew Dolkart and Richard Pieper, Readers

The characterization of free women of color living in New Orleans as women who relied on their sensuality to gain a foothold in society have been perpetrated since at least the 1810s and is repeated still today, even as efforts to bring to light untold stories, particularly about women and people of color, have been gaining momentum in America's social and political consciousness. Through the identification of extant buildings in the Vieux Carré Historic District owned by free women of color between the acquisition of New Orleans as a Spanish colony until Louisiana's admission to the Confederacy, an analysis of the rights belonging to women of color in this period across what is now the U.S., and a recommendation for physical permanent recognition of these sites, the underrepresented histories of this group who were and are intrinsic to New Orleans society will join the preservation discourse locally and on a larger scale. This thesis demonstrates a more accurate history of free women of color as integral members of the community, business proprietors, and property owners by identifying and physically recognizing vernacular buildings owned by free women of color between 1763 and 1861 in the Vieux Carré Historic District, and seeks to dismantle the misogynistic and racist myths surrounding free women of color by integrating sites they owned in the preservation narrative.▙

Claire Cancilla

William L. Pereira's Modern Architecture and Historic Imprint on Los Angeles
Andrew Dolkart, Advisor
Monty Freeman and Gregory Dietrich, Readers

William L. Pereira was a prolific architect and planner who lived and worked in Los Angeles from the 1930s until his death in 1985. Although Pereira played an outsized role in shaping how Los Angeles looks and how it is experienced, his work remains understudied and underappreciated. As a cause or an effect of this neglect, three Pereira projects are simultaneously facing demolition for new development: the Metropolitan Water District Headquarters (1963), the Los Angeles County Museum of Art (1965), and the Times Mirror Square extension (1973). Research on Pereira is timely because of the likely demolition of these projects, but also because the city is currently undergoing "its most transformative urban vision in a generation" through intensive growth and development. At this pivotal moment, it is necessary to reflect on and assess Los Angeles' architectural past as it moves into its future. This thesis examines how Pereira shaped and was shaped by the city, the operating of his firm, his relationship to other corporate modern firms, his design ethos, why his work has been sidelined both historically and since his death, and the factors influencing the likely demolition of his projects. This thesis argues that blanket perceptions of Pereira's work as ugly or irrelevant ignore the significance of Pereira's work both in its own right and as reflections of the broader history of postwar Southern California's urban development. While these demolitions of Pereira's work would represent devastating losses of his legacy in Los Angeles, the losses can also be used to galvanize action to protect future Pereira buildings and to encourage additional attention to Pereira's buildings, the study of Pereira's work, and appreciation of his impact on Los Angeles' built environment.▬

Drew Barnhart

American Nonprofits and the Funding of Preservation Abroad
Will Raynolds, Advisor
Erica Avrami and Daniel Reid, Readers

US-based entities are a major source of funding for preservation internationally, with American organizations contributing tens of millions of dollars to the conservation of foreign heritage every year. Critiques of this phenomena tend to focus on public actors, addressing the ways in which governmental entities use preservation funding to achieve foreign policy objectives. This thesis expands on existing critiques by exploring the diverse landscape of private actors that facilitate the flow of both private and public funds to heritage abroad with the goal of understanding the factors that shape their priorities and agendas. To achieve this goal, this thesis examines a sample of fifty-two American nonprofits that engage with preservation abroad. Drawing from a review of these entities' public-facing documents, as well as interviews with representatives from eight organizations, this thesis proposes a typology of three categories of nonprofits that operate in this arena: fundraising-oriented, or "friends-of," organizations, which serve largely to support European heritage; project-implementers, which often employ preservation as a tool for capacity-building; and organizations motivated by religious agendas, the largest of which send funds to Israel. Pulling data from these organizations' tax forms, this thesis also offers an analysis of income sources, the amount of money sent abroad for preservation, and changes in revenue over time across each category of organization. Ultimately, it concludes that there is a gradation in terms of the control each nonprofit has in setting its own agenda and that diverse actors, including foreign organizations, individual donors, US governmental agencies, foreign governments, and local communities shape how funding is used.◣

Emily Junker

Preservation Through the Self-Help Housing Movement
Carol Clark and Ryan Devlin, Advisors
Amy Starecheski, Reader

Older, multi-family, residential buildings were threatened by abandonment, landlord neglect, demolition, and fire in NYC's most distressed neighborhoods before, during, and following the 1975 fiscal crisis. However, several of these resources survived this period through the value that tenants, communities, and housing advocates saw in them. In this thesis, I sought to answer these questions: What role did tenants have in the preservation of distressed buildings? How did city agencies and housing advocates enable and help them? How did these actors perceive the preservation of distressed residential buildings through self-help programs? To what extent have the physical characteristics of the buildings been preserved? How have these actions preserved other aspects such as affordability, community, and continuity of residents? What lessons can be learned from NYC's history of self-help housing? The thesis is organized into three parts. Part I provides background information about housing issues in the city during this period, the tenant movement, and rehabilitation, and low-income tenant ownership policies. Part II presents a narrative of self-help housing experiences—from squatting, sweat equity, and urban homesteading—in Morningside Heights and Manhattan Valley neighborhoods that are connected through key actors and organizations. In Part III, I assess my research findings regarding physical, community, and affordable housing preservation. I argue that tenants in NYC preserved physical built characteristics of their residences and neighborhoods. Their collective actions brought and held together communities. They generated affordable housing for themselves and others. These occurrences may not have been possible without the support of advocacy groups and government bodies who provided support, financing, and formality. Most buildings discussed are still standing and attractive neighborhood resources. Yet, not all have been able to preserve their social integrity—the collaborative spirit that saved them and affordability to the lower-income residents they served.◖

Erin Murphy

[De]Constructing Guastavino Vaulting
Tim Michiels, Advisor
Derek Trelstad and John Walsh, Readers

Literature regarding Guastavino vault assembly indicates that mortar used to build these structures was uniformly a combination of gypsum and portland cement. Limited research questions the use and placement of these mortars. Preservation professionals often identify discrepancies between this literature and the material composition of individual structures during restoration, however these findings are rarely published. This thesis performed a material study at St. Paul's Chapel, identifying the use of at least four different types of mortars, including gypsum mortar, gypsum-lime mortar, natural cement mortar, and portland cement mortar. Methods of analysis included archival review, physical observation, and cursory petrographic analysis of select samples. It was concluded that mortar use and placement varied by assembly type. Supporting case studies identified additional mortars, other than gypsum mortar or portland cement mortar, which also varied by assembly type. This study covered less than 1 percent of the approximately one-thousand projects constructed by the Rafael Guastavino Company, but the findings indicate that a wide array of methods and assemblies appear. The study of St. Paul's Chapel and the other supporting case studies demonstrate that the Guastavino Company's methods of construction varied in response to specific project parameters.◥

Fei Deng

Power of Storytelling: Case Studies on how Manhattan's Chinatown Consciously Preserved the Chinese American Women's History
Andrew Dolkart, Advisor
Barry McCarron and Chengzhi Wang, Readers

The goal of this research is to figure out how spontaneous storytelling could contribute to the preservation of existing women's history of ethnic enclaves like Manhattan's Chinatown. Starting from the key questions put forward at the beginning of the thesis, the two cases in Chapter Three mainly focus on the following questions: Who are the initial narrators and how did they consciously preserve the historic legacy of women's history by storytelling? When the narrators and methods of storytelling changed, can the activities of preservation still continue based on the existing storytelling? How did the gendered spaces are narrated in their storytelling?

From both the case of Mabel Lee and the women garment laborers' protest of 1982, one common characteristic of the storytelling is the conscious mention of the space-related memories, which shows as a historic "scene" to recall the memories shared among different generations of the community. By describing the activities that happened historically in the spaces, the storytelling re-discovered the value of the inundated places, which are always lacking conservation and historic interpretation. In this way, the spontaneous storytelling could be valuable, bottom-to-up way of preserving the local community's underrepresented group's historic legacy, because it could function as a storage of historic information before the story's value was re-discovered by the public cultural organizations, and after the story's historic value was re-discovered, it could build the language of its historic value based on the community's emotional, in-situ memory of the space. Thus, by consciously collecting and preserving the trace of storytelling before the unrepresented women's history was recognized and related landmarks was officially designated, and digging the space-related storytelling after the women's history was publicly narrated, the spaces with submerged history could get better preservation with the community's understanding and support.▟

Allison Fricke

Beyond Aesthetics: Evaluating Social Outcome of Adaptive Reuse
Erica Avrami, Advisor
Mabel Wilson, Richard Plunz,
and Richard Southwick, Readers

The fields of historic preservation and architecture claim varying social benefits of their work, but the assertions rest on limited scholarly research. Social outcomes are particularly important in the historic built environment because social intention is embedded in the designation of historic buildings. Design in historic built environments (such as adaptive reuse), therefore, is a critical common ground of architecture and preservation practice. The research aims to inform architectural practice in relationship to the historic built environment and social outcomes. The methodology targets current architectural practice in the historic built environment through a critical review of literature—with particular emphasis on literature on post-occupancy evaluation—and interviews with architects, which served to gain insight into practice.

The findings elucidate paradigms and draw out deficiencies in architectural practice concerning social outcomes in relation to the historic built environment. The research finds that architects do have agency in setting preservation intentions. However, differing perceptions of what constitutes social benefit, limited metrics of social benefit offered in the literature, and barriers to post-occupancy evaluation in practice hinder architect involvement in assessing social benefits of adaptive reuse. Recommendations strive to incorporate findings into architectural practice, including capitalizing on existing opportunities for expanding post-occupancy evaluation.▶

Gwen Stricker

Industrial Decay: Environmental Value at Industrial Heritage Sites
Bilge Kose, Advisor
Francoise Bollack, Bryony Roberts,
and Miriam Kelly, Readers

Industrial heritage comes with a complex system of values, embodying historical, social, aesthetic, and economic narratives. Representative of a once booming economy, abandoned industrial sites now exemplify the negative consequences of material exploitation, environmental pollution, and deindustrialization. In recognizing these places as heritage, little attention is given to the significant mark made on urban and natural landscapes and environments.

This thesis argues that industrial heritage sites should be assessed for environmental value as an opportunity to recognize the environment as an interdependence between nature and culture. Ascribing environmental value at these sites involves not only an acknowledgement of the toxic environmental systems that emerged as part of industrial processes but also an analysis of the sites' natural decay and growth. This argument will be explored through Chicago's abandoned industrial heritage sites that are in a state of decay, specifically the Acme Coke Plant and U.S. Steel's South Works. The history of Chicago's growth was dominated by industry, specifically the steel industry, but the most influential and historically significant industrial sites are in a state of decay and are largely excluded from heritage recognition in the city.

Approaching the subject of industrial heritage through the assessment of environmental value acknowledges the fact that industrial heritage sites and the ecologies they disrupted have now become physically intertwined, an approach that considers decay as a defining characteristic of industrial heritage sites. Advocating for the natural environment captures a difficult history, but in doing so promotes a positive outcome for environmental health in the preservation process. This thesis explores nature's agency to reuse abandoned industrial sites and the possibility to accommodate natural decay to represent the complicated relationship between industrial culture and the natural environment in the urban landscape.■

Huanlun Cheng

Understanding Preservation Methods at the Memorial Cemetery for Heroes of the Revolution in Nanjing by Henry K. Murphy
Kate Reggev, Advisor
Francoise Bollack and Amy Lelyveld, Readers

Nanjing was the political and cultural capital in the early twentieth century (1912, 1927-1949) for the Republic of China during the period now known as the Republican era. The need to reimagine historic sites arose as a common issue and architects from other parts of the world introduced modern architectural methods eventually contributed to the process of shaping Chinese architecture in modern times. However, not all of the legacies in the Republican era that had glorious pasts and far-reaching influences are currently well understood, perceived, or preserved.

The thesis starts from analyzing the National Memorial Cemetery for Heroes of the Revolution (1929-1932) in Nanjing, one of Henry K. Murphy's most successful and final projects that reflects his adaptive method for working with existing historic buildings in its advanced form. The cemetery complex comprises six significant architectural nodes located on a central axis, and a well-rounded master plan for other essential aspects including landscape and transportation. Multiple preservation strategies were applied in the design to adapt existing structures on-site that belonged to the ancient Linggu Temple. The Memorial Cemetery was significant not only for its architectural values but also for its multi-layered identity as a public memorial commissioned by the political leader Jiang Jieshi for the martyrs sacrificed in three wars.

Through the lens of preservation, this thesis seeks to fill in the gap in understanding Republican heritage. The idea of "strategy" is introduced as a collective set of preservation methods and actions since these buildings require a framework that considers both the original preservation strategy that Murphy employed and rational visions for the future. These preservation strategies were specifically developed to deal with typical situations for the Republican heritage, leading to the creation of a new evaluation tool that helps determine future preservation strategies as the final part.▪

James E. Churchill

Decorative Monel: Historical Aesthetic Intent, Weathering, and Analysis
Norman Weiss, Advisor
Richard Pieper and Scott Kreilick, Readers

Monel is an enigma. Poorly understood and grossly under-researched, the alloy has largely been ignored despite its importance in the first half of the twentieth century in the history of metallurgy and the modern style. In exterior environments, Monel's weathered appearance is commonly misidentified as Bronze, while in interior contexts, it is regularly assumed as nickel silver. The break-up of the International Nickel Company has scattered historical and technical data, leading to an information vacuum that sees historic Monel painted, waxed, or lacquered, with no grasp of the potential impact on it. This thesis investigates the original aesthetic from both the company and client perspective, including a review of the documentation of renowned fabricator Samuel Yellin and designer Parke Edwards, in order to contribute to professional conservation practice. Focusing on exterior decorative Monel, inorganic and organic testing was carried out at three case study sites to identify weathering compounds and historic applied coatings through both quantitative and qualitative methods of X-ray fluorescence and diffraction, gas-chromatography mass-spectrometry, and Raman spectroscopy. Scientific data is supplemented with both primary and secondary historic documentation to argue a need for a new method of conservation. Monel does corrode, albeit slowly, despite the well-held and even better-sold belief to the contrary. The common practice of leaving unstable and non-uniform weathering on the surface for age-value and so-called patina appreciation should be reconsidered. Addressing the dearth of information, this thesis suggests potential restoration and maintenance approaches for professionals and the wider community aiming to extend the future of this rare and underappreciated "white metal."◖

Kathleen Maloney Lo

Documentation of Built Heritage and Disaster Preparedness Plans
Theo Prudon, Advisor
Erica Avrami and Bilge Kose, Readers

As flood-prone communities seek to adapt and protect heritage resources from the impact of changing weather systems and water damage, there is a greater need for alternative and affordable solutions to safeguard historic resources. Many cities are updating preservation plans to better incorporate heritage but there remains an alarming lack of representation for historic resources in hazard mitigation plans. This can lead to a lack of sufficient documentation, necessary for supporting recovery efforts. Documentation serves as a record, memory, and as a reference in the adaptation process for prioritizing elements of high significance. For buildings that are listed locally or on the National Register, reference to this documentation can mean the difference between retaining enough integrity to retain their status on the list or to be removed. Incentivizing and sourcing funding for documentation in advance of a climate event remains a crucial component of this narrative, influencing the role of documentation in preparedness planning and recovery efforts. This thesis examines the role of documentation in preparedness planning on a global scale, from the founding of UNESCO, and its adoption into US-based preparedness efforts, at the federal, state, and local levels focusing specifically on water-related threats. Two US case studies have been evaluated to illustrate the application of different methodologies, technology employed, community involvement, and the driving factors for initiating a preventive (or proactive) documentation project to encourage broad-scale application of these techniques.◆

<THESES>

Laura Ophélie Charlotte Garnier

Rebuilding Sounds at Historic Sites
Jorge Otero Pailos, Advisor
Jessica Williams and Will Raynolds, Readers

When considering historical sites as guardians of memory, it is necessary to transmit the information kept by these places to the largest audience possible. As the first principle of the Icomos Charter for the Interpretation and Presentation of Cultural Heritage Sites express, practitioners should "facilitate understanding and appreciation of cultural heritage sites and foster public awareness and engagement in the need for their protection and conservation." With this educational goal in mind, it is necessary to consider the historical places, already proposing this kind of initiative.

In the United States, "45% of museums are historic sites, historical societies or historic preservation organizations." These organizations engage their audiences and interpret their sites in unique ways. In order to go deeper on a theoretical reflection, the topic of this thesis will focus more specifically on the use of sound and audio experience for sensory immersive development in historical sites.

The audio experiences are used in different ways in historical sites, and the objective of this thesis is to question these different methods. "Many exhibits focus on the materiality of a single object and help visitors connect with the sensory properties of historic artifacts, their context, and the stories behind them. Other museums, with the use of technology, create immersive learning experiences that have no artifacts at all", and it is precisely what Cultural Heritage sites are doing, proposing experiences to enhance their building, rather than only their content, to express their significance. However, the use of technologies also brings up questions of authenticity at historic sites. As technologies are used more and more, even in historical sites, it seems necessary to question the process of creation and implementation of these tools as well as identify impacts of these technologies.

The use of senses, especially through technologies, can help to enhance the interpretation of a place. Recently, museums in historical sites are proposing new immersive experiences to visitors that utilize multisensory technologies, frequently sound. But with the potential of these technologies come challenges, and it is important to examine how sound is being used, the strengths and weaknesses of its use, its impact, its goal, and its results.◒

Mariana Ávila Flynn

Recapturing the Ideals of a Former Paradise: Preservation Approaches for Modern Acapulco
Mark Rakatansky, Advisor
Jorge Otero-Pailos and Theodore Prudon, Readers

The popularity of Acapulco as one of the most glamorous destinations of the mid-twentieth century has remained prominent in the imagination of Mexican and international communities partly because its construction relied on displaying stunning tropical landscapes that merged with the development of modern facilities. As time went by, these elements became part of a worldwide publicity and artistic strategy promoted by the government, and primarily materialized by modern Mexican architects, giving Acapulco its global fame that proliferated between the 1940s and the 1970s. In that context, this thesis argues that Acapulco resulted as a unique Mexican seaboard city that showcased a notable influence of the modern architectural movement instituted worldwide, but also a modern tropical idiom that became relevant in the tropics after World War II. To demonstrate the argument, the analysis of "Los Cocos" Condominium and "Condesa el Mar" Hotel designed by Mario Pani will act as two case studies that exemplify the institution of the modern tropical approach for Acapulco.

Mario Pani is well-known because of his significant participation in the construction and modernization of Mexico City, mostly during Miguel Aleman's presidency between 1946 and 1952. This participation was echoed in Acapulco as a collection of projects that demonstrated the establishment of a modern idiom as part of Acapulco's development. However, his involvement as an influential character in Acapulco's construction has been overlooked by present scholarship, leading to the demolition or transforming his legacy and the loss of the original character-defining features found in former tropical modernism. In addition to providing a new academic perspective toward Pani's work in Acapulco, this thesis will place the analysis of his structures within the current framework for preservation in Acapulco to provide alternatives for a contemporary understanding of Acapulco's modern heritage. Finally, the study will support the claim that it is possible to apply the ideals instituted as a part of modern Acapulco for preservation strategies, such as renovations or adaptive reuse projects.▲

Micah Tichenor

Ruin Recovery: Emergence of a Preservation Aesthetic Through Museum Architecture in the 21st Century
Francoise A. Bollack, Advisor
Will Raynolds and Jorge Otero-Pailos, Readers

At the end of the 20th century, the trend of architecturally iconic museums and cultural centers to attract tourism, commonly referred to as the "Bilbao Effect," was beginning to show signs of fatigue. Simultaneously, a ruined building was increasingly perceived as an opportunity for rehabilitation, primarily in Europe, influenced by the rise of Postmodernism and criticisms of post-war reconstructions. Over several decades, this perception developed into a new preservation aesthetic, which I refer to as "ruin recovery". Currently, there is no comprehensive study or documentation on the physical expression of history that is seen in ruins which have been visibly incorporated into a new work of architecture. This thesis examines the emergence of ruin recovery as a preservation strategy, and its impact, through case studies. After establishing a list of architecture projects, spanning 1957-2019, that incorporate and visibly display a ruin, three were selected as case studies to highlight this turning point in the field of preservation: the Mill City Museum (1997-2003) in Minneapolis, Minnesota; the Kolumba Museum (1997-2007) in Cologne, Germany; and the Neues Museum (1997-2009) in Berlin, Germany. These museums demonstrate a shift in the early 21st century to urban cultural projects that are interested in communicating identity through the specificity and history of place, and not through the vision of an architect. Preservation provides the tools to achieve this sense of identity, visibly displaying a building's past, and by extension, the values of the city. The three projects are analyzed through a variety of published sources that reveal a conversation about ruin recovery that is celebratory, contrary, and often uncertain in how to define the approach and its potential. This analysis calls attention to the trajectory of a new preservation aesthetic that embraces damage and decay as a trace of a building's history, reflecting the capacity of buildings to evolve.◆

Annie Noramon Bodhidatta

Preserving the Sacred: Abandoned Buddhist Temples in Bangkok, Thailand
Paul Bentel, Advisor
Erica Avrami and Chris Neville, Readers

Many temples across Thailand have been facing the issue of abandonment. By definition, an abandoned temple is a religious (Buddhist) building/structure that no longer functions as an official place of worship; in other words, a temple that no longer has any monks in residence to govern and maintain the precinct. These range from temples that are in ruins to the ones that still are in perfectly good conditions with a Buddha inside. Abandoned temples are usually smaller temples that have been left behind as the monks decided to move somewhere else, or in many other cases have been combined into a larger temple complex close by. Some have been destroyed by disasters or wars, leaving behind only mounds of ruin, while for some, only the name and memories of those temples remain and are carried on through the generations.

Most people might imagine abandoned temples as ruins of brick walls or pagodas such as those found in ancient cities in many provinces across Thailand. However, they may not realize that there are still abandoned temples scattering around the capital city of Bangkok. Buried deep inside various neighborhood communities, these abandoned temples are mostly only known by people of the local community and are often unheard of and inaccessible to other people outside of the neighborhood.

According to recent research, 22 abandoned temples have been identified within the area of Bangkok. Most of them are located around the outer area of the old city center. The fact that there are a number of temples located close to each other (causing some to be abandoned) indicates that there were once dense and active communities surrounding these temples. As the physical and social contexts around them change, these religious Buddhist structures become underused and no longer retain their past dynamics with the communities. Today, abandoned temples are still an important part of the physical urban fabric, but they have become neglected and overlooked by the local communities and by Thai people at large.

This thesis will identify through on-ground research, interviews, and reading of secondary resources, to compile a template of conditions to be used in identifying these circumstances of abandonment. Potential strategies for their positive use in the future will be identified as a guideline for implementation.▙

Sarah Sargent

Unearthing the Radioactive Junkyard: Interpreting and Preserving America's Forgotten Nuclear History
Will Rayolds, Advisor
Richard Piper and Jessica Williams, Readers

Radiologically contaminated sites differ from other heritage places in that the inherent permanence of their materiality creates an imperative for their preservation on a massive timescale. This is cultural heritage at its most crucial, for if our society forgets about the dangers that radioactivity poses - if the message Do not dig here does not translate across centuries - then beings generations ahead of our own will be put at risk. Efforts have been made to mark radioactive waste disposal sites for millennia, but conveying risk that far into the future is a nearly impossible task. Furthermore, environmental remediation of radiologically contaminated historic sites is a destructive as well as a healing force. Oftentimes even the most significant historic buildings at these places have been demolished due to the major human health threats posed by their radioactive contamination. How can preservationists engage in the highly conflicted realm between remediation, destruction, and the preservation of significant structures? How can these places be commemorated in such a way that this history is not forgotten? In this work, I will explore a series of three case studies that illustrate how radiologically contaminated historic environments have been treated during the EPA Superfund cleanup process. I will examine the regulatory and policy processes (including Section 106 review) that have led to these preservation outcomes. Finally, I will analyze existing models of interpretation at similar sites with an eye towards the lessons learned that could be applied to these unique preservation challenges. This thesis seeks to answer the above questions, and to provide recommendations for the preservation treatment and interpretation of radiologically contaminated heritage places.◥

Scott Goodwin

"Red Listing" Heritage: Endangerment as Policy and Collective Action
Erica Avrami, Advisor
Chris Neville and Will Raynolds, Readers

Scholarship is increasingly critical of endangerment as a sensibility and a discursive device that shapes cultural heritage and its preservation. But recent academic calls for abandoning endangerment- and loss-oriented heritage practice have tended to overlook the complex ways that endangerment functions as a tool, and one that is used by institutions and publics alike. Endangerment listing programs for heritage have emerged over the past half-century as a distinct policy tool and one of the key ways that categories of endangerment are defined and reproduced. By moving beyond analyses of these programs as rhetoric or discourse, and by reframing recent discussions of "heritage at risk" in terms of policy and collective action, so-called heritage "red lists" become recognizable as mechanisms through which institutions and multiple publics dynamically construct endangerment to achieve varied outcomes in practice. Using red list programs as case studies, this paper explores the ways that contemporary list facilitators and list users negotiate and mobilize endangerment, and to what particular ends. It argues that endangerment as heritage policy functions not only as a tool of institutions, experts, and heritage professionals but also as a means through which communities define and redefine notions of themselves. Despite a growing suspicion of endangerment within critical heritage discourse, this research suggests how endangerment might serve productive roles in policy and practice.◆

Seo Jun Oh

Comparative Laboratory Evaluation of Natural Hydraulic Lime Mortars for Conservation
Norman Weiss, Advisor
Jennifer Schork and John J. Walsh, Readers

Over the past two decades, natural hydraulic lime (NHL) has become a popular binder in restoration mortars used for the conservation of historic masonry buildings in North America. The most obvious advantage of the NHL is a more rapid setting as compared with non-hydraulic hydrated lime (and lime putty) mortars. At the same time, NHL mortars are said to have the favorable attributes of most lime-based formulations, for example, low-to-medium 28-day strength, and relatively high-water vapor transmissivity (WVT).

The longer-term performance of NHL mortars, however, is difficult to predict, as they are produced from impure limestone quarried at various geographical locations in Western Europe. As the mineralogy of the source rock varies, so does the chemistry of the individual hydraulic limes manufacture. Moreover, the scarcity of manufacturers' data and independent laboratory-based literature on NHL mortars is a very significant issue. The concept of pointing mortar as a building component that is sacrificial and "compatible" –as often discussed for NHLs as for other lime mortars–is difficult to translate into conservation practice in the absence of scientific data. Of course, mortar testing data is only one aspect of those issues, as the behavior of the masonry units would need to be studied on a building-by-building basis, and in a detailed way. The goal of this research is the examination and comparative evaluation of some fundamental properties of NHL mortars. Eleven NHL binders from four different manufacturers were selected, all of them available in the North American market. More than 200 specimens were prepared with a volumetric (1: 2.25) binder-to-sand ratio, based on a common mix design for restoration mortars used in the field. For comparison purposes, Type-O mortars were prepared under the same condition. Experimental programs were created to study three crucial parameters: compressive strength, water vapor transmission, and water absorption by capillary uptake.◖

Shreya Ghoshal

Urban Juxtaposition: Balancing Heritage and Development through Transfer of Development Rights in New York City Special Districts
Erica Avrami, Advisor
Weiping Wu and Douglas Woodward, Readers

As a policy tool functioning at the nexus between planning and preservation, Transfer of Development Rights (TDR) was created to alleviate some of the pressure placed on historic structures by market forces. Though not uncontested, planners, preservationists, and developers all believe the use of TDR in Special Districts to be successful for its ability to direct new development across a neighborhood while protecting architecturally and culturally significant resources. But does this determination hold up to contemporary standards for equitable and sustainable development principles? A critical analysis of the history of planning policy exposes inherent biases that stand counter to contemporary planning goals; a similar investigation of the history of preservation policy reveals a prioritization of aesthetic concerns over wider social goals. Despite the layers of protection built into each Special District policy, and clear intentions to continue their use throughout NYC, they have never undergone a deeper level of analysis beyond economic valuation studies. This thesis bridges multiple disciplines by investigating the intent versus outcomes of TDR in Special Districts through a set of new metrics, employing an evaluative framework based on current planning and preservation discourse. This research consequently suggests that TDR does indeed reconcile preservation and planning aims in a single mechanism but has resulted in lasting socio-spatial consequences that were not anticipated as part of the original policy rationale. Special Districts prioritize real estate and economic development and aesthetic considerations over social inclusion and environmental concerns. Ultimately, the evaluation of two NYC case studies, the Theater Subdistrict and the Special West. ◗

Sohyun Kim

From Brand Village to Living Heritage: Tong-il-chon in the Area of Korean Demilitarized Zone
Jorge Otero-Pailos, Advisor
Carolina Castellanos and Mark Rakatansky, Readers

This thesis argues that Tong-il-chon should be revalorized into living heritage than a typical brand village, by providing in-depth analyses to evidence Tong-il-chon's historical status of significance. It also seeks to make suggestions for an integrity-conscious preservation approach that would help Tong-il-chon turn into a compelling heritage with a clear historical identity of the inter-border area of Korean Peninsula. Tong-il-chon, a strategic civilian village built in the area of Korean Demilitarized Zone by the South Korean government in 1973, stands as important evidence of the long history of the two Koreas' discourses and diplomacy about reunification. However, recent initiatives taken into Tong-il-chon and its surroundings—for example, the Tong-il-chon Brand Village Development Project that overlooked preservation of the village's physical setting and the Camp Greaves History Theme Park Project that is considering a direct connection to the village—raise a question about conflicts with the deserving value and status of Tong-il-chon. In response to this question, this thesis will begin with a two-pronged analysis to establish Tong-il-chon's values: first, a design analysis based on architectural documentation of the village to assess the character-defining features of Tong-il-chon and their associated values, and second, a sociopolitical analysis to understand the establishment of Tong-il-chon not only within the political, social, and economic background of South Korea in 1970s but also in comparison with other countries' cases which applied similar strategic development methods to certain villagizations. After Tong-il-chon's values are defined, the current context around Tong-il-chon will be discussed to identify the main imminent issues that could threaten the integrity of Tong-il-chon. Lastly, effective management plans and recommendations will be proposed based on the assessed values of Tong-il-chon, which will be suggesting an overarching conceptual foundation through more specific, elaborated objectives and methodologies so that they can help the village evolve into a living heritage with a successful balance between preservation and development. ▚

Sreya Chakraborty

Branding the Power Centre: Significance of Toponymy and its Use as A Tool for Assertion of Political Prowess
Will Raynolds, Advisor
Anupama Rao and Chris Neville, Readers

The urban environment is made up of separate elements that spatialize social, cultural, economic, historic information about the geography and the people interacting with it. Their recognition through the lens of history and historic knowledge is heritage. Toponymy, or the science of naming places, is one of those spatial elements, and street names are a subset of place-names. They are essential inheritances for a state and its people as the state transitions through social, political, and cultural epochs, as they present a capsule to look back at state values and mechanisms. However, as with every heritage element, there is a quotient of temporality to them. Since street names are cultural productions that represent the most relevant and useful cultural information about the state at the time of naming, as conditions of the state change, they are often reconfigured.

India, having undergone various rules and regimes, has a long history of assigning and reassigning names to places not only as a way of commemorating important events, personalities, and revolutionaries but also for reforming spatial narratives rife with political intents. However, in recent years, specifically under the regime of the current government, there has been a proliferation of place-name changes in various scales of urban spaces: cities, districts, streets, buildings, transit infrastructures. These reconfigurations have attracted vehement opposition from the media. However, recent media depictions have failed to take into account the broader significance of name changes (toponymy) and the historical context of these changes.

This thesis is an inquiry into the heritage value of street names, the naming mechanism, and the actors behind the processes, how the processes intersect with India's political and historical contexts in an erstwhile colonial capital city of New Delhi in India, which also became the nucleus of the operation of Indian governments within the larger city of Delhi. Through a review of when and how street renaming happens in the area, identifying existing policies in place that facilitate the change,

or are subverted to make it happen, the thesis aims to understand the mechanism itself.

The thesis presents the information through the creation of layered historical maps to trace name changes through time, interviews with historians and other relevant stakeholders, and user interviews to better understand the current context of street name changes. The aim is to provide a timely reminder of the importance of street names and naming mechanisms as a heritage production process and help contextualize it within the larger considerations and motivations that were at play.▙

Yasong Zhou

Burial of the Early Generation of Chinese Laborers: Adaptation of Chinese Funerary Traditions in the US in the Late 19th and Mid-20th Centuries

Christopher P. Neville, Advisor
Amy H Lelyveld and Shuyi Yin, Readers

Death is not only an immutable law of nature, but also a way for human beings to express their unique culture. The traditional Chinese customs represented by burial rites were carried to different countries and regions in the process of Chinese immigration, and their core cultural connotation was inherited by overseas Chinese for generations. But at the same time, the multi-cultural background of the Chinese people also makes these traditional customs in the local changes and development, showing their uniqueness in different ways. Ultimately, Chinese burial culture is a concrete manifestation of cultural identity and identity, as well as a phenomenon of self-protection under huge cultural and social barriers.

The overall goal of this thesis is to document the burial culture of Chinese laborers in North America in the middle and late 19th century and to explore the heritage value of the burial network. On this basis, the author placed the sites (San Francisco, Victoria, Newfoundland, New York, and Boston) in the background of the global burial network, and analyzes the identity of Chinese laborers and the factors influencing the development of the burial network in combination with the local context. Furthermore, the author also explores the influence of local context on the development of the burial network and argues about the value of the burial network as a human heritage.▶

You Wu

Unfolding Layered Cultures: Preservation of German Colonial Architecture in Qingdao, China, 1897-1914

Belmont Freeman, Advisor
Shuyi Yin and Michael Muecke, Readers

Colonial architecture, as a concrete representation of both the local culture and invading culture, has its unique values to both colonists and the colonized. Along with the colonized history in China, which started from around 1553, Qingdao is a typical colony that can reflect well the combination and conflicts between local culture and invading culture. In addition, as a colony owned by two different colonial powers successively, it was influenced by multiple cultures, which is also reflected in colonial architecture there. This thesis seeks to unfold the layered culture of German colonial architecture built from 1897 to 1914 to examine changes under different governments' control. By analyzing changes in German colonial architecture, it is possible to recognize people's attitudes toward colonial architecture and how the government at the time influenced people's thoughts when facing the same thing. In this sense, it can help to determine how to evaluate different historical layers and define significance for the preservation of colonial architecture in China.

Starting from the Ming dynasty (1369-1644), many parts of China became colonies of Western countries. By 1897, Germany had become one of the significant competitive nations of the worldwide industrial revolution. Unlike Britain or France, however, Germany was a latecomer to establishing a stronghold in East Asia. After compelling the Jiaozhou Bay concession from the Qing Dynasty, imperial Germany transformed Qingdao, a former fishing village, into a relatively big city with seaport and military facilities. Germany planned the city for long-term occupation; thus, infrastructure and public buildings were designed based on architectural styles and technologies of the time. However, the Germans stayed in Qingdao for just seventeen years, being displaced by the Japanese after 1914. From 1891 to 1949, Qingdao had in total experienced seven significant historical periods, which are the Qing dynasty, Germany, the First time of Japanese rule, Beiyang, the Nanjing Nationalist, the Second time of Japanese rule, and the Nationalist.◗

Overall, the development of Qingdao reflects different characteristics under each different government's control. By unfolding the layered cultures in German colonial architecture in Qingdao one can help define the preservation and renovation of colonial architecture in China in the future.▬

Yu Song

The influence of local film on the preservation of Hong Kong Tong Lau from 1950 to the present
Francoise Bollack, Advisor
Amy Lelyveld and Theodore Prudon, Readers

As a representative of Hong Kong's vernacular residential building, tong lau has played a significant role in Hong Kong's architectural history. Thus, the buildings' preservation is also crucial. However, due to various factors, the preservation work has encountered many obstacles and difficulties.

The thesis hopes to explore the influence of local Cantonese films on the preservation of Hong Kong's tong lau from 1950 to the present. As one of Hong Kong's most crucial entertainment industries, native Cantonese films have a profound impact on shaping Hong Kong's identity and creating a collective memory of the local community. Thus, through film study combined with research on tong lau's preservation history, the thesis intends to explore how the local film industry managed to impact tong lau's preservation through the continuous enhancement and shaping of collective memories to strengthen identity, and to enrich the narrative of tong lau's significance and value. Moreover, by studying the association between tong lau's historical preservation events and local Cantonese film, the thesis aims to provide support for tong lau's preservation.▼

M.S. Real Estate Development
Patrice Derrington, Program Director

The Master of Science in Real Estate Development program (MSRED) is a three-semester degree that combines the fundamental skills of professional real estate with a holistic approach to urban development as a creative act. The program is cross-disciplinary, drawing on its proximity to other modes of practice at the school, and is grounded in the three core tenets of global urban real estate development: the financial, the physical, and the social. It attracts future business leaders looking for an alternative to an MBA and committed architects hoping to run their own design/build firm. The program's strength lies in its ability to weave current knowledge and best practices from the industry together with rigorous theoretical learning, incisive critical analysis, and immersive real-world case studies.

The Real Estate Development program is structured to provide a comprehensive understanding of finance and investment, project management, predevelopment analysis, zoning and planning, acquisition underwriting, and the value of design in real estate practices. In recent years, the program has greatly expanded its emphasis on financial investment and strengthened its relevance in terms of real estate markets, introducing a new real estate technology sequence to the curriculum and increasing the availability of technology resources for research. The curriculum builds its foundational knowledge incrementally over the three terms: the first semester is dedicated to developing solid, core competencies and the majority of classes are required; the second grants more space to focus on the development of specific industry interests; and the third consists mostly of deep-dive electives offered across GSAPP, Columbia Business School, Columbia School of International and Public Affairs, and Columbia Law School. The program culminates in a final Capstone project.

The program's Capstone class begins with initial group work as students learn about five different active real estate case-study sites, and ends with individual Capstone projects. Students must create their own personalized Capstone "deal-book" (with all the relevant financial information, design proposals, and market analysis data), as well as deliver a presentation and defend their project to an audience of peers, alumni, and faculty.

<PROPTECH: NOTHING VENTURED, NOTHING GAINED>
[Fall 2019] Zachary Aarons
Tracing the history of proptech development from the rise of the first Enterprise Resource Planning programs in the 1970s to the explosive wave of industry technology today, the studio analyzes which companies have succeeded and failed. Students learn about the myriad companies currently raising venture capital and how proptech focused venture funds attempt to spot trends. The course provides information on how venture capitalists source, evaluate, conduct due diligence, and ultimately invest in companies within the proptech landscape.

<THE DEALMAKING PROCESS: DEBT, EQUITY, AND THE ART OF NEGOTIATION>
[Summer 2019] Mitchell Adelstein
This elective teaches practical methods and techniques used by investors, lenders, and equity investors. The class focuses on how to underwrite value-add opportunistic income-producing real estate and engage the transaction process through group participation in a mock transaction case study. The class is split into “Deal Teams” whose objective is to underwrite and negotiate a deal to purchase, finance, and close the transaction. Each group presents their analysis and discusses the transaction process during the final session.

<CAPITAL MARKETS: DEBT>
[Spring 2020] Ed Adler
This course covers CRE debt instruments and financing techniques: balance sheet direct lending, syndications, bridge and mezzanine structures, processes of underwriting for CMBS, warehouse and repo financing.

