

University of Pennsylvania School of Design

Department of Architecture

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www.design.upenn.edu/architecture

2013





2014

Push

Pull

Poke

Prod







Merge

Architectural drawings on a wall, including a perspective view of a building facade and several cross-sections of a dome or vaulted structure.

Mix

A large, curved, golden-brown sculpture made of thin, overlapping strips, possibly wood or metal, forming a wide, shallow arch. It is positioned in the foreground, casting a shadow on the floor.

Match

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Intro - duction

Winka Dubbeldam

Professor & Chair, Department of Architecture

I am delighted to share the latest issue of the Pressing Matters publication with you. We have gone through a transformational year in the Department of Architecture at PennDesign. I hope you will enjoy the innovative student work, the news sections, and curricular improvements reflected in this issue. The start of this year was also marked by the introduction of a new PennDesign website, designed by 2x4 (www.2x4.org), a global design consultancy headquartered in New York City with satellite studios in Beijing and Madrid. You can find the website here: www.design.upenn.edu/architecture

We are excited to have this new branding and design for our website, and your feedback is highly appreciated.

We started the semester last year with a two-day conference “The New Normal, Experiments in Contemporary Generative Design,” with keynote speakers Neil Denari and Ben van Berkel. By bringing together leading international and US architects, the symposium explored how the role of the digital, as it was introduced roughly 20 years ago, has created a new form of PRACTICE, we coined the “New Normal.” The symposium not only gave a great overview of emerging new practices but also of possible future innovations for the architectural practice.

The PPD [MArch2] semester collaborated last year with Peter Winston Ferretto, Architect / Assistant Professor at Seoul National University, Department of Architecture, which was made possible by the generous support of Mr. Jeong of the Heerim Company, Seoul, Korea, an Alumnus of PennDesign. The subject of the PPD studio, a Surrealist Museum in Seoul, was to be located in controversial and interesting sites in Seoul. The outcomes will be seen soon in the annual PPD publication. More news on the PPD; I am excited to be able to announce the start of a newly formulated Post-Professional Program, which will now include a third semester. This added semester not only allows for a completely reconfigured first semester with a dedicated studio and specific seminars, but also provides a much more thorough involvement with the 3rd year of the MArch program. With Ali Rahim as its new Director, the PPD is ready to start a new chapter.

Our MArch program continues to

grow, as do the wide range of dual degree programs offered through PennDesign. As you will see in these pages, students have had the opportunity to work with world-renowned architects, and the quality of the student work is as strong as ever. We have also added even more 3-D printers in studio, completely re-calibrated our Visual Studies program, our Professional Practice curriculum, and our History and Theory lectures and seminars to better reflect changing professional and disciplinary dynamics. This ongoing interest in the possibilities of contemporary design is also reflected in our public lecture series and symposia. It is an exciting time to be at Penn!

Growth in our student body has also led to an influx of new faculty and a search for a tenure track position. I am happy to announce that Andrew Saunders joined us as Associate Professor; we are delighted to have him as a colleague. Andrew is currently coordinating and teaching the 501 studio. Assistant Professors Daniel Barber and Franca Trubiano have joined me as Associate Chairs for the Department of Architecture. For this Fall’s Research Studios we invited a great list of visiting faculty, among whom are: Neil Denari,

Michel Rojkind, Francois Roche, John Hong, Brennan Buck, and Laura Baird and Reinier de Graaf [OMA/AMO]. Sulan Kolatan and Tom Wiscombe will join us again in the Spring along with Nanako Umemoto

**Winka
Dubbeldam**
Professor & Chair



- Founded Archi-Tectonics (1994)

- Received Master's degrees from the Academy of Architecture in Rotterdam (1990) and Columbia GSAPP, NYC (1992)

- Lectured & taught in the masters programs at Columbia GSAPP, Harvard, and Cornell.

- External examiner for the AA's annual RIBA review & on the board of Directors for the Institute for Urban Design, NYC; & for BOFFO, NYC.



and our excellent faculty critics Ali Rahim, Simon Kim, Homa Farjadi, Stephen Kieran, James Timberlake, and Marion Weiss. With all this and even more – and larger – makerbots in studio, we look forward to a great year!

Board

News. Happenings. Events.



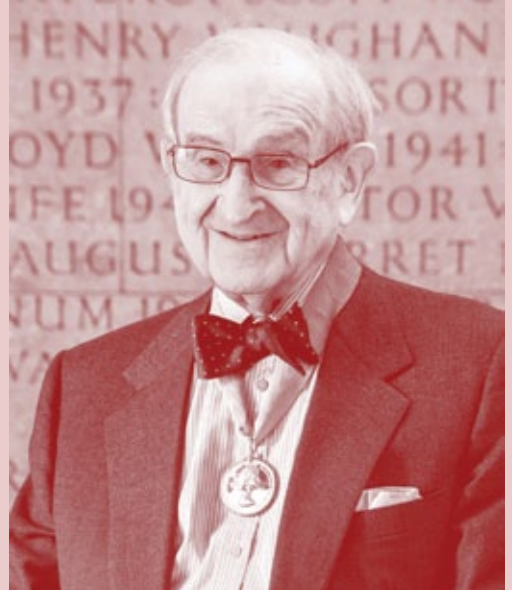
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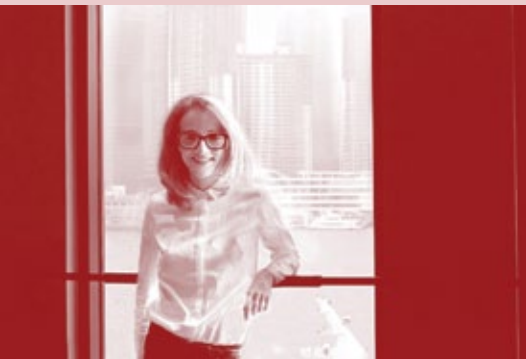
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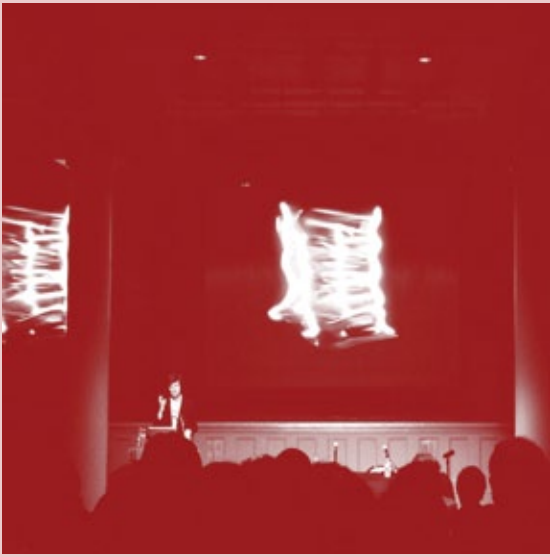
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04 P.19



06 P.19



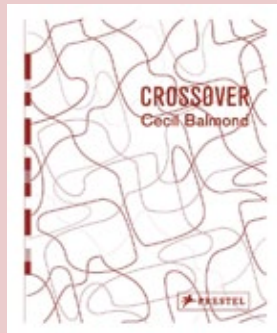
07 P.19



09 P.19



08 P.20



10 P.20



11 P.20

Matias del Campo at Interactive Shanghai Conference

Matias del Campo spoke at the Interactive Shanghai conference, held in conjunction with the exhibition opening of AAC, the American Academy in China. Matias del Campo presented parts of his research on Autonomous Tectonics, which explores the combination of robotic hardware with generative algorithms.

The focus of the research is on the various tectonic, and cultural qualities resulting out of the procedural approach. Other speakers included Phillip Beesley, Gang Song, Neil Leach and Ali Rahim.

APRIL 2012

SPAN Share Work at Archilab

Matias del Campo and Sandra Manninger showed two of their works at Archilab Show. Barcelona Recursion and Recursive formation both are results of an ongoing research into three-dimensional recursive geometries, based on Benoit Mandelbrot's

mathematical paradigms. The pregrative of Archilab, an internationally renowned event created in 1999, is to be a true laboratory for architecture, presenting the most advanced research in terms of architectural creation on each occasion. Curated by its founders, Marie-Ange Brayer, Director of FRAC Centre and Frédéric Migayrou, Deputy Director of the Centre Pompidou, MNAM-CCI, this new event 'Naturaliser l'architecture' (Naturalizing Architecture) is devoted to the interaction between digital architecture and the sciences, exploring the challenges faced in simulating the living world.

September 16 2013

Winka Dubbeldam in Architectural Record

Winka Dubbeldam is interviewed by Architectural Record about her first Fall semester as Chair and traveling the globe to discuss My Ideal City, an urban planning project for downtown Bogota, Colombia that she and her office, Archi-tectonics, helped develop.



SEPTEMBER 2013 02

Brian Phillips' ISA featured in Architect Magazine

Interface Studio Architects in Philadelphia is building on the legacy of its 100K House with new projects that are transforming urban-house design.

On the website for Flexhouse 2, a string of 15 slate-colored row houses designed by Interface Studio Architects of Philadelphia for Ranquist Development of Chicago, there's an unusually compelling bit of marketing-speak: "The Flexhouse is a new type of home that is tuned to the 'new normal' of the twenty-first century." The new normal? What exactly does that mean? "The houses are modest, efficient, urban, and cool," the copy continues, "appealing to urban lifestyles that seek to make sustainable lifestyle choices."



September 21 2013 03

Philly.com reviews Krishna P. Singh Center

Philly.com writes a glowing review of the Krishna P. Singh Center for Nanotechnology, designed by Marion Weiss and her partner Michael Manfredi of Weiss/Manfredi.

"...Instead of focusing on the boundaries between architecture and landscape, they fuse the two into a seamless whole. Their dazzling new project is like the mythical centaur; you can't exactly say whether it is man or beast."

"... But the way the Singh Center emerges from the ground and ascends in a series of crystalline switchbacks suggests the structure might be some long-buried geological formation that just happened to erupt in the middle of West Philadelphia."



SEPTEMBER 2013 05

Joseph Rykwert wins RIBA Royal Gold Award

The celebrated architectural critic, the Paul Philippe Cret Professor Emeritus of Architecture, historian and writer Joseph Rykwert has been named

the recipient of the 2014 Royal Gold Medal, one of the world's most prestigious architecture awards.

Given in recognition of a lifetime's work, the Royal Gold Medal is approved personally by Her Majesty the Queen and is given to a person or group of people who have had a significant influence "either directly or indirectly on the advancement of architecture".

Joseph Rykwert is a world-leading authority on the history of art and architecture; his groundbreaking ideas and work have had a major impact on the thinking of architects and designers since the 1960s and continue to do so to this day.



October 10 2013 06

Winka Dubbeldam presents 'Current Work'

Winka Dubbeldam presented her work at the annual Current Work program at the Architectural League on Thursday October 10th. The Current Work program presents the work of international architectural figures who influence contemporary practice and are constructing the future of the built environment.

OCTOBER 2013

Elena Manferdini receives ACADIA Award

Elena Manferdini received the 2013 ACADIA Innovative Research Award of Excellence. Manferdini received a 2013 Innovative Research Award from the Association of Comput-

October 12 2013

Bittertang, Michael Loverich design 'Being' Exhibition

BEING was an exhibition that looked into Storefront's 30 years of history of dreaming, amplifying, questioning, unveiling, connecting, disrupting, merging, reacting and experimenting in relation to individuals, ideas and spaces from its past, present and future.

BEING was a collection of actions. BEING was a transversal examination of Storefront's 30 years of history to better understand the role and transformation of alternative practices in the construction of culture and public life.

While looking into archival material, institutional archaeology, and contemporary events, the exhibition presented, acted and projected forms of "being" Storefront for Art and Architecture by providing a set of historical and experiential acts around 9 action verbs: Question, Dream, Unveil, Connect, Disrupt, Amplify, React, Merge and Experiment.



er-Aided Design in Architecture (ACADIA) for her research contributions to digital design in architecture.

ACADIA represents recognition, by colleagues worldwide, of consistent contributions and impact on the field of architectural computing.

Autonomous Tectonics by Sandra Manninger

Sandra Manninger presents the paper "Autonomous Tectonics" at the DADA 2013 Digital Infiltration Conference, Tsinghua University Beijing China. The paper presents the results of the research on autonomous formations as architectural design technique. The research utilizes primarily Industrial Robots as agents of materialization.

October 14 2013 07

'A Second Modernism' Symposium at PennDesign

Joan Ockman moderated a panel discussion at PennDesign called A Second Modernism with Daniel Barber, Arindam Dutta, John Harwood, Eric Mumford and Anna Vallye. The discussion focused on the changes that have occurred in architectural education and in the field during the

decades after WWII in a new book titled, *A Second Modernism; MIT, Architecture, and the Techno-Social Moment*. The goal of the panel was to consider the changes in relation to the concerns of both the postwar period and the present.

OCTOBER 2013 09

Brian Phillips' ISA wins AIA Philadelphia Design Award

ISA won an AIA Philadelphia Design Award for its Flexhouse project. The 8-unit townhouse development occupies a well located site in the emerging Logan Square neighborhood northwest of downtown Chicago.

Weiss/Manfredi wins the Best New Urban Amenity Award

Weiss/Manfredi wins the Best New Urban Amenity award for their inhabitable topography for the Brooklyn Botanic Garden Visitor Center during New York's MASTERworks Awards from The Municipal Art Society of New York. Winners were chosen from New York City projects that were completed in the past year. Municipal Art Society President, Vin Cipolla, commented that the winners are "design assets to our city that contribute greatly to the urban landscape." "The Visitor Center was winner in the Best New Urban Amenity category for "improving the experience of living in and moving through the landscape of the city."

NOVEMBER 2013 11

Bittertang/ Michael Loverich completes Walls of Wax

Bittertang's "Walls of Wax" is this year's BOFFO Building Fashion installation, located at Pier 57 (11th Avenue and 15th Street) in Manhattan. It features menswear designer Michael Bastian's fall/winter 2013 collection.

Ever since launching their design firm Bittertang six years ago, Michael Loverich and Antonio Torres have cultivated a reputation for their use of peculiar materials. For a 2010 sukkah exhibition in Manhattan's Union Square, the duo created an inflatable vinyl blob filled with moss and eucalyptus leaves. For a 2011 pavilion on Governors Island, they crafted walls out of nylon stockings stuffed with bark and constructed a roof out of blow-up beach toys.



The exhibition was organized by Shanghai Federation of Literary and Art Circles, Shanghai Municipal Administration of Culture, Radio, Film & TV and hosted by Shanghai Designers Association and Power Station of Art. It was held in the Power Station of Art (Shanghai Contemporary Art Museum) from December 3rd, 2013 to March 30, 2014.

December 3 2013

Matias del Campo & Sandra Manninger present in Shanghai

Matias del Campo & Sandra Manninger showed their most recent results in the ongoing exploration of recursive formations. A large scale wall panel on display brokered between aspects of symmetry and bulbous recursive elements. The work gravitates around ideas of variation in scale present in the fabric of the City.

December 10 2013 10

'Crossover' Reviewed

Cecil Balmond's new book "Crossover" (Prestel/Random House) was written about in NewScientist. He was described as "blending maths, engineering, art and architecture with a touch of mythology. The result is 'an interdisciplinary masterpiece.'"

Now, in Crossover, he chronicles the journey from

initial concept and back-of-the-envelope scribbles to some of the most iconic and contentious bridges, buildings and artworks in the world. But the book is much more. It is a genuine effort to unite the interdisciplinary strands of mathematics, engineering, science and architecture.



DECEMBER 2013

Winka Dubbeldam talks 'My Ideal City' with ArchDaily

Winka Dubbeldam discusses her belief in the power of people, how "My Ideal City" started, if the model will extend to cities abroad and advice for architecture students interested in addressing urban issues with ArchDaily.

"...we spoke with Winka Dubbeldam about the challenges of architecture education. We also asked her to elaborate on why she thinks architecture should embrace industrial design tools." Watch the short clip with the QR Code.



Elena Manferdini completes laser-cut, 'Nembi'

Elena Manferdini completed her colorful, laser-cut "Nembi" installation in her home city of Los Angeles, CA. Nembi, Italian for "clouds", wraps around the entry way of the Hubert H. Humphrey Comprehensive Health Center in Southern Los Angeles.



DECEMBER 2013

Sarah Rottenberg featured in 'Disrupt Together'

Associate Director of the Integrated Product program, Sarah Rottenberg is one of the featured experts in *Disrupt Together: How Teams Consistently Innovate* (FT Press, December 2013).

The book calls for a breakthrough transdisciplinary, team-based approach to innovation that integrates business, design and engineering, and delivers powerful results for both new ventures and existing companies.

SPAN Opens Shanghai Office

After the successful construction of the Austrian Pavilion at the Shanghai Expo 2010, Matias del Campo and Sandra Manninger opened a branch in Shanghai in order to fulfill the increasing demand for design work from their practice. The office serves both for design development as well as educational purposes, offering design and development of architectural projects as well as Workshops in advanced design and fabrication techniques.



Weiss/Manfredi make The Denver Post's Best Architecture of 2013 List

The Denver Post names the Krishna P. Singh Center for Nanotechnology, designed by Marion Weiss and Michael Manfredi of Weiss/Manfredi Architecture, as one of the best buildings of 2013.

"Buildings don't say as much about the year they are born as they do about the decade it takes to conceive them. And the list of best buildings in 2013 gives clear evidence of the chastity accompanying the recent bad economic times that defined life across the U.S.

It's a terrific roster really, marked by superior structures that will stand well for the age we live in. But it is short in ways that matter.

There are just five entries instead of the customary 10; so many promising projects fell apart during the recession.

Just as telling, nothing here rises more than three stories. This was a year when aggressive developers, with their office towers and residential skyscrapers, handed over the glory to public institutions. Three of the buildings on the list are museums, two are schools.

Nanotechnology is the future, and this building gives it a forward-looking home while actually being fun at the same time. It's a complicated, glass-and-steel structure that bends in the middle, turning in on itself with the help of a second-floor mini-wing that cantilevers impossibly over the front yard. Still, its biggest statement is a mighty, bright orange interior scheme. Serious and wild."

December 26 2013

Ben Krone/Gradient Design Studio new home featured in New York Times

Ben Krone and his partner Jaime Roark of Gradient Design Studio are featured in the New York Times about the purchase and renovation of their home in Brooklyn's Red Hook neighborhood.



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066 - 069 Visual Studies I & II Danielle Willems
070 Dialogues The New Normal: Experiments in
Contemporary Generative Design, Winka Dubbeldam

02

22 Foundation

FOUNDATION

MArch

Architecture

501

Simon Kim Coordinator

As the first of the Design Studio sequence, the exercises and projects are organized to provide a methodology in formation in series, geometric and tectonic investigation, and critical understanding of abstract ideas transposed to form and space.

These exercises build on each other and progressively grow in scale and complexity.

The first of these is a two-part project exploring part to whole relationships: full-scale construction of small pavilions made of aggregated clusters and modules which culminates at an exhibition at the Slought Foundation. The latter phase of the first project is a scalar expansion of this system placed in the city. The final project is a further scaling to a building with programmatic requirements and fully expressed in projective drawing, diagrams, physical models and views.

The pedagogy of the course is to introduce students to the production of spaces and assemblies that pursue the innovative and experimental. The outcomes of these means and strategies are then assigned to the production of architecture within the city and its constraints, as well as a meaningful ordering and human occupancy.

March 501 Faculty

Ezio Blasetti

Lasha Brown

Simon Kim

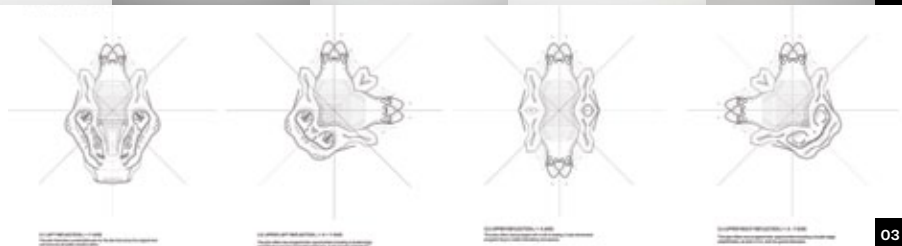
Sofa Krimizi

Michael Loverich

Sandra Manninger







CRITIC:

Simon Kim

STUDENT:

Katie McBride

01-04

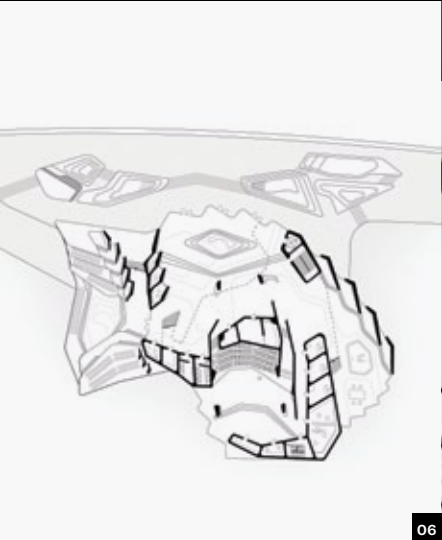
“...a geometry that is generated using a kaleidoscopic technique of axes of symmetry. The arts center is slipping concentric spaces that peel away to produce ambient, dynamic environments above the city.” -Katie McBride



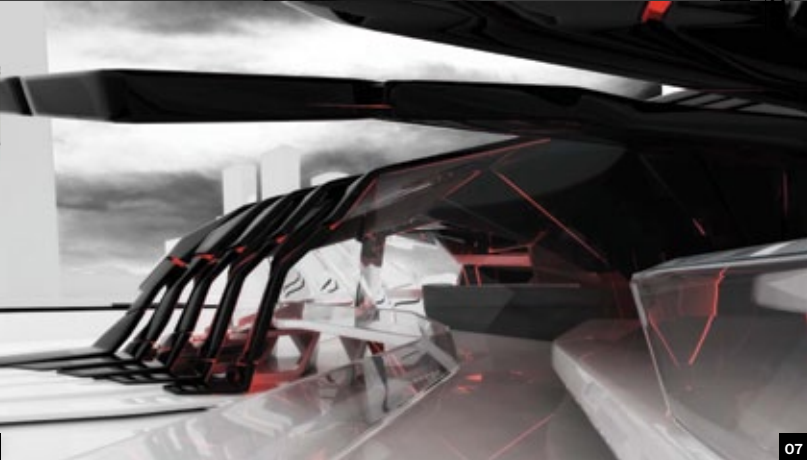
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08

FOUNDATION

Foundation—AFCH 501
Design Studio—Kim

Simon Kim
Assistant
Professor



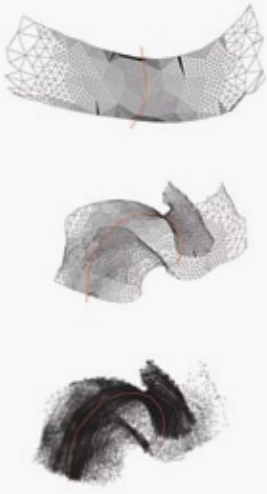
- Co-founded Ibañez Kim Studio, PA & MA, (1994)
- Graduated from the Design Research Laboratory at the Architectural Association (AA)
- Taught studios and seminars at Harvard, MIT, Yale, and the AA.
- Director of the Immersive Kinematics Research Group



CRITIC:
Simon Kim
STUDENT:
Shiyuan Wang

04-09

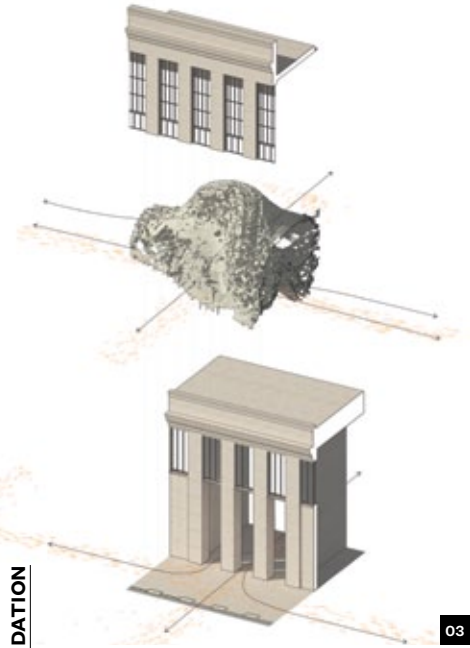
“...new sequences of spaces & variation of envelopes are produced to form a precisely calibrated vessel moored to the water's edge.” -Shiyuan Wang



01



02



03



04



05



06

CRITIC:

Ezio Blasetti

STUDENT:

Caleb White

01-06

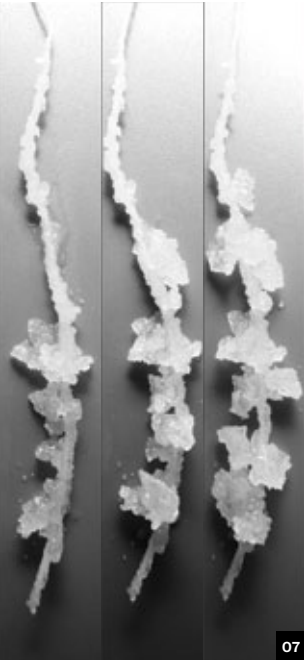
“Just as layered text of a palimpsest creates a mutual addition of meaning, layered program can create a addition of spatial experience...” -Caleb White

Ezio Blasetti
Lecturer

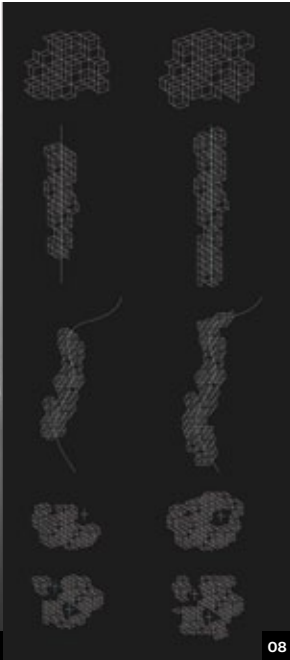


- Founding Partner of ahylo, Athens, GR (2009)
- Received an MSAAD from Columbia University GSAPP after having previously studied in Athens and Paris, (2006)
- Founder of algorithmicdesign.net
- Taught at Pratt Institute, the Architectural Association, and Columbia University





07

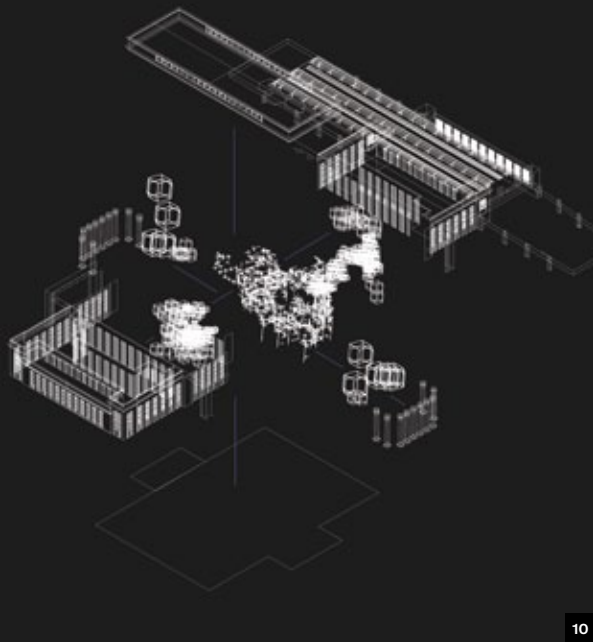


08



031

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FOUNDATION

Foundation—ARQH 501
Design Studio—Blasetti

CRITIC:

Ezio Blasetti

STUDENT:

Karen Martin

07-12

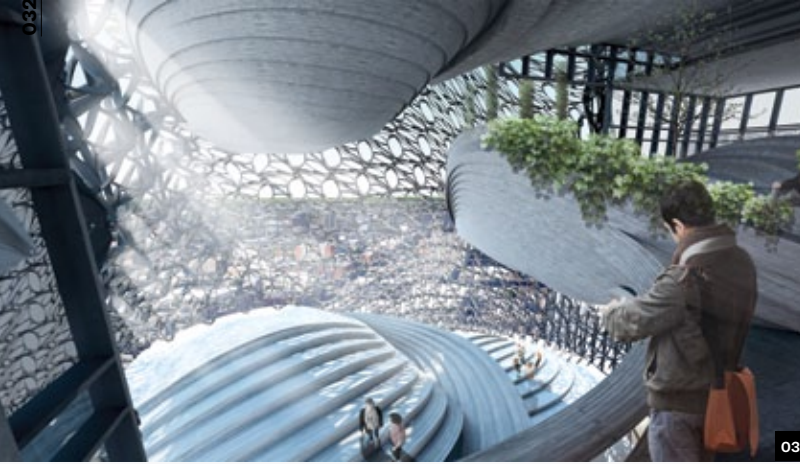
“...seeks to explore the possibilities of an object-to-object relationship...As crystals grow on an external source, this design grows on 30th street station’s ceiling, floors, columns and walls.” -Karen Martin



01



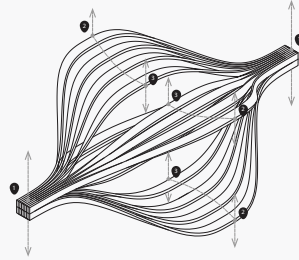
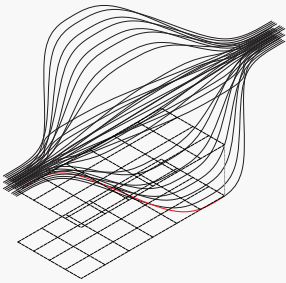
02



03



04



05



06

FOUNDATION

Foundation—ARCH 501
Design Studio—Brown

CRITIC:

Lasha Brown

STUDENT:

Adrian Subagyo

01-06

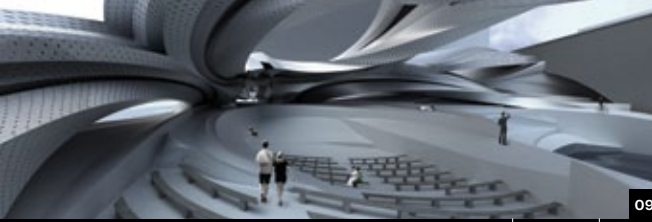
“The addition of a soft structure component allows for the defining of interstitial spaces as it relates to the edges of the adjacent hard structures.” Adrian Subagyo



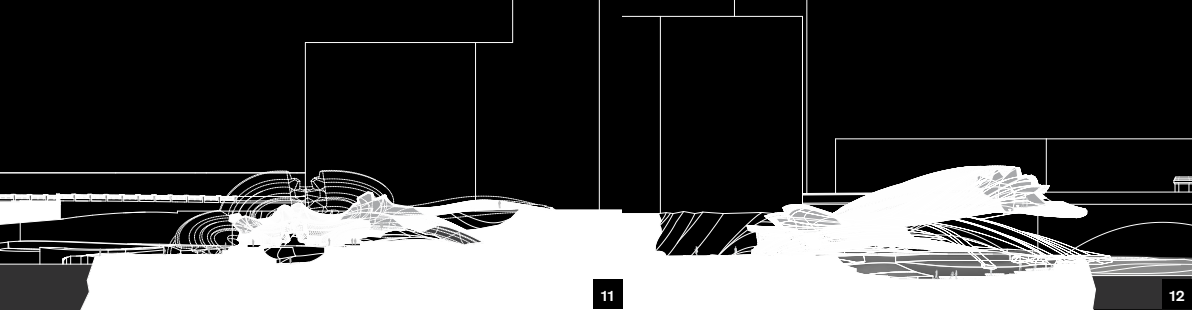
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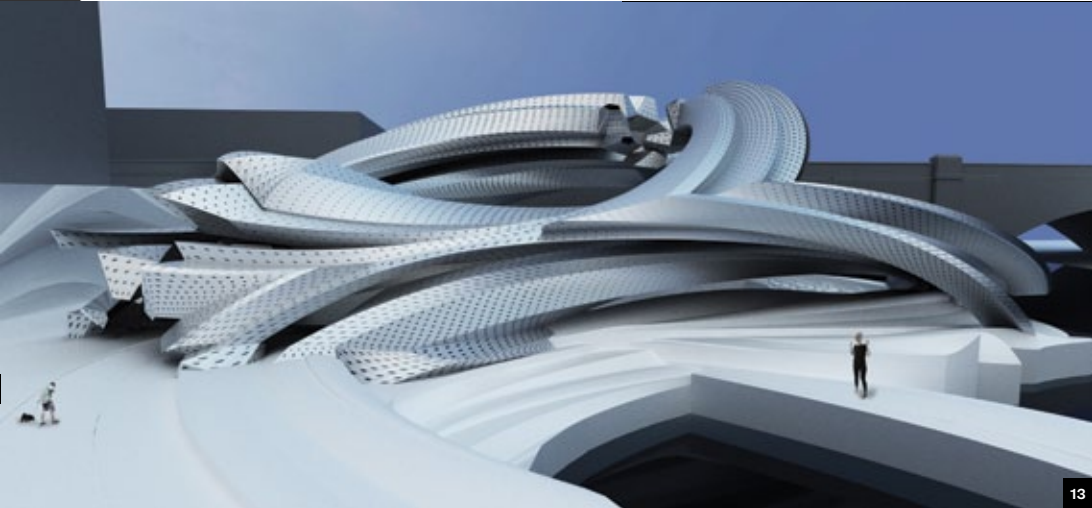
09



11

12

033



13

FOUNDATION

Foundation—ARQH 501
Design Studio—Brown

Lasha Brown
Lecturer



- Co-founded design studio
Akte_01, PA & NY (2009)

- Received an MArch from Yale
University (2008) and a BArch
from Syracuse University (2002)

- A teaching fellow at Yale School of
Architecture

CRITIC:

Lasha Brown

STUDENT:

Andrea Yoas

08-13

“...tubes created in this process allow for occupiable space, & also create an opportunity for specific pieces to branch off, & connect to the site.”

- Andrea Yoas

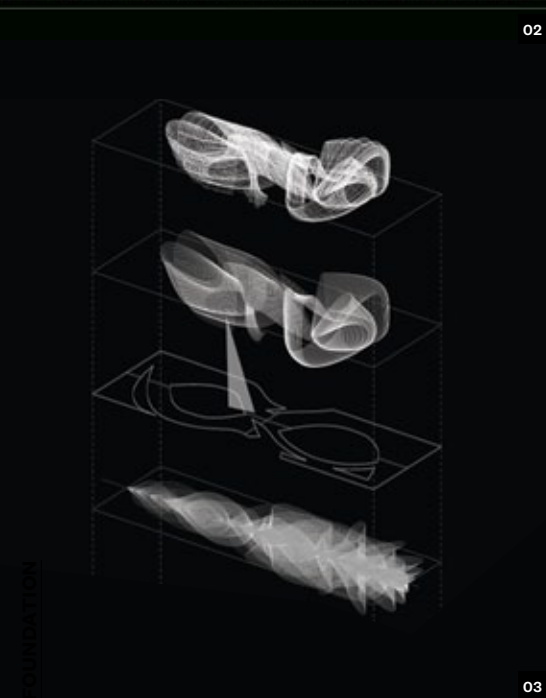




01



02



03



04

CRITIC:

Sofia Krimizi

STUDENT:

Basak Huner

01-04

“...the building seeks to challenge perceptions of boundaries both physical & experiential, and playing up these distinctions while in others hiding.” -Basak Huner

Sofia Krimizi
Lecturer



- Co-founded kstudio (2010)
- Degree in Architecture & Engineering from the National Technical University of Athens.
- Under the Fulbright Scholarship (2009), earned a MSAAD degree from Columbia GSAPP





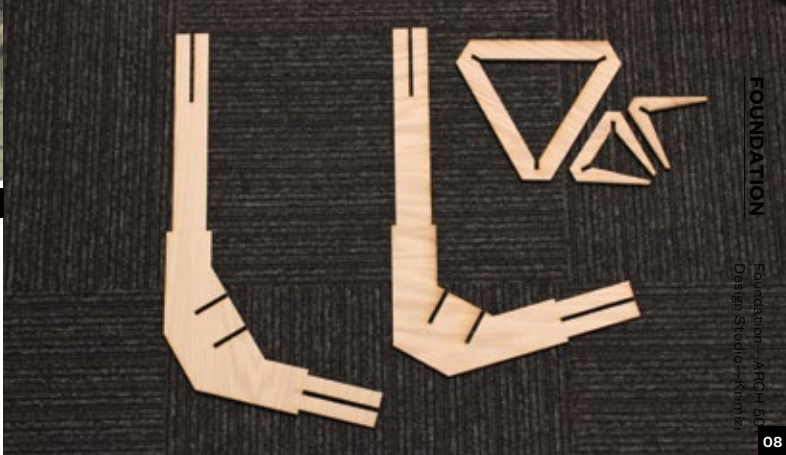
05



06



07



FOUNDATION

Foundation — ARCH 501
Design Studio — Krimizi

08

CRITIC:

Sofia Krimizi

STUDENTS:

**Taylor Knoche
Peter Hiller**

**Zach Reiser
Aeree Rho**

05-08

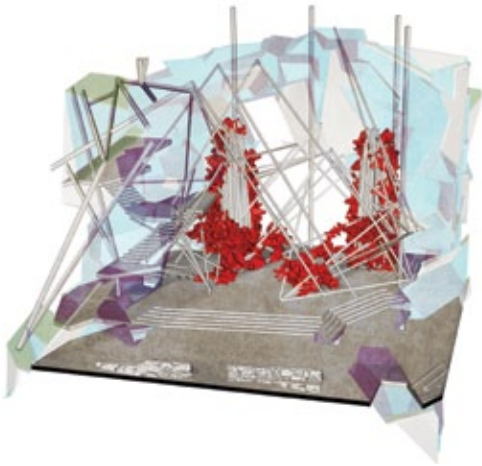
“...the aggregation, engages its environment by adapting to context & external factors, allowing adaptability to variations of spatial constraints...” - Taylor Knoche, Peter Hiller, Zach Reiser & Aeree Rho



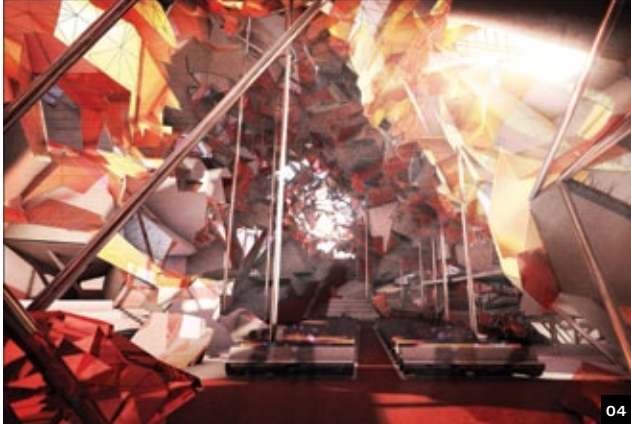
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02



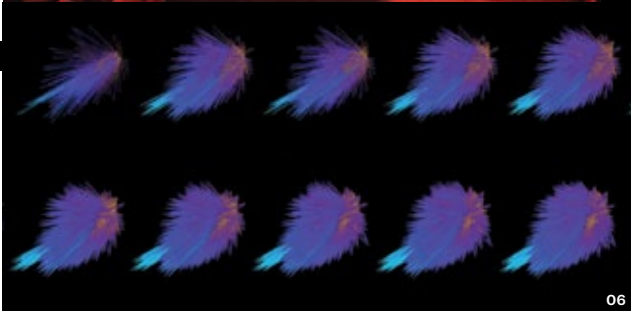
03



04



05



06

CRITIC:
Michael Loverich
STUDENT:
Alex Tahinos

01-06

“...create an aggregation with a parasitic nature... the idea of controlled organics or a randomization of growth with a controlled spacial output.” -Alex Tahinos

Michael Loverich
Lecturer



- Co-founded Bittertang (2008)
- Master of Architecture (March D) from the University of California Los Angeles; Dept. of Architecture and Urban Design (2007)
- Received the Architectural League Prize for Young Designers: Resource (2010)
- AIA New Practices New York Award (2010)





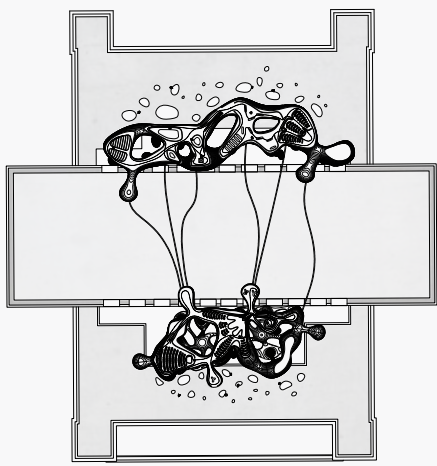
07



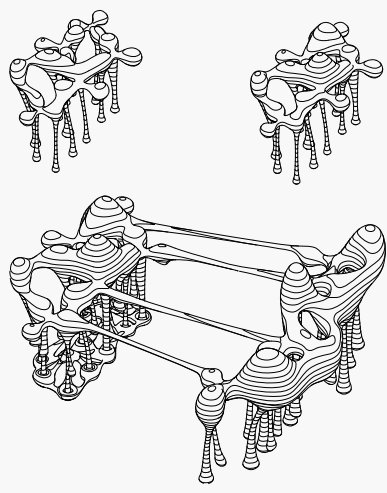
08



09



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11

FOUNDATION

Foundation—AROH 501
Design Studio—Loverich

CRITIC:
Michael Loverich
STUDENT:
Yuhang He

07-11

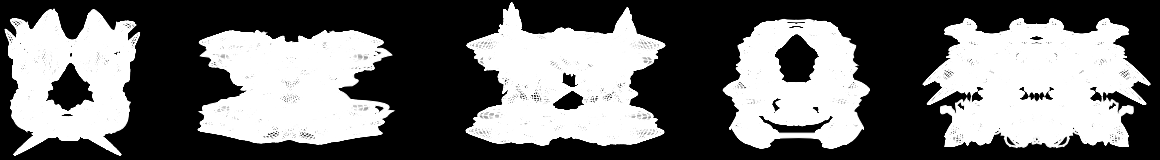
“The project transforms a series of interlocking inflatable forms that congeal together into one occupiable mass & uses translucent plastic membranes to play with color & light to define the various spaces of the church.” - Yuhang He



01



02



03

FOUNDATIO

Foundation—ARCH 501
Design Studio—Manninger

04

CRITIC:

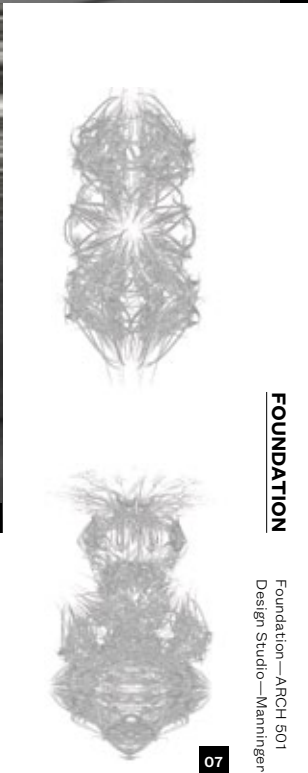
Sandra Manninger

STUDENT:

Elizabeth Young

01-04

“...explores opportunities in the creation of mass from surface. The smallest module emphasizes surface articulation over global profile, thus staging for greater nuance & sensitivity in subsequent agglomerations.” -Elizabeth Young



Sandra Manninger
Lecturer

- Co-founded architecture studio, SPAN (2003)
- Graduated from Vienna University of Technology.
- Guest lectures at the Dessau Institute of Architecture (dia) in Germany and is a visiting professor at the School of Architecture (ESARQ) of the International University of Catalonia in Spain.




CRITIC:

Sandra Manninger

STUDENT:

Liangjie Zheng

“...the tunnel is not aggregated in a linear way but by various components of distinct levels...Each part finds the most suitable aggregation.” - Liangjie Zheng

Srdjan Jovanovic Weiss' 'Hilltopia' presented in Shenzhen

Srdjan Jovanovic Weiss exhibited his project Hilltopia for North Philadelphia at the UABB - Urbanism and Architecture By-City Biennial held in Shenzhen, China, December 2013 / January 2014.

DECEMBER 2013

Daniel Barber Awarded

Daniel Barber's research '*Climatic Effects: The Architecture of the Comfort Zone and the Globalization of the International Style*' was recognized and supported from environmental historians and awarded the 2014 Samuel P. Hays Fellowship. The American Society for Environmental History created this fellowship to recognize the contributions of Samuel P. Hays, and to advance the field of environmental history, broadly conceived.

JANUARY 2014

Simon Kim & Students form Possible Mediums

Professor Simon Kim of Ibañez Kim Studio worked with students Megan Cheung, Kordae Jatafa Henry, Andrew Gardner & Rui Zhang on a piece for Possible Mediums, a series of events showcasing design investigations based in speculative architectural mediums.



Nate Hume in Project Journal

Nate Hume wrote an article titled '*Knotted Space*' that was published in the journal *Project*, Issue #02.



JANUARY 2014

The Wall Street Journal Recognizes Weiss/Manfredi's Singh Center

Marion Weiss of Weiss/Manfredi was named Best of 2013 for Architecture in The Wall Street Journal. Penn Engineering's Singh Center for Nanotechnology was recognized with six other noteworthy projects.



Elena Manferdini Awarded with AIA Los Angeles and Graham Awards

Elena Manferdini was awarded the 2013 Graham Award for architecture.

Founded in 1956, the Graham Foundation for Advanced Studies in the Fine Arts makes project-based grants to individuals and organizations and produces public programs to foster the development and exchange of diverse and challenging ideas about architecture and its role in the arts, culture, and society.

Elena Manferdini was also selected as recipient for the Education of the Year presidential award given by the AIA Los Angeles.



JANUARY 2013

Carla Diana Publishes New Book

Design of Contemporary Products instructor, Carla Diana, wrote "*LEO the Maker Prince*", a children's book that inspires young readers to create toys of the book's characters using 3D printers. Make Magazine interviewed Carla about the book and how her work with robots inspired such a groundbreaking children's book.



January 15 2014

Matthias Hollwich's 'New Aging'

Matthias Hollwich of HWKN presented the latest on "New Aging" and progress toward reinventing

nursing home design as a follow up to the New Aging Conference held at PennDesign. The presentation was held at the Senior Planet Exploration Center in NYC.