<INTERNATIONAL REAL ESTATE>
[Spring 2020] Shawn Amsler; Patrice Derrington and Rosemary Scanlon; Johnny Din
The classroom sessions preceding the trips comprise research, analysis, and discussions regarding the destination countries: the details of the macroeconomic conditions, the real estate markets, the opportunities for attractive investment returns, the challenges of investing cross-border into the country, and the identification of a specific investment. Students prepare an investment proposal (Deal Book) for cross-border investment in the target country and present a “pitch” for the proposal.

<DEVELOPMENT ANALYSIS: URBAN PLANNING>
[Summer 2019] Kate Ascher
Real estate development is largely an urban phenomenon. Understanding the fundamental urban planning issues, opportunities, and risks associated with a given project is critical to successful development. These include a range of government regulations, powers, and incentives, including those associated with land use, zoning, sustainability, building safety, historic preservation, and the environment. They also include broader issues associated with gentrification, public space, and community participation. This introduction to urban

planning uses New York as the canvas to introduce these topics to students through relevant readings and case studies.

<PREDEVELOPMENT ANALYSIS>
[Summer 2019] Kate Ascher
In real estate development, it's important to understand two key sides of the real estate equation: investment in and development of the asset. Both require an understanding of key concepts and rules–some of them written and unwritten. Development requires a broad understanding of many qualitative issues and involves an iterative process of understanding a site and its context, testing certain development propositions, and evaluating their likelihood of success given a set of economic, legislative, and community considerations.

<HISTORY OF REAL ESTATE DEVELOPMENT IN NEW YORK CITY>
[Fall 2019] Kate Ascher
This course offers a historical survey of the last four centuries of real estate development in New York City, with a primary focus on Manhattan. It relies not only on existing sources held by Columbia libraries and others but also on material from the collection of Seymour Durst–a patriarch of one of New York's foremost real estate families and a passionate collector of the City's historical memorabilia. The latter part of the course touches specifically on modern themes that continue to shape the real estate environment of the city today: the continued regeneration of a once-industrial waterfront, the ever-evolving nature of public-private partnerships in development, and the seminal connection between civic places, like transportation hubs and parks, and real estate.

<JOINT REAL ESTATE DEVELOPMENT AND ARCHITECTURE STUDIO: A[X]*2>
[Fall 2019] Kate Ascher, Christoph Kumpusch
This studio applies The Netherlands' "make room for water" approach as a foundation to inform a water-based development plan for a series of sites in Amsterdam, New York. Real estate and architecture students research the history, urban geography, and hydrology of this city and work in teams to identify development strategies and interventions underpinned by flood reduction initiatives. The studio includes a week-long visit to Amsterdam, the Netherlands that focused on identifying alternative flood-reduction strategies and potential development opportunities. Students produce conceptual designs for a site and justify the feasibility of their proposed program based on high-level financial models.

<CAPITAL AND PARTNERSHIP STRUCTURING WITH ADVANCED EXCEL MODELING>
[Spring 2020] Arash Barati, Jose Lievano
This course advances the student's knowledge and technical skills with Excel financial modeling and covers the more complex construction of the DCF Proforma around various capital structures of partnership equity waterfalls, preferred equity, mezzanine debt, and securitized debt. Students build complex financial models from scratch.

<REAL ESTATE ENTREPRENEURIALISM FOR ARCHITECTS, BUILDERS, DEVELOPERS, BUYERS & SELLERS>
[FALL 2019] Hank Bell
This course is led by one of the first practitioner academics to define the independent discipline of development. The lectures are designed to fill in the gaps with practical knowledge and hard lessons learned from generations of practitioners. Students are provided with the know-how of materializing their visions at the entrepreneurial scale.

<REAL ESTATE TRANSACTIONS LAW>
[Spring 2020] Nathalia Bernardo, Robert Wertheimer
This course provides practical knowledge and critical skills for understanding how real estate transactions proceed from deal-making to closure. Taught within the context of real estate and contract law, it surveys a variety of instruments and provisions that are both standardized and the subject of negotiation. The format follows the timeline of a series of exemplary transactions, as manifested in a variety of instruments including land and building purchase and sale agreements, equipment contracts and leases, mortgages and UCC-1 security agreements, loan agreements, partnership agreements, and development agreements.

<ENTREPRENEURSHIP IN BUYING REAL ESTATE ASSETS>
[Spring 2020] Masood Bhatti
This course provides an additional, specialized focus for entrepreneurial students who wish to pursue a career in buying value-add real estate assets. Value add is defined whereby generally there is no foundation or ground-up work involved but the asset needs to be repositioned or upgraded. By walking students through the process of underwriting small transactions and structuring the capital and incentives and putting together their pitch, students are prepared to actively look for properties, reach out to lenders, and engage equity investors with their proposals in pursuit of their entrepreneurial ventures.

<REAL ESTATE DEBT SECURITIZATION>
[Spring 2020] Steven Bloom
Students investigate the process of real estate debt securitization including underwriting, issuance templates, debt tranches, and ratings. The analysis and modeling of portfolios of commercial real estate loans for securitization are undertaken with students performing individual securitization structuring. The securitization of residential mortgages is discussed.

<REAL ESTATE FINANCE II>
[Fall 2019] Steven Bloom, Chris Munsell
Building on the fundamental analytical tools and methods of Real Estate Finance I, this course extends the investigation to the financial aspects of the development and construction phase, and the equity investment structures and returns for real estate deals. In the modeling tutorial, students develop their facility with Excel and strengthen their understanding and utilization of the analytical processes reviewed in the lectures.

<ENVIRONMENTAL SUSTAINABILITY FOR REAL ESTATE DEVELOPMENT>
[Summer 2019] Stuart Brodsky
Students study the drivers, goals, and market's progress in the evolution of green real estate development, investment, and operations. Students acquire skills that enable the pursuit of sustainability measures in development projects, including but not limited to identifying the requirements that are driving the pursuit of sustainability in New York, other major US cities, and in international markets. Using government and industry developed tools, they calculate the carbon impacts and contribution to the asset value of select energy or water efficiency measures and pursue and leverage public benefit programs, such as incentives and tax credits for investment in sustainability tactics.

<DESIGN BY DEVELOPMENT>
[Fall 2019] Eran Chen
This course explores the design/development dynamic, understanding the complexity of competing objectives, interrogating the typical processes of resolution, critically examining various projects as outcomes, and contemplating potential modifications and improvements. Learning exercises utilize recent and current development projects; students engage in rigorous analysis in the classroom and given assignments.

<FUNDS MANAGEMENT AND CAPITAL RAISING>
[Fall 2019] Michael Clark, Marc Weidner
This course exposes students to the fundamentals of real estate private equity, basic terms, players in the industry, various roles of professionals, legal, and financial aspects of real estate private equity in today's environment and teach a broad base of understanding in private equity real estate to prepare students in the concepts, terms, and fundamentals that govern the real estate private equity markets. It focuses in particular on current fundraising issues as well as on the structuring of private equity transactions.

<THE REAL ESTATE ENTREPRENEUR'S PROCESS>
[Summer 2019] Sean Cohane
Students learn about the on-the-ground processes that the entrepreneurial real estate professional, working for their investment portfolio and leading their deals through to completion, goes through. The course proceeds through the stages of defining a market area of interest, creating a development thesis, and implementing a prospecting strategy. Students also analyze alternative capital sources and structures for debt and equity, and gain an understanding of the acquisition process–commencing it, doing due diligence, and closing–as led by the entrepreneur.

<TAX ISSUES IN ACQUISITIONS AND DEVELOPMENTS>
[Spring 2020] Dan Crowley
This course provides an overview of the relevant income tax rules applicable to real estate. It introduces planning techniques commonly used by individuals and business entities to minimize tax on real

estate projects. Students evaluate how strategy, asset type, and choice of investment vehicle can change after-tax results. Topics include variability in tax for different investors, projects, and chosen investment vehicles; effect of adopting and changing methods of accounting; impact of depreciation and interest expense on rate of return; how choice of entity impacts tax liability, special provisions for sales of real estate (e.g. like-kind exchanges, installment sales, and disguised sales) and tax policy.

<REAL ESTATE FINANCE III: CAPITAL MARKETS>

[Spring 2020] Patrice Derrington, Merrie Frankel

The course touches on all facets of public and private capital providers, as well as investors, with a particular focus on commercial real estate in the public markets: the recent history of securitized real estate debt and equity; the structure of CMBS and roles of the major participants; the growth, structure, valuation and performance measurements of real estate investment trusts (REITs); and other deal formats.

<CAPSTONE: DEVELOPMENT CASE STUDIES>

[Spring 2020] Patrice Derrington, Brian Loughlin, Raquel Ramati

The class utilizes various real estate development and investment case studies, in conjunction with outside real estate developers and investors within the industry. The cases reach across a broad array of product types, situational decision making, and business styles. This course utilizes selected real estate development and investment case studies, in conjunction with guest presentations by external real estate developers, and investors within the industry. Each student formulates a development or investment proposal (Deal Book) in which the comprehensive and compelling proposition is made and pitches the proposal to faculty and industry professionals.

<IT AND THE REAL ESTATE ENTERPRISE>

[Spring 2020] Robert Entin

This course deals with a variety of IT issues and real estate business activities. It examines specific applications and the underlying transactions they support, attempting to show the relationship between data points within the organization, the multitude of people whose jobs are affected by the data, and the financial outcomes. Additionally, the definition of the smart building continues to evolve: tomorrow's smart building will have an integrated network, communication, and control systems that allow it to operate more efficiently and profitably.

<HOTEL DEVELOPMENT AND INVESTMENT ANALYSIS>

[Fall 2019] Adam Feil

This course covers the complete financial cycle of hotel investment analysis including development; lending; operations; investment analysis; renovation decisions; and acquisition or disposition. Real estate valuation principles and procedures are explored with emphasis on the replacement cost, sales comparison, and income capitalization

approaches. The role and function of the asset manager are also discussed with emphasis on investment underwriting, operations analysis, portfolio management, strategic investment analysis, market strategy, management contracts, franchises, and involvement with the property management team.

<HOTEL TRANSACTIONS>
[Spring 2020] Todd Fieldston, Rick Kirkbride
This course integrates market and transactional perspectives in advancing a practical understanding of the global hospitality industry. At the heart of the industry is a unique accounting and transactional process that requires specialized training in the management agreements, operating agreements, design (FFE) and development agreements, in addition to flag agreements that define not just real estate development but day-to-day operations. Students are exposed to a variety of special topics ranging from boutique hotels to distressed repositioning of legacy assets.

<RETAIL REAL ESTATE AND DEVELOPMENT>
[Spring 2020] Gary Fogg, Lee Schaffler
The course discusses retail real estate from the perspective of both the retailer and the landlord/developer. A thorough understanding of the retailer's business model increases the likelihood of success for retail real estate investors and developers. At the same time, the class reviews primary considerations of the retail developer and owner: tenant mix, shopping center design, leasing, and valuation. A strong emphasis is placed on leasing and financial valuation.

<INTRODUCTION TO CAPITAL MARKETS>
[Summer 2019] Merrie Frankel
This survey of real estate capital markets touches on all facets of public and private capital providers, as well as investors, with a particular focus on commercial real estate in the public markets, the recent history of securitized real estate debt and equity, and other deal formats. Current events permeate all classes as capital markets are a fluid subject, thus, the cause and effect of the recession/capital markets crisis are discussed and its result.

<AFFORDABLE HOUSING FINANCE TECHNIQUES>
[Fall 2019] Richard Froehlich
This course presents a detailed review of the techniques for financing affordable housing. In combination with a focus on financing techniques, it also looks at the development issues associated with this complex area and the policy focus of governmental programs. Incentives, public-private partnerships, the use of tax-exempt bonds, and the securitization of debt are all techniques initially developed for use in residential finance and affordable housing financing.

<IN THE FIELD>
[Summer 2019] Robert Garneau
The course introduces development through individual exposure to prominent local real estate professionals—developers, architects, financiers, contractors, and brokers—to better understand the multi-faceted field. Topics include partnership, acquisition, zoning, financing, designing, construction, selling, and aspects of building developments.

<PRIVATE EQUITY DEVELOPMENT: HOTELS>
[Spring 2020] Rani Gharbie
This course discusses the rapidly evolving real estate investment and development industry and addresses various approaches with capital markets. It primarily covers major facets of creating a private equity development business while focusing on the hospitality industry. It also discusses the rise of independent lifestyle hotels, the shifting development strategies of large lodging players and the growing movement around the next generation of travelers. There is a focus on key industry disruptors that have been triggered by the rise of technology and the sharing economy.

<ADVANCED COMMERCIAL LEASING: STRATEGIES AND NEGOTIATIONS>
[Spring 2020] Marty Gold, Mitchell Nelson
This course delves into issues between landlord and tenant and the negotiation of language in the lease. It points out the enormous difference that little changes in language can make and how meaningful and critical careful review of the detailed language can be for landlord and tenant. The course provides insight into protecting cash flow and returns over the length of the lease and students learn ways that sophisticated modern leases contain hidden profit centers and control features that can be a boon for landlords and a black hole for tenants. Students discover the need for, and the limits of, trying to write in flexibility and come to understand the mindset of landlords to help tenants, and be able to manage handling leases on their own.

<BUILDING ADAPTATION AND REUSE>
[Fall 2019] Andy Golubitsky, Gabe Randall
This course introduces students to the design and development issues in the redevelopment and repositioning of existing buildings. Students learn significant land use and zoning regulations, taxation incentives, and social and economic drivers that have contributed to the current increase in urban redevelopment activity whereby existing buildings are reused often for new and different programmatic functions. The objective is to expose students to the technical challenges and opportunities that one would encounter when considering, and eventually executing, a redevelopment project.

<REAL ESTATE ECONOMICS>
[Summer 2019] Pamela Hannigan
This course examines the connections between the national and global economies and real estate markets from both theoretical and empirical perspectives. It explores the performance of specific property types under different macroeconomic businesses, growth cycles, and changing monetary conditions. The course explores key policy issues, their economic impact on real estate decision-making, and identifies indicators used to track economic, and real estate performance. The course also examines the economic structure of major metropolitan areas, the impact of local governments on urban economic growth, the impact of urban economic growth on supply and demand identification for specific property types, and conditions under which certain regions thrive while others decline. Building upon the concepts and tools of economic analysis, this course introduces appropriate data sources and techniques useful in analyzing and forecasting real estate demand and supply in different markets for specific property types at specific locations.

<COMPARATIVE GLOBAL REAL ESTATE>
[Fall 2019] Will Heishman
This course provides students with a comparative and critical approach to undertaking international real estate development projects, transactions, and investments. The aim to cultivate a general understanding of the dynamics of real estate developments and investments internationally as a foundation for the specific analysis of unique contexts and conditions for real estate activities within selected countries.

<CONSTRUCTION LAW: NEGOTIATION AND MANAGEMENT>
[Spring 2020] Lisa K. Howlett
This class surveys construction law to establish a practical understanding of legal issues that arise in construction. Using standard industry forms (owner-architect, owner-contractor, contractor-subcontractor, etc.), students develop the knowledge and skills necessary to navigate the relationships that are governed by these agreements. Key principles including fees, project delivery, completion, defects, delays, warranties, and liens are explored as well as how these issues are handled in the field.

RESIDENTIAL INVESTMENT AND DEVELOPMENT
[Fall 2019] Josh Kahr
This course focuses on residential investment and development. Topics include finance, investment, development, affordable housing subsidies and programs, REITs and public markets, environmental remediation/ brownfields, and partnership structures.

<REAL ESTATE FINANCE>
[Summer 2019] Josh Kahr
The objective of this course is for the student to develop a robust working competency with the tools and methods of financial analysis used by real estate developers, lenders, and investors. Additionally, students extend the capacity for financial analysis to complex real estate development and construction activities.

<GLOBAL REAL ESTATE INVESTING>
[Fall 2019] Sonny Kalsi
This course focuses on the relative opportunities presented for investors considering an investment in leading cities around the world. The class focuses on investment themes, risks, opportunities, and real-life case studies. The cases focus on the global investment strategy of GreenOak Real Estate and may include office visits and site tours of NYC investments. The focus is on strategy, financial analysis, and "making the case" for investing.

<VALUE OF DESIGN>
[Fall 2019] Gene Kohn, Jamie von Klemperer
Addressing the financial objectives of the developer, this course presents an understanding of the importance of design in optimizing those objectives. By reviewing case studies of significant development projects by the renowned architectural firm KPF, the design process, and the timing of critical and collaborative decision-making is investigated–students are challenged to formulate the value proposition of design alternatives and seek to estimate the financial consequences of design decisions.

<REAL ESTATE MEDIA AND MARKETING>
[Fall 2019, Spring 2020] Amir Korangy
In this course, students examine the important role media, data, and information technology play in real estate and why these components are essential to the marketing of a successful real estate project. Students focus on a single mixed-use real estate project, for which they devise a complete messaging campaign including PR, advertising, and branding.

<CAPITAL MARKETS: REIT ANALYSIS>
[Fall 2019] David Kruth
This course commences with the history, description, and benefits of the REIT corporate structure, particularly as it relates to the publicly listed vehicles. It then covers in detail the determination of the specific stock valuation of companies utilizing various methodologies such as Net Asset Value, price to FFO, and Price to Cash Flow. The various property sectors are evaluated and compared in terms of economic cycles, revenue structures, capital structure, risk profiles, and valuation. Students are required to perform in-depth financial analyses of publicly traded REIT including comparative analysis and buy/sell decisions.

<INTERNATIONAL REITS>
[Spring 2020] David Kruth
Building on the fundamental REIT analytical methods, in this course the international variations of REIT structures are investigated: the history of the emergence of REITs in various countries, the respective structural differences, and the proportional presence of this corporate form in the local real estate investment markets. Students are required to perform in-depth financial analyses of publicly traded REIT in various countries and propose a cross-border merger/acquisition opportunity.

<CONSTRUCTION MANAGEMENT AND TECHNOLOGY>
[Summer 2019] Richard Lambeck
This course bridges the physical disciplines with the regulation and financial complexities of modern development. It provides an overview of construction technologies, the construction process, and construction management. Topics include cost estimating; value engineering; scheduling and management methods; contract documentation and administration (AIA); RFP/bidding; insurance; labor relations; civil and mechanical engineering; and delivery systems design and implementation.

<REAL ESTATE PRIVATE EQUITY: ACQUISITION ANALYSIS>
[Fall 2019] Jiho Lee
This course covers topics related to real estate acquisitions in the five major asset classes—multifamily, office, retail, industrial, and hospitality—in the U.S. The emphasis is on reviewing value-add/opportunistic real estate investment opportunities as a joint venture equity provider. Key concepts in fund structuring and joint venture structuring are discussed and desktop underwriting methods are demonstrated along with highlights of each asset class.

<REAL ESTATE LAW: LEGAL ELEMENTS OF THE DEVELOPMENT PROCESS>
[Fall 2019] Richard Leland
This course examines the development and investment issues as they interfaced with property, zoning, contract, securities, and tax law. It provides students the opportunity to actively engage legal professionals in mitigating and resolving contractual and regulatory risk.

<ADVANCED STUDIO: THE ART OF THE RFP RESPONSE>
[Fall 2019] Brian Loughlin
This course furthers students' understanding of the comprehensive nature of creating a development proposal and provides an overview of the process including the integration of finance, marketing, spatial programming, architectural design, and urban planning. Students learn how to investigate a neighborhood, assess a community’s needs, select one or more sites, evaluate the real estate opportunity it presents, craft a vision that meets the demands of the market and the needs of the community, maximize value for the municipality and the developer, and prepare a professional development proposal.

<THE ART OF THE DEVELOPMENT PROPOSAL>

[Summer 2019] Brian Loughlin, Gregory Pietrycha, Ian Nicholson

This course introduces students to the comprehensive nature of creating a development proposal and provides an overview of the process including the integration of finance, marketing, spatial programming, architectural design, and urban planning. Using the request for proposals (RFP) as a framework, students learn how to analyze an RFP, evaluate the real estate opportunity it presents, craft a vision that meets the demands of the market and the needs of the community, maximize value for the municipality and the developer, and prepare a professional development proposal.

<THE ARCHITECTURE OF DEVELOPMENT>

[Summer 2019] Brooks McDaniel

This course explores the development process with respect to site selection, design, construction, value, and risk. The objective is to gain an understanding of the role of the full development team, expose students to a variety of case studies, and provide a framework for decision making during the development process.

<DEVELOPMENT ANALYSIS: URBAN PLANNING>

[Summer 2019] Adam Meagher

Real estate development is largely an urban phenomenon. Understanding the fundamental urban planning issues, opportunities, and risks associated with a given project is critical to successful development. These include a range of government regulations, powers, and incentives, including those associated with land use, zoning, sustainability, building safety, historic preservation, and the environment. They also include broader issues associated with gentrification, public space, and community participation. This introduction to urban planning uses New York as the canvas to introduce these topics to students.

<MARKET ANALYSIS>

[Summer 2019] Jonathan Miller

This course introduces students to the methods used in analyzing real estate markets, considering the perspective of decision-makers who are considering potential development, investment, or financing decisions. It focuses on the thought processes and mechanics of producing a market analysis report and is framed around the various methodologies of performing market analysis for each real estate asset class: residential, commercial office, retail, industrial, and hospitality.

<ADVANCED CASE STUDIES IN REAL ESTATE ANALYSIS>

[Spring 2020] Chris Munsell

Building upon concepts, models, and tools previously studied, students analyze, capitalize, and negotiate various types of real estate transactions. They engage more complex partnerships, family companies, and funds management situations.

<LEGAL PRINCIPLES OF REAL ESTATE>
[Summer 2019] Mitchell Nelson
This course examines the contemporary real estate practice and its evolution. It provides a foundation for understanding the basic legal principles that serve owners, financiers, operators, and experts in the real estate industry and offers a broad survey of relevant basic aspects of the application of the law to real estate. Upon completion, students learn how to appreciate the value and the risks of property ownership and finance, and gain an elementary knowledge of the rationale behind the structure of transactions.

<REAL ESTATE LAW: LEGAL ELEMENTS OF THE DEVELOPMENT PROCESS>
[Fall 2019] Roger Nussenblatt
The course covers all major facets of underwriting income-producing commercial real estate from a lending perspective. Students learn how to effectively underwrite stabilized offices, retail, industrial, multifamily, and hotel properties. Emphasis is placed on credit evaluation, cash flow analysis, break-even analysis, market analysis, sponsorship, and loan structure. Exit strategies including securitization and loan sales are examined.

<UNDERWRITING II>
[Spring 2020] Roger Nussenblatt
The course covers all major facets of underwriting the repositioning of income-producing commercial real estate from a lending perspective. Students learn how to effectively underwrite transitional office, retail, industrial, multifamily, and hotel properties. Emphasis is to be placed on loan structure, interest reserve analysis, LIBOR caps, reposition timing, credit evaluation, market analysis, and sponsorship. Exit strategies including permanent takeout financing and loan sales are discussed.

<PUBLIC-PRIVATE PARTNERSHIPS IN REAL ESTATE DEVELOPMENT>
[Fall 2019] Mehul Patel
This course explores public-sector involvement in real estate development and is designed to impart a set of skills necessary to manage the complex medley of governmental actors with conflicting goals and agendas in public/private development. Case studies are drawn from a variety of projects, primarily in the NYC metropolitan region. These case studies provide an opportunity to examine the motivations, powers, and constraints of public agencies—including approaches to planning projects, soliciting support, sustaining momentum, and structuring public/private partnerships.

<REAL ESTATE MANAGERIAL FINANCE>
[Summer 2019] Stephen Pearlman
The course offers an introduction to topics in the managing of businesses with an emphasis on the methods and sources of financing a business. Topics include corporate finance analysis and how it works for real estate, financial planning procedures, present value and

security valuation, capital budgeting, optimal capital structure, and approaches to raising capital. It also covers securities markets, factors, and models explaining security returns, and the concept of market efficiency.

<RESIDENTIAL DEVELOPMENT AND ASSET STRATEGY>

[Fall 2019] Margaret Streicker Porres

Multifamily real estate is a much-favored investment for a wide range of investors ranging from institution to small, individual owners. However, managing these assets strategically, and in terms of everyday activities, require a combination of diligence, planning, and creativity. Drawing on extensive experience and the current management of a very large portfolio of assets, this course teaches details of the asset management/value maximization proposition for multifamily assets and portfolios.

<AFFORDABLE HOUSING, DEVELOPMENT, AND POLICY>

[Spring 2020] Ed Poteat

This course uses the affordable housing techniques discussed in previous semesters to design and plan an actual affordable housing development. Besides utilizing affordable housing techniques such as tax credits and tax-exempt bond financing, it also looks at the other aspects of affordable housing development such as design and constructability elements, community involvement, and political considerations. Finally, the course discusses the role of intermediaries and government agencies in the creation of affordable housing.

<LEASE ANALYSIS AND FINANCIAL METRICS>

[Fall 2019] Sara Queen

In this course, students undertake the detailed analysis of real estate leases, the core components, key conditions, and the implications for the financial performance of a property. Covering all major property types and scalable for buildings of differing sizes, students achieve competency in extracting critical financial information from leases, structuring the key components of a lease, and evaluating a given lease for negotiation

<ASSET MANAGEMENT>

[Spring 2020] Sara Queen

This course studies the issues that impact an asset from initial investment through disposition, with a particular focus on leasing, repositioning strategies, hold-sell analysis, and operations. The focus is to demonstrate how effective asset management works with property management, leasing, construction/development, and accounting to maximize financial performance. The class emphasizes real-world issues and examples through the life cycle of an asset.

<REAL ESTATE INVESTMENT FUNDAMENTALS>
[Summer 2019] Clarence Radin
In this course, case studies are presented such that students have the opportunity to apply and test the technical skills which they are acquiring in the program to real-world scenarios. They acquire a more developed foundation, knowledge, and skills, to better understand the larger picture of commercial real estate. Students also get exposure to a variety of commercial real estate activities which help them narrow their professional search as they advance through the program.

<ARCHITECT AND DEVELOPER DIALOGUES>
[Fall 2019] Raquel Ramati
This course exposes students to six cases of developer/architect collaboration. The students analyze the dynamics behind the development process and how to bridge the developer/architect approach to result in a successful project.

<NEGOTIATION AND CONFLICT RESOLUTION IN REAL ESTATE>
[Summer 2019] Daniel Serviansky
The goal is to provide students with the opportunity to develop their negotiation skills through the study of negotiation theory and in-class simulations. Students compare collaborative and competitive techniques, considering the risks and rewards of each in various contexts. Looking at both deals and conflicts, topics include game theory, strategy, persuasion, ADR, conflict coaching, cognitive bias, behavioral economics, active listening, and the role of the built environment.

<RISK AND INVESTMENT MANAGEMENT>
[Spring 2020] Ryan Severino
This course offers a foundation in portfolio and risk management. Students learn about individual real estate investments, multiple investments, and engage with portfolios of mixed real estate assets and real estate assets (including securities) as a component of institutional portfolios. It covers introductory concepts, the application of these concepts to real estate, performance, measurement, economics and real estate cycles, institutional portfolio management, and international investments.

<THE BUSINESS OF DEVELOPMENT>
[Summer 2019] Shai Shamir
This course provides an immersive understanding of the development world from the point of view of a real estate developer. The students learn the fundamentals and principles of the development theory using basic analytical tools and learn how to develop a successful business plan.

<THE COMPLEXITIES OF ADAPTIVE REUSE DEVELOPMENT: BUILDING ST. JOHN'S TERMINAL>
[Spring 2020] Dean Shapiro
Located at 550 Washington Street in Manhattan, St John's Terminal is a unique redevelopment opportunity that both Oxford (GP) and Canadian

Pension Plan (LP) joined expertise to co-redevelop. This course outlines the process Oxford/CPP took prior to breaking ground. It synthesizes the analytical and comparative framework needed to deal with the scope and scale of a project of this magnitude.

<ALTERNATIVE AND DISTRESSED INVESTMENT STRATEGIES>

[Spring 2020] Donald Sheets

This course introduces the basic framework of commercial real estate investment through a lens of distressed and distorted assets and markets. Basic elements of bankruptcy procedure and valuation are discussed, along with a specific concentration on those issues most pertinent to workout situations. Common characteristics and factors that lead to distress are addressed. Students are exposed to cases and experts that bring forth legal, valuation, strategic, and other key considerations typical in commercial workouts—with maximum recovery from a lender, borrower, and joint-venture partner perspective.

<PROJECT MANAGEMENT>

[Spring 2020] Leeza Springer

The tools and techniques of project management are taught with respect to the overarching management of development projects including during the phases of envisioning, planning approvals, design, construction documentation, building, and delivery of the completed project on time and within budget. Taking into account the disparate objectives of the many constituents in the process, a rigorous method for optimizing decision-making and resolving challenges are taught. The general theory and methods of project management are tailored to the complex area of real estate such that the developer retains control and management of the process to achieve the most successful outcome.

<REAL ESTATE PORTFOLIO MANAGEMENT>

[Spring 2020] Tim Wang

This course focuses on the art and science of investment decision-making in designing and implementing strategies for the management of private equity real estate portfolios. Topics include capital raising, strategy formulation, portfolio diversification, core/alternative property types, deal sourcing, financing/leverage, hold/sell evaluation, risk management, performance measurement, client communication, and disposition. Students learn how to construct a real estate investment portfolio and help clients achieve their risk and return objectives.

<CAPSTONE: DEVELOPMENT CASE STUDIES> Patrice Derrington, Brian Loughlin,
& Raquel Ramati

3. PROJECT OVERVIEW

Programming Overview

Dean Lash

HIGHLIGHTS	
Total GSF	779,000
Total RSF	685,497
Residential RSF	469,200
Office RSF	116,507
Retail RSF	20,000
Amenity RSF	55,790
# of Floors	31
Building Height	400 ft
Res. Efficiency	85.0%
Office Efficiency	90.0%
Retail Efficiency	100.0%

		FLOOR	SLAB HEIGHT	CUMUL. HEIGHT	TOTAL GSF	EFFICIENCY	REBNY GROSS UP	TOTAL RSF	RSF (1) RESI	OFFICE	RETAIL	AMENITY	PARKING
	Mechanical	31	11.5	399	23,000	-	-	-	-	-	-	-	-
	Residential	30	11.5	388	23,000	85.0%	-	19,550	19,550	-	-	-	-
	Residential	29	11.5	376	23,000	85.0%	-	19,550	19,550	-	-	-	-
	Residential	28	11.5	365	23,000	85.0%	-	19,550	19,550	-	-	-	-
	Residential	27	11.5	353	23,000	85.0%	-	19,550	19,550	-	-	-	-
	Residential	26	11.5	342	23,000	85.0%	-	19,550	19,550	-	-	-	-
	Residential	25	11.5	330	23,000	85.0%	-	19,550	19,550	-	-	-	-
	Residential	24	11.5	319	23,000	85.0%	-	19,550	19,550	-	-	-	-
	Residential	23	11.5	307	23,000	85.0%	-	19,550	19,550	-	-	-	-
	Residential	22	11.5	296	23,000	85.0%	-	19,550	19,550	-	-	-	-
	Residential	21	11.5	284	23,000	85.0%	-	19,550	19,550	-	-	-	-
	Residential	20	11.5	273	23,000	85.0%	-	19,550	19,550	-	-	-	-
	Residential	19	11.5	261	23,000	85.0%	-	19,550	19,550	-	-	-	-
	Residential	18	11.5	250	23,000	85.0%	-	19,550	19,550	-	-	-	-
	Residential	17	11.5	238	23,000	85.0%	-	19,550	19,550	-	-	-	-
	Residential	16	11.5	227	23,000	85.0%	-	19,550	19,550	-	-	-	-
	Residential	15	11.5	215	23,000	85.0%	-	19,550	19,550	-	-	-	-
	Residential	14	11.5	204	23,000	85.0%	-	19,550	19,550	-	-	-	-
	Residential	13	11.5	192	23,000	85.0%	-	19,550	19,550	-	-	-	-
	Residential	12	11.5	181	23,000	85.0%	-	19,550	19,550	-	-	-	-
	Residential	11	11.5	169	23,000	85.0%	-	19,550	19,550	-	-	-	-
	Residential	10	11.5	158	23,000	85.0%	-	19,550	19,550	-	-	-	-
	Residential	9	11.5	146	23,000	85.0%	-	19,550	19,550	-	-	-	-
	Residential	8	11.5	135	23,000	85.0%	-	19,550	19,550	-	-	-	-
	Residential	7	11.5	123	23,000	85.0%	-	19,550	19,550	-	-	-	-
Terrace	Residential Amenities	6	11.5	112	27,000	85.0%	-	22,950	-	-	-	22,950	-
	Office	5	15.0	100	27,000	90.0%	27.0%	33,288	-	33,288	-	-	-
	Office	4	15.0	85	27,000	90.0%	27.0%	33,288	-	33,288	-	-	-
	Office	3	15.0	70	27,000	90.0%	27.0%	33,288	-	33,288	-	-	-
Terrace	Office Amenities / Office	2	15.0	55	32,000	90.0%	27.0%	39,452	-	16,644	-	22,808	-
Retail	O Lobby / R Lobby	1	40.0	40	32,000	93.8%	-	30,032	-	-	20,000	10,032	-
Parking		UG			32,000	75.0%		24,000	-	-	-	-	24,000
TOTAL				399	779,000	88.0%		685,497	469,200	116,507	20,000	55,790	24,000

(1) Amenity RSF includes terrace

Samuel Ting
Zhuo Min

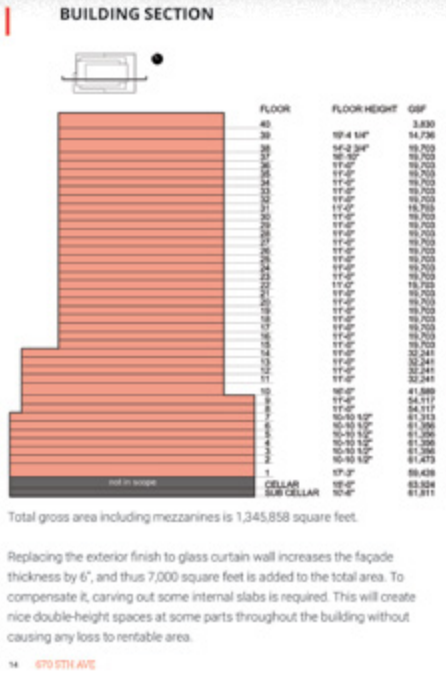
/ LP Returns

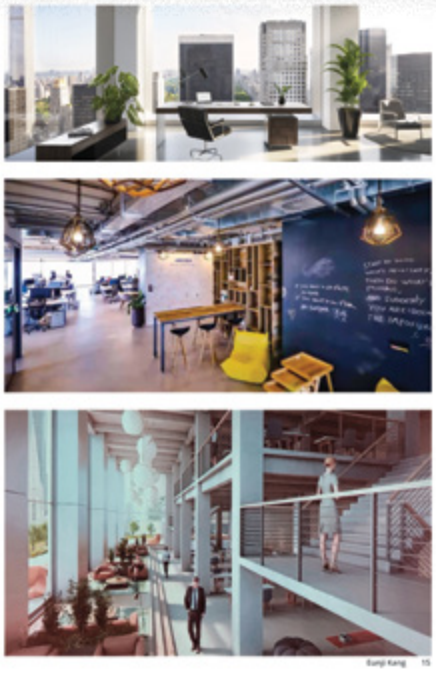
Opportunity to earn attractive returns over a 7-year horizon

High returns hurdle creating an effective alignment of interest

GP's stake of 10% ensures meaningful "skin-in-the-game"

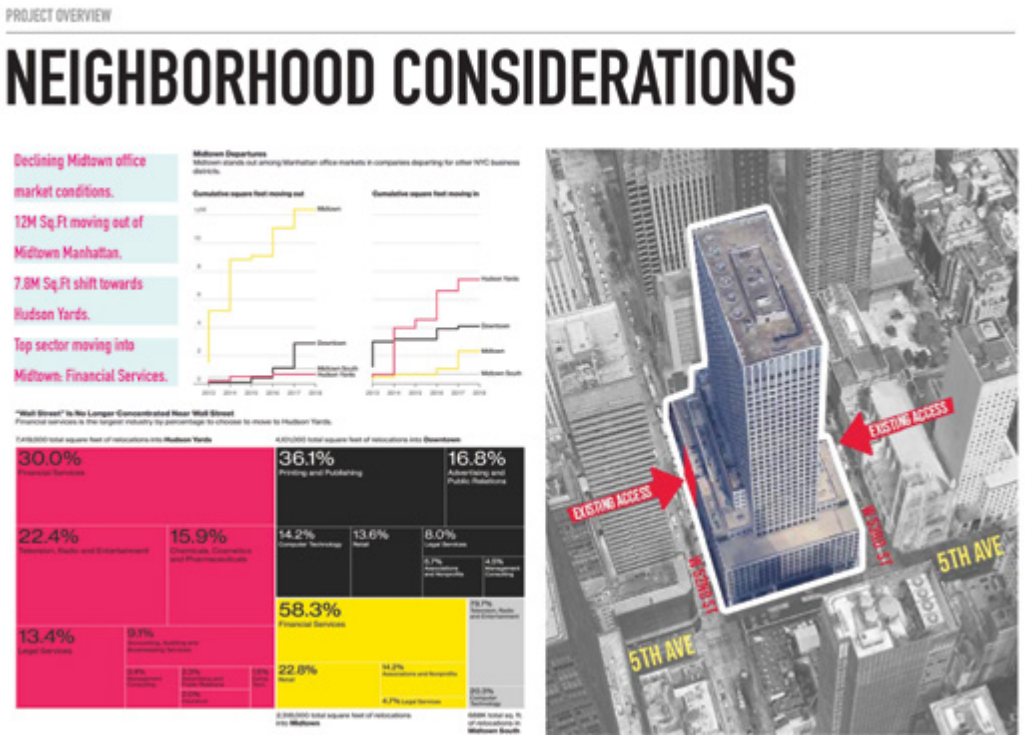
	IRR	EM	Promote
Before 1st hurdle	-	-	0.0%
1st hurdle	12.0%	-	20.0%
2nd hurdle	18.0%	-	30.0%
3rd hurdle	22.0%	1.50x	40.0%





Eunji Kang

Victoria Logan



Introduction to Architecture
Danielle Smoller, Program Director

This five-week, four-days-a-week intensive design studio, comprising both studio and lecture formats, presents a comprehensive and intensive experience in architectural design. Using New York City as a laboratory, the morning sessions develop an awareness of the relationships between the history, theory, practice, and design of architecture. Supplementary lectures and workshops, along with field trips to professional offices, museums, and thematic sites focus on these issues. The afternoon or evening sessions take place in the architecture studio.