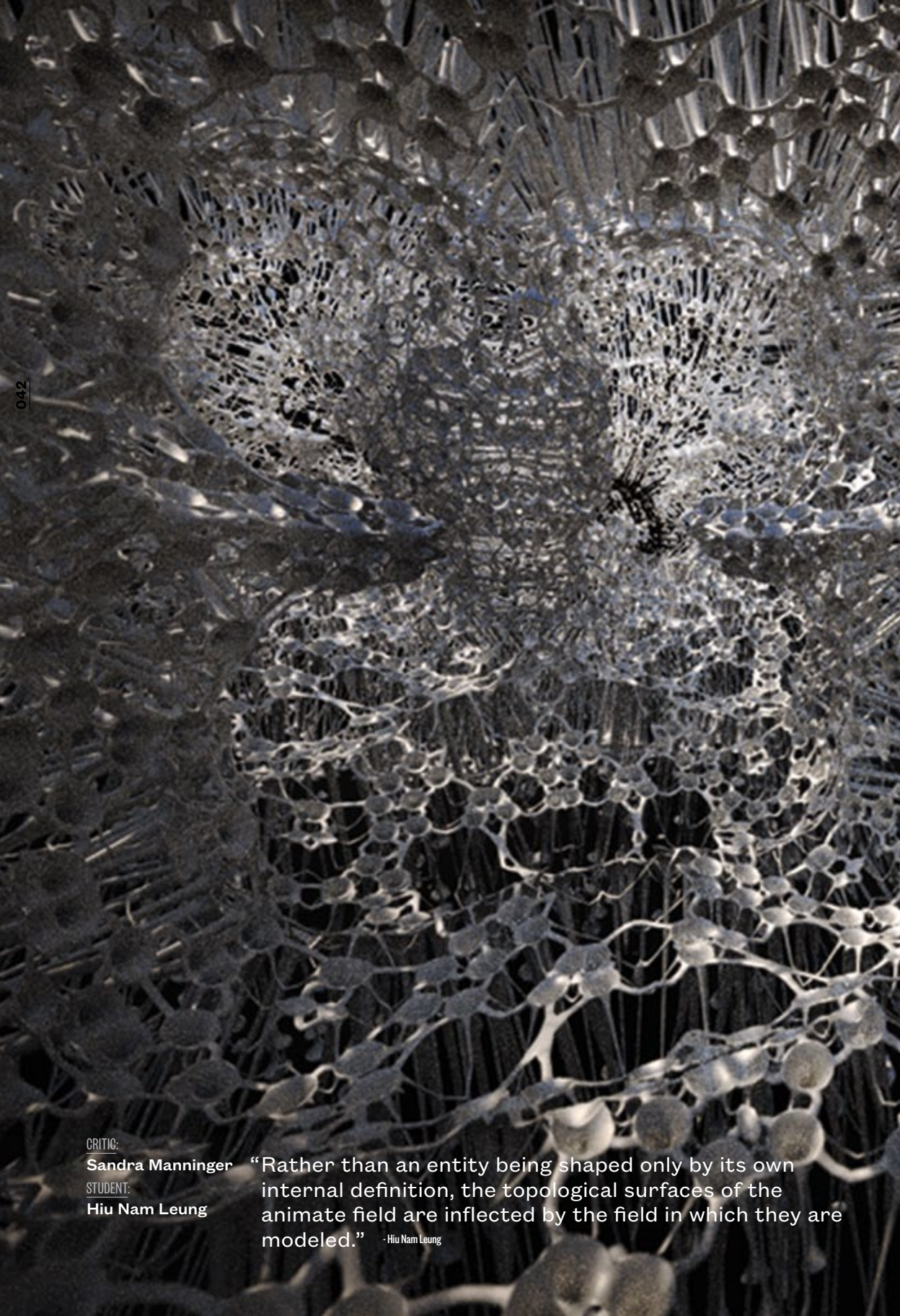
CRITIC:

Simon Kim

STUDENT:

Katie McBride

reference page 28



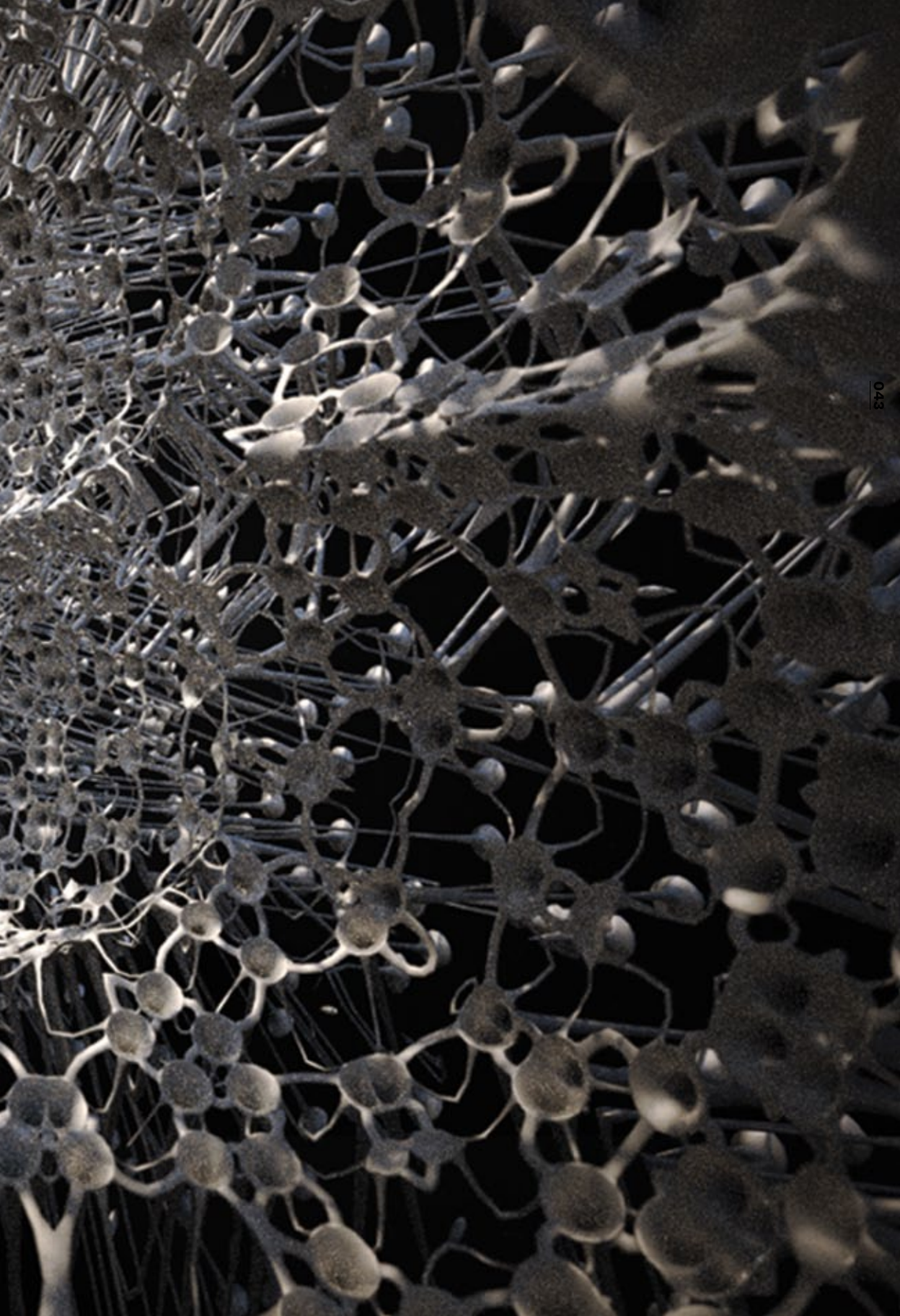
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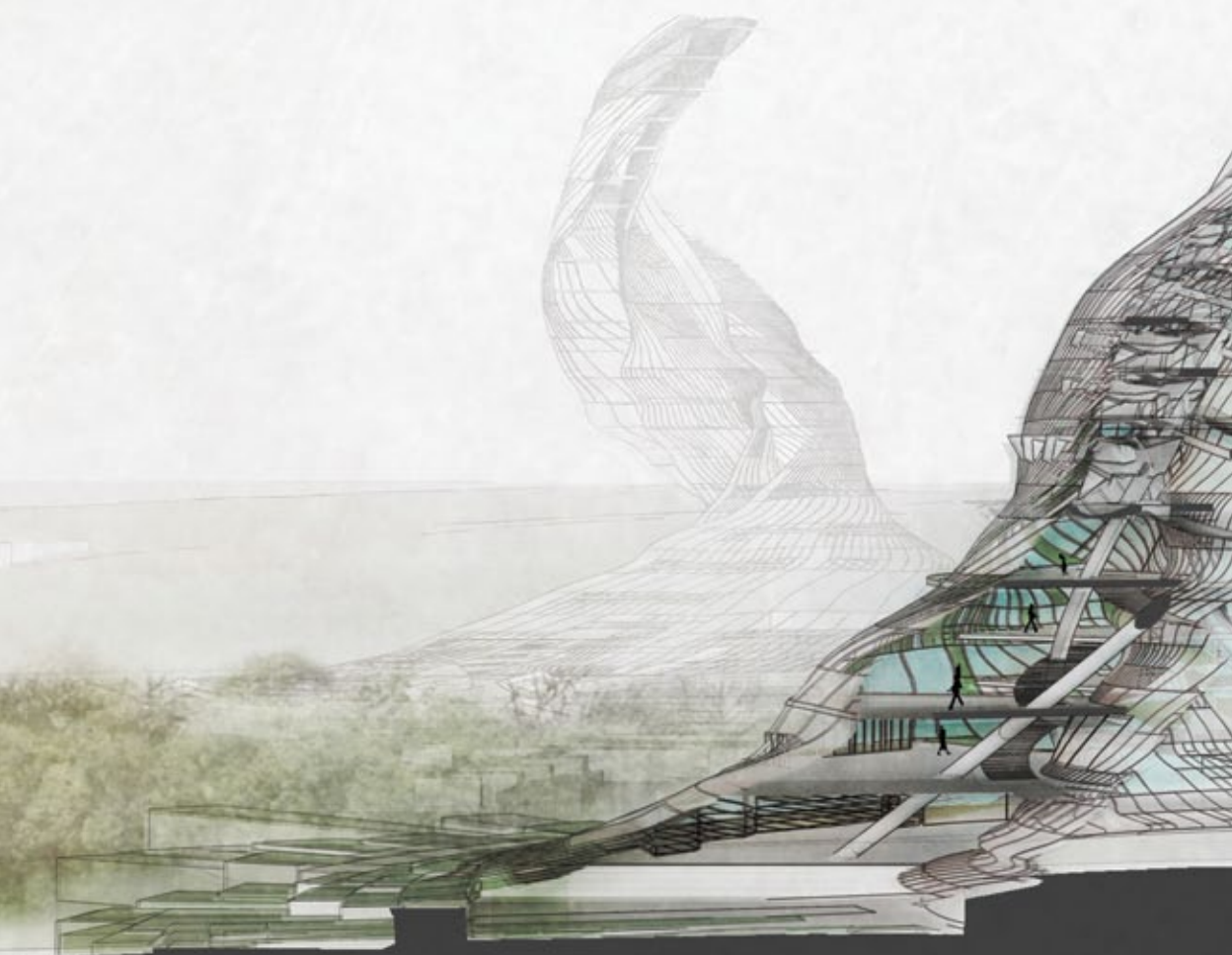
Sandra Manninger

STUDENT:

Hiu Nam Leung

“Rather than an entity being shaped only by its own internal definition, the topological surfaces of the animate field are inflected by the field in which they are modeled.” - Hiu Nam Leung







CRITIC:

Annette Fierro

STUDENT:

Alex Tahinos

reference page 54



CRITIC:

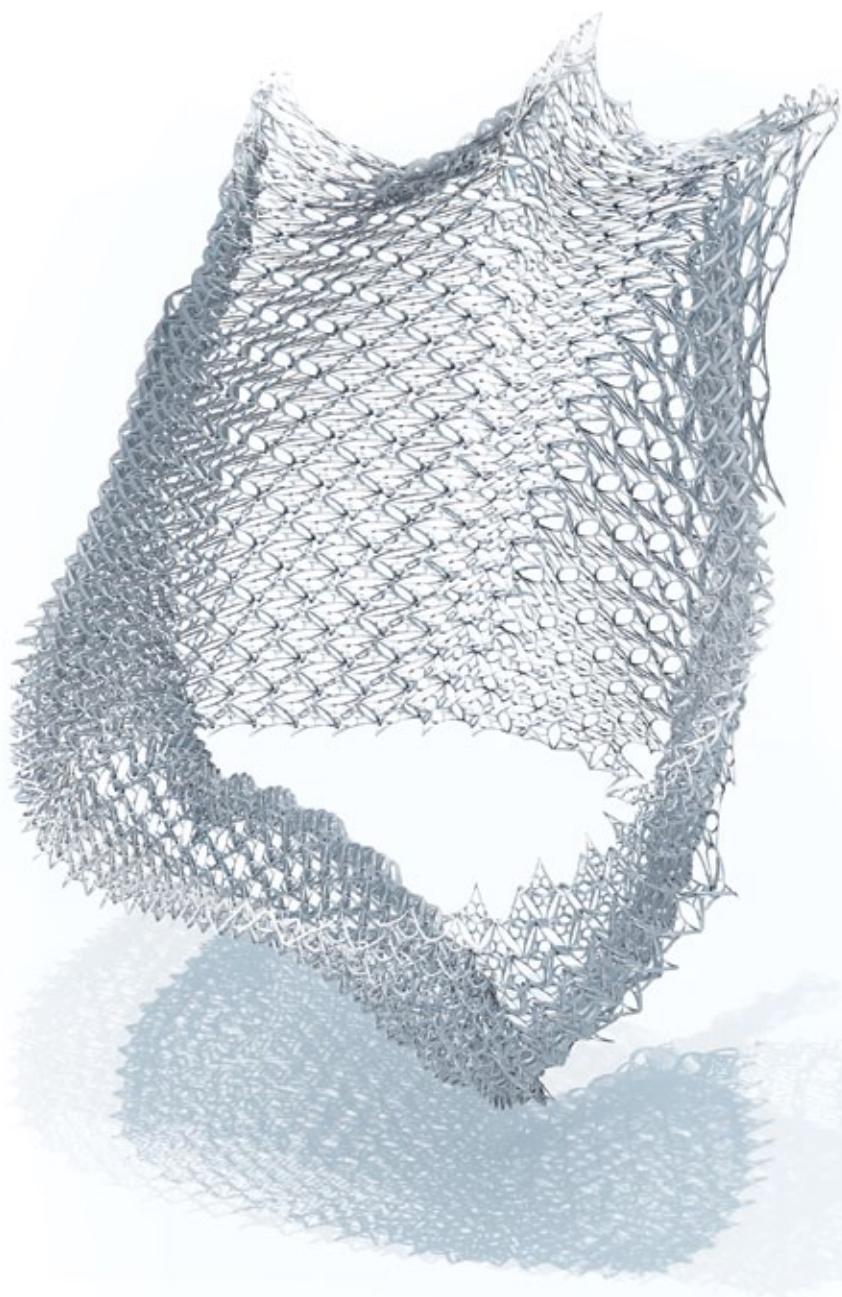
Sandra Manninger

STUDENT:

Liangjie Zheng

reference page 37





CRITIC:

Lasha Brown

STUDENT:

Adrian Subagyo

reference page 32

KieranTimberlake on Constructing Architecture's Model T

Excerpt from 'The Globe and Mail' online magazine: "...Making buildings as intelligently as we make cars - that is the challenge American architectural firm Kieran-Timberlake has taken on, and it is dragging the construction industry into the 21st century. Partner Stephen Kieran expects the change will be slow. Until it isn't.

'Henry Ford transformed the economics of a whole industry...With a \$400 car, you were into a whole new model to change the world. But it took him a lot of prototypes...' Like Ford, Kieran & his Philadelphia-based firm are working to transform architecture, going far beyond its traditional concerns...Kieran & partner James Timberlake once argued that an architect should become 'an amalgam of material scientist, product engineer, process engineer, user and client' - and that is their goal."



JANUARY 2014

City of Designerly Love

PennDesign faculty play prominently in The Architect's Newspaper feature showcasing Philadelphia as a new hot spot of innovative architecture and urban design. The article features dean Marilyn Jordan Taylor, Brian Phillips, Witold Rybczynski, Marion Weiss, Laurie Olin, Winka Dubbeldam, Scott Erdy, Stephen Kieren, and James Timberlake.

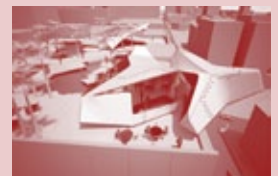


Tom Wiscombe Architecture to design the Old Bank District Museum (OBDM)

Tom Wiscombe Architecture is hired to design the Old Bank District Museum (OBDM), which will showcase Los Angeles Art and Design. The project is located underneath, inside of, and on top of several historical bank buildings in the heart of Downtown.

"...Downtown Los Angeles's historic core is about to get its first major museum, if that's what you want to call it. Local developer Tom Gilmore and architect Tom Wiscombe are teaming up on the complex project, which they are calling the Old Bank District Museum. It will be dedicated to contemporary Los Angeles art and located in the sub-basements, basements, ground floors, mezzanines, and roofs of three interconnected buildings along Main and Fourth streets.

'We're going beyond the frontier of street level,' said Tom Wiscombe..."



JANUARY 2014

PennDesign Instructors & Alumni win AIA Honors

Talented instructors and alumni from Weiss/Manfredi, KieranTimberlake, Jaklitsch/Gardner Architects and Gensler won The 2014 American Institute of Architects Honor Awards. The Institute Honor Awards program recognizes achievements for a broad range of architectural activity to elevate the general quality of architecture practice, establish a standard of excellence against which all architects can measure performance. The projects awarded: The Brooklyn Botanic Garden Visitor Center in Brooklyn, New York by Weiss/Manfredi

Juror Quote: "The building is extremely inviting. Its innovative and welcoming design are very well-fitted to the landscape and its context. Transition from the human-made environment to the natural environment was executed in a dexterous manner."

Quaker Meeting House and Arts Center, Sidwell Friends School in Washington, D.C. by KieranTimberlake

Juror Quote: "The exterior is masterfully handled with subtle gestures that give it interest and shape. The architect manages to create a landmark building on the site while simultaneously transforming the interior spaces into an effective worship space."

Marc by Marc Jacobs Showroom in New York City by Jaklitsch/Gardner Architects

Juror Quote: "The colors allow you to get lost in the context in a way that if it were brighter you wouldn't be able to do. It is almost like the glazing is an experiment that led to a greater discovery of itself."

FOUNDATION

MArch

Architecture

502

Annette Fierro

Coordinator

March 502 Faculty

Annette Fierro

Joshua Freese

Nathan Hume

Eduardo Rega Calvo

Srdjan Jovanovic Weiss

Danielle Willems

How can one city exist within another?

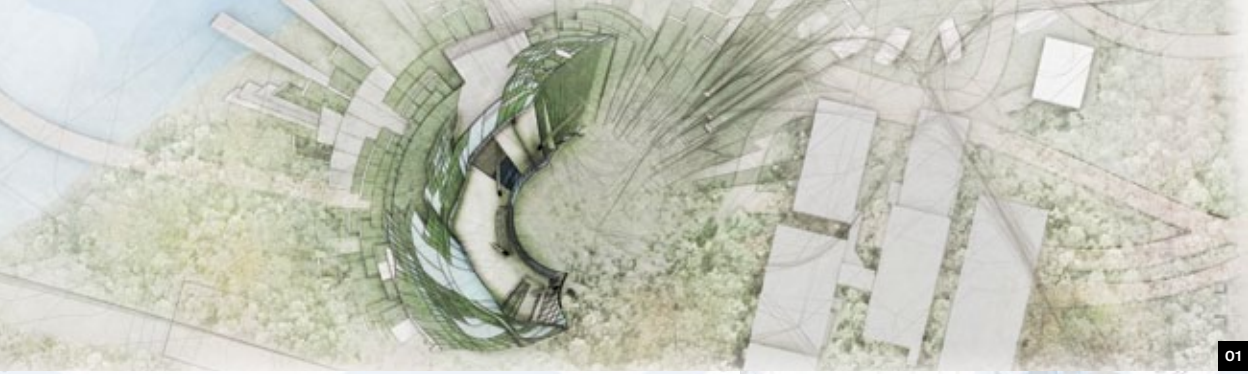
This year, Architecture 502 examined a particular phenomenon in contemporary cities in which a city emerges within another city—forming a dialectic between a purely planned sub-city and the larger, existing and often ungraspable urban entity outside. Within the fabric of existing cities occasional ruptures allow for an emergence of another coherency, both dependent and liberated from the first.

Occasionally these new cities are planned by specific agencies, frequently they arise from their own set of circumstances. Less often is this occasion found within established cities, but sometimes an opportunity arises, especially in areas that have been previously marginalized, even in the looming presence of a metropolis just outside. Having recently acquired a piece of land located just across the Schuylkill River south of the main campus, the University of Pennsylvania plans to embark soon on a new experimental research and development facility, called at the present, “South Bank.” The nature of this facility is entirely open-ended in terms of its defining activities, as well as in its urban morphology and its operating relationship with Philadelphia.

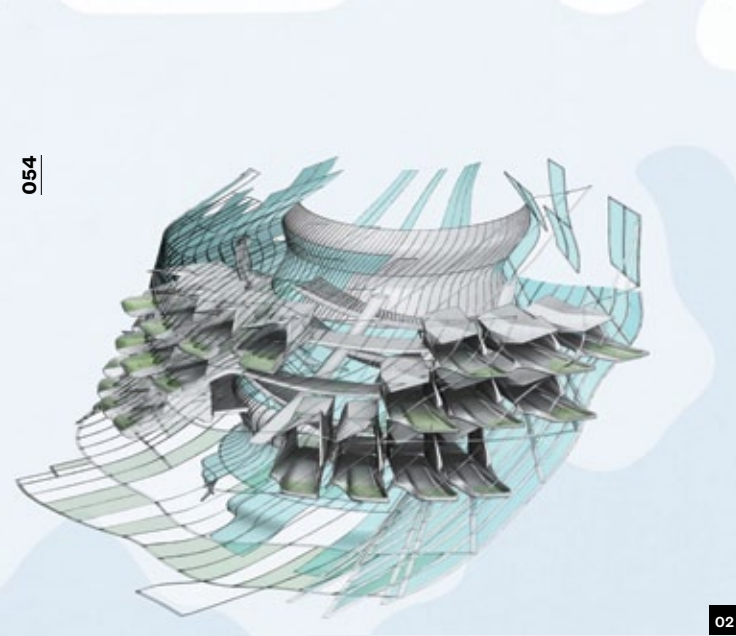
Buried within larger entities, these cities give pause to basic question of assumed urbanisms: What could a city become given the opportunity to establish itself under differently prioritized characteristics? Here it is important to distinguish the differences between the concept of a city and the concept of urbanization. The Greek *polis* (*city*), is an example of an archipelago, and in contrast to its insular nature, the Roman *urbs*, where logics of relentless expansive behaviors constitute an example of urbanization.







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054



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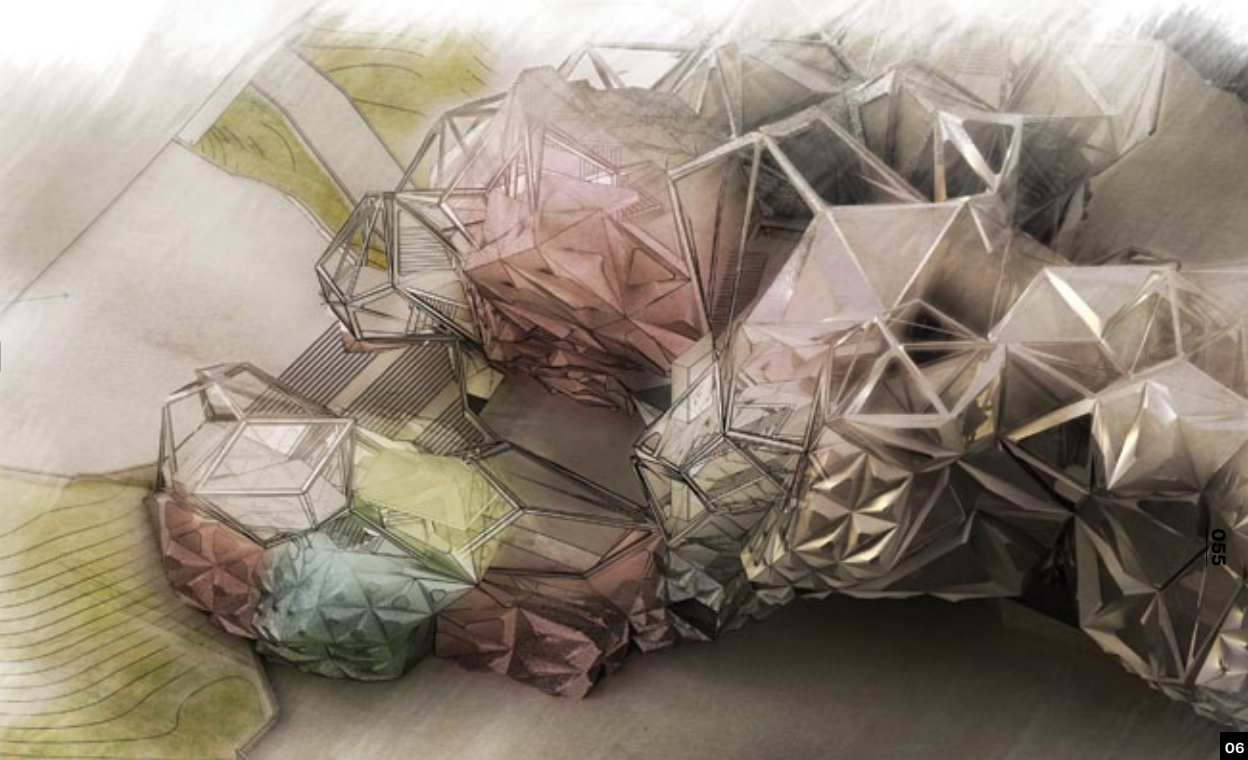
Annette Fierro

STUDENT:

Alex Tahinos

01-05

“...and as ecology takes over and consumes, it creates new means of production. People will create what they need when they need it, all in large dense ever-growing structures.” - Alex Tahinos



065

06



07



08

FOUNDATION

Foundation—AFCH 502
Design Studio—Fierro

Annette Fierro
Associate Professor

- MArch from Rice University (1984)
- BS in Civil Engineering from Rice University (1980)
- Author of *The Glass State: The Technology of the Spectacle/Paris 1981-1998* (MIT Press, 2003)
- Lectured at Cornell University, Columbia University, and Penn as well as for the Institute of French Culture and Technology



CRITIC:

Annette Fierro

STUDENT:

Caleb White

06-08

“Within the fabric of existing cities occasionally ruptures allow for an emergence of another coherency, both dependent & liberated from the first.”



Fragmentation / Decomposition



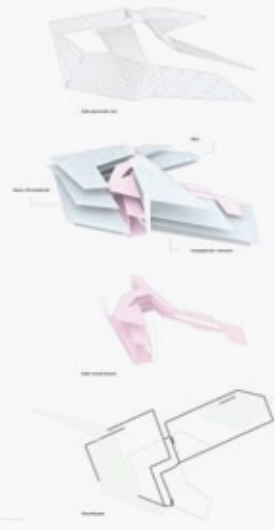
Erosion

01



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056



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FOUNDATION



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06

Foundation—ARCH 502
Design Studio—Freese

CRITIC:
Joshua Freese
STUDENT:
Di Wang
01-06

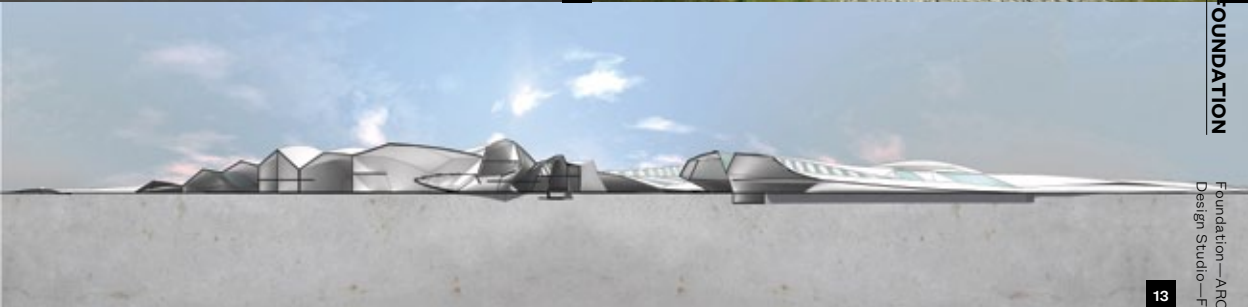
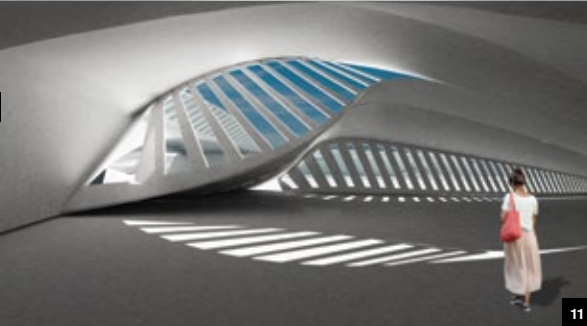
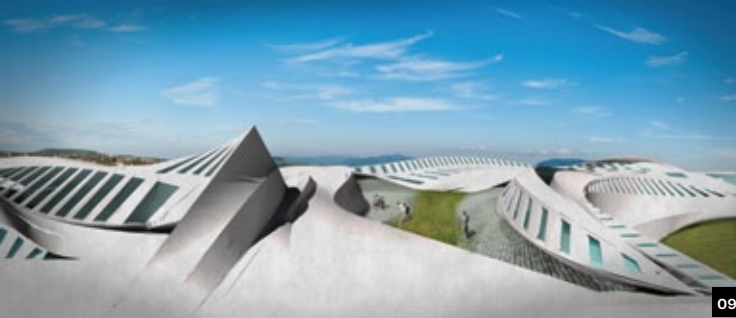
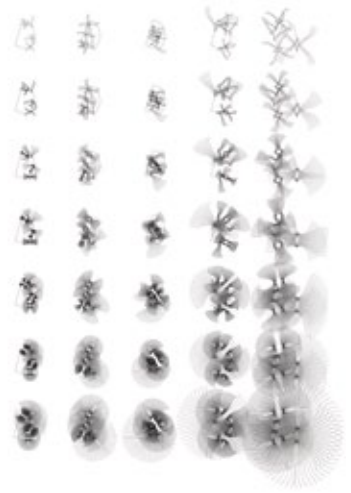
“...redefining the urban framework by establishing interconnected thresholds through accumulating, colliding, and eroding different programs.” - Di Wang

Joshua Freese
Lecturer



- Partner of Sp[a]de (2012)
- Graduated with a Bachelor of Design in Architectural Studies from Florida International University and an MArch from Penn's School of Design
- Previously was a designer at Interface Studio Architects, HWKN in NY, UN Studio in Amsterdam, and OMA in Rotterdam





CRITIC:
Joshua Freese
STUDENT:
Irina Dukhnevich

07-13

“...investigates a condition of landscape blending with buildings, without a prominent figure/ground distinction. It creates an extended landscape, where the buildings and hardscapes become a continuation...” -Irina Dukhnevich

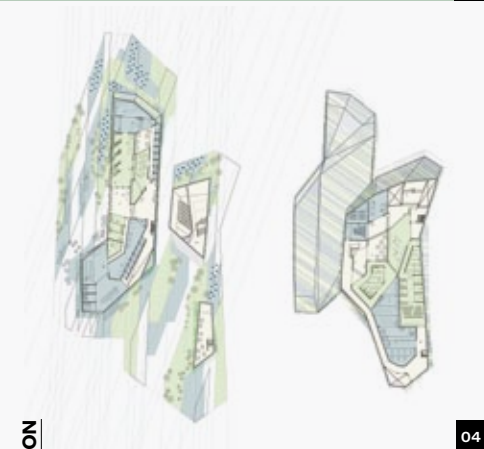
057

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12

FOUNDATION

Foundation—AROH 502
Design Studio—Freese



FOUNDATION

Foundation—ARCH 502
Design Studio—Hume

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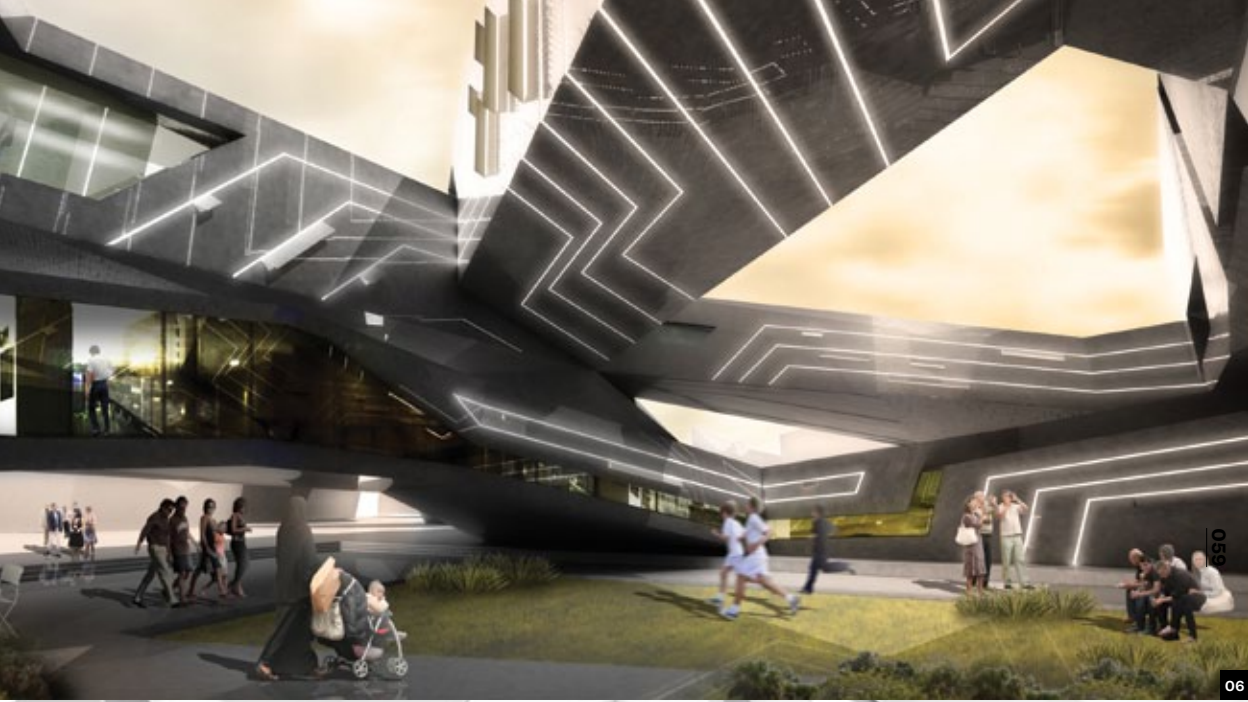
Nathan Hume

STUDENT:

Moon Ju Kang

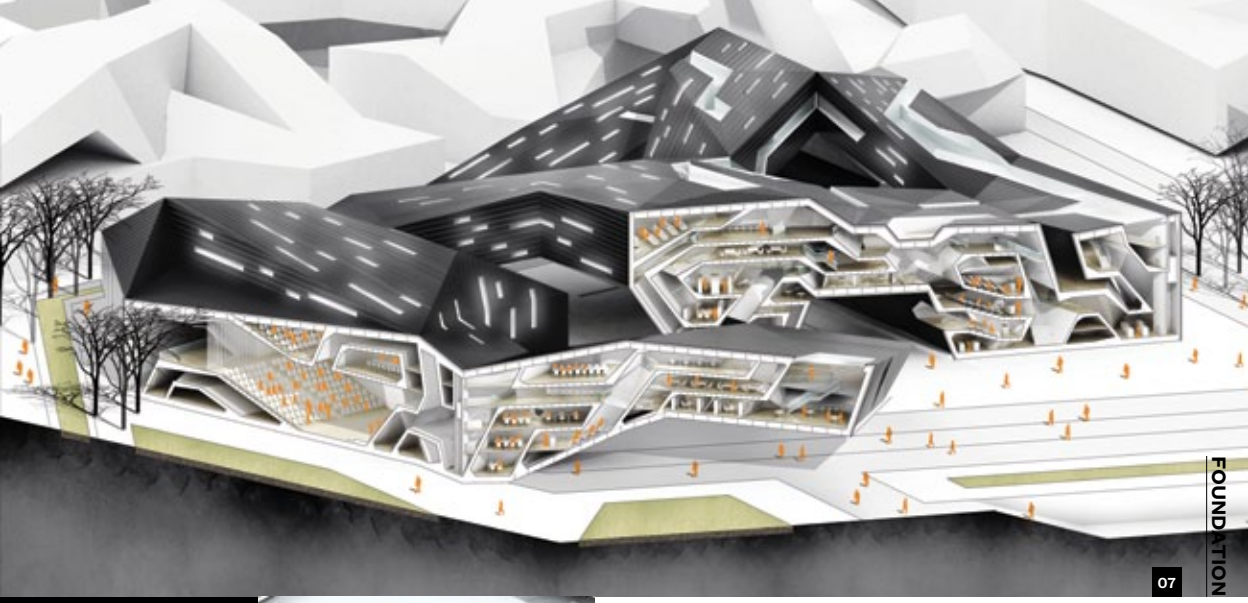
01-05

“...small scale interaction of the two programs must occur...to create an environment that will introduce the site users to both programs & cause 'accidental' visits to the unplanned moments.” -Moon Ju Kang



059

06



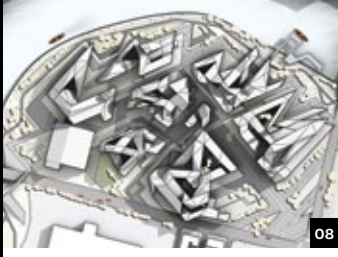
FOUNDATION

07

Nathan Hume
Lecturer



- Partner at hume coover studio (2008)
- Editor & Founder of suckerPUNCH (2008)
- Graduated with a MArch from Yale University (2006)
- Earned a Bachelor of Science in Architecture from Ohio State University (2003)

08

CRITIC:
Nathan Hume
STUDENT:
Shiyuan Wang

06-08

"...developing ideas based on mappings to build a dynamic network...allowing for the potential of organizing different people, programs & landscape." - Shiyuan Wang

Foundation—AFOH 502
Design Studio—Hume

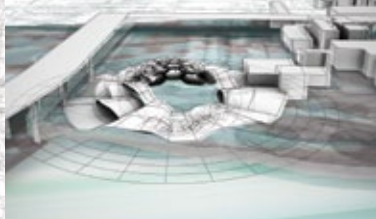


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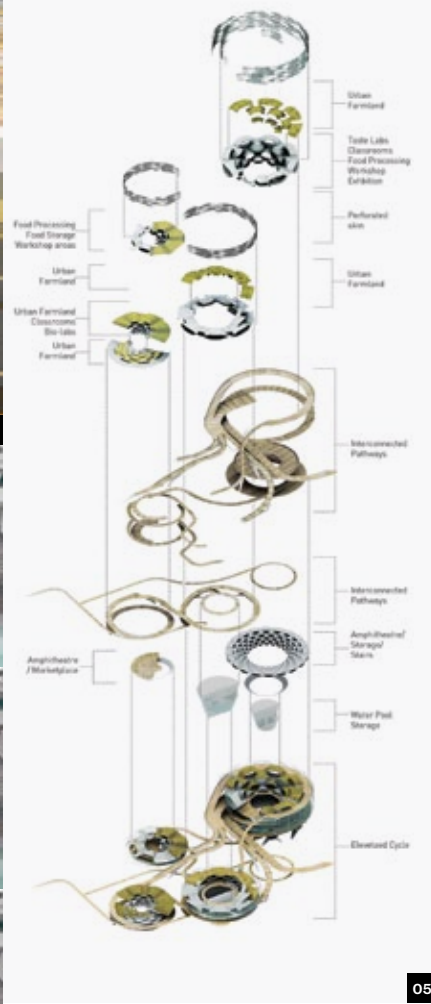
02



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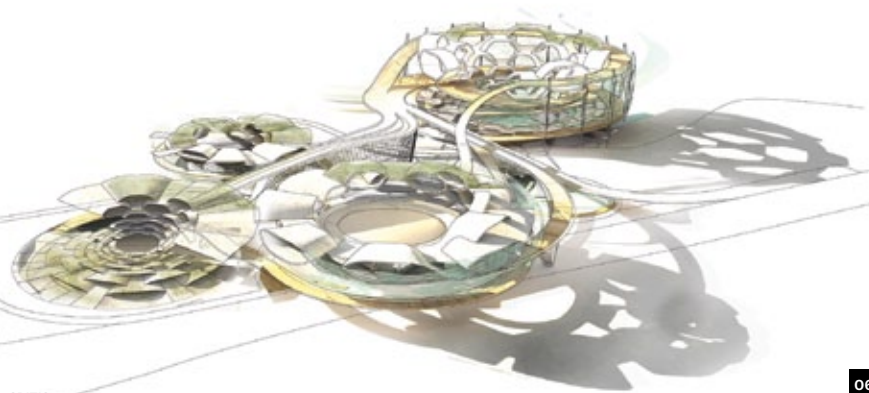
03



05

FOUNDATION

Foundation—ARCH 502
Design Studio—Rega



CRITIC:
Eduardo Rega
STUDENT:
Basak Huner
01-06

“...the circular geometries interconnecting each other through multiple networked paths or ‘food highways’ provides a continuous symbiosis.” -Basak Huner

Eduardo Rega
Lecturer



- Editor, & Art Director of the Editorial Project and Investigation system “From Spam to Maps”
- Master of Science in Advanced Architectural Design at Columbia University
- MArch from Polytechnic University of Madrid, ETSAM
- BArch, University of Las Palmas, Spain

06

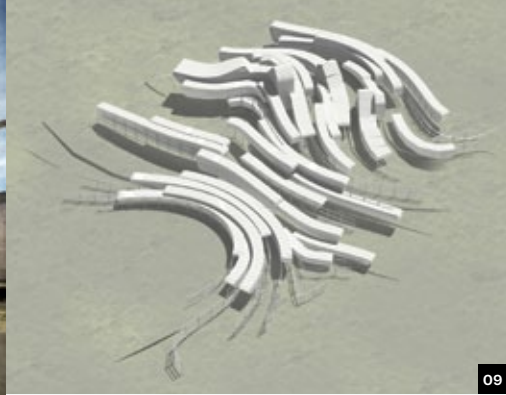




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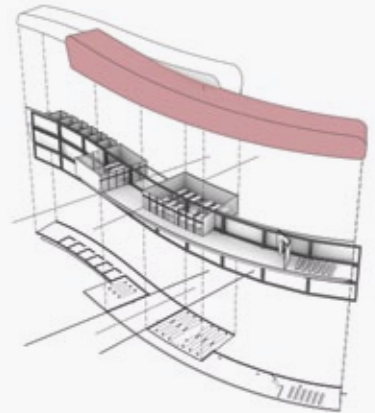
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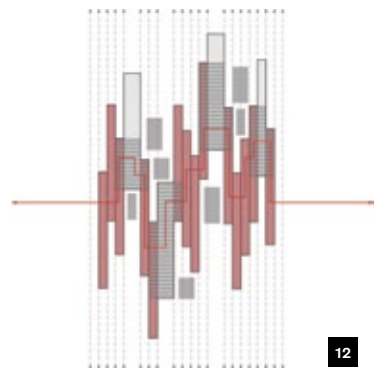


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FOUNDATION



13

Foundation—AROH 502
Design Studio—Rega

CRITIC:
Eduardo Rega
STUDENT:
Ramon Pena Toledo

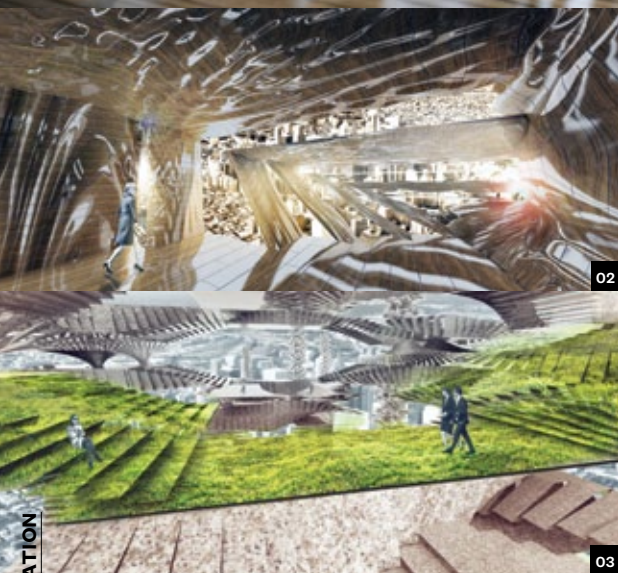
07-13

“...elevated pathways transform the multiple ground da-
tums to act as generators of interest and activity—pro-
viding meaningful collaborative experiences...which is in a
constant state of exposure and dialogue...” - Ramon Pena Toledo



062

01



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04

FOUNDATION

Foundation—ARCH 502
Design Studio—Weiss

CRITIC:

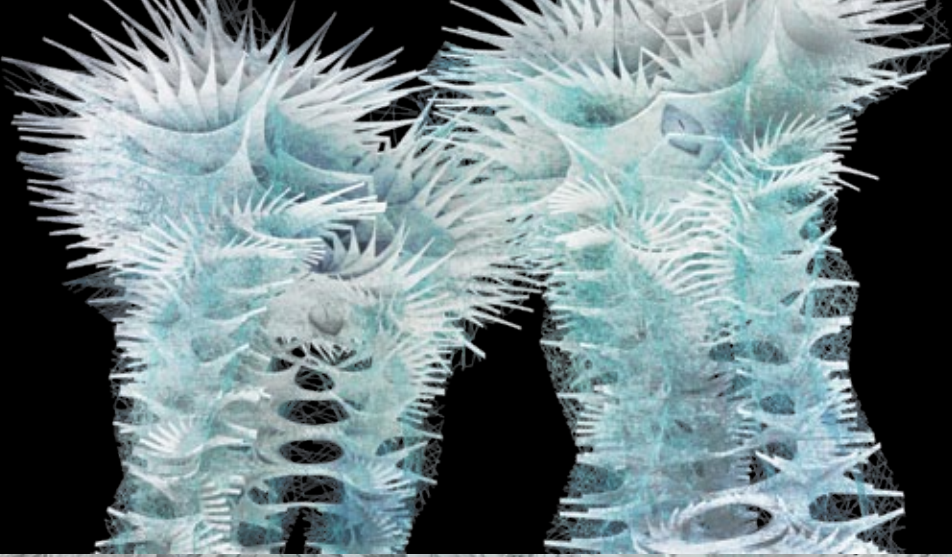
Srdjan
Jovanovic Weiss

STUDENT:

Haiteng Liu

01-04

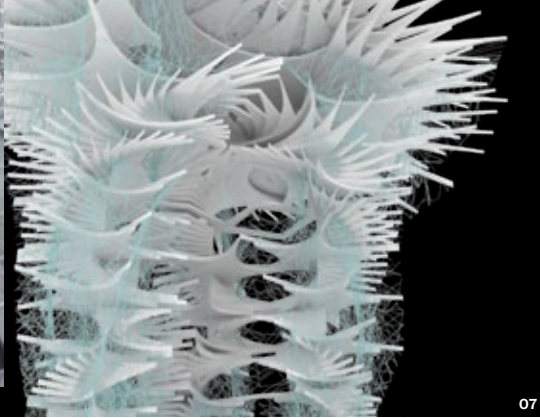
“...the architectural proposition within the conditions explored both by research and strategy...the designs were expected to push the boundary of traditional urban design, aka an architecture in a field, towards a -Continued on next page



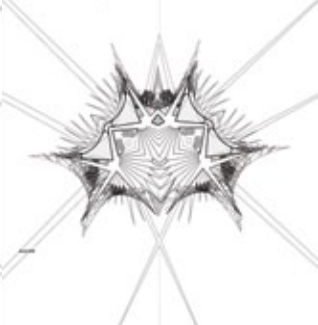
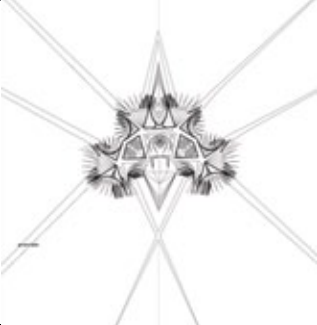
05



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FOUNDATION

Foundation—AFCH 502
Design Studio—Weiss

Srdjan Jovanovic Weiss
Lecturer



- Founder of NAO, NY (1998)
- Received a MARCH II at Harvard University, GSD (1997)
- Earned a March from Belgrade University (1995)



CRITIC:
Srdjan Jovanovic Weiss
STUDENT:
Jesslyn Morgan

05-08

field of amalgamated architecture. The multiplicity of new typologies, eroded or hybrid were pursued and presented as spatial proposals.” —Srdjan Jovanovic Weiss



01



064

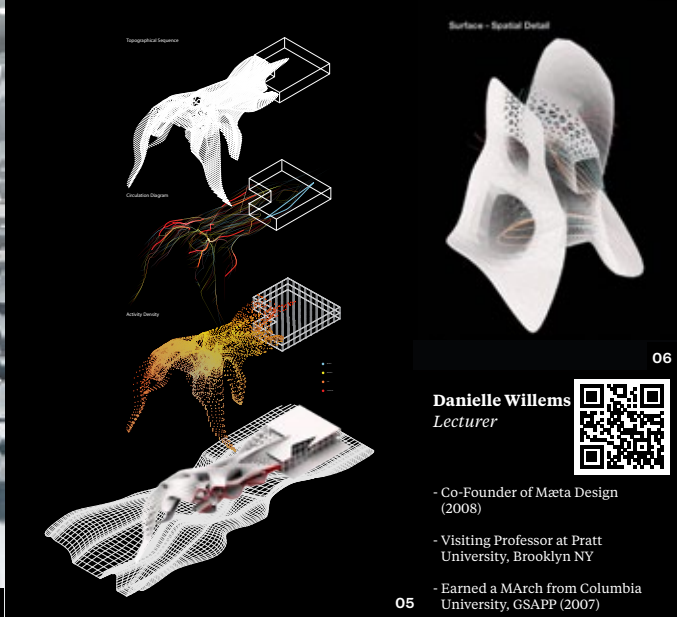
02



03



04



Surface - Spatial Detail

06

Danielle Willems
Lecturer



- Co-Founder of Meta Design (2008)
- Visiting Professor at Pratt University, Brooklyn NY
- Earned a MArch from Columbia University, GSAPP (2007)

05

FOUNDATION

Foundation—ARCH 502
Design Studio—Willems

CRITIC:
Danielle Willems
STUDENT:
Adrian Subagyo

01-06

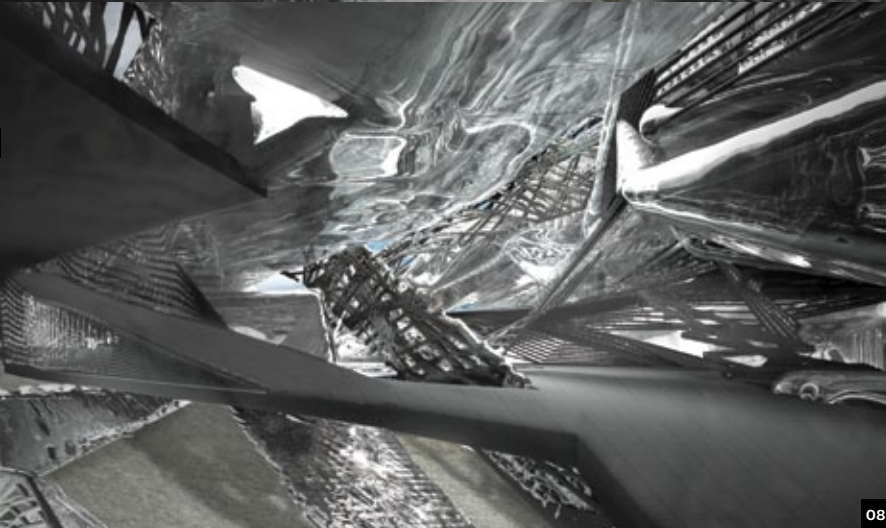
“A surface performs as a base to hold continual programmatic behavior... allowing interaction to happen at specific moments of intensity.” - Adrian Subagyo



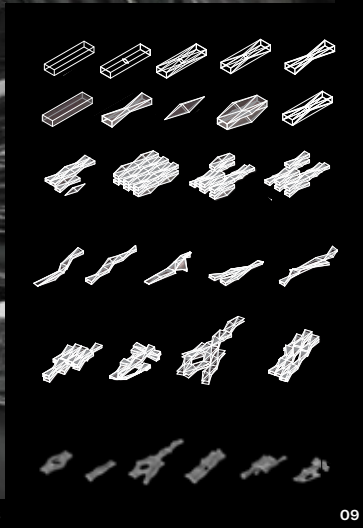


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CRITIC:

Danielle Willems

STUDENT:

Joseph Giampietro

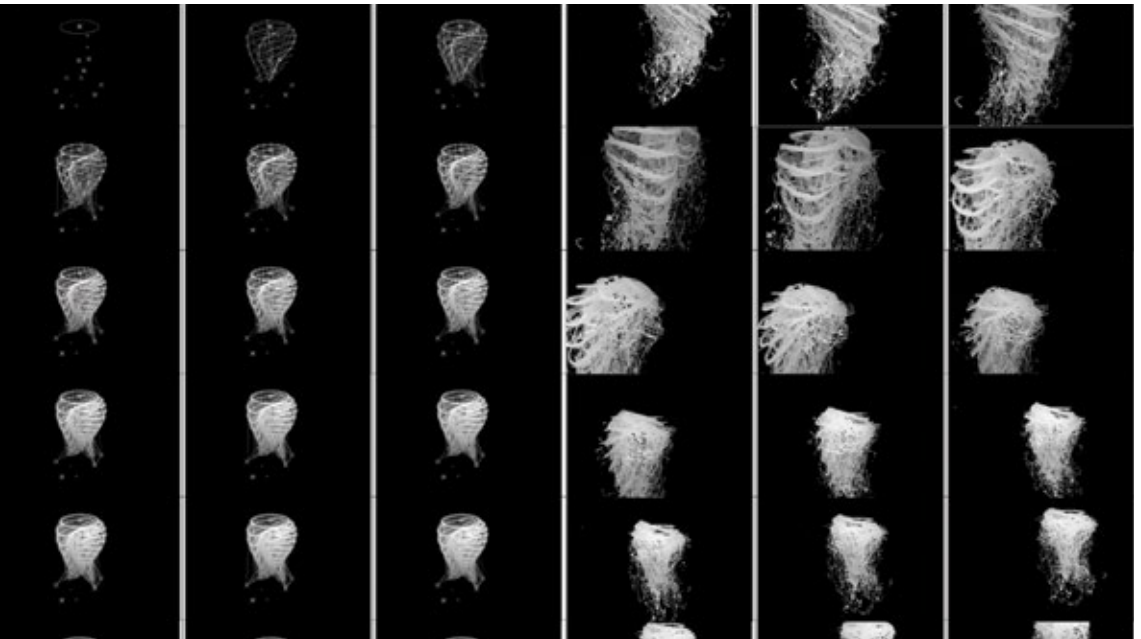
07-10

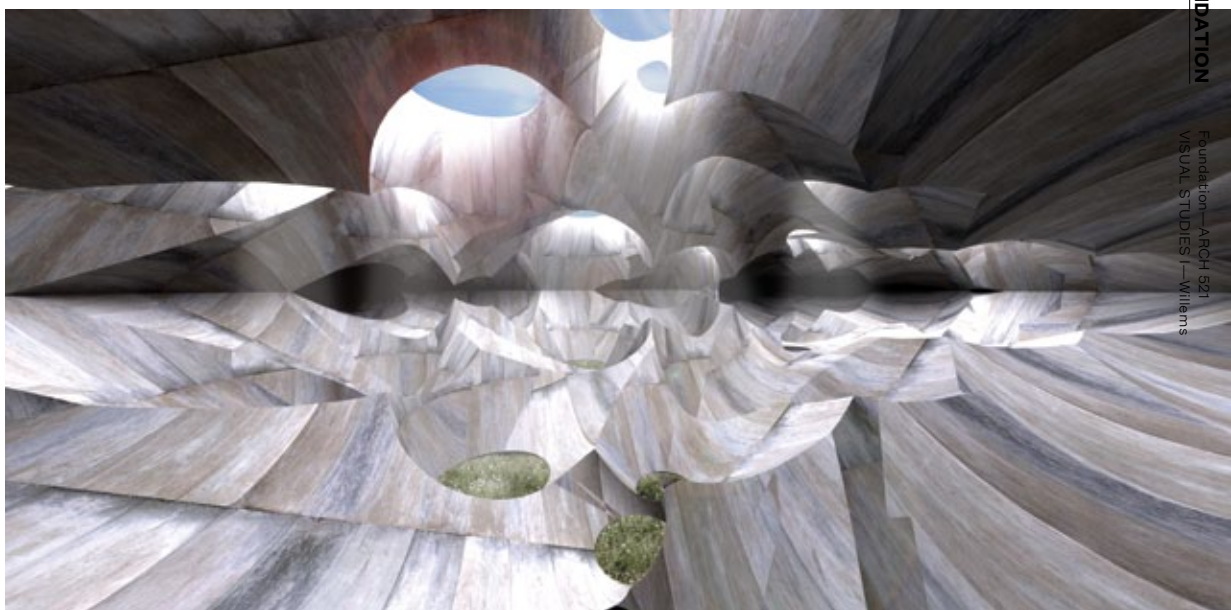
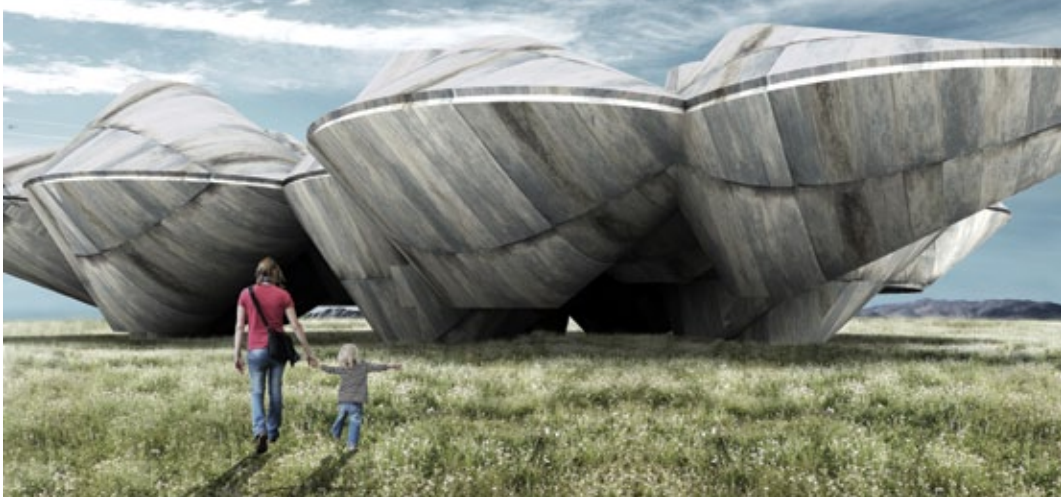
“space blends and blurs spatial territories and serves as a connection from the landscape to program to exterior shell. Programmatic pressures form thickness & density of surface creating a duality of structure...” -Joseph Giampietro

The study of analysis and projection through drawing and computer visualization.

Instructor:
Danielle Willems

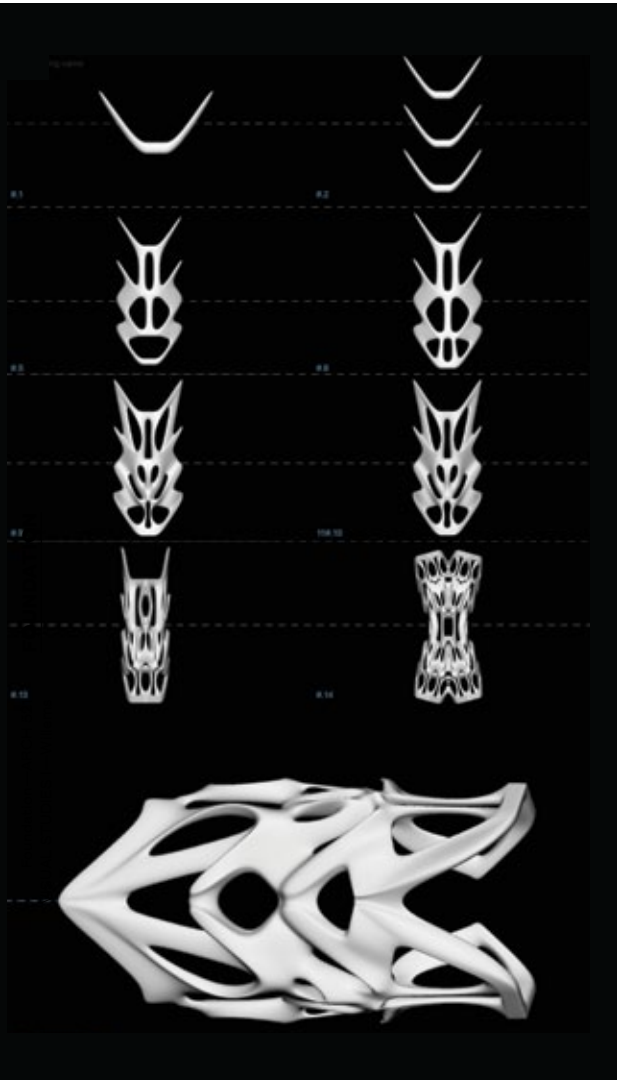
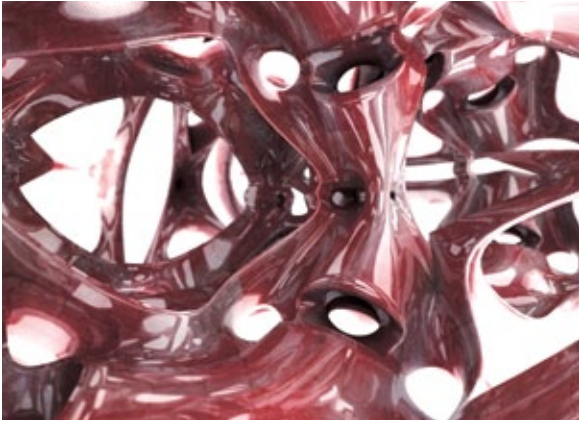
Students Work Displayed:
Yuhang He (left & middle)
Ramon G. Pena
Toledo (right)





522 VISUAL STUDIES II

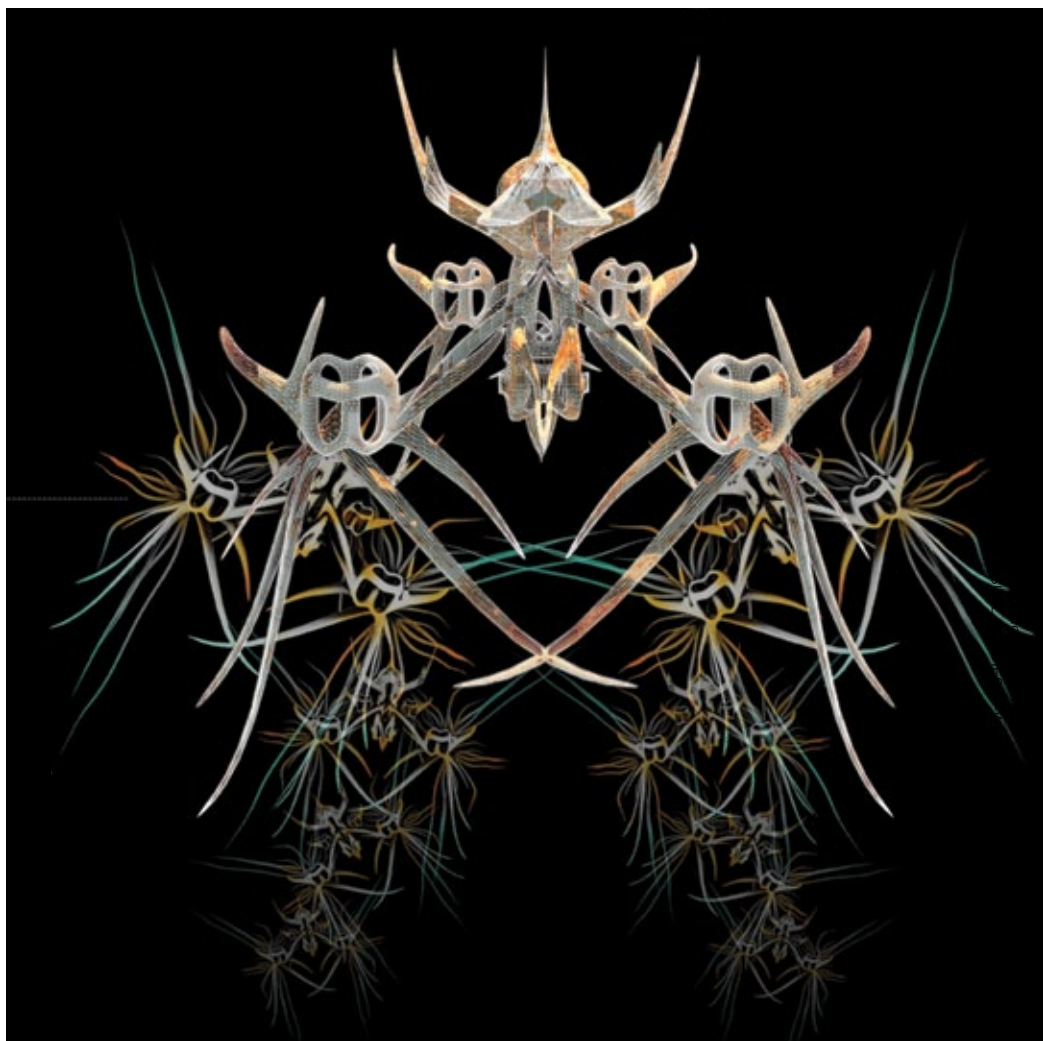
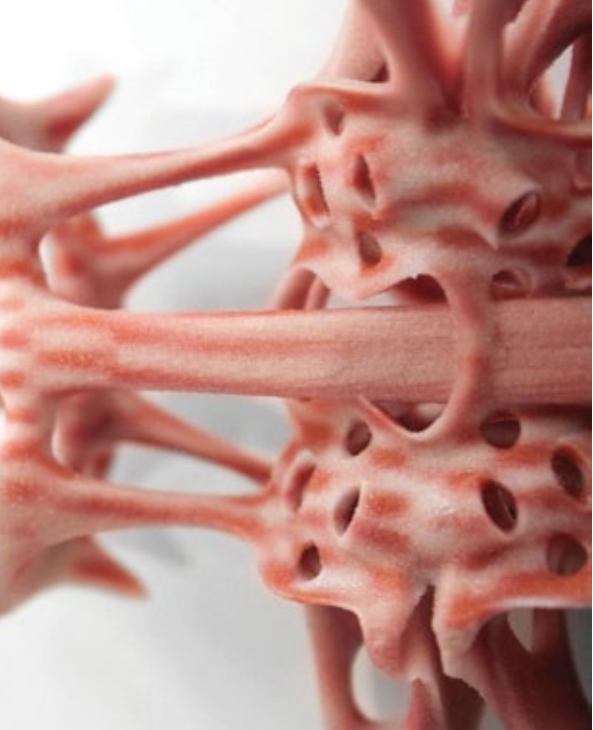
068



Instructor:
Danielle Willems

**Students Work
Displayed:**
Ramon G. Pena
Toledo (top)
Daniel Lau (below)
Basak Huner (right)





The New Normal: Experiments in Contemporary Generative Design

Winka Dubbeldam

Participants

November 14th - 15th, 2013

Philip Beesley
Manuel De Landa
Neil Denari
(Keynote)
Winka Dubbeldam
(Moderator)
Mark Goulthorpe
Lydia Kallipoliti
Simon Kim
Tobias Klein
Ferda Kolatan
(Moderator)
Brandon Kruysman
Michael Loverich
Gaston Nogues
Drura Parrish
Jason Payne
Francois Roche
Jonah Rowen
Coren Sharples
Roland Snooks
(Moderator)
Marilyn Jordan Taylor
Ben van Berkel
(Keynote)

A symposium organized by the Post-Professional Design (PPD) Program in the Department of Architecture at the University of Pennsylvania School of Design

Since its emergence roughly 20 years ago, generative digital design has fundamentally altered the way in which we conceptualize, design, and fabricate architecture. Virtually every aspect of our profession has been radically transformed. These innovations have not been restricted to questions of technology alone and have fueled a lively debate among leading educators, theoreticians, and practitioners in their respective efforts to understand the larger cultural ramifications triggered by this phenomenon.

The symposium starts from the viewpoint that after 20 years of Digital Design, a new platform has now been established [The New Normal], and new forms of practice have emerged. For the New Normal, we gathered some of the most innovative of these new practices, who will participate in one of the three panels and present their speculations on radical and innovative forms of that practice.

"the most
'normal' aspects
of architecture
are always
already strange."

- Jonah Rowen

"In the same way that emoticons charge emails and texts with emotional quality, our work attempts to create an architecture that isn't vapid but creates visceral reactions or emotional turmoil forcing people to grab it, fondle it and giggle."

- Michael Loverich
'Emotional Babies'

"In response to the question "what is the 'new normal?'"...The Pixies, consummate alt-rock band of the 1980's is presented as emblematic purveyor of technical sublimation of the instrument (again, the guitar) toward the continuation of a larger project. Specifically, their use of the "quiet-loud-quiet" formula for hiding, then showing, then hiding again the expression of the guitar is described as analogous to how we might manage the expression of our own tools of production now that they have been normalized. The oscillation between suppression and expression of the digital signature is described in terms of ambivalence, a highly choreographed movement between the two that would challenge easy categorization of a project as digital or not-digital. Such ambivalence and its more general erosion of the false construct of "digital architecture" should be, it is argued, the new normal."

- Jason Payne

*'Whatever, Nevermind
Studies in Ambivalence'*

"It is no coincidence that the longest period of decline in the employment of architects is synchronous with what is called the 'next industrial revolution.' When the market cannot support you, make the market yours."

- Drura Parrish

PennDesign

THE NEW NORMAL
EXPERIMENTS IN CONTEMPORARY GENERATIVE DESIGN

11.14.13 & 11.15.13

Keynotes:
Neil Denari
Ben van Berkel

A symposium organized by the Post-Professional Design (PPD) Program in the Department of Architecture at the University of Pennsylvania School of Design

Since its emergence roughly 20 years ago, generative digital design has fundamentally altered the way in which we conceptualize, design, and fabricate architecture. Virtually every aspect of our profession has been radically transformed. These innovations have not been restricted to questions of technology alone and have fueled a lively debate among leading educators, theoreticians, and practitioners in their respective efforts to understand the larger cultural ramifications triggered by this phenomenon.

The symposium starts from the viewpoint that after 20 years of Digital Design, a new platform has now been established (The New Normal), and new forms of practice have emerged. For The New Normal, we gathered some of the most innovative of these new practices, who will participate in one of the three panels and present their speculations on radical and innovative forms of that practice.

Thursday, November 14
6:00-6:30PM Registration Sign-In
6:30PM Keynote Lecture by Neil Denari (Neil M. Denari Architects, UCLA)
Reception to follow in the Upper Gallery.

Friday, November 15
9:15-10:00AM Breakfast (Upper Gallery) and Registration Sign-In
10:00AM Welcome by Marilyn Jordan Taylor, Dean of the School of Design
Introduction by Witka Dubbelstein, Chair of the Department of Architecture
10:30AM Panel 1: "New Assemblages"
Moderator: Roland Snooks (Kokkugia, PennDesign)
Panelists: Manuel De Landa (PennDesign)
Mark Coulthore (iSD/O Architects, HypoSurface, Zero+, MIT)
Simon Kim (IK Studio, PennDesign)
Brandon Krusman (Krusman-Photo, Bot&Dolly, SCI-Arc)
Francis Roche (New-Territories Architects)

12:30-1:30PM Lunch

1:30PM Panel 2: "New Niche"
Moderator: Ferda Kolatan (a11 architecture + design, PennDesign)
Panelists: Michael Lovrich (Bitstang)
Drura Parrish (Parrish Holdings)
Jason Payne (Hersata, UCLA)
Jonah Rowen (Project, SCI-Arc)

3:30-4:00PM Coffee Break and Sale of *Pressing Matters 2* (Upper Gallery)

4:00PM Panel 3: "The Anorganic"
Moderator: Witka Dubbelstein (Achi Ictonica, PennDesign)
Panelists: Philip Beesley (University of Waterloo)
Lydia Kallipoliti (ANAcycle design - writing, Syracuse University)
Tobias Klein (Studio Tobias Klein)
Gaston Nogues (Gall-Nogues Studio)
Coren Sharples (SHoP Architects)

6:30PM Keynote Lecture by Ben van Berkel (UNStudio)

University of Pennsylvania School of Design
Meyerson Hall, 210 S. 34th Street, Philadelphia, PA 19104



Chair and PPD Director,
Winka Dubbeldam



'New Assemblages' Panel, (l-r):
Roland Snooks (Moderator), Brandon Kruysman, Mark
Goulthorpe, Francois Roche, Simon Kim, and Manuel
De Landa

PennDesign

November 14th - 15th, 2013

'The New Normal:' Keynote Speakers (l-r), Neil Denari of Neil M. Denari Architects (NMDA) and Ben van Berkel of UN Studio



073



'The Anorganic' Panel

Full house for the two-day event.

DIALOGUES



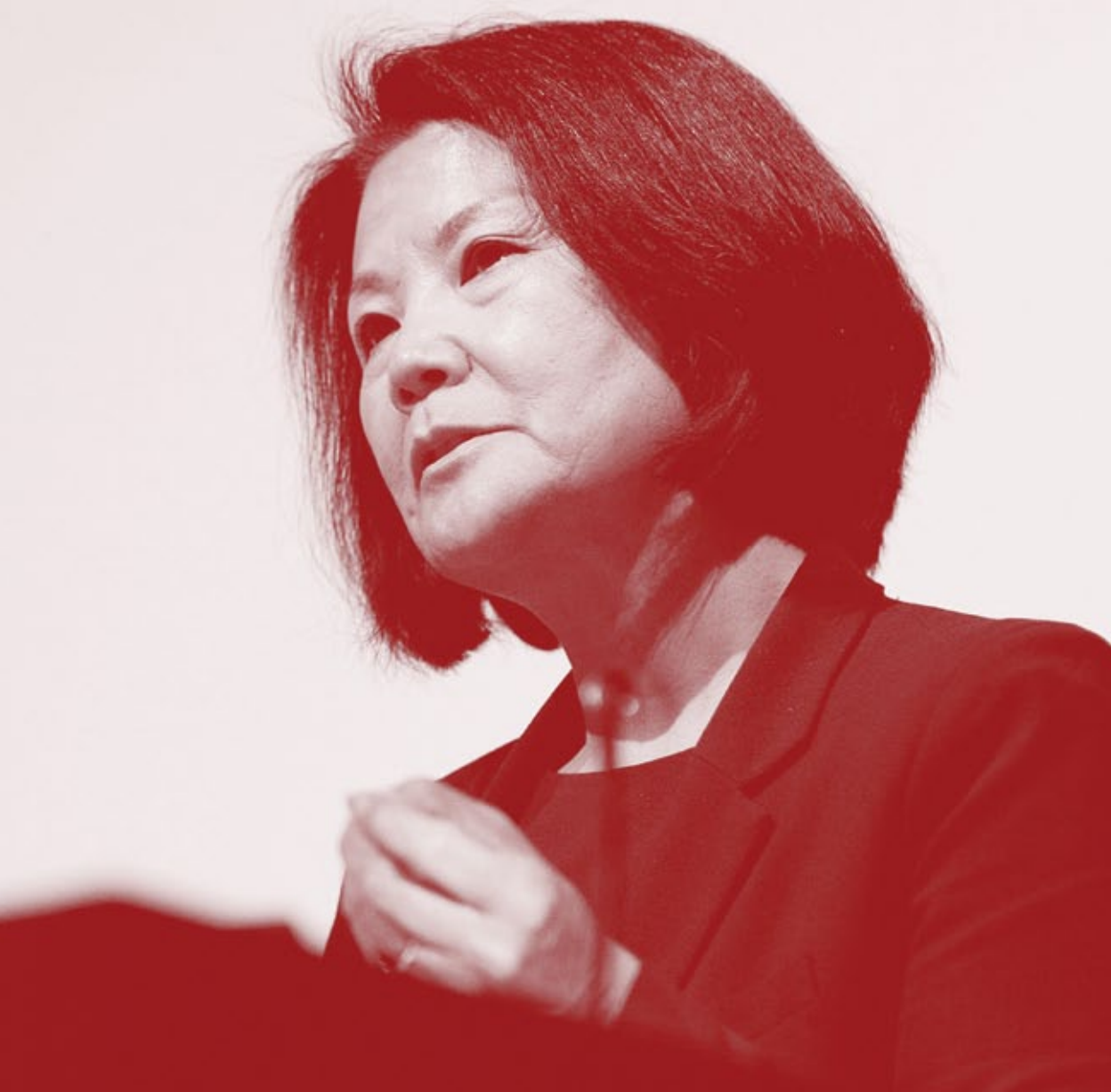
Syracuse Center of Excellence, Syracuse, New York, 2010



Residential House in Columbia County,
New York, 2012

September 16th, 2013

Lecture: Toshiko Mori, principal at Toshiko Mori Architect





Vitra Fire Station, Weil am Rhein, Germany, 1993



Schumacher addressed a packed Meyerson Hall.



PennD

November 20th, 2013

Lecture: Patrik Schumacher, partner at Zaha Hadid Architects



MAXXI: Museum of XXI Century Arts, Rome Italy, 2009



November 25th, 2013

Lecture - Peter Eisenman, FAIA, Principal, Eisenman Architects



Core 08

30

082 MArch **Core 601** Introduction by Hina Jamelle

130 MArch - **Core 602** Introduction by Ferda Kolatan

162 **Visual Studies III** Nathan Hume

CORE

MArch

Architecture

601

Hina Jamelle

Coordinator

In the 2011-12 academic year, we re-structured the ARCH 601 Design Studio to become an Urban Housing Studio that moves beyond the traditional programmatic housing studio approach to propose contemporary modes of living in an urban environment. Hybrid forms of housing/dwelling including a commercial or cultural program that can co-exist with housing is the topic explored during this semester.

Due to the difference in scale between housing and a cultural program, an inherent curricular goal is to develop formal arrangements in accumulation and variation in scale that develop a comprehensive solution for a 50,000 sq. ft. building located in an urban environment.

The use of digital techniques is a given for this semester's projects, but the goal is to use these technologies in an opportunistic fashion for the generation of growth and the evaluation of patterns in the development of form. In particular, each studio examines part -to -whole organizations and their potential for architecture by offering the tools to create effects that exceed the sum of their parts.

Most part -to -whole organizations share common characteristics, including structure: defined by parts and their composition; and the interconnectivity of the various parts that have functional, structural, and spatial relationships with each other. During this semester, a primacy is given to formations that are in variation, accumulative, and subject to changes that may shift in spatial experiences, scale, and materials. In addition, buildings incorporate program, space, structure, and enclosure into a singular formation that incorporates a range of experiences and formal variations of gradated intensities and patterns.

March 601 Faculty

Kutan Ayata

Jonas Coersmeier

Matias Del Campo

Scott Erdy

Hina Jamelle

Benjamin Krone

Brian Phillips

An exceptionally sophisticated part-to-whole relationship is one which goes a step further and resolves the integration of materials, structure, scale, and spatiality to allow for the overall formation to appear suspended, or possessed of a particular lightness. In terms of formal appearance, this lightness includes qualities of fineness and daintiness, determined within the multiple individual elements and parts that constitute the building design. The scale of the part to the whole is attenuated, adjusted with precision and refinement, in order to produce the desired affect. If the scale of the part is too diminutive in relation to the whole, or if the whole is constituted of too many smaller building components, then the occupant of the space may be overwhelmed. When the relation of part [housing unit] to whole [building] is attuned, unique living environments and housing solutions can be achieved.

The form of the building impacts the selected urban environment that ranges from New York City to Vienna in 2011 and from NYC to Miami in 2014. Each instructor provides their own site for exploration within a city of the instructor's choice. Each building's goals contribute to and impact the city in which the building is located. The highly formed object incorporates a detailed façade and its relationship to the massing, plans, and sections, with an understanding of vertical and horizontal pedestrian circulation that maximizes their impact on the urban environment.



Hina Jamelle, 601 Coordinator.



ARCH 601 Studio Descriptions

Shifting Hybrids: Transformations for a New Hotel & Residential Building in TriBeCa, NYC

Hina Jamelle, critic Fall 2013 – page 92 - 95

This studio will examine emergence and its relation to the formulation of architecture by using digital techniques in an opportunistic fashion for the generation of growth and the evaluation of patterns in the development of form. In particular, this studio will examine part-to-whole organizations and their potential for architecture by offering the tools to create effects that exceed the sum of their parts.

Most part-to-whole organizations share common characteristics, including structure, defined by parts and their composition, and interconnectivity of the various parts of a system that have functional, structural, and spatial relationships between one another. In this studio, we will give primacy to formations that are in variation, accumulative and subject to changes that may shift in spatial experiences, scale, and materials. In addition, projects using digital techniques incorporate program, space, structure, and enclosure into a singular formation that incorporates a range of experiences and formal variations of gradated intensities and patterns.

An exceptionally sophisticated part-to-whole relationship is one which goes a step further and resolves the integration of materials, structure, scale, and spatiality to allow for the overall formation to appear suspended or possessed of a particular lightness and elegance. In terms of formal appearance, this lightness includes qualities of fineness and daintiness, determined within the multiple individual elements and

parts that constitute the building design. The scale of the part to the whole will be attenuated, adjusted with precision and refinement, in order to produce the desired effect. If the scale of the part is too diminutive in relation to the whole, or if the whole is constituted of too many smaller pieces, then the occupant of the space may be overwhelmed, and the potential of producing elegance is lost. When the relation of part to whole is attuned, elegant sensations – rather than chaotic ones – may be achieved at the point of transformations.

Site and Project: New Hotel and Residential Building in TriBeCa, NYC: The program for the studio is a new hotel, to be located in TriBeCa in downtown Manhattan. Each student will refine the particular program during the course of the semester. The goal for each student is to deal with a range of familiar architectural issues – how to turn a corner, multi-room configurations, and circulation patterns, for example. The intended result is a project exhibiting innovative architectural organizations using topological surfaces, unit arrangements, and patterns scaling from an individual room to the entire building, with different spatial and material qualities contributing to the development of architecture.

Space Pocketing/ Concepts for Contemporary Poché

Kutan Ayata, critic Fall 2013 – page 096 - 099

Poché is often understood as the uncritical, unimportant "stuff" left beyond by two seemingly different conditions conceived with independent concerns and constraints, worthy only of pitch black. While it originated as a technique of representation for a domain architects didn't necessarily care

about, it reveals information critical to a buildings conception, i.e. structural mass, form/geometry, surface articulation, all hidden practices of technical systems and certainly its aesthetics. Strains of *poché* has been explored in recent architectural history, almost all with the similar logic of "the zone in between two determined conditions" or "the zone between objects".

What if we take a slightly different approach in determining the nature of these zones, one that does not originate in separation or residue but in potentials of transmission, exchange and permeability, one that develops specificity in its own body, one that develops its own mass through pocketing objects and rooms, one that transmits its own aesthetics, one that negotiates public and private, inside and outside, one that seeks to be a wholesome organism...

What if *poché* becomes its own object?

What is at stake is the reconsideration of the architectural object which begins to develop its character through the collision of organizational (interior) and formal (exterior) concerns. How do we push the logic of housing units and the aesthetics of the envelope towards an irreducible whole?

LoLux : Low Income/ High Luxury Urban Housing

Jonas Coersmeier, critic Fall 2013 (TA: Megan Cheung)

page 100 - 103

An Excursion Into Symmetry, Proportion, & Direction: The design studio LoLux simultaneously focuses on the two primary growth markets of New York City's real estate: Ultra-luxury condominiums and Subsidized housing. We study these two extreme segments in context, probe into their interaction and systematically work out

areas of synergy in order to add value for all stake holders and to the community at large. We find great value in bringing together these two housing domains, far greater than what is currently reflected in the industry's practice.

The city commonly provides incentives such as tax breaks and air rights for developers to include affordable housing units in condominium developments. However, the incentive-driven combination of these two drastically different housing types has led to socially questionable results, as exemplified by an Upper West Side luxury tower currently under construction [at 40 Riverside Boulevard.] Here, two separate entrances are planned, one for the affluent residents of the waterfront condos and one located in a back alley for the low-income tenants.

Since 2008 the median family income has fallen by 8 percent. Manhattan experiences a superluxury condominium boom along with rocketing foreclosures in Queens and elsewhere. In the wake of the 2008 financial crisis the gap between rich and poor in New York City has expanded.

Examples like the Upper West Side condominium point at an age-old form of segregation, spatialized through architectural means, and they do not reflect the genuine desire of all New Yorkers for a healthy housing culture and a heterogeneous society.

Instead, this form of segregation and its respective discussion clearly denies that spatial organization can never be innocent or, more to the point, that architecture is always and already a socio-political engagement, one that holds the potential to improve human coexistence.

We take a pragmatic, opportunistic, as well as socially conscious position within the debate, in order to acknowledge desires and

requirements of the affluent, and the cultural and economic diversity of the vibrant city at the same time.

The issue of the entrance and the desire for an individualized lobby may also hold significant architectural potential - the lobby as the address, the satellite identity of each apartment. Right across from the High Line, and neighboring to our site (520 W 28th Street,) Zaha Hadid is currently realizing her first commission in New York City: a 11-story condominium building featuring private vestibules and entrances for some of the residences. Here the idea of the entrance lobby as an individualized encore to a luxury dwelling is celebrated. The notion of an individualized, customized, and very unique experience of entering the building holds great value amongst hyper high-end luxury condominium clients. The studio's aim is to determine what the lobby represents, and what the programmatic pieces are that overlap it with the city on one hand, and with the private quarters on the other.

Architecture has always been the provision of the agora, of space for communication, interaction, of casual, formal, coincidental and necessary mingling and meeting, and we want to take this radical example of mixing low income and hyper luxury apartments to elevate and speculate on how these attributes can be expressed in this specific location and program. The new housing tower will not only provide breathtaking views onto the city and the nearby Hudson River, it will not only provide amenities and spatial experiences that are unique, but it will also enable interactions, reactions, and promote truly exciting encounters because of its mixed use.

We want to take this opportunity quite seriously and cultivate a new kind of urban

encounter that does not promote segregation, but celebrates and extrapolates on the urban experience so well exemplified in the city of New York. It will build the substrate to explore new housing models that reflect the culturally diverse neighborhoods of the city.

Vienna Colonies

Matias del Campo, critic Fall 2013 – page 104 -107

Explorations into the nature of biological colonies as a design technique for housing.

Preface: The city of Vienna is about to cross the 2 Million inhabitants mark, in this respect the city municipalities are looking for strategies to provide sufficient housing for future inhabitants, without expanding the city limits. Vienna has seized the pole position at the Mercer survey for the city with the highest standard of living in the world, four times in a row, and is very keen to keep the high standards up. To meet this challenge the city hall has formed a task group consisting of urban planners, architects, designer, artists and thinkers to speculate about the possibilities to densify Vienna, without losing the specific character. Roofs-capes form part of the strategy, as do infills and the replacement of postwar structures to provide higher living standards. In this environment, the studio explores a design technique that borrows the biological behavior of colonies to speculate upon qualities such as repetition and difference, density and component as well as the sensibility and affect of high density populations.

The critical frame within this context of design is defined by architectural lineages present on the Stephansplatz and their obsessions for continuous line (the Gothic

St. Stephan cathedral, Meister Pilgram and Nikolaus Gerhaerd van Leyden) as well as rustications and wall incrustations (The Baroque Bishop Palace, Giovanni Coppacini)

Populations in this extent form the basic building blocks of a bottom up approach which defines various scales of the building: from detail to compartment, from apartment to the agglomeration defining the entire building. This procedure allows for Variation within the apartment sizes whilst maintaining specificity and consistency in the design morphology.

The project is comprised of an apartment building with a minimum of two different apartment sizes in combination with a Kaffehaus with alternating day and night program. By day primarily the groundlevel is utilized as a traditional Vienna Kaffehaus.

In correspondence with the global studio approach of biological colonies the issue of the scale and enclosure is specifically scrutinized with the scale of the main rooms of the Kaffehaus. Two alternating approaches are explored: The scale of individual members as agent for the definition of larger spaces, or the forming of enclosures by amassing populations of small scale components.

Transition Park

Scott Erdy, critic Fall 2013 – page 108 - 111

Form, embodied with purpose, ultimately results in universal legibility. Objects of purpose: a hand tool, milling machine, or Formula One car, are each a clear expression of reason. This direct connection between form and purpose invariably insulates the object from discussions of style as a measurement of value: subjectivity is replaced by objectivity. We will define this as causal-

ity and apply this concept to architecture, allowing the building to communicate its constraints, program and affinities with site, culture and the environment.

This semester we will look to the utilitarian requirements of architecture (structure, enclosure and conveyance systems) to express program and articulate site specific conditions. We will utilize constraint mapping, three-dimensional programmatic diagramming and building systems modeling as primary design tools.

The pedagogical objective of this studio is to develop problem-solving skills that are directly applicable to architectural practice. These skills will be based on a heightened awareness and attention to site, program, building systems and sustainable technologies. This course will heighten the student's awareness of a solutions-based approach to design, where the resultant architectural form is the legible expression of its purpose.

Introduction: The lingering effects of the recession have pushed more and more Americans into precarious financial situations. While recent years have been economically challenging for many Americans, the most vulnerable populations have been hit the hardest. According to the Homelessness Research Institute (HRI) at the National Alliance to end Homelessness, the average income for working poor people decreased more than 2 percent in the last year. Nearly 6 million poor households are severely housing cost burdened, meaning about 3 out of every 4 poor households pay more than 50 percent of income on rent. The number of people in poverty has increased to a record 46.2 million and the poverty rate of 15.1 percent is the highest on record since 1983.

Program: This semester the studio will look at homelessness as a programmatic catalyst

for our studies in causality. This studio will confront the social, economic and political underpinnings of homelessness by researching a transitional housing model purposed away from the temporary sheltering of the homeless towards a stable, permanent and sustainable solution that is coupled with supportive services for the homeless. In order to do this we will work to understand the causes of homelessness by directly engaging with the homeless through community service interactions. By better understanding the lives and needs of our clients, we can produce architecture that is both beautiful and useful.

The primary studio project will be the design of a fictitious transitional homeless shelter in Philadelphia that parallels the work of My Brother's Keeper in Camden. It will include both enclosed and open-air program elements that will unify the building with its surrounding context. Also included will be supportive programs including well-care, job training and a legal help center that will assist the homeless transition toward a self-sufficient existence. More importantly, it will work to narrow both the physical and economic chasm between the haves and the have-nots through the development of a mixed-use facility that will house both the affluent and the destitute. The interrelationship between these two groups will be the crux of your thesis.

The transitional housing will consist of multiple unit types, based on single, family and elderly inhabitants. Each student will develop an architectural thesis that will guide the interrelationship between site, unit and specialized program.

Methodology: The studio will commence with a short warm-up exercise to design, construct and deploy temporary benches in an afflu-

ent part of Philadelphia that will promote interaction between varied social groups. You will document this interaction and report on your findings. These observations will be used as the basis of design for a new park that we will build at the future site of My Brother's Keeper's new facility in Camden. This park will be a placeholder for their future facility and will act as an agent for change in the neighborhood and a symbol of hope for its future. Your temporary benches for the affluent will be dispatched to Camden, where they will be used to cast permanent seating for the park.

In addition to members of our studio, work in Camden will be done by a contingent of volunteers that will include students and faculty from St. Josephs Preparatory School as well as resident members of My Brother's Keeper. This cooperative interaction with men from My Brother's Keeper will give you valuable first-hand knowledge of people for whom you will be designing your semester-long project.

Upon completing this course each student will be able to construct, present, and defend advanced comprehensive architectural proposals that integrate form and space defined by systems of structure, enclosure, circulation and environmental systems. These systems will be organized by hierarchical patterns, articulated by the qualities of shape, color and texture, and determined by the principles of scale, and theories of proportion, aesthetics and compositional arrangement.

Reticulated Form: Housing Studio

Ben Krone, critic Fall 2013 – page 112 - 115

This research and design studio focused on parametric explorations on reticulation: division, marking, and assembly, with the intention of forming programmatic and structural networks. The students sought creative architectural solutions based on material properties, formal geometry, and the spatial implications of a twenty-first-century housing program.

Reticulated surfaces, like the patterned skin of a giraffe or a python, have non-repeating patterns comprised of lines and surfaces that generate networks that arise spontaneously but inevitably from the program of genetics. Using this process of form-making as inspiration, the students' work with reticulation aimed to systematically engage building, landscape, and program as self-generating and multi-dimensional connective systems.

This studio was Rhino-based. No previous experience with the software was necessary, as the students dedicated the first four weeks of the semester to intensive tutorials in Rhino and its parametric plug-in, Grasshopper.

Jersey Shore: Living Well With Climate Change

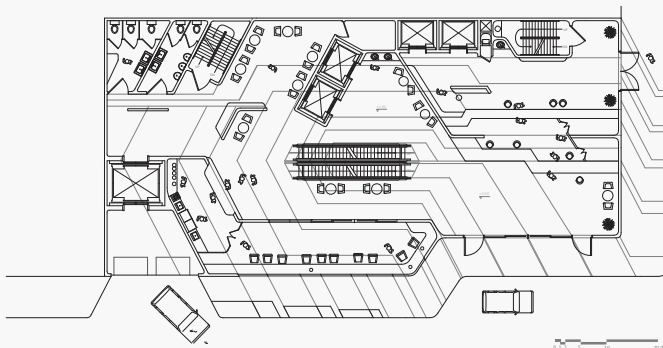
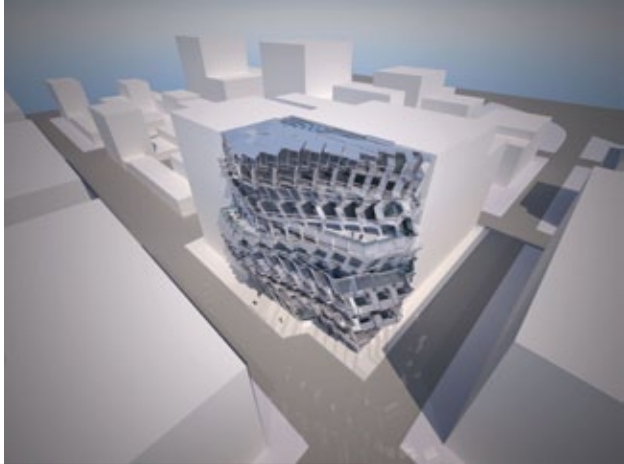
Brian Phillips, critic Fall 2013 (TA: Josh Jordan)

page 116 - 119

The term “resilience” has come to describe the complex response to contemporary environmental threats and their spin-off effects across social, political and economic concerns. While this studio used climate change and the possibility of more Sandy-like storms as a point of departure – our interests moved well beyond the purely

environmental side of the equation, engaging issues of urban regeneration and the post-recession challenges of city building. The studio precariously positioned the architectural project within a set of complex, sometimes contradictory, forces that required the architectural proposals to engage with the unfolding, and very current, cross-disciplinary dialogue around urbanism, climate change, and buildings.

The projects were required to develop unique and innovative strategies for “resilience” across two major channels. First, the waterfront location of the site required an understanding of how to build in a zone that will be susceptible to extreme weather conditions. Second, the projects explored urban housing for more permanent residents – proposing a model for residential development that is not casino driven, but advanced by the emerging urban amenities and natural beauty that is latent in Atlantic City.



Hina Jamelle
Lecturer

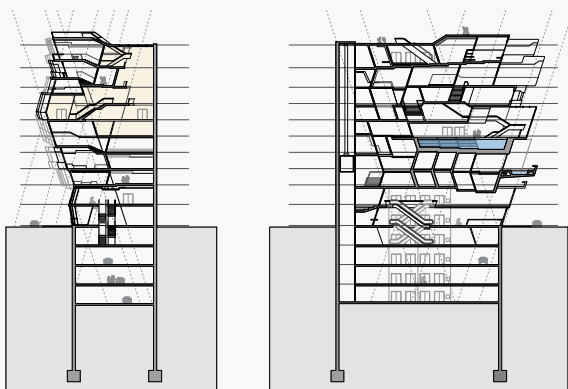
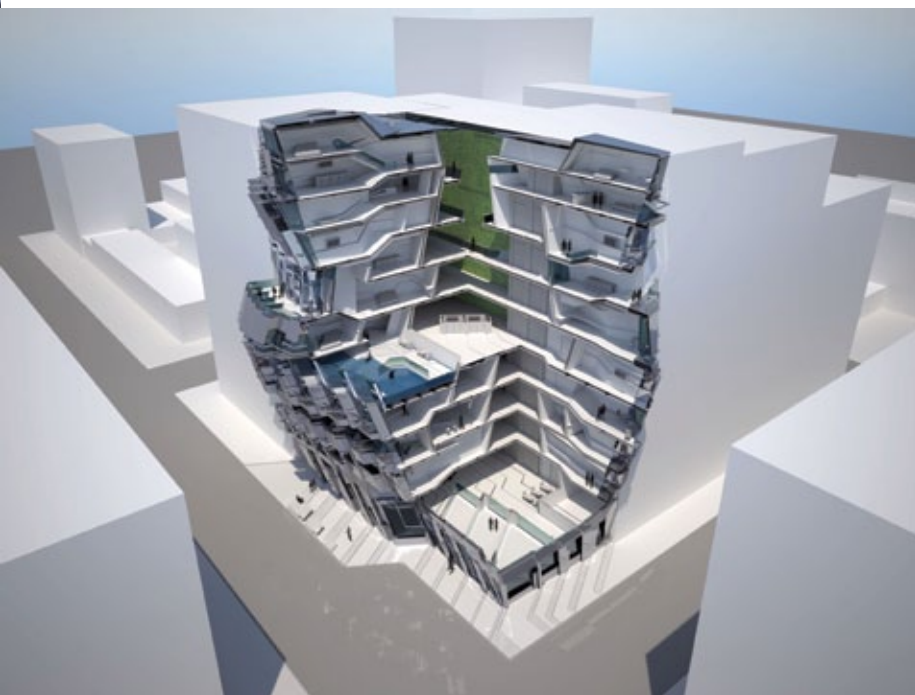


- Architect and Director at
Contemporary Architecture
Practice, NY (2003)

- Graduated with an MArch from
University of Michigan Taubman
College, where she received the
Dr. Martin Luther King, Jr.,
Leadership Award.

- Author of the upcoming book
*Migrating Architectural and
Structural Formations* (2013) and
co-author of *Elegance* (2007)





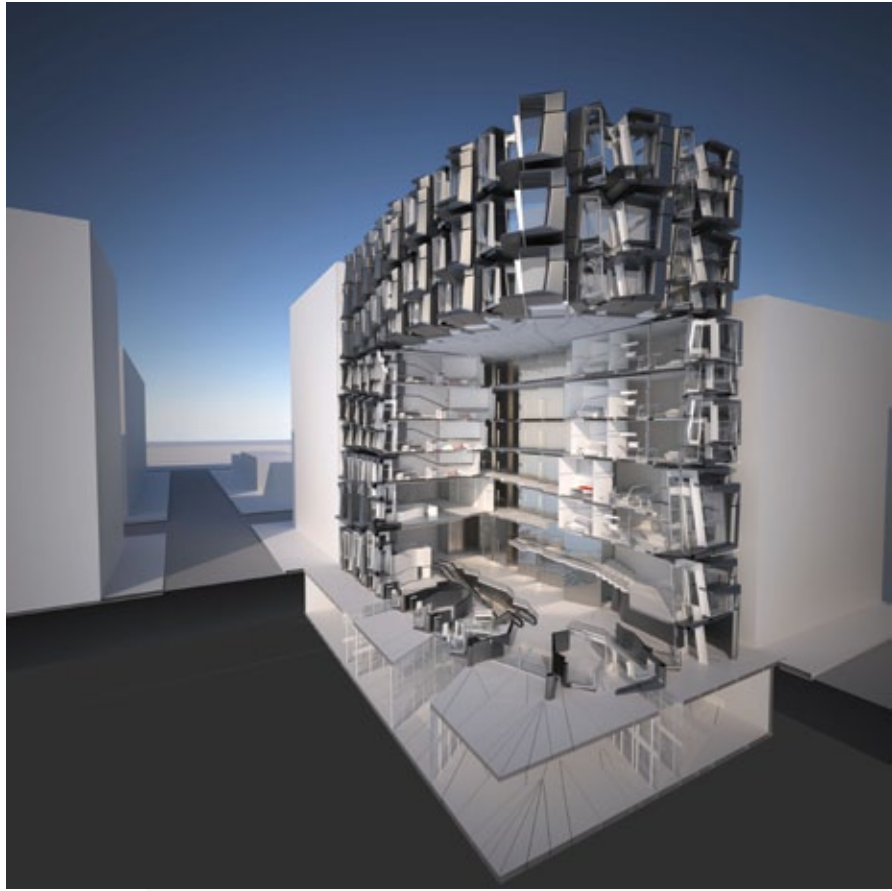
CRITIC:

Hina Jamelle

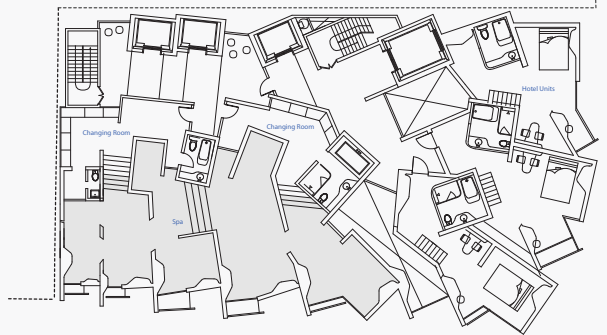
STUDENT:

Brett Dong Ha Lee

“...a continuously grafting & shifting system, which delves into how systemic thinking is transferred into generative rules for lighting, furnishing, facade treatment, circulatory & programmatic organizations...” - Brett Dong Ha Lee



3rd Floor Plan



CRITIC:

Hina Jamelle

STUDENT:

Bumjin Park

“...units become multidirectional space which provide dweller with a higher openness and a following flexibility. This fragmentation system is the way of naturally corresponding to the existing urban context.” - Bumjin Park





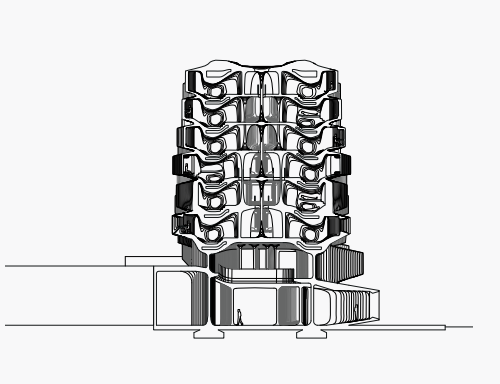
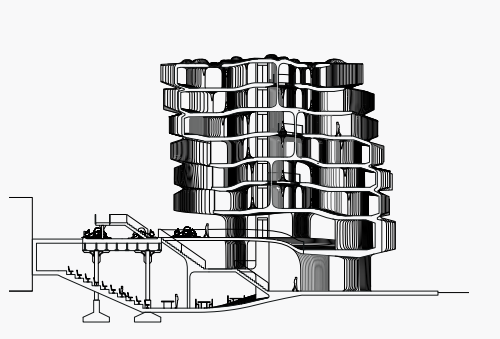
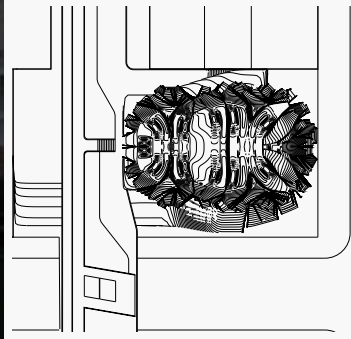
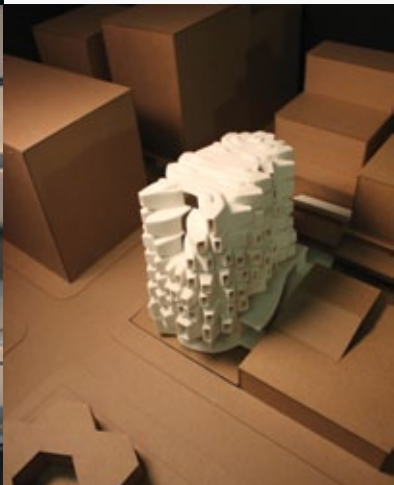
CRITIC:

Kutan Ayata

STUDENT:

Harry Lam

“...the contrast between privacy and transparency is emphasized. Global symmetries and local dissymmetries are played out to orient views and privacy to and from the high line and the main road.” —Harry Lam

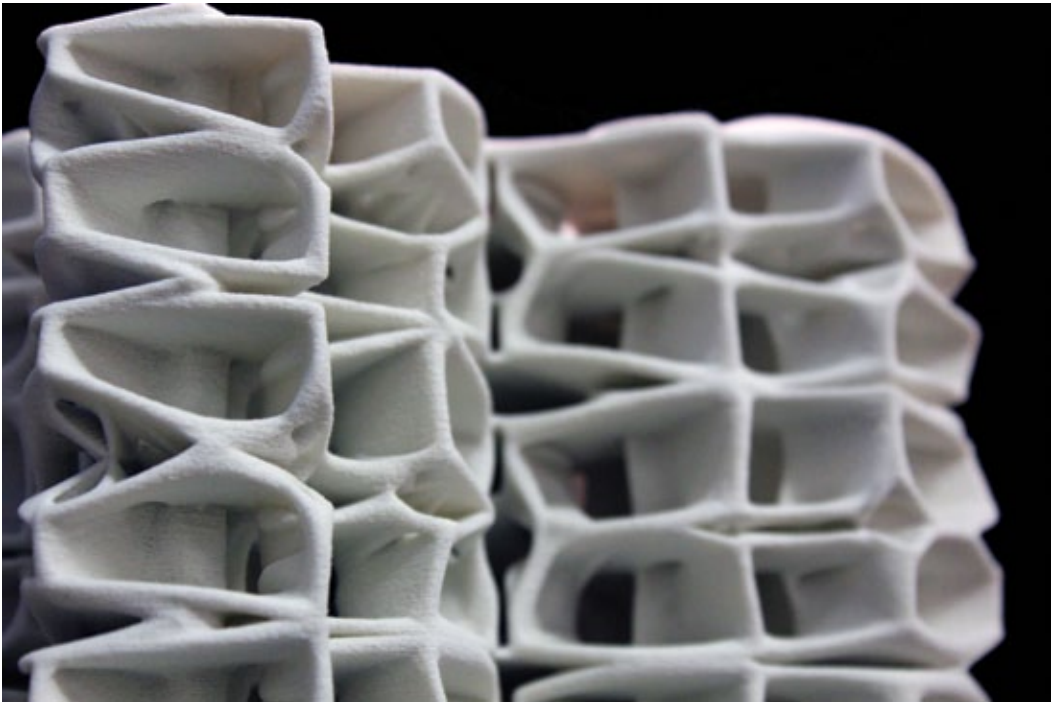


Kutan Ayata
Lecturer



- Co-founded New York-based architecture firm, Young & Ayata (2008)
- Young & Ayata are winners of The Architectural League Prize (2014)
- Received a MArch from Princeton University (2004)
- Bachelor of Fine Arts in Architecture from Massachusetts College of Art in Boston (1999)





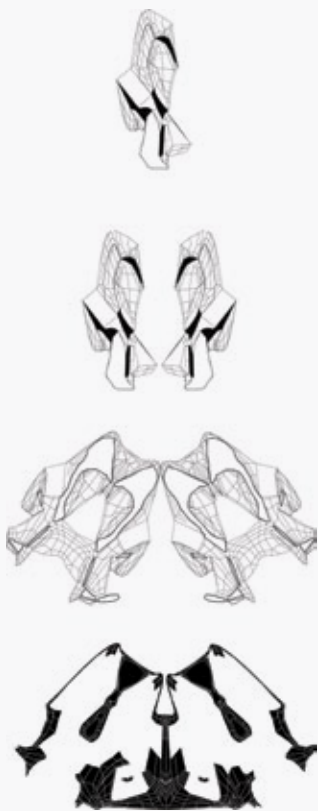
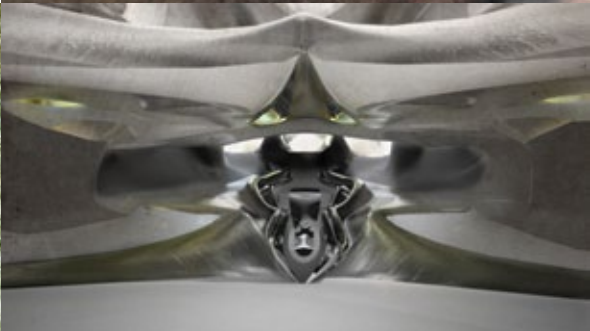
CRITIC:

Kutan Ayata

STUDENT:

Walaid Sehwal

“Relationships between room to room, and room to façade creates a set DNA for the rest of the project’s formal and spatial qualities to drive program, aesthetic, and conditions of environmental controls...” -Walaid Sehwal





**Jonas
Coersmeier**
Lecturer



- Founded Büro NY, NY (2004)
- Received a Master's degree from Columbia University GSAPP (2000)
- Received an engineering degree from TU-Darmstadt (1998) & MIT Architecture (1996)
- Teaches studios & research seminars at Pratt & serves as guest critic at Princeton and Columbia GSAPP





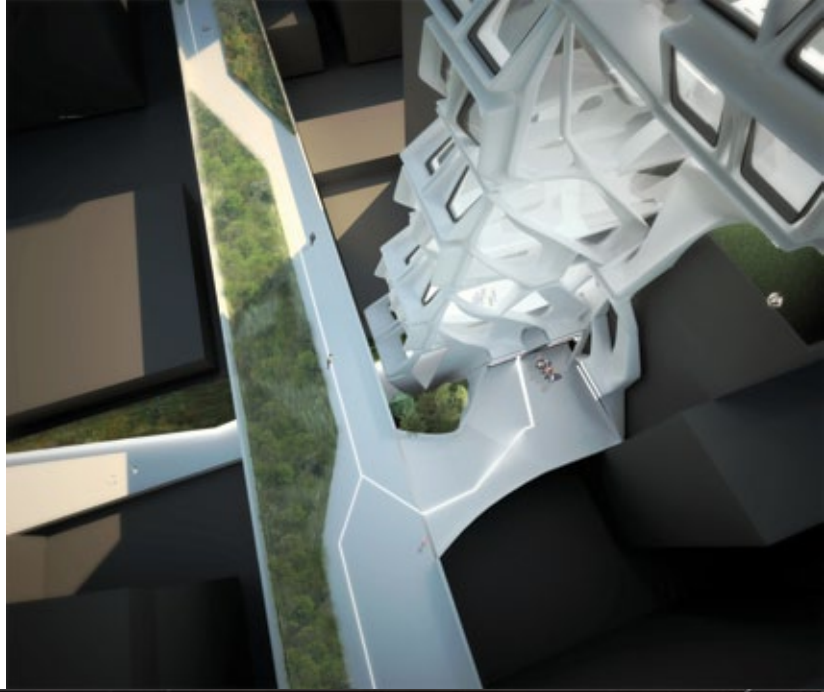
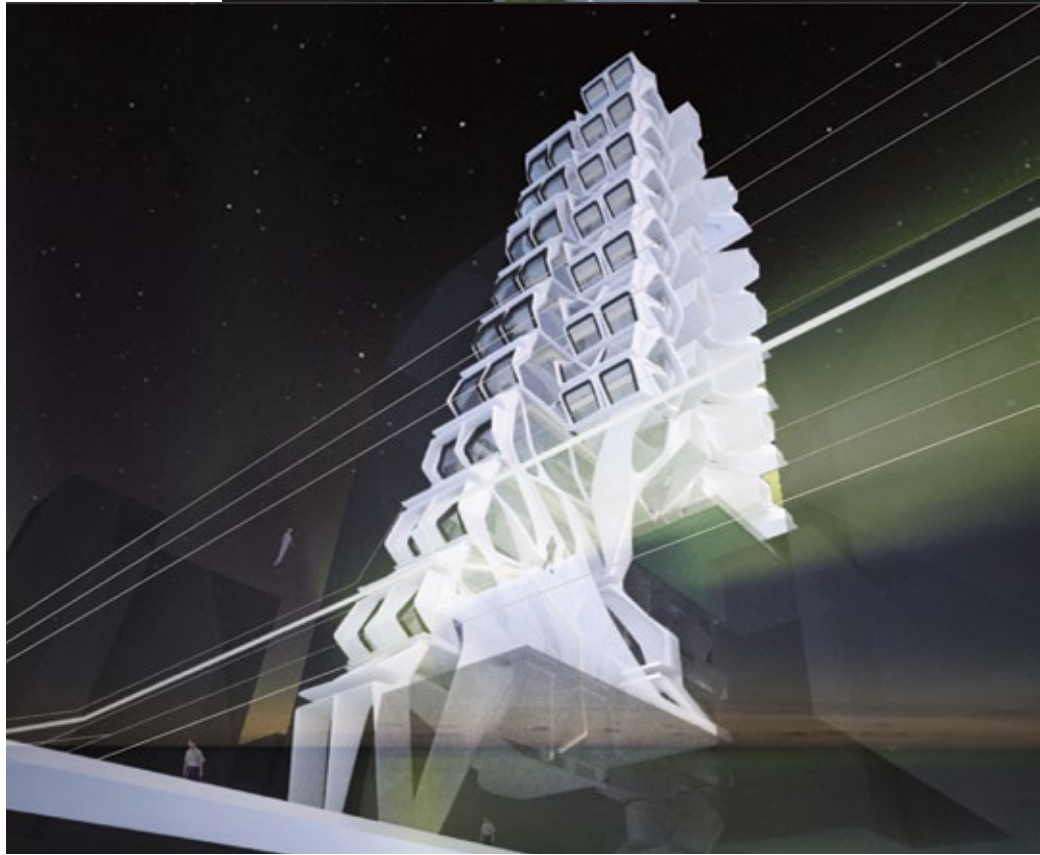
CRITIC:

**Jonas
Coersmeier**

STUDENT:

Brian Tseng

“The surface and space integrations brings possible combination for ultra-luxury and low-income condominiums. These extremes push the boundaries of traditional adjacencies; allowing for emergent interactions.” - Brian Tseng





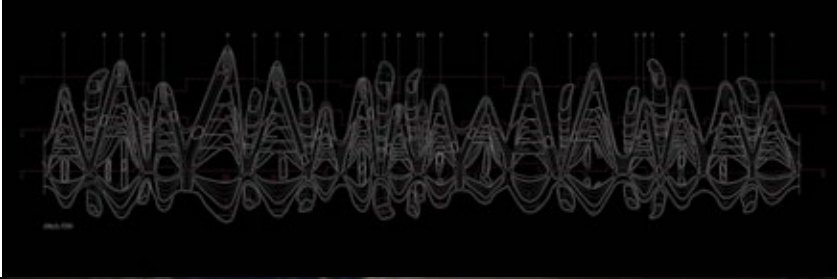
CRITIC:

**Jonas
Coersmeier**

STUDENT:

Yong Jae Kim

“Circulations are designed to encourage residents to socialize. Luxurious condo owners have access to low income housings through shared space...Indoor/outdoor gardens are where people communicate...” -Yong Jae Kim



CRITIC:

Matias Del Campo

STUDENT:

Dana Stokes

“By studying the colonization habits utilized by barnacles, this structure attempts to achieve a unity within a colonizing system while placing the focus on the individuality of the parts that make up the whole.” —Dana Stokes



Matias Del Campo
Lecturer

- Co-founded Vienna-based architecture firm, SPAN (2003)
- Guest professor at the Dessau Institute of Architecture in Germany and the ESARQ, Universitat Internacional de Catalunya in Spain
- Architect of the Austrian Pavilion for the Shanghai Expo 2010



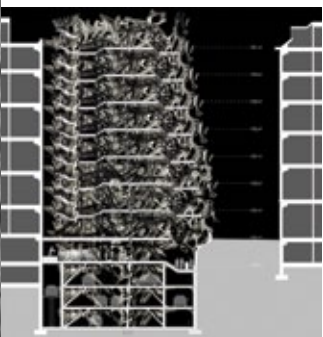
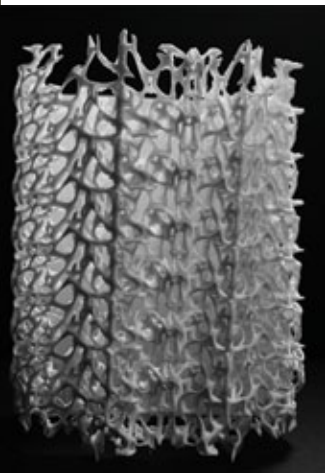
CRITIC:

Matias Del Campo

STUDENT:

Michael Royer

“...twisting as it rises from the site questions the dogmatic approach to the ground & transforms into a loose & asymmetrical condition in the sky...interperating the difference between Baroque & Rococo...” -Michael Royer





Scott Erdy
Lecturer



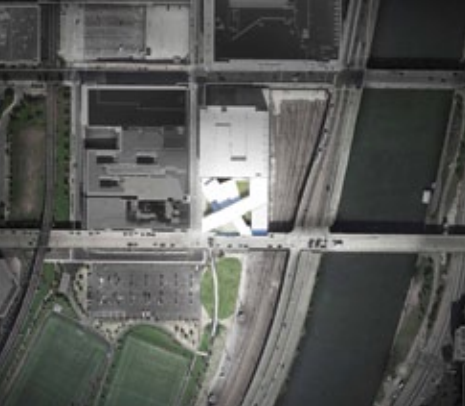
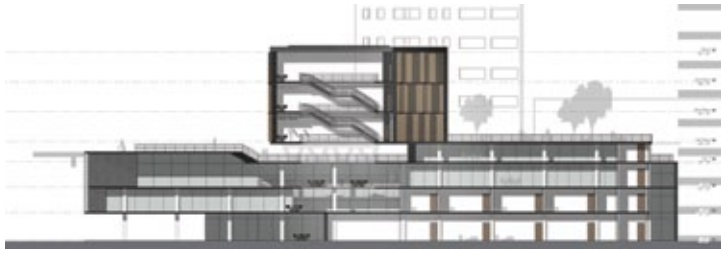
- Founding partner of Erdy
McHenry Architecture, PA (1998)

- Received MArch, Syracuse
University (1990)

- Received BSc Architecture, Ohio
State University (1987)

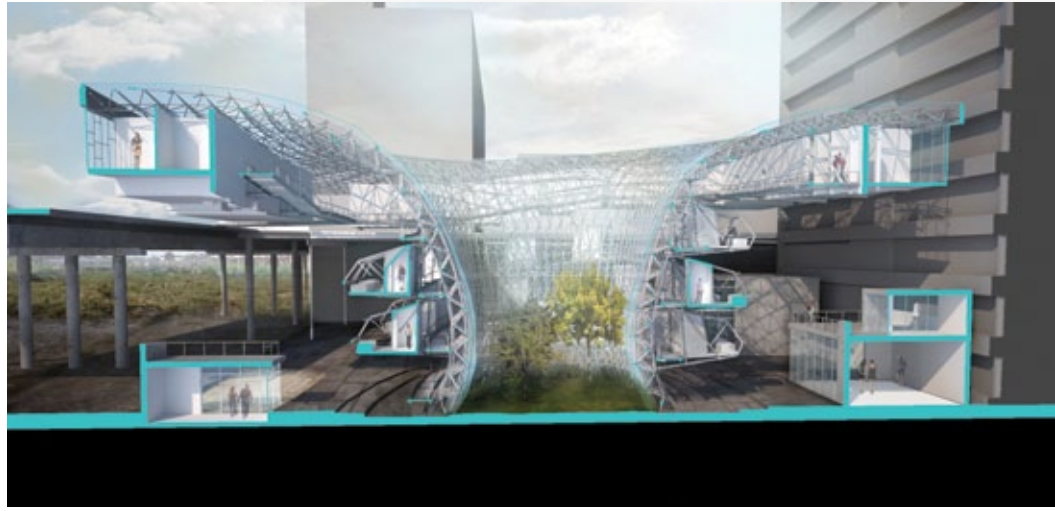
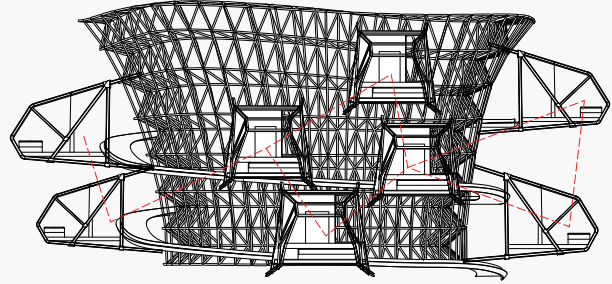
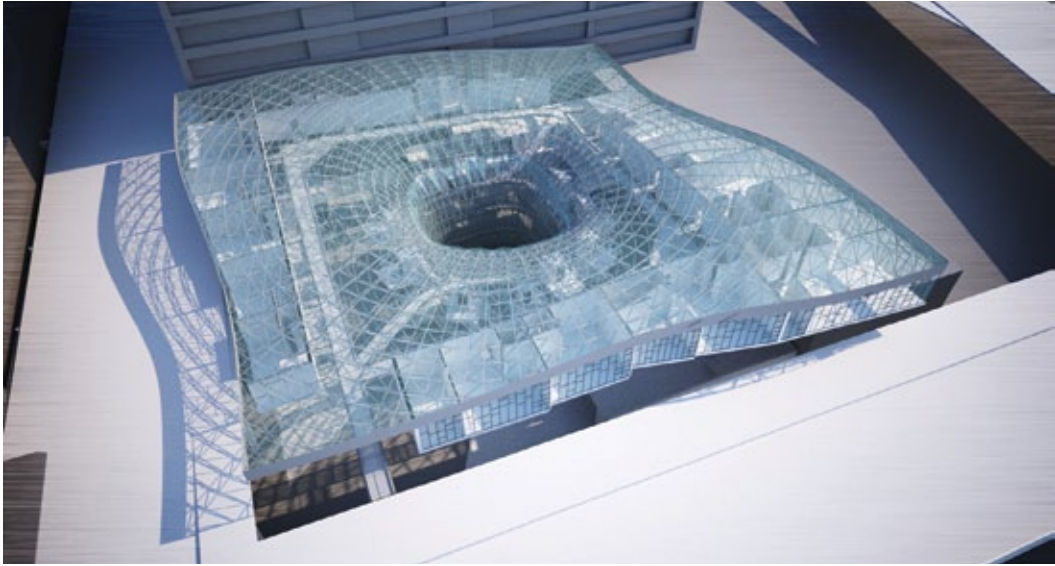
- Received the AIA Philadelphia
Gold Medal (2001) and the AIA
Philadelphia Silver Medal (2004)

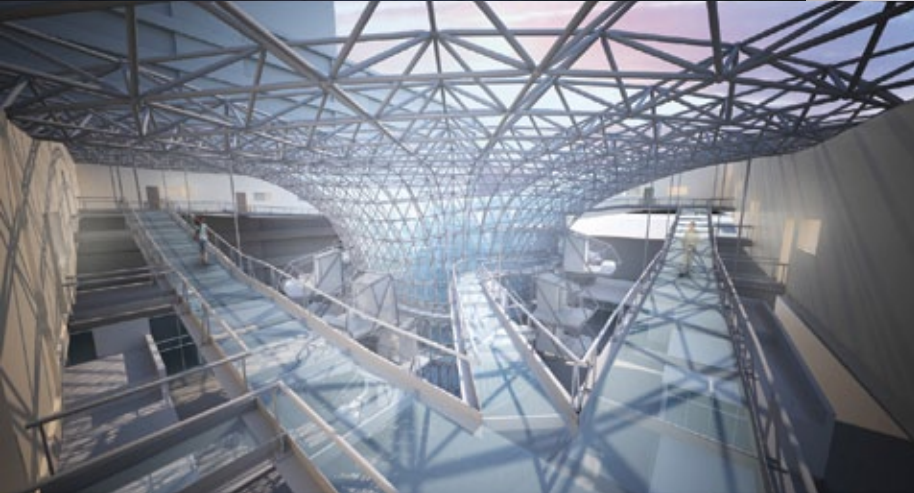
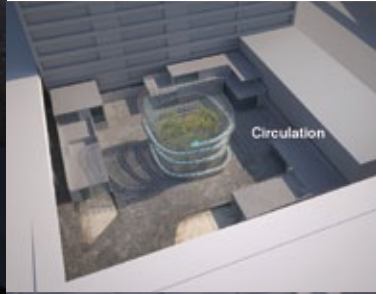




CRITIC:
Scott Erdy
STUDENT:
Anyi Song

“...two masses stacked on top of one another; each with their own unique characteristics & spatial conditioning. The lower level engages with the surrounding landscape. The higher level offers the extensive views...” -Anyi Song





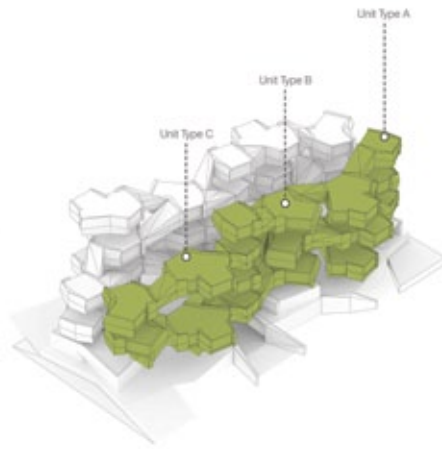
CRITIC:

Scott Erdy

STUDENT:

Greg Whitney

“...acts as a pliant scrim that funnels light, water & air from the upper level down...creating an open shelter for the site at the lower level—becoming a celebrated extension of the forgotten streets below...” -Greg Whitney



CRITIC:

Ben Krone

STUDENT:

Jose Holguin

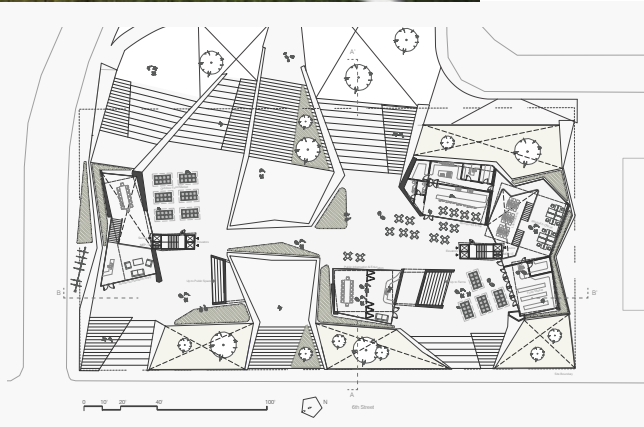
“The generated aggregation of units allows for a dynamic three-dimensional space in which there is a perceptual connection at all times, at all levels, stimulating the great visual peripheral ability the deaf possess.” —Jose Holguin

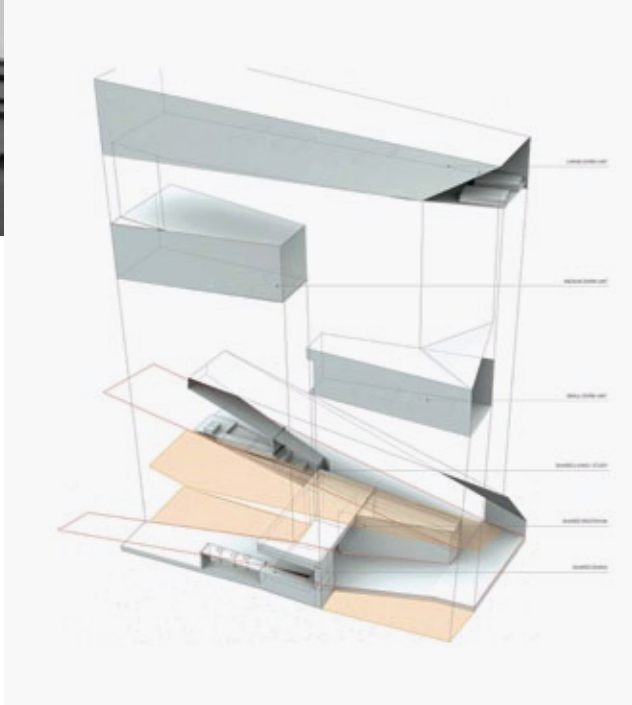
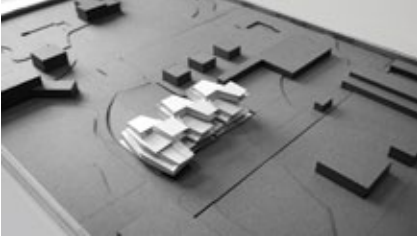


Ben Krone
Lecturer



- Founded Gradient Design Studio, NYC (2006)
- Bachelor of Architecture from the University of Florida (1999)
- MArch degree from Columbia University's Graduate School of Architecture, GSAPP (2004)
- Won the McKim Prize for Excellence in Design & the Sol Kaplan Traveling Fellowship.





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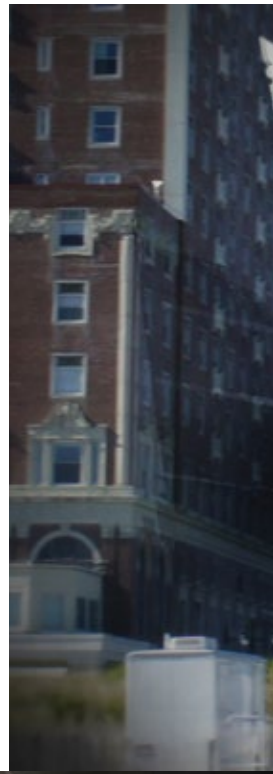
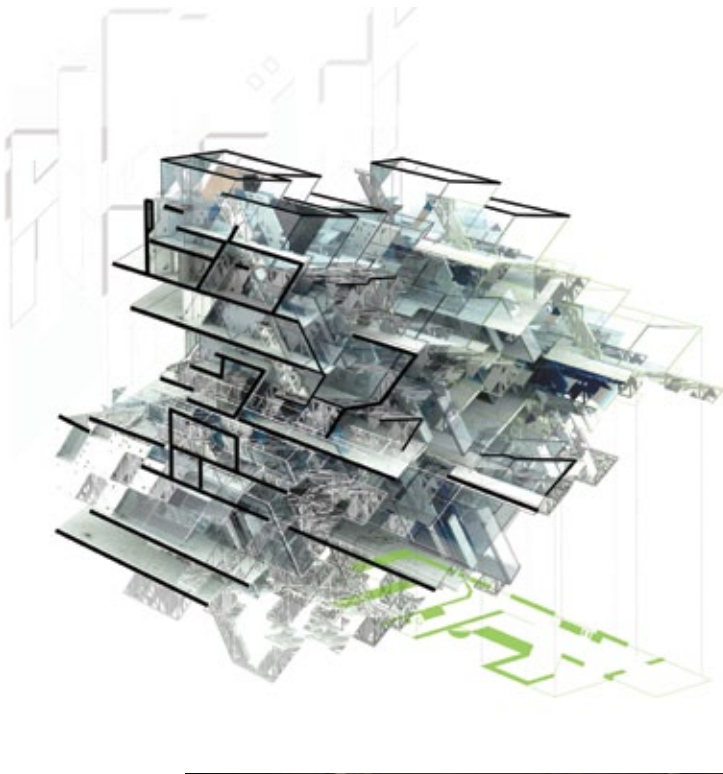
Ben Krone

STUDENT:

Philip Roberson

“The rich visual and tactile ribbon provides an ideal setting for the deaf and hard-of-hearing students to engage one another and interact with the neighboring community at the Union Market Restaurants.” - Philip Roberson





Brian Phillips
Lecturer



- Founder of Interface Studio Architects (ISA), PA (2004)

- Received MArch from the University of Pennsylvania (1996)

- Received BSEd from University of Oklahoma (1994)

- Winner of the 2011 Pew Fellowship in the Arts

- ISA has received multiple AIA Pennsylvania Merit & Honor Awards





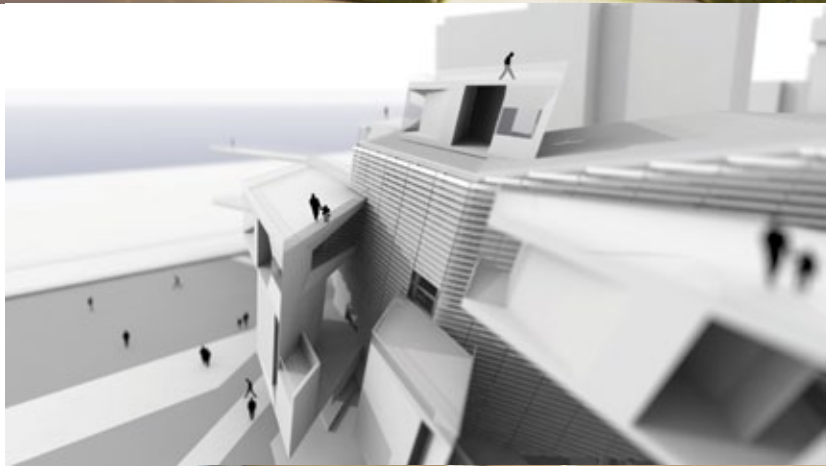
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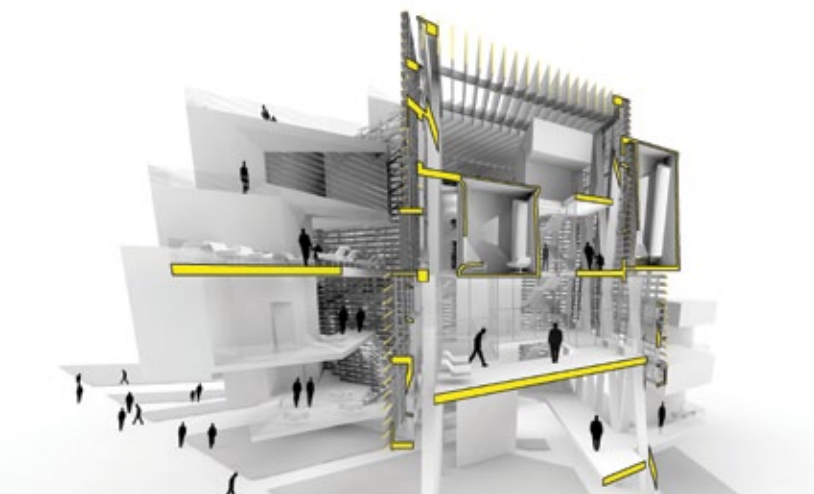
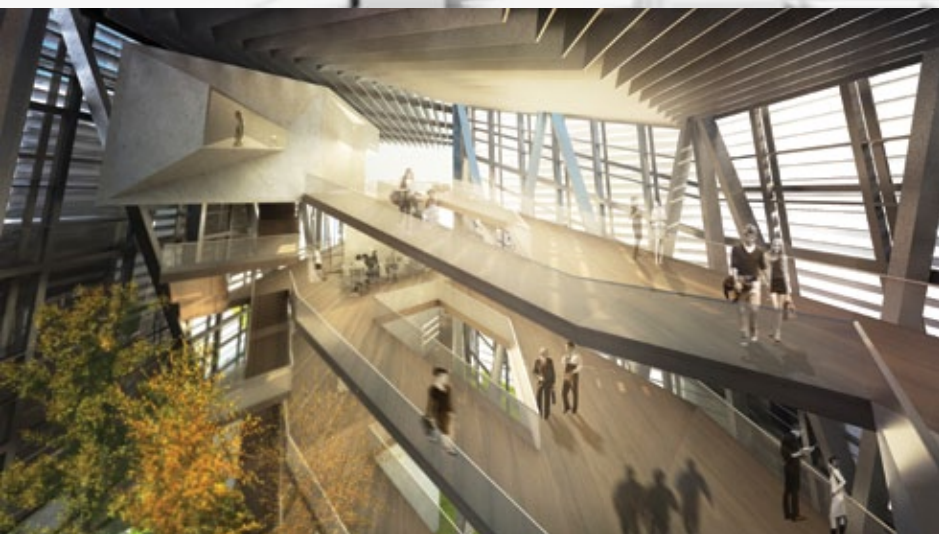
Brian Phillips

STUDENT:

Janice Jee Kim

“AC Perforation proposes to preserve remaining gaps in the “wall” by imagining a housing prototype that maintains a sense of visual and physical openness along the boardwalk edge.” — Janice Jee Kim





CRITIC:
Brian Phillips
STUDENT:
Ming Zhong

“...Velocity proposes a radically passive wind-driven residential building that looks to maximize comfort and minimize energy consumption by calibrating geometry and program with an awareness to wind flow.” - Ming Zhong

'Colombia Transformed' at PennDesign

COLOMBIA: TRANSFORMED traces significant new projects that exemplify innovative architectural forms and spaces while serving as conduits for social inclusion. The curators have selected this collection of work to illustrate the current creative building energy in Colombia and celebrate the economic, political, and challenging conditions that have made these explorations possible.



These eleven recently completed projects by six of Colombia's top architects not only demonstrate the country's commitment to design, but also show how architecture can improve the lives of ordinary people. As a collection, these workdaycares, schools, libraries and community centers, parks, and sports facilities--reflect some of the significant social shifts that are happening in Latin America today. With these recent efforts, Colombia has shown that good design can lead to not just attractive public spaces, but also new identi-



ties for cities and their inhabitants. Now residents can be proud of their communities, which have transcended their reputations for crime and poverty to stand as examples of dignified urban centers and homes to architectural landmarks.



The projects are explored through photographs, slides, drawings, models, and film footage to celebrate how these buildings are appropriated by the public.



CREDITS:

Curators:
Vladimir Belogolovsky,
Fernando Villa,
AIA, LEED AP BD+C
Exhibition Graphic Designer:
Maria Villa,
Emphasize LLC

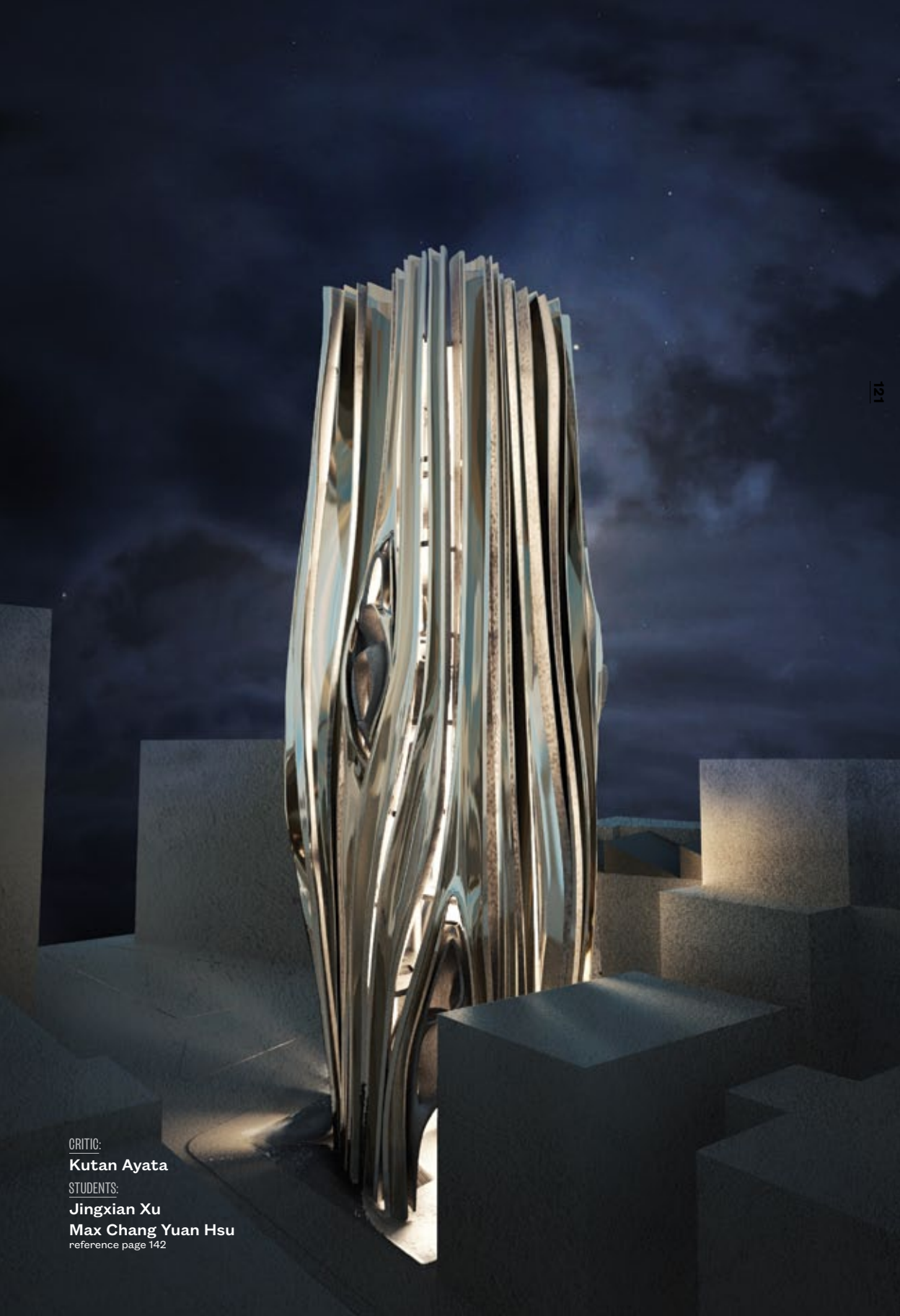
Exhibition Design:
Orlando Garcia &
Adriana Aristizabal,
G-Ateliers
Architecture
Photography:
Sergio Gomez,
Iwan Baan,
Jorge Gamboa,
Rodrigo Davila,
Vasquez & Villegas



Architects exhibited:

Giancarlo Mazzanti
Felipe Mesa Plan b arquitectos
Daniel Bonilla
Felipe Uribe +UdeB
Juan Manuel Pelaez
Orlando Garcia





CRITIC:

Kutan Ayata

STUDENTS:

Jingxian Xu

Max Chang Yuan Hsu

reference page 142



CRITIC:

Matias Del Campo

STUDENT:

Heng Gu

“Everything of the world is generated or existing as a way of accumulation or aggregation. Through the process of aggregation, we could make extraordinary various kinds of things.” -Heng Gu







CRITIC:

Jonas Coersmeier

STUDENT:

Brian Tseng

reference page 100



CRITIC

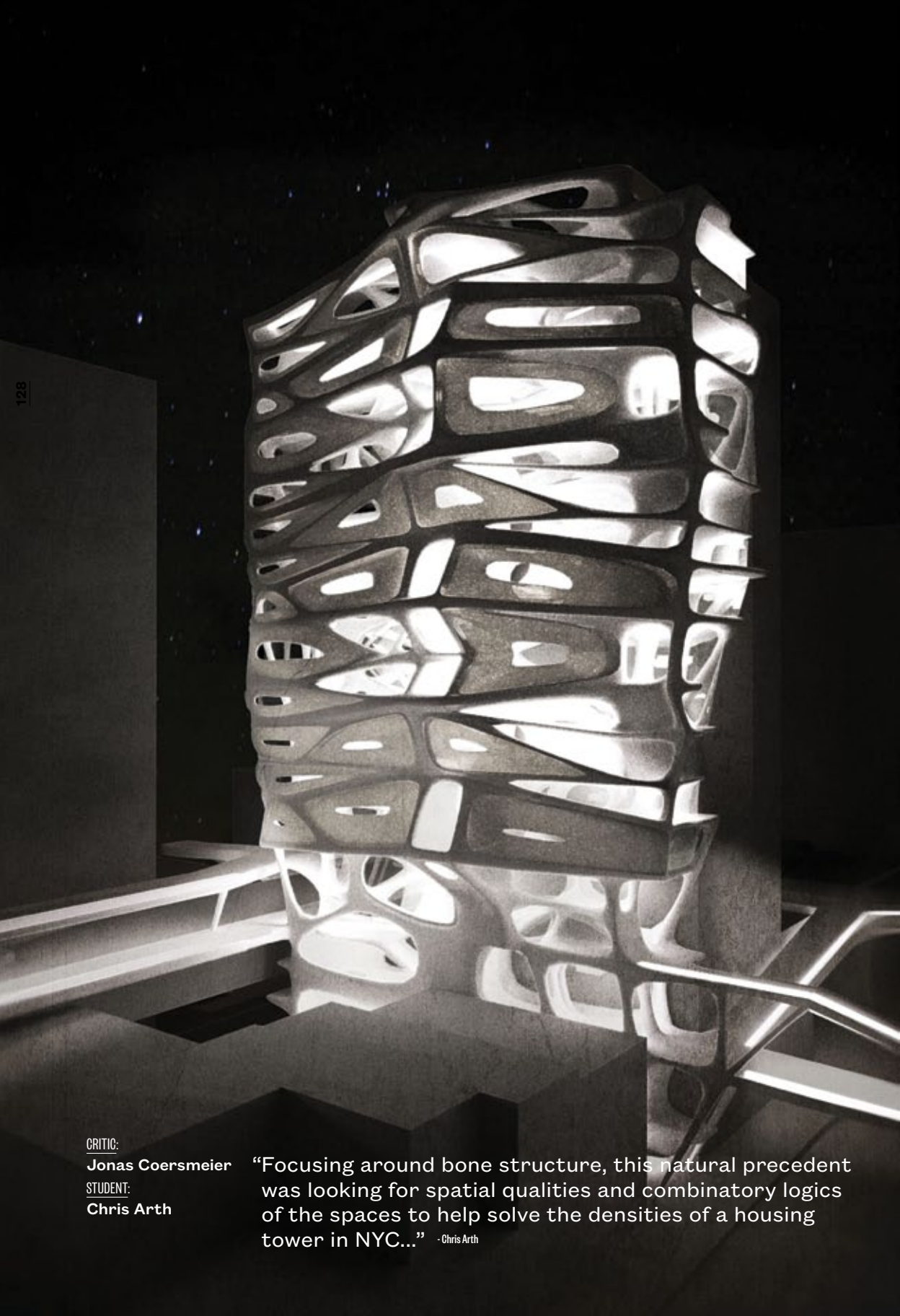
Matias del Campo

STUDENT

Michael Royer

reference page 106





CRITIC:

Jonas Coersmeier

STUDENT:

Chris Arth

“Focusing around bone structure, this natural precedent was looking for spatial qualities and combinatory logics of the spaces to help solve the densities of a housing tower in NYC...” -Chris Arth

Carla Diana creates Lickestra

Design of Contemporary Products instructor, Carla Diana, was in the news after teaming up with food designer Emilie Baltz and musician Arone Dyer of Buke and Gase. They created an edible ensemble based on the consumption of conductive ice cream...Also named Lickestra (Lick+Orchestra=Lickestra). Excerpt from the CORE 77 article: "LICKESTRA plays with the experience from tongue to taste by presenting a series of conductive ice creams that trigger various baselines and tones when licked. Riffing on the 'ice cream stand,' guests are invited to stand inside a classic white pedestal and lick." the ice cream that is presented to them. The result is a "4-piece band" that operates only by the licking of each guest.



forms and spaces that represent and signify collective aspiration today.

The event, organized in collaboration with the 'Monument to Cold War Victory' competition, examined through varying notions of monumentality the enduring genre of war monuments, memorials, and institutionally framed and commissioned artworks.

FEBRUARY 2014

Bittertang wins AIA/NY NPNY2014 Award

Bittertang (Michael Loverich) won the AIA New Practices New York Award (NPNY2014) and lectured in April with an exhibition coming up in October. NPNY14 has served as the preeminent platform in New York City to recognize and promote new and innovative architecture and design firms. The juried portfolio competition is sponsored by the New Practices Committee of the AIA New York Chapter and honors firms that have utilized unique and innovative strategies, both for the projects they undertake and for the practices they have established.



Tom Wiscombe published in Project #03

Tom Wiscombe publishes "Discreteness, or Towards a Flat Ontology of Architecture" in *Project Journal #03*



MARCH 2014

Bittertang's 'Pet Sounds' Apart of Traveling Exhibition

Bittertang, Mikey Loverich, was part of "Possible Medium's" Traveling Exhibition with an installation called Pet Sounds were a series of bagpipes explored sound and limp forms.



CORE

MArch

Architecture

602

Ferda Kolatan

Coordinator

March 602 Faculty

Kutan Ayata

Hina Jamelle

Ferda Kolatan

Justin Korhammer

Benjamin Krone

Shawn Rickenbacker

Franca Trubiano

The advent and recent maturation of digital technologies within the field of architecture have fundamentally changed the ways in which we conceptualize, design, fabricate, and construct buildings. New and innovative tools and materials have enabled us to challenge conventional notions of building while nonlinear information flow has altered the way in which we communicate with consultants and organize the logistical flow of the design process.

Advanced software simulation programs allow us to visualize building properties from structural behavior to environmental performance during the early stages of design development. Parametric programs allow for an efficient and interconnected design process in which part-to-whole relationships are deeply integrated and reciprocally controlled. Sophisticated 3d modeling tools coupled with new fabrication methods and intelligent materials allow for complex geometries to be imagined, designed, optimized, and built.

Building Integration benefits especially from these developments as we rapidly move away from a layered and inflexibly structured relationship of mechanical parts towards an organic and more adaptive relationship of networked components. Thus the integration of building systems ceases to be merely a supplemental afterthought to the design itself and instead becomes a vital part within a deeper design ecology, weaving together the specific properties of architectural systems with the material, formal, and geometrical characteristics of contemporary architectural design.

The ramifications of these technological innovations signify a profound shift of larger cultural and historical relevance by moving away from the modernist

paradigm of “Machine” towards the current paradigm of “Nature”. While the former advocates an ethics of optimization and perfection through the technological means of standardization, the latter champions adaptability and variability through the means of customizable and nonlinear processes. This shift is not only reflecting a more resourceful and sensible approach to building and environment but also a wider cultural tendency towards intricacy and a more finely articulated, organic approach to design. The convergence and mutual integration of software, material intelligence, and fabrication techniques into the design process define a substantial progress in the field of architecture, particularly as it pertains to Building Integration.

The Integrated Design Studio (602) deals with these issues through the development of a comprehensive design project, which emphasizes on the collaborative nature of architecture practice. To achieve this, two major components are introduced to the format of the studio. First, all projects are developed within small teams in an effort to foster a practice-like environment in the studios. Second, professional consultants from structural, mechanical, and environmental engineering as well as software and fabrication experts are invited to collaborate directly with the students on the development of their projects. During these consultancy sessions all students are exposed to the most advanced technological tools (software and fabrication), which are being utilized today in building design.





ARCH 602 Studio Descriptions

Stones, Rocks, & other Earthly Things: A Post-Scientific Museum of Geology in New York City

Ferda Kolatan, critic Spring 2014 – page 138 - 141

"If one is sufficiently lavish with time, everything possible happens" - Herodotus

Topic: Geology in the most fundamental sense describes our desire to understand the place we call home. It draws a picture of the earth and presents a history that begins with a clump of particles and reaches to its present stage as a habitable planet in a precarious and temporary equilibrium.

Questions regarding the nature, history, and evolution of the earth have been the subject of philosophers and scientists for millennia. Efforts to measure, map, and explain the earth have drawn a long line from the early Greek geometers to the adventurer-discoverers of the Enlightenment, and all the way to present-day scientists. In the humanist tradition of western thought most of these explorations were based on positivist concepts of knowledge, which held the premise of a world that we can fully grasp, conquer, and logically explain. Nature was seen as a riddle, which presented itself to man to be solved.

The "Post-Scientific Museum of Geology" takes on some of these important issues and proposes a building for displaying geological artefacts and discoveries in ways that challenge the conventional architectural and curatorial logic of scientific museums.

Design: In accordance with the conceptual format of 602, a particular emphasis was placed on the integrated usage of advanced digital technologies toward the application of innovative design solutions. The studio explored complex geometries as derived

from in-depth studies of geological structures and utilized these for the development of unique building components and building envelope. Computational techniques of drawing, 3D-scanning, 3D-modeling, and CNC fabrication were introduced and used to generate highly specific design proposals, which explore the boundaries of contemporary design practice.

Excessive Integration

Kuyan Ayata, critic Spring 2014 – page 142 - 145

The studio explored an "as you need" office-share model targeted for an increasingly mobile/flexible workforce of individuals, start-ups and small businesses in a 20 storey "Mini Tower" at Cooper Square, in the heart of New York City. Students generated new concepts for a working environment which promote opportunities for casual exchange and spontaneous collaboration. The building will provide the environmental comfort, atmospheric quality and just sufficient infrastructure for an open ended work condition to emerge. What is at stake is the development of a high degree of diversity and modulation to truly challenge the generic typology of the homogeneous office tower environment.

The prevailing models of office tower typology would offer a predictable solution to this problem through subdivision around the core. While this model works and is efficient, it is not a viable model to allow the bottom-up self-organization to fully flourish. The following alternative will set up the central quest of the studio:

What if we decentralize the Core?

What if we situate all there is typically in a core within the developing thickness of the

envelope? What if all the structure, utility, services, egress, vertical circulation gravitate to the crust of the tower? What if we integrate all systems to constitute a structural deep skin?

Migrating Formations: Mixed-Use Tower, Soho, NYC

Hina Jamelle, critic Spring 2014 – page 146 - 149

This studio will examine emergence and its relation to the formulation of architecture by using digital techniques in an opportunistic fashion for the generation of growth and the evaluation of patterns in the development of form. Digital techniques allow us to deal with the full complexity of material systems that lead to effects that are greater than the sum of their parts.

We will examine organizations that are highly integrated formal and spatial systems which operate in the same manner as organic systems, where forms result from their adaptation to performance requirements; in our case, the structure, inhabitable surfaces, and enclosure. Achieving an integrated whole entails the refinement of spatial and structural organization and the integration of building systems, including stairs, structure, and skins inflecting and adapting to each other and providing an overall intelligence of fabrication and assembly.

The goal for each student is to develop a sophisticated understanding of form, using strategies to design architecture that flows from topological surfaces and spatial arrangements in transformation, and to apply these to a range of familiar architectural issues. The final proposal of each student will emerge out of an interrelated working method between program, space, structure,

material, and fabrication logics that combine to develop an innovative building formation.

Structural integration will be addressed through the material associations of each project's design development. These associations allow us to understand the behavior of materials such as steel, concrete, or composites that will translate directly into structural diagrams and test models. This allows for an integrated design methodology by translating the compression and tension of transformed geometries.

The site is on a unique trapezoidal 110 x 235 sq. ft. lot on Canal Street between Varick Street and Sixth Avenue in Soho. Catalyzed by Soho, Chinatown, Tribeca, and the nearby Tribeca Film Festival Cinemas, the program is a uniquely configured 35-story mixed-use office and hotel tower.

The Nature-Image

Justin Korhammer, critic Spring 2014 – page 150 - 153

The radical shift in architectural conceptualization towards dynamic, non-linear systems has been fueled by a desire to understand and emulate the efficiencies and complexities of natural systems. But while we have moved to manipulate the instructions underlying the emergence of organic form itself, rather than appropriate biological analogs or metaphors, we still find ourselves seduced by the organic image, the formal language that signifies "naturalness".

Simultaneously, our deeper understanding of sustainability and building ecology has led to a performance-driven approach to architecture that is more concerned with energy balance than form. However, what is spatially desirable is often ecologically

wasteful, and the most efficient “Intelligent” facades and “net zero houses” are routinely utilitarian and mechanistic in their affect.

Project: The studio sought to engage this discourse of nature, technology and perception with a proposal for a *Museum of Ecology*. Located at Pier 17 at New York’s South Street Seaport, the museum was intended as an educational facility and testing ground for new ecological technologies, but also a spatial and material laboratory for building integration.

We explored analogies of plant growth and landscape ecology as generators for spatial, structural and mechanical concepts, and evaluated these systems through the use of parametric, simulative and analytical software. The studio utilized advanced structural and building integration tools to test and inform the validity of the initial design concept. We focused in particular on the performance, structural logic and construction techniques of the building envelope, and the performance of proposed sustainability concepts.

The aim was to develop a coherent design strategy that could be employed at multiple levels and scales, the physical as well as the evocative and experiential.

Untitled Studio

Ben Krone, critic Spring 2014 – page 154 - 157

The studio will worked in partnership with MoMA, focusing on emerging artistic practices that engage in technology. Each team was responsible for the research and incorporation of ideas surrounding conservation, archive, storage, access, and display of collections of non-traditional works of art in mixed media for New York’s multiple

contemporary art institutions. They were asked to understand and challenge notions of preservation, conservation, storage and archiving of works of art that are unbound by the traditional frame which rely on a multitude of media technologies both current and dated for their execution. The types and significance of these works of art include, but are not limited to, light installations, film, video, sound, and performance. They began the semester developing an intimate understanding of current systems that various institutions implement for large collections of technologically based artworks when not on display. Then, the studio worked toward developing links between the conservation and archiving needs of internally and externally referenced organizational systems, while proposing new methods designed through the lens of each group’s architectural, special and programmatic design strategies while dealing with issues of flooding in the context of their sites in Red Hook, Brooklyn.

Massive Change - Urban Atmospheric Technologies: Innovative Strategies toward Balancing Urban Ecologies

Shawn Rickenbacker, critic Spring 2014 – page 158 - 161

Design Problem: The environmental and biological impact of air quality has plagued many civilizations throughout history. The industrialized age has recorded unprecedented negative environmental change in addition to staggering health related conditions. The post industrial to the post modern era have each continued to further compromise the fragile environmental equilibrium that many scientist have caution is necessary for our continued habitation of the planet.

The Studio: Our studio begins with observations of system thinking, performance criteria design, aesthetic logic, and whether the logic of aesthetics is something that exist and or is transferable? The studio lead discussion on Algorithmic Abuse, by Dimitrie Stefanescu, Performance Anxiety the foreword to FOA's early monograph by Jef Kipnis, Nature presented by Sanford Kwinter and others. The intention was twofold, one to provide a wider context of critical engagement, design consideration and outcomes and secondly to supplant predisposed objectives. The challenge was to investigate form capable of responsiveness, and that disassociates from type or style in favor of outcomes, ultimately rendering the need for assessment based criteria beyond itself. In this regard we posit form(s) that resembles less the pursuit of assemblage but one that offers a collective intelligence of parts that produces considerations of form both partial and at times, whole.

Responsive Architecture: High Performance Buildings Fabricating Eco - Bio - Machines Material Responses to Light and Air

Franca Trubiano, critic Spring 2014 – page 162 - 165

This studio is dedicated to the design of High Performance Buildings that actualize the potential of “responsiveness” in positing important transformations for architectural design. The studio advances Responsiveness as both a process and a set of ideas that can be harnessed for achieving significant gains in sustainability.

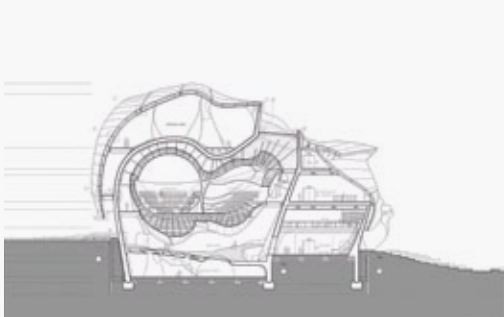
This studio asserts that buildings are never inert, static or limited by the initial process of construction. Like nature, buildings too are constantly subject to the

dynamic forces of the environment in which they are located and as such should be designed to respond to a host of possible future conditions. Differently than in the past, contemporary buildings can be more symbiotically designed with the knowledge of such forces. In this studio students will be exposed to the qualitative and quantitative measures that define our experience of the elements that are light and air. As catalysts for design, these environmental forces help shape our buildings in design, construction and operations and form the basis of high performance design. The impact of light and air on a building’s skin and on the design of its structural and environmental section are of central interest to the studio.

Project Description: The office building is the center of our attention in this studio. The financial merit of the world’s established and emerging economies is defined by the quantity of leasable office space made available to the full range of service industries which typically occupy their floor plates.

No more ubiquitous a building type exists in our culture than the multistory office building! And yet, no more demanding a client should there be than a consortium of non-profits and action groups committed to the environment and sustainable development. As such, the studio is tasked with imagining a new future for this most typical of buildings in order to propose new figural characteristics (via the façade), new material embodiments (via structure), new performance metrics (via building systems).

The process by which this will take place will actualize the potential of RESPONSIVENESS as a design concept such that a building’s façade, its structure and its environmental systems will be designed with the capacity to be self modifying and adaptable.