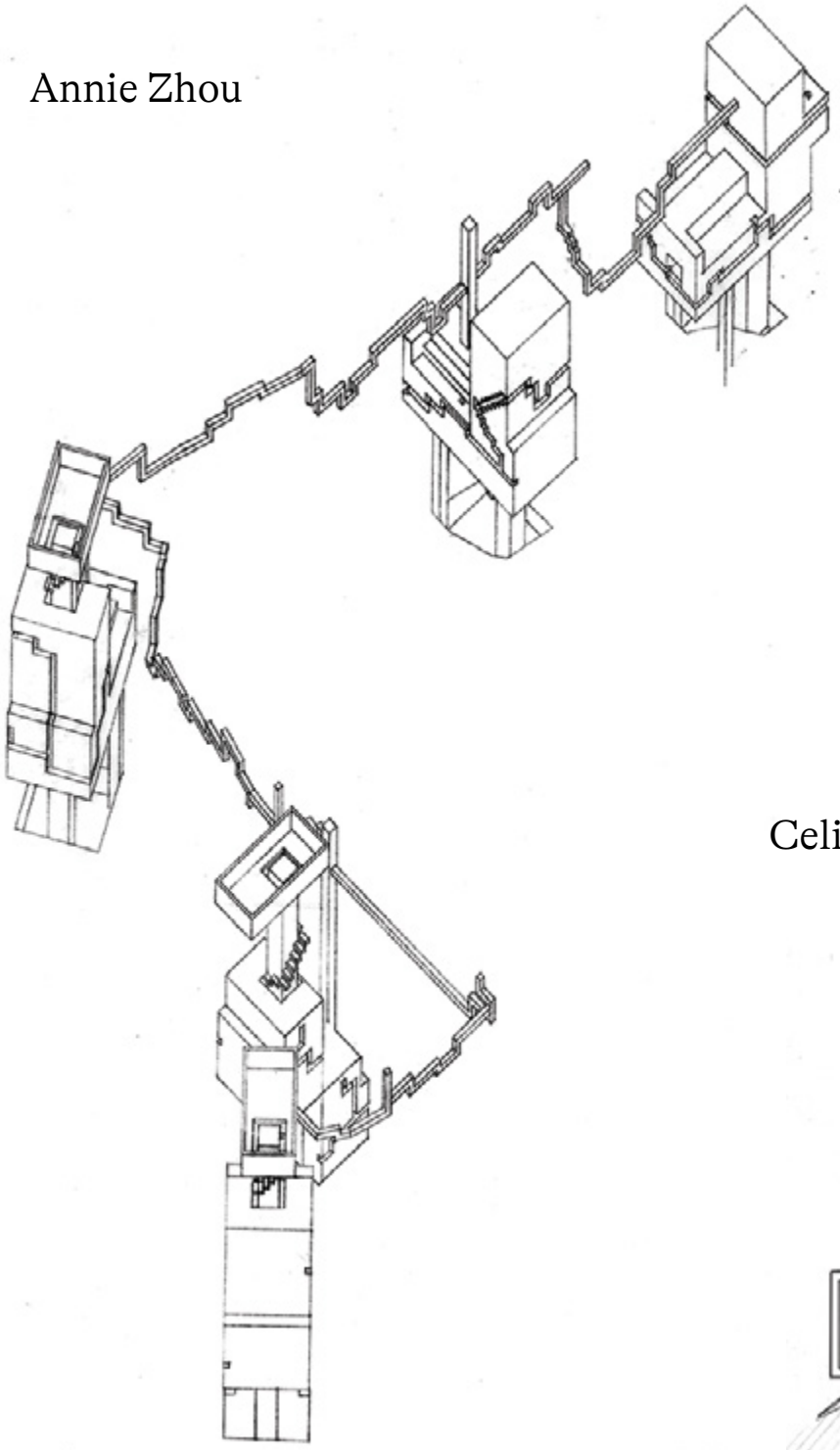
In recent summers, the studio has collectively addressed marginal and liminal sites in upper Manhattan, often in and around Morningside Heights, where the Columbia University campus encounters—or has failed to encounter—its neighbors in Harlem, Washington Heights, and elsewhere. The studio generally begins with the consideration of a literal and conceptual cross-section that takes us from Harlem to the east, across Morningside and Riverside Parks or our neighboring Cathedral and seminary campuses, to the water's edge of the Hudson River. In the Summer of 2019, we directed our attention to Riverside Park, as historically envisioned by such figures as Fredrick Law Olmsted and Robert Moses, and questioned the geographical, social, cultural, natural, and other barriers and bridges, and associated crises and opportunities around social and environmental justice, that the Park presents to the City. Each section within the studio took a distinctive approach to this shared site, beginning with analytic and diagrammatic documentation of information derived from close observation of existing conditions, and concluding with a thoughtful material and spatial intervention in the form of an architecturally-scaled design assignment.

Students work with their studio critics on a series of projects developed by the studio director and individual critics and present their individual designs to juries comprised of faculty members and practitioners. Students use various materials and media, along with spatial/formal operations, to explore different aspects of drawing, mapping, making, and modeling while producing a proposal for their assigned site. A final exhibition of work demonstrates the rich diversity of work as well as the significant and rapid improvement each studio and student makes over this lively, fast-paced, and empowering semester.

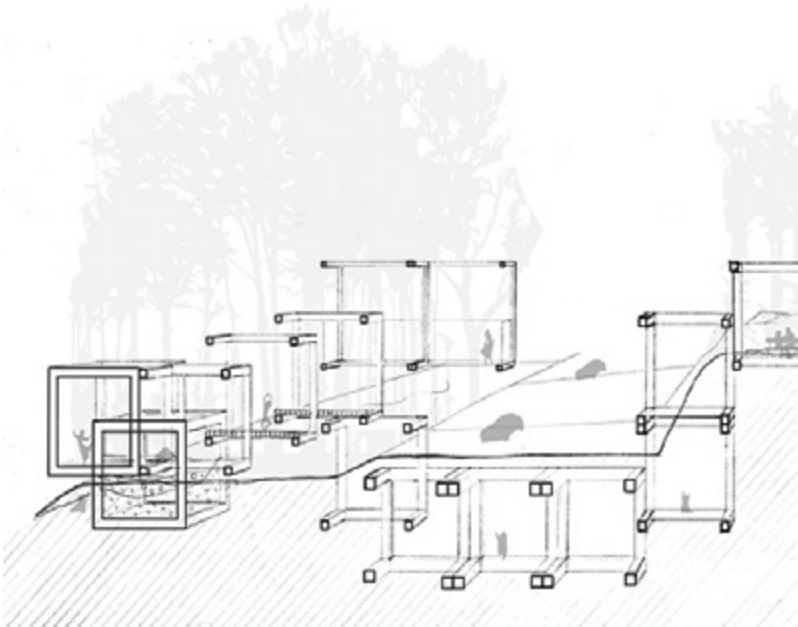
Design Studio Faculty

Gisela Baurmann
Diana Cristobal Olave
Matthew Davis
Esteban de Backer Gutierrez
Thomas de Monchaux
Miku Dixit
Jerome Haferd
Laura Peterson
Aaron Schiller

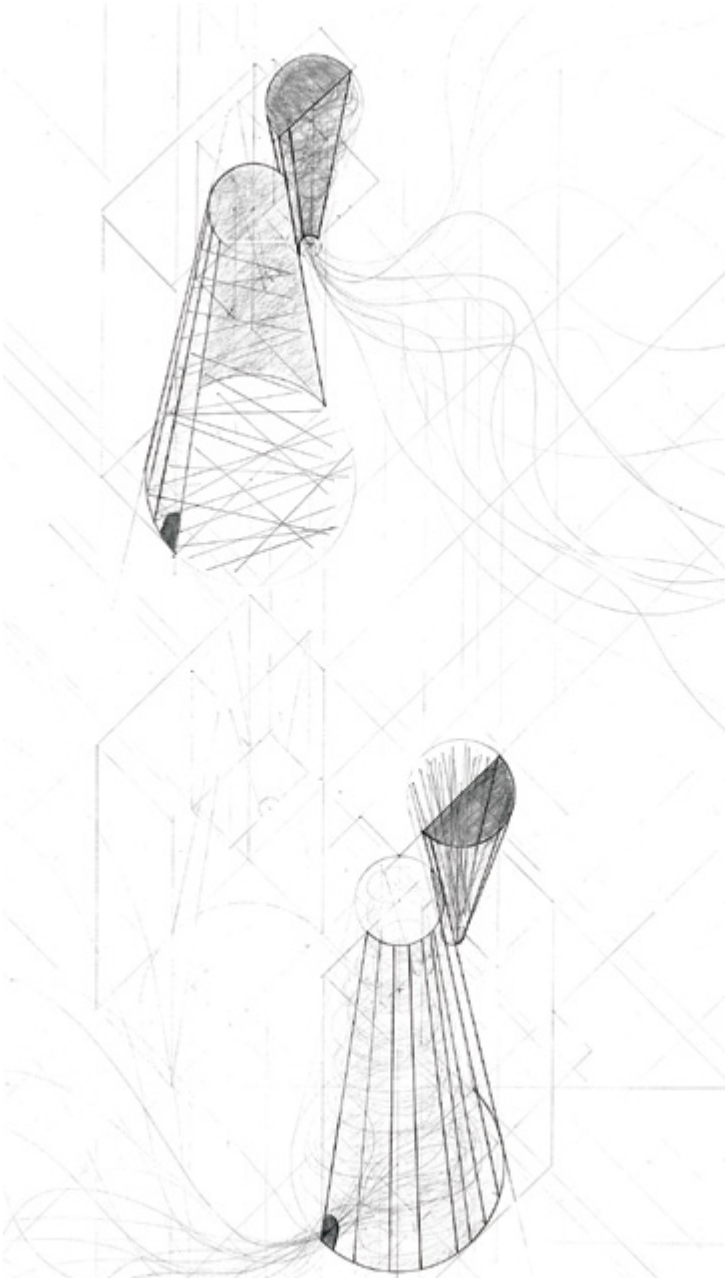
Annie Zhou



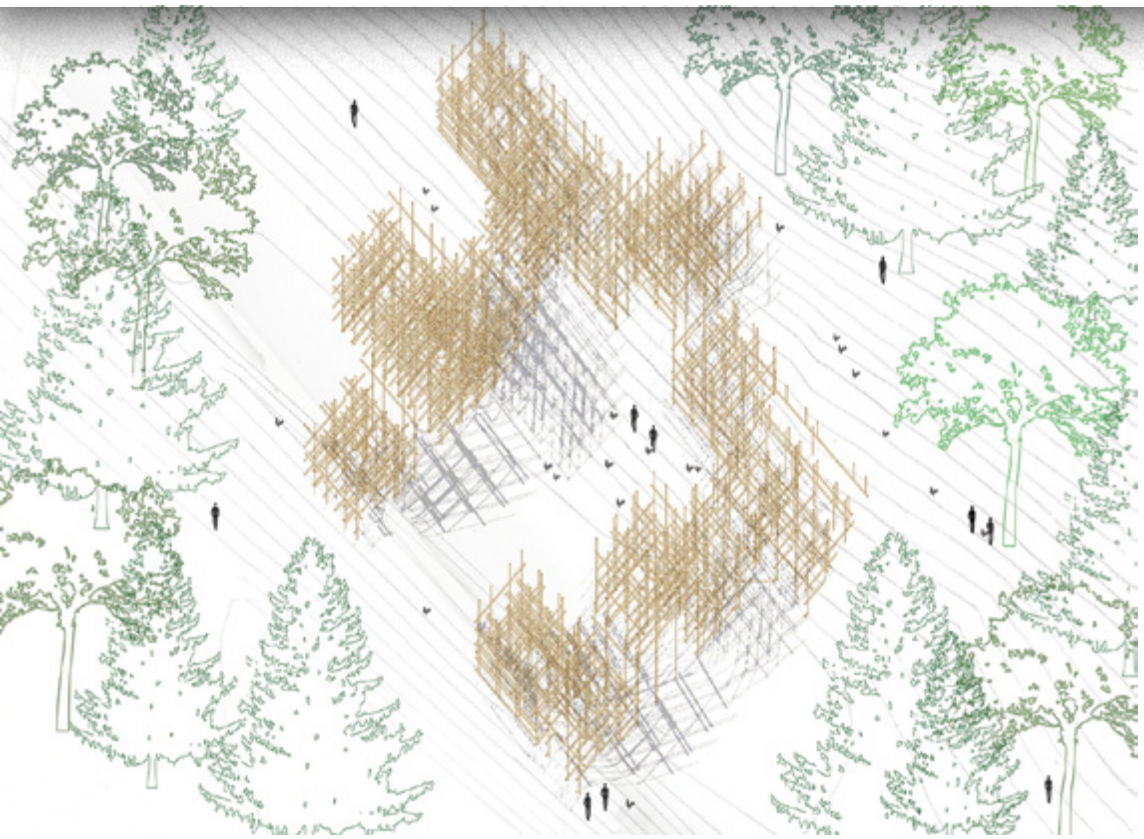
Celia Meyer



Charlie Cojab



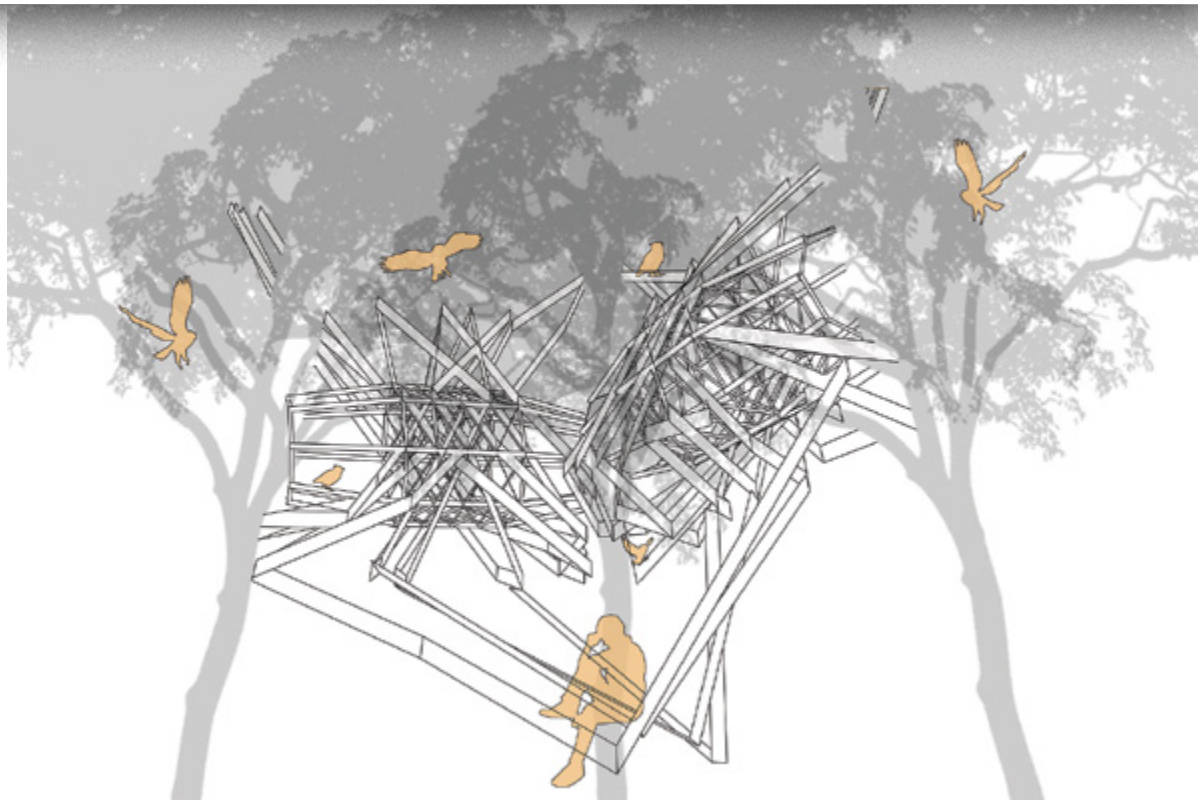
<DESIGN STUDIO>

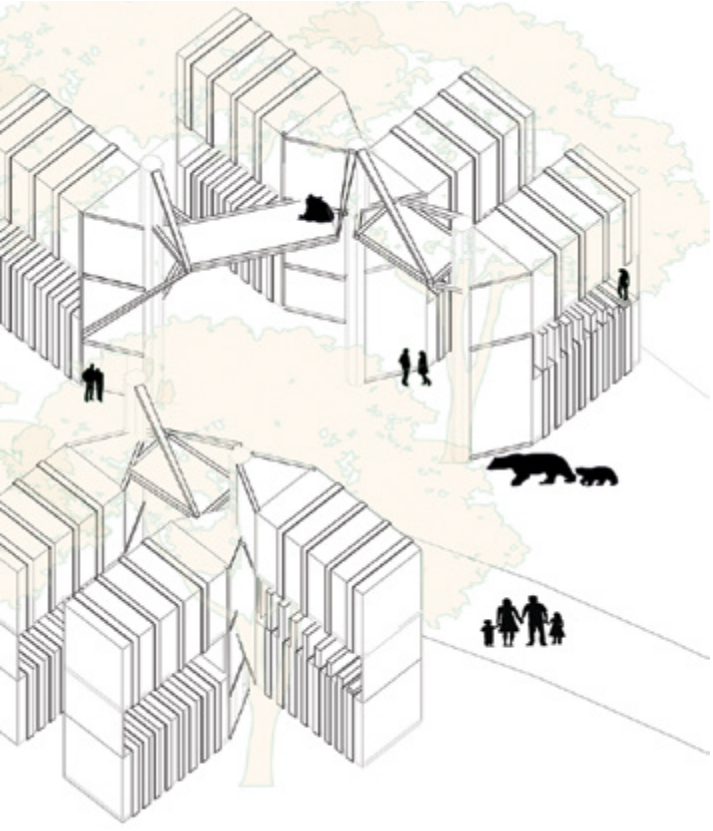


Kristina Marchand

Richard Soler

Liza Hegedus





New York—Paris
Danielle Smoller, Program Director

The Shape of Two Cities: New York/ Paris Program is designed to develop a student's critical appreciation of urban forms, from genesis through development, and the role of architecture, preservation, and planning in the spatial, social, and cultural creation of the contemporary urban environment. As a one-year intensive liberal arts program with a strong studio component, the curriculum focuses on both design issues and the urban history and theory of these two cities. In addition, the program provides a thorough introduction to the disciplines of architecture, urban studies, and planning for highly-motivated undergraduates who have completed at least two years of study at their home institutions, or for post-baccalaureate students interested in preparing for graduate studies. Previous study in these disciplines is not required for admission to the program, allowing students from a broad range of academic and professional backgrounds to participate. The program's curriculum is designed to provide students with a better understanding of the design and urban studies disciplines as they are practiced in both New York and Paris, offering a unique context that engages students as well as critics and instructors from architecture, urban studies, and other fields with a critical dialogue across cultures using two of the world's great cities.

New York and Paris are significant global cities, each a case study and legacy of urban development, and each a historical cultural, financial, and political capital. For students, these two cities offer an ideal opportunity to explore the historical, social, and political development of urban form; and to clarify the roles of architects, planners, and preservationists upon it. During the first semester, students are enrolled at the Graduate School of Architecture, Planning and Preservation in New York and enjoy the resources of the GSAPP and Columbia University. The following semester students are based at Reid Hall, Columbia University's center for French cultural studies, located near the Luxembourg Gardens in the Montparnasse district of Paris. Reid Hall offers reading rooms, lounges, a 4,000-volume library, administrative offices, and an extensive network of activities to help students bridge the gap between American and French cultures.

<THE DEVELOPMENT OF PARIS>
[Spring 2020] Andrew Ayers
This course examines Paris's built environment over a period of 2,000 years from the Roman conquest until present to trace the evolution of the city's architecture. A selection of themes and periods are explored through a series of site visits.

<FRENCH SEMINAR: CONVERSATION>
[Spring 2020] Pascale Benhaim
This course introduces grammar and conversational French skills at an intermediate to advanced level. Outside of class, students complete work from the book Grammaire Progressive du Français. Students converse with French speakers in real-world situations and write evaluations of these experiences. They also visit and write reviews of museum exhibitions, films, and gallery openings.

<FRENCH INTENSIVE I>
[Spring 2020] Pascale Benhaim
In this course, students learn the basic structure of the French language and how to manage everyday situations in their Parisian life. The varied class activities and exercises—oral presentations, in-class and outside readings, written compositions, and traditional tests—require students to constantly hone their French.

<DESIGN STUDIO>
[Fall 2019] Thomas de Monchaux, Danielle Smoller
[Spring 2020] Thomas de Monchaux
The Shape of Two Cities/New York Paris Studio begins with an understanding that a building—as a subjective experience and cultural construction—is more than an object; and that urban thinking and designing can happen at a range of scales, from that of the body, through the building, to the urban landscape. The syllabus of the Fall and Spring Semesters was a continuous and contingent sequence of research and design assignments. Addressing the histories of New York and Paris as historical centers of fashion and garment manufacturing, students closely observed and documented urban sites, interrogated literary and critical texts, made clothes, and designed buildings—in the Fall, additions to the Costume Institute of the Metropolitan Museum of Art. In the Spring, students first studied and redesigned Place St. Sulpice and the residence thereupon of early modern architect Charlotte Perriand; then directed their attention to the historical traces of Paris city walls between arrondissement and banlieue; and themes of literally geographic and socially systemic centrality, marginality, and inequity—leading to a study of the Parc de La Villette as a barriere along a city wall, and as a 20th-Century urban intervention by Columbia faculty member Bernard Tschumi. Because the Spring studio concluded with remote online instruction during the global pandemic, our final assignment was a creative redesign of our own Reid Hall Montparnasse campus, conceptually adapting the "follie" pavilions of La Villette into an intimate urban village accommodating our neighbors

at Reid Hall, the Columbia Institute for Ideas & Imagination—a project that required and inspired intimate collaboration between distantly-located students, and thus the resilient construction of a true global village.

<BUILDING NEW YORK>

[Fall 2019] Andrew Dolkart

This course is designed to familiarize students with the history of the major building types that comprise the physical fabric of NYC. Students use the development of building types as a basis for looking at various New York neighborhoods and the ways in which they have developed and changed.

ARCHITECTURE, PLANNING, AND PRESERVATION

[Fall 2019] Rosalie Genevro, Carol Willis

This course is designed to develop students' capacities as urbanists who can read, analyze, and interpret the form of the city and the interplay of economic, regulatory, and design forces that create and continuously act on it. The course looks at the roles of architects, planners, and preservationists in shaping cities, and introduces students to professional and theoretical issues in the three disciplines. This year's course focuses on the Garment District as a case study in the evolving history of manufacturing in the city, and the consistent pressure in contemporary NYC for new residential, hotel, and office development.

HISTORIES OF AMERICAN CITIES

[Fall 2019] Jennifer Gray

This course surveys urbanism in the U.S. from the colonial era to the present. Students learn about ambitious urban plans, exceptional architects, and iconic buildings but also about everyday spaces, such as shopping malls, suburbs, and highways. Questions about race, gender, inequality, and militarism as they relate to urban space are explored. Students unpack the meaning of terms such as modernism, democracy, and American and consider them in a global context, especially the geopolitical relationship between North and South America. They also engage topics in critical preservation, such as ecological conservation and curatorial practices.

HISTORY OF EUROPEAN CITIES

[Spring 2020] Ariela Katz

Students research contemporary design and development projects in European cities today to develop an understanding of the value and viability of existing, and often centuries-old, urban fabric. This exercise coincides with an examination of several key sectors and their corresponding built forms: agriculture production, food production, infrastructure, government, housing, education, religion, trade and commerce, manufacturing, culture, and recreation. Special attention is given to matching past and present place-based expertise to address the challenge of selling European cities for future

development. Students gain a historical perspective of several building typologies common in European cities as well as insight into how built form informs regional marketing.

<ARCHITECTURE, PLANNING AND PRESERVATION: PARIS>

[Spring 2020] Jacob Simpson

This course examines theories and practices of architecture, preservation, and planning in Paris and its region, focusing on 20th-century and contemporary architecture.

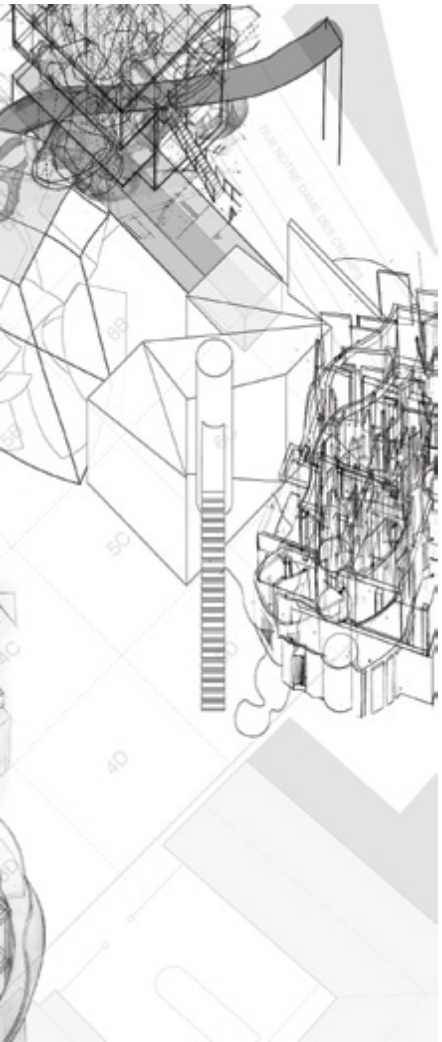
WORKSHOP IN URBAN STUDIES

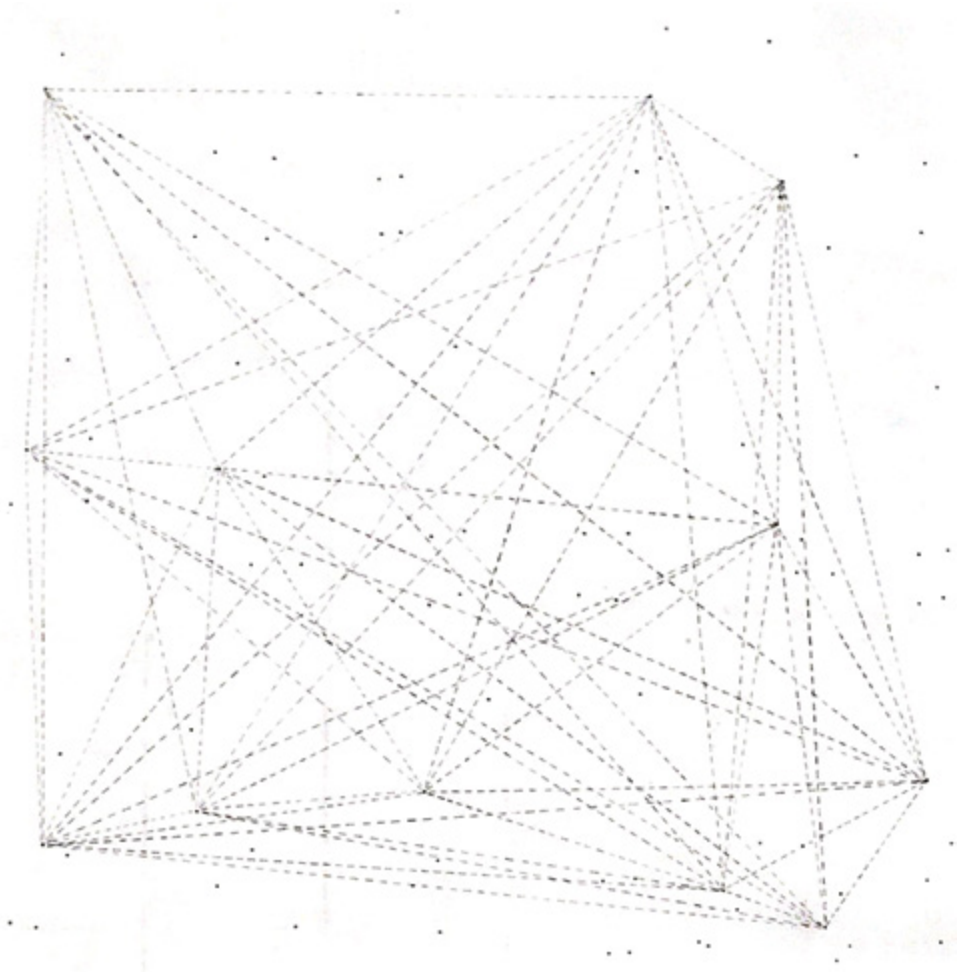
[Fall 2019] Michelle Young

The Urban Studies Workshop engages students with a studio-based approach to the issues and discourse of the contemporary city by exploring a variety of conceptual, analytical, and design tools for understanding and operating within urban contexts through focused individual or collective research and design projects. This multidisciplinary studio is structured in four phases: Initial in-depth research; policy formation; design proposal; design implementation.

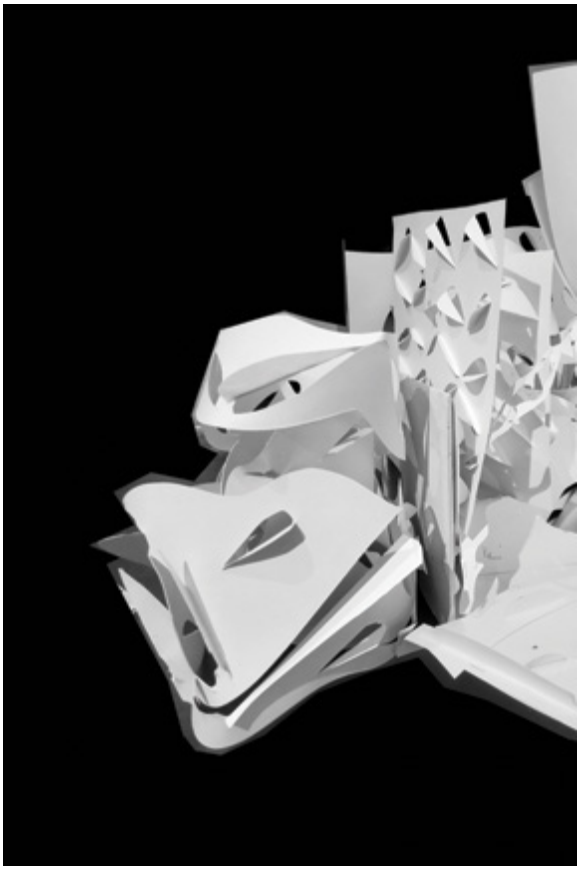
Billy Blender

Eryn Halvey



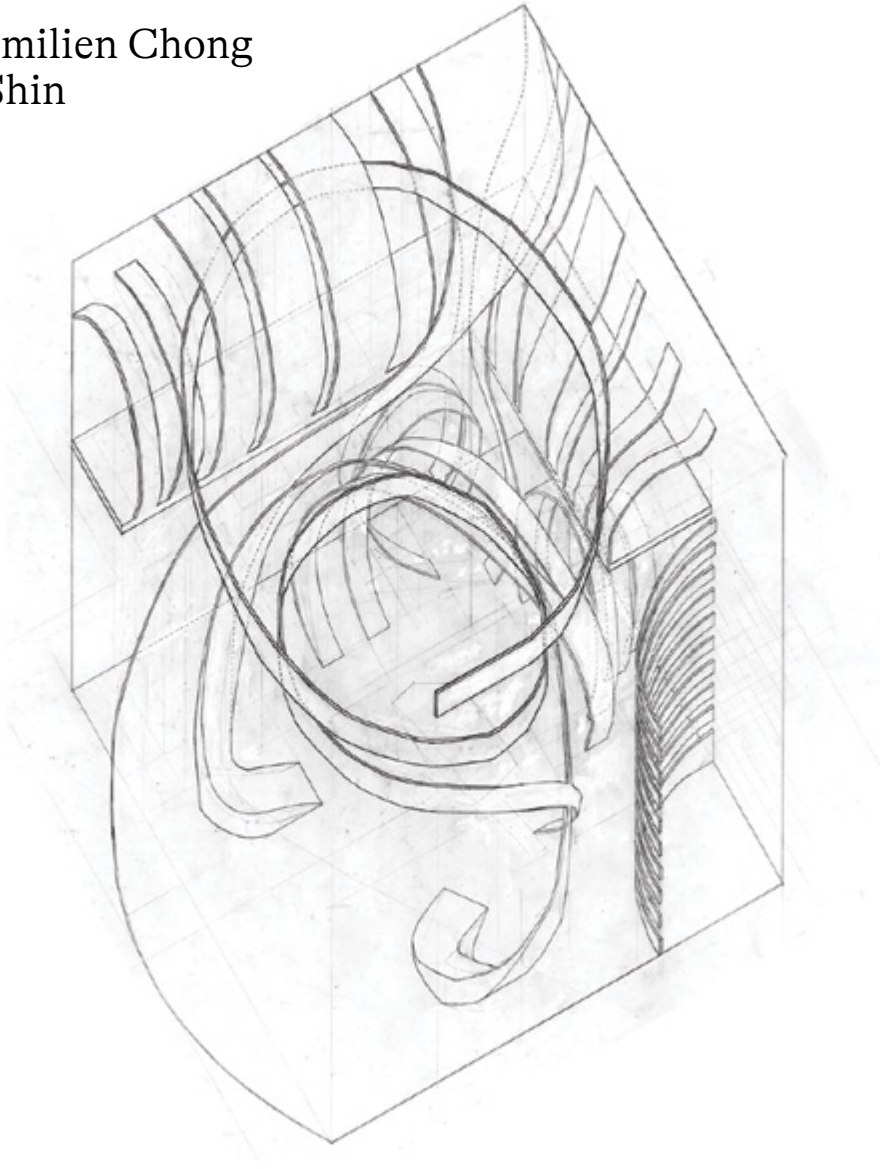


Roman Karki



Isabella Libassi

Maximilien Chong
Lee Shin



<SECTION D>
447 Ph.D. Architecture
Felicity D. Scott,
Program Director
457 Ph.D. Urban Planning
Malo A. Hutson,
Program Director
463 M.S. Critical, Curatorial,
and Conceptual Practices
Felicity D. Scott
and Mark Wasiuta,
Program Co-Directors

Ph.D. Architecture
Felicity D. Scott, Program Director

The Ph.D. Program in Architecture is oriented toward the training of scholars in the field of architectural history and theory. Its structure reflects a dual understanding of the scholar's role in the academy: as a teacher and as a researcher making an original contribution to the field, with an emphasis on expanding and reinterpreting disciplinary knowledge in a broad intellectual arena. Course requirements give entering students a solid foundation in historical knowledge and theoretical discourse, with sufficient flexibility to allow the initiation and pursuit of individual research agendas. The program's focus is on the history and theory of modern and contemporary architecture and urbanism in an international and cross-cultural context, from the mid-18th century to the present. Within this, a wide range of research is supported through the expertise of the faculty and through strong relationships with other departments throughout the University and beyond.

Ph.D. Committee
- Lucia Allais
- Barry Bergdoll
- Kenneth Frampton
- Ateya Khorakiwala
- Reinhold Martin
- Mary McLeod
- Felicity D. Scott
- Mark Wigley
- Mabel Wilson

<COLLOQUIUM: THE HISTORIAN'S ART>

[Fall 2019] Reinhold Martin

This doctoral colloquium addresses methods of historical scholarship across the humanities. Its premise: To turn the "history of architecture" on its head, by thinking about how to do history with architecture. We begin by temporarily bracketing architectural history's most common objects (artworks, buildings, architects/artists, patrons, social groups, environments, etc.), to focus on historical methodology as such. Framed by long standing philosophical dilemmas, and considering the modern historian's "craft" and vocation, we read two very different "classics" of 20th century critical historiography, followed by two related treatments of the modernist artwork's worldliness. We then resituate all of this within recent debates among historians concerning transnational, global, or comparative history.

We then spend the second half of the semester reviewing recent architectural scholarship through the format in which most historians first practice their art: the scholarly journal article. We do this by reading systematically from a number of journals in the field, to be selected by the members of the seminar. We read these articles for their content, their context, their interpretative method, their writing style, their archives, their footnotes, their intellectual tradition(s), and their reception. We look for shared tendencies, problems, accomplishments, and limitations. We also look for false starts and unfulfilled promises. All of which we consider in relation to the historiographical questions and approaches explored during the first half of the semester. The seminar concludes with a workshop, in which students pre-circulate and present abbreviated drafts of their final research papers, modeling (with peer review) the semi-public process by which conference papers often lead to publication.

<COLLOQUIUM: ARCHITECTURAL EVOLUTION>

[Spring 2020] Mark Wigley

This class explores the structural-political-disciplinary-aesthetic roles played by concepts of evolution in the writing of historical narratives about architecture—whether in dissertation, book, catalog, essay, wall text, or syllabus. In other words: how does biology orchestrate writing about architecture?

As a pro-seminar, the class is devoted to historiography. It focuses on the intersection between the way historical accounts of architecture are written and the content of those accounts. Many if not most narratives of architectural history are organized around explicit or implicit theories of evolution. Theories of evolution in the organic world are routinely mapped onto histories of human artifacts, as if to naturalize change in architecture. In reverse, those theories of organic life were often framed by way of contrast with artifacts or even involved thinking of organisms as artifacts. Theories of evolution do not simply flow from organic to cultural life. The relationships between the concepts of artifact and organism are multiple, shifting, and often contradictory--yet decisive in shaping historical narratives.

This class studies the evidence and implications of these attempts to naturalize change. Special attention is paid to the fact that not only are theories of evolution themselves changing and competing but they are permanently controversial and the very category of evolution might be suspect.

The aim is to rethink what it means to construct architectural history and theory "today." The class studies many past examples of writing about architecture and likewise tries to understand the role played by explicit and implicit concepts of evolution in the work of contemporary authors (whether addressing the past or present) in the hope of mapping out some possible ambitions for writing about architecture in the future.

While the class is primarily concerned with the roles of concepts of evolution in the writing of architectural histories, and therefore the figure of the architectural historian and architectural history as a discipline (whether in dissertation, book, essay, classroom or gallery) it also considers the concepts of evolution deployed by architects in narratives about the forms, production and effects of their work. The nature of the distinction between historian and architect (classically seen as a distinction between responsibilities to the past or the future) obviously cannot be assumed in such a class about the construction of historical narrative but is addressed in light of the ongoing conversation about evolution.

<COLLOQUIUM: THE SPATIAL POLITICS LAND, ARCHITECTURE, AND DISPOSSESSION>

[Spring 2020] Mabel O. Wilson

To frame the core themes of their installation at the 2019 Chicago Architecture Biennial, the Settler Colonial City Project (SCCP), a collective of architectural historians, made the following assertion: "Architecture in the United States—and in many parts of the world—is built on stolen land. Architectural historians have begun to acknowledge the ongoing epistemic and physical violence of settler colonialism" How, therefore, can questions of dispossession, colonization and decolonization, asks SCCP, challenge narratives of architectural history? This course takes up that charge by exploring a key factor in Europe's colonization of Asia, Africa and the Americas: the creation of property. We are attentive to how the dispossession of land from indigenous peoples and the movement of populations that supplied the labor necessary extract resources from expropriated land, such as the transatlantic slave trade, facilitated the rise of modernity, with its attendant metropolitan centers and colonial outposts. These epistemic and ontological transformations also establish the modern self-possessed subject—"the property owner," whose status was defined by race, class, gender and sexuality. The creation of legal documents like deeds, surveys and plans that abstracted common land or the land of others into regimes of private ownership, were also forms of representation adaptable to architectural representation. It is important to understand how these processes of territorialization were also cultural, as Said pointedly observes: "Imperialism and the culture associated with it affirms both the primacy of geography and an ideology

about the control of territory. The geographical sense makes projections—imaginative, cartographic, military, economic, historical, or in a general sense cultural." (Culture and Imperialism 78) From the 14th century onward, the discourse of Architecture, the European arts of building, depended upon practices and laws that determined forms of property. By reading seminal texts—Locke, Kant and Marx—as well as those of contemporary thinkers—Wynter, Mignolo, and Coulthard—who challenge the universalization of conceptions such as "Property," Race," and "Man," the seminar responds to SCCP's query: how to engage questions colonization and decolonization in architectural history (and other allied disciplines). We consider how architecture operates within the colonial project both as technique and aesthetic. We are mindful that the material violence of dispossession and its corollary of displacement continues in contemporary spaces of mass migrations, gentrification, resource extraction, mass incarceration and border policing.