CORE

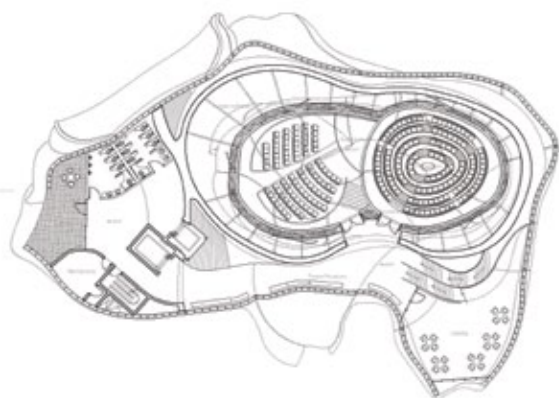
Core—ARCH 602
Design Studio—Kolatan

Ferda Kolatan
Senior Lecturer



- Founding partner of su11 architecture + design, NY (2004)
- Received an architectural diploma with distinction from the RWTH Aachen (1993)
- Received MSAAD, Architecture from Columbia GSAPP (1998)
- Selected as a Young Society Leader by The American Turkish Society (2011)





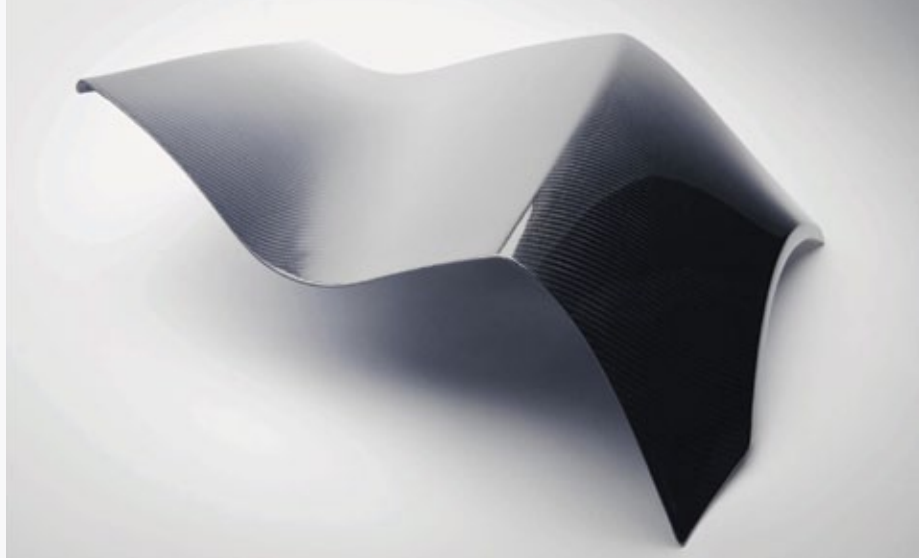
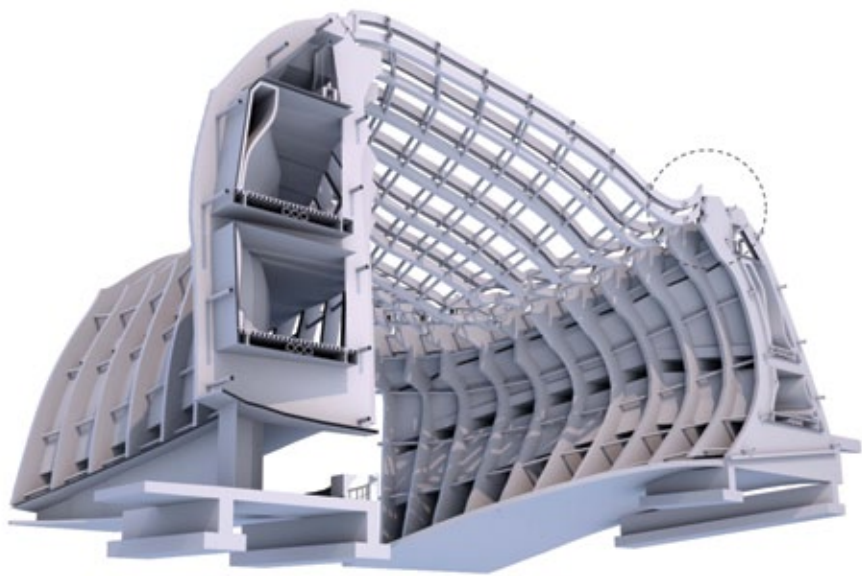
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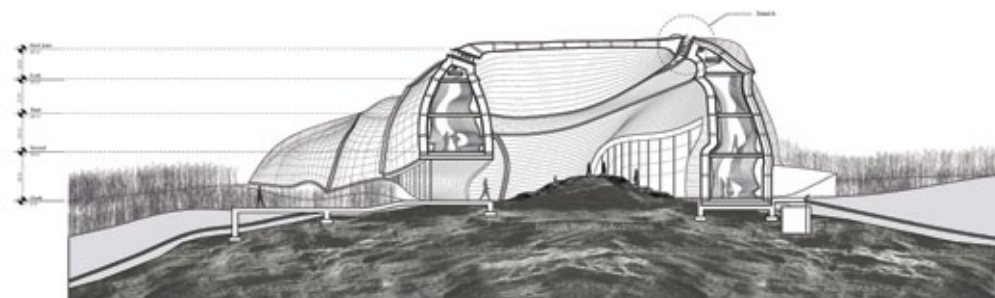
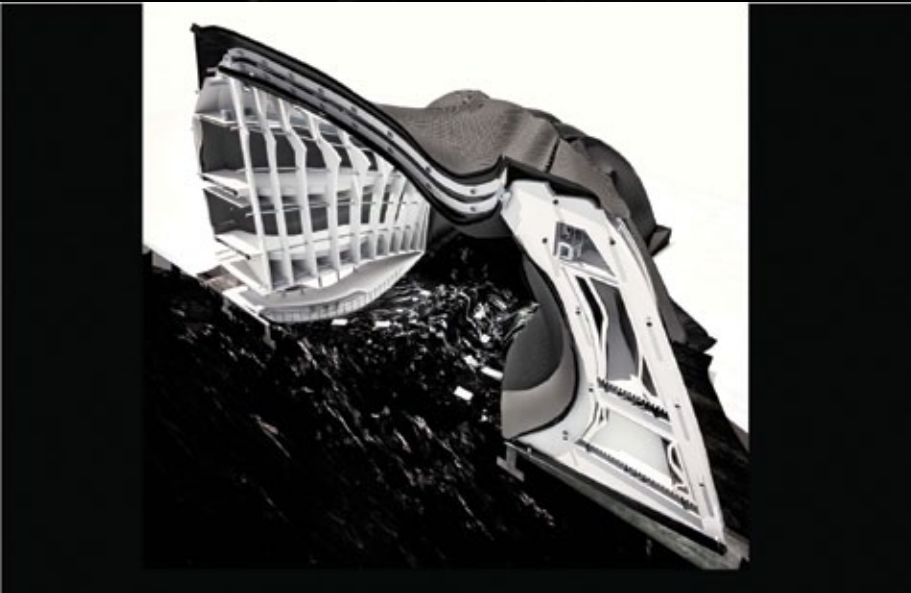
Ferda Kolatan

STUDENT:

Brett Dong Ha Lee
Bumjin Park

“Focusing on typical characteristics such as seams, cracks, and ripples as seen in rocks, we designed a building envelope, which doesn’t simply mimic but articulates complex and varying surface textures.” — Brett Dong Ha Lee & Bumjin Park





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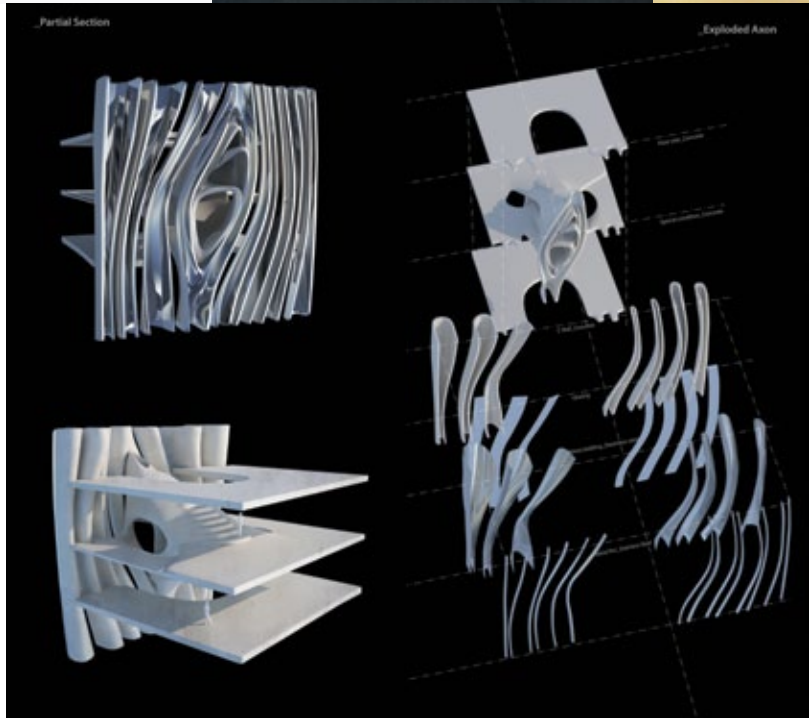
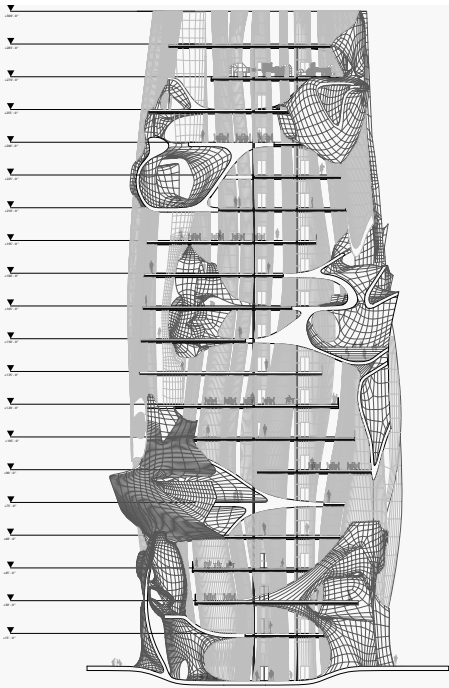
Ferda Kolatan

STUDENTS:

Yu Chang Tseng

Yun Su Kim

“Seaming and stitching, cutting and folding generates a lightweight, large span roof structure with a unique appearance and also reflects towards the interior of the building.” — Yu Chang Tseng & Yun Su Kim



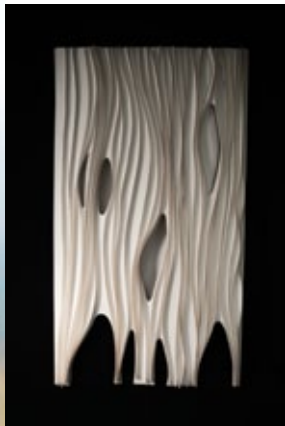
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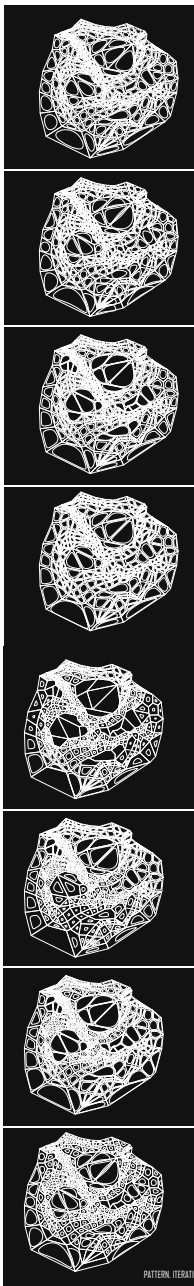
Kutan Ayata

STUDENTS:

**Jingxian Xu
Max Chang-
Yuan Hsu**

“...the envelope itself becomes both the structure & facade of the building...The pattern provides solutions for apertures, MEP and egress by using the way of deepening the surface.” - Jingxian Xu & Max Chang Yuan Hsu





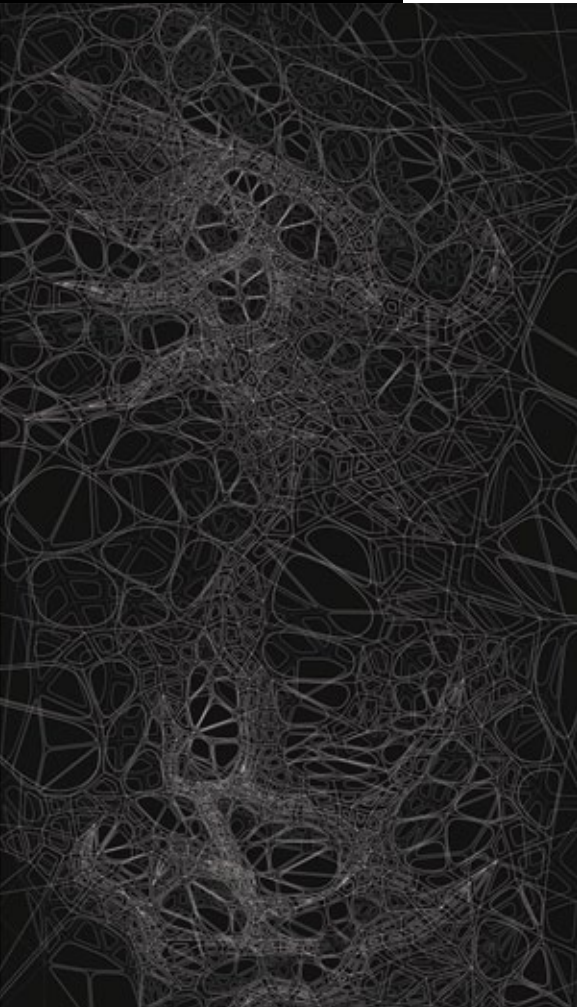
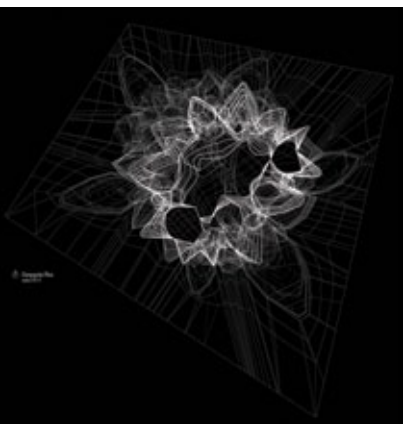
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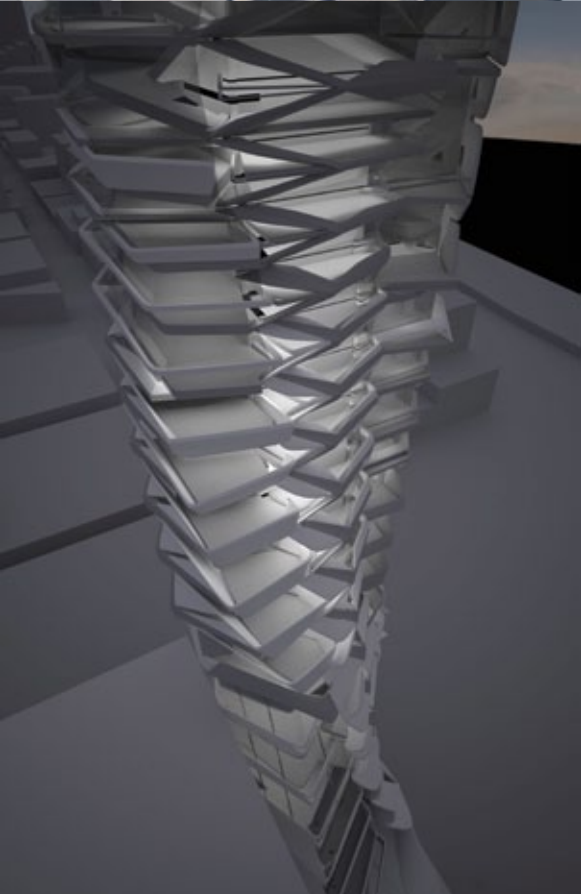
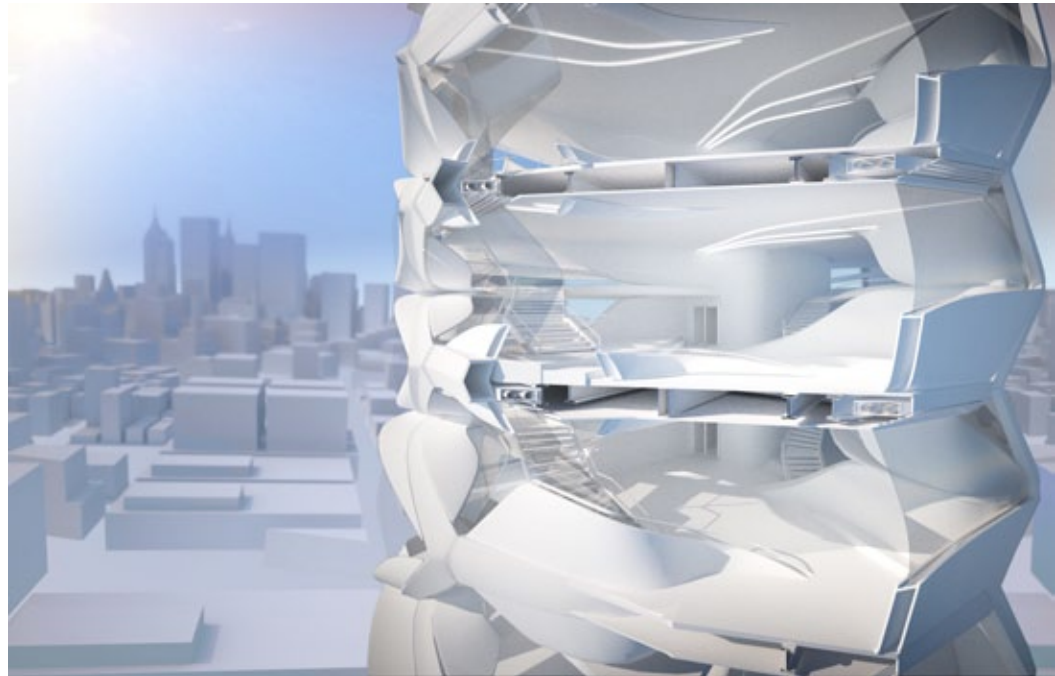
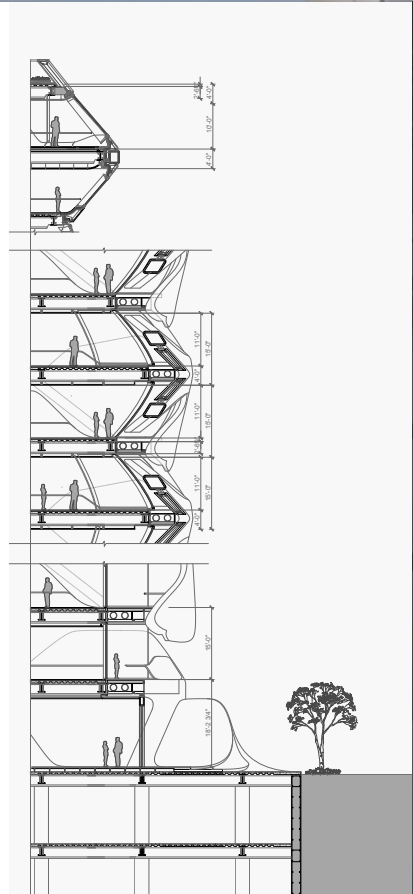
Kutan Ayata

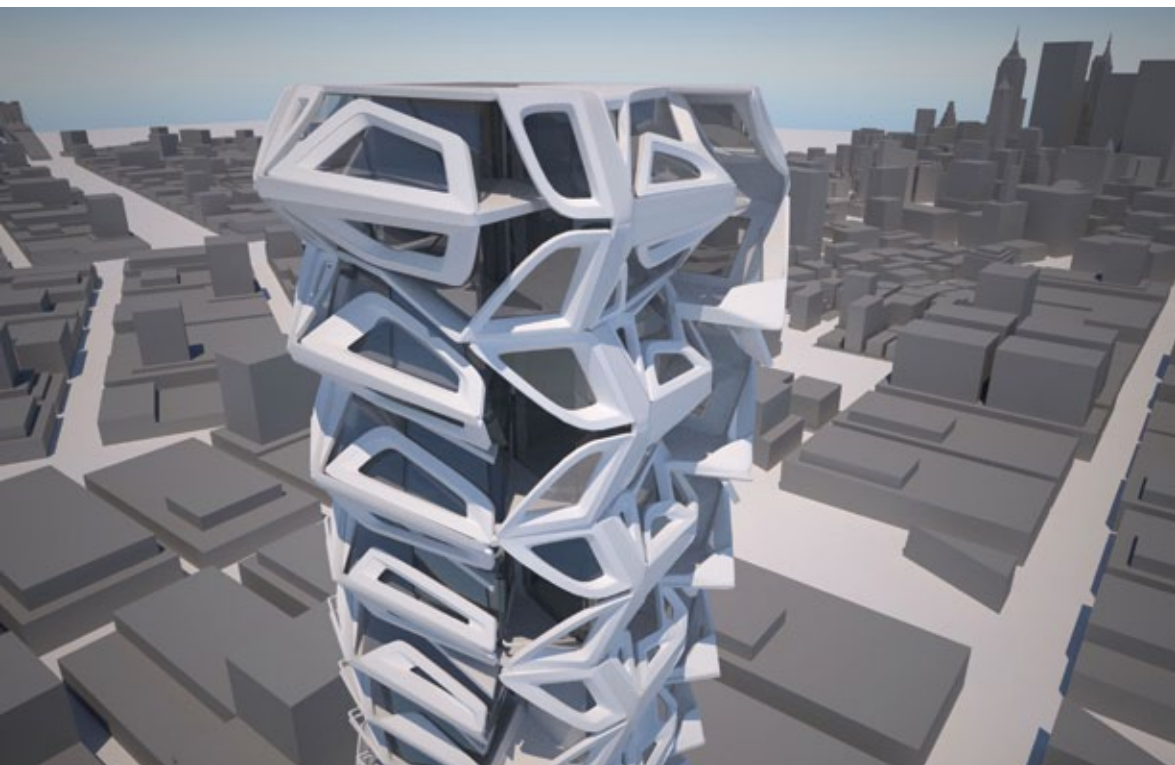
STUDENTS:

**Yannick Rodriguez
Stephen Ellis**

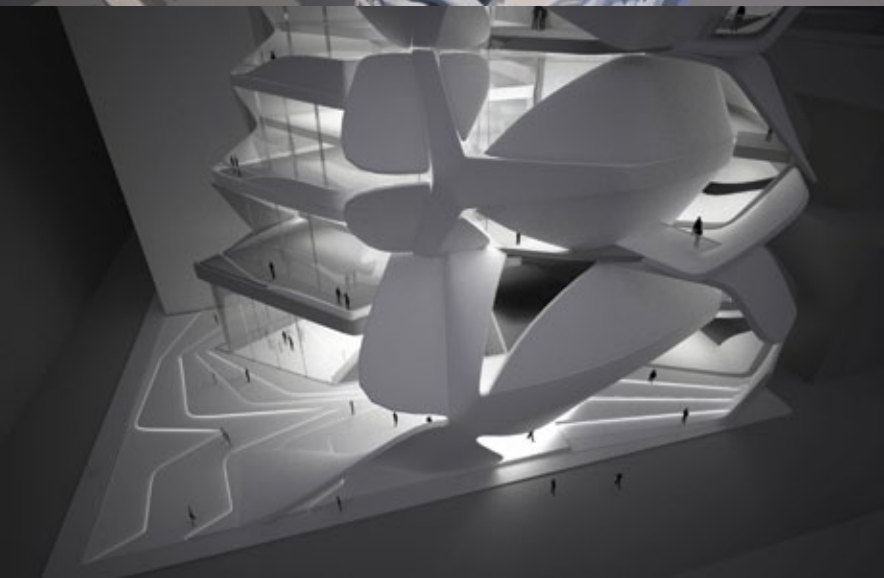
“...a varying topography of ridges that undulate to create unique spatial enclosures & a series of interconnecting strands that outline apertures & create opportunities of added structure and passage of services.” —Yannick Rodriguez & Stephen Ellis







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CORE

Core — ARCH 602
Design Studio — Jamelle

CRITIC:

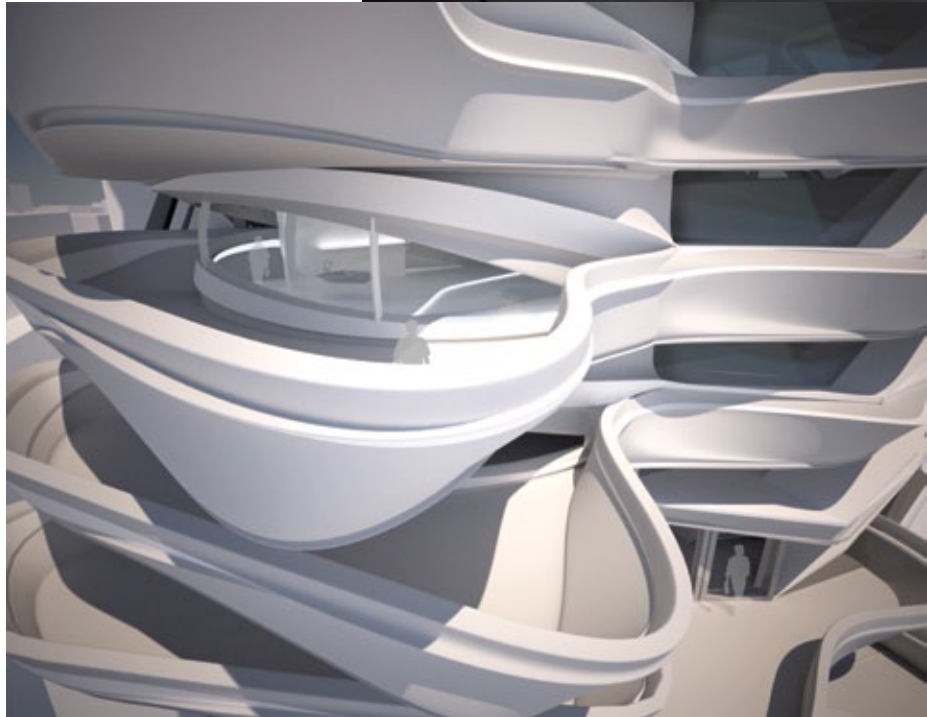
Hina Jamelle

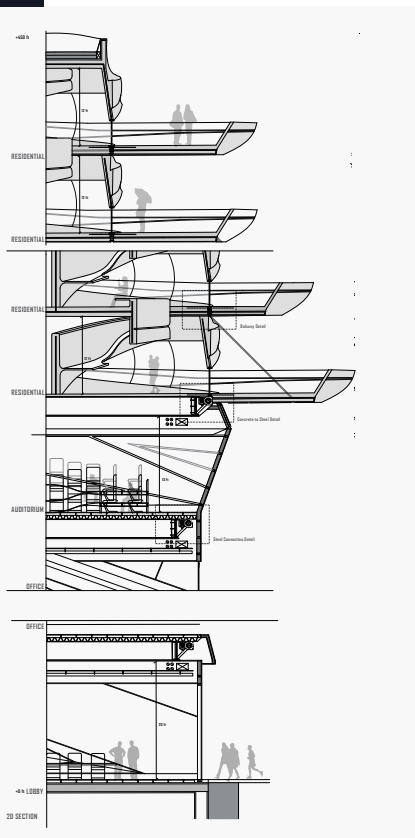
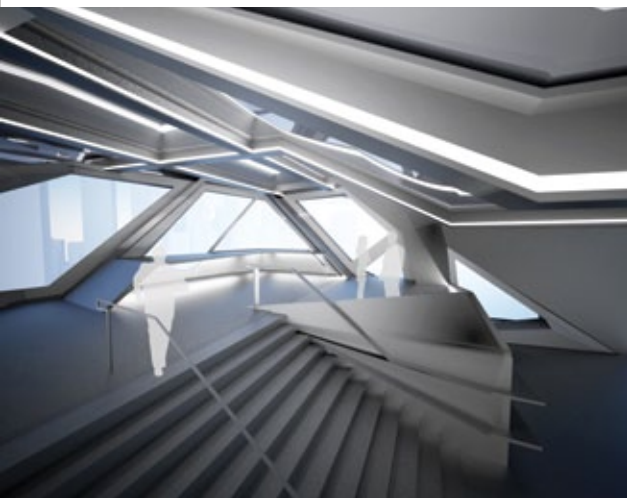
STUDENTS:

Ming Zhong

Hua Yang

“...with 360-degree city views, units transform themselves from monolithic/curvy to smaller/skeletal. Different units reflect not only distinct types of program, but also mimic the developing process of orchid flower.” - Ming Zhong & Hua Yang





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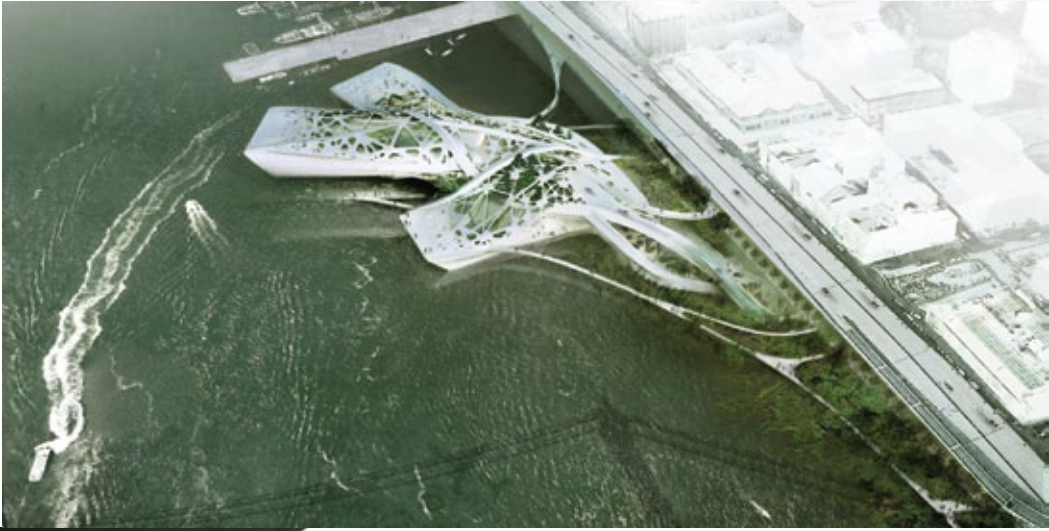
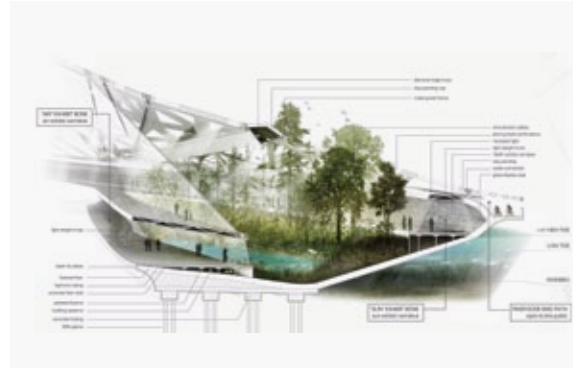
Hina Jamelle

STUDENTS:

Yong Jae Kim

Sylvia Lee

“Live, Work & Play...A tower that hybridizes all three activities in a single formation will not only create new opportunities & increase efficiency, but it will become the future standard for generating density.” —Yong Jae Kim & Sylvia Lee



CRITIC:

Justin Korhammer

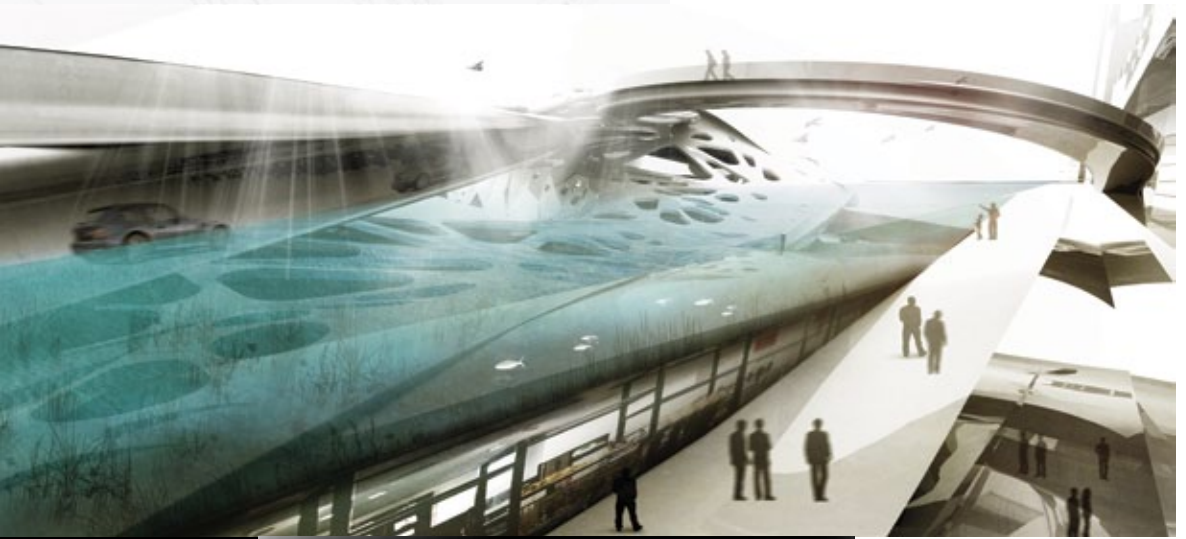
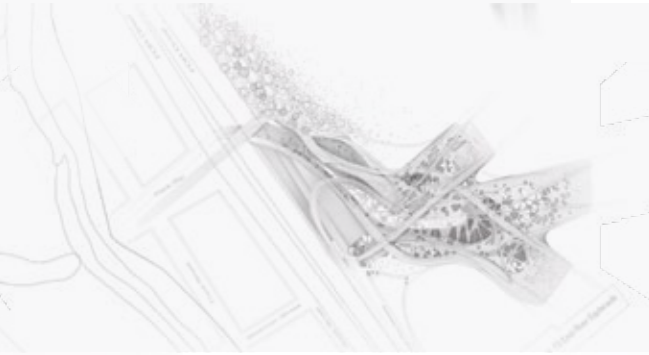
STUDENTS:

Jacqueline

Martinez

Margaret Gerhart

“...Four elements braid together in a system of interlocking loops that cultivate the historic ecologies native to the site in the resultant interstitial spaces through a progression of exterior & interior.” — Jacqueline Martinez & Margaret Gerhart

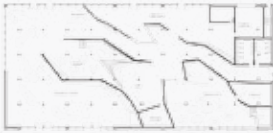


**Justin
Korhammer**
Assistant
Professor

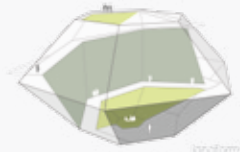


- Co-owner of Brooklyn, NY based studio, Anima (1999)
- Has worked for Daniel Libeskind, Eisenman Architects and Steven Holl Architects
- Has taught design studios at the Berlage Institute in Amsterdam, Netherlands and at Columbia University in New York

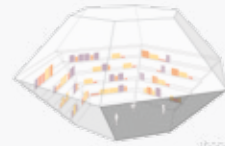




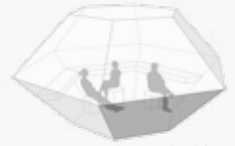
ecology exhibition



igroform experience



library



meeting space

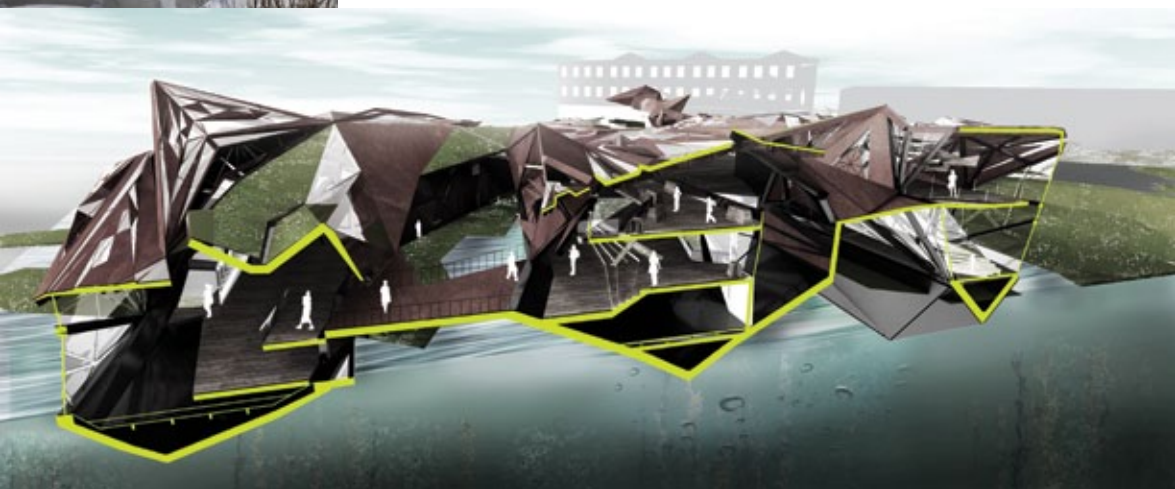
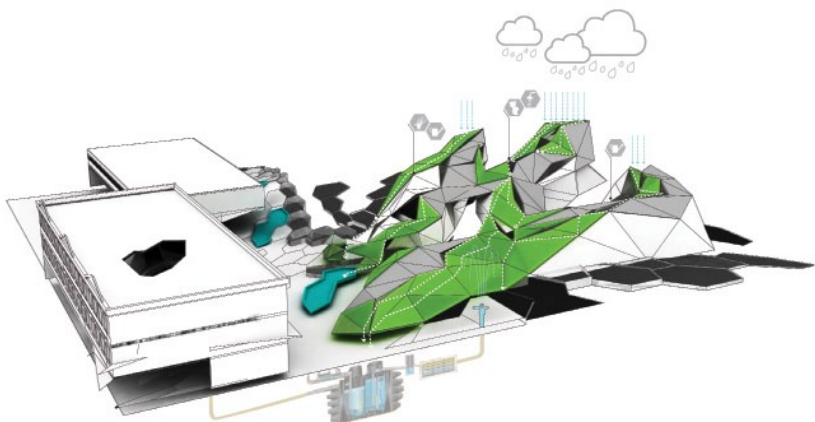
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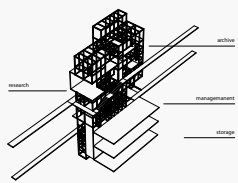
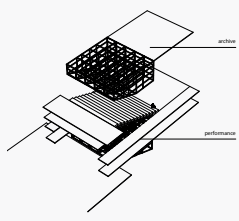
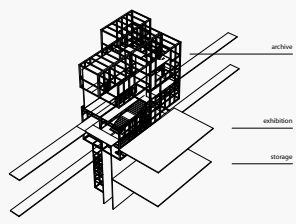
Justin Korhammer

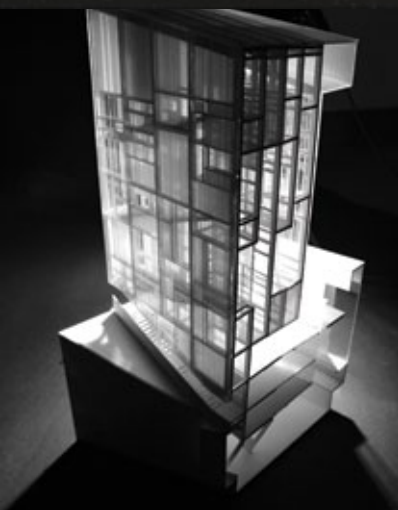
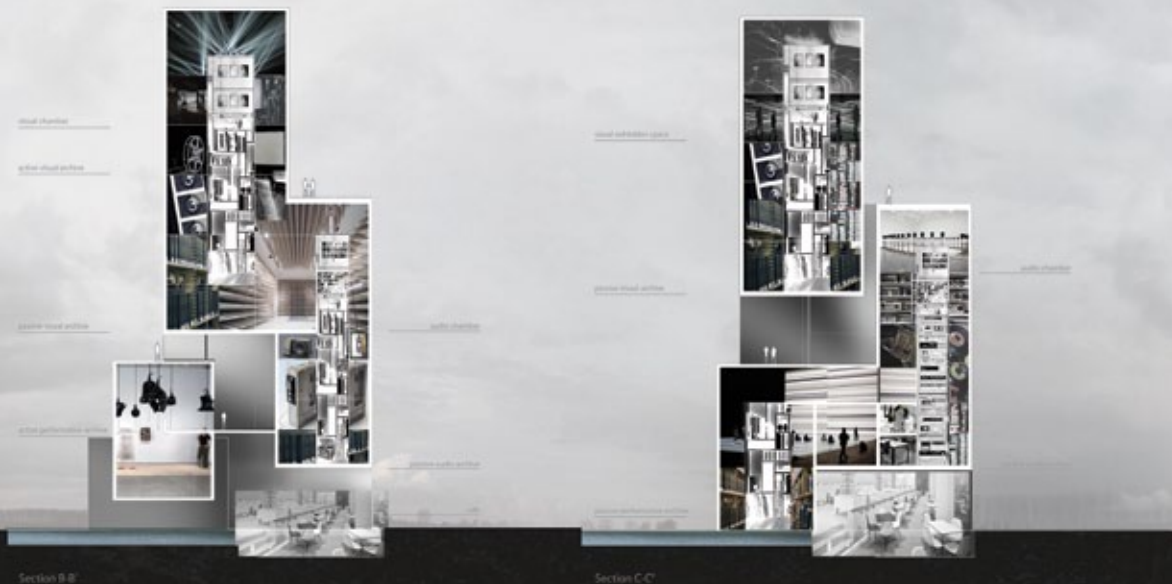
STUDENTS:

**Selina Chiu
Amanda Huang**

“Visitors can experience the hybrid nature of the exhibition spaces by alternating between fixed and floating, indoor and outdoor structures, across multiple circulation paths and narratives.” - Selina Chiu & Amanda Huang







CRITIC:

Ben Krone

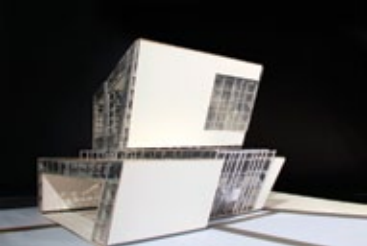
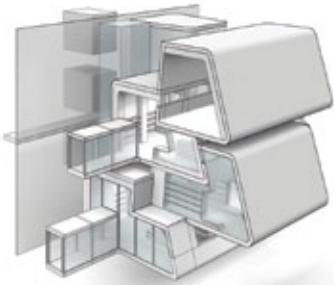
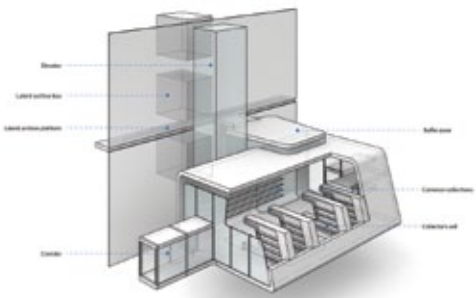
STUDENTS:

Anyi Song

Xiaoqing Liu

“...re-examining the difference between archive & storage, trying to reestablish an organizational system...archive becomes a space located on the border between forgetting & remembering, between past & present.” - Anyi Song & Xiaoqing Liu





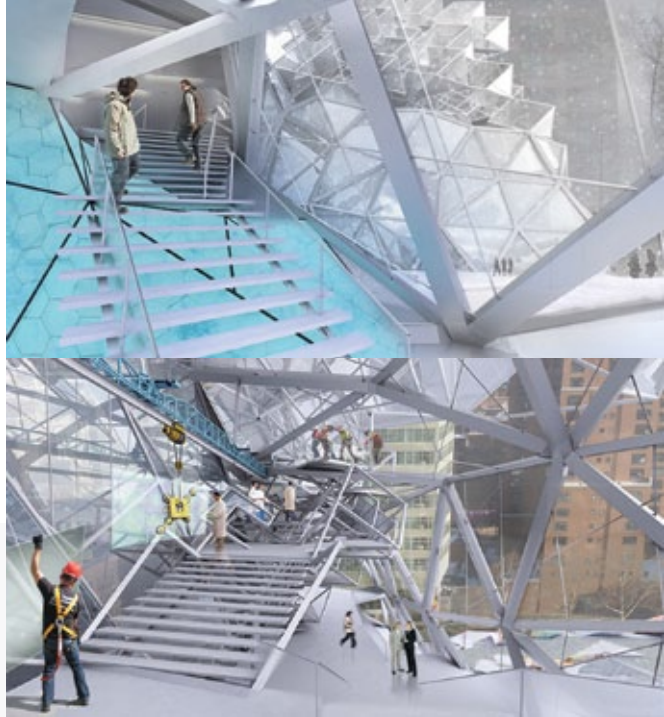
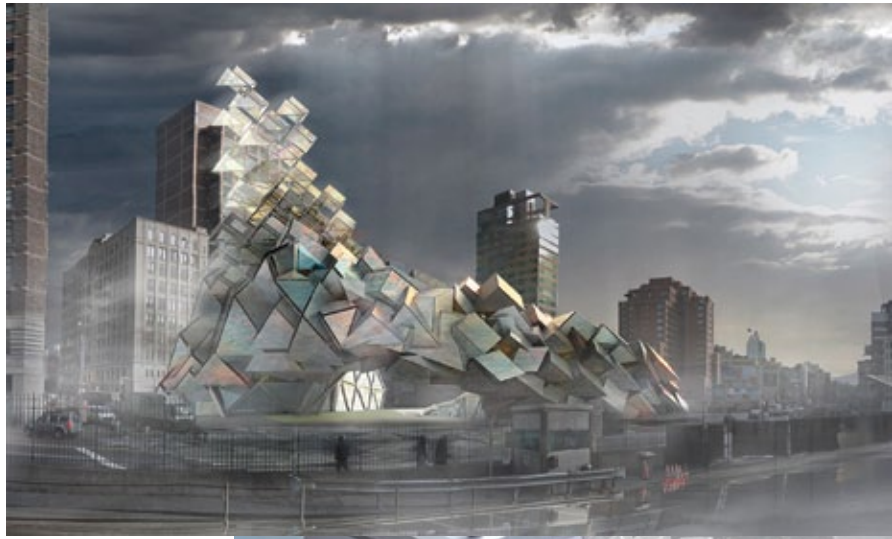
CRITIC:

Ben Krone

STUDENTS:

Peng Wang
Heng Gu

“The organic arrangement of cozy private spaces within a continuous open space initiates activity among collectors, curators, and other visitors. Tying collectors with curators, collections with people.” —Peng Wang & Heng Gu



Shawn Rickenbacker
Lecturer

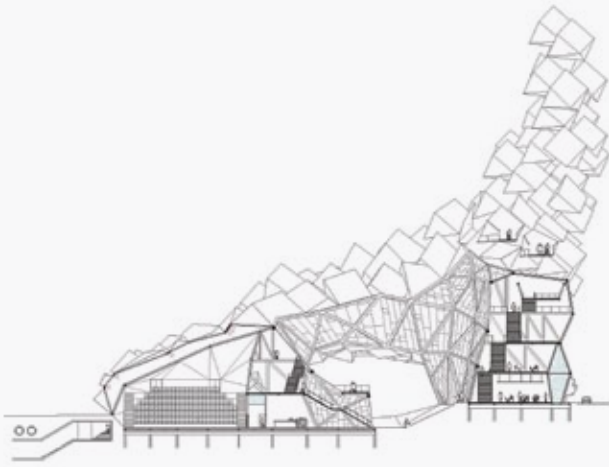


- Co-founder of Urban Data Design, NY (2010)

- Received MArch with Certificate in Urbanism from the University of Virginia; received BArch from Syracuse University

- Lecturer &/or juror at Washington Univ., Univ. of Virginia, Prairie View State Univ., Univ. of Illinois-Champaign/Urbana, Yale, PennDesign, Cornell, Rice, Georgia Tech, & Univ. of Michigan.





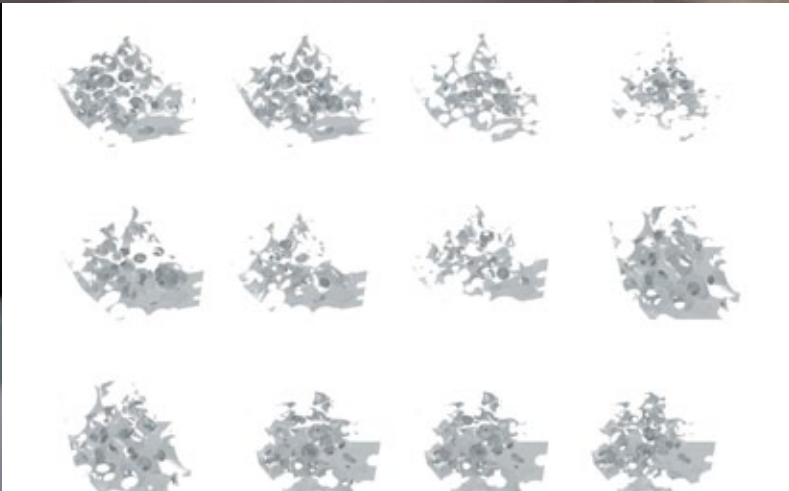
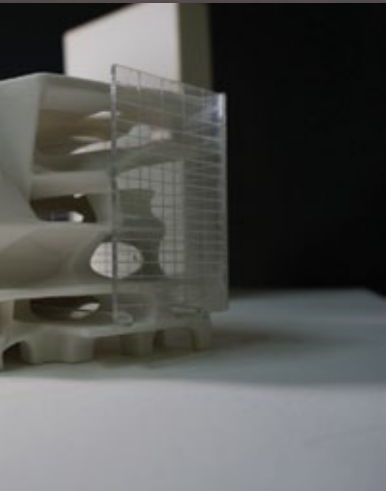
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Shawn Rickenbacker “A roughened aggregate skin system buffets fast moving air to slow the dirtiest air at street level. Upper levels treat ambient & more diffused air through a TiO₂ photocatalytic-glazed panel system...” - Cricket Day & Jon Canter

STUDENTS:

Cricket Day
Jon Canter





CRITIC:

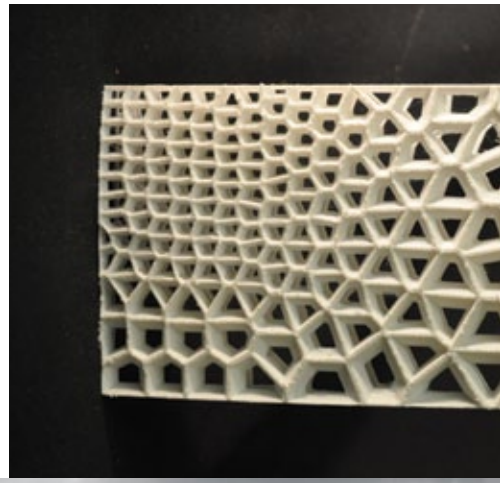
Shawn Rickenbacker

STUDENTS:

Kayleen Kulesza

Siwei Yu

“The project investigates the notion of carving and eroding volumes to produce both increased surface areas and two distinct and interwoven mass systems, multiplying surface areas through mass erosion.” — Kayleen Kulesza & Siwei Yu



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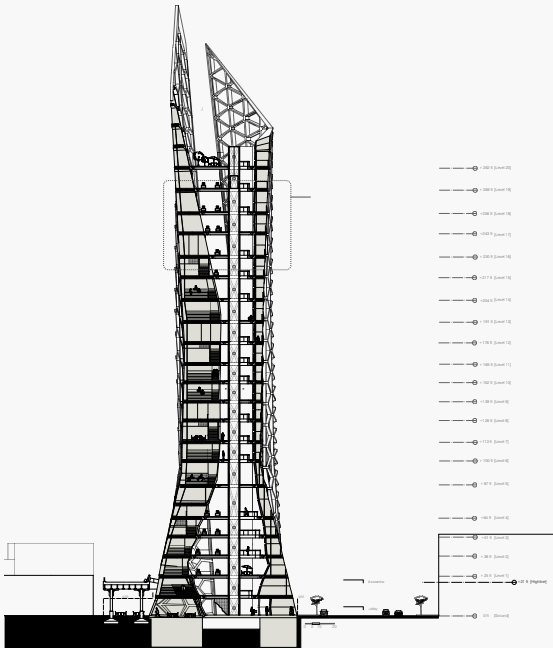
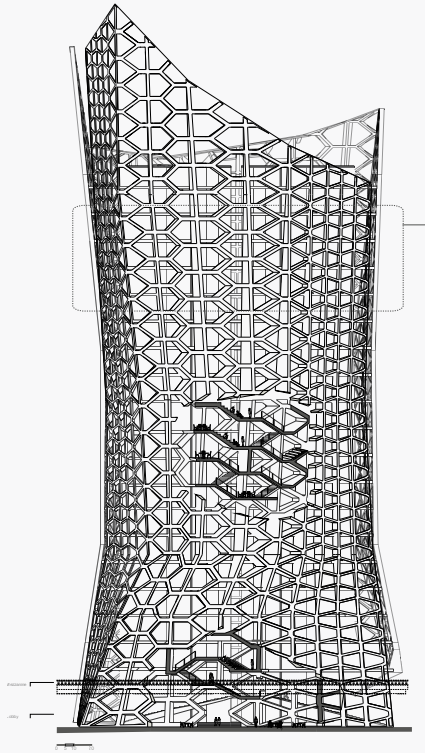
Franca Trubiano

STUDENTS:

**Jose Rafael Holguin
Peter Wildfeuer**

“...patterning on the skins has been carefully manipulated to respond to sun movement & is able to control light in the interior through operable surfaces that redirect, diffuse & reflect light into the spaces...”

— Jose Rafael Holguin & Peter Wildfeuer



Franca Trubiano
Assistant Professor

- Received a PhD from the University of Pennsylvania
- Received both an MArch and a BArch from McGill University
- Editor and co-author of the recently published *Design and Construction of High Performance Homes: Building Envelopes, Renewable Energies and Integrated Practice* (2012)





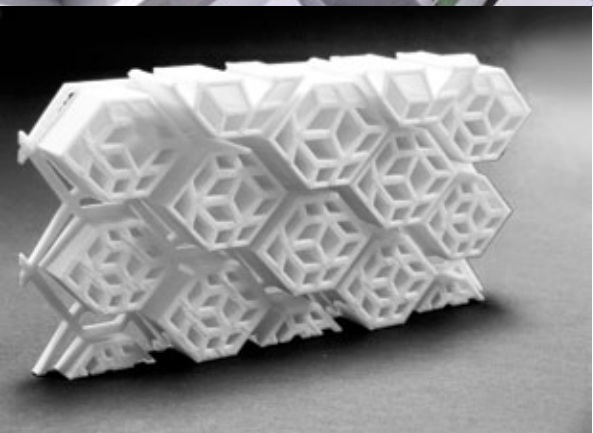
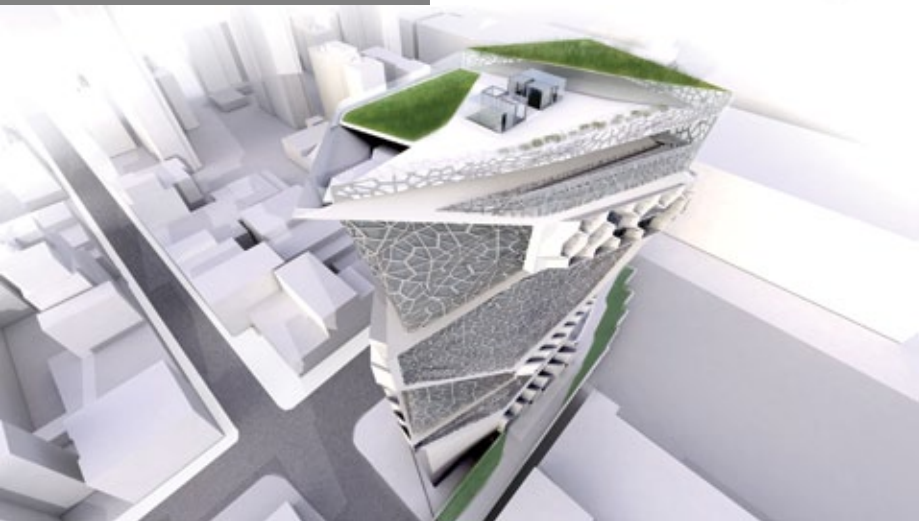
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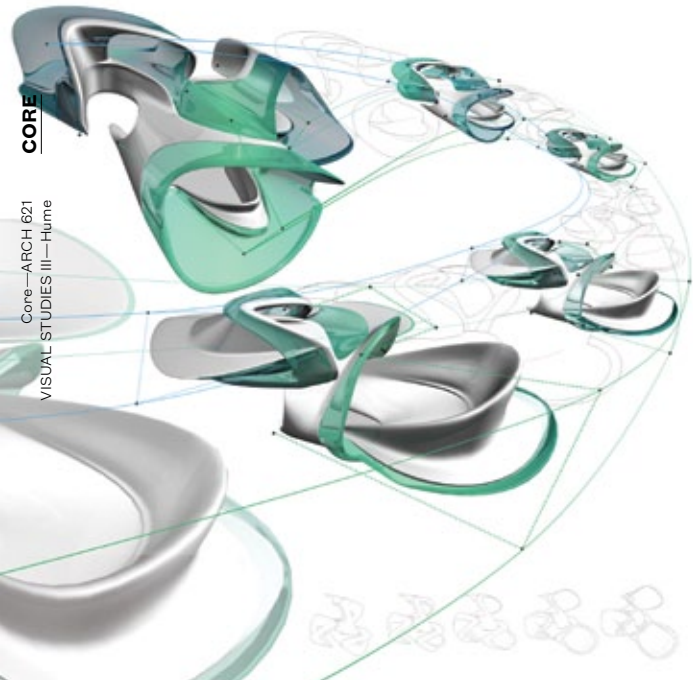
Franca Trubiano

STUDENTS:

**Natasha
Chamilakis
Juan Carlos
Tejedor**

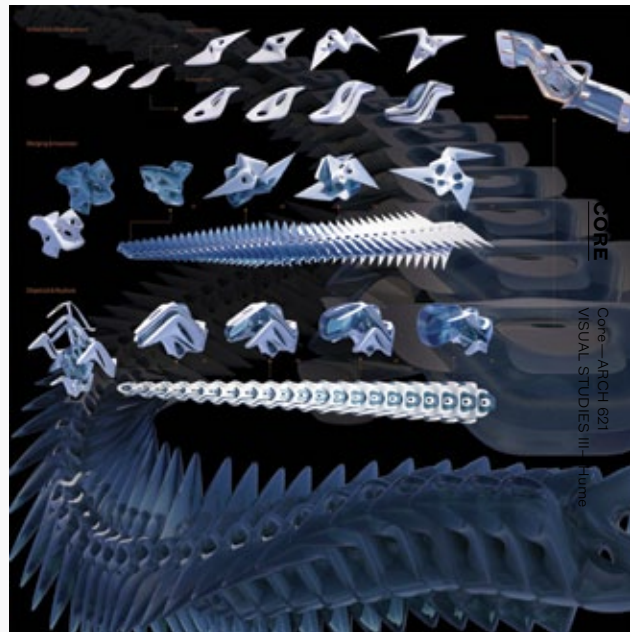
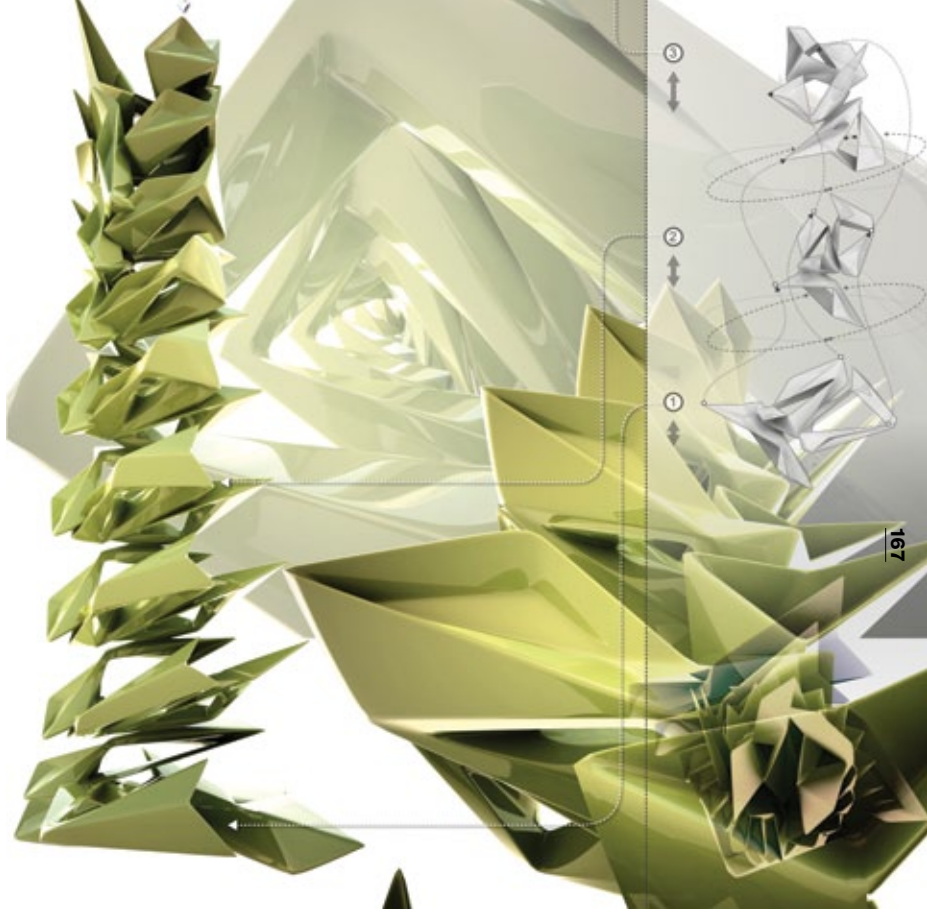
“Defined by two independent structural systems which offer a variety of spatial, material & environmental possibilities, & also inform a language for the architectural skin & the way it regulates light & temperature.” - Natasha Chamilakis & Juan Carlos Tejedor

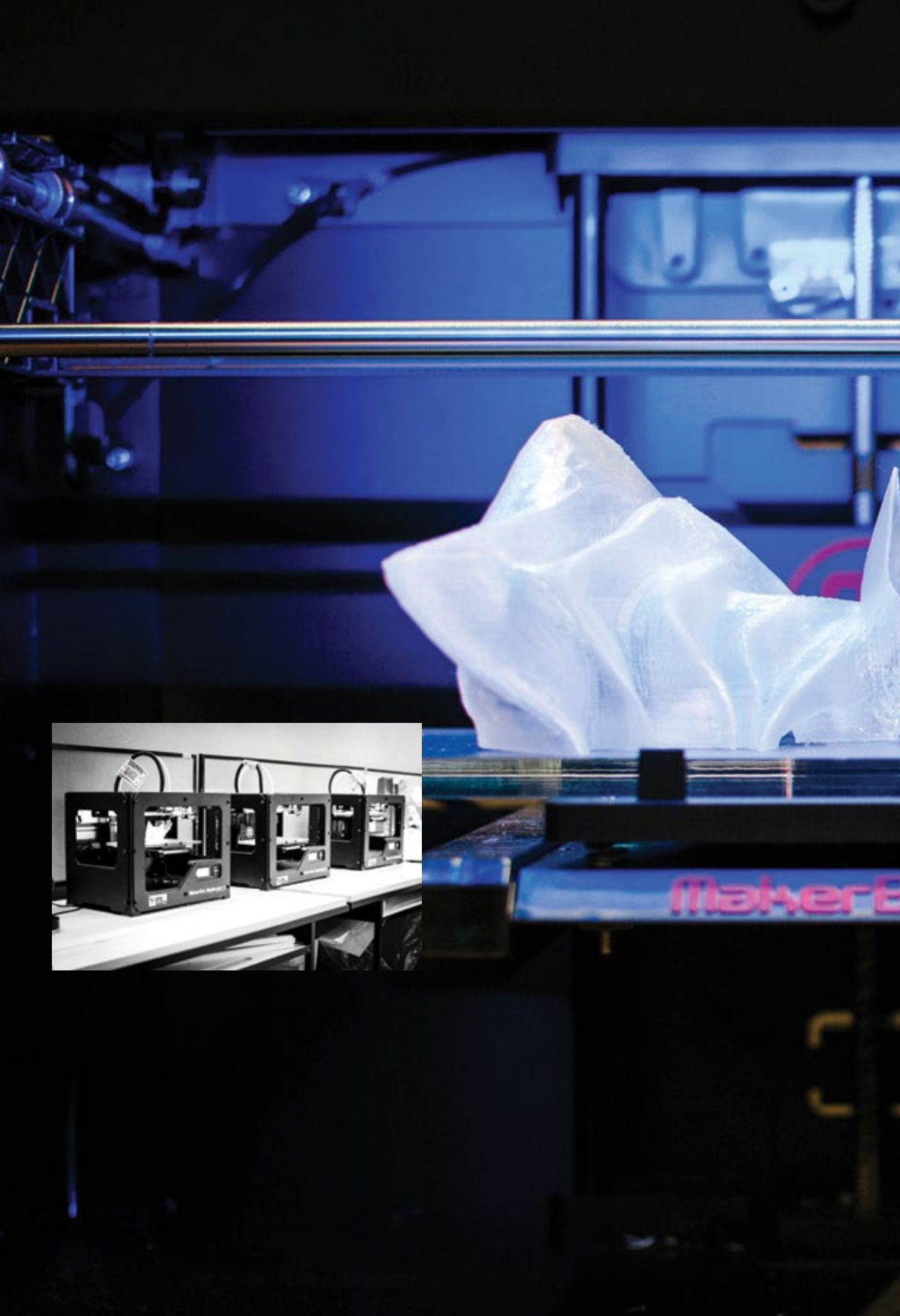




The study of analysis and projection through drawing and computer visualization.

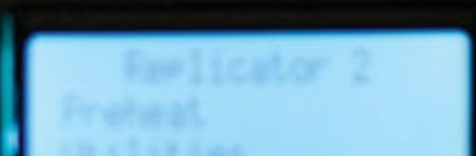
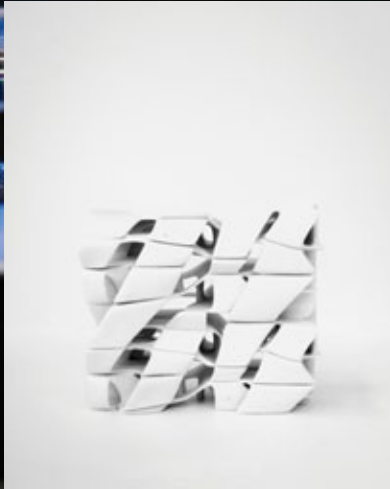
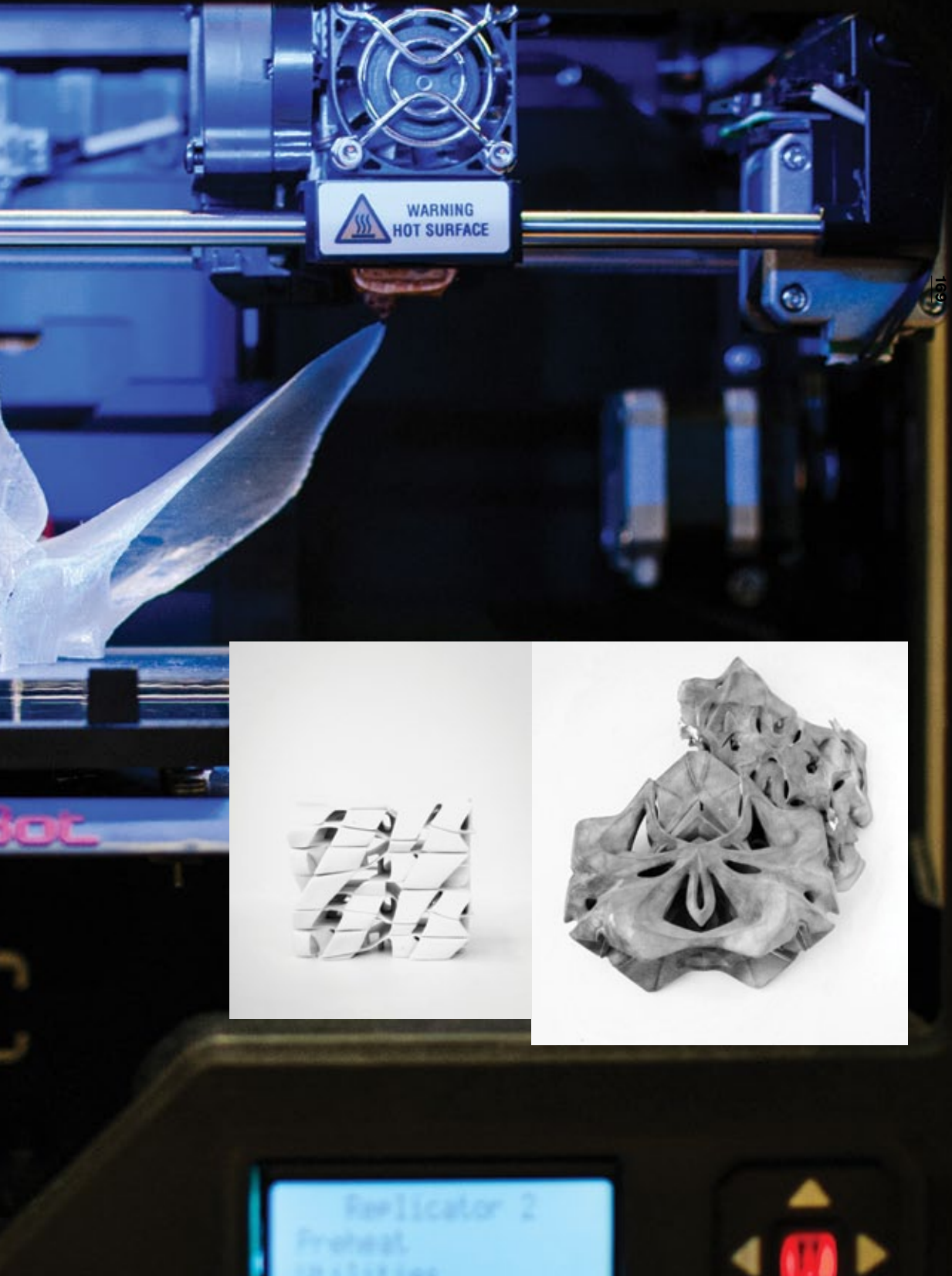
Instructor: Nathan Hume
Students Work Displayed:
Margaret Gerhart (left)
Peng Wang (bottom left)
Hugo Ochoa (middle)
Brett Dong Ha Lee (bottom right)
Jose Holguin (right)





January 2014

To enhance advanced digital modeling techniques into a highly defined design methodology, the Department of Architecture at PennDesign has integrated 3D printers into the studio.



172 Advanced 701 Introduction by Ali Rahim
212 Advanced 704 Introduction by Ali Rahim

17

70 Advanced!

ADVANCED!

MArch

Architecture

701

Ali Rahim

Coordinator

Architecture 701 is an elective studio which is constituted of five different sections and topics that challenges students to explore a range of large scale design issues that link building with the city. The design studios move beyond traditional planning to propose contemporary modes of inhabiting the built environments.

Designing formal relations between buildings, infrastructure and landscape provokes a more robust approach to large scale architecture and urbanism. Hybrid forms of building/infrastructure and landscape speculate upon large commercial, public or cultural programs provoking novel forms of participating in an urban environment. Project proposals are highly refined and use different methods of presentation including digital and physical models to explicitly articulate precise incisions within the city are presented.

During 2013 Maranello and Milan, Italy, London, UK, Los Angeles, US and Mexico City, Mexico explored to yield a significant body of research to develop sophisticated proposals within each of the cities. The research and exploration of these cities was supported through travel grants. The issues ultimately studied are driven by each studio critic and their interest in making a difference to the city their project is located in.

The resulting designs function in three ways, as objects in the city that allow the city to respond to the proposals, as responses to their contexts that negotiate the existing conditions in the city or a combination between the object and the context.

March 701 Faculty

Homra Farjadi

Elena Manferdini

Enrique Norten

Ali Rahim

Peter Trummer





ARCH 701 Studio Descriptions

Maximalism: 7_Speed Urbanism

Ferrari Headquarters, Maranello, Italy

Ali Rahim, critic (TA's: Lois S. K. Suh &

Andreas Kostopoulos)

Fall 2013 – page 180 - 183

Maximalism: Maximalism is an urban and architectural form that integrates combinations of various materials to formulate novelty in quality with extravagance exhibited by way of the overt accumulation of appurtenances that reflect the contemporary society. Maximalism is often characterized by the sensually and visually rich work-intensive practices that concentrate on the process of creation itself. Just as the Ferrari is an assemblage of constituent parts and it conveys extreme speed and opulence, maximalism is a form that is overtly complex providing multiple features in quantity and quality accumulated to excess.

Automobile Industry Innovation: Recent developments in the automobile industry include form that is developed using sculpted surfaces, uses floating elements in space and is inspired by nature. These formal techniques include integrating differences into surface continuity such as opacity and transparency as well as LED lighting. Structure is also integrated into the material, particularly in a new material technology that uses 'forged composite.' It reduces the monocoque structure to the thinnest of layers, simultaneously reducing body weight of the automobile by 40 percent. Additional composite materials include advancements in carbon fiber and thermoset resins. In addition, High Strength Steel (HSS) and non-ferrous metals such as aluminum and titanium have been refined for the use in automobiles so that the consistency

of these materials becomes ideal for molding and smoothness. High performance plastics have also been developed to include particles of metal imbedded in the material for heat transfer used in engine bay components.

7_Speed Urbanism: Design techniques then are crucial for the success of the proposals, as they bring together innovation with materials and speeds that are experienced through the shifting of gears of a high performance car. 7 "speeds" of design techniques will be developed to formulate the proposal.

Speed 1: Seaming. Used to convey differences in material and quality changes; can also be used to formulate wholes without articulating the part.

Speed 2: Pinching. Used to exaggerate curvature and heighten formal definition.

Speed 3: Texturing. Small variations interact to create a single affect in a continuous area.

Speed 4: Patterning. Elements are quantitatively assembled to develop a larger whole while maintaining its base qualities.

Speed 5: Accumulating. Discrete qualities are accumulated to develop richness.

Speed 6: Bridging: Connects different qualitative areas together through discrete elements.

Speed 7: Nesting: Each quality is an integrated whole and—at the same time — part of a larger whole. Changes within one quality can affect the sustainability of a different quality which is nested within it.

These 7_Speeds of design techniques will be explored along with the relation of automobile innovations to produce formal, structural and material innovations in an urban scale, yielding a maximal form of urbanism particular to Ferrari Headquarters in Maranello, Italy.

The explorations of Maximalism seek to push beyond the austerities of digital

technique and reductionism, encouraging concern for refinement and precision to unleash intelligence pertinent for urban and architecture form for Ferrari.

City Specific Interiors: Environments of Light

Homa Farjadi, critic (TA's: Pierandrea Angius & Eleni Pavlidou) Fall 2013 – page 184 - 187

At the time when world cities proliferate across the globe with whirlwind speed, how can architecture make the spatial experience of each to remain specific? How can each city's culture and geography be felt in its interior environments? Focus of this semester in the London studio aimed at articulating how light literally colors our experience of space by conditioning the physical space and our material perception of it. Lived experience finds coordinates in spatial representation, creating sensations of definition and dispersal, intimacy or publicity, density or transparency, interiority and exposure. In producing sensation of comfort, coziness, warmth, cool, shade, energy or calm, it can expand or contract scale, 'emplace' or 'displace' sites, enclose, frame or engender flows.

With studio resident in London for the Fall semester we used the opportunity to have direct experience of this metropolis through analysis of physical spaces in relation to specific environments of light in its historic and contemporary spaces. In preparatory research for the design project the students analyzed specific urban spaces in public pavilions, art installations, markets, churches, train stations as well as a range of local and global architectural precedents in relation to the formations of light in their

material space.

The studio project site was located in Brixton, adjacent to a site where an existing market building constructs one such example of indoor-outdoor urban structure engaging the city. The project for the new site in Brixton center proposed new integrations of public amenities, urban infrastructure of transport and access with special attention to spatial formations and climatic environments of light. The projects for the semester offered design of architectural elements in a new set of interiors especially aiming to articulate alternative morphologies and typologies of indoor /outdoor public space.

Artificial Matters

Elena Manferdini, critic (TA: Joshua Freese)
Fall 2013 – page 188 - 191

LITERAL vs SYNTHETIC Materiality: Traditionally architects have been taught that materials have a "true nature" and that their use should align with the honest application of that nature. Lately, however, the architecture world has witnessed a renaissance in material consciousness. This new awareness recognizes the value of a material's intrinsic characteristics but further explores the possibility that altering, exaggerating, or reconfiguring inherent properties provokes an entirely novel vocabulary of material sensations. The resulting artificial materials can be described as "synthetic" because they are the result of layering various qualities that are not necessarily innate to the physical properties of a specific matter but instead are the compounded product of combining multiple stratifications of texture, geometry, coloration and tooling. Currently, the

haptic and visual aspects of materials clearly dominate the discussion, moving away from any prescriptive approach or predetermined outcome, releasing any moral judgment about the right way to use materials.

Alternatively, materiality had a fundamentally different development in the historic spectrum of sculpture and painting. The virtuous mastery of the artist was the ingredient that would be able to make an-other thing exactly as another thing is seen to be. Most of the artistic investigation in fact has revolved on the optics, discussing the ways in which objects are visually perceived and the intellectual associations they can instigate in the viewer.

Each student will design: a Pavilion for the Milan 2015 EXPO and the surrounding landscape. The interest of the studio is an expanded, hybrid nature rather than the purist 'return to Eden' concept that is usually opposed to the artificial. Made with the aid of computer technology, each project will collapse reality and artifice, and propose that contemporary architectural materials are often a mutation from the "original" producing a world in which fact, fiction and fantasy co-exist. The work of the class as a whole will question the ideological and formal implications of various digital representational modes.

Architecture and Urbanism:

Downtown Puebla, Mexico

Enrique Norten, critic (TA: Humberto Arreola) Fall 2013
page 192 - 195

The studio project will be located in Puebla, Mexico. The city of Puebla is situated about 65 miles east of Mexico City, in the central highlands in East-Central Mexico and was

founded by the Spanish in 1531 to secure the trade route between Mexico City and the port of Veracruz, becoming one of the wealthiest –and more beautiful- colonial cities in the country. It has preserved its great religious and colonial 16th-17th-century structures in an untouched Historic Centre urban network protected as a World Heritage area by UNESCO.

This studio will focus on the architecture and urbanism of Puebla's colonial and pre-modern center, specifically the Paseo Bravo area. Starting from the recognition that this area is essential to Puebla's growth into the 21st century, the studio will develop strategies to re-invent, activate and strengthen some of its public spaces, and propose and design of new cultural and educational building(s) that could provide new opportunities for the future of this part of the city.

The Site + Project: Paseo Bravo: The Paseo Bravo is a public park situated on the west side of the historic center of Puebla right on the edge of World Heritage protection zone defined by UNESCO, and was originally a symbol of modernity in the 19th century. For many years it was a urban border to Cholula. The area concentrates diverse uses and identities surrounded by buildings and monuments of great historical value with a long history, as are the Church of Guadalupe, the Church of San Javier, the Music Conservatory, the Puebla Cultural Center, the Historical Archive Building, the Farmers Market, the National Rail Museum and many others. Despite their adjacencies, these urban components have little interaction and relation to each other and the Paseo Bravo.

The design process will start from mapping the site and surrounding area (landmarks, paths, context, program, green and public areas, etc.) along with an exercise

to demonstrate an understanding through research of the specifics of the problem to provide creative responses that register and transform the conditions they are confronted with. Simultaneously, we will try to define and program the possible cultural institutions that will complement the existing architecture.

We will develop strategies for the restoration and redevelopment the perimeter of the Paseo Bravo. We will consider the introduction of new and complementary uses and economies and upgrade the existing infrastructure and the creation and extension of connections to the rest of the city.

The City As An Aggregated Figure

Peter Trummer, critic (TA: Christopher McAdams)

Fall 2013 – page 196 - 197

The studio is framed around two disciplinary problems that are based on the relationship between architecture and the city. The first disciplinary problem relates to the formal problem of parts and its whole. The second disciplinary problem defines the relationship of buildings to their ground. Both disciplinary topics will be used as the methodological framework of the studio.

Until today two formal models, ones described by the Austrian Architectural Historian Emil Kaufman, are materialized within our cities.

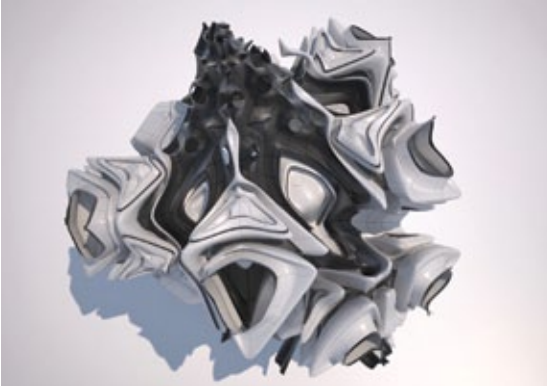
Within the first formal diagram, Kaufman defines architecture as being heteronomous. A heteronomous architecture means that buildings are standing closed to each other. Together these buildings form an urban mass whereby each individual building sacrifices its individuality in order

form a whole. The grounds within such cities are defined by public squares, courtyards or streets, which seem to be carved out like figures from the building mass. Such a model describes our pre-modern cities and exists even today in many historically European cities that emerged either in the middle ages or earlier.

The second formal model defines architecture as autonomous. An autonomous architecture means that buildings are standing free and are not connected to each other at all. The buildings define together a field of objects, whereby every building becomes isolated and does not sacrifice its iconography. The grounds of such cities are like large parks and form a continuous void surrounding the freestanding buildings. Such a model defines our modern city and is still the dominating form with which our cities are built.

The design studio experiments with a new formal diagram, a formal diagram in which architecture itself behaves as figure as well as ground for the city.

The brief is based on the hunch that within our contemporary city a third urban model emerges. Within such an urban model architecture is neither heteronomous nor autonomous. It is both at the same time. Architecture becomes the ground for architecture. A building is not only the figure standing on an urban ground but instead becomes the ground for the city itself. While both historical models, described by Emil Kaufman, still relate to the subdivision of land, the architecture of the 21st century might ignore to be just the extrusion or prepetition of its land vertically. Architecture is land in itself.

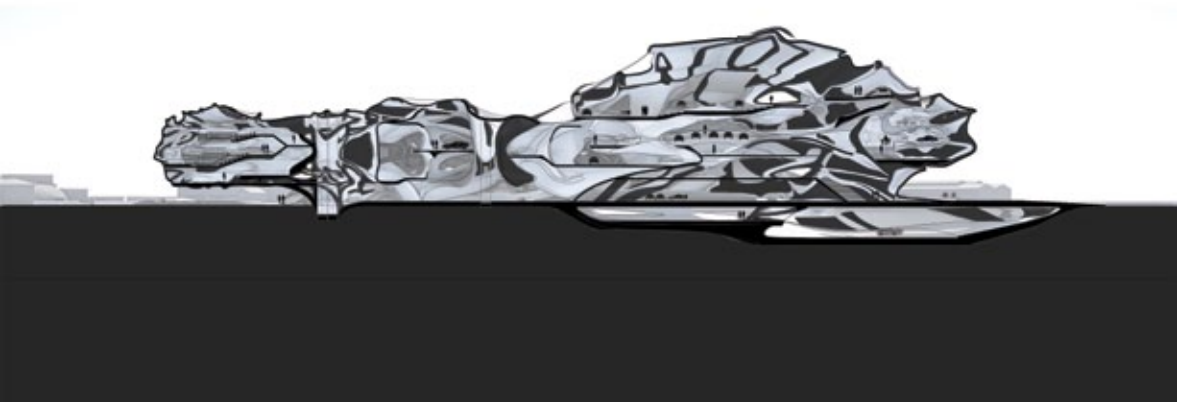
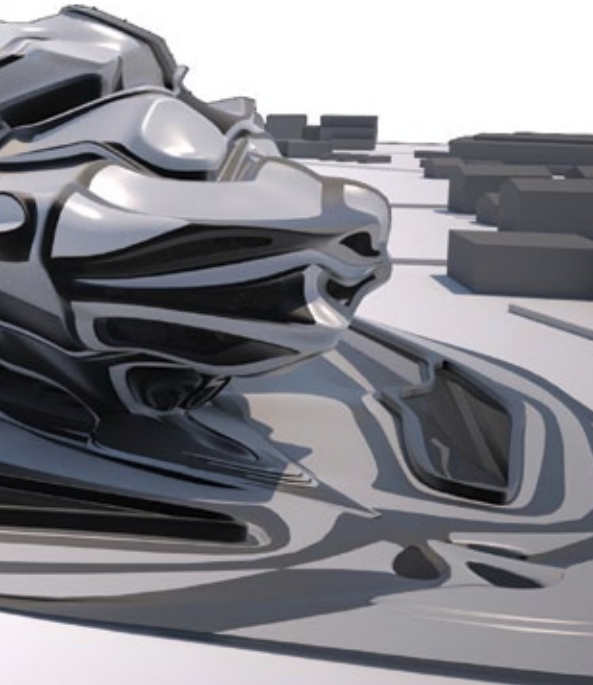


Ali Rahim
Professor



- Founded Contemporary Architecture Practice (CAP), NY (1999)
- Received an MArch from Columbia GSAPP, where he won the Honor Award for Excellence in Design & the Kinney Traveling Fellowship
- Books include *Catalytic Formations: Architecture & Digital Design* (2006), *Elegance* (2007), *Contemporary Techniques in Architecture* (2002), & *Contemporary Processes in Architecture* (2000).





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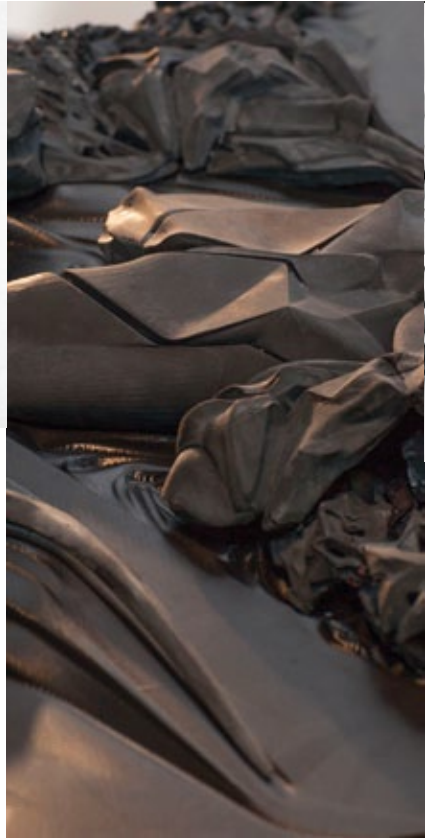
Ali Rahim

STUDENTS:

Kristy Kimball

Kathryn Viechnicki

“...maximalism through patterning to accentuate spatial zest. The black & white heighten the pattern, manipulated from surface to volume in order to create structure & space through surficial continuity.” - Kristy Kimball & Kathryn Viechnicki





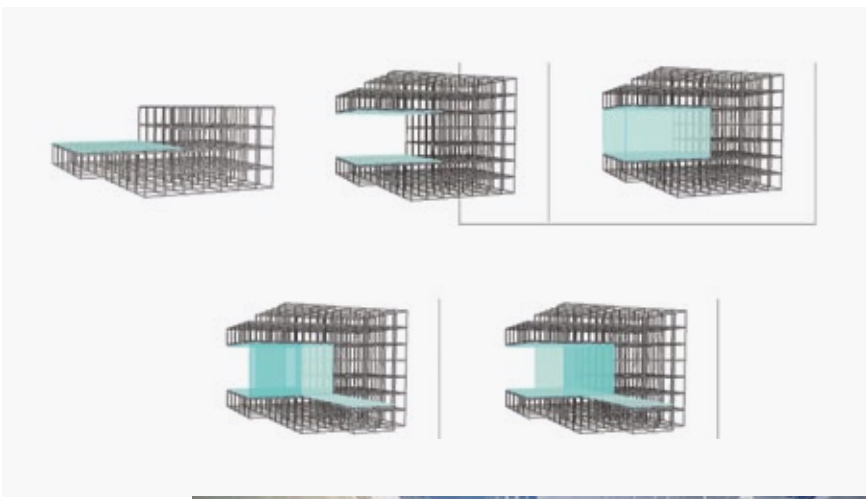
CRITIC:

Ali Rahim

STUDENTS:

**Megan Cheung
Andrew Gardner**

“...we repeatedly maximized the use of the seam, from its play on surface & how it implies a surficial panelization to moments when it deepens into a crack, perhaps an opening, & eventually into a volumetric void...” -Megan Cheung & Andrew Gardner



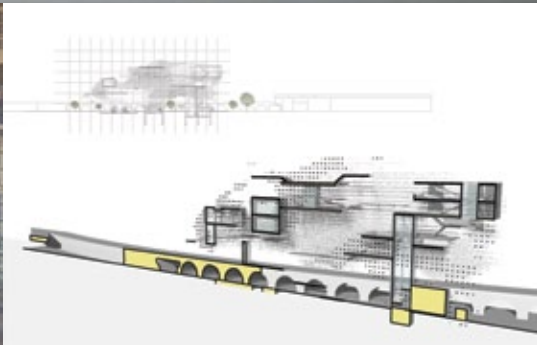
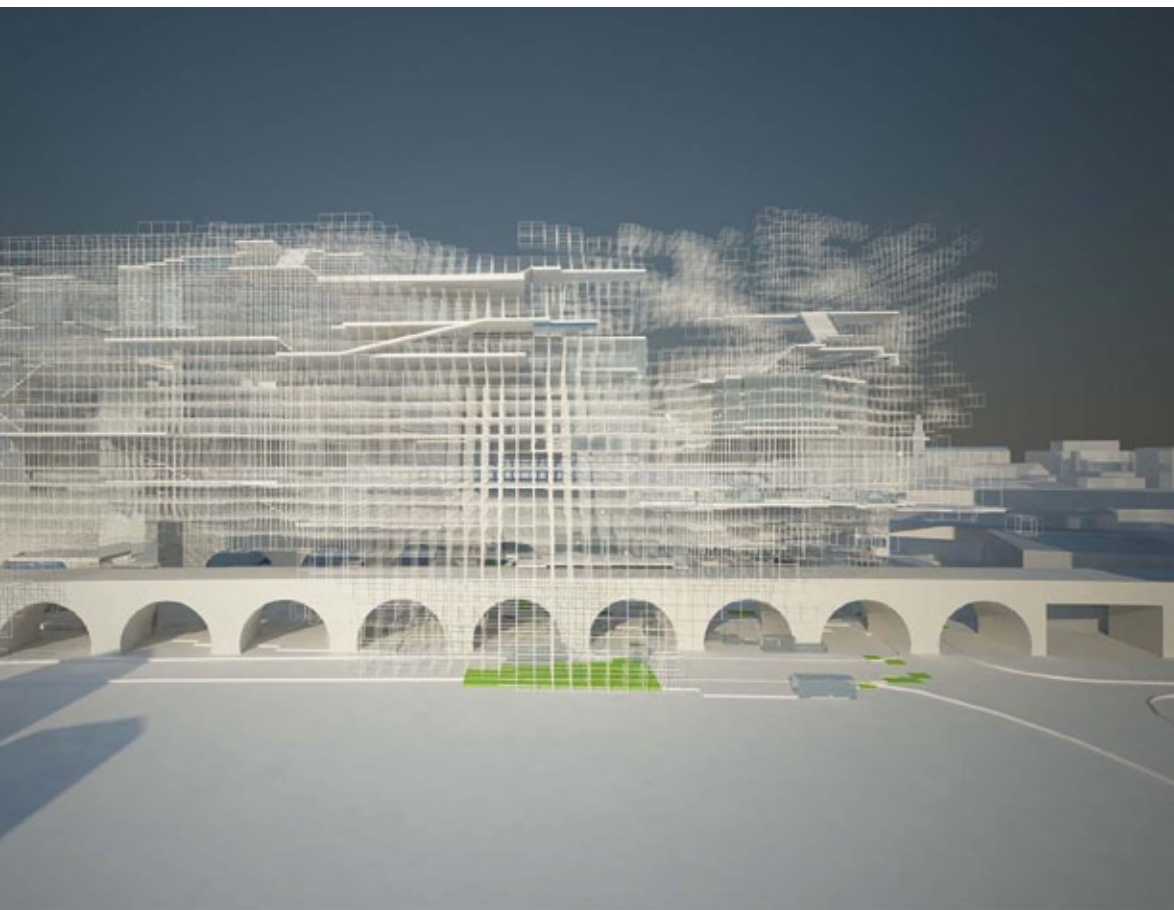
CRITIC:

Homa Farjadi

STUDENTS:

Anna Ishii**William Wong**

“...an experiment of creating space through simple aggregation of self-similar elements to a larger scale...to contain a multitude of programmatic elements that become scattered or dispersed within this "cloud". ” -Anna Ishii & William Wong

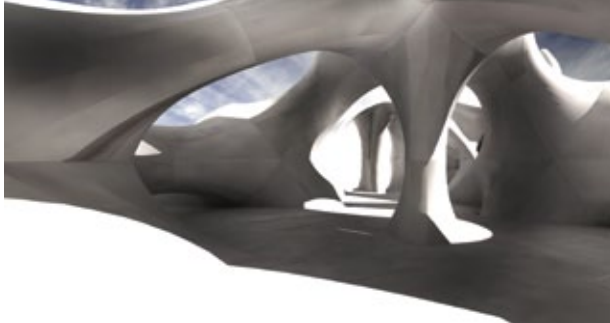
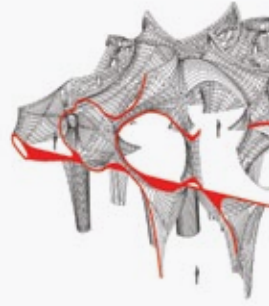


Homa Farjadi
Practice Professor



- Principal of Farjadi Architects (1987)
- Received a Graduate Diploma from the AA School of Architecture in London and an MArch with distinction from Tehran University
- The work of her office has been exhibited and published internationally. Her projects have received numerous prizes in international design competitions and awards of distinction for built work.





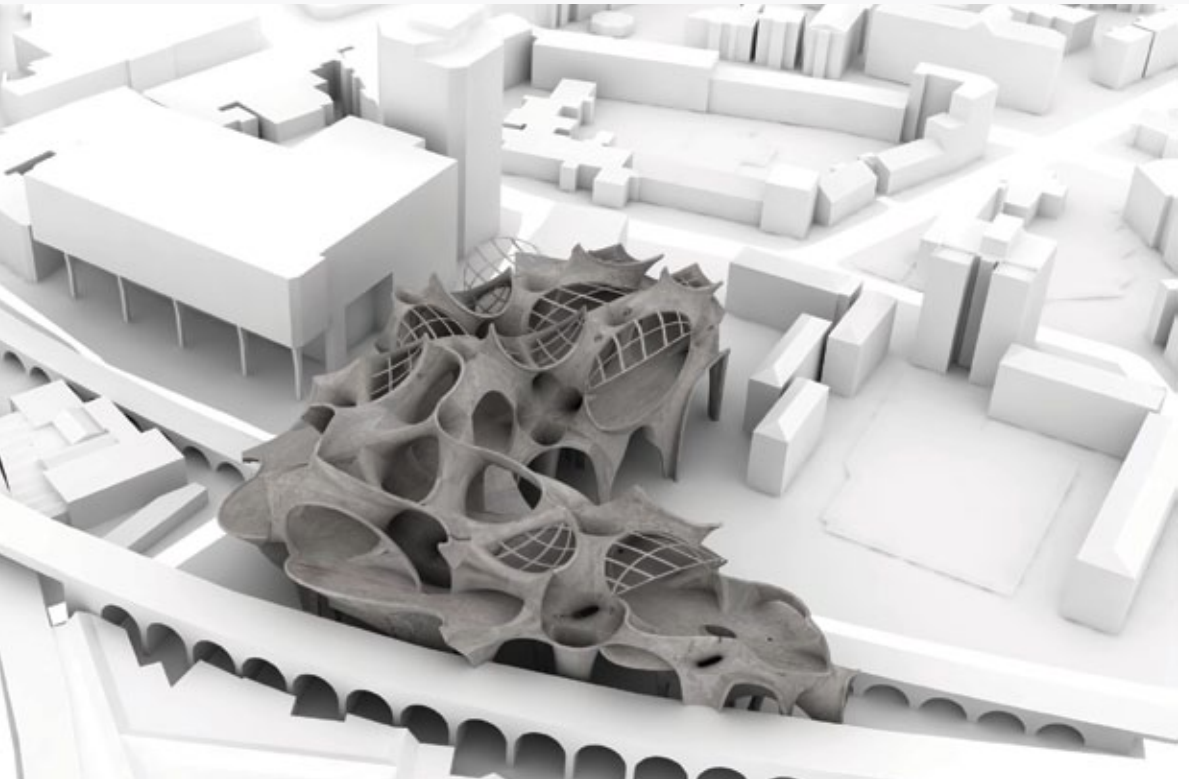
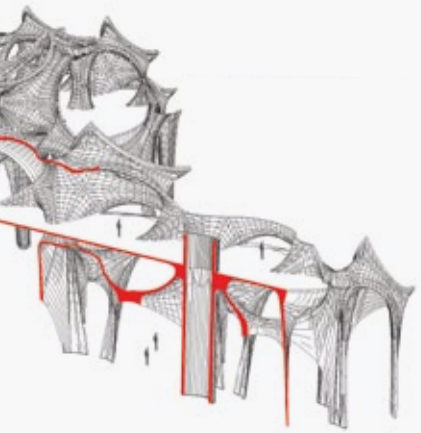
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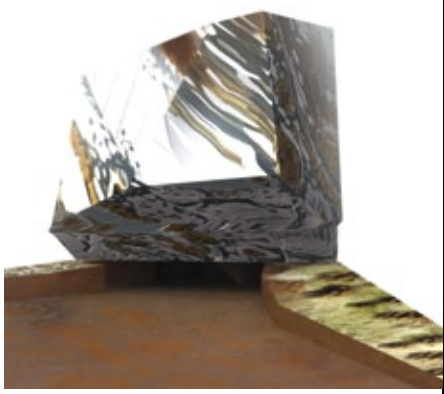
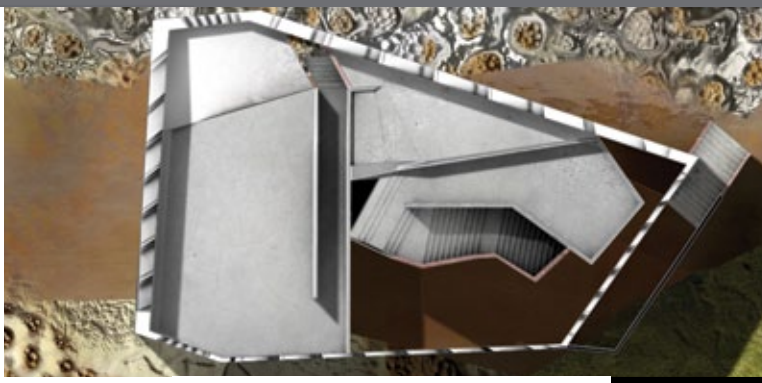
Homa Farjadi

STUDENT:

Jia V. Kim

“The design of architectural elements in a new set of interiors especially aiming to articulate alternative morphologies and typologies of indoor /outdoor public space.” — Jia V. Kim



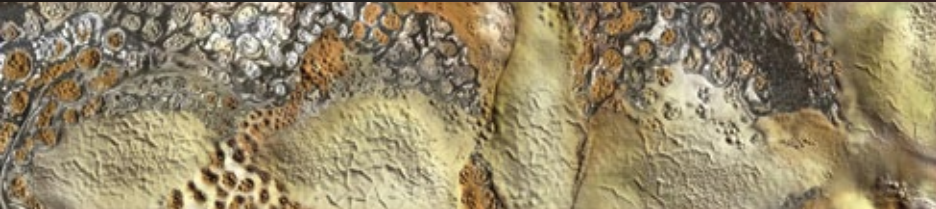
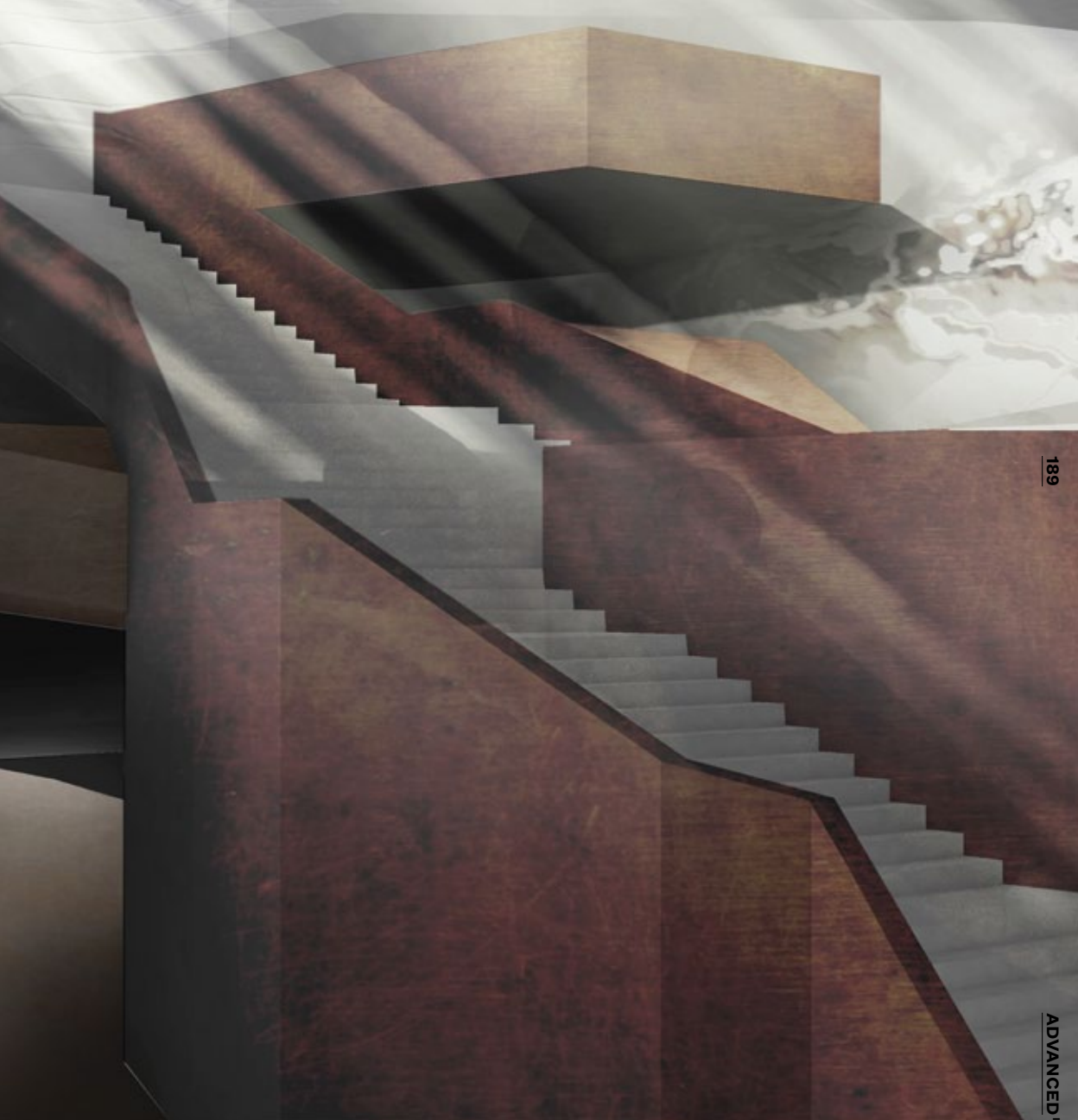


Elena Manfredini
Lecturer



- Owner of Venice, CA based, Atelier Manfredini (2004)
- Received the Graham Foundation Award for architecture (2013)
- Received a MArch I from UCLA Architecture and Urban Design (2000)
- Earned a Structural Engineer Degree from the University of Bologna, (1997)





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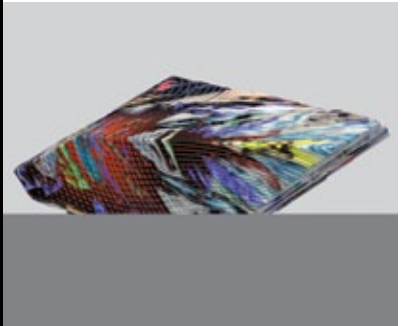
Elena Manfredini

STUDENT:

Kelly Berger

“...aims to blur lines between physical & visual perception...this abstraction creates a visual language between pavilion & landscape...the colorization is visually manipulated on the pavilion, allowing for more obscurity...” -Kelly Berger





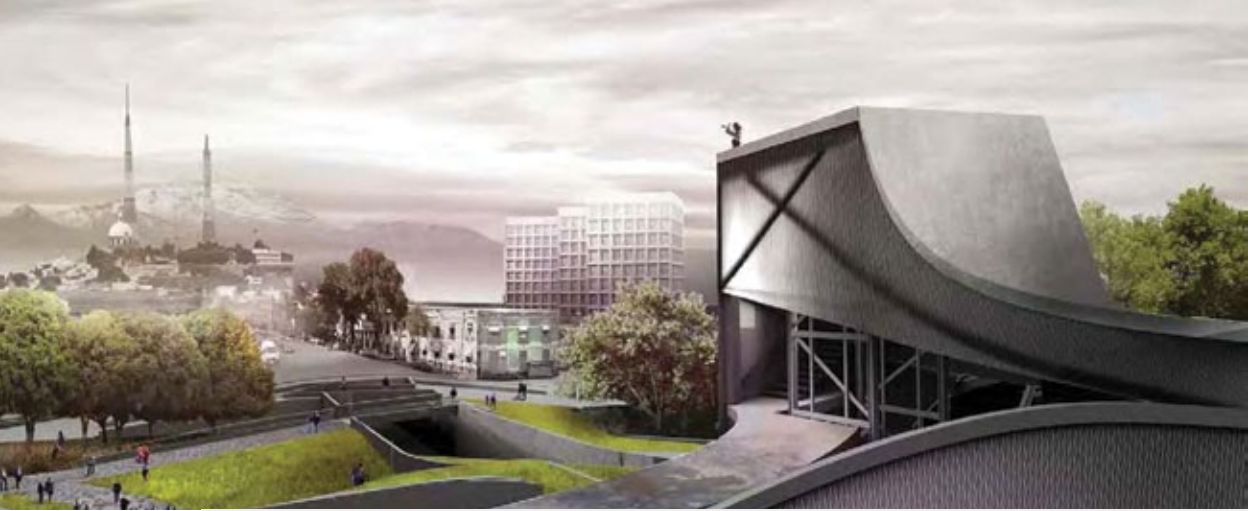
CRITIC:

Elena Manfredini

STUDENT:

Yuchen Zhang

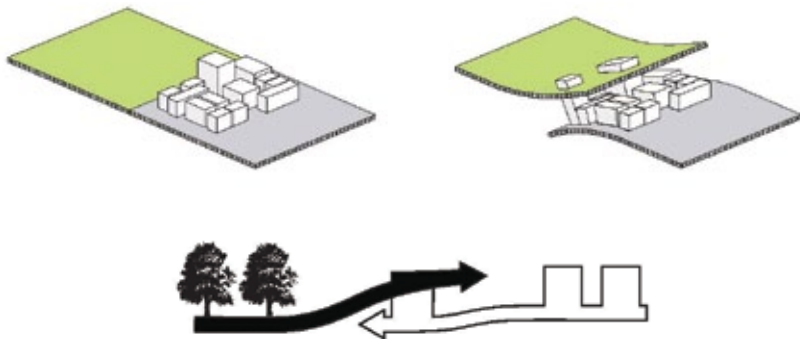
“...an effort to manipulate the material of the landscape to follow the same mood by melting the hardscape with huge scaled and static pattern into softscape with small scaled and fluid flows.” — Yuchen Zhang




CRITIC:

Enrique Norten
 STUDENTS:
Joshua Jordan
Ryan Koella
Peter Martinez


“...a dialogue between urban & landscape conditions, & how the former notion of a boundary between the two fabrics are exploited & expanded. Vibrancy of urban life is embedded within a new union of park & street.” - Joshua Jordan, Ryan Koella & Peter Martinez

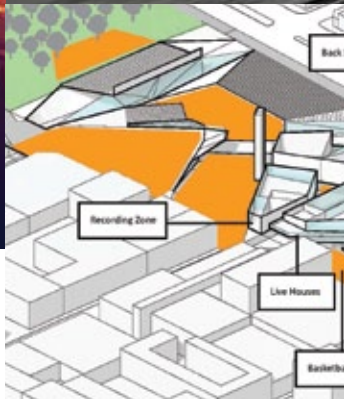
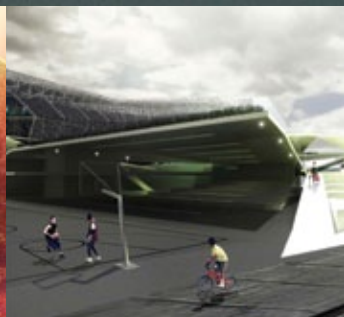
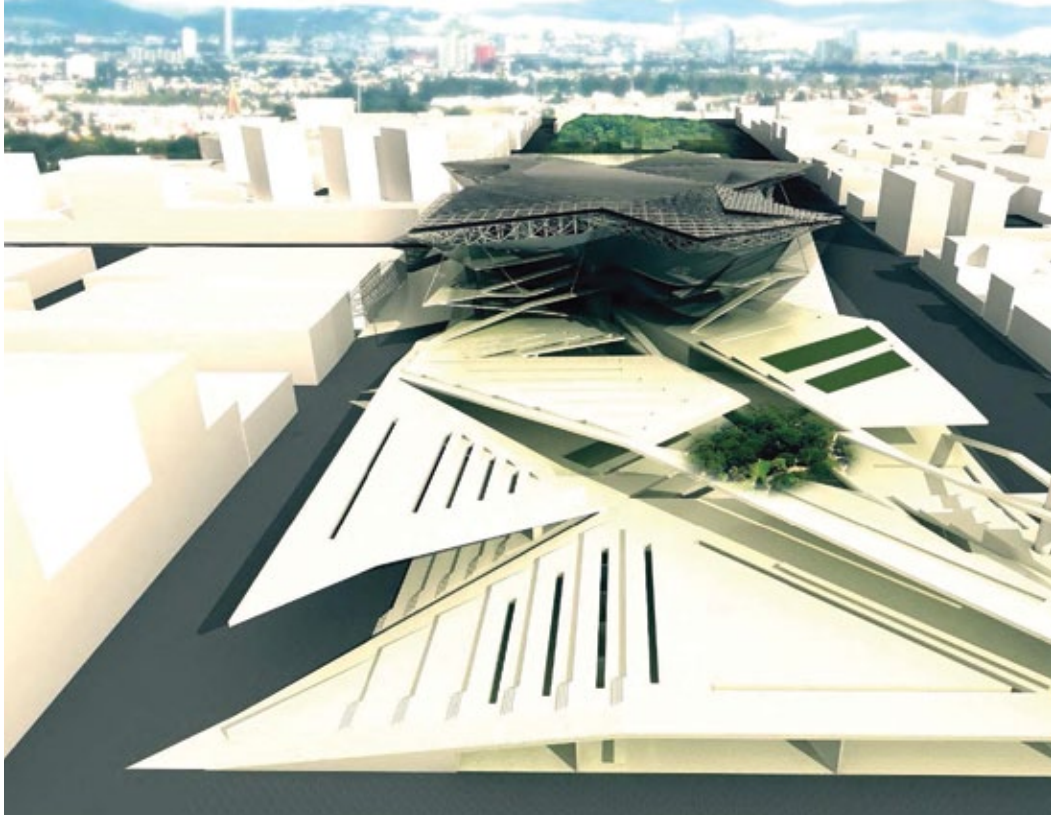


Enrique Norten
 Ella Warren
 Shafer Miller
 Practice Professor



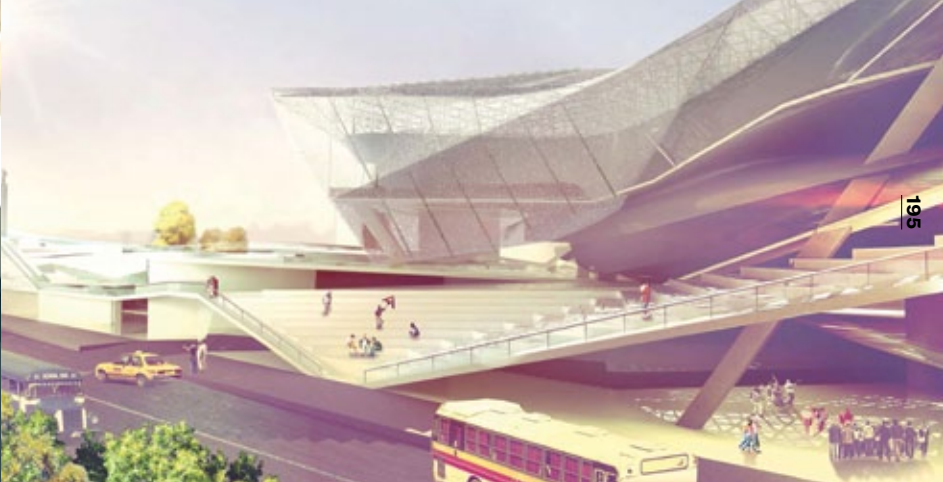
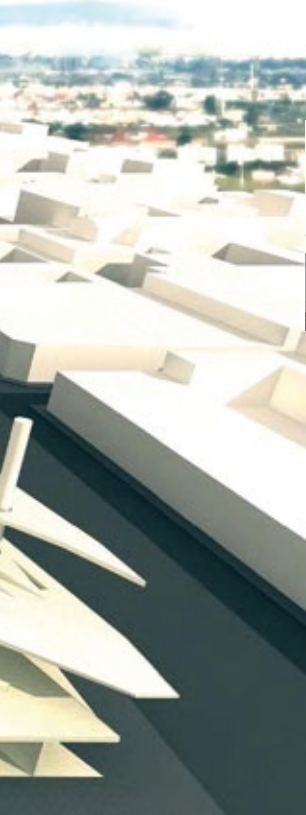
- Principal of TEN Arquitectos (Taller de Enrique Norten Arquitectos), MX & NY (1986)
- MArch from Cornell University (1980)
- Architecture degree at Universidad Iberoamericana (1978)
- Monographs include *Working: Enrique Norten/TEN Arquitectos* (2007) and *Enrique Norten: Temas y Variaciones* (2004)

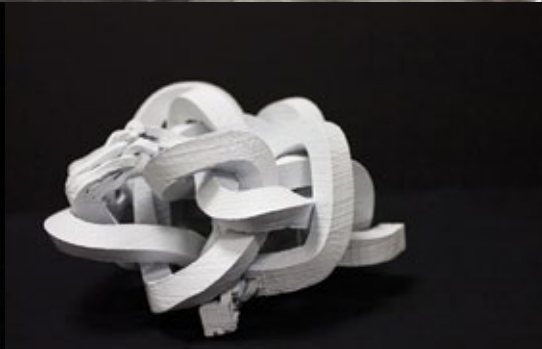


CRITIC:
Enrique Norten
STUDENTS:
Tianqi Zhang
Ming Chang Liu
Jinglu Li

“Audience becomes performers; performers become audiences. Everything we do could be music, arts, and performances. The distinction between life and art does not exist.” — Tianqi Zhang, Ming Chang Liu & Jinglu Li





Peter Trummer
Lecturer



- Received a Master's degree from the Technical University in Graz and finished his post-graduate studies at the Berlage Institute in Amsterdam (1997)

- Professor and Head of the Institute for Urban Design & Spatial Planning at the University of Innsbruck

- Lectures, teaches, & an invited critic at the Berlage Institute, the AA in London, the University for Applied Art, IAAC, SCI-Arc & Rice University.