Christopher Cowell

The Cantonments of Northern India: Colonialism and the Counter Urban, 1765–1889
Reinhold Martin, Advisor

This dissertation is a spatial, urban, and architectural history of the British East India Company's colonial rule in northern India (1765–1858) and the operations of its military. It examines one of the most essential yet overlooked phenomena used to shape colonial territorial governance during the eighteenth and nineteenth centuries—the "cantonment" or permanent army encampment. To date, there has been no comprehensive history written on this. Yet the system of cantonments as a functioning legacy remains intact, while their influence upon modern northern Indian urbanism and its infrastructure are considerable. Significantly, the study repositions the sites for control over India, as imagined by the Company, from its colonial cities to its perceived hinterlands and margins, its mufassil.

Cantonments were quickly established by the colonial armies of India as permanent military bases, spreading across more than one hundred locations by the mid-nineteenth century. These were scattered throughout the subcontinent, though concentrated within the north under the jurisdiction of the Bengal Presidency. They were unique, initially, to India. Their organizational versatility allowed them to form enclosed garrisons, to sprawl as massive camps, to reconfigure forts, and to become sanitarium hill stations. The dissertation begins with a study of the first cantonments created to safeguard the Company's new territories acquired in 1765 under the Treaty of Allahabad. It concludes in 1889 with the second Cantonments Act, a crucial municipal code regulating military-civilian cities within India and settlements beyond.

A central argument of this study is that cantonments, both individually and as a conjoined system, reveal a peculiar strategy of territorial governance over the subcontinent by the Company that may be described as "counter urban." Cantonments as they spread enabled the army to disengage with local populations, co-inhabiting territory while maintaining discreet distances from the urban settlements of an older India. In part, this was in order to invigilate them, providing a precisely "detachable" character to the Company's actions of spatial security. This separation also allowed the army to control a cantonment's internal growth and any adjustments as to its form, crafting laws that regulated each cantonment enclave, determining the exclusion of or differentiation of peoples and practices. This "countering" or separation from local urbanism by a cantonment must be read consistently against broader geography. More comprehensive analysis reveals an understanding that the Company, from the beginning, determined that their cantonments had to form logistical, economic, and infrastructural relations between each other, relations distinct from that generated by India's existing inter-urbanism. This process was both actual and ideological. It can be understood as what made India's geographical space progressively imperial. The "counter urbanism" of these entities, then, will be shown to be nothing more than the spatial practices of modern Indian colonialism acting across the eighteenth and nineteenth centuries.■

Meredith Gaglio

In Pursuit of a Softer Path: Countercultural Vision, Energy Politics, and the American Appropriate Technology Movement
Mary McLeod and Felicity Scott, Advisors

In the late-1960s, a handful of young, countercultural Americans, inspired by E. F. Schumacher's concept of "intermediate technology," founded the Appropriate Technology, or AT, movement in the United States. Although Schumacher's project focused upon the ways in which technologically sustainable methods could gently and prudently support the modernization of underdeveloped nations, American proponents of AT recognized, in this approach, an opportunity to mitigate the overdevelopment of the Western world. By advocating, promoting, and effecting sustainable techniques from a grassroots to governmental level, practitioners of appropriate technology sought to prevent the further environmental, economic, and social degradation of American communities.

The mission of AT was synergistic: by implementing "appropriate" methods of energy production, building design, transportation, education, health care, and communications, appropriate technologists attempted to create comprehensive change. This disciplinary and conceptual inclusivity encouraged the organization of a diversity of AT proponents into cooperative, multifunctional groups, which acted both from within governmental bureaucracy, in the case of California's Office of Appropriate Technology and the National Center for Appropriate Technology, and outside the Establishment, in the case of the New Alchemy Institute and RAIN collective. My dissertation centers upon these four groups – in particular, their realized projects, community outreach programs, and numerous publications – emphasizing the ways in which the initial philosophy, politics, and focus of AT evolved as the movement transitioned from a countercultural pipe dream to a widely supported solution for America's energy problems in the wake of the 1973 Oil Crisis.✦

Leslie Herman

Building Narratives: Ireland and the "Colonial Period" in American Architectural History

Reinhold Martin, Advisor

In surveys of American architecture, the so-called "colonial period" from the founding of Jamestown in 1607 to the war for independence in the 1770s has generally been viewed from an "Anglo-American" perspective with a concentration on the British colonies that would become the United States. This period has been defined by the transplantation of architecture from the "mother country" to British North America according to what the architectural historian John Summerson has characterized as "English standards pure and simple." The persistence of historiographical assumptions that privilege English sources and focus on evidence of "Englishness" still serves as the core of early American architectural narratives. While an effort has been made to increase the diversity of those represented, yet one dimension has essentially been written out, that of America's connection to Ireland. And yet Irish elements have long had a presence in the already existing historical evidence. Therefore this dissertation takes an alternative view of that same colonial history by collecting the available Irish materials and tracing the threads that tie Ireland to America, whether that connection is direct or mediated through England. By assembling various forms of evidence, often relegated to footnotes, asides, or ambiguous citations, this dissertation seeks to construct a counter-narrative that spans the Atlantic and stretches from the 1530s to the 1730s. It explores a diverse constellation of elements including landscapes, plans, buildings, and monuments, while situating them within a larger historical context, thereby reframing some of the same canonical events, individuals, and artifacts that currently appear in surveys of American architecture. With a shift in perspective comes a shift in the history, one that complicates, challenges, and at times upends, Anglo-centric readings of colonial America and the transformation of its physical environment. For when seen from the perspective of Ireland, a more complex, as well as a more "Irish," story emerges, resulting in a history that has, in effect, been hiding in plain sight. In making this history visible, the dissertation addresses both the historical and historiographical conditions that produced some of the gaps, tensions, ambiguities, and erasures that have contributed to keeping this history hidden.

Taking Summerson's Architecture in Britain, 1530-1830 as a starting point, the dissertation begins in 1530 and examines some of the preconditions for American colonization in England and Ireland. Then, working from the historiographical foundations already laid regarding the English plantations in Ireland and Virginia, it goes on to address the continuity of connections that run through New England, the "Middle Colonies," and the American south, including such well-known works as William Penn's plan for Philadelphia, George Berkeley's Whitehall, and William Byrd II's Westover, all three of which have been viewed as exemplary in their ties to English sources and influences. Though traditionally divided by period, type, style, and region, here they are no longer treated as isolated data points but rather as part of a larger, interconnected, and continuous story, one intimately, and inextricably, tied to Ireland and "Irish" networks in England and America. In addition, by examining the historiographical as well as the historical dimensions and placing the history and the historiography in dialogue, this dissertation hopes to offer insights into the production of early American architectural history, as well as the production of plans, spaces, and objects. In doing so it seeks to call into question the overwhelming "Englishness" of the American colonial period as it has been constructed through histories of American architecture and planning during the twentieth-century.

Hollyamber Kennedy

Modernism's Politics of Land: Settlement Colonialism and Migrant Mobility In the German Empire, from Prussian Poland to German Namibia, 1884-1918

Felicity D. Scott, Advisor

This dissertation charts a spatial, architectural, and landscape history of German settlement colonialism (Siedlungskolonialismus) in the Prussian Polish Provinces and German South West Africa, between 1884 and 1918. It situates this study from the framework of Germany's late nineteenth century project of internal colonization (innere Kolonisation), which forms an almost exact temporal parallel with Germany's external colonial interventions and can be seen as an indispensable part of its broader apparatus, which points to new connections within its entangled fields of operation. Following several generations of German architects, planners, social scientists, and settlement practitioners (Ansiedlungspraktiker) working at the borders of empire, this dissertation asks how the colonial question of land shaped modern planning discourse at the turn of the century. Broadly speaking, I look at how state control over the freedom of movement, colonial land reclamation, and the resistance these interventions encountered contoured modernism's politics of land. This study illustrates how the languages of German architectural and planning modernism were marked by asymmetric and discordant processes of colonial spatialization—a multivalent transfiguration of the landscape in which the local, indigenous, and pre-colonial populations played a central, if often unacknowledged, role. This project seeks in turn to read that resistance, as interlocutor, back into the history of German colonial intervention in the two regions under discussion in this study. Finally, I argue that placing these episodes together within the same discursive framework, tracing the spatiality and aesthetics of German imperial expansion from the analytic of settlement, opens up a new set of questions regarding the role of enclosure and its epistemologies in architectural modernism. This brings the often-sidelined issue of agrarian modernity and the disciplining of the landscape (in the Foucauldian sense), to bear on modern architectural histories.

Andrea Merrett

The Professional is Political: The Women's Movement in American Architecture, 1971–1985
Mary McLeod, Advisor

This dissertation examines the history of the women's movement in architecture in the United States. In response to the feminist movement of the 1960s and '70s, and especially the women's liberation movement, which began in the late 1960s, women in architecture began to organize and fight for greater status in a profession that had systematically excluded them. Their activism took many different forms—from the establishment of women's professional groups and the organization of conferences or exhibitions to research on female architects of the past. At the same time, more radical projects such as the Open Design Office, Women's School of Planning and Architecture (WSPA), and the Women's Development Corporation tried to re-imagine how architecture could be taught and practiced, which client groups should be served, and the relationship between architects and clients.

Beginning in the early 1970s, women architects formed the Alliance of Women in Architecture (New York City, 1972) and Women Architects, Landscape Architects, and Planners (Boston, 1972), and the Organization of Women Architects (Bay Area, 1973). Through these organizations, feminist architects pressured the American Institute of Architects (AIA) to create a Task Force on Women. Several conferences in 1974 and 1975—most notably "Women in Architecture: A Symposium," at Washington University in St. Louis in March 1974 and the "West Coast Women's Design Conference" at the University of Oregon, Eugene, in April 1974—facilitated the development of a national network of feminist architects. The AIA's Task Force used this network to help conduct a survey, which it finalized as a report to the Institute in 1975. These organizations and conferences also brought together the founders of WSPA, which held its first session in 1975. While women were forming professional organizations and hosting conferences, a few architects began conducting historical research on women and architecture. In 1973, Doris Cole published From Tipi to Skyscraper, the first history of women architects in the US. Four years later, an exhibition entitled Women in American Architecture and accompanying book were launched at the Brooklyn Museum. Both publications challenged architectural historiography by including non-professional women like the domestic reformer Catharine Beecher. Architectural scholars Dolores Hayden and Gwendolyn Wright pushed the boundaries of the discipline even further—Hayden through her work on utopian communities and the "material feminists" of the nineteenth and early twentieth century, and Wright through her social history of housing, which placed equal weight on the contributions of women writers and reformers as those of professional architects.

This dissertation demonstrates the successes and shortcomings of the women's movement in architecture. These include an increase in the number of women studying and practicing architecture, pressure on institutions such as architecture schools and the AIA to take seriously the plight of women in the profession, a reduction in the discrimination and harassment faced by women at schools and work, and the production of a significant body of scholarship on the contributions of women to the built environment. These achievements can be credited to two principal factors. The first is the concerted effort made by feminist architects to work together and bring about these changes. By participating in women's organizations and at conferences, female architects across the US created a collective identity based on their shared grievances and desire for change. It was their ability to work collectively that forced institutions to respond to their demands. The second factor was the larger social transformation of American society at the time. The successes within architecture were possible only in a period of broader feminist activism that placed external pressure on the profession and reinforced the demands of feminist architects.

Less successful were the more radical efforts, few of which survived architecture's retreat from social projects towards the formalist and pop culture concerns of postmodernism by the late 1970s, the resurgence of conservative politics, and a backlash against feminism in the 1980s. By the mid-1980s, the energy of the women's movement in architecture had diminished, but not without leaving behind a rich legacy for future generations of feminist architects.

Jonah Rowen

Materials, Labor, and Apprehension: Building for the Threat of Fire across the Nineteenth-Century British Atlantic
Reinhold Martin, Advisor

With its destabilizing shifts away from mercantilism toward liberal economics, early nineteenth-century Britain generated an increasingly powerful class of technocrats, including architects and builders, in design and construction. This burgeoning professional group involved in architecture, planning, and building directed processes, products, and technologies of construction toward maintaining societal order. In doing so, they cemented their social hierarchical status. Following abolition of the slave trade in 1807 and emancipation from 1833-1838, architects and builders had to adapt their techniques of communication and labor management, and adjust their building practices to material and technological innovations. In contrast to heroic narratives of industrial progress and optimism that conventionally dominated histories of modern architecture, figures of apprehension, anxiety, and anticipation more appropriately encapsulate the consequential events of this period. Through empirical analyses of small-scale techniques of drawing and building, this dissertation renders the general transition from rigid, mercantilist arrangements aligned with economies of enslavement toward ideologies of free trade, increasingly widespread wage labor regimes, and liberalism more broadly, into legible, tangible forms. Using as heuristics architectural technologies for preempting, mitigating, and suppressing fires—planning, constructional assemblies, mechanisms, materials, regulations, financing, and legislation—I demonstrate that preventing undesirable occurrences governed a heterogeneous array of activities. These ranged from English architects' professionalization initiatives, to plans for evacuating people from and extinguishing fires in theaters, to labor management in West Indian military outposts, to fire insurance offices that spread their risk profiles by indemnifying Caribbean sugar plantations beginning in the late eighteenth century. Thus capital and uncertainty went hand in hand as elements in conveying wealth, as architects and others involved in building at once made risk both fungible and material.

Manuel Shvartzberg-Carrió

Designing "Post-Industrial Society": Settler Colonialism and Modern Architecture in Palm Springs, California, 1876-1977
Reinhold Martin and Felicity D. Scott, Advisors

The Agua Caliente Band of Cahuilla Indians Reservation was established in 1876, the same year as the transcontinental Southern Pacific Railroad completed a station in Palm Springs. These overlapping events would both enable and problematize the settler colonization of the Agua Caliente's land, creating a checkerboard pattern of "fragmented jurisdiction" that was fundamental for its transformation into one of the wealthiest resorts in the United States. The territorial conflict between the Tribe and the U.S. would only begin to be legally resolved in 1977, when the Agua Caliente won the right to zone and plan their own lands. This dissertation examines how architecture, urbanism, and infrastructure mediated the technical, legal, and ideological struggles that took place in this period; sometimes enabling Imperial dispossession, other times structuring Tribal assimilation and decolonization. The dissertation historicizes and theorizes these processes by examining the modern architecture and urbanism of Palm Springs as a specific settler-colonial, "post-industrial" mode of development which was made possible by the particular territorial configuration that emerged out of nineteenth century Imperialism. It posits a correlation between settler colonialism and the settler imaginaries and material processes of technological progress, capitalist accumulation, natural resource extraction, and cultures of leisure that were uniquely developed in Palm Springs through modern architecture. Critically dismantling the connections between modern architecture, "post-industrial society," and settler colonialism, this dissertation argues, is a necessary condition for the development of decolonial epistemologies and strategies of anti-colonial, anti-capitalist resistance.⬟

Norihiko Tsuneishi

Work and Worship: Inari Shrines in Japan's Commercial and Industrial Landscape, 1673-1864
Felicity D. Scott and Harry Harootunian, Advisors

With the figure of fox as the emblematic emissary, Inari—arguably the most popular Shinto deity in Japan—is often deemed polytheistic due to its diverse blessings, whether agricultural, commercial, or industrial, or all of these at once. In the common historical account, Inari worship began as an agricultural ritual and, affected by the soaring monetary economy from the seventeenth century onward, it attained other predicates. Through two main studies on Inari shrines, this dissertation refutes that limited narrative and demonstrates that the agricultural attribute was in turn accentuated with the monetary economy. One study revolves around the Mimeguri Shrine, enshrined in Tokyo at the turn of the eighteenth century by the magnate Mitsui family for their commerce. The other study deciphers the concatenation of the Coal Mountain Tutelary Shrine and Tōka Shrine, originally established in the late eighteenth century by the local feudal administration, Miike-han, for their coal production in the current Fukuoka prefecture. With these shrines, the respective commercial and coal enterprises were rendered agricultural as though contained within the dominant Tokugawa order, which idealized the rice-based economy. Nurturing in effect the profit of the Mitsui family and the extra revenue of Mike-han—constituting a surplus, as this dissertation argues—the Inari worships of the merchant and the regional administration produced labor times. The presence of those shrines in this study serves as the metonymy of a contradictory process whereby even a deity was "alienated" under the command of money as if it were fooled by its own emissary, the fox.◀

Ph.D. Urban Planning
Malo A. Hutson, Program Director

The Ph.D. Program in Urban Planning prepares students to become scholars in the field of urban and regional planning. Students apply the methods and theories of social science to answer questions that are pertinent to planning practitioners, scholars, and other urbanists. The substantive foci of students' scholarship include: affordable housing policy, infrastructure planning, energy policy, environmental planning, citizen participation in planning processes, the role of expertise in shaping economic development policy, transportation, among others.

Although grounded in the social sciences, students often draw on the more design-oriented disciplines of architecture, preservation, and urban design to inform their research and motivate their research questions. The program takes an ecumenical approach to research methodologies with students employment myriad methods including archival research, content analysis, interviews, participant observation, and statistical analyses.

The diversity of the program is also reflected in the range of places that are the subject of student inquiry. Students have examined development policy in Africa, land tenancy in rural Japan, recovery and rebuilding Haiti. and transportation planning in the UK.

A common theme uniting the myriad interests of the students is a focus on the role of space and of collective action, as well as normative concerns related to social justice and democracy.

Core Faculty
- Hiba Bou Akar
- Lance Freeman
- Malo A. Hutson
- Weiping Wu

<DOCTORAL COLLOQUIUM I AND III>

[Fall 2019] Lance Freeman

This course equips students with the skills necessary to conceptualize, write, and critique empirical research. Such research is a staple of professional journals such as the *Journal of the American Planning Association* and the *Journal of Planning Education and Research*. This course introduces the dominant paradigms that shape much empirical social science research, asking students to critique scholarly research, propose alternatives, and produce a draft of an empirical journal article. Examples of research debates from urban planning are used to illustrate different research strategies. Typically, the readings include examples of empirical studies accompanied by readings that explain in more detail the particular research strategy used in the examples. Students also have the opportunity to propose alternative strategies for addressing the research questions examined in the examples. Through practice, students hone their research design skills. In the final part of the course, students present and critique each other's research designs.

<ADVANCED PLANNING THEORY>

[Spring 2020] Hiba Bou Akar

This advanced planning course provides an in-depth look into some of the key issues of planning theory. It brings together social theory and planning theory for a discussion on the strands of thought that have shaped planning theory as well as practice. The course deconstructs central pillars to planning thought like utopian imaginations and the production of their dystopic counterparts– like colonies, ghettos, and enclaves–to further understand the rationalities, processes, and outcomes of planning. The course then examines central concepts to planning–such as social justice, public interest, and property–from theoretical and empirical vantage points, thinking through how property regimes, public sphere, social justice, and the law have shaped the planning of the built environment. The course invites students to think about the postmodern, postcolonial, and feminist theoretical formulations and their propositions for new understandings for modalities of power and otherness in planning to locate possibilities for insurgencies.

Hyun Hye Cathy Bae

An Analysis of the Community Participation Process in New York City - Focusing on its Effectiveness, Representativeness, and Inclusiveness

Lance Freeman, Advisor

Since the second half of the 20th century, public participation in local governance has been widely recognized and promoted by planning theorists and practitioners. Nevertheless, in practice, public participation has faced multiple criticisms, such as a disconnect between process and outcome, low levels of substantive representation for participating community groups, and rigidity in participatory methods. These three criticisms raise the question as to how effective public participatory programs are for multicultural cities, such as New York City, with their increasing numbers of ethnic residents.

The goal of this three-article dissertation is to evaluate the current official participatory process in New York City while focusing on effectiveness, representativeness, and inclusiveness, that is, the three aspects of the process receiving the most criticism. Using path analysis, the first article compares and contrasts the effects of Community Board recommendations with those of the recommendations and reviews of other key representatives during the Uniform Land Use Review Procedure and neighborhood characteristics. The results indicate that, although Community Board recommendations have greater direct and indirect effects than those of the borough president, the second model, which incorporates neighborhood variables, reveals that increases in the socio-economic factor and decreases in the immigrant concentration factor are positively associated with changes in decisions within the procedure.

Moreover, the second article observed the level of substantive representation in terms of Community Boards using the annual Statement of Needs and survey of residents. The research finds that Community Board opinions exhibit a high correspondence with the opinions of residents on the need of affordable housing but that the opinions of residents and Community Boards diverged in other topics. Comparatively, Community Boards tend to choose topics that are related to developmental policies as the most pressing issues, while residents find topics relevant to redistributive policies as problematic. The research also reveals that the opinions of ethnic residents are represented less well than those of their non-ethnic neighbors.

Lastly, the third article searches for the equity necessary to bring forth inclusive planning processes using interviews with leaders of Community Boards and community-based organizations. The research observes the choices that planners make and finds practical limitations, including legitimacy challenges, linguistic barriers, and definitions of culture. In conclusion, the article proposes that equity comes in multiple forms, including structured collaboration and communication among relevant participants and stakeholders, diverse participation methods for multiple cultures and publics, support from the City, and assistance from planning scholars. Although all three articles point out existing ethnic disparities, the dissertation concludes that an effective, representative, and inclusive participatory process is required for both ethnic and non-ethnic residents in multiethnic, multicultural New York City.◖

Danielle Petretta

The Political Economy of Value Capture: How the Financialization of Hudson Yards Created a Private Rail Line for the Rich

Elliott Sclar, Advisor

The theory of value capture is simple to understand and easy to sell, promising self-fulfilling virtuous cycles of value generation, capture, and redistribution. Countless studies document value creation attributable to public interventions, providing guidance on the type and extent of potential benefits. Scholars too have set forth parameters for optimal value capture conditions and caution against common pitfalls to keep in mind when designing value capture plans. But even when utilizing the best advice, equitable redistribution of benefits rarely occurs in neoliberal economies, leaving municipalities struggling to meet the myriad of social needs and provide basic services for all their inhabitants. Invariably, capitalistic real estate states seek to financialize public assets for private gain. Nowhere is this more apparent in New York City today than in the outcomes thus far of one of the largest public-private developments in New York history at Hudson Yards. This dissertation documents the failure of the value capture scheme put in place at Hudson Yards which neither captured fair market value for the public nor extracted much public benefit. The scheme aimed to leverage vast tracts of publicly-owned land above operational rail yards at the Far West Side of Manhattan. Instead, public action under the guise of public purpose catalyzed the private financialization of a finite public asset, through the seemingly benign but inherently complex public policy tool of value capture finance. In particular, this dissertation tells the detailed development story of Hudson Yards, where developers reap huge rewards for their risks while the public still waits for what was promised—an all too familiar story.▼

Matteo Stiglich

City Unplanning: The Techno-Political Economy of Privately-Financed Highways in Lima
Elliott Sclar, Advisor

Since 2009 the Metropolitan Municipality of Lima has partnered with private corporations to deliver three highway projects worth US$1.5bn. This process follows a state-building strategy developed since the 1990s to allow different levels of government to deliver infrastructure projects with private finance. In Lima, the model has almost exclusively produced highways through a specific scheme that allows firms to submit unsolicited proposals. In this dissertation, I investigate how the availability of private finance transforms the political process and local planning outcomes. I argue that rather than being simply a solution for cash-strapped governments looking to invest in specific pieces of infrastructure, the introduction of private finance shapes what projects get built. Private finance not only transforms the implementation part of a two-step process: it has a deep impact on the planning phase itself by setting constraints on what can be done and to what ends. I call the specific mechanism by which private finance influences planning "unplanning." Here, the state is not simply retreating to let the private sector determine priorities. In other words, it is not abandoning planning, or simply not planning. Rather, it is being transformed to follow a proactive role in attracting investment and to adapt planning to the needs of private capital. The dissertation goes beyond understandings of infrastructures as neutral conduits and into their techno-political nature to reveal how they reflect, reproduce and become both the conduit and the site of political conflicts between private capital, the state, and urban dwellers.◗

Siobhan Watson

Building on Local Successes: The Energy Efficiency and Conservation Block Grant Program and its Lessons for Federal Climate Policy
Elliott Sclar, Advisor

The Energy Efficiency and Conservation Block Grant (EECBG) Program, funded by the American Recovery and Reinvestment Act in 2009, holds important lessons for United States climate policy. A one-time infusion of funding given primarily to local governments to reduce energy use and greenhouse gas emissions, the policy had important but uneven effects. Most recipients were able to show progress on energy efficiency goals to meet program requirements. But communities with a pre-existing interest in and experience with climate and energy programs tended to multiply the effects of the funding, using it to launch long-term efforts or prove concepts to secure further funding and support. The dissertation shows the value of communities' participation in voluntary policy initiatives related to climate and energy, as municipalities with even a small amount of related experience were better positioned to turn a one-time infusion of federal funding into long-lasting programs. At the same time, the program's outcomes demonstrate the enduring power and influence of the federal government in achieving more widespread success, as municipalities that had not previously participated in climate and energy planning were generally unable to continue their work once federal funding was removed, even in the presence of local champions and demonstrated successes. The program also demonstrates that using federal grants-in-aid to accomplish policy goals has important limitations. Though EECBG grants often had a major impact on local policies, their uneven impact exposes the risk that grants-in-aid may further stratify local governments' capacities in the policy areas to which they are applied. Rather than evening out the playing field, it is possible for such programs to increase the disparities between policy leaders and the rest. The dissertation points to the importance of tailoring federal programs to varying local needs and to the importance of building local differences into program evaluations.▟

M.S. Critical, Curatorial, and Conceptual Practices

Felicity D. Scott and Mark Wasiuta, Program Co-Directors

The Masters of Science in Critical, Curatorial, and Conceptual Practices in Architecture (MSCCCP) offers advanced training in the fields of architectural criticism, publishing, curating, exhibiting, writing, and research through a two-year, full-time course of intensive academic study and independent research. The program recognizes that architectural production is multi-faceted and diverse and that careers in architecture often extend beyond traditional modes of professional practice and academic scholarship, while at the same time reflecting and building upon them.

The program is structured to reflect this heterogeneity and the multiple sites and formats of exchange through which the field of architecture operates while at the same time sponsoring the ongoing critical development and interaction of such a matrix of practices and institutions. The program's emphasis is thus on forging new critical, theoretical, and historical tools, and producing new and rigorous concepts and strategies for researching, presenting, displaying, and disseminating modern and contemporary architecture and closely related fields. The program is aimed primarily (but not exclusively) at those with a background in architecture who wish to advance and expand their critical and research skills in order to pursue professional and leadership careers as architectural critics, theorists, journalists, historians, editors, publishers, curators, gallerists, institute staff and directors, teachers, and research-based practitioners.

Students might be seeking further academic training or specialization after a professional degree or years of teaching, or even at mid-career. They might also have worked in a related field and be seeking an academic forum to develop additional specializations in architecture. The program also provides the highest level of preparatory training for application to PhD programs in architectural history and theory.

<COLLOQUIUM I>

[Fall 2019] Mark Wasiuta

This *Documents and Discourse* colloquium reads contemporary critical discourse through the filter of documents and documentation. Asking how architecture has been shaped by the evolving history, status, and ontology of the document, the course traces the informational, classificatory, and discursive parameters of various forms of practice, delineated and organized by contracts, drawings, manuscripts, and photographs. The course follows the almost boundless expansion of the genre of the document over the last century as it absorbs memos, audio recordings, films, videotapes, biometric data, and computer code. It studies how the legal, institutional, and political identities of this expanded genre cut across diverse architectural, academic, administrative, popular, and cultural registers. The course also tracks the formation and development of an archival, administrative aesthetic from the late 19th century onward. Through specific historical examples, the course examines and assesses the appearance and the authority of documents for architecture, architectural history, architectural exhibitions, and architecture's myriad media practices.

<COLLOQUIUM II>

[Spring 2020] Felicity D. Scott

Designed to look closely and critically at these fields of practice, this colloquium focuses on three interrelated platforms: (1) publications including magazines, reports, newspapers, and books and the architects, critics, writers, and publishers associated with them; (2) exhibitions in galleries, museums, worlds fairs, expos, biennales, and triennales and the architects, curators, and institutions involved, and; (3) experimental formats of research and the collaborative arrangements and institutions through which they function. The course does not provide a comprehensive account of each of these practices. Rather, it uses selected examples to investigate what role these platforms have played in the formulation and understanding of architecture (broadly conceived) and it works to identify their contribution to seminal debates, to transformations in architecture's technical and aesthetic characteristics, to sponsoring critical experimentation, as well as to the careers of many architects.

<THESIS>

[Fall 2019, Spring 2020] Alexandra Quantrill

In addition to regular meetings with their primary advisors, students attend thesis seminar meetings, an important forum for reviewing the requirements and expectations of the CCCP thesis, discussing individual projects and clarifying research agendas, strategizing representational strategies, and developing and refining approaches to jury presentations.

<THESES>

Jumanah Abbas

On Frontiers of a Vertical Dimension
Felicity D. Scott, Advisor

al-Faysal Magazine. Issue 102. Sept. 1985.

On the 8th of February, 1985, the first geostationary communication satellite, Arabsat-1A, was launched with the Ariane 3 flight from Korou, France. The 1A communication satellite would then support an array of projects centered on advancing a Pan-Arab terrestrial telecommunication network and would operate using C-band frequencies for its two-way communication: 4 GHz for a reception and 6 GHz for transmission. The application of automated transceivers coupled with the international administration of satellite bandwidths, invisible forces centrally encoded within technical standards, were rendered visible in juridical-political practices and echoed in conflicts over ordering territories of the Arab region

This thesis departs from an examination of the Arabsat-1A launching to rethink the political strategies considered for extracting, managing, and ordering unfamiliar frontiers. In the process of interrogating vertical spatial dimensions, my thesis, which takes the form of a book, consists of three sections that visit different strata of infrastructure spaces bound within the *politics of verticality*. To do so, each section acts as a cartographic device to navigate across different sites of mediation that channel the vertical domain. These ubiquitous sites, in their technical and invisible characteristics, vary to include the satellite orbit, the electromagnetic spectrum, down to the air space around us. While each has its legal definitions and histories, in this book, each is brought into existence through a specific event, tracing the lines of governing institutes and the narratives of the individuals who were entangled, but also disappeared from visibility, within these lines. These protagonists and their experience were crucial—although excluded from official institutional narratives—in the operations for and against the state exploration of invisible frontiers.▪

Fernanda Carlovich

Traveling Dome
Felicity D. Scott, Advisor

Gautherot, Marcel. *Construction of the dome of the Federal Senate.* 1958. Instituto Moreira Salles.

This thesis draws inspiration from a woman walking over a concrete dome. Alia Farid's work for the 32nd Sao Paulo Art Biennial was recorded on the Rashid Karami International Fairgrounds, in Tripoli. Those watching the video on the occasion of the Biennial have experienced the feeling of an estranged familiarity, for the dome in Tripoli is in direct tension with an important form of the Brazilian architecture imaginary—one that not by accident also appears instantiated right outside the same Biennial pavilion. Farid's video explores the semiotic resonance of those two sites through close-ups and carefully positioned shots that make one question whether that scenery is familiar or not. The walking over the dome incites a familiarity to those who already know by heart the curvature of that architecture.

Farid's video returns to Brazil a form that traveled to Lebanon in 1962 together with the architect Oscar Niemeyer. Between temples, museums, theaters, and political stages, the spaces created by these domes are endowed with an uncanniness from their form. These semiotic resonances establish a connection between them—a horizontal dialogue that arises from architecture and surpasses it. The dome's travel, I want to argue, can be read as a symptomatic episode of the post-war developmentalist agenda in the Global South. Taking the Experimental Theater in Tripoli in conversation with the Palace of Expositions in Sao Paulo and the National Congress building in Brasília, this thesis understands *travel* as the repetition of a formal solution and its mediatic dissemination, which allowed this architecture to reach territories beyond its original locations.

Niemeyer's Brazilian and Lebanese domes are, therefore, interconnected by ideas of progress, modernity, nation-building, and failure. While in Brazil, the fiction of democratic consolidation with the inauguration of Brasília in 1960 was postponed by the 1964 Military Coup, in Lebanon, the national sovereignty and cultural emancipation represented by the Fairgrounds was suspended by the Civil War in 1975. In the promise of infrastructure as a guarantor of development, architecture has been entrusted with a central function, closely tied to a powerful state constitution. States change faster than constructions, and the gap between the fluidity of ideologies and permanence of buildings allows that certain spaces produced through specific claims have ended up being occupied with conflicting goals.▪

Francesca Johanson

Xylaria: Archives and Economies of Wood
Felicity D. Scott, Advisor

In universities, natural history museums, and government departments across the world, *xylaria* occupy an unusual and often overlooked space where science, industry, and colonial legacies intersect in an archive. Derived from Greek—*xylon* for "wood"—and Latin—*arium* for "separate place"—xylaria are collections of wood specimens cut from trees and shaped into blocks or sectioned for microscopic slides. They range in scale, design, and ambition, from the Baroque, book-like collections of Enlightened German foresters, to the utilitarian, climate-controlled storage rooms of London's Kew Gardens, to the jungle-enclosed cabinets of Yangambi research station, an ex-Belgian agricultural outpost in DR Congo.

Xylaria register a wealth of anatomical information about woody environments and are commonly used by archeologists, paleontologists, forensic scientists, forestry researchers, wood chemists, and lately, climatologists and geneticists. But they are also sites where the production of scientific knowledge has been and continues to be, enlisted in service of governmental regimes. Conceived in 18th-century Europe, when the systematic production of knowledge about the "natural" world helped empires expand––enriching understandings of new subject landscapes––xylaria remain sites where research, tools, and forestry products are leveraged to exert control over access to natural resources.

There is a paucity of critical literature on wood collections, even in the history of sciences, perhaps because their modern iterations appear so prosaic (so *wooden)*. How might we appraise the work they do for different actors at different levels of government? This thesis zooms back and forth from the cellular to the macroeconomic. It focuses on three aspects of xylaria: archival practices, architecture (including landscape), and the operationalization of wood science. It traces how wood collections and their attendant spaces have registered, or been mobilized in support of, imperial ambitions of European colonial powers, specifically the British and Belgian, focusing on The Royal Botanic Gardens, Kew, London, U.K., and the Royal Museum for Central Africa, Tervuren, Belgium. The weaponization of wood in the USDA's Forest Products Laboratory, Madison, Wisconsin, is the third case study. ■

Zoe Kauder Nalebuff

An Accidental Archive
Mark Wasiuta, Advisor

Asbestos clothing for hazardous work, from an exhibit in the American Museum of Safety, New York. 1860–1920.
The Miriam and Ira D. Wallach Division of Art, Prints, and Photographs: Photography Collection.
The New York Public Library Digital Collections.

An Accidental Archive catalogs material from Frank J. Thomas' commercial career as an insurance photographer in Los Angeles from 1950-70. The publication makes meaning of the photographer's archive and considers what is at stake in the large collection of images of stairs, floors, ramps, and landings. These images—records of sites where accidents took place—anchor a broader inquiry into the spaces of slipping, tripping, and falling. In the catalog and accompanying text, this thesis traces my experience of researching minor accidents and their mysterious absence from the American historical and cultural record.

To make sense of the insurance images and the scant scholarship on minor accidents, I highlight fragmented moments of American national concern over domestic accidents and home hazards in the period from the 1910s–1980. I examine the rise of cultural and government projects incorporating injury prevention into the canonical knowledge of the model American citizen, spouse, and worker. I argue that programs intended to tackle accidents from the National Bureau of Standards, the National Safety Council, and the American Museum of Safety ultimately fail to adequately address the everyday reality of minor accidents in the built environment. Instead, they leave behind a thick soup of anxiety around bodily accidents and personal safety. Conflicting ideas of culpability in slips, trips, and falls highlight the risks attached to being a modern and productive body, as well as the social instability contained within those risks. As a collection of material that hasn't quite fit in elsewhere, this thesis makes room for accidents within the architectural imaginary and invites you to fall in.◥

Jose Luis Villanueva

A Line in the Rainforest
Mark Wasiuta, Advisor

President Fernando Belaunde receives the visit of foreign delegations at the Government Palace, August 12, 1966. 1966. Fernando Belaunde Terry Photographic Archive. Universidad San Ignacio de Loyola.

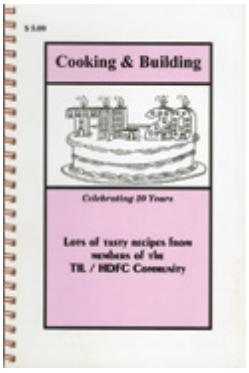
This research pays close attention to the *Marginal de la Selva*, a colossal 1,500-kilometer highway imagined by Peruvian president and architect Fernando Belaunde in the 1960s. Cutting through the Andean eastern margins, Belaunde envisioned this project to promote the geographic, political, economic, and social integration of South America's tropical territories, while establishing a continental-scale infrastructural connectivity network.

Though academic architectural studies about him mainly focus on his years as a professor and designer, this research deals with the intersection between his modernist and nationalistic ideologies and his fascination with the Amazonia. By using the *Marginal de la Selva* as the core of analysis, the thesis suggests how infrastructure, development, nationalism, and governance became rooted in landscapes and bodies, consolidating new social and political subjectivities while producing extreme changes in the Amazon's ecology.

A line in the Rainforest explores how Belaunde's line drawn into Peru's map became a symbol of his administration and ideological imperatives. Once it hits the Amazon, it accounts for how the line expands and contorts when challenged with the difficulties of imposing the very logic of development, making the *Marginal* a complex site of negotiation between different political, territorial, ecological, cultural, and social regimes.◣

Emma Macdonald

Place Setting
Felicity D. Scott, Advisor



Cooking & Building. 1988. Urban Homesteading Assistance Board.

The meal is an architect of shared space. Through its participation in vast scales of production and consumption, food can create both global systems and environments that are deeply personal. This project situates itself around this claim and amid a context of precarity and experimentation within the built environment of 1970s New York, examining practices including the Urban Homesteading Assistance Board (UHAB), guerilla community gardening on the Lower East Side, and art spaces such as FOOD restaurant and The Kitchen itself. While these experimentations may have been progressive in their intentions, they each bring to the table the complexities of agency and inclusivity that are necessarily present in community-focused practice. Borrowing from a theoretical framing of community as implying shared vulnerability and an "ethics of cohabitation" (following Judith Butler), these histories take stock of the connection between conceptions of sharing space within an urban environment, and the desire to share a meal. Through the use of instructional formats such as the score and the recipe within its text, this project attempts a format that invites participation in its consumption—even at a distance.◖

Isabelle Tan

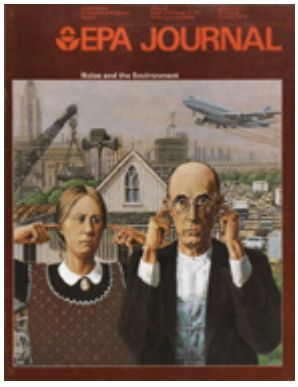
How to See the BRI
Mark Wasiuta, Advisor

The People's Daily. *I'd Like to Build the World a Road*, Music Video. 2018.

In the last decade (since 2013), China has been at work, building and funding the literal pipe dreams of "world peace and development" through the Belt and Road Initiative (BRI). The BRI generally refers to what feels like an ever-growing number of infrastructure and investment projects in an ever-growing list of countries—from neighboring Pakistan to the G7 nation of Italy. This thesis probes at the fictions and frictions of the BRI through the format of a handbook. Its chapters assemble relations among finance, land, and labor, culling moments of convergence and disruption, as they emanate from and coalesce around a high-speed rail in Indonesia and 5G infrastructure in the UK. Infrastructure, the object of the BRI, locates a conceptual knot tangled in a world of relations—one that refuses any easy separation between seemingly atomic categories: visible and invisible, material and immaterial, human and non-human, past and future. This thesis offers a method for "seeing" the BRI through a concept of mediation. This method rethinks the technical systems binding us to the world, unsettles an understanding that technological domains operate far from political institutions, and presents a different view: one in which the BRI's governance and power are seen not at a distance but with the intimacy and immediacy of rails, pipes, and cables. Complexity is found at every level of the BRI's magnification—whether you are zoomed-in or out. As it turns out, the simple question *of how to see the BRI* is not so basic at all. The principle aim of the handbook is to offer moorings, critical bottlenecks, and turning points, for traversing the dizzying field of the BRI.◆

Alexandra Tell

Environments of the Self
Mark Wasiuta, Advisor



Davies, Nathan. *Noise and our Environment*, illustration for *EPA Journal*, Vol. 5, Nu. 9, October 1979. United States Environmental Protection Agency.

This thesis investigates spatial concepts of the self in the realm of popular psychology in the 1970s. As ecological, financial, and political insecurities prompted a retreat inward, a culture of seeking cures for societal ills in the self emerged. The spaces collected in this thesis are once psychical and psychic, contained by architectural boundaries of walls and ceilings, but reliant on the sensory as a form of ambient spatial control. Beyond the forms of atmospheric climate-control of the well-tempered environment, in these environments of temperament, affect and behavior become the primary spatial concerns.

Environments of the Self is formed around three main case studies across disciplines and media: a body of psychology experiments, a series of ambient sound recordings, and an architectural exhibition. Each case study foregrounds a particular setting (the laboratory, the home, the museum, the city), a perceived subject (the test subject, the consumer, the urban public), tracing practices where the mind becomes a space of negotiation between individual and environment, from scientific studies in environmental psychology, through popular psychology, into forms of entertainment. These episodes of environmental mood alteration and behavior modification are test cases for thinking about the thresholds between body and environment, interior and exterior. Through the figure of the self, I endeavor to ask where apparatuses of power emerge in a complex of bodies, spaces, sensory engagements, and architectures of mood.■

Chenchen Yan

Beyond Tradition and Modernity: the Formation of Chinese Architectural Discourse, 1928-1937
Reinhold Martin, Advisor

Section of China, Exhibition Catalog. 1925. The International Exhibition of Modern Decorative and Industrial Arts

This thesis investigates the formation of Chinese architectural discourse in the so-called Nanjing decade (1928-1937) in the Republic of China—a period of relative political stability after years of internecine warfare following the Chinese Revolution of 1911. It traces how the concept of *jianzhu* (the Chinese equivalent of "architecture") shifted from a craft to an art, a discipline, and a profession, as the young nation-state underwent tremendous socioeconomic and cultural transformations.

The main figures studied in this thesis are known as the "first generation of Chinese architects," those who received their architectural training in the USA, Europe, or Japan and founded China's first departments of architecture after returning home. The thesis examines the colonial conditions underlying the emergence of Chinese architectural discourse, that is, the cross-cultural circulation of aesthetic concepts, technologies, information, ideas, and ideologies made possible by colonialism. It explicates how architecture played a crucial role in the making of Chinese nationalism in the wake of the violence of imperialism, and how Chinese architects negotiated the definition of "Chinese architecture" amidst the dichotomy of tradition and modernity.

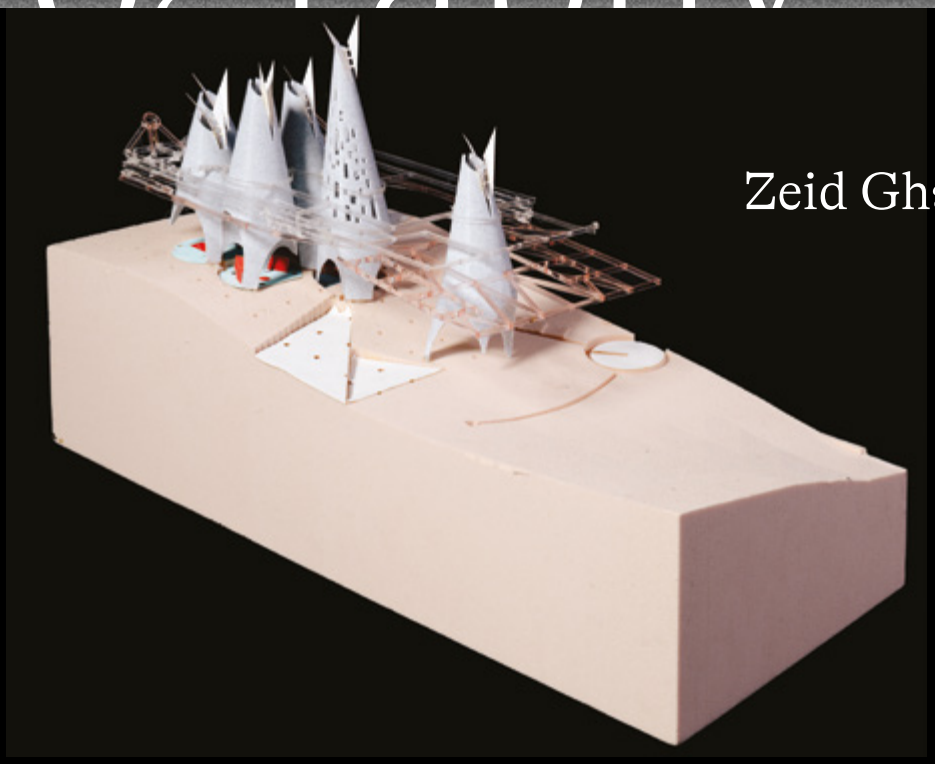
By examining the architectural practices of three major professional organizations—the Society for Research in Chinese Architecture, the Shanghai Architectural Society, and the Society of Chinese Architects—including their research, publications, designs, and exhibitions—the thesis offers a two-fold challenge: 1) to the historiographical binary of "tradition versus modernity," and 2) to the conventional narratives of foreign impact, colonial domination, and anti-colonial resistance that have been used to explain the "modernity" of Chinese architecture. It argues that the notion of "Chinese architectural tradition" is itself a modern construction while maintaining that modern Chinese architecture defies the essentialist understanding of modernity as a radical break with tradition. The formation of a specifically Chinese architectural discourse allowed Chinese architects to reflect on and appropriate their objectified image under the Western gaze, and to claim a subject position in a field that had long been dominated by Western and Japanese Sinologists.■

Model Pho

Oscar Caballero

Haoming Li,
Xin Qi

ntography

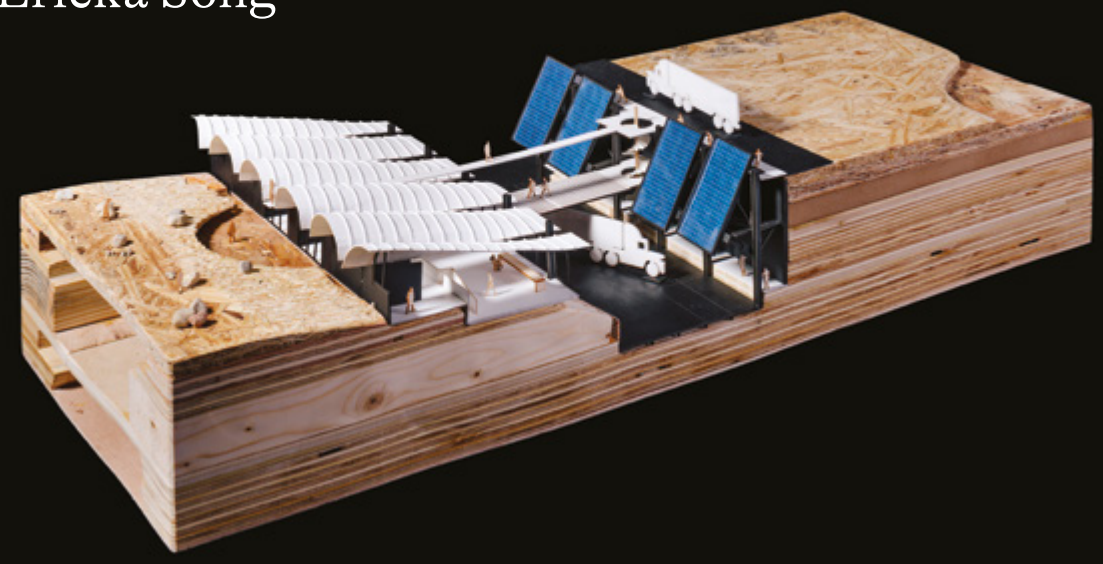


Zeid Ghawi

Christian Pineda

Model Pho

Ericka Song

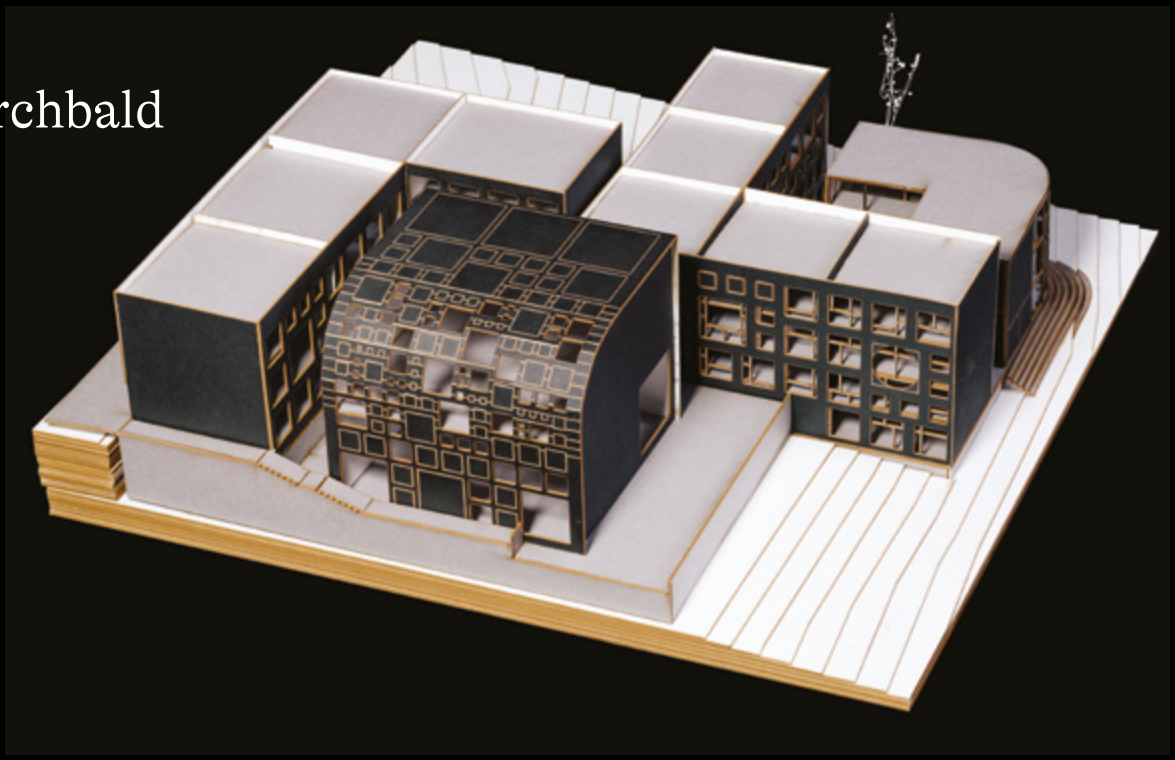


CJ Wang

ntography

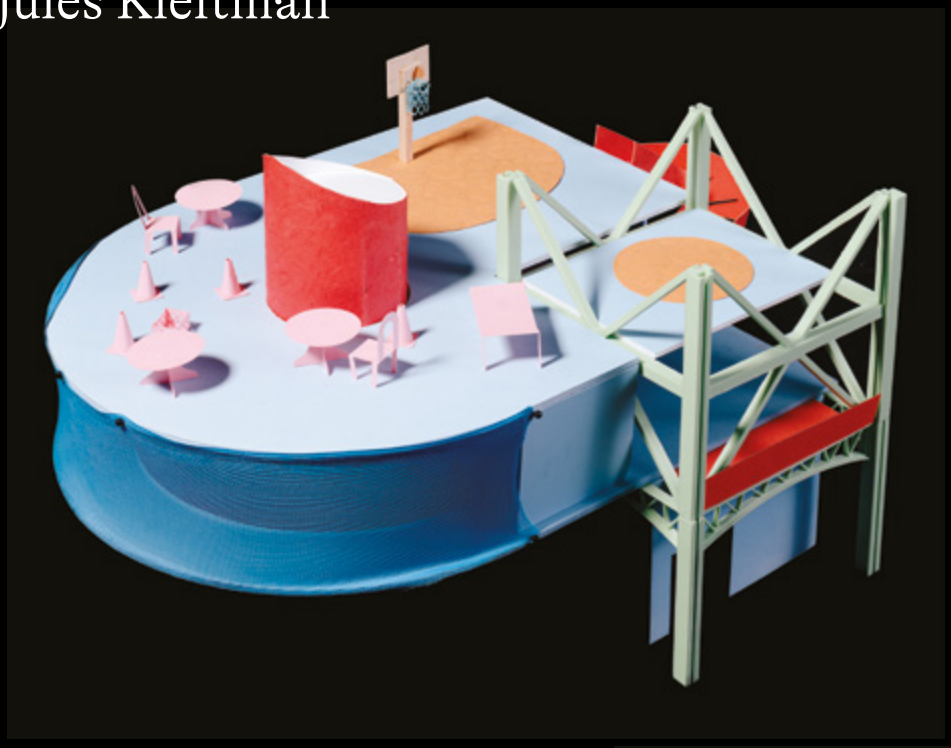
Hyung Rok Do,
Tim Zhou

Blithe Archbald



Model Pho

Jules Kleitman



Jiageng Guo

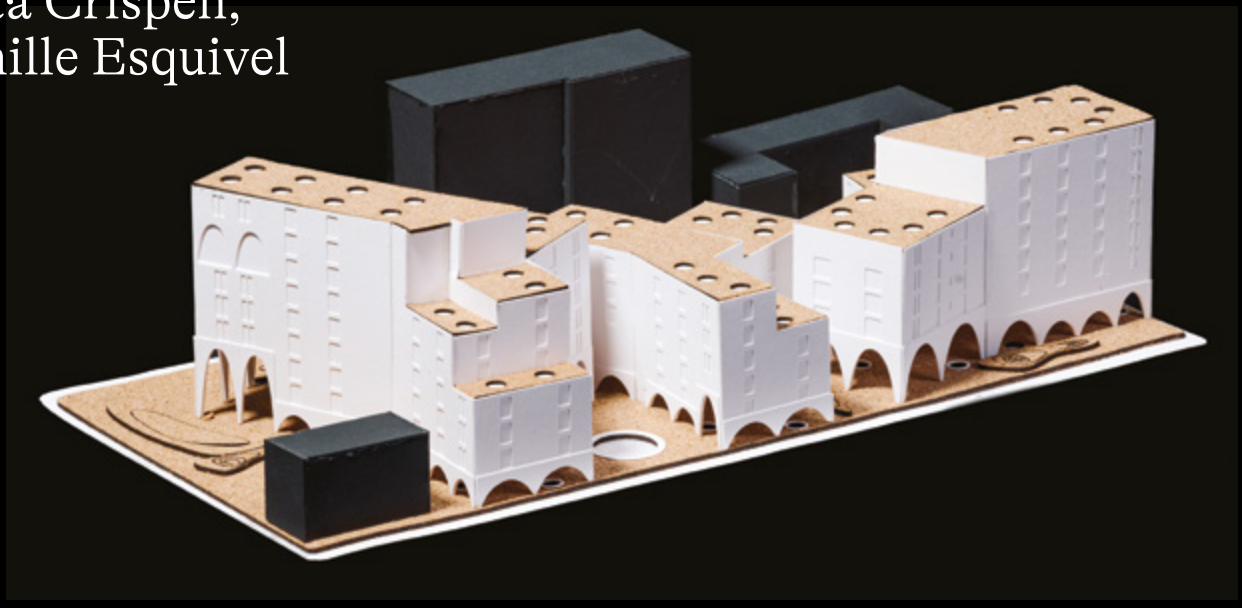
ntography

Alina Abouelenin,
Maria Perez Benavides

Hannah Stollery

Model Pho

Greta Crispen,
Camille Esquivel



Sarah Shi,
Jun Ito

ntography

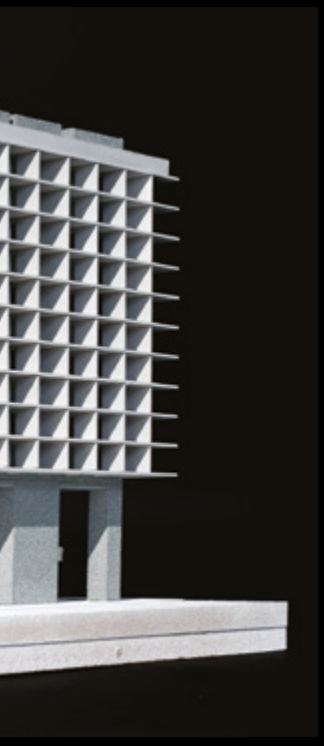
Maxwell Chen,
Xinran (Amber) Shen

Model Pho

Yu Kon Kim,
Kyu Chan Kwak

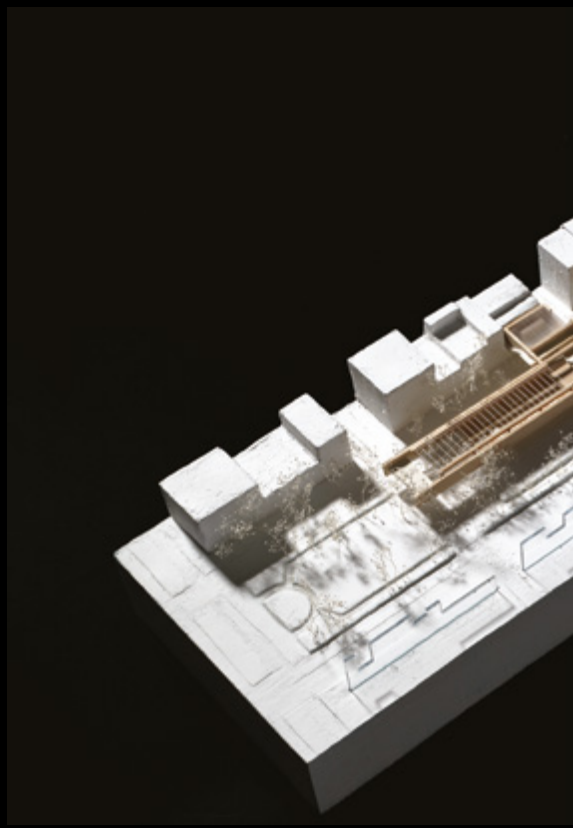
Oscar Caballero,
Rafaela Olivares

ntography



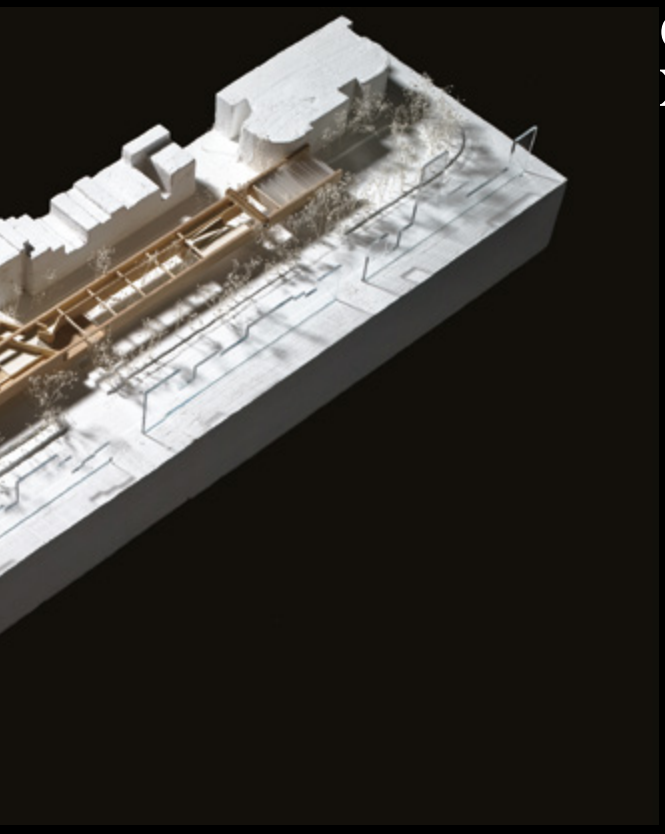
Lu Liu,
Yaxin Jiang

Model Pho



Azul Klix,
Guillermo
Hevia García

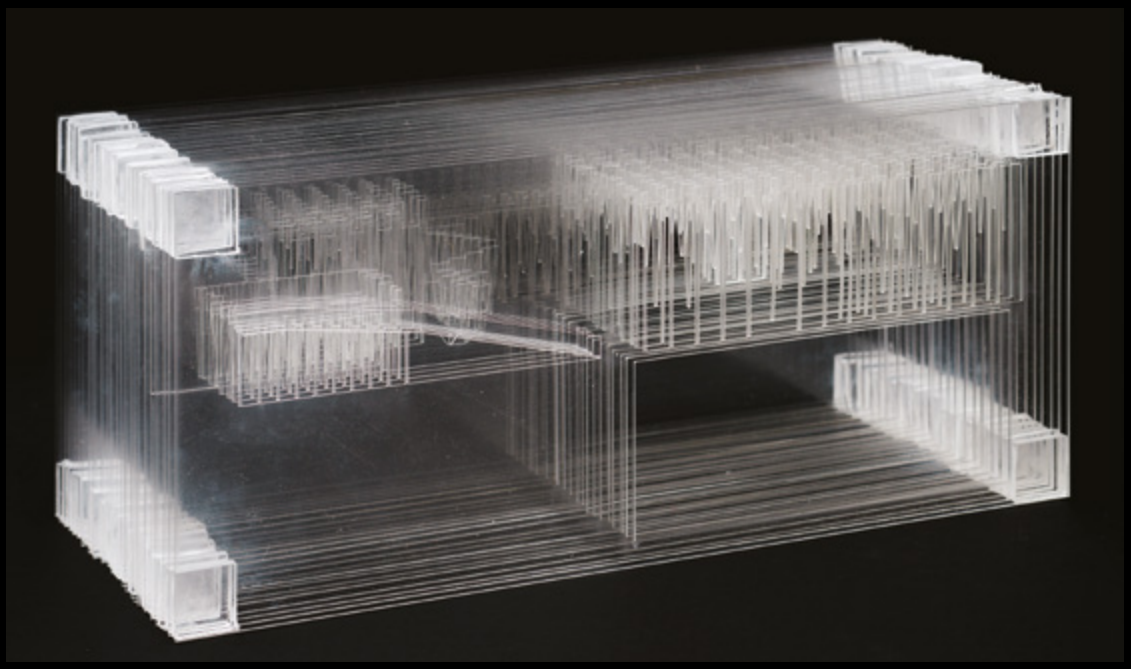
ntography



Chun-Chang Tsai,
Xinyi Zhang

Changbin Lee

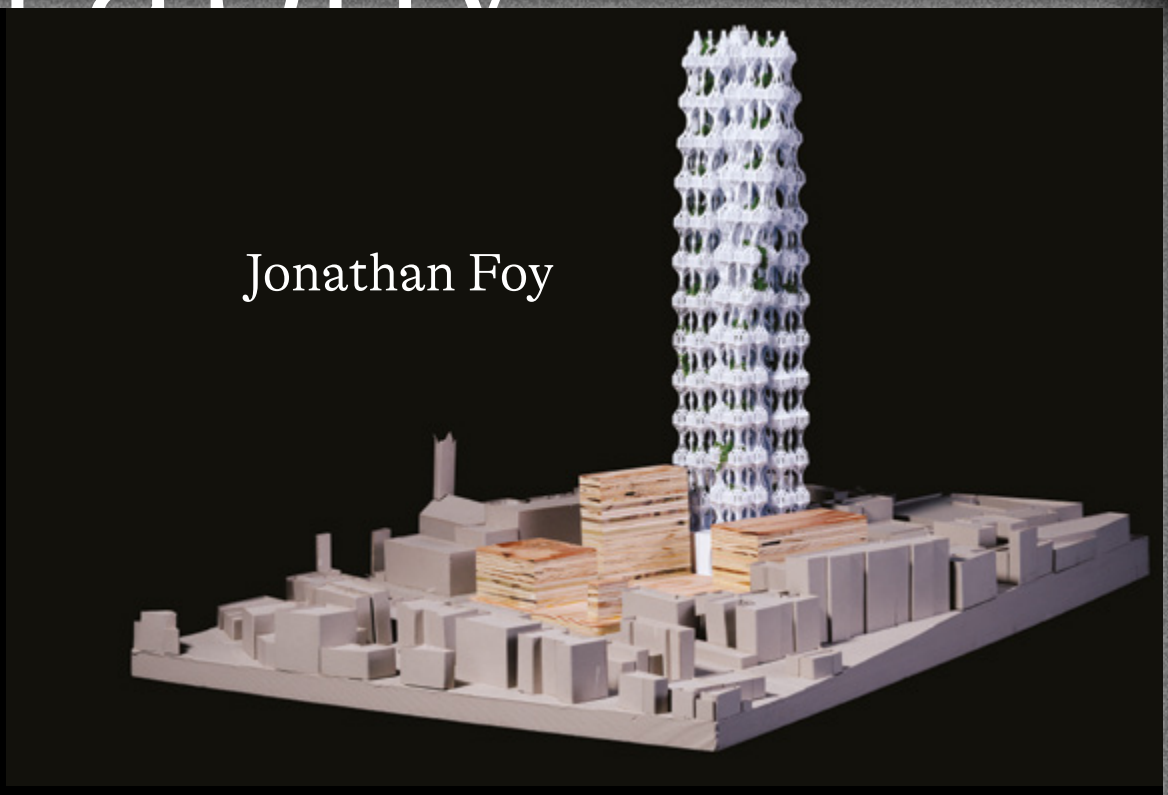
Model Pho



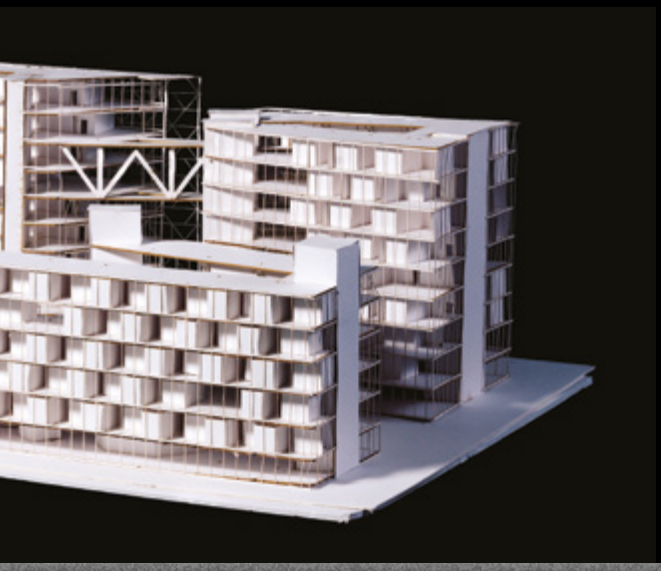
Linxiaoyi Wan,
Peizhe Fang

Chengliang Li,
Lin Hou

ntography



Jonathan Foy



<SECTION E> 485
489 Research
506 Events
516 Exhibitions
524 Publications
<INSERT 3>
544 Student Organizations
<INSERT 4>
550 Portfolios

Research

Temple Hoyne Buell Center for the Study of American Architecture

Reinhold Martin
Director
Jacob Moore
Associate Director
Jordan Steingard
Program Manager

Founded in 1982, the mission of this Center is to advance the interdisciplinary study of American architecture, urbanism, and landscape. A separately endowed entity within GSAPP, the Buell Center sponsors research, workshops, public programs, publications, and awards.

Center for Resilient Cities and Landscapes

Kate Orff
Faculty Director
Thaddeus Pawlowski
Director
Johanna Lovecchio
Associate Director
Grga Basic
Associate
Research Scholar

Established in 2018, this Center uses planning and design to help communities and ecosystems adapt to the pressures of urbanization, inequality, and climate uncertainty.

Center for Spatial Research

Laura Kurgan
Director
Dare Brawley
Assistant Director
Grga Basic
Associate
Research Scholar
Jia Zhang
Associate
Research Scholar
Dan Miller
Staff Associate

This Center was established in 2015 as a hub for urban research that links design, architecture, urbanism, the humanities, and data science.

Death Lab

Karla Rothstein

Extraction Lab

Christoph Kumpusch

Global Africa Lab

Mabel Wilson
Mario Gooden

Housing Lab

Daisy Ames &
Adam Frampton
2019-20 Affiliated
Faculty
Bernadette Baird-Zars
IDC Fellowship
Recipient
Juan Sebastián Moreno
Erin Purcell
Ericka Song
2019-2020 Graduate
Research Assistants

Post Conflict Cities Lab

Hiba Bou Akar

Urban Community and Health Equity Lab

Malo Hutson
Moira O'Neill

Urban Design Lab

Richard Plunz

Hudson Valley Initiative

Kaja Kühl

Embodied Energy Project

David Benjamin

Avery Architectural and Fine Arts Library

Hannah Bennett
Director

Making Studio

Joshua Jordan
Director

Preservation Technology Lab

Jorge Otero-Pailos
Director
Mika Tal
Manager

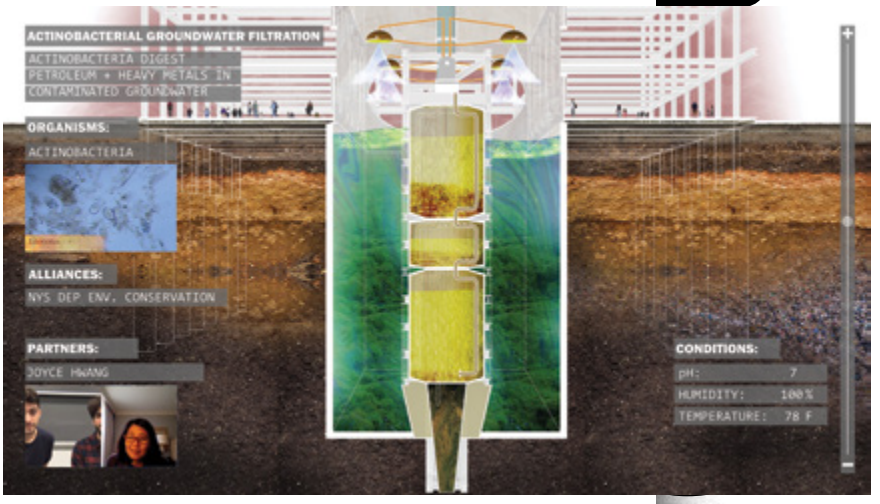
GSAPP Incubator Prize

David Benjamin

Summer Workshops

THE GREEN NEW DEAL: A PUBLIC ASSEMBLY
The Temple Hoyne Buell Center for the Study of American Architecture hosted this event on November 17 2019, together with the Queens Museum, the American Institute of Architects New York (AIA New York), The Architecture Lobby, Francisco J. Casablanca (¿Quién Nos Representa?), and Gabriel Hernández Solano (GND Organizer). The assembly gathered a wide array of advocates, organizers, and elected officials to explore the Green New Deal's relationship to society, policy, and the built environment. This event was organized as part of the Buell Center's multi-year project, "POWER: Infrastructure in America," which challenges participants to think about how infrastructure relates to life across a series of intersecting concerns, including democratic governance and climate justice, with a series of editorial, program, curricular, and research-based initiatives. Photo by Corey Torpie.

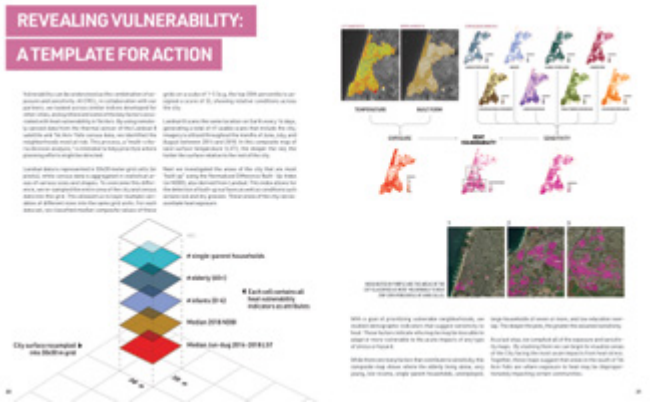
2019 BUELL CENTER PARIS PRIZE
This prize, sponsored by the Temple Hoyne Buell Center for the Study of American Architecture, recognizes GSAPP student projects that successfully comply with, interpret, and/or critically extend the terms and spirit of the 2015 Paris Agreement. Winning proposals address the social, technical, political, and symbolic implications of the climate accord in an architecturally specific fashion, at multiple scales. Toxic Entanglements by Christopher Spyrakos, Frederico Gualberto Castello Branco, and Frank Mandell is one of three awarded projects. It was completed during the fall 2019 semester as part of the Advanced Architecture Studio V led by Andrés Jaque.



Research

THE GREAT RIFT VALLEY

The Center for Resilient Cities and Landscapes traveled to Tel Aviv-Yafo in January 2020 with the GSAPP MSAUD students and faculty to support research and continuity between the Tel Aviv Resilience Accelerator and the Spring 2020 Urban Design Studio: Great Rift Valley. Together, they investigated development trends and history, social stress, climate threats from heat and flooding, and nature-based infrastructure in four areas: Neve Sha'anan, Shapira, Hatikva, and Bat Yam Municipality.

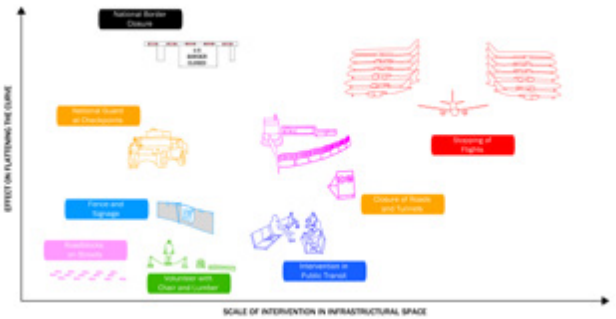


RESILIENCE ACCELERATOR TEL AVIV-YAFO

In February 2020, the Center for Resilient Cities and Landscapes published the report Resilience Accelerator Tel Aviv-Yafo: Urban Heat and the Future of the Public Realm. Working with the Resilient and Social Equality Authority, the City Architect, Environmental Authority, and scientists from Columbia, NASA, and Tel Aviv University, the Accelerator pioneered a new method of prioritizing areas of the city most exposed and vulnerable to heat.

CONFLICT URBANISM

Conflict Urbanism is an ongoing seminar series organized by the Center for Spatial Research that focuses on conflict and cities where conflict is understood not only as war and violence but as a structuring principle of cities, as a way of inhabiting and creating urban space. This diagram was produced by Jin Hong Kim, Claudia Nicole Kleffmann, Spenser A Krut, Nina Sky Lish, Qingying Wang, and Savannah Wu as part of their project “Pandemic Urbanism: Reflections on the Spatial and Rhetorical Devices of the COVID-19 Crisis” for the Spring 2020 seminar led by Professor Laura Kurgan.



COLUMBIA RECEIVES GRANT TO SUPPORT NEW CURRICULA ON TECHNOLOGY DESIGN

Laura Kurgan, Professor and Director of the Center for Spatial Research, was announced as a recipient of a grant from the Public Interest Technology University Network as part of a Columbia University faculty collaboration that includes Lydia Chilton, Assistant Professor in the Computer Science Department at Columbia University, and Mark Hansen, Columbia’s David and Helen Gurley Brown Professor of Journalism and Innovation. The grant, awarded in October 2019, supports the creation of new curricula on designing computational technology that better serves society. This illustration, titled “Staying Power,” was produced by Nelson De Jesus Ubri and Sarah Zamler during the Fall 2020 course “Public Interest Technology: Cities, Design, Code Reporting,” which was offered as part of the Public Interest Technology University Network. Their project comprised a toolkit of research and strategies aimed at fostering a network of care in response to evictions. It analyzes systems of eviction both before and during the COVID-19 pandemic to understand how to empower tenants.

Research

HOUSING LAB LAUNCH

Launched in September 2019 with support from the IDC Foundation, the Housing Lab brings together faculty and students from across the disciplines to leverage expertise around some of the most critical challenges facing urban housing today. Using a design approach, the Lab creates meaningful collaborations and practical opportunities for architects, developers, and planners to advance interdisciplinary work and promote creative methods and bold interventions for affordable, adaptive, and resilient housing.

Illustration of rooftop units and amenities produced for the Housing Lab report titled “Code Changes and Building Proposals.” Small changes in New York City’s codes—the zoning resolution, multi-family dwelling law, and building code—can enable big changes to improve and expand affordable and resilient housing. This report focuses on the changes to code that can make improvements and expansions to existing walk-up buildings possible.

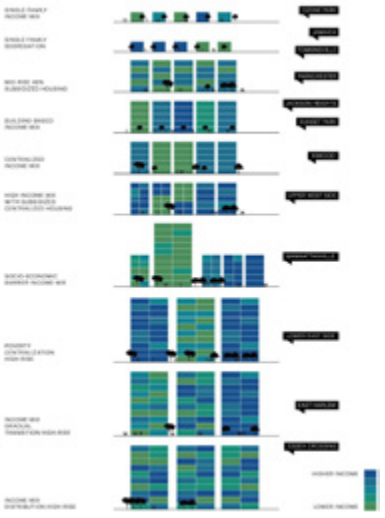


Illustration of mixed-income neighborhood types published in the Housing Lab report “What Factors Make Mixed-Income Neighborhoods Tick?” While the concrete effects of gentrification are felt by displaced communities, remedies seem elusive. This report aims at an alternative approach to understanding how neighborhoods can sustain a mixture of incomes for a prolonged period, instead of being transition places that price out low-income residents.

PANDEMIC URBANISM: PRAXIS IN THE TIME OF COVID-19

Assistant Professor Hiba Bou Akar, who directs the Post-Conflict Cities Lab, worked with Ph.D. and masters student enrolled in her spring 2020 courses on Advanced Planning Theory and Planning and Spatial Exclusion to develop an open-source annotated reading list on the pandemic as it relates to urbanism, urban planning, architecture, and the built environment. Conceived as a living document, Pandemic Urbanism: Praxis in the time of COVID-19 was developed through a method of collaborative co-writing bringing together in one document materials that students, scholars, practitioners, and activists would find useful to think about the pandemic as it relates to cities, spatial inequalities, and social change. Their reading list was presented in the format of a virtual discussion among the contributors which include Maureen Abi Ghanem, Sebastian Andersson, Dare Brawley, Jenna Davis, Lanier Hagerty, Joe Huennekens, Martine Johannessen, Juan Sebastián Moreno, Stefan Norgaard, Zeineb Sellami, and Wenfei Xu.