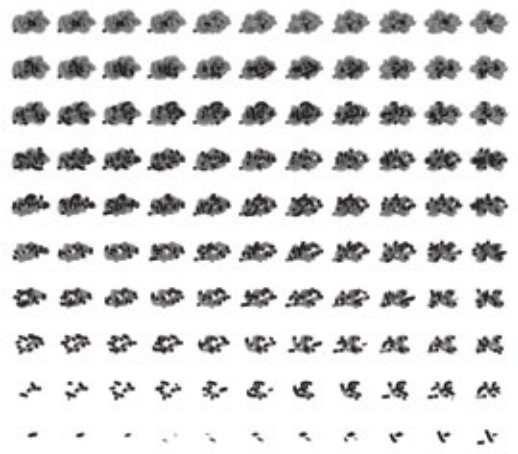
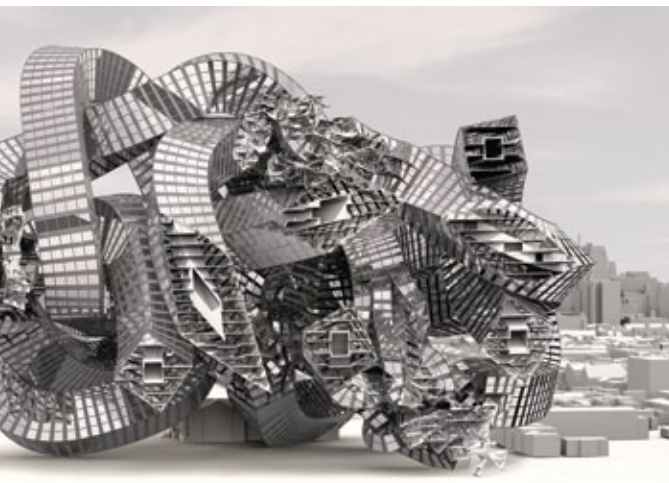
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Peter Trummer

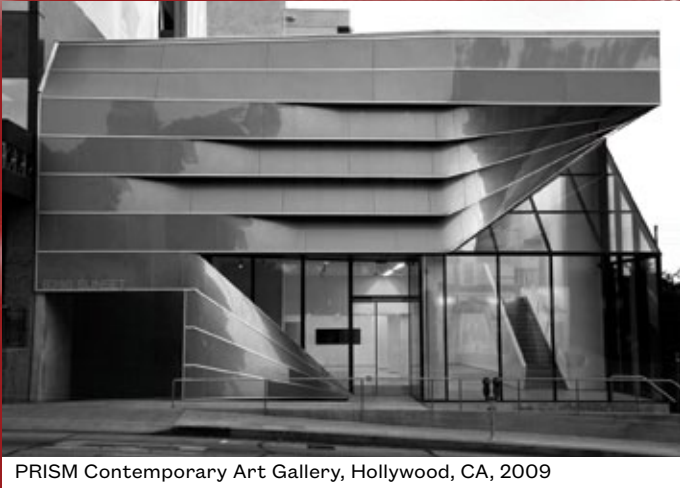
STUDENTS:

Alex D'Aversa & Michael Buckley
Alex Holstein & Jenna Bolino

Eric Hull & Sam Rosen
Lauren Mears & Thomas Jansen



“The design studio experiments with a new formal diagram, in which architecture itself behaves as figure as well as ground for the city. The brief is based on the hunch that within our contemporary city a third urban model emerges...architecture is neither heteronomous nor autonomous.” —Peter Trummer



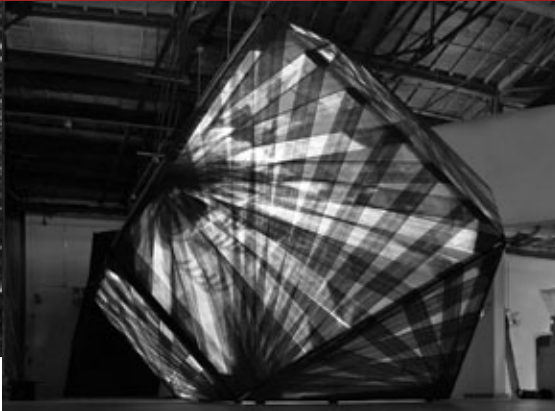
PRISM Contemporary Art Gallery, Hollywood, CA, 2009

February 12th, 2014

Lecture: Marcelo Spina, founder of P-A-T-T-E-R-N-S



Jujuy Redux, Rosario,
Argentina, 2012



Textile Room, Los Angeles, CA, 2013

Archi-Tectonics/ Winka Dubbeldam in the Press

In March 2014, Arquine Magazine hosted Arquine Mextropoli, the fifteenth International Architecture and Design Conference, in Mexico City, Mexico. Winka was invited to give a lecture at the conference. Arquine Magazine also featured Archi-Tectonics in a four page spread (Spring 2014 edition), titled "Futures: Downtown Bogota, My Ideal City,".



Designboom interviewed Winka on recent work & her history...an excerpt from the interview: "DB: what made you want to become an architect?"

WD: I lived with my parents until I was seventeen and in that time we moved house fifteen times. both my brother and I became accustomed to growing up in construction sites and houses that were being remodeled. my brother became an engineer and I became an architect so I'm sure the way we grew up influenced our job choices... we were very aware of our environment and how architecture worked in different contexts and how it defines your lifestyle..."



APRIL 2014

Srdjan Jovanovic Weiss leads 'Inhabiting Everyday Monuments' in Detroit

Srdjan Jovanovic Weiss lead a masterclass entitled Inhabiting Everyday Monuments at Detroit's Lawrence Technological University's Critical Practice Studio.

Twenty four graphic novels contained here are created by eight architecture design teams gathered at Lawrence Technological University in the summer of 2014. They carry analysis and propositions for inhabitation of extraordinary post-industrial landscape between Detroit and Flint, Michigan. This masterclass re-interpreted unrealized visions of radical Western architecture from 1960' and 1970' amalgamated with archeology of socialist monuments from Eastern Europe built about the same time These projects are seeking contemporary aspects of inhabiting futures from the past. They are charged with ideologies that inspired them as symbols of the future and their ever dislocation of the everyday into forthcoming times. The projects drew future into the present and explored new typologies of inhabitation and their emerging monumentality.



9 story residential building, including two 3-story townhouses and one 2-story townhouse, located in the historic district of Tribeca New York. In addition to Archi-Tectonics' V33 Condo, the exhibit featured projects from around New York by architects such as SOM, Bjarke Ingels Group, Rafael Vinoly Architects and Enrique Norten amongst others.



May 9th, 2014

Graham Harman speaks on Tom Wiscombe at McGill University

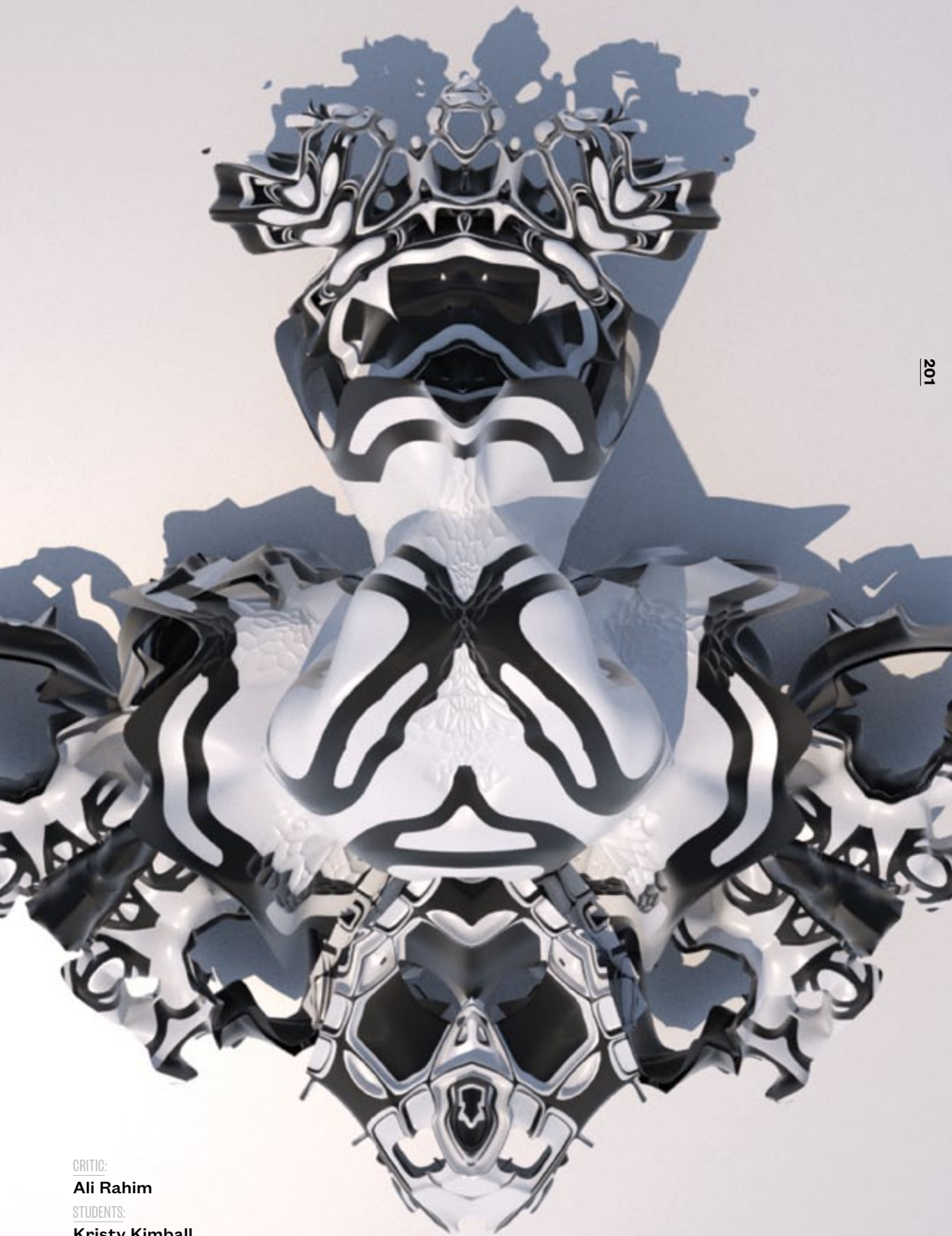
Graham Harman, internationally renowned contemporary philosopher of metaphysics, delivered the conference keynote presentation titled "Overcoming Flatness in Architecture and the Arts" at McGill University in Montreal. A portion of Harman's talk was about Tom Wiscombe Architecture's National Center for Contemporary Art, Moscow.

May 21-25th, 2014

Winka Dubbeldam invited to Moscow

The 4th annual Moscow Biennale of Architecture invited Winka Dubbeldam and Archi-Tectonics for their V33 Condo to be exhibited. The Biennale is an annual thematic exhibition alternating Art and Architecture every year, and is attended by over 30,000 people every year.

The topic for the 2014 Biennale was 'Urban Districts' and featured the



CRITIC:

Ali Rahim

STUDENTS:

Kristy Kimball

Kathryn Viechnicki

reference page 180



CRITIC:

Peter Trummer

STUDENTS:

Eric Hull

Sam Rosen

“The intention of this studio is to design an architectural object as an aggregation of inhabited cells forming an urban figure...whereby its figure generates a new ground for the city.” - Peter Trummer







CRITIC:

Ferda Kolatan

STUDENTS:

Bongkyun Lee

Zhengneng Chen

reference page 260



CRITIC:

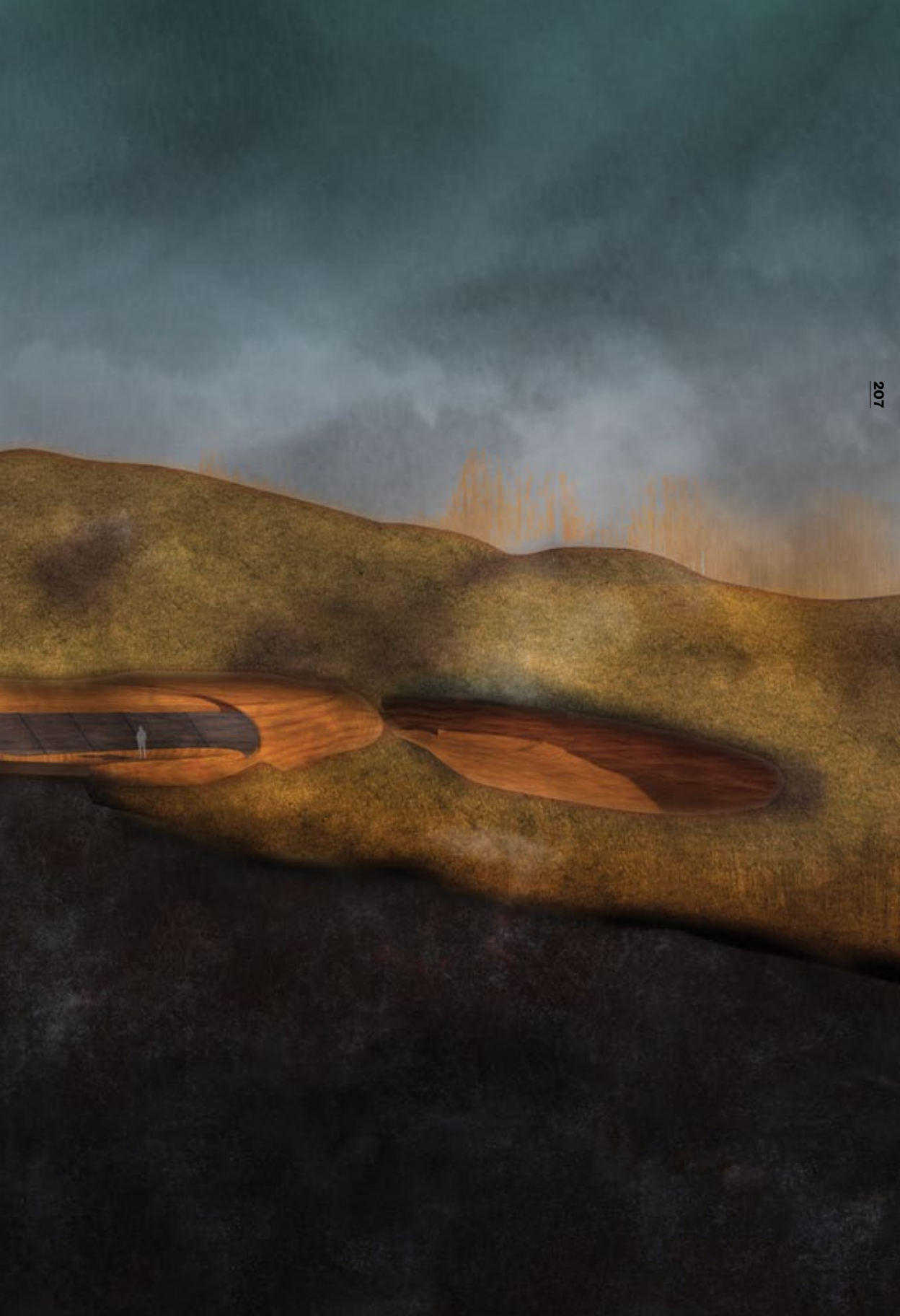
Winka Dubbeldam

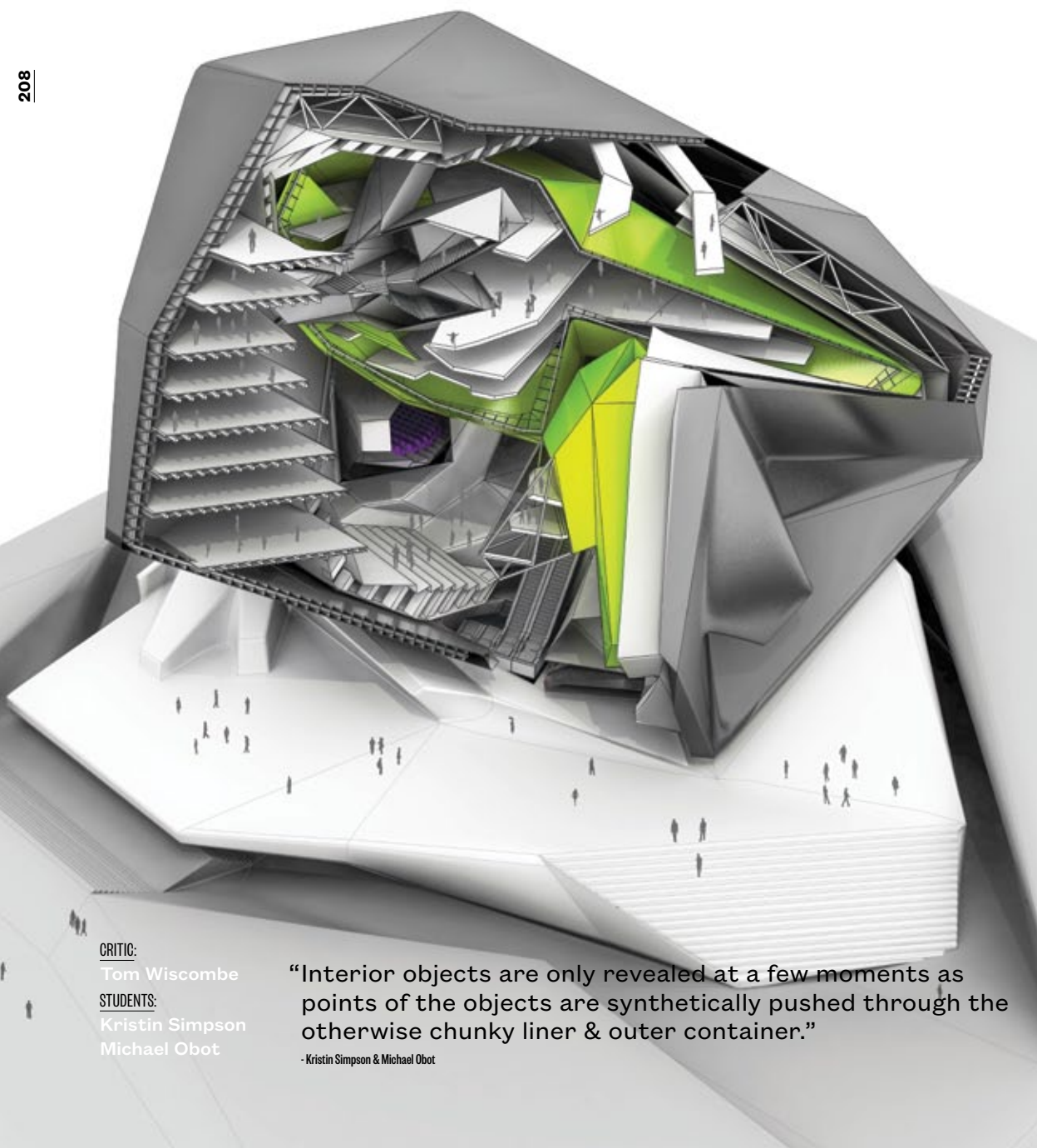
STUDENTS:

Eleni Han

Di Fan

reference page 256



**CRITIC:**

Tom Wiscombe

STUDENTS:

Kristin Simpson

Michael Obot

“Interior objects are only revealed at a few moments as points of the objects are synthetically pushed through the otherwise chunky liner & outer container.”

- Kristin Simpson & Michael Obot

ISA/ Brian Phillips wins AIA NJ Award

Brian Phillips' firm, ISA, won the 2013 AIA New Jersey Merit Award for the Camden Affordable Housing project in Camden, NJ.

MAY 2014

ISA/Brian Phillips receive Grant for 'Hi Res' Miami

Brian Phillips' firm, ISA, received a Knight Foundation grant to support 'Hi-Res Miami'. Hi Res creates a platform for exploration and discussion around fine grained urbanism for Miami. Rather than starting from the perspective of policy or planning - the project begins with design. Miami is a city of towers and houses extending to the sky and to the horizon. Does it have to be?

The Hi Res project believes that middle-scale urbanism, 2-5 story mixed-use development, produces a more lively, walkable, social, environmentally sustainable and economically resilient city.



MAY 2014

Winka Dubbeldam speak at ANCB

Winka Dubbeldam speaks in a public panel discussion at the Aedes Network Campus Berlin (ANCB)

Young & Ayata win The Architectural League Prize

Kutan Ayata and Michael Young won The Architectural League Prize 2014.

In 2008, Ayata and Young co-founded Young & Ayata in order to "explore novel formal and organizational possibilities in architecture and urbanism." The Brooklyn-based partnership is committed to experimentation, and views "the reality of contemporary building as a provocation to the progression of experiments in form, material, and technology." The firm's work consists of both commissions and experimental research, as they seek to engage "with contemporary cultural issues that influence and are influenced by our environment." Recent projects include the competition scheme of an opera house in Busan, South Korea, and a conceptual master plan for the Aalto University Campus Center in Helsinki, Finland. The Architectural League Prize is one of North America's most prestigious awards for young architects and designers. The Prize recognizes exemplary and provocative work by young practitioners and provides a public forum for the exchange of their ideas.



titled 'Bogotá - Caracas - São Paulo: Bottom-Up Urbanism to Design the City of the Future.' The panel discussed bottom-up strategies for urban design and planning. View the full discussion:



Winka Dubbeldam in Paris

In June of 2014, Winka was invited to L'Ecole nationale supérieure d'architecture in Paris, France (an event co-sponsored by PennDesign) to present her lecture "Intrinsic."

MAY 2014

Bittertang (Mikey Lov- erich) wins in Chicago

Bittertang was chosen to build an amphitheater near Chicago all out of hay as part of the Ragdale Ring Project. Excerpt from the article:

"Designers Michael Loverich and Antonio Torres of The Bittertang Farm won \$15,000 earlier this year to erect the 102nd Ragdale Ring—an ongoing design competition for temporary

outdoor theater spaces in north suburban Chicago."





Seattle Public Library, Seattle, 2004

February 24th, 2014

Lecture - Carol Patterson, Project Director - UK/ Associate, OMA



New Court Rothschild Bank, London, 2006



New Court Rothschild Bank, London, 2006

ADVANCED I

MArch

Architecture

704

Marion Weiss

Coordinator

Design research, unlike research in many fields, is informed through the active and iterative process of design. As the final semester of the Master of Architecture program, this studio is a capstone educational experience shaped by a range of contemporary theoretical and methodological lenses. These exploratory pursuits allow students to expand on the foundations established in the prior semesters. The aim is to develop critical, creative, and independent thinking that recognizes the necessary agility contemporary architects must have to integrate seemingly incongruous criteria into the evolution of design.

At the upper levels of the program, students establish individual trajectories by selecting from leading figures in architecture, working in an immersive laboratory that is often inflected by travel to sites with distinctly contemporary challenges. Each studio is an incubator that brings distinct forms of experimental approaches to the practice of architecture. This diverse range of studies have included: emergent forms created through non-linear methodologies, operations in engineered chance, inquiries into transformative waterfront development in Dhaka, parametric strategies for coherence with misfit objects, architectural studies in extreme farming, and inventing new academic/ entrepreneurial form giving ecosystems.

Characterized by an immersive engagement in techniques from the digital to the dialectic, each studio brings design speculation to the center of the discipline. This research may be informed by a panoramic cross section of systems, whether parametrically linked or located

March 704 Faculty

Tony Atkin & Laurie Olin

Cecil Balmond & Ezio Blasetti

Homa Farjadi

Stephen Kieran & James Timberlake

Simon Kim

Sulan Kolatan

Marion Weiss

Tom Wiscombe

closer to parallel disciplinary algorithms. Each Design Research studio is cast as a distinct experiment led by leading architects and design minds, requiring each student to establish individual trajectories and bring an elasticity of expectations to the agenda of architecture.





ARCH 704 Studio Descriptions

Island In-formation

Marion Weiss, critic (TA: Christopher McAdams)
Spring 2014 – page 224 - 227

A paradoxical landmass, Roosevelt Island is an elusive ingénue in the East River subject to utopian visions and societal outcasts. Formerly the site of a Penitentiary Hospital, a Lunatic Asylum, and countless idealistic architectural speculations, Cornell Tech now hopes to fuse entrepreneurial and academic ambitions with a two million square foot campus on the southern half of the island. This new research incubator is intended to forge vital connections between research and innovation and rejuvenate the island as a more vibrant urban element in the city.

The studio investigated the potential of inventing a new academic/entrepreneurial ecosystem, recognizing emerging environmental obligations to address anticipated rising water levels and storm surges that could leave the land underwater by 2050. Initial research focused on the legacy of post war campus settings, from isolated utopias to networked centers, creating a foundation to introduce productive reciprocities between constructed and natural systems, academic enterprise and entrepreneurial innovation.

Without predetermined answers, the creation of this new campus raises critical questions: How can prior academic and corporate models be recast to create a new academic/entrepreneurial ecosystem? What design strategies effectively resists/submits to predicted rising water levels and storm surges that could leave the land underwater by 2050? What marriage of ecological and academic aspirations will translate into new

research based infrastructures that can catalyze innovation?

This studio challenges students to challenge conventional distinctions between an academic center and think tank, land and water, suggesting new reciprocities between technology, urbanity and academic inquiry, where the finite boundaries of the island intersect the infinite expanse of water.

Emergent Formation: Non-Linear Methodologies

Cecil Balmond with Ezio Blasetti, critics
Spring 2014 – page 228 - 231

Project Objectives: This studio will investigate non-linear systems and self-organization at both a methodological and tectonic level. This exploration will take the form of design research into algorithmic methodologies and will be tested through a concrete architectural proposal. Design research is not defined here as a linear scientific process with objective outcomes, but rather as the iterative, non-linear and speculative process with the ability to reassess and shift our disciplinary discourse. This semester, the studio will collaborate with the artist Perry Hall to strengthen the inter-disciplinary dialogue between architecture and art.

Conceptual Framework: Our world is increasingly being understood as an emergent outcome of complex systems. Similarly, both analytical and generative tools for the definition of spatial and architectural systems have been established within our discipline. Although this design approach is extremely sensitive to existing models of self-organization in material, biological and physical systems, our intention could not be further than the mere replication of 'nature'. On the contrary, with the deployment of non-linear compu-

tational design methodologies we seek new singularities in the extended territory of contemporary architectural production. At the same time, this research allows us to transcend traditional disciplinary boundaries since research in complexity itself is an emergent language shared between multiple fields of scientific and artistic interest. The inter-disciplinary nature of the studio brings together expertise from architecture, art, engineering, complex systems theory and new technologies of manufacturing.

Algorithmic architectural research has the unique capacity to develop a deeper dialogue with a variety of scales, from the material and microscopic, to the emergent and macroscopic.

Project: The major project for the semester will be the design of an art conscious building program in Kesington Gardens in Hyde Park, London. The project will be concerned with the relationship of art and architecture, formation and sculpture. The Serpentine Gallery Pavilion Program provides an extensive list of recent precedents in collaborations between artists and architects. The studio will propose a hybrid program between a public plaza, a conference center and an art gallery. Key elements of the programmatic narrative will be internal to the development of each project and are expected to emerge out of the dialogue between the artistic component and the architectural intention.

The Paradox of the 'Arche-Fossil': 'How can a being manifest being's anteriority to manifestation? What is it that permits mathematical discourse to bring to light experiments whose material informs us about a world anterior to experience?' In this short passage, speculative realist philosopher Quentin Meillassoux claims the primacy of mathematics

over perception, in the access of qualities of things. Expanding on this notion beyond the ability of description of the world, this research studio will investigate the underlying idea that formal systems and algorithmic processes have the capacity for expansive translatability between mediums. They constitute generative languages whose artifacts can operate on a multitude of scales and readings.

Mediums: According to Jeff Kipnis, architectural drawings can function in three different ways: as an innovative design tool, as the articulation of a new direction, or as a creation of consummate artistic merit, leading to the fact that a perfect act of architecture must achieve all three at once. For our purposes, we will attempt a substitution of the architectural drawing by algorithmic processes in this thesis. The pervasive contemporary uniformity of architectural drawings and renderings is inhibiting ideological, aesthetic and expressive difference in our discipline. Challenging notions of architectural representation, the studio will interrogate drawings, models, codes, narratives and other mediums as objects in themselves as well as complementary to each other in a larger dialogue between artistic and architectural production. This conceptual context will attempt to foster unique and multifaceted Projects that capture not only a fully articulated architectural experience but also other aspects of an Architectural Idea, which tend to resist direct manifestation into built form.

Horizontality: Operations of Engineered Chance

Homa Farjadi, critic (TA: Charles Curran)

Spring 2014 – page 232 - 235

This research studio focuses on two primary texts of design and theory selected to perform as discourses in reciprocal dialogue to generate design strategies for a contemporary project of architecture. This year, students engaged two protagonists, Pierluigi Nervi and George Bataille, in a discourse on horizontality. The design contribution of engineer / architects remains a focus for the studio; however, contrary to assumptions of architectural form rationalized by structural strategies or reversal claims of operations of intent by others, we find interest in the theoretical inversions, interdependencies and dialogic possibilities of relation between structure and form, form and content. Horizontality as discussed through concept of Formless ('Informe'), for Bataille will intersect spatio-physical horizontality dealt with our engineer Pierluigi Nervi. The two texts therefore do not belong to the two disciplines simply, but operate outside of either. Our methodology for the studio brings them to an a-historical conjunction in order to provoke alternative view of relation between structural and architectural space, between predictable and unpredictable form. No nostalgia, no call to order, just precise analysis and provocation to invent.

Horizontality in architecture would at first instance evoke the Modernist interest in the presence of the horizon as a democratizing spatial concept. Overriding the vertical /upright individuality, horizontal axis has come to work through technology to enable flow of movement against parsing of space. Columns and piers read as structure shift in their representational roles from markers of monument to bearers of weight. Bataille

tells us of another kind of horizontality, which has become more a cultural concept, a performance. These operations of performance recall presence of the senses, beats to do with effects and affects which record chance events, the throb of a pulse, the flicker of an arrested image, decay and waste that offer alternative economies of energy and resource. Bataille's call for horizontality brings attention to aleatory conditions of bodies operating in experience.

Architecturally in relation to economy of form and content + structure and form, our two protagonists offer distinct parameters. For Pierluigi Nervi, a structural engineer by training practicing in 1930's Italy, knowledge of abstract theories, and intuitive handle on modern technologies of construction, enabled experiments in Ferro-cement and reinforced concrete to create new conjunctions of form and structural logic otherwise believed to be outside determinable form. For a disciplined engineer, horizontal and vertical space may be generated by modeling forces of gravity, on assumptions of weight, density, & patterns of tension and compression. Yet drawn by mathematical elegance, Nervi is said to have been cognizant of levels of indeterminacy that are always present, even when the simulation of structural behavior seem to be guaranteed by rules and laws. His structural design of projects for a hanger with prefabricated elements, a stadium canopy, multi-columnar roof, a tower in Milan or the UNESCO building in Paris explore structural form not only as creator of space, or of lightness but also as material surface formations challenging rationality of calculable force. Their different scales and dimensions, transform bearing of load to exploit potential for other kinds of horizontalities in which calculation, measurement and

probability can coexist not only with indeterminacy but also with error.

Subjecting the readings of Nervi's structural strategies to the aleatory operations of Bataille's Horizontality, our project exploits design of new architectural typologies of space promoting possibilities of new relations between the design of structure and form.

Water and Soil: Inquiries into alluvium and transformative waterfront development in Dhaka

Stephen Kieran & James Timberlake, critics

Spring 2014 – page 236 - 239

Each year, Stephen Kieran and James Timberlake travel with their students from the University of Pennsylvania to Dhaka, Bangladesh as part of a unique design research laboratory in which deep investigation is undertaken in order to stimulate design and planning interventions that can interact dynamically with the urban systems in place and promote positive change.

Background: Bangladesh is a country roughly the size of the state of Iowa with a population more than half that of the entire United States. It is a delta, where the Ganges, Brahmaputra, and Meghna rivers join before emptying into the Bay of Bengal. Approximately 80% of its land area is classified as a floodplain and is inundated at some point during the monsoon season. During the most severe flooding of 2008 almost 2/3 of the land area of the country was under water at one time. It is a landscape where the boundary between wet and dry is ambivalent and constantly shifting.

At the center of this confluence sits Dhaka, the fastest growing, most densely

populated megacity in the world. Enveloped in a constant flow of water, soil, and rural to urban migrators, land uses change daily from wetland to bare soil and from bare soil to urban form. Dhaka's rapid urban transformation engenders land grabbing, land valuation, economic development, and systemic environmental degradation. Development within its urban core is suffocating the city's already choking density, while development along the city's periphery is in the process of replacing the existing deltaic ecology with a kind of artificial terra-firma.

Compounding development practices, which promise permanence, with the immediate threat of sea level rise, temperature increase, and decreased agricultural yield, expands the complexity of this already multi-variant problem considerably. In this context, climate change is a real threat actively impacting the various networks that coalesce within the delta ecology. In Dhaka, preparations are not needed to brace for some unforeseen future event; but rather, strategies are needed that can dynamically interact and impact the systems currently in flux to bring about a series of more sustainable future events.

Program: This year's Laboratory focused on understanding the system dynamics attached to *Water, Alluvium, People and Health*, in and around Dhaka. Bangladesh is a place of both flows and floods with its waters contained and distributed by the alluvial deposits that produce temporary edges within this watery network. Current development practices in Dhaka have sought to impose a network of permanent edges atop this naturally flexible system to disastrous effect; holding back the water long enough in one location only to release its destructive force in another. Rethinking the relation-

ship between water and alluvium, wet and dry, has the potential to yield transformative interventions that interact with the movements and economies of the people as well as the environmental conditions of the environments they inhabit.

The laboratory's research seeks provocations that act like catalysts, effecting change beyond their immediate circumstances and stimulating paths for growth along sustainable trajectories. As always Laboratory learned from and built upon the body of work created over the previous six years in order to identify research agendas and problem statements focused on resolving the following questions: *1) Given the rate of change, and the pervasiveness of change - all developmental inputs are both fluid and dynamic - what should the 'built environment' approach be for Dhaka, why? 2) Can the intervention of 'development' become the basis for a self-sustaining process of economic or environmental regeneration?*

Architecture of Agency

Simon Kim, critic

Spring 2014 – page 240 - 241

Technological augmentation in architecture has been prevalent since early World's Fairs and Expositions. But these future-forward demonstrations were largely an overlay on traditional types. In the postwar period with the enervation of CIAM, distinct trends from Cedric Price and Archigram in England, to Haus Rucker and Coop Himmelblau in Vienna, to the Japanese Metabolists, played directly with the media of technology as independent design protocols.

This studio takes the site of Expo 1967

in Montreal as a platform for a continuation of Architecture of Agency as already established over fifty years ago. Architecture of Agency takes a twofold position that machines are not simply robotic tradespeople that then depart, and that they are not mechanical automata. Architecture of Agency, to remain disciplinary, is to be embodied and continuously available in dynamic or immersive conditions, as well as construct meaningful exchange in its actions. The point of entry for this latter requirement is in Bergson's Duration, which simply constructs a narrative of presence and multiplicity in its unfolding. This allows for a construction of culture that does not favour human nor clockwork time, but allows for new traditions of occupancy and programme.

Each project establishes a particular durational relationship placed directly within the building so that a single constancy is unraveled to produce shifting and non-repeating assemblies.

Misfit Objects and New Models of Coherency

Tom Wiscombe, critic (TA: Ryan Macyauski)

Spring 2014 – page 242 - 245

This studio focused on strange interfaces between radically different inner, outer, and adjacent objects and surprising forms of coherency that can be achieved through formal operations that gather, slice, or otherwise transform constellations of objects. Underwriting this work was an interest in exploring contemporary permutations of the 'sectional object' problem, where 'interior' and 'exterior' objects can empathize with and engage one another in unexpected ways. We referred to this as ob-

jects wrapped in objects, a term borrowed from Graham Harman.

Rather than assuming architectural objects are either totally autonomous and aloof or totally connected and smooth, the studio insisted on a third path, towards a new semi-autonomy, which allows for both discreetness and empathy between objects. This approach suspends classical part-to-whole relations in favor of non-hierarchical whole-to-whole relations. In terms of architectural effects, the aim was to create visual coherence between highly characterized and distinct elements, which of course seems like a contradiction. This contradiction, we argued, is a productive and contemporary aesthetic territory that sidesteps the problems of collage on the one hand, and smoothness on the other.

Our bias was towards a chunky architecture characterized by strong silhouettes, figural cuts, and cavernous interiority. We focused on nesting 'down-ressed' chunks, crystals, ziggurats, and other pseudo-primitive forms within one another to create complex interstitial spaces that are both interior and exterior. 'Misfit' in this context refers to the contemporary discourse of 'tight-fit' and 'loose-fit' architecture, which has been used to articulate different ideas about the independence of a building's envelope from its interior. 'Misfit objects' presumes a more radical relation of objects than 'tight' and 'loose' might allow, where, for instance, inner objects may transgress outer objects. The promise of the studio ultimately resulted in the invention of strange and indeterminate relations between interior and exterior as well as container and contained.

An Architectural Battlefield: LACMA: These architectural concepts were considered in the context of

the Los Angeles County Museum of Art. This project can be considered an architectural battlefield. One move begets the next, or does it? There is a complex political history to be discovered at this site, including proposals, counter-proposals, competitions with winners who were not hired, directors selecting architects with no competition or advisory board, and the city in general in constant uproar over the situation. The site is dead-center in the city and represents Los Angeles. It sets the tone for the city in the sense that whatever we build there reflects the degree to which Los Angeles continues to be a provincial city or finally admits that it is a world-city. Currently the site is a collage of projects built over time in styles of their time, and it included natural objects of value as well, most prominent being the La Brea Tar Pits.

There have been many chances for LAMA to radically recreate themselves. Mies was almost selected, and favored by the director in the 1960s, to do the new Wilshire building, but the Board decided to go with a scheme by William Pereira reminiscent of Lincoln Center in New York. The most prominent opportunity, however, was the international competition to re-think LACMA held in 2001, which included firms such as OMA, Steven Holl, Morphosis, and so on. OMA won the project with an aggressive scheme to return much of the site to a table rasa and begin again with a giant, urban machine. Now, Michael Govan, the director, has personally selected Peter Zumthor to redesign LACMA, with an equally aggressive scheme. The contention of this project and this site were used as a framework within which to develop our studio agenda and give it traction.

Ke'yah Ji' jol' i'n Ancient, Historic, and Contemporary Use of Diné Lands: Water Rights, Resources, and Appropriate Development in the Navajo Nation and the San Juan Watershed

Tony Atkin & Laurie Olin, critics (TA's: Gavin Riggall & Abdallah Tabet) Spring 2014 – page 246 - 249

This research-based studio was focused on the core relationships between water, energy, human settlement patterns, and indigenous culture in the arid lands around the Four Corners region of the Southwest US. Investigations included an understanding of past cultural patterns, present conditions, and future best practices for planning and design in this remarkable place. An emphasis was placed on design advocacy; an understanding of local knowledge as tool for contemporary design in conjunction with the responsible allocation of resources and sustainable economic development for some of the most disenfranchised people in the United States.

The San Juan Basin and the Four Corners region is a vast open space made up of rock formations, plateaus, canyons, mesas, and distant mountains. Historically, it has been largely empty of population but for a few scattered pockets of inhabitations along river beds and streams. In the past several hundred years it has been home to the Navajo nation, who have historically lived in widely scattered nomadic settlements. Today, other non-native populations also call this corner of New Mexico home, in places such as Farmington, Aztec, and Bloomfield, within close proximity to the region's largest oil, natural gas, and uranium deposits. The San Juan basin has long been a place of resource extraction and export, subject to the boom and bust cycles driven by outside economic forces. To compound this situation, access

to water has been the major historic challenge for survival and prosperity among native cultures, homesteaders, and contemporary towns. Finding it and securing reliable sources of it has been the subject of ancient rituals, settlement practices, and irrigation projects essential for survival by Natives and Hispanic and European settlers, leading to long-standing water rights legal battles. Tapping and securing the arid region's scarce water supplies has almost entirely favored the increasing urban need for development and industry, large-scale farming tied to national and international markets, as well as water-intensive projects to mine and recover the area's extensive mineral and hydrocarbon sources. In many places, this has resulted in widespread poverty and little political power among native populations even as the area is seen as a tourist mecca, with astonishing natural beauty and ancient archaeological sites.

This joint architecture and landscape architecture studio traveled to New Mexico to investigate firsthand the region, culture, and project site. The focus of the final projects was the design of public spaces, infrastructure, and a new phased settlement with housing for 300 to 400 families within proximity to regional services in Crownpoint, on the Navajo Reservation in New Mexico.

FAX IST:

Farming Extreme in Istanbul

Sulan Kolatan, critic (TA: Robert Cervellione) Spring 2014
page 250 - 253

The studio will focus on developing a new architectural building typology in response to the emerging vertical farm program.

This is a unique opportunity to explore and propose a new building type from scratch as the requirements of the program suggest a rethinking of urbanity and verticality in connection with agriculture, but inversely also a reimagining of agriculture that is not connected to the ground and grows without the presence of earth.

Current designs for agri-structures seldom rise to the occasion as they place new technologies into old design strategies. A survey of urban agriculture environments, however, points to the potential for an ambiance of surreal beauty where the absence of earth as an element of farming elevates the vegetable patch into a realm of precise abstraction. This un-soiled way of growing comes courtesy of hydroponics and constitutes the majority of urban farming activities. Freed from their connection to the ground, vegetables become objects of contemplation—design elements within larger spatial installations. In these new scenarios, farmers are curators of flora in 3D space.

Topology: One of the tasks of the studio then is to consider the vegetables and fruits as occupants of the building in addition to people. The consequences are quite radical in that plants adapt to gravity in ways humans do not with the result of being able to grow in any orientation in space (—and even without gravity to hold them in place). Therefore the range of spatial definitions in this type is much broader than in humans-only environments. Plants typically have two points of orientation, gravity and the sun. What allows them a greater spectrum of spatial occupation is the greatly due to the fact the unlike humans, plants are “anchored” and thus hold on with their roots while adjusting to their orientation. Not only do plants grow in any direction but the hydroponic system also

allows for a freedom of the surface (surfaces can be flat, angular or curved) as well as a freedom from the surface (since plumbing is the only necessary adhering element for plants grown in this way, straight, curved and spiraling gutters and tubes, and petri dishes filled with water and nutrients can be all that is needed). Students are asked to fully exploit the potential for extreme space-making and investigate these parameters in relation to topology.

Site: The site is located in Istanbul, a compelling context for this program because of its ancient and documented history of urban farming. Many new organic farmers’ markets are popping up monthly and good food—always an integral part of traditional Turkish lifestyles—is front and center with a 21st century twist. FAX adds experimental farming to that—a relatively new focus and very much a work in progress. New techniques and strategies are tested, evaluated and improved to increase effectiveness and gain further insight. Students shall research these to generate their program specifics.



Marion Weiss
Graham Chair
Professor of
Architecture

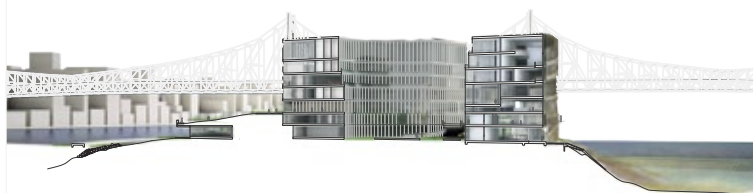


- Co-founder of WEISS/MANFREDI
Architecture/Landscape/
Urbanism, NY (1989)

- Received her MArch at Yale
University and her BArch from the
University of Virginia

- WEISS/MANFREDI has completed
numerous buildings across the
nation and is the winner of many
architectural awards





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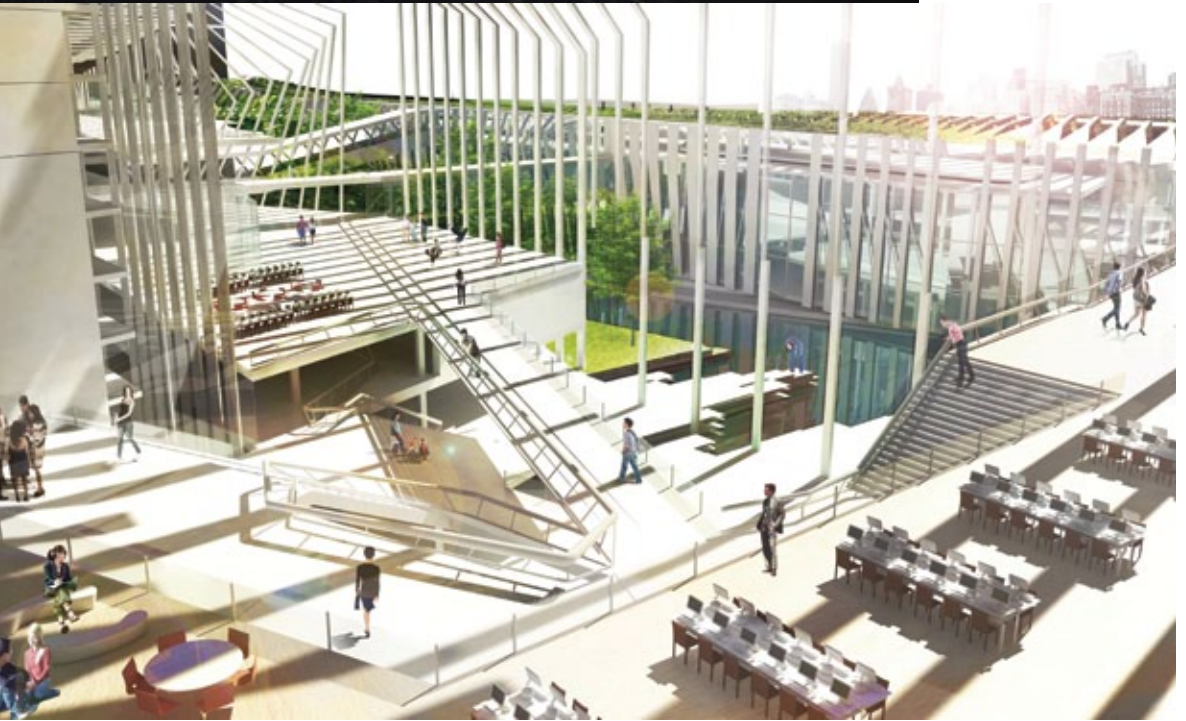
Marion Weiss

STUDENTS:

Lauren Mears**Anna Ishii**

“...inventing a new academic/entrepreneurial ecosystem, recognizing emerging environmental obligations to address anticipated rising water levels and storm surges that could leave the land underwater by 2050.” -Marion Weiss





CRITIC:

Marion Weiss

STUDENTS:

Sandy Jan

Grace Cho

“...distinctions between an academic center & think tank, land & water, suggesting new reciprocities between technology, urbanity & academic inquiry, where boundaries of the island intersect the infinite expanse of water.” -Marion Weiss



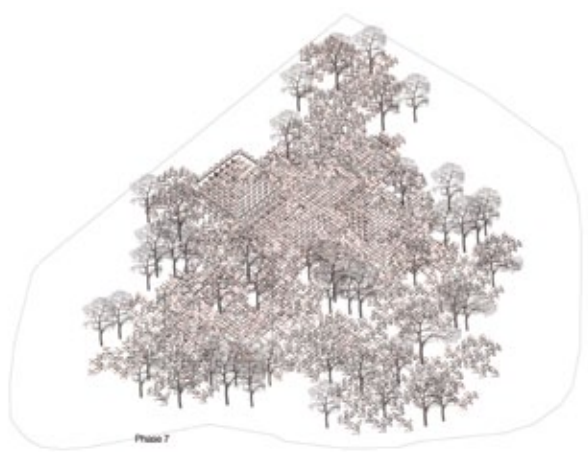
CRITICS:

Cecil Balmond
Ezio Blasetti


STUDENTS:

Donghua Chen
Jiannan Jiang

“...iterations on different rulesets & patterns exhibit extraordinary potential for application in design through various scales & structures, which feedback to create paintings, installations & architecture...” - Donghua Chen & Jiannan Jiang

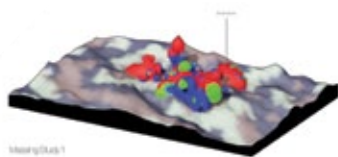
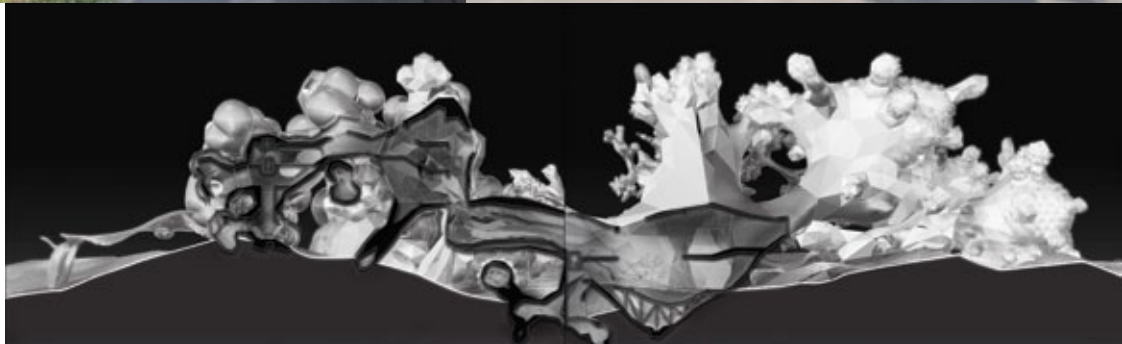
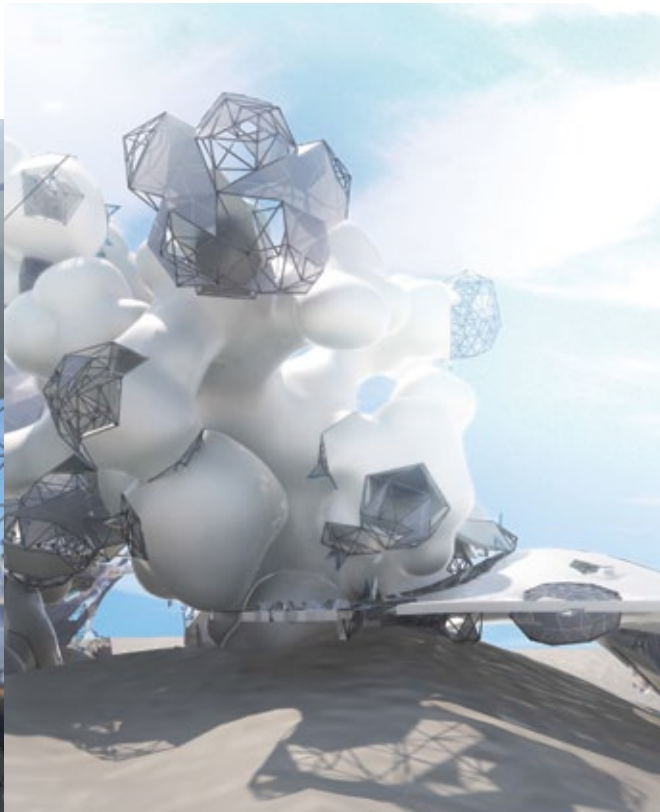


Cecil Balmond
Paul Philippe
Cret Practice
Professor

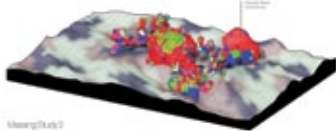


- Founding Principal of Balmond Studio, London & Colombo (2010)
- Received a MSc from the Imperial College of Science, London, and a BSc, from the University of Southampton
- Designed the 2006 Serpentine Gallery Pavilion with Rem Koolhaas
- He has received numerous international awards.