ENERGY AT MoMA

In conjunction with its exhibition "Energy," The Museum of Modern Art commissioned the Embodied Energy Project led by Associate Professor David Benjamin to create visualizations about embodied energy—what it is and how it relates to the Museum's new building. Energy, organized by Paola Antonelli and Anna Burckhardt, opened at the Museum of Modern Art in October 2019. Research and visualizations were realized by GSAPP students during the fall 2019 semester in the seminar "Footprint: Carbon and Design" led by Benjamin, and by The Living.

The Embodied Energy Project examines the intersection of architecture and the environment with a fresh perspective. It reconsiders the act of making a building as an act of energy expenditure, and it asks questions about a variety of related scales, methods of analysis, and design opportunities.

Research

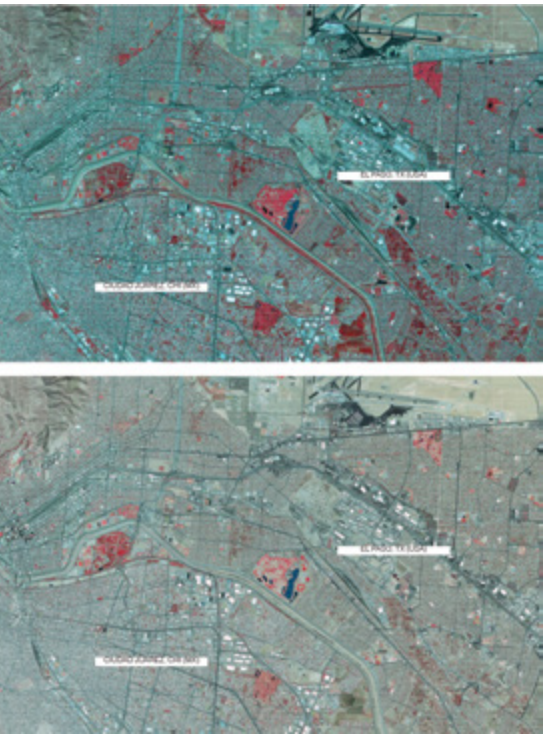
GSAPP INCUBATOR PRIZE
The GSAPP Incubator Prize was established in 2019 to encourage a wide range of experiments initiated by GSAPP alumni. The 2019–2020 cycle was dedicated to the topic of Climate Change at the Building Scale and supported projects that advance environmental concerns in architecture and related fields. As a platform for entrepreneurship and expanded modes of practice, the Prize supports projects that bridge critical discourse and active practice and engagement.

GRETA HANSEN ’09 MARCH:
HEMPCRETE FOR CITIES
Hansen’s project explores the potential of hempcrete as an ecological and carbon-negative alternative to concrete in the urban environment.

DAN LUO ’14 MARCH: WEAVING FOR NATURE
Luo’s research translates traditional techniques of bamboo weaving into a digital workflow through the creation of an algorithmic system.

EUGENIA MANWELYAN ’11 MSUP:
INTER INSTITUTE
Manwelyan’s project reimagines a site located in the rural Catskills region of New York as a multidisciplinary center for art and ecology.

ADAM MARCUS ’05 MARCH:
BUOYANT ECOLOGIES FLOAT LAB
Marcus conducted research into ecologically productive floating structures as a form of sea-level rise adaptation.



STEPHEN MUELLER ’06 MSAAD:
IRRADIATED SHADE
Mueller developed a means of uncovering, representing, and designing for the unseen dangers of irradiated shade in the borderlands of Mexico and the United States. This image illustrates disinvestment in public shade between 2008 and 2015, a LANDSAT infrared analysis by AGENCY.

ANAHID SIMITIAN ’15 MSAAD: CROP WILD
Relatives in the Fertile Crescent
Simitian’s project focused on the development of a community center that brings together locals and refugees through the growing of CWRs (Crop Wild Relative) in the Bekaa Valley of Lebanon. Photo by the NGO Together for al-Jarniyah showing local Syrians rushing to extinguish a fire believed to have been started by ISIS to burn field crops, May 28, 2019.

Research

COVID MAKER RESPONSE

During the Spring 2020 semester, 3D printers and laser cutters at the GSAPP Making Studio were mobilized to produce face shields based on a design and guide produced by the COVID Maker Response (CMR). This coalition of makers was founded by librarians at Columbia University Libraries and Tangible Creative in response to the COVID-19 pandemic and also includes MakerBot and other service providers. In addition to managing the production and assembly of face shields, CMR also stayed informed regarding parallel designs and efforts that might allow them to manufacture additional equipment for hospitals facing shortages.

PRESERVATION TECHNOLOGY LAB SUPPORTS NEW COURSES

The Preservation Technology Lab was the center of recently launched courses during the 2019–2020 academic year, including Traditional Building Technology led by Faculty Tim Michiels, Modern Building Technology led by Faculty Theodore Prudon, and Investigative Techniques for Laboratory and Field led by Faculty Norman Weiss and Amanda Thomas Trienens. The Lab enables cutting-edge research in preservation digital technology, materials science, and aesthetics. It promotes research into unique applications that combine materials science and digital technologies, with particular emphasis on replication and adaptive reuse, as well as the aesthetic implications of these technologies.

Summer Workshops

A globally-minded education is fundamental to GSAPP's curricula and is inextricable from the students' formation—through studio and seminar study trips to summer workshops and Kinne Fellowships. During the summer of 2019, workshops were held in Honolulu, Hawaii; Beirut, Lebanon; Zurich, Switzerland; Rotterdam, The Netherlands; Havana, Cuba; and London, UK. These faculty-led research trips assembled students from across the academic programs for an intensive study opportunity that revolved around a particular question in a global location. These summer workshops present students a chance for cross-disciplinary collaboration, first-hand experience, and global engagement with real situations.

Research

Sustainable Building Renovation in the Tropics

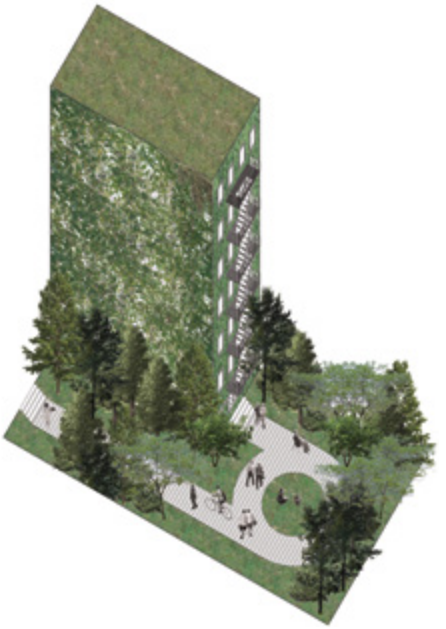
Michael Adlerstein, Belmont Freeman
Havana, Cuba

This workshop offered an opportunity to participate in the documentation and evaluation of a historic building in Old Havana and a design charrette for its renovation, with a focus on the application of best practices of sustainability. In consultation with colleagues at Fundación Antonio Núñez Jiménez de la Naturaleza y el Hombre (FANJ) and the Office of the Historian of the City of Havana, among others, the contributions of the GSAPP delegation included: advanced surveying and documentation techniques; production of 3D digital models and other visualization and design tools; analysis of existing building materials and systems; proposal and evaluation of specific technologies for optimal environmental sustainability; and production of graphic materials to explain the integration of advanced sustainability technologies in the building's restoration.

The Green Dip: Covering the City with a Forest

Javier Arpa, Winy Maas
Rotterdam, The Netherlands

New relationships between nature and cities are an emerging trend of 21st-century urbanism but there is little agreement on their design, planning, and management. Having overcome the antagonism between rural producers and urban consumers, this workshop searched for new pacts between city and nature. It approached the greening controversy by looking at the planet as a whole. Focusing on 14 cities with a variety of climate types, students examined the density, climatic conditions, and native flora in these regions. This research informed the production of a catalog of native flora. Students also researched methods for installing species on different urban forms and produced images of the greenification of each city with its native species.



Fast Form/Work: Casting a Sustainable Future

Nina Baier-Bischofberger, Trevor Watson
Zurich, Switzerland

In collaboration with faculty and students from ETH Zurich, this workshop offered a hands-on investigation into the future of sustainable building technology. Specifically, it explored a brand-new building material recently developed by the Complex Materials Group of the ETH—an aerated foam made of a waste product that would otherwise end up in landfills. Unlike conventional concrete, the production process of this material does not generate CO2. Students assessed the properties and potential of this new material. The workshop also explored the history of concrete casting in Switzerland.

Urban Data: Parking in the Ala Moana Neighborhood and its Impact on Mobility

Ann Harakawa, Kaz Sakamoto

Honolulu, Hawaii

This research sought to answer the question: How can technology augment parking studies for improvement in accuracy and efficiency? Students led efforts to count and map on- and off-street parking in the Ala Moana neighborhood. They trained on Coord (a Sidewalk Labs spin-off and an augmented-reality curb asset management platform) and traditional GPS data collection methods to document parking spaces and provide the inventory data to the Ulupono Initiative and the city and county of Honolulu. Participants met with stakeholders across diverse sectors in Hawaii, surveyed streets, analyzed data, and conducted policy research that interfaces with parking.

Research

Circular Cities

Malo Hutson
London, UK

This workshop asks: How can the principles of the circular economy be applied across the main urban systems (mobility, built environment, water, energy, food), and what are the interlinkages across these systems? Partnering with the Ellen Macarthur Foundation, a leading initiative for circular economy transitions in the UK, this workshop provided students with an opportunity to dive into the mechanisms and tools by which governments, businesses, and institutions are adopting a circular economy perspective to building cities.

Al Makassed, Beirut Islamic Society of Benevolent Intentions, A Patron of Modern Architecture

Ziad Jamaleddine
Beirut, Lebanon

Building on research conducted during previous trips to Beirut, this workshop continued to focus on documenting and narrating the project of modernism on the periphery, utilizing the Makassed Islamic schools' modernist campuses in Beirut as a case study. Makassed, a local Islamic society with a reformed Islamic school program, was formed at the turn of the 20th century. The sectarian learning institution was originally housed in a structure that adjoined its founders' residences in the heart of Beirut. The Makassed schools, characterized by their modernist slab building typology, quickly proliferated across the territory of modern-day Lebanon. The institution has exerted considerable influence on the modernization and advancement of comparable educational initiatives in the Middle East region. The work was exhibited as part of the exhibition "Benevolent Intentions: Makassed, Patron of Modern Architecture" at the Saleh Barakat Gallery visual essay on the Makassed Society's modern architectural legacy. Drawing by Jumanah Maher Abbas, Grace Alli, Mariana Avila Flynn, Francesca Johanson, Frank Mandell, Maxime St. Pierre Ostrander, Alexandra Kane Tell, and Tianyu Wang.

Research

Events

At Columbia GSAPP, public programs play an integral role in fulfilling the School's responsibility to host a diverse and lively community where unwavering intellectual generosity and the desire to communicate and exchange are at the foundation of how students learn and grow together. In response to the unprecedented social distancing measures to prevent the spread of COVID-19, a number of planned events were suspended, noted below.

Associate Dean of Admissions and Outreach
Steffen Boddeker

Director, Events and Public Programs
Lyla Catellier

Student Events Crew
Leah Smith, Kaeli Alika Streeter, Urechi Oguguo, Abhinav Gupta

Fall 2019 Lectures
Shohei Shigematsu
Jesse LeCavalier
Marina Tabassum (The Kenneth Frampton Endowed Lecture)
Paola Antonelli
Alexandra Daisy Ginsberg
Eleena Jamil
Mario Gooden (Performance in collaboration with Jonathan Gonzalez and Thuto Durak Somo)
Henry Cobb
Richard Sennett
David Adjaye
Elizabeth Diller
Emanuel Christ

Spring 2020 Lectures
Bjarke Ingels
Jesse Reiser,
Carme Pinós
Emre Arolat and Gonca Pasolar*
Sophie Hochhäusl (The Detlef Mertins Lecture on the Histories of Modernity)
Marc Norman
Tatiana Bilbao*
Anna Puigjaner*
Andrea Fraser*
Amanda Levete* (The Paul S. Byard Memorial lecture)
Toshiko Mori*

* These lectures were suspended due to safety measures to prevent the spread of COVID-19.

FALL 2019
DISCUSSIONS

The Green New Deal
As a part of its "Power: Infrastructure in America" project, the Temple Hoyne Buell Center for the Study of American Architecture organized a series of research, curricular, and programming initiatives to consider the social, technical, and political contours of the ambitious proposal known as the Green New Deal throughout the semester. Events included a GSAPP-hosted simulcast of "Designing a Green New Deal" with a discussion led by Jaffer Kolb; "Public Works for a Green New Deal"; and "The Green New Deal: A Public Assembly" at the Queens Museum.

Building Cultures: Making in Nairobi, Lagos, Accra, and Johannesburg
Naeem Biviji, Josh Jordan, Thabisa Mjo, Nifemi Marcus-Bello, Mpho Matsipa, DK Osseo-Asare

Biennial in the Making
Sepake Angiama, Adrian Blackwell, José Esparza Chong Cuy, James Graham, Paulo Tavares, Yesomi Umolu, Ilze Wolff

Space Settlements Book Launch
James Graham, Fred Scharmen, Felicity Scott

1919: Black Water Exhibition Opening and Discussion
LeRonn P Brooks, Torkwase Dyson, Mario Gooden

Narrative Practice: The 5th Annual Urban Design Storytelling Symposium
Jon Bowermaster, Nellie Hermann, Cassim Shepard, Ayesha Williams

Digital Urbanisms Conference
Ruha Benjamin, Laura Bliss, Greta Byrum, Craig Dalton, Justin Hollander, Malo Hutson, Annette Kim, Laura Kurgan, Vinhcent Le, Leah Meisterlin, Susan McGregor, Nerissa Moray, Tara Pham, Mimi Sheller, Taylor Shelton, Mark Shepard, Renee Sieber, Mark Wasiuta

Ruralism Dialogues
Noah Chasin, Ziad Jamaleddine, Andrés Jaque, Kaja Kühl, Galia Solomonoff

A Bookish Party: 2019 Releases
Kate Ascher, Erica Avrami, Andrea Bagnato, Tatiana Bilbao, Dare Brawley, Eric Bunge, Caitlin Blanchfield, Marco Ferrari, Lance Freeman, Mario Gooden, Mimi Hoang, Steven Holl, Ziad Jamaleddine, Laura Kurgan, Farzin Lotfi-Jam, John May, Jason Oddy, Elisa Pasqual, Fred Scharmen, Lea-Catherine Szacka, Enrique Walker, Michelle Young

Events

SPRING 2020
DISCUSSIONS

Praxis: Provisional
Amale Andraos, Amanda Reeser Lawrence, Ashley Schafer, Bernard Tschumi, Irina Verona

Stone Men
Kadambari Baxi, Jordan Carver, Laura Diamond Dixit, Andrew Ross, Lindsey Wikstrom, Mabel O. Wilson

Global Circuit: Biennials and Triennials
Ignacio G. Galán, Nikolaus Hirsch, Nahyun Hwang, Ziad Jamaleddine, Andrés Jaque, Laura Kurgan, Christopher Leong, Dominic Leong, Farzin Lotfi-Jam, Jesse McCormick, Khoi Nguyen, Anna Puigjaner, Felicity Scott, Hilary Sample, Mark Wasiuta

*Frontiers in the Oceanic Anthropocene**
Dan Fornari, Vicki Ferrini, Kristina Gjerde, Stefan Helmreich, Stefanie Hessler, Porter Hoagland, Andrés Jaque, Armin Linke, Mari Margil, Kate Orff, William Ryan, Irene Sunwoo, Sara Tjossem, Dana Yoerger

*Nervous Systems**
Leah Kelly, Lindy Roy

*Home**
Black Student Alliance at Columbia GSAPP

*Climate Commitments**
Hélène Chartier, Eskew Dumez Ripple, Carl Elefante, Billy Fleming, Michael Gerrard, Diana Hernández, Tim Kohut, Andrea Love, Kate Orff, Thad Pawlowski, Michael Pawlyn, Ben Prosky, Z Smith

*Nothing is Automatic **
Organized by the MSCCCP Program in collaboration with Het Nieuwe Instituut and Storefront for Art and Architecture

* These events were suspended due to safety measures to prevent the spread of COVID-19.

Digital Urbanisms Conference

The development of urban digital technologies and the deployment of digital information have evolved into a mutually reinforcing feedback loop between distributed sites of data production and extraction, and the planning and design of data-driven and evidence-based landscapes. Mobile social media, networks of sensors, and the ecology of connected devices termed the "Internet of Things," among others, constitute infrastructures that harvest information, while advancing techniques of analysis and visualization have begun to describe and design sociopolitical and built environments in their image. This symposium brought together urban researchers and practitioners – planners, architects, geographers, organizers, and entrepreneurs – to take stock of the digital processes and products shaping cities, their promises, and problems, and discuss alternatives and approaches for operating within and against the uneven spaces they characterize.

October 11, 2019

Panel discussions included:

Infrastructures: Digital Materiality
- Nerissa Moray
- Vinhcent Le
- Jennifer Ding
- Mimi Sheller
- Malo Hutson (moderator)

Datascapes Systems of Representation
- Laura Bliss
- Justin Hollander
- Taylor Shelton
- Mark Wasiuta (moderator)

Keynote Lecture
- Ruha Benjamin followed by a response by Leah Meisterlin

Data and Democracy
- Greta Byrum
- Renee Sieber
- Janice Gates
- Susan McGregor (moderator)

Methodologies and Media
- Craig Dalton
- Annette Kim
- Mark Shepard
- Laura Kurgan (moderator)

Organized by Leah Meisterlin.

Erzonto

First row, left to right: Jennifer Ding, Vinhcent Le, Nerissa Moray, Mark Wasiuta, Laura Bliss, Justin Hollander, Taylor Shelton. Second row, left to right: Leah Meisterlin, Ruha Benjamin, Janice Gates, Greta Byrum, Renee Sieber. Third row, left to right: Mark Shepard, Annette Kim, Craig Dalton, Laura Kurgan.

Building Cultures: Making in Nairobi, Lagos, Accra, and Johannesburg

This discussion explored the work of four makers working in different media, each of whom are focused on the process of production as much as the product. The event asked: What is the potential impact of maker culture on manufacturing, technology, and construction ecologies in each of these contexts? Can retrofitting or reinventing existing/defunct/overlooked infrastructures and technologies scale and be replicated? How can designers co-create with laborers and users while moving towards sustainable production?

September 6, 2019

Speakers
Nifemi Marcus-Bello
Naeem Biviji
Thabisa Mjo
DK Osseo-Asare

Moderated by
Mpho Matsipa with
an introduction by
Josh Jordan.

Organized by Columbia GSAPP in collaboration with Mpho Matsipa, School of Architecture and Planning, University of the Witwatersrand, South Africa.

Left to right:
DK Osseo-Asare,
Nifemi Marcus-Bello,
Naeem Biviji,
Thabisa Mjo,
Mpho Matsipa.

Events

Narrative Practice: The 5th Annual Urban Design Storytelling Symposium

As media and design increasingly converge, this symposium asked how narrative strategies—of novelists, journalists, filmmakers, and activists—reflect design methodologies, from performing site analysis to evaluating success.

October 4, 2019

Speakers
Jon Bowermaster
Nellie Hermann
Ayesha Williams

Moderated by
Cassim Shepard.

Organized by the Urban Design program at Columbia GSAPP.

Left to right:
Jon Bowermaster,
Nellie Hermann,
Ayesha Williams,
Cassim Shepard.

Stone Men

This discussion focused on Andrew Ross' book *Stone Men: Palestinians Who Built Israel*, which explores the lives and labor of Palestinian workers in the West Bank's stone industry and documents their contribution to the design and construction of the region's built environment.

February 14, 2020

Speakers
- Andrew Ross
- Kadambari Baxi
- Jordan Carver
- Laura Diamond Dixit
- Lindsey Wikstrom
- Mabel O. Wilson

Organized by Who Builds Your Architecture? and co-presented with the Center for Palestine Studies at Columbia University.

Left to right: Jordan Carver, Mabel O. Wilson, Andrew Ross, Lindsey Wikstrom, Kadambari Baxi.

Encounters

Global Circuit: Biennials and Triennials

The event examined the role that biennials and triennials play now, as a medium for architectural practices to engage critically, to produce reality, and to problematize and expand the capacities of the field. Four decades after the opening of the first architecture biennale in Venice, the multiplication of the annual calendar of international convenings, and the exponential growth of their online circulation has both raised voices claiming the exhaustion of the model, and others praising its capacity to expand architecture's agency.

October 4, 2019

Speakers
Laura Kurgan
Nahyun Hwang
Anna Puigjaner
Hilary Sample
Ziad Jamaleddine
Mark Wasiuta
Felicity Scott
Farzin Lotfi-Jam
Christopher Leong
Dominic Leong
Ignacio G. Galán
Jesse McCormick
Khoi Nguyen
Nikolaus Hirsch
Dan Taeyoung

Moderated by
Andrés Jaque.

Organized by
Columbia GSAPP.

First row, left to right: Anna Puigjaner, Ziad Jamaleddine, Christopher Leong, Dominic Leong, Nikolaus Hirsch. Second row, left to right: Nahyun Hwang, Dan Taeyoung, Laura Kurgan, Felicity Scott, Mark Wasiuta.

Exhib

itions

The GSAPP Exhibitions program conceives, designs, and produces several exhibitions each year that take place in the Arthur Ross Architecture Gallery and throughout Avery Hall. In addition to organizing conferences, panel discussions, and gallery talks that further activate its curatorial projects and expand its audience, GSAPP Exhibitions also provides curricular support to the School's academic community.

Founded in 1990, the Arthur Ross Architecture Gallery produces original exhibitions that explore new architectural practices, research, and ideas. Through its collaborations with architects and artists, historical investigations, and public programs the gallery fosters creative projects and scholarly inquiries that enrich and expand GSAPP's culture of experimentation and critical thinking. All exhibitions and programs at Ross Gallery, located in Buell Hall on the Columbia University campus, are free and open to the public.

Exhibitions that originate at Ross Gallery frequently travel nationally and internationally to museums and cultural institutions, including BNKR (Munich), the Chicago Architecture Biennial, the Graham Foundation, and LAXART.

Exhibitions in Avery Hall feature new research and work by GSAPP students and faculty, including design projects, material studies, archival research, and fabrication experiments.

GSAPP Exhibitions also organizes the annual End of Year Show, which takes place at the conclusion of each Spring semester. Inhabiting all spaces of the school, the End of Year Show presents student work from across GSAPP academic programs. It was hosted as a virtual exhibition for the first time in 2020 amid the COVID-19 pandemic.

In all aspects of its programming, GSAPP Exhibitions engages students in curatorial research, design, fabrication, and gallery operations.

Curator of the Arthur Ross Architecture Gallery and Director of Exhibitions
Irene Sunwoo

Assistant Director of Exhibitions
Paula Vilaplana

Exhibitions Attendants & Crew
Maria Perez Benavides, Oscar Mayorga Caballero, Fernanda Carlovich, Anirudh Chandar, Thomas Chiu, Emma Leigh Macdonald, Lucy Navarro, Tung Nguyen, Jordan Readyhough, Geon Woo Lee, Nika Teper, CJ Wang

Exhib

1919: Black Water

For her exhibition *1919: Black Water*, Torkwase Dyson presented new paintings, sculpture, and drawings that respond to the 100th anniversary of the "Red Summer" of 1919, a period of heightened racial violence across the United States. Dyson's point of entry is a tragic episode that unfolded in the segregated waters of Chicago's South Side beaches. The story of Eugene Williams offers Dyson a historical framework to think through the relationship between race, climate migration, and the architectural imagination. She contemplates the industrial waste that flowed into the water where the boys swam, which warmed and cooled the lake, and the raft they built from infrastructural debris to navigate its "hot" and "cold" zones. For Dyson, the raft—designed and constructed by the boys—is an architectural structure of extraordinary significance: a space of refuge, but also a space of liberation. Attending to these modulations of temperature and spatial agency, her paintings and drawings incorporate cumulative layers of washes, colors, textures, geometric markings, and sculptural modules, while an abstract sculpture grapples with the interstitial political and environmental conditions that the boys on the raft created and occupied.

The exhibition advances Dyson's research on the ways that water, historically and in the present, operates as a contested geography and how climate change disproportionately affects people of color around the world. It connects her interest in emerging discourses on the plantationocene with her idea of "Black Compositional Thought," a working term that considers how spatial networks—paths, throughways, water, architecture, and geographies—are composed by Black bodies and how the attendant properties of energy, space, and objects interact as networks of liberation.

1919: Black Water was organized by Columbia GSAPP and curated by Irene Sunwoo.

Arthur Ross Architecture Gallery
9.29.19–12.14.19

GSAPP Student Team
- Fernanda Carlovich
- Anoushaé Eirabie
- Emma Leigh Macdonald
- Tung Nguyen
- Alexandra Tell

Torkwase Dyson Studio Assistant
- Nicole Lindner

Graphic Design
- Estudio Herrera

Fabrication
- The New Motor
- Production Support
- GSAPP Making Studio

Special Thanks
- Mario Gooden
- Ayana Johnson
- Mabel Wilson

Installation Photography
- Nicholas Knight

Exhib

End of Year Show

For the past three decades Columbia GSAPP has concluded each academic year with its End of Year Show, an exhibition that celebrates and showcases student work from across the school's degree programs: Architecture; Urban Design; Urban Planning; Historic Preservation; Critical, Curatorial, and Conceptual Practices; and Real Estate Development. GSAPP is proud to continue this tradition, following an incomparable Spring semester.

The unfolding global pandemic upended the conventions of both student life and pedagogy at the school. Working under unimaginable constraints and through a spectrum of emotions, faculty and students have explored new forms of collaboration and tested new modes of communication—in the process, unwittingly overhauling preconceived ideas of what architectural education can do and what a school of architecture can be. More broadly, the pandemic has unsettled our worldviews, fundamentally transforming how we understand our bodies, borders, and the entanglement of social, political, and economic networks. Many students tackled these issues head-on in their academic work, engaging design and spatial thinking to scrutinize the infrastructures, inequities, and technologies that continuously reshape the world.

The ethos that permeates student projects and the profound sense of community that energized this semester reveal an emerging generation of designers and thinkers—deeply empathetic and with a revised global outlook—who are poised to steer radical new directions for the built environment. Focused primarily on work from the Spring, the 2020 End of Year Show documents this singular moment for GSAPP. Online for the first time, the exhibition departs from its traditional format of installations throughout Avery and Fayerweather Halls—cherished, communal spaces of the school that are instead invoked in the organization of this digital platform.

www.arch.columbia.edu/eoys-2020
05.16.20 Launch

Organized by GSAPP Exhibitions
in collaboration with academic
program directors,faculty,
and students.

Graphic Identity
Estudio Herrera

Website Design and Development
Linked by Air

COLUMBIA
GSAPP

2020 END OF YEAR SHOW

The ethos that permeates GSAPP student projects and the profound sense of community that energized this semester reveal an emerging generation of designers and thinkers—deeply empathetic and with a revised global outlook—who are poised to steer radical new directions for the built environment.

– Dean Amale Andraos

See More

Public

ations

Columbia Books on Architecture and the City aims to expand the ground of architectural discourse. Bringing together designers, scholars, planners, artists, theorists, and curators, often working outside of the expected formats of their fields, we focus on books that ask urgent questions about what architecture is and what it does. We hope to amplify new voices while reflecting on those who've shaped the field in vital ways, and to publish books that think deeply on the implications—whether political, ecological, cultural, or disciplinary—of architecture in its broadest sense.

Director of Publications
James Graham

Assistant Director
Isabelle Kirkham-Lewitt

Associate Editor
Joanna Joseph

Public

Biennials/Triennials: Conversations on the Geography of Itinerant Display

Author
Léa-Catherine Szacka

Design
João Doria

Specifications
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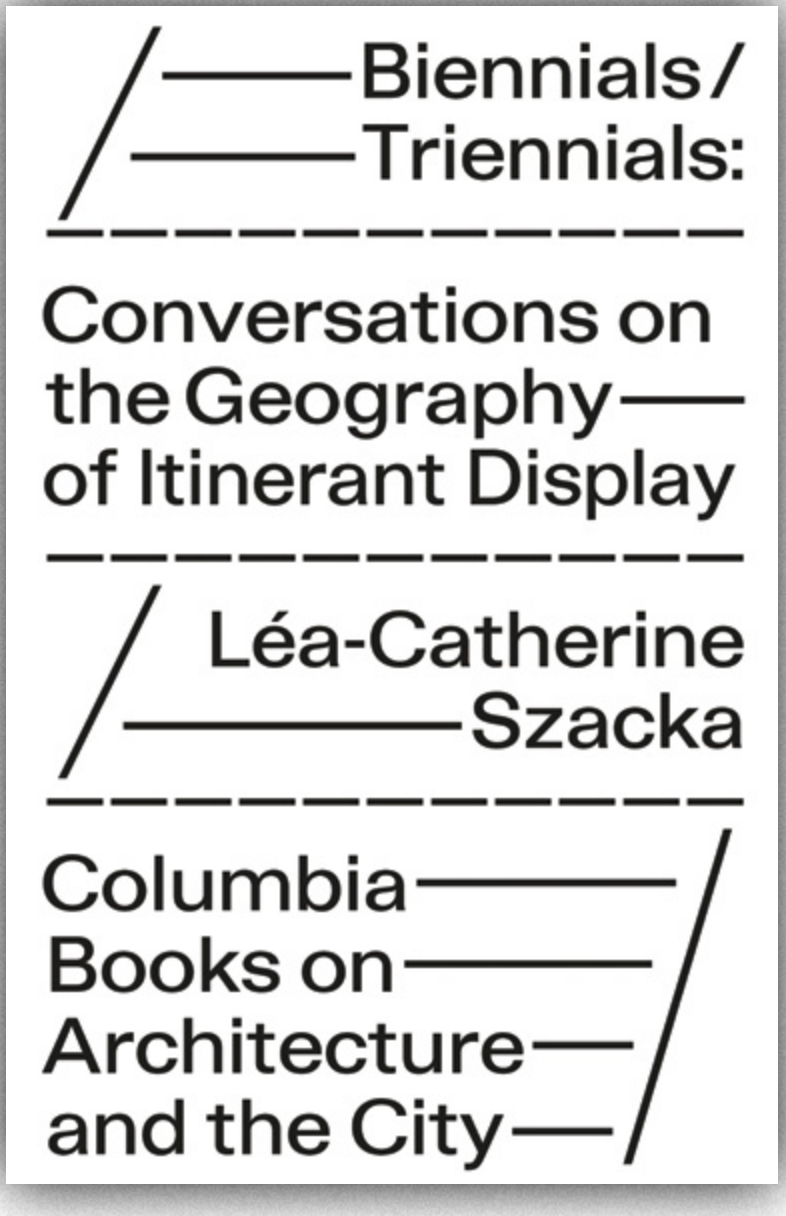
Paperback
5 × 8”

ISBN
978-1-941332-55-9



ations

1933

La Triennale di Milano: The Triennale di Milano has existed since 1933 (with origins in the city of Monza as early as 1923). The twenty-second edition took place from March 1 to September 1, 2019 with the title *Broken Nature: Design Takes on Human Survival*.

1973

Bienal Internacional de Arquitetura de São Paolo (IABSP): Organized by the Institute of Architects of Brazil and the Biennial Foundation of São Paulo, the IABSP opened in the Parque do Ibirapuera for the first time in 1973, following a desire to give more place to the discipline of architecture, which until then had been exhibited within the frame of the Bienal Internacional de Arte de São Paulo (1951). The second edition of the IABSP, however, only occurred twenty years later in 1993. Since then the IABSP has been regularly performed during odd years (although it did not occur in 1995 or 2003). The twelfth edition of the IABSP will run from September 19 to December 19, 2019 with the title *Todo Dia/Everyday*.

1978

Bienal Panamericana de Arquitectura de Quito: The Primera Bienal de Arquitectura de Quito (BAQ) was first held in 1978. In 1994 for its ninth edition, it changed its name to Bienal Panamericana de Arquitectura de Quito. The twenty-second edition should take place in 2020.

1973

La Biennale Architettura di Venezia: The architecture sector of the Venice Biennale was established in 1979, while the First International Exhibition of Architecture of the Venice Biennale opened in July 1980. Prior to this, the 1976 and 1978 editions, organized under the directorship of Vittorio Gregotti, included several architecture exhibitions, marking the prehistory of what we now call the Venice Architecture Biennale. The seventeenth edition of the Biennale will take place in 2020.

1985

Buenos Aires International Biennial of Architecture: The Buenos Aires International Biennial of Architecture has taken place since 1985. The seventeenth edition will take place October 15–26, 2019.

1998

Bienal Iberoamericana de Arquitectura y Urbanismo (BIAU): The BIAU was launched in Madrid in 1998. It then traveled to different locations: Mexico (2000), Chile (2002), Lima (2004), Montevideo (2006), Portugal (2008), Colombia (2010), Cádiz (2012), Rosario (2014), and São Paulo (2016). In October 2019 it will take place in Asunción, Paraguay.

2000

Oslo Architecture Triennale (OAT): OAT was established by the National Association of Norwegian Architects in 2000. The seventh edition of the Triennale will take place from September 26 to November 24, 2019 under the theme *The Architecture of Degrowth*.

2003

Internationale Architectuur Biennale Rotterdam (IABR): Focused mainly on the future of cities, the IABR was founded in 2001 with its first edition (*Mobility*) opening two years later in 2003. The next edition of the IABR will take place in 2020 as part of the IABR–2018+2020–THE MISSING LINK taking place in Rotterdam and Brussels. Arguing that spatial design provides crucial leverage for change, *The Missing Link* focuses on the question of how we can effectively realize the urgent acceleration and scaling of the transition to a resilient future.

Public

Research never ends - look what I found in the post today!! #ogettobanale #1980 #stradanovissima #biennale #biennalearchitettura #venezia #presenceofthepast Some amazing pics discovered thanks to Franco Raggi and facebook! Thanks Attilo Mina

We present — 'Repair'
.
Photo: @arorygardiner
.
#repair #venicebiennale #architecturebiennale #labiennaledivenezia #labiennalearchitettura2018

Venice Biennale highlight on our #blog! The Morning Chapel was designed by Barcelona-based studio @floresyprats for the Vatican Pavilion at @labiennale. It's a temporary shelter to gather and contemplate the beauty of nature. Wanna see more? Link in bio!
.
Pic by @carolinatriches .
.
#designhunger #venicebiennale #floresyprats #themorningchapel #thehollysee #vaticanpavilion #biennaledivenezia #architecturebiennale #architecture #design #pastel #pastelpink #designaddict #architecturephotography #pasteladdict #newblogpost #italy #barcelona #designstudio

University of Westminster students in Venice

#interiorarchitects #interiorarchitecture #universityofwestminster #biennale #architecturebiennale #venice #venezia #biennalearchittetura #students #trip

ations

. . . and other such stories

Editors
Yesomi Umolu,
Sepake Angiama,
Paulo Tavares

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ELLA

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Public

Map of Immwas based on the memories of its people. Dots identify the homes of families that were forced out. To the right are samples of some of the botanical evidence I identified, including carob, sumac, and almonds.

This duality of botanical resilience and violence is seen across the once-familiar topography of Palestine. Ahmed, a farmer from the village of Auja in the Jordan Valley, shows me an image of his sister on their once-lush farm. "Eggplants, tomatoes, watermelons. You name it, we grew it in our little farm. We sold the produce across the West Bank." A farmer turned agribusiness worker who sought employment on settlement date plantations after water was allocated to settlers and cut off from his village, Ahmed says it most accurately: "The valley is now thirsty." He takes me to the top of a mountain where segregation is made starkly visible through a line of symmetrically placed green palm trees that emphasize the thirst felt in the yellow soil alongside them.

Ahmed showing a picture of his sister on their farm before water was cut off and their land turned to desert. "It was a heaven of diversity. It was so abundant people often came to pick and eat for free."

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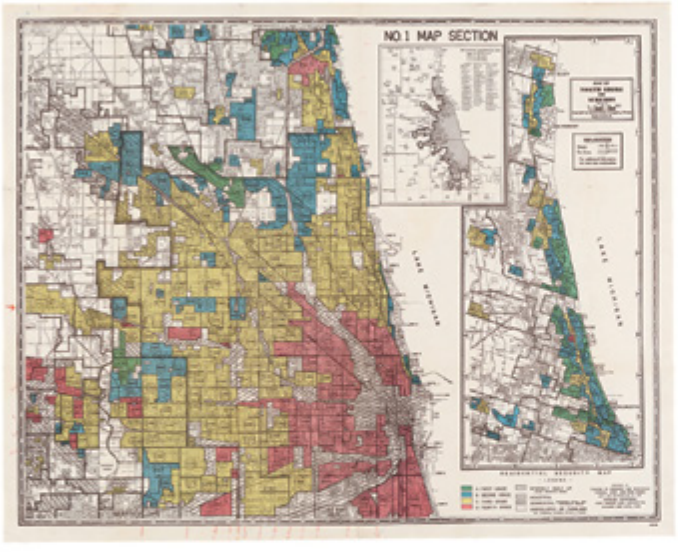
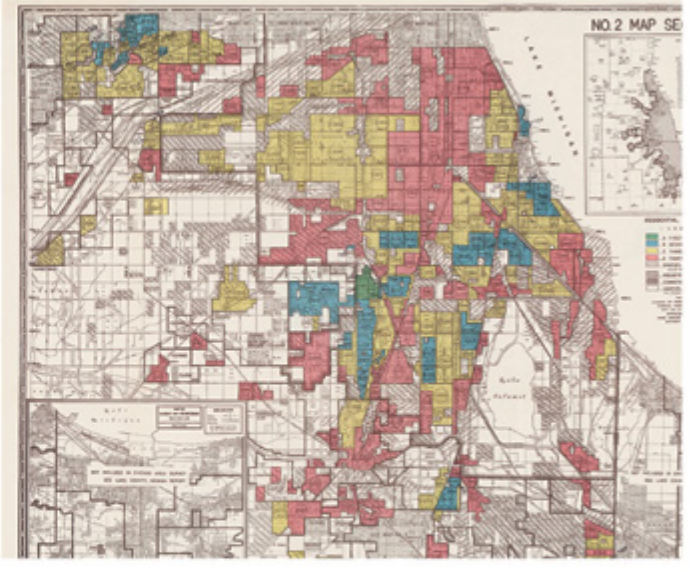


40

Chicago Residential Security Maps produced by the Home Owners' Loan Corporation, ca. 1930–40. National Archives, College Park, MD

In the United States the term *redlining* originally referred to the practice in the early twentieth century of systematically steering racial minorities into specific neighborhoods. It has since come to refer to the continued denial of resources and services to these neighborhoods' residents. The residential maps most often associated with the practice of redlining, however, contain no red at all. Instead the maps produced by the Home Owners' Loan Corporation (HOLC) between 1930 and 1940 rank residential values using lush pastels: a grassy green denotes so-called first-grade properties associated largely with stable white neighborhoods; sky blue and canary yellow, respectively,



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indicate second- and third-grade regions; and the lowest-rated, or fourth-grade, areas appear in a rosy pink. The HOLC made its maps in secret, intending these documents to circulate to a few select bureaucrats. Critics today disagree about how much the HOLC weighted race in its lending decisions, but its maps undoubtedly paved the way for more blatantly racist mapping procedures and policies carried out by both public and private lending agencies in the ensuing years. No one knows exactly how the HOLC used these maps. Their vibrant coloring suggests, however, that someone worked to make the maps appear visually pleasing even as they delivered damning assessments about neighborhoods. Inaugurating nearly a century of discriminatory residential practices, the HOLC maps do so in a color palette that buoyantly blunts their calamitous impact.

—Adrienne Brown

Public

Modern Management Methods
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Farzin Lotfi-Jam

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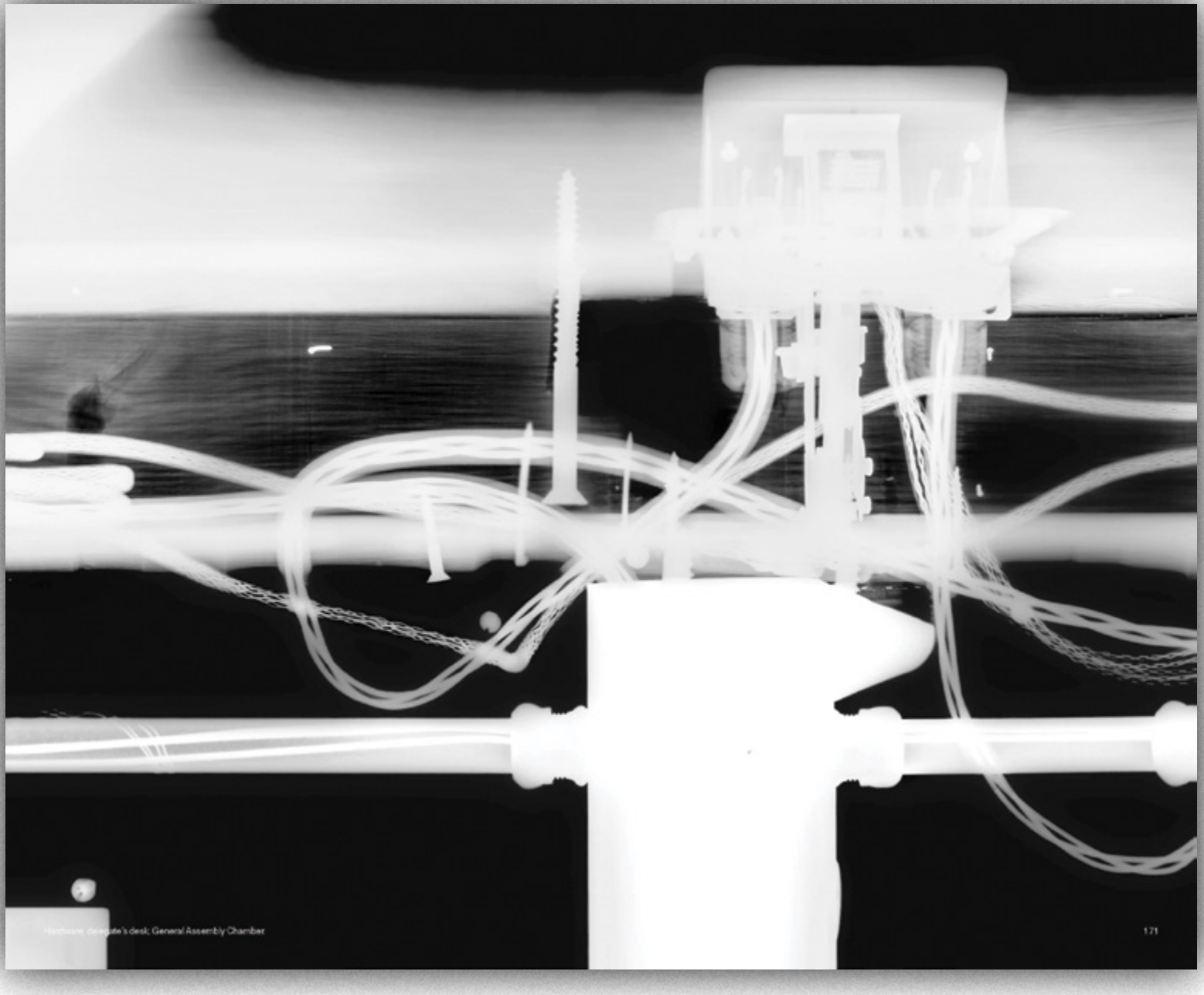
ations

Light switch, basement stairwell.

37

Public



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Ways of Knowing Cities

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Dare Brawley

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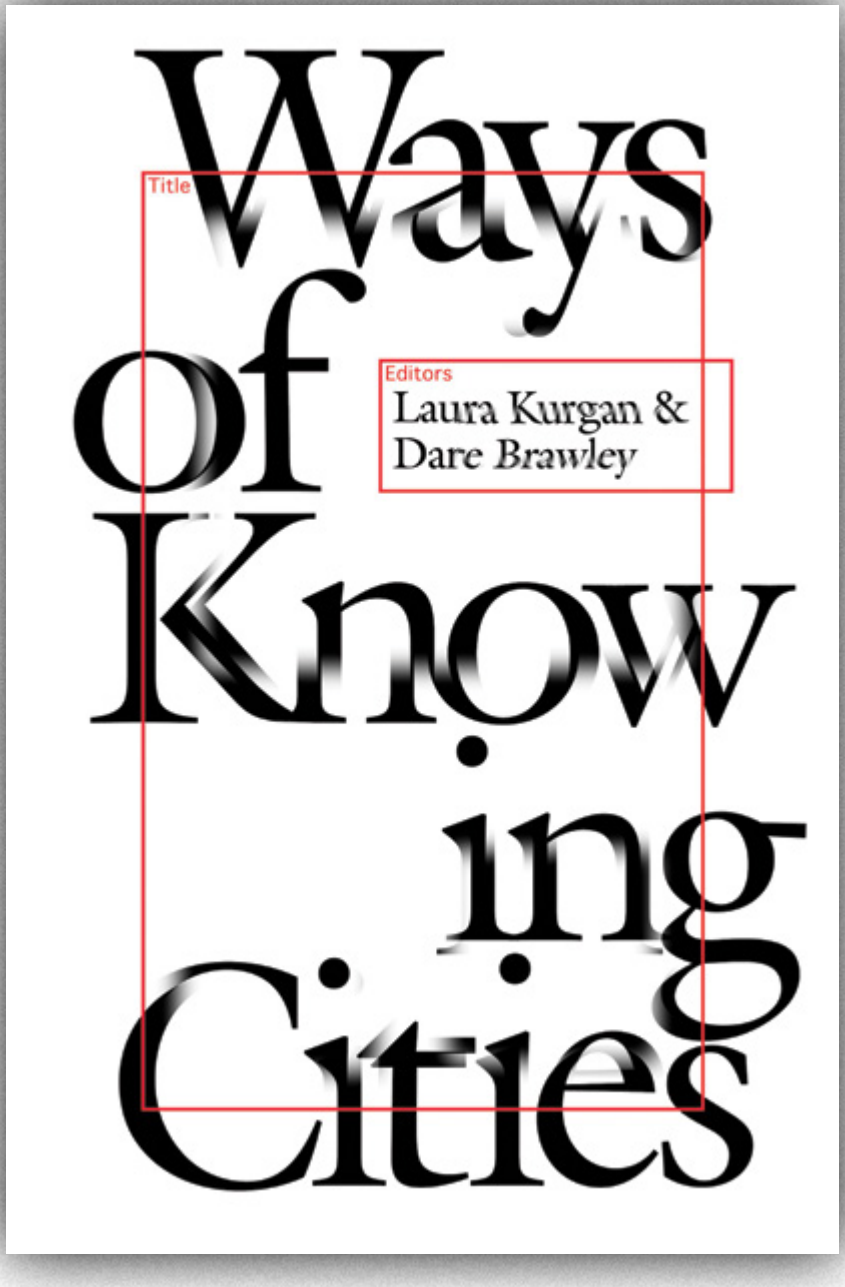

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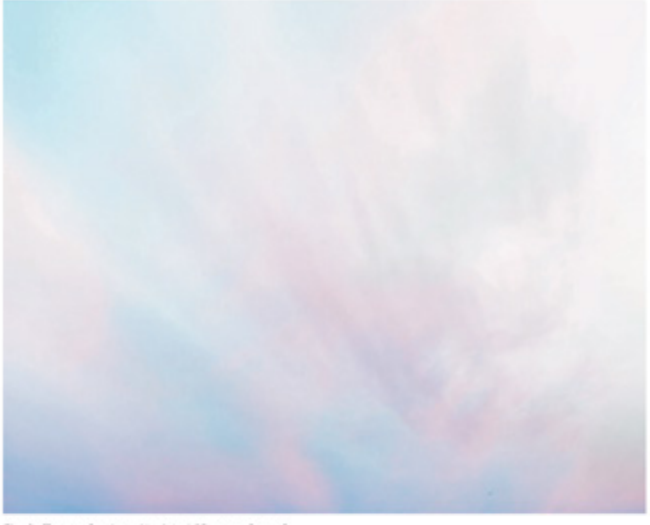

Fig 2: Trevor Paglen, *Untitled (Reaper Drone)*, 2013. C-print, 48 × 60 inches (121.9 × 152.4 cm). Courtesy of the artist and Metro Pictures, New York.

Fig 3: A detail of the Indian Ocean from Caspar Vopel's map of the world, which includes sea monsters and deep-sea creatures, 1558. Courtesy of the Houghton Library, Harvard University.

Caspar Vopel's 1558 map of the world represented the space "beyond"—which is to say, the space that cartographers did not know how to measure or represent—as inhabited by monsters, frightening deep-sea creatures.[3] Today, there is no lack of knowledge about how to measure and represent even the most complex multidimensional spaces that merge the physical and the virtual in ways unimagined only fifteen years ago. But to most of us, the techniques generating today's monsters remain enclosed in black boxes, opaque in their mathematical complexity, and hidden behind daunting firewalls and terms-and-conditions pages.

Ever since the news broke in 2015 that Cambridge Analytica betrayed fifty million Facebook users by revealing nine hundred points of data about each one of their profiles—their habits, likes, and dislikes—in order to target political advertisements, we have become painfully aware and suspicious of the algorithms that govern our everyday lives.[4] The independent journalists at ProPublica fought back with their own algorithm, the "Political Ad Collector," which holds "advertisers accountable by revealing pitches that only a targeted slice of Facebook users would otherwise see."[5] Algorithms determine (and potentially limit) what we see on social media, decide whom we are similar to and whom we might (want to) be friends with, and make suggestions about what to do, purchase, and believe. And cities are the front lines for these practices. Urban policing algorithms, which link facial recognition with rich databases, increasingly affect the movements and freedoms of millions of people around the world.

These algorithms are another way of knowing cities. There is an urgent need to represent them as such so that we can begin to unpack the black boxes that are quietly transforming urban space and its networks. Few of us are data literate enough to recognize, let alone combat, the algorithms that Virginia Eubanks has so cogently described as "automating inequality" and the ones that Safiya Noble has rightfully described as "algorithms of oppression."[6] Learning how to read data and its effects—and developing strategies and tactics for challenging its authority and its biases—is one of the most essential political tasks of our moment.

Public

Issues in Preservation Policy: Preservation and Social Inclusion

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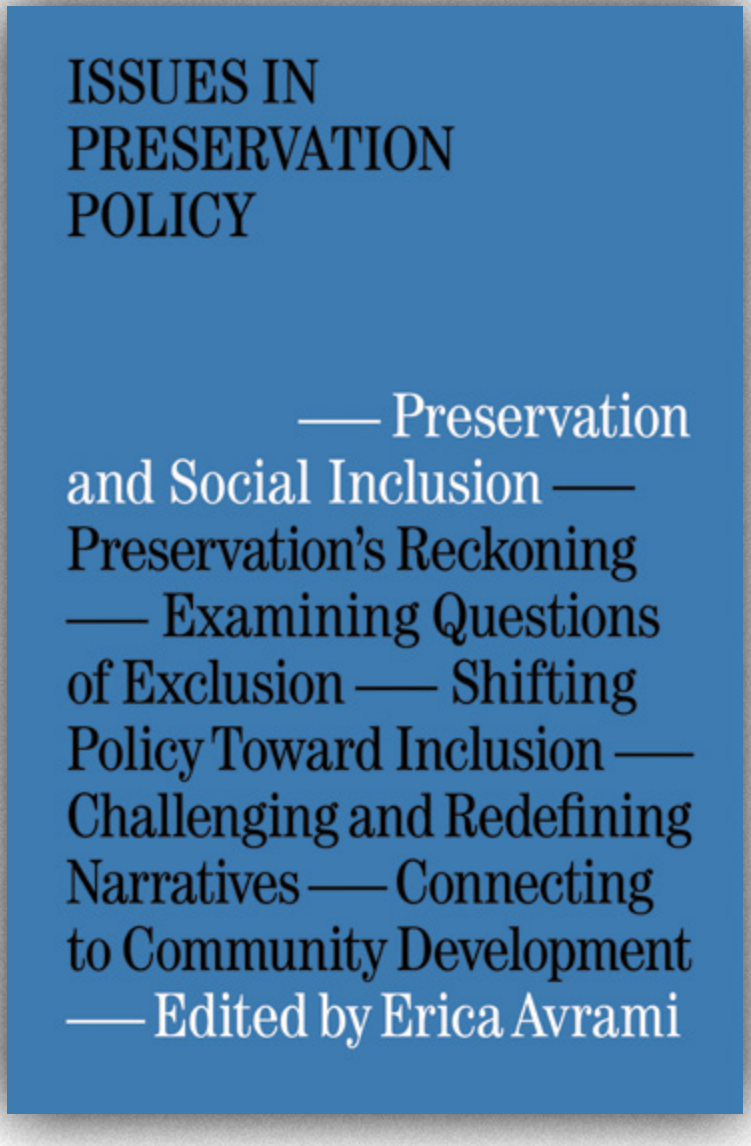

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Conclusions: Action Agenda

During the symposium in February 2019, intensive discussions helped to cultivate the ideas explored in the preceding chapters of this volume. To help move those ideas from the realm of discourse toward collective agency and practical implementation, participants were asked to consider how inclusion might be enacted through the institutions and policy infrastructures of preservation. While an increasing number of projects and programs around the country are experimenting with and implementing new approaches to inclusive preservation, there is still much work to be done to foster systemic change.

In considering how to confront institutionalized bias and legacies of exclusion, several modes of action were discussed during the two-day dialogue. In breakout groups, we challenged participants to identify specific actions and actors that could promote change:

- *Points of leverage*: positions in institutions and/or junctures within governance processes where change might be effectively influenced
- *Bridges*: connections within and/or beyond institutions and across fields to integrate and internalize change
- *Ethical engagement*: participatory processes to reorient institutions toward shared and equitable decision-making with communities
- *Subversive acts*: challenges to the status quo to prompt institutional and/or policy change

While neither a formal set of recommendations nor a consensus in the field, the following ideas serve as a provisional agenda to encourage innovative thinking about the pathways toward systemic shifts in preservation policy and institutional frameworks.

Reposition Preservation

The past half century has seen the establishment of preservation in the United States as a discrete professional field, academic discipline, and aspect of public policy. While this distinction has helped to legitimize preservation, it likewise contributes to its exclusivity. Preservation has historically allied itself with architecture, the arts, the humanities, and to some extent the material sciences, but the challenges of inclusion compel more robust connections to the social sciences—in both university and professional environments—so as to better understand intersectionality in heritage work. To forge stronger links to urban planning, community development, sustainability, environmental justice, and other policy arenas with shared goals, preservation needs to reposition itself as an embedded field: embedded in spaces, activities, disciplines, and institutions outside the traditional sphere of heritage work.

Restructure Professional Education

To complement existing education in the multifaceted dimensions of significant places, preservation curricula in universities should be restructured to better prepare students to work with *people* in a range of socioeconomic and cultural contexts. Beyond the generic call for community participation and a recognition of diverse stakeholders, professional heritage education should incorporate more robust training in the ethics of working with diverse publics, including how to develop cultural competence, establish trust, share decision-making, minimize risk (especially to vulnerable or marginalized populations), create safe spaces, break down language barriers, and more. This curricular orientation toward the methods and principles of inclusion means building the capacities of educators in these areas as well. Forming stronger bridges through networks of educators—for example, by working through the National Council for Preservation Education—would facilitate the sharing of knowledge and best practices, as would mentorship programs and more open-source scholarship.

Educate Beyond the University

While curricular changes at the university level would help to prepare future generations of preservationists to better address the intersection of heritage and inclusion, existing professional and advocate communities still need to build capacity. Training in inclusion ethics and methods could be offered as part of continuing education credits from professional organizations such as the Association for Preservation Technology, the American Institute of Architects, and others. The staff and boards of local historical societies, preservation commissions, and similar organizations, whether government- or civil society-based, could likewise benefit from training opportunities that address inclusion issues in the context of preservation. State Historic Preservation Offices could require such training as part of the Certified Local Government Program as a point of leverage in systemic policy change.

Build Diversity from Within

A fundamental issue in promoting more inclusive preservation in the United States is the demographics of heritage-related organizations and institutions. Perceptions of and research about preservation suggest that its promoters tend to be disproportionately older and more likely to be white, wealthy, and highly educated. Beyond diversifying whose stories are told or which communities are engaged in preservation processes, the institutions that form the infrastructure of heritage policy must work to reflect more racial, ethnic, cultural, and socioeconomic diversity in their staffs, boards, consultants, and project teams. Preservationists should be proponents for the establishment of diversity and equity officers and/or agendas within public and private heritage organizations. University preservation programs should work to establish scholarships and fellowships for people of color and others underrepresented within the field.

ations

Avery Review

The Avery Review is an online journal dedicated to thinking about books, buildings, and other architectural media. We see the genres of the review and the critical essay as vital but still underutilized ways of exploring the ideas and problems that animate the field of architecture, and we hope to push these genres beyond their most familiar forms, whether journalistic or academic. Our aim is to explore the broader implications of a given object of discourse (whether text, film, exhibition, building, project, or urban environment), to expand the terrain of what we imagine architectural discourse to be, and to broaden the diversity of voices that our field typically hears from.

The Avery Review is committed to publishing a diverse range of voices, especially those contributing to the collective rewriting of a discipline that has long kept difference in its margins, to the benefit of dominant voices who have too long held the center. We welcome authors who illuminate architecture's blind spots, who oppose its many complicities, who resist its production of norms and its participation in spatial violence—and who champion a more open, more equal built environment.

Contributing Editors
Caitlin Blanchfield,
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Isabelle Kirkham-Lewitt,
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Public

Avery Shorts

Avery Shorts is an experiment in exploring new possibilities for architectural discourse; a home to nagging fixations, considered reflections, observations, fictions, small thoughts on big buildings, big ideas about small things, architectural meet-cutes, first encounters, homages, rants, and so on. Not every idea builds to a larger argument, and not every argument has a neat conclusion, but the intimacy that email provides offers a venue for taking these ideas seriously, regardless of how meticulous they are. By circulating these thoughts, we can begin to seed new conversations—conversations that may grow into something, or may not. Avery Shorts aspires to provoke new ways of thinking about architecture and also create the space to do it.

ations

Avery Shorts Live ••• Friday, April 17, 2020 ••• Memo! •••
Avery Shorts Editors

Dear readers,

We hope you are somewhere safe, managing some kind of sanity, taking care, and finding whatever comfort can be had under the current circumstances.

We write with the full awareness that your inbox is probably overflowing with emails from your favorite journals, publications, bookstores, newsletters, and so on - offering sentiments of mutual distress, inviting you to participate, calling on you for your ideas. This both is and is not one of those emails.

We are writing to let you know that we are launching Avery Shorts Live to continue sharing timely, bite-sized reflections between our usual publication rhythms, partly because of the uncertainty posed by COVID-19 but mostly because of the short writings, musings, and observations we already get sent by all of you off-season. Avery Shorts Live remains the same platform — a space for sharing half-baked ideas, for staring-into-the-void thoughts, for sleepless tangents, excerpts, images, questions, and projects you can't get out of your head — just more freewheeling, more urgent, and more immediate.

We recognize all the ways we are able and unable, productive and unproductive, working and not working, alone and together, essential and non-essential - all the ways this crisis is new/different and old/similar to other crises, both normal/abnormal to conditions of daily life - so we share Avery Shorts Live with you now only really to say that it's here, and that the same rules apply (500 words or less, or for 500-words-or-less worth of images, or whatever you want it to be, $100 for published submissions). Like that sporadic and messy b-side to a regular Avery Shorts season, Avery Shorts Live is the place to record and improvise all your impressions as they arise.

In short, sending love and solidarity,
<3 Avery Shorts Editors

Student Or

Student organizations at GSAPP are among the most important drivers of students' lives and experiences during their time at GSAPP. These student-led initiatives shape the public conversation, provide social spaces, mentor and guide students, and create communities.

A discussion among Julia Gamolina, Angie Lee, Elaine Molinar, and Jessica Myers was organized by GSAPPX+ on February 4, 2020.

6ON6

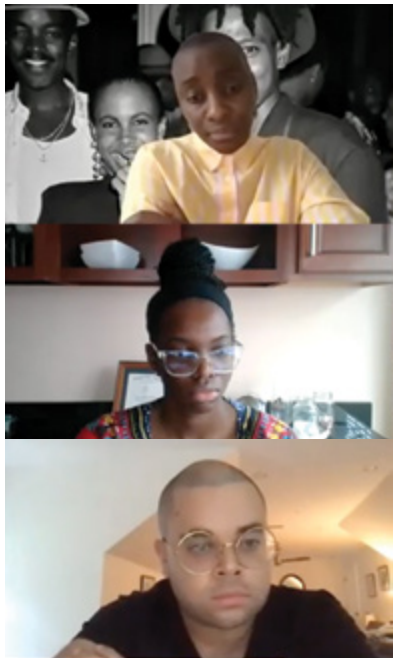
This organization, open to all current and incoming students across GSAPP, used to host events on the 6th floor of Avery Hall at 6PM on Fridays – thus the name. Although the name and time were preserved to carry on with the tradition, the location has expanded to encompass venues beyond campus. With the current pandemic situation, 6on6 brings everyone together through its virtual 6on6 zoom lounge.

AAD STUDENT COMMITTEE

This organization ensures that AAD students, alumni, and prospective students are connected through events and activities. Its role is to intellectually engage with others whilst further stewarding possibilities and opportunities that the AAD program has to offer.

APA STUDENT REPRESENTATIVE COMMITTEE

The New York Metro Chapter's Student Representatives Committee (SRC) of the American Planning Association provides a means for Urban Planning students' interests to be represented within APA. It also promotes student participation in the organization at the local and national levels. SRC presents a host of networking and professional development opportunities for students at New York City's five urban planning schools and emerging planning professionals, including conferences, Q&A sessions, company tours, as well as the annual end-of-year APA Student Showcase.



BLACK STUDENT ALLIANCE (BSA+GSAPP)

The mission of the BSA+GSAPP is to support the advancement and improve the experience of students who self-identify as members of the African diaspora by providing community, acting as a source of collegial support, and crafting meaningful, interrogative spaces for the many voices of the Black GSAPP community to speak, engage in deliberate, careful, and shared modes of study within the school, and explore forms of exchange beyond the institution. Actively promoting the interests, scholarship, and creative production of Black students, alumni, and future students at GSAPP, as well as Black faculty, designers, scholars, and practitioners, BSA+GSAPP aims to cultivate a culture that supports affiliation for the development of a robust Black alumni network.

ganizations

DESIGN-DRIVEN DEVELOPMENT

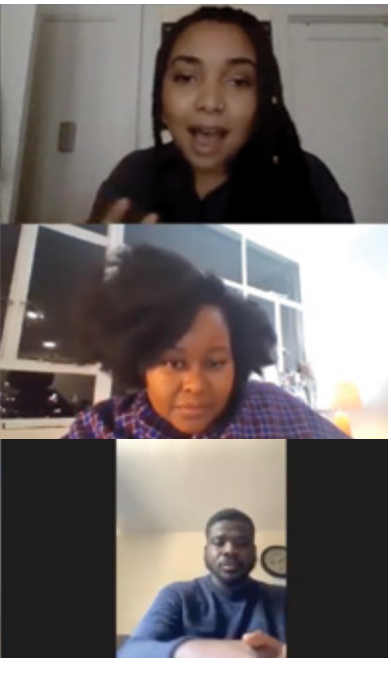
The Design-Driven Development Club brings together individuals passionate about architectural design and real estate to foster a holistic, design-centric approach to real estate development. Considering the creative and analytical processes involved in development are integrally connected, this club meets with design-driven developers to study the correlation between design excellence and ROI while also learning how to navigate developer and architect relationships. While developing an understanding of the value of design in the field of development, this club also explores the architect as developer, design-build, and developer as constructor business models.

THE EAST ASIA REAL ESTATE CLUB

This club bridges the gap between East Asia Real Estate and Columbia Students. It engages speakers discussing current real estate matters in East Asia, provides networking opportunities, hosts tours of Asian architecture and development around New York, and creates bonds among MSRED students who are remotely studying in Asia.

GREENSAPP

The mission of GreenSAPP, founded in 2019, is to promote a greater emphasis on and engagement with the topic of climate change in the curriculum and student life at GSAPP as we step into our roles as leaders in shaping the built environment. The organization pursues different projects ranging from campus sustainability initiatives to curricular research.



GSAPPX+

GSAPPX+ is a student-run initiative led by womxn that champions learning and unlearning through the power of conversation. GSAPPX+ cultivates a discourse that highlights and amplifies a diversity of voices engaged in the fields of design and the built environment. The organization uses a combination of casual meetings and external events to nurture a collective notion of gender equity and individual empowerment to inform an inclusive and collaborative future.

For the event “Surrounds: The City, The University, and Insurgency” on July 25, 2020, BSA+GSAPP members Elleza Kelley (moderator), Farouk Kwaning, Ochuko Okor, Malcolm Rio, and Ife Vanable joined African Mobilities curator, Mpho Matsipa, to respond to the latest episode of African Mobilities 2.0 Podcast.

Student Or

HOSPITALITY DEVELOPMENT AND INVESTMENTS CLUB

This club explores topics across the market environment, fiscal strategy, and design vision to understand how the industry is building for consumer preferences. It organizes lively events to experience hotels and venues firsthand and brings in world-class industry professionals to share insights across GP, LP, operational, and architectural relationships.

IMPACT INVESTING CLUB

By creating opportunities for GSAPP students to engage with and learn from mission-driven professionals whose work has a double bottom line—quantifiable social impact and financial return—this club seeks to educate those whose immediate and long-term post-GSAPP professional goals are to become investors and developers with a purpose.

INTERNATIONAL REAL ESTATE INVESTMENT CLUB

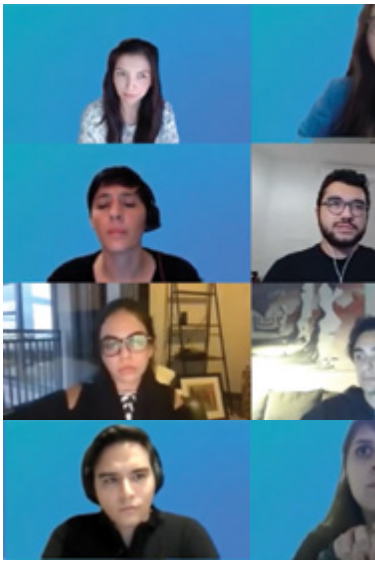
The International Real Estate Investment Club explores the nuances of investing in global real estate markets by harnessing the unique backgrounds of our members and promoting diversity of thought.

LATINGSAPP

This interdisciplinary organization is dedicated to the promotion, discussion, and reflection of contemporary issues and ideas in Latin America. It recognizes the importance and timeliness of thoughtful practice and research in the region of Latin America and by Latin Americans across the globe. The primary objective is to raise awareness of this work and encourage cooperative involvement.

MASAHA

Masaha is a student association that investigates contemporary issues facing the Arab world. Using the historic Saha as precedent, Masaha creates a platform where diverse perspectives coexist to question and redefine the many Arab identities. The association aims to connect creative students across disciplines to contribute to the improvement and development of scholarship that focuses on the Arab world. In an existential time where we are witnessing cities being flattened to the ground, while others ascend vertically and unsustainably, this organization offers a platform for people who are interested in learning about our past, present, and future issues that continue to shape our cities and shape us.



ganizations

PROPTECH CLUB

This club intends to bridge the gap between the rapidly evolving technology sector and the traditional real estate built environment. Through speaker series, networking opportunities, and company tours, the club introduces students to the innovative companies that are shaping the landscape and the people behind them. Leveraging the diverse backgrounds of its members, it works to understand new ways of improving the current efficiency of our industry by introducing creative ventures and revolutionary ideas. In connecting the current generation of industry leaders with the future generation, it hopes to foster the interest and exposure of the PropTech sector in the real estate industry.

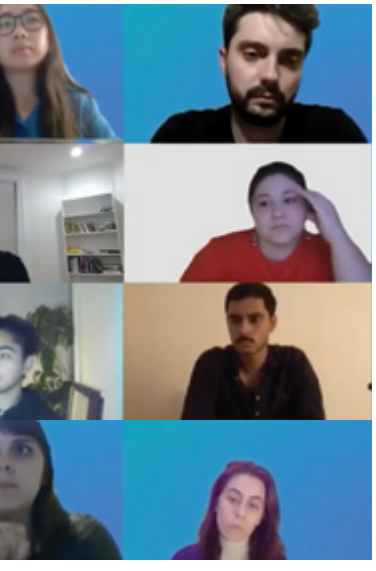
QUEER STUDENTS OF ARCHITECTURE, PLANNING AND PRESERVATION (QSAPP)

This student organization seeks to foster both conversation and community among LGBTQ students, their allies, faculty, and alumni of GSAPP. It actively explores contemporary queer topics and their relationships to the built environment through an engagement with theory and practice. Founded in 2014, QSAPP's initiatives include Coded Plumbing, a project about gendered restroom design; a symposium in honor of the 50th anniversary of the Stonewall Riots, Stonewall 50: Defining LGBTQ Site Preservation; and the publication Safe Space (2019).

Safe Space: Housing LGBTQ Youth Experiencing Homelessness, 2019.

REAL ESTATE PRIVATE EQUITY CLUB

This club is committed to bringing accomplished leaders from across the real estate private equity industry to campus, to engage with Columbia's real estate-focused student body and community. Its goal is to provide a platform to drive meaningful discussion, through dynamic events and speaker presentations that educate and inspire Columbia's future real estate private equity business leaders.



"Before, During, and After GSAPP," a conversation hosted by LatinGSAPP on September 15, 2020.

(RE)TITLED PROJECT

(re)titled project is made up of student writers and editors who wish to engage in written theory, criticism, and architectural discourse during their time at Columbia GSAPP. (re)titled is structured as a loosely organized collective of individuals and groups that take on or collaborate on various independent projects. At its core, (re)titled project is a space for students to engage ideas, build community, share the resources needed to realize their visions, and ultimately lower the barrier to entry associated with engaging canon. Any student can join. Diverse views and unique voices are paramount to the success of the group. The organization hosts semi-regular talks and a discussion series about writing, publishing, and agency within the broader sphere of architectural academia.

Student Or

SUSTAINABLE DEVELOPMENT CLUB

This club aims to educate and proliferate innovative approaches to environmentally-focused development practices. Subjects covered include energy efficiency and generation, water and resource conservation, environmental resilience and response to natural disasters, nature conservation, and designing healthier communities. Sustainability topics are covered from a holistic viewpoint considering the financial, design, legal, and social implications. Club activities include monthly meetings and social gatherings; lectures from industry leaders and innovators; site tours; and educational briefings.

URBAN CHINA NETWORK

Urban China Network (UCN), founded by urban planning students in 2013, aims to bring students, scholars as well as practitioners from various disciplines in the greater New York area into the discussion of China's urbanization, and ultimately to facilitate the communication between cities in China and the U.S.

URBAN MAGAZINE

URBAN is a magazine created, edited, and published by students in the GSAPP Urban Planning program. As a forum for discussion among the students, faculty, and alumni of the program and GSAPP, each semester's publication opens its pages to all realms of urban planning.

WOMEN IN REAL ESTATE DEVELOPMENT

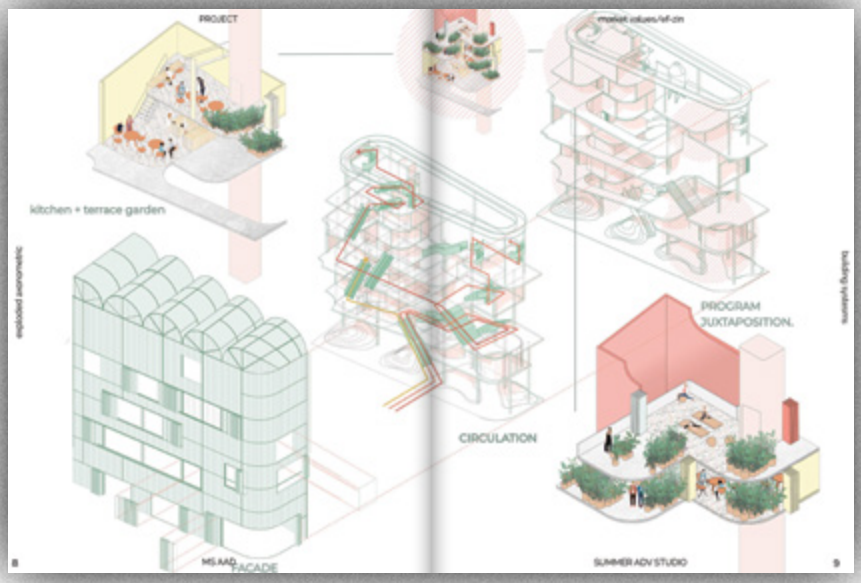
This club aims to connect, encourage and inspire female professionals in the commercial real estate space. This group promotes and organizes both on and off-campus events that foster women executives in a historically male-dominated field. Events include but are not limited to lectures by female leaders, site tours, and social gatherings. While the group is geared towards female students, events are opened to the entire MSRED community so that everyone can benefit from its supportive environment and knowledgeable speakers.

ganizations

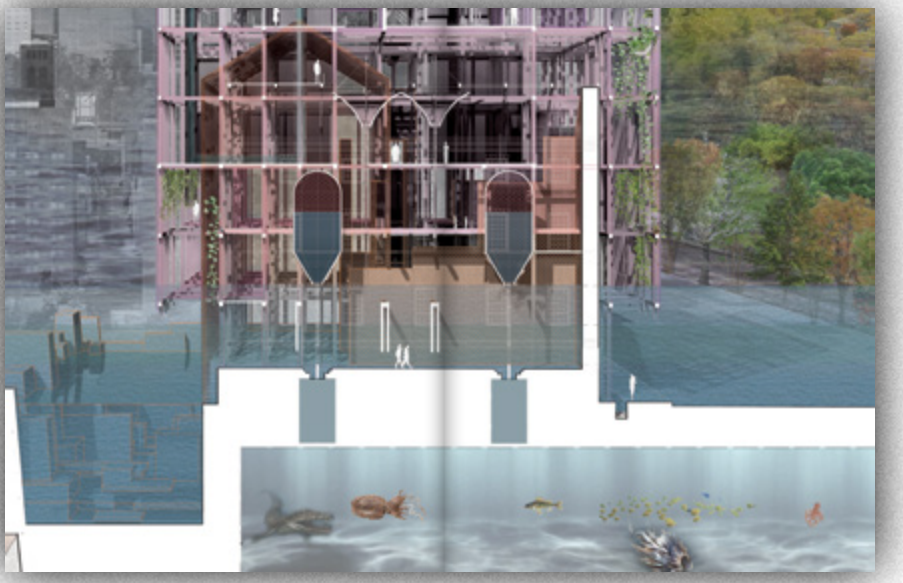
The Urban China Network hosted its annual fall 2019 picnic in Central Park. Photo: Chongyuan Wang.

Event celebrating the launch of Urban Magazine's Fall 2019 Issue, titled Obsolescence.

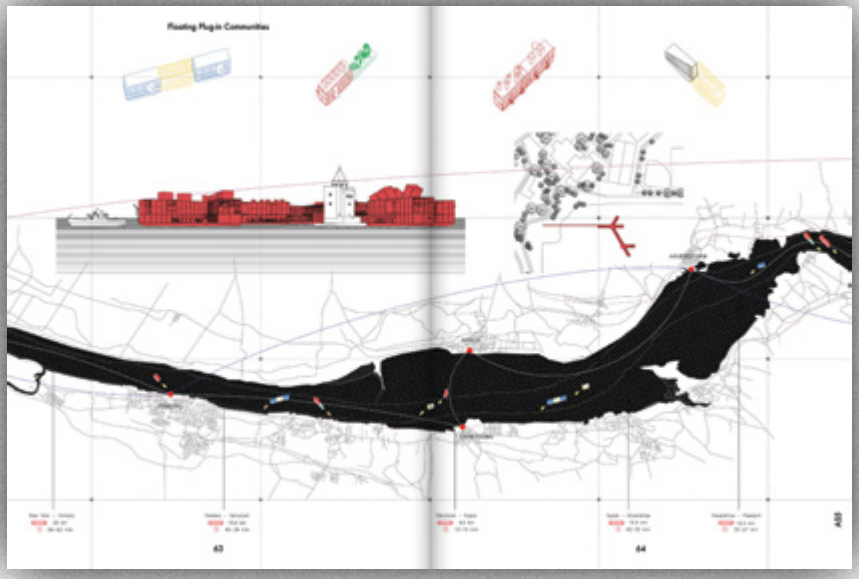
Anam Ahmed
‘20 MSAAD

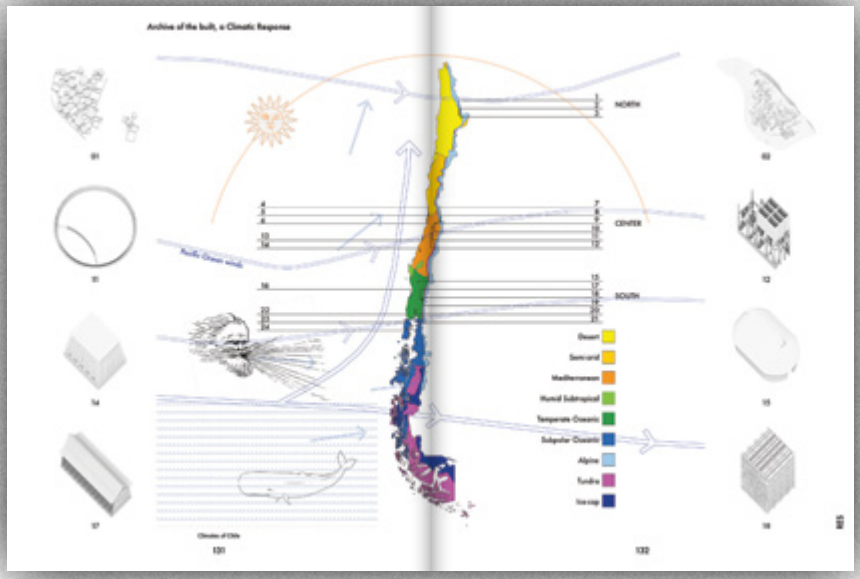


Sneha Aiyer
‘20 MSAAD



Guillermo Hevia García
‘20 MSAAD





Alex Hudtwalcker Rey
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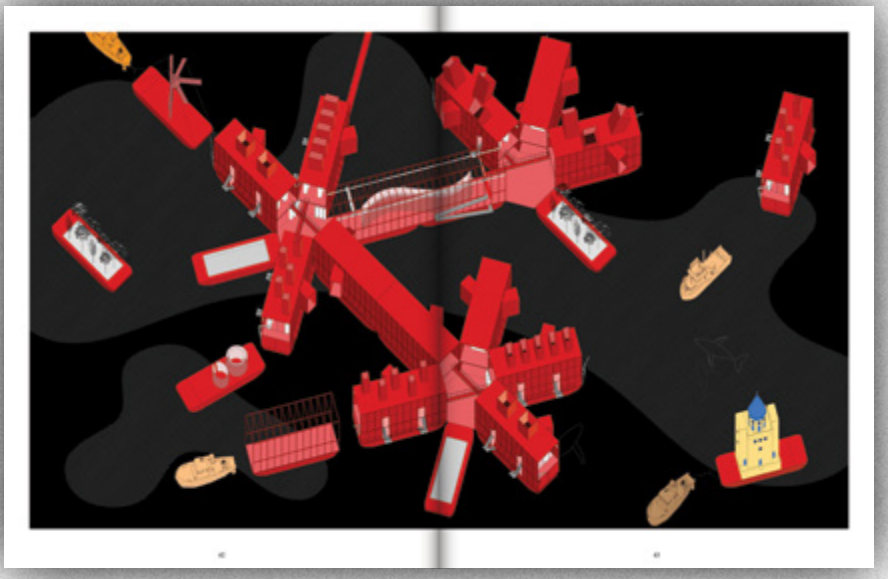

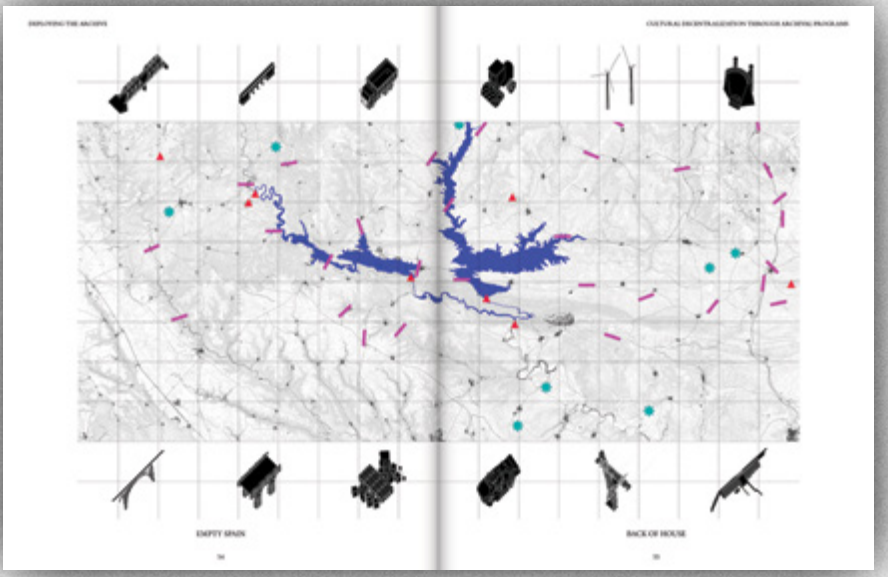

Adina Bauman
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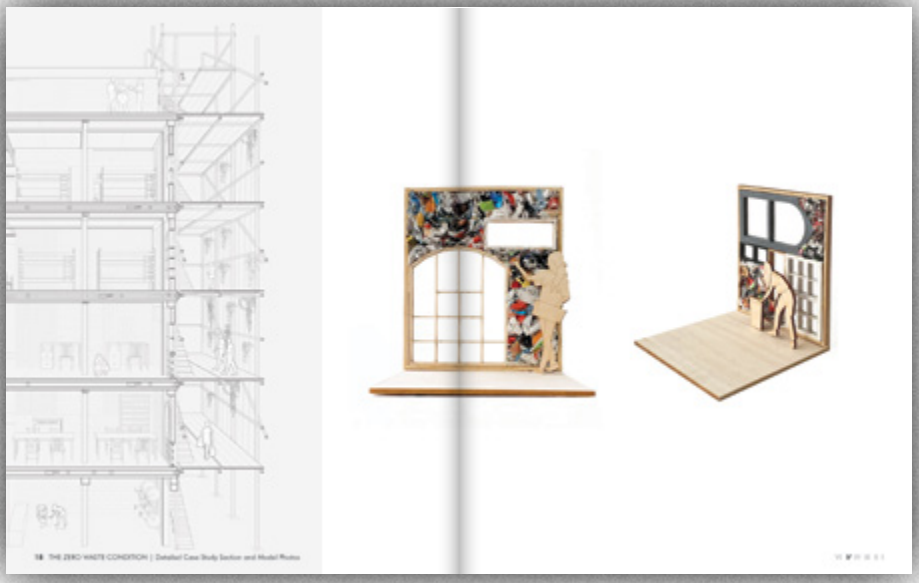
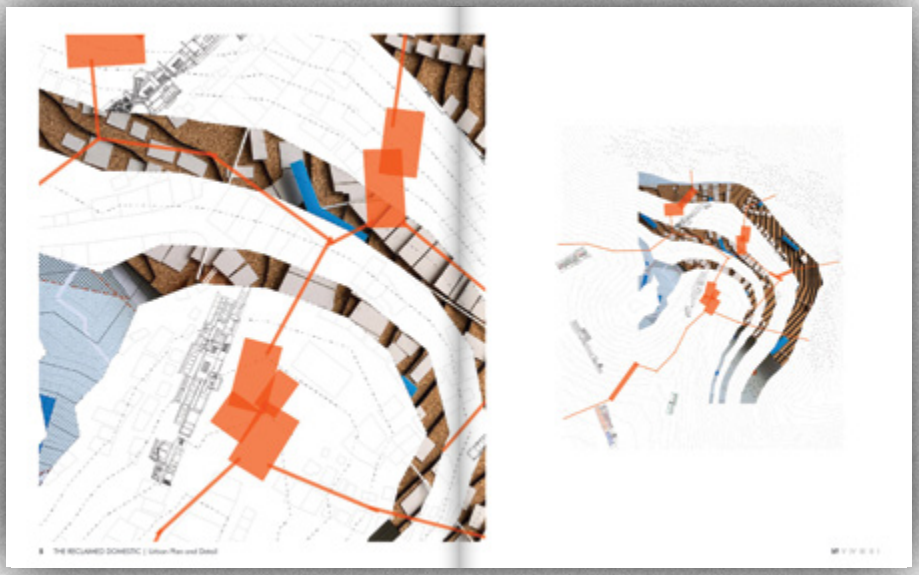
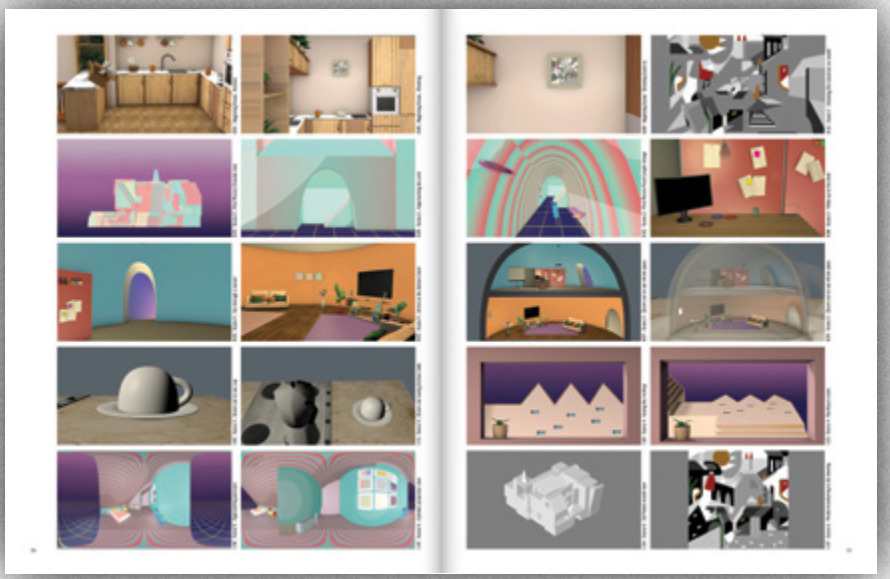




Ge Guo
‘20 MArch



Andrew Keung
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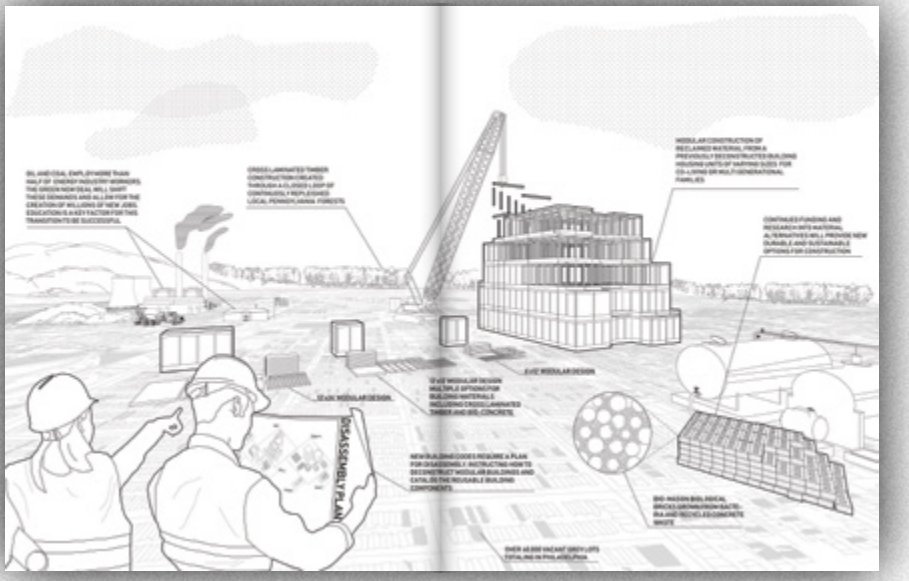
Lena Pfeiffer
‘20 MArch



Michael McDowell
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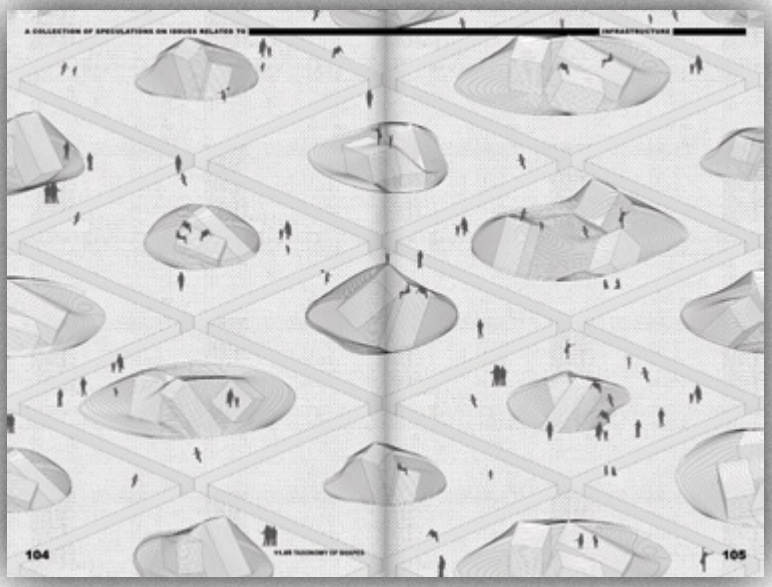

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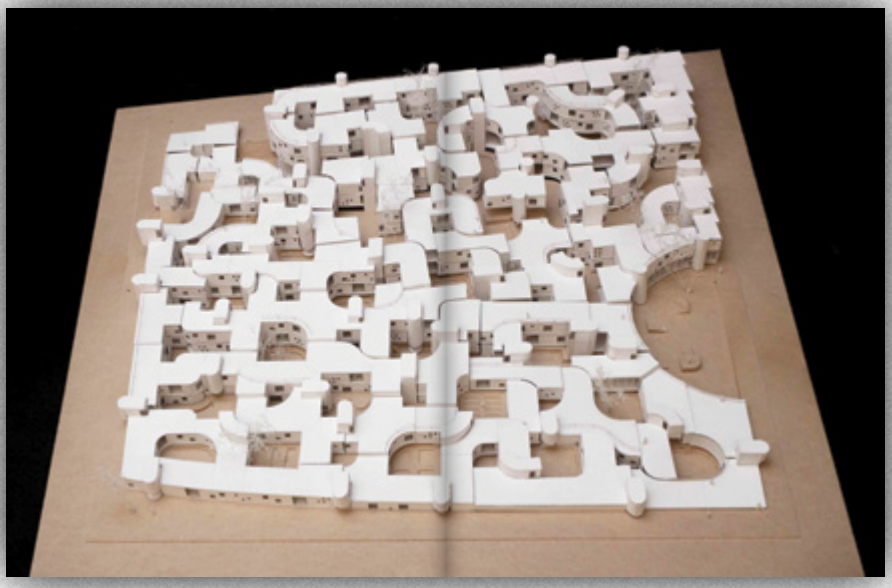
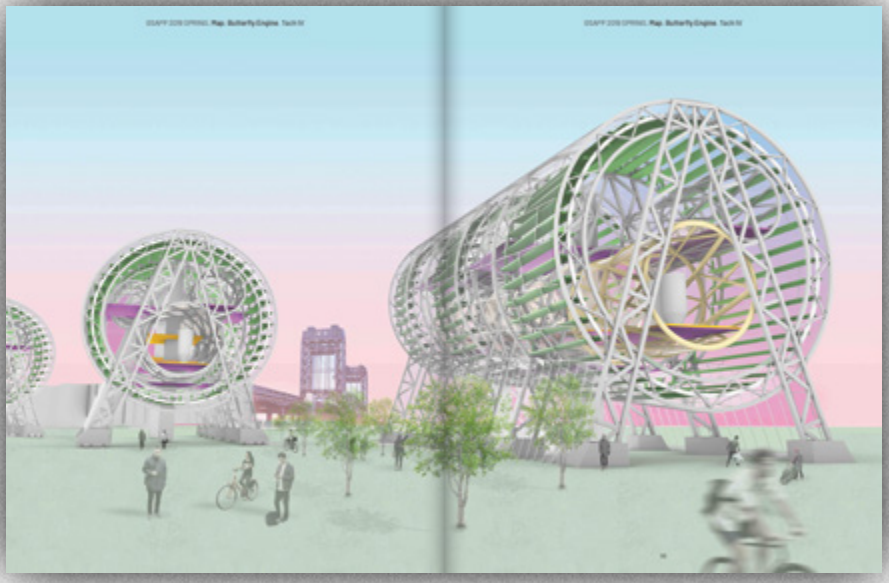
Qi Yang
‘20 MArch





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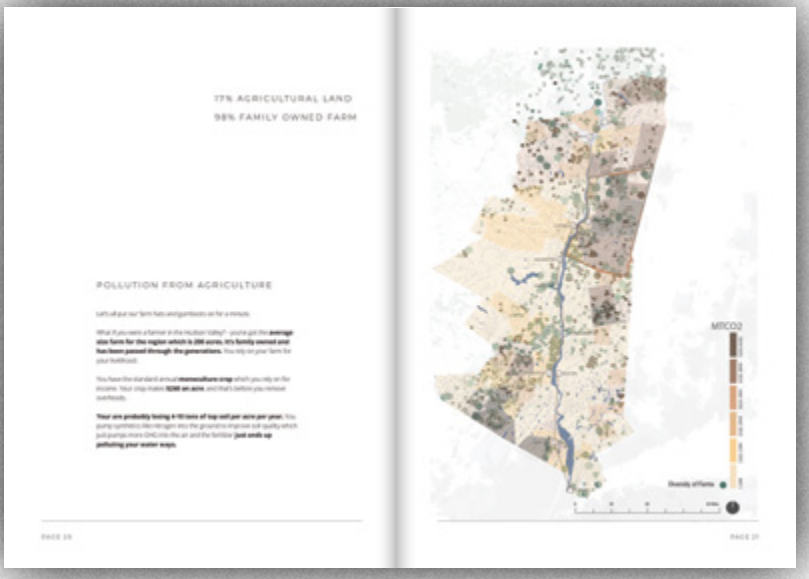
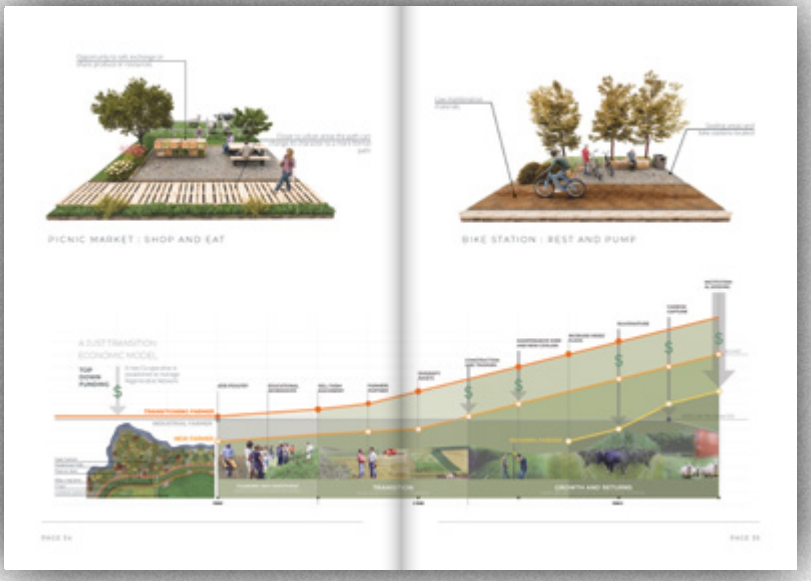
‘20 MSAUD





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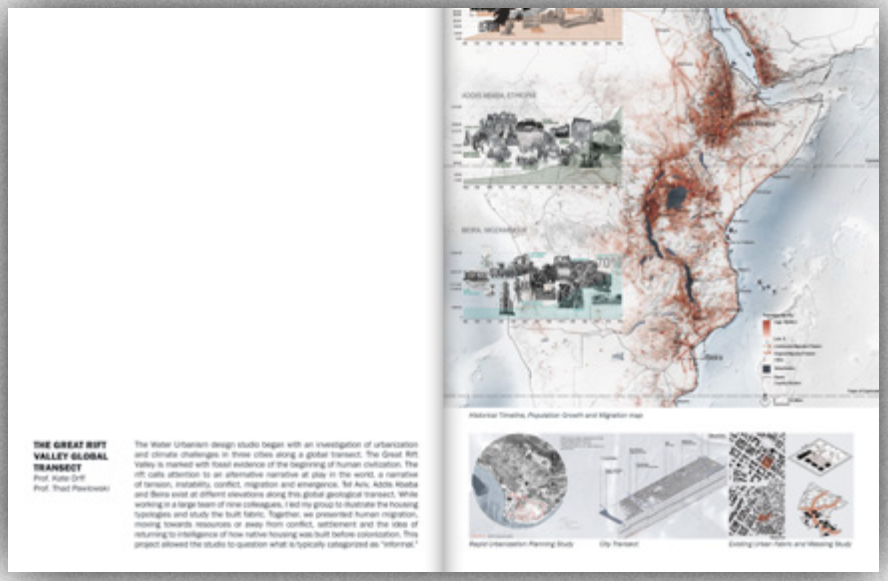
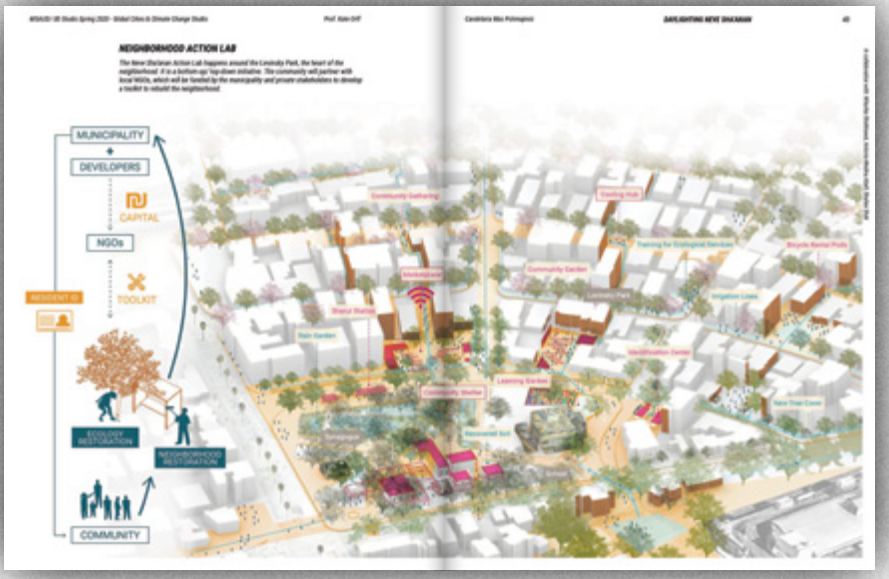


Candelaria Mas Pohmajevic
‘20 MSAUD



Abstract 2020 <DIRECTORY> 565
567 Faculty
573 Staff
574 Graduates
576 Awards
578 Alumni

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SCHOOL-WIDE AWARDS

GSAPP WRITING PRIZE
This prize is given for an outstanding essay, paper, or thesis on the history or theory of architecture written for a class during their time at GSAPP.
Alexandra Tell (CCCP)

CAMPBELL AWARD
The University Trustees and the Board of the Columbia Alumni Association - the CAA - established The Campbell Award, presented by the CAA to a graduating student at each School who shows exceptional leadership and Columbia spirit as exemplified by the late Bill Campbell, Chair Emeritus, University Trustees, outstanding alumnus, and CAA co-founder.
Hala Abukhodair (AUD)

GSAPP VISUALIZATION AWARD
This prize is given for innovative use of computing media in architectural or urban research, design, and fabrication.
James Samuel Piacentini (M.Arch, UP)

WILLIAM KINNE FELLOWS TRAVELING PRIZE
These awards are granted on the merit of proposals submitted for travel abroad incorporating the study of architecture, including planning and other specialized aspects of architecture.

Extracting Futurities: A cartography of gas valves, pipes and oil wells
Jumanah Abbas (CCCP)

The Mosque that became a Circus: Re-programming religious architecture and the Institute of Cultural Monuments in Communist Albania
Grace Elizabet Alli (M.Arch), Francesca Johanson (CCCP)

Novel Infrastructural Responses To COVID-19
Chris Blakeney (RED), Michael Zhang (RED)

Lines of Sight: landscape, technology, and collectivism in rural internet cooperatives
Dare Anne Speers Brawley (UP)

Development, Risks, & Adaptation: A Comparative Study of Urban Identity & Metropolitan Water Governance in Three Megacities
Rebecca Cook (UP), Andrea Partenio (UP)

Post-Disaster Relief Structures in the Modern Caribbean
Patrick Fletcher Deveau (RED)

Fostering Wellness and Balance in Dense Urban Environments - São Paulo, Brazil
Laura Fallaha (RED)

Water as Open Infrastructure in Guizhou's Minority Villages
Ge Guo (M.Arch), Qi Yang (M.Arch)

Archive of the built, a climatic response. Chile chapter
Guillermo Hevia García (AAD)

Hampi's Contemporary Ruralities: Dealing with the World Heritage Status
Aayushi Joshi (AAD)

Architecture for Militarized Migration: A study of refugee resettlement on Guam
Shailee Vipul Kothari (AAD), Uthra Varghese (AAD)

Documentation of Heritage Resources, Community Engagement, and Flood Management tactics in Nijmegen
Kathleen Maloney Lo (HP)

Matumbawe Msikiti: Cementitious Urbanity in East Africa
Frank Marcus Mandell (M.Arch), Maxime St. Pierre Ostrander (M.Arch)

The Auroville Supremacy: A Spiritual Guide to the Future of Humankind
Vasanth Mayilvahanan (AUD)

Is This America? A re-survey of Middle America and the Architecture of Exiting
Eduardo James Meneses (M.Arch)

Go Green: Limiting the carbon footprint in a post COVID-19 World
Nina Ndichu (AUD)

Life After Death: Typological Analysis of the Ruination and Reclamation of Religious Monuments in Three Cities
James Samuel Piacentini (M.Arch, UP)

Uisage Beatha: Life of the Geopolitical Water in Scotland
CJ Wang (AAD)

An Exploration into how the Scandinavian Concept of "Ecodistrict" can Apply to Rural America
Elizabeth Zevallos (RED)

PRIZES OPEN TO MULTIPLE PROGRAMS

LUCILLE SMYSER LOWENFISH MEMORIAL PRIZE
This award is for the most outstanding student(s) in the final semester design studios (open to M.Arch, AAD, AUD).

Isaac Min Kim (M.Arch)– Advanced Architecture Studio VI, Enrique Walker, Critic

Kabir Sahni (AAD)– Advanced Architecture Studio VI, Anna Puigjaner, Critic

Tal Fuerst (AUD), Claudia Kleffmann (AUD), Laszlo Kovacs (AUD), Victoria Vuono (AUD)– Urban Design Studio: Addis Ababa: Traversing the Rift, Kate Orff (Studio Coordinator), Lee Altman, Adriana Chavez, Dilip da Cunha, Fitsum Gelaye, Geeta Mehta, Thaddeus Pawlowski, Julia Watson, Critics

PERCIVAL AND NAOMI GOODMAN FELLOWSHIP
The purpose of the Percival & Naomi Goodman Fellowship is to enable the recipient to carry out a project of social significance related to the interests of Percival Goodman.

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Frank Marcus Mandell (M.Arch), Kathleen McNamara (M.Arch), Maxime St. Pierre Ostrander (M.Arch),

M. ARCH PROGRAM AWARDS

CHARLES McKIM PRIZE FOR EXCELLENCE IN DESIGN / SAUL KAPLAN TRAVELING FELLOWSHIP
This prize recognizes the student whose work throughout the studios has been outstanding and is funded by a bequest from Saul Kaplan (M.Arch '57).
Andrew Keung

AIA HENRY ADAMS MEDAL
This prize is awarded to the student who has maintained the best general standard in all sequences during the professional course over the past 2-3 years in the School.
Lena Pfeiffer

ALPHA RHO CHI MEDAL
This prize is for the student who has shown ability in leadership over the past 2-3 years in the School and who gives promise of professional merit through their attitude and personality.
Adina Rose Bauman

THE EVANS SIMPSON '88 M.ARCH PRIZE FOR EXCELLENCE IN DESIGN
The prize is for high quality of work in the design studios during the student's program of studies at Columbia.
Michael McDowell

HONOR AWARD FOR EXCELLENCE IN DESIGN
This award is for student engagement, leadership, and high academic attainment within design studios in the M.Arch Program.
Ge Guo

HONOR AWARD FOR DESIGN AND TECHNOLOGY
This prize is awarded to the student who most demonstrates an ability to incorporate building science and technologies into the issues of architectural design.
Julia Pyszkowski

HONOR AWARD FOR DESIGN AND VISUALIZATION
This prize is given for innovative use of computing media in architectural or urban research, design, and fabrication.
Qi Yang

ALI JAWAD MALIK MEMORIAL HISTORY/THEORY HONOR AWARD
This prize is given in recognition of high quality of work in the history/theory sequence.
Frank Marcus Mandell

“AVERY 6” AWARDS
This non-monetary, student-nominated prize is awarded to the graduating M.Arch student whose work questions the standards of architecture and promises to change the profession.
Luiza Guimaraes Furia

This non-monetary, student-nominated prize is awarded to the graduating M.Arch student whose commitment within the studio and the school at large has earned the respect of the student body.
Allison Danielle Fricke

M.S. AUD PROGRAM AWARDS

GSAPP PRIZE FOR EXCELLENCE IN URBAN DESIGN
This prize is intended to recognize the student whose work in the Urban Design Program has been most outstanding.
Candelaria Mas Pohmajevic

HONOR AWARD FOR EXCELLENCE IN URBAN DESIGN
This award recognizes the students who have demonstrated significant leadership, service, and commitment to collaboration in the Urban Design Program.
German Eduardo Bahamon Lopez, Nina Lish

M.S. AAD PROGRAM AWARDS

WILLIAM WARE PRIZE FOR EXCELLENCE IN DESIGN / SAUL KAPLAN TRAVELING FELLOWSHIP
This prize is awarded to recognize the student whose work in the studios has been outstanding and is funded by a bequest from Saul Kaplan (M.Arch ’57).
Guillermo Hevia García

HONOR AWARD FOR EXCELLENCE IN ADVANCED ARCHITECTURAL DESIGN
This award is for student engagement, leadership, and high academic attainment within design studios in the AAD Program.
Anam Izhar Ahmed, Alex Hudtwalcker Rey

HONOR AWARD FOR ARGUMENTS IN DESIGN
The prize is for a student whose work has been outstanding in the formulation of agendas and positions—that is, arguments and the way in which they take part in the advancement of architectural design.
Sneha Aiyer

M.S. CCCP PROGRAM AWARDS

CCCP PROGRAM AWARD
This prize is for a significant contribution to the culture of research, practice, and the public sphere within the CCCP Program.
Zoe Isabel Kauder Nalebuff

HONOR AWARD FOR OUTSTANDING THESIS IN CCCP
For the thesis that best demonstrates rigorous development of critical, curatorial, and conceptual practices, and the most complementary format or medium in its realization.
Isabelle Tan—*HOW TO SEE THE BRI: A Critical Handbook for China’s Belt and Road Initiative*, Advisor: Mark Wasiuta

M.S. HP PROGRAM AWARDS

ONERA PRIZE IN HISTORIC PRESERVATION
This is given to a graduating student from Columbia GSAPP’s M.S. Program in Historic Preservation to conduct a project that tests new preservation theories in practice.
Sarah Sargent—*Toxic Histories: Unearthing Buried Cities*

HONOR AWARD FOR OUTSTANDING THESIS IN HISTORIC PRESERVATION
For a master’s thesis that best demonstrates excellence in the field of Historic Preservation.
James Churchill—*Decorative Monel: Historical Aesthetic Intent, Weathering and Analysis*, Advisor: Norman Weiss

Scott Goodwin—*“Red Listing” Heritage: Endangerment as Policy and Collective Action*, Advisor: Erica Avrami

PEER TO PEER AWARD
This non-monetary, student-nominated award is given in recognition of outstanding service to classmates, faculty, and school.
Seo Jun Oh

M.S. RED PROGRAM AWARDS

HANK BELL ENTREPRENEURIAL AWARD
This award is for the student that best embodies Professor Emeritus Hank Bell’s entrepreneurial spirit.
Victoria Lesley Logan

HONOR AWARD FOR EXCELLENCE IN REAL ESTATE DEVELOPMENT
This award is for student engagement, leadership, and high academic attainment within the Real Estate Development Program.
Dean Lash, Steven Morris, Samantha Munemitsu Huff, Meghan Taylor-Steshyn

M.S. UP PROGRAM AWARDS

AMERICAN PLANNING ASSOCIATION OUTSTANDING STUDENT AWARD
This prize is for outstanding attainment in the study of Urban Planning.
Joy Huang

NEW YORK CHAPTER OF THE AMERICAN PLANNING ASSOCIATION’S AWARD
This award is for academic excellence and leadership in Urban Planning.
Shiyu Ma

CHARLES ABRAMS THESIS AWARD
For a thesis that best exemplifies a commitment to social justice.
Dare Anne Speers Brawley—*Tracing Speculation: Real Estate Geographies in Pre- and Post-Crisis Philadelphia*, Advisor: Malo Hutson

HONOR AWARD FOR EXCELLENCE IN URBAN PLANNING
This award is for student engagement, leadership, and high academic attainment within the Urban Planning Program.
Alanna Browdy, Aline Faiwichow Estefam

PEER TO PEER AWARD
This non-monetary, student-nominated award is given in recognition of outstanding service to classmates, faculty, and school.
Richard “Ri” Le

The GSAPP Office of Development and Alumni Relations, established in 2005, is dedicated to building a strong framework for alumni communication, collaboration and networking, and to establishing a strong base of support for the school, its students, and its programs.

Associate Dean, Development and Alumni Relations
Leah Cohen

Director, Development
Jillian Barsalou Kincaid

Associate Director, Development and Alumni Relations
Leslie Kuo

Office Manager, Development
Esther Turay

EVENTS

The Office of Development and Alumni Relations organizes a regular series of international events that bring together former students from across majors and class years. Highlights from the 2019–2020 academic year include:

Tuesday Talks
Ongoing
The GSAPP Alumni Office launched Tuesday Talks on March 31, 2020 as a new opportunity for students to connect with the alumni community. The virtual event, hosted twice a month, invites alumni to speak informally with current students about career development.

Miami Alumni Reception
November 22, 2019
Columbia GSAPP's Historic Preservation Program and Preservation Alumni (PA) invited alumni in Miami to a private cocktail reception, which included preservation and conservation professionals from around the world attending the 51st Association for Preservation Technology (APT) Conference.

Role Play 2 Beijing the National Organization of Minority Architects Conference
October 17, 2019
This reception was hosted by GSAPP to mark the 2019 conference of the National Organization of Minority Architects (NoMA) and to recognize and celebrate GSAPP alumni and faculty participants.

Private Equity: Buy, Fund, Build, Sell Cocktail Reception
September 27, 2019
The annual GSAPP Real Estate Development Conference brought together alumni and industry leaders including the keynote speaker Jeff Blau, CEO and Partner of Related Companies, for thought-provoking discussions on private equity. Hosted at The Pierre, the conference concluded with a cocktail reception sponsored by Brookfield Properties.

ALUMNI BOARD

The GSAPP Alumni Board serves as a vital link between GSAPP alumni, Columbia University, professional practice organizations, and current students. The Board's mission is to foster interaction within the entire GSAPP community, increase alumni participation and strengthen engagement, bridge alumni and students, and to promote the GSAPP reputation.

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President

Ruth Benjamin '10 MArch
Vice President

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'86 MSHP
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'86 MSAUD
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Matthew Gross
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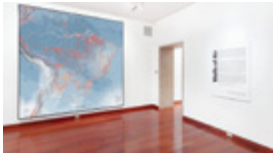
'12 MArch
Andrea Sreshta
'11 MArch
Peter (Ned) Stoll
'77 MArch '74 CC
Rachel Villalta
'12 MArch
Michelle Young
'12 MSUP

ALUMNI HIGHLIGHTS

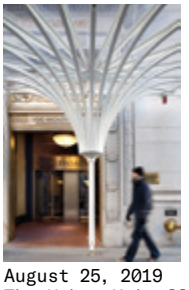
GSAPP alumni are inspiring new directions in the fields of architecture, planning, preservation, urbanism, real estate development, curating and more. This selection highlights some of their accomplishments during the 2019–2020 academic year.

Role Play 2 Beijing the National Organization of Minority Architects Conference.

Private Equity: Buy, Fund, Build, Sell Cocktail Reception.


June 12, 2019
Walls of Air, co-curated by former GSAPP Incubator member Laura Gonzalez Fierro '08 MSAAD, opens at the Americas Society.

August 20, 2019
Ronald Rael '98 MArch and Virginia San Fratello '98 MArch of Rael San Fratello are featured in *The New York Times* for their see-saw installation at the U.S.-Mexico border.


August 25, 2019
The Urban Umbrella project initiated by Sarrah Khan '03 MArch and Andrés Cortés '02 MArch are featured in *The New York Times*. Photo by James Ewing.

September 27, 2019
Emmanuel Pratt ’03 MSAUD wins a MacArthur genius grant.

September 6, 2019
Bamseom Danginri Live, by Mass Studies (founded by Minsuk Cho ’92 MArch), opens at the Seoul Biennale of Architecture and Urbanism.

September 26, 2019
Jesse McCormick ’18 MArch and Khoi Nguyen ’18 MSAAD of A.WKSHP participate in the 2019 Oslo Architecture Triennale.

October 25, 2019
The restoration of the Mount Morris Fire Watchtower in Marcus Garvey Park by Angel Ayón ’02 is featured in the *The New York Times*. Photo by Benjamin Norman.

October 28, 2019
Ranitri Weerasuriya ’18 MArch is interviewed by Archinect as part of its “Fellow Fellows” series. Photo: Building with an easily accessible resource: Cardboard, courtesy Ranitri Weerasuriya.

November 7, 2019
Anjali Singhvi ’16 MSUP wins News and Documentary Emmy Award with the The New York Times.

November 21, 2019
M+Museum shines a spotlight on Wang Chiu-hwa ’49 MArch, recipient of the 2020 National Award for Arts in Taiwan. Photo: Wang Chiu-hwa at Columbia University, 1948.

November 25, 2019
Paul Preissner ’00 MArch is selected to curate the U.S. Pavilion Exhibition in the 17th International Architecture Biennale in Venice with Paul Andersen. Photo by Al Palmer, courtesy Library of Congress.

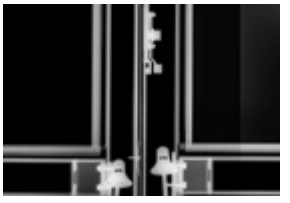
December 2, 2019
Halley Ramos ’18 MSHP wins the 2019 Murtagh Graham Prize awarded by US/ICOMOS.

December 11, 2019
Lluís Alexandre Casanovas Blanco ’11 MSAAD ’12 AAR profiled as a “New Talent” in *Metropolis Magazine*. Photo of Real Estate Boom House designed by Casanovas by José Hevia.

December 16, 2019
Violet Whitney ’17 MArch of Alphabet’s Sidewalk Labs unveils software that designs whole neighborhoods with Brian Ho. Image: Sidewalk Labs.

December 17, 2019
Hom Liou ’05 MSAAD wins the Gold A’ Design Award for Hillside Home.

January 1, 2020
Agustin Schang ’15 MSCCCP presents “Ways of Treating Buildings In Order to See Them” at the Future Architecture 2020 Creative Exchange

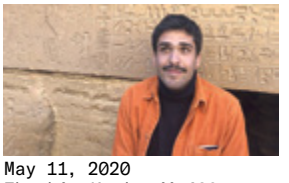


February 4, 2020
Modern Management Methods by Farzin Lotfi-Jam ’12 MSAAD and Caitlin Blanchfield ’14 MSCCCP, reviewed by Metropolis Magazine.

February 28, 2020
Gustavo Berenblum ’91 MSAAD and Claudia Busch ’91 MSAAD are interviewed by Archinect on “exploring the constraints of Miami’s climate.” Photo: CUCUYO Café at the Perez Art Museum in Miami designed by Berenblum Busch Architects.

February 28, 2020
Bika Rebek ’15 MSCCCP co-curates FiDi Arsenale at The 23 Space, New York.

April 4, 2020
Benjamin Huff ’12 MSUP publishes an interactive map of NYC coronavirus cases in Untapped New York.



May 11, 2020
Ibrahim Kombarji ’20 MSAAD is profiled in the *Columbia News* article “Architecture Has Expanded Ibrahim Kombarji’s Horizons.”

May 11, 2020
Tola Oniyangi ’20 MArch ’20 MSUP profiled in the *Columbia News* article “Three Degrees Later, This Graduate Is Ready to Move On.”

Columbia University GSAPP
Abstract 2020

Abstract 2020 has been produced through the Office of the Dean, Amale Andraos. The student work archive, containing documentation of projects selected by faculty as the conclusion of each semester, is utilized in the making of Abstract.

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