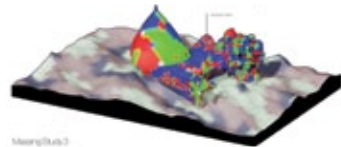




MingChang Liu 1



MingChang Liu 2



MingChang Liu 3

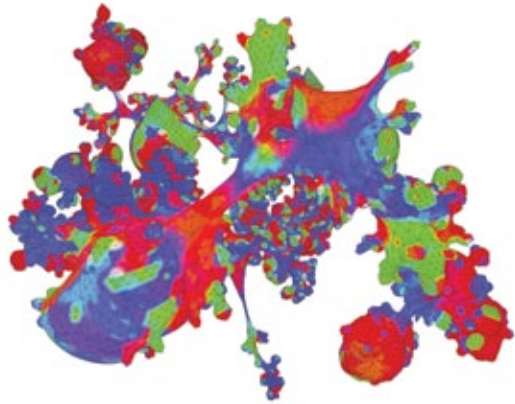
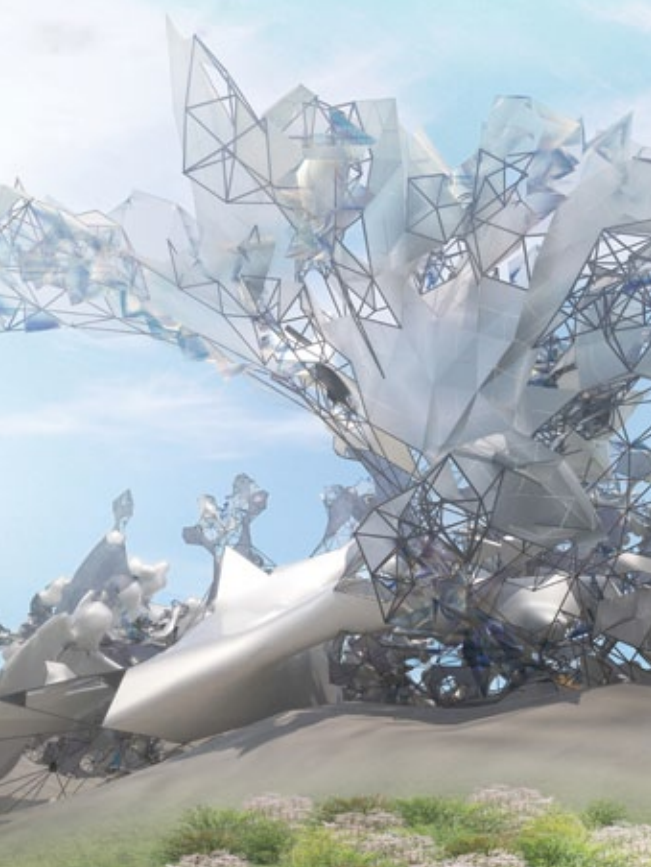
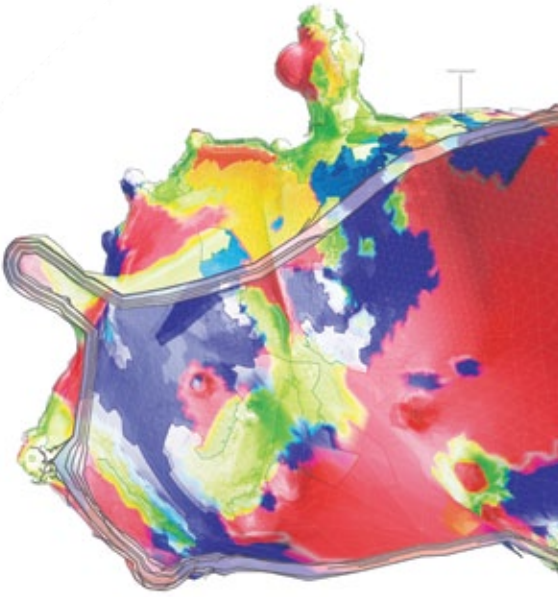
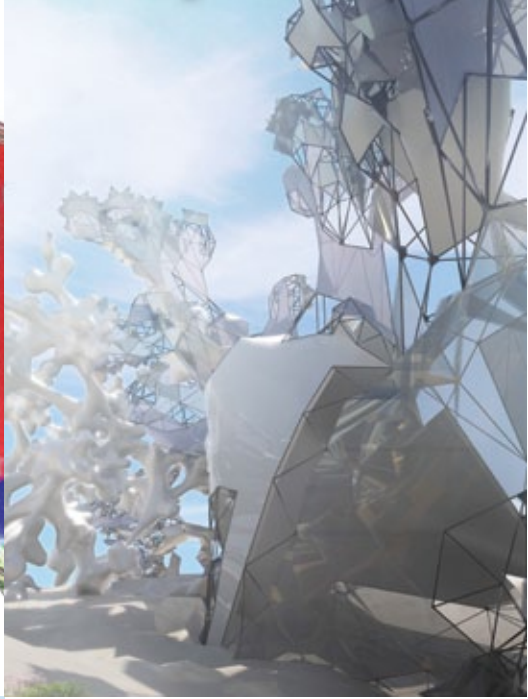
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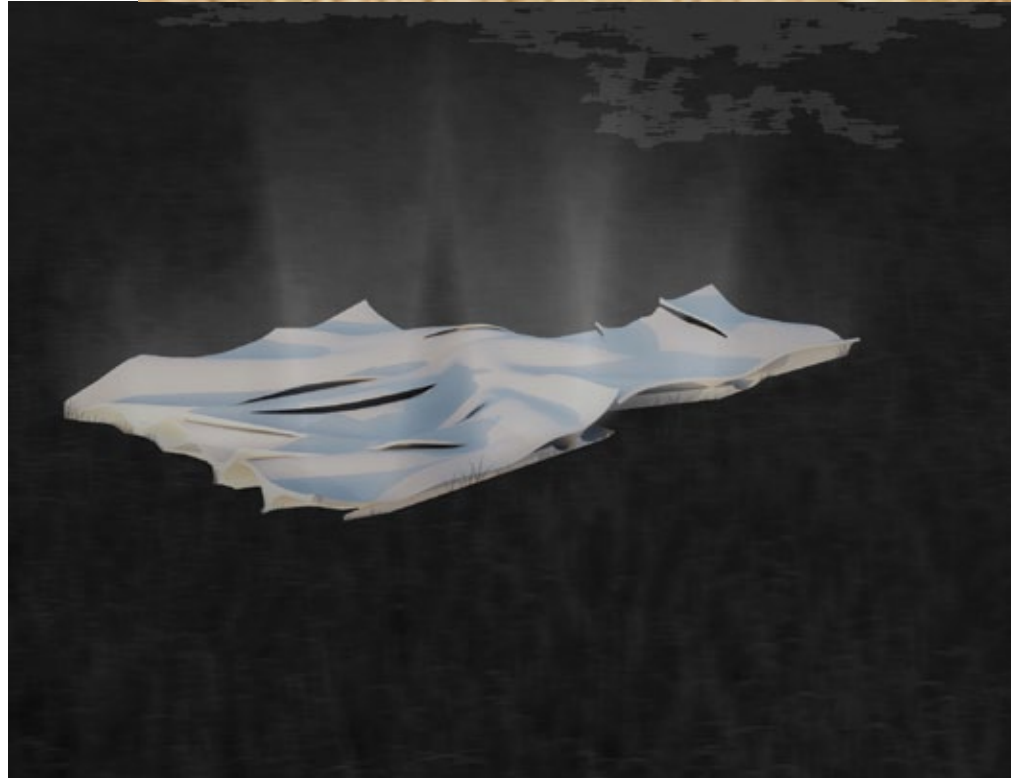
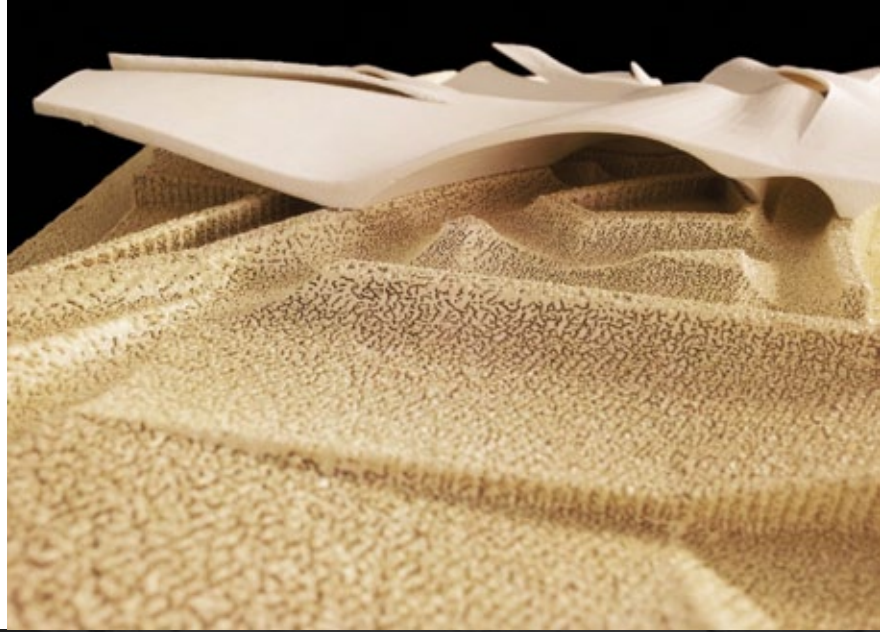
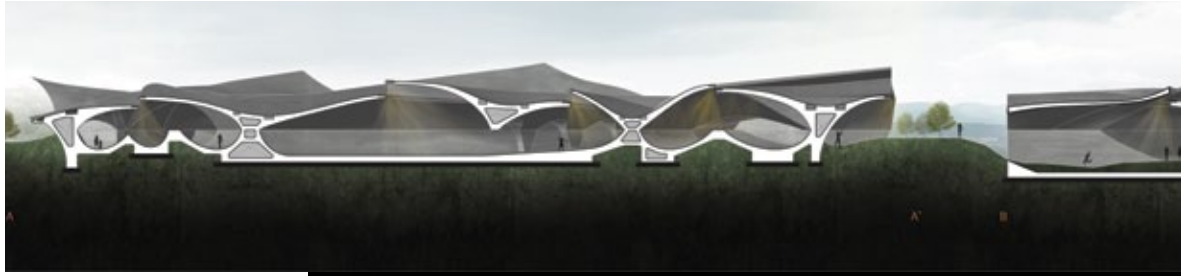
Cecil Balmond
Ezio Blasetti

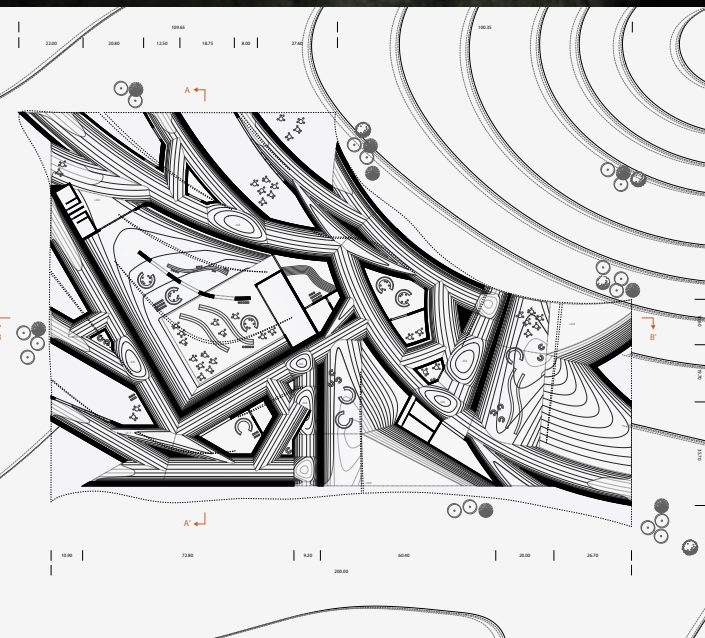
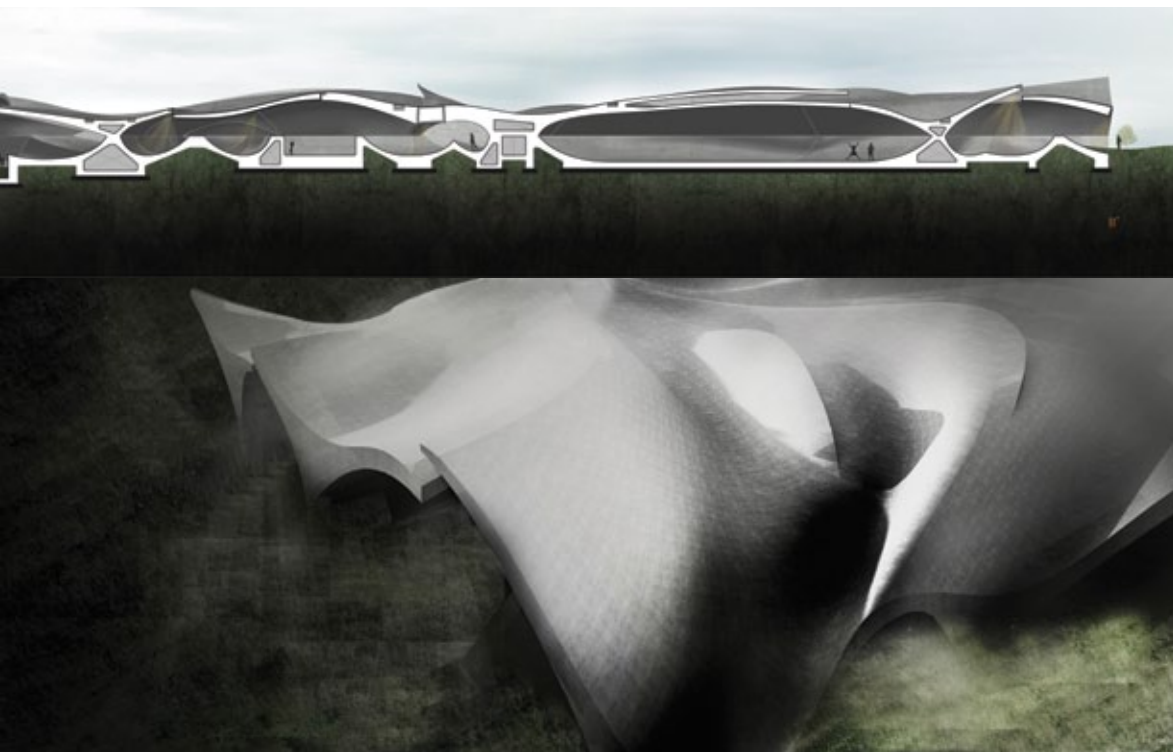
STUDENTS:

Tadashi Kikuno
Jinglu Li
Ming-Chang Liu

“The relationship of three different players produces diverse outcomes, with enriched qualities & experiences. Essentially a study of translating three different qualities (R,G,B) into spatial qualities.” - Tadashi Kikuno, Jinglu Li and Ming-Chang Liu







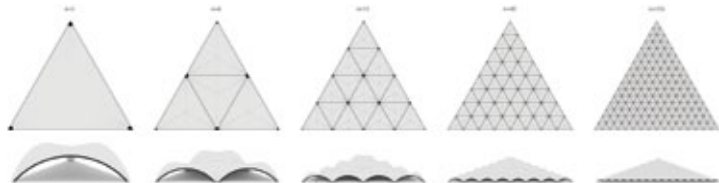
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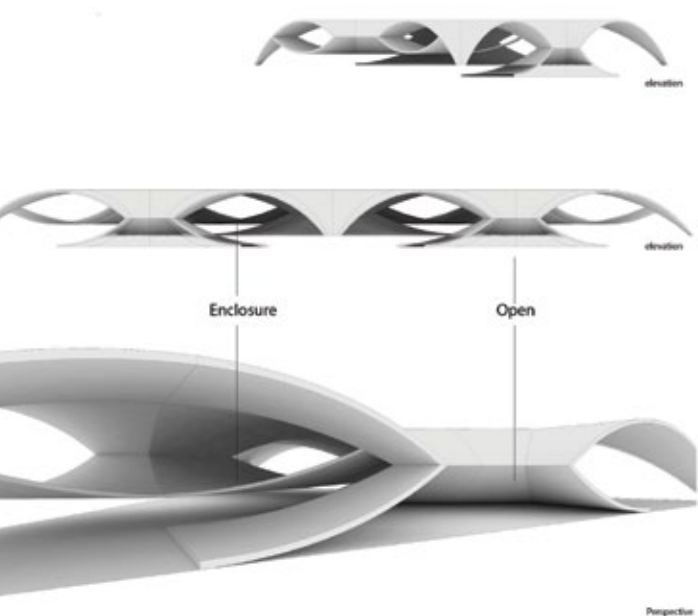
Homa Farjadi

STUDENT:

Hoju Chung

“By studying the typologies made by a variety of projections, the atmosphere of the building or the space could be developed, and also the relationship between interior and exterior has been developed.” — Hoju Chung





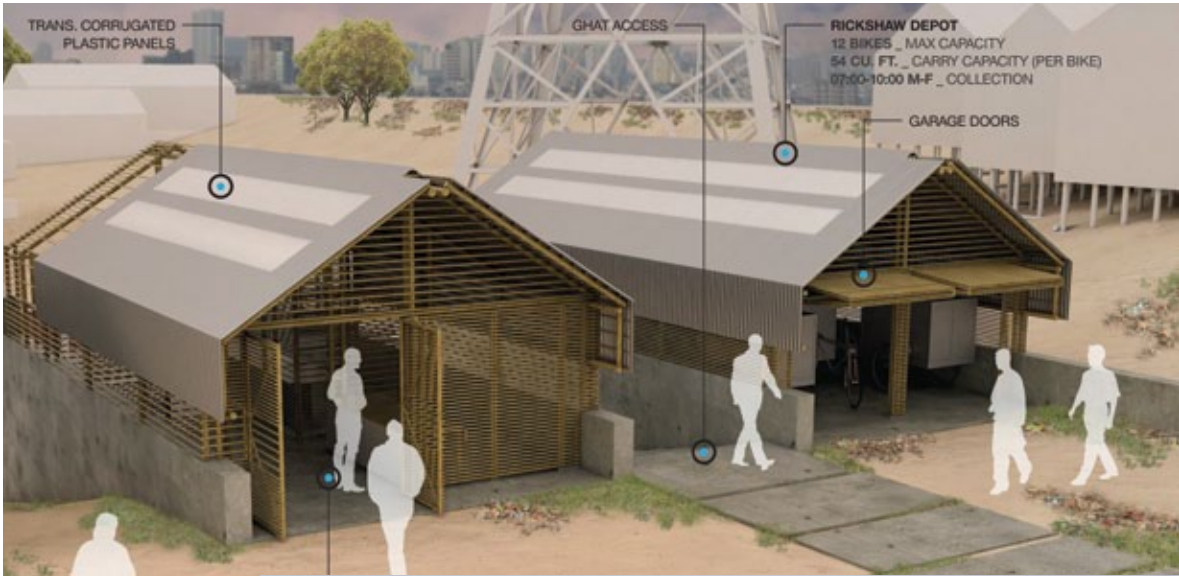
CRITICS:

Homa Farjadi

STUDENT:

Tianqi Zhang

“...rethinks the ground relationship of architecture in a play with scale, continuity & integrity of structure...it acts as a flexible residential fabric by organizing in response to context & structure of different needs.” - Tianqi Zhang

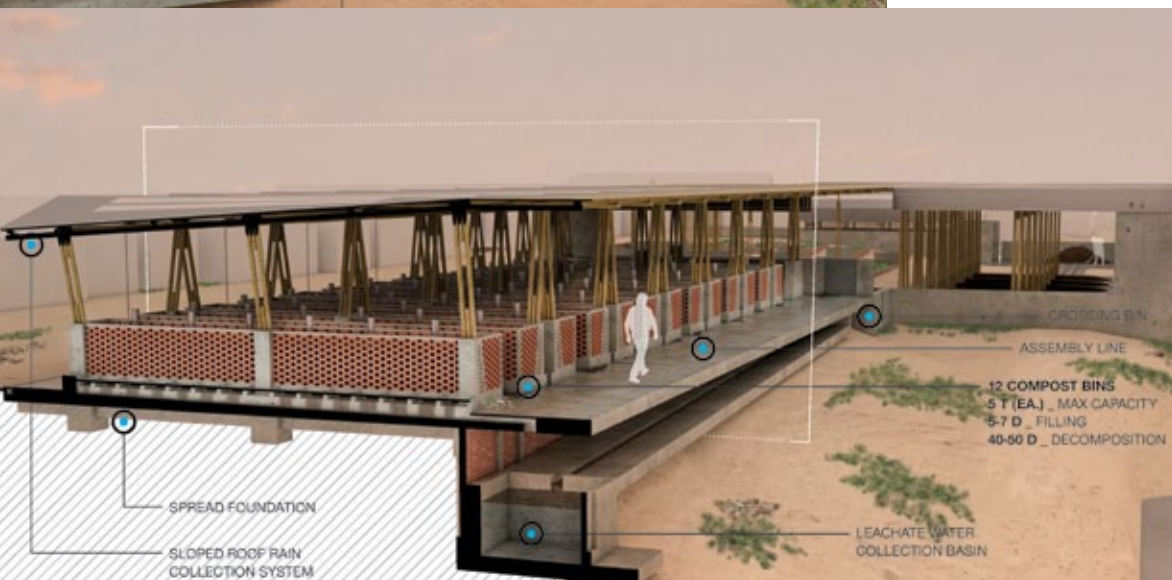
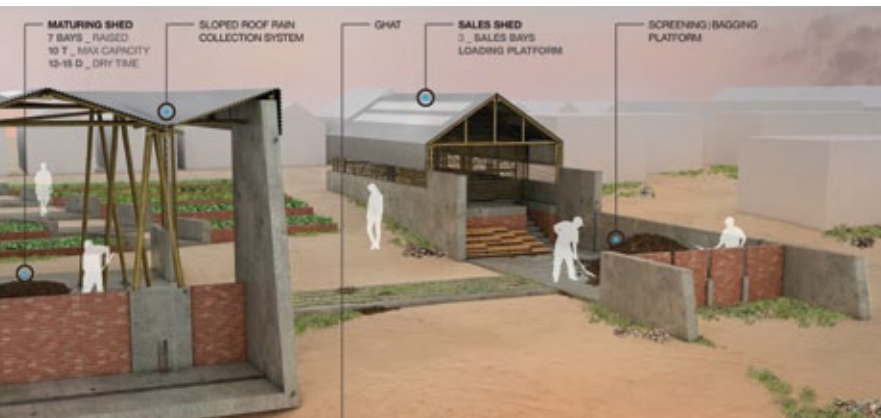
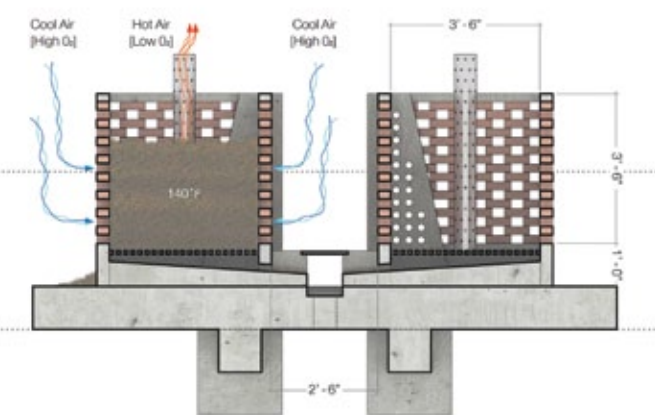


Stephen Kieran
Adjunct Professor



- Founding partner of KieranTimberlake, PA (1984)
- Received an MArch from the University of Pennsylvania and a BArch from Yale University
- Fellow of the American Academy in Rome (1980-81)
- KieranTimberlake has received over one hundred design citations & awards





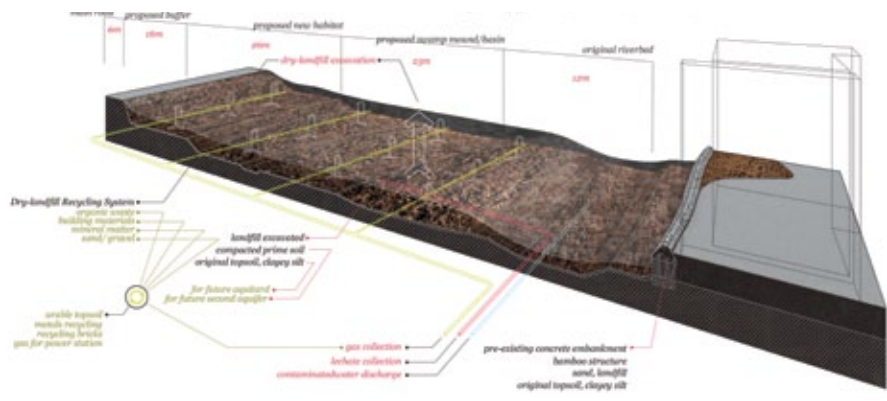
CRITICS:

Stephen Kieran

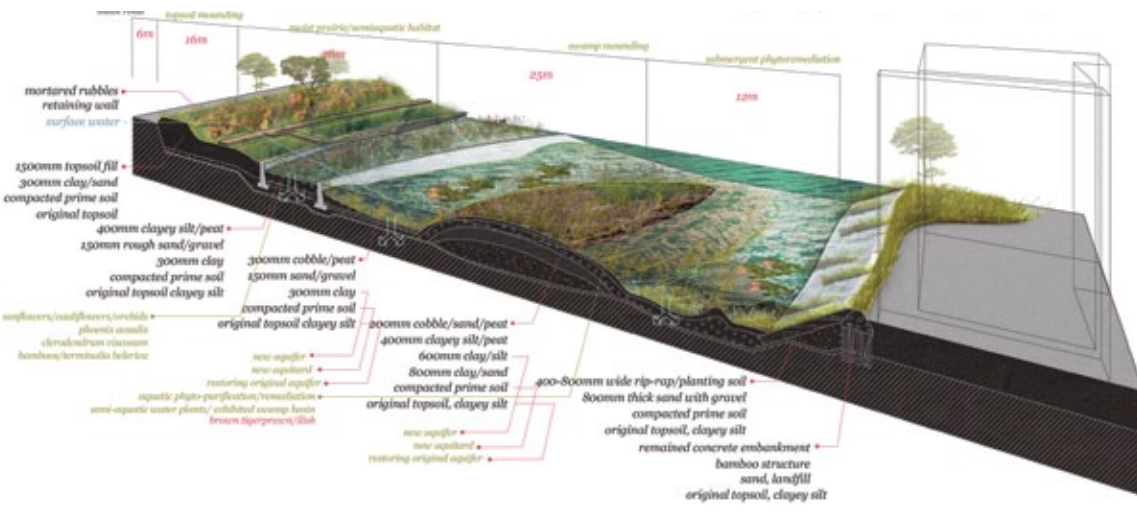
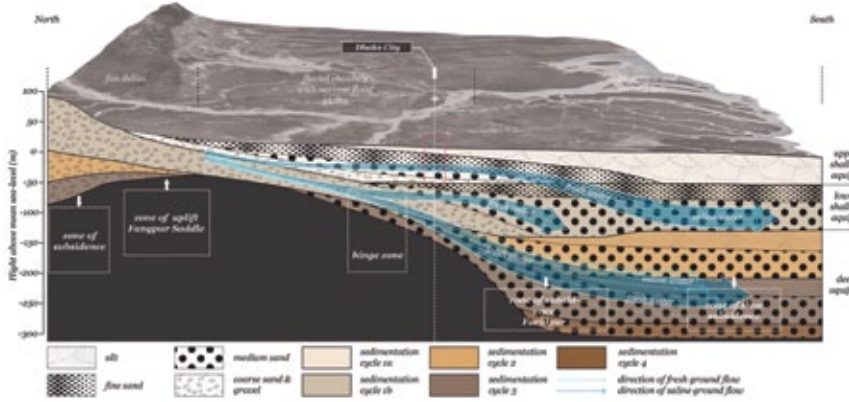
STUDENT:

Mathew Stone

“This inquiry researched the quality of soil being created in Dhaka...The design is of a networked compost system with facilities located throughout the city that divert organic waste away from land-filling operations...” - Mathew Stone

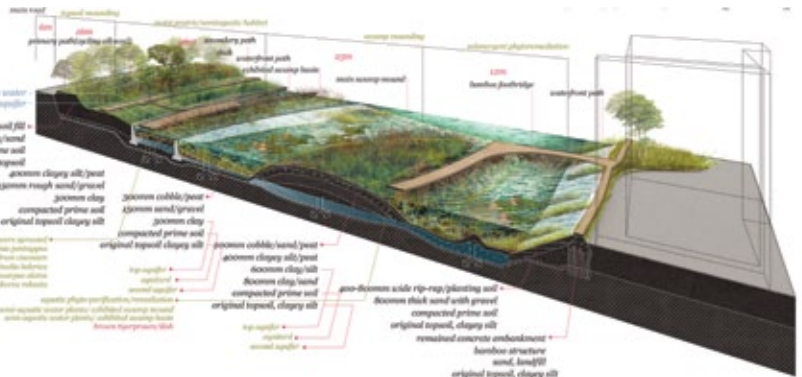
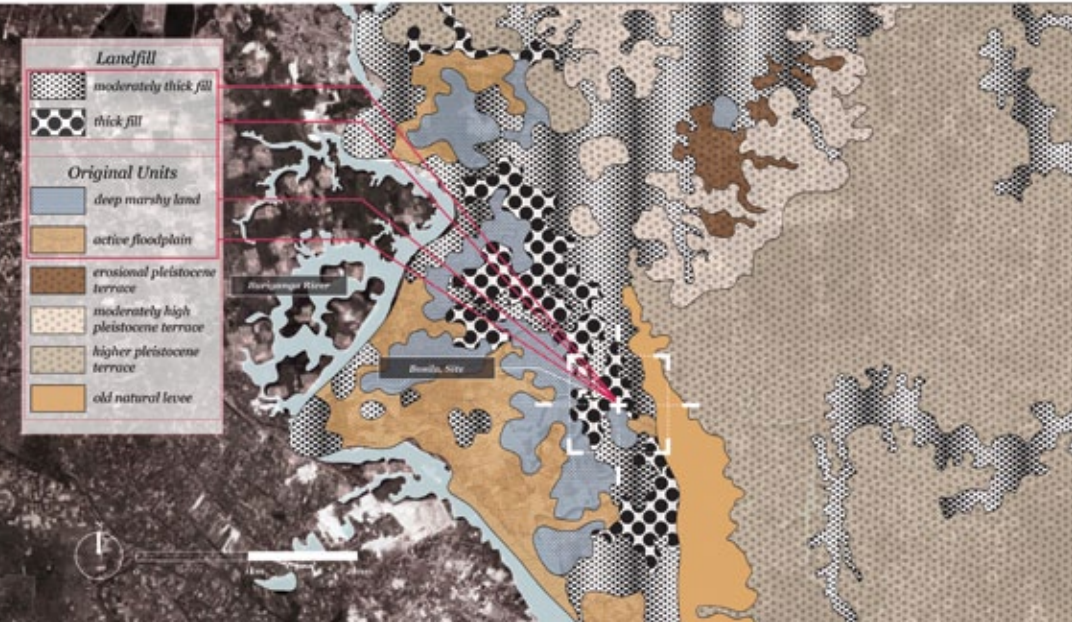


[Site Soil Map - Soil Texture and Sediment Cycle Section of Mega-Delta]




CRITIC:
James Timberlake
 STUDENTS:
Zhengkeng Chen


“...distilled data produced a working taxonomy of landscape programs that can improve outputs of a discrete set of hydrological & geological systems. Depending on the services required for a specific situation...” - Zhengkeng Chen

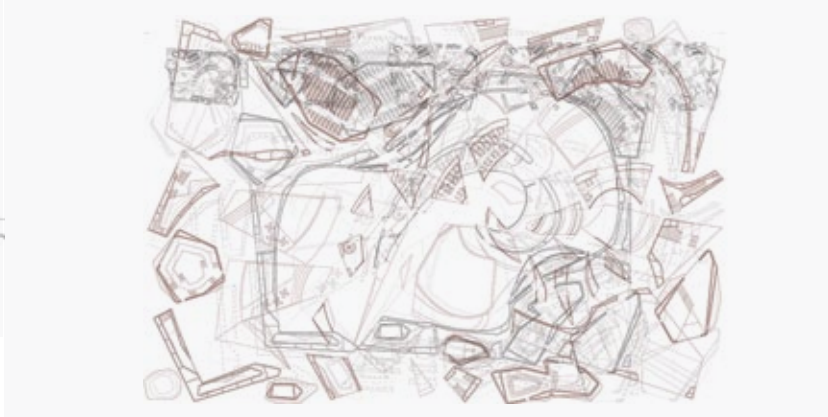
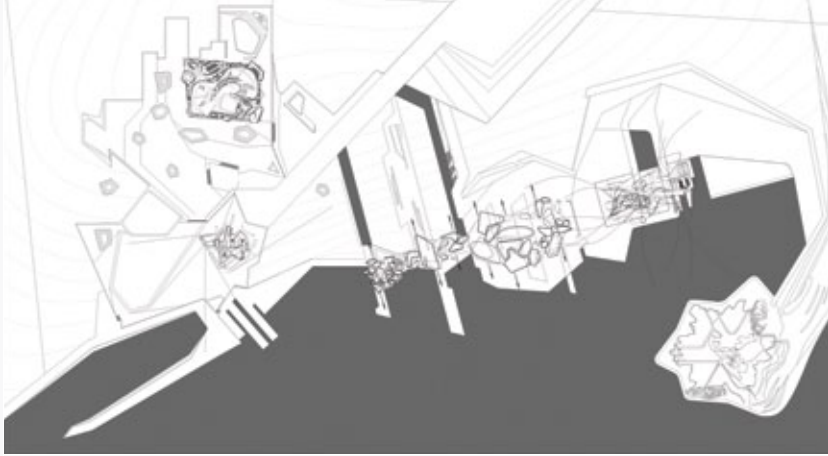
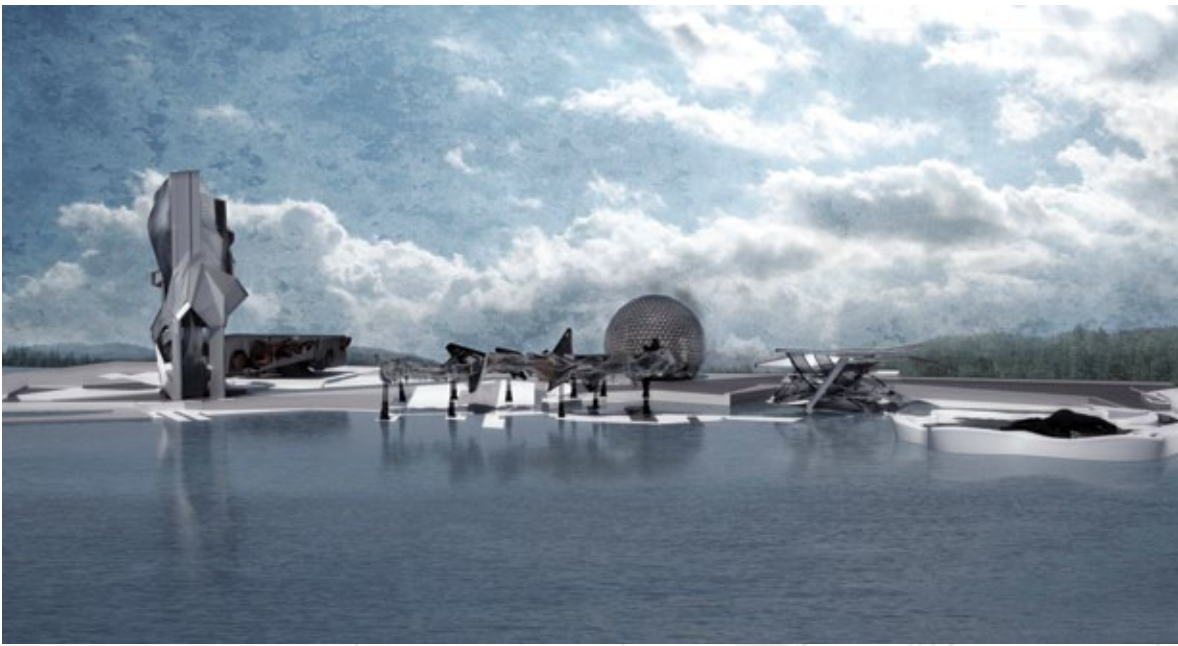


James Timberlake
Adjunct Professor



- Founding partner of KieranTimberlake, PA (1984)
- Received an MArch from the University of Pennsylvania and a BES from the University of Detroit
- Fellow of the American Academy in Rome (1980-81)
- KieranTimberlake has received over one hundred design citations & awards





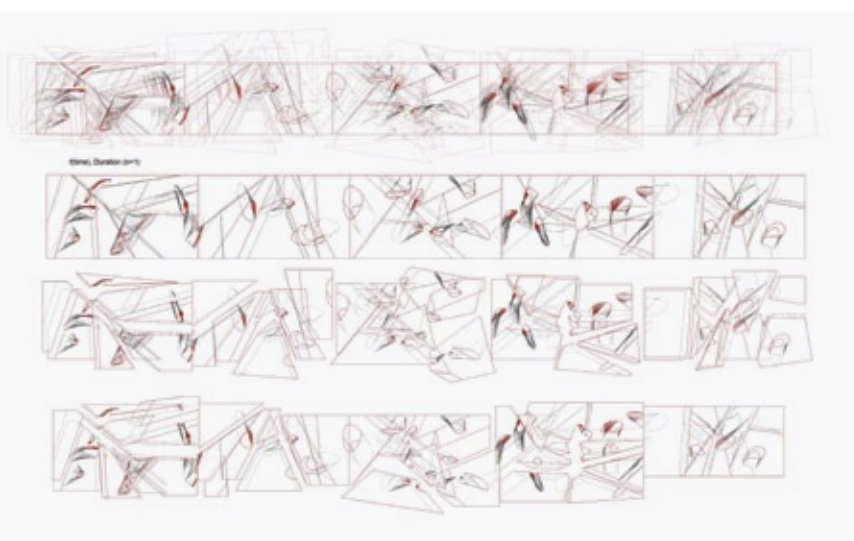
CRITIC:

Simon Kim

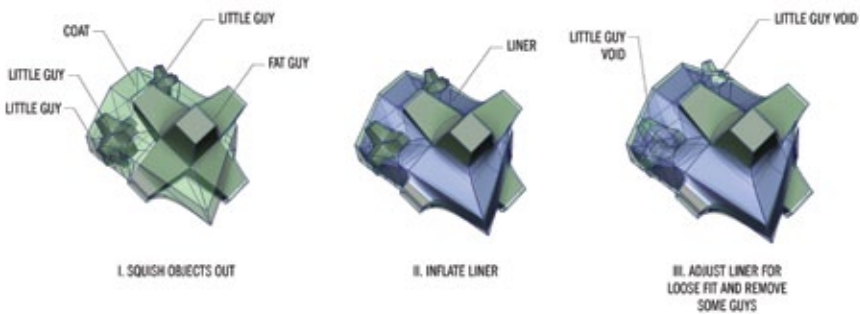
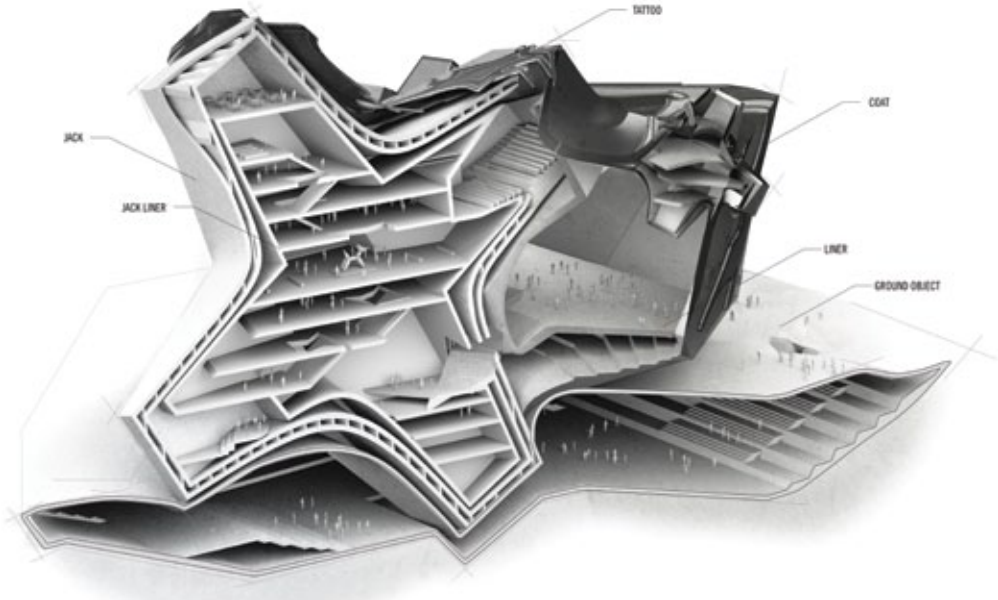
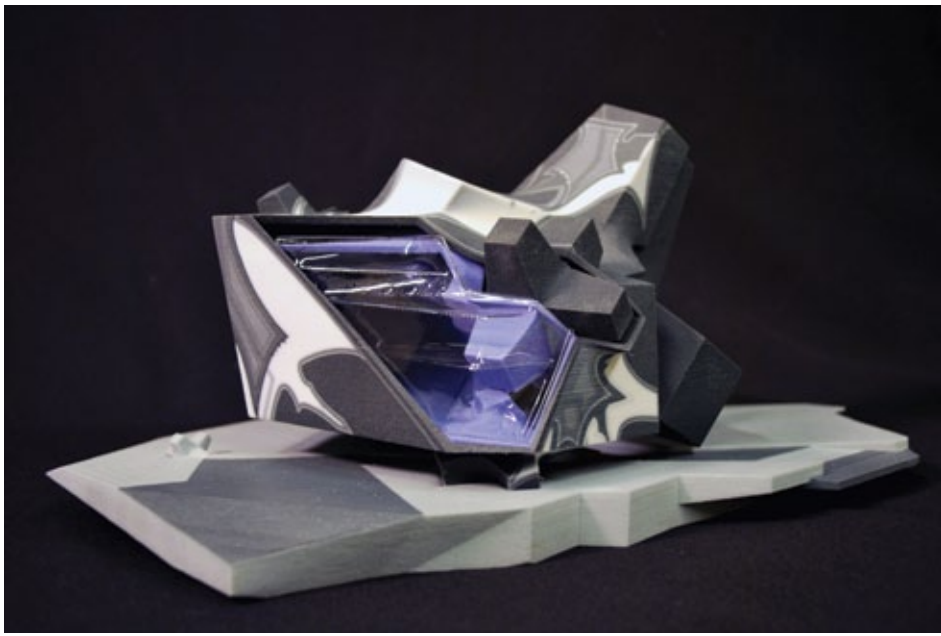
STUDENTS:

**Brian Berk & Fatima Al Dhouki
Eleni Han & Bongkyun Lee**

**Elise McCurley & Boram LeeJung
Laurens Deuling & William Wong**



“...Architecture of Agency is to be embodied & continuously available in dynamic conditions, as well as construct meaningful exchange in its actions... allowing for a construction of culture that does not favour human nor clock-work time, but allows for new traditions of occupancy & programme.” —Simon Kim

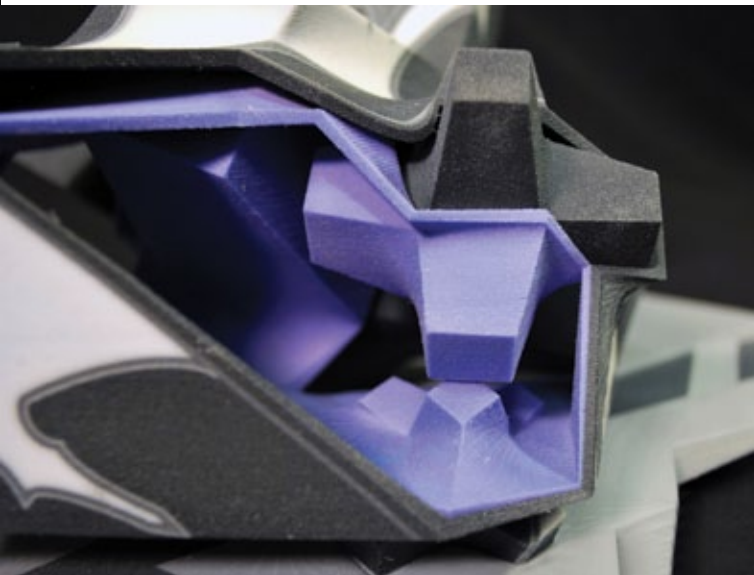


Tom Wiscombe
Lecturer



- Founder and Principal of Tom Wiscombe Design (2011)
- Received an MArch from University of California, Los Angeles (1999) and a BArch from University of California, Berkeley (1992)
- Louis I. Kahn Visiting Assistant Professor, Yale University (2012)
- Senior Design Faculty and Applied Studies Coordinator at SCI-Arc





CRITICS:

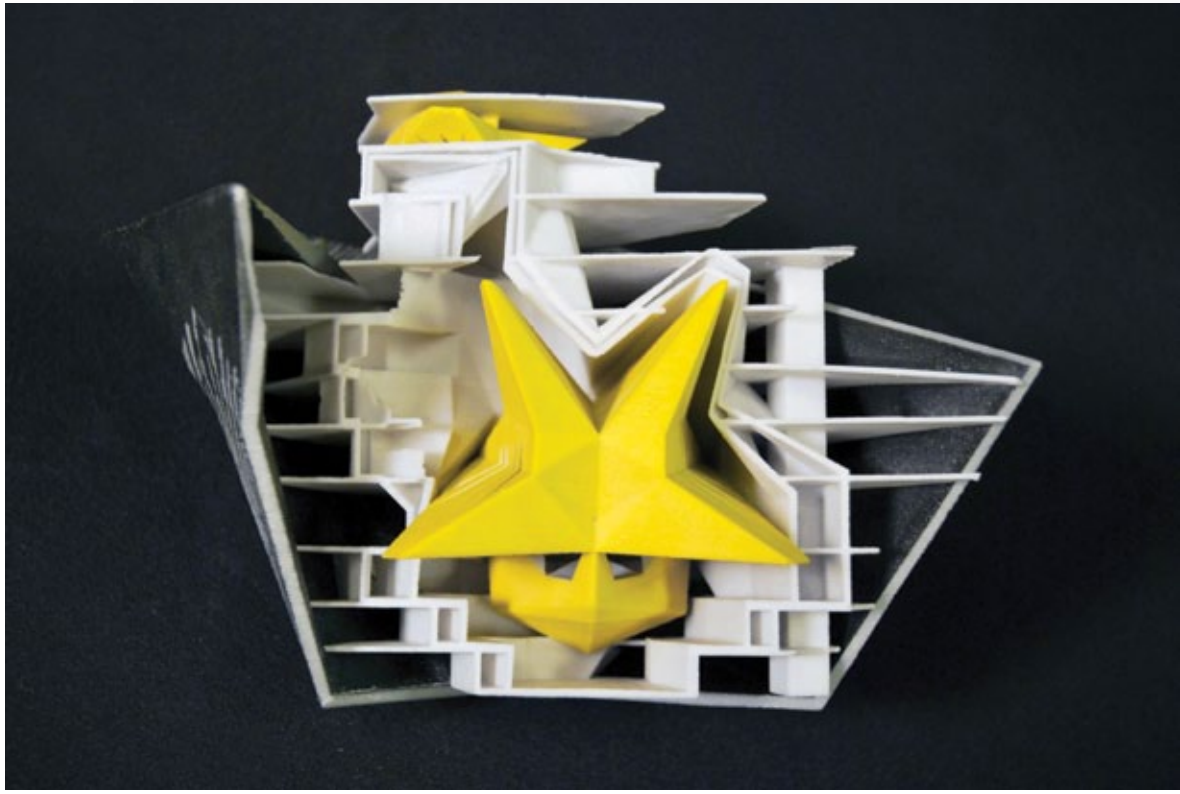
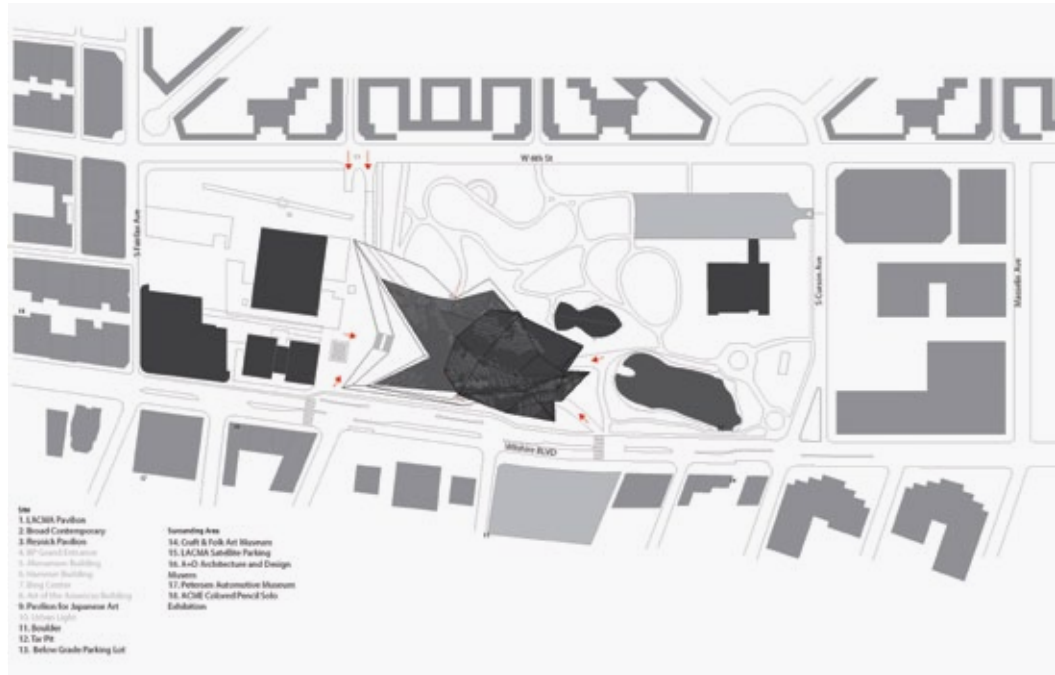
Tom Wiscombe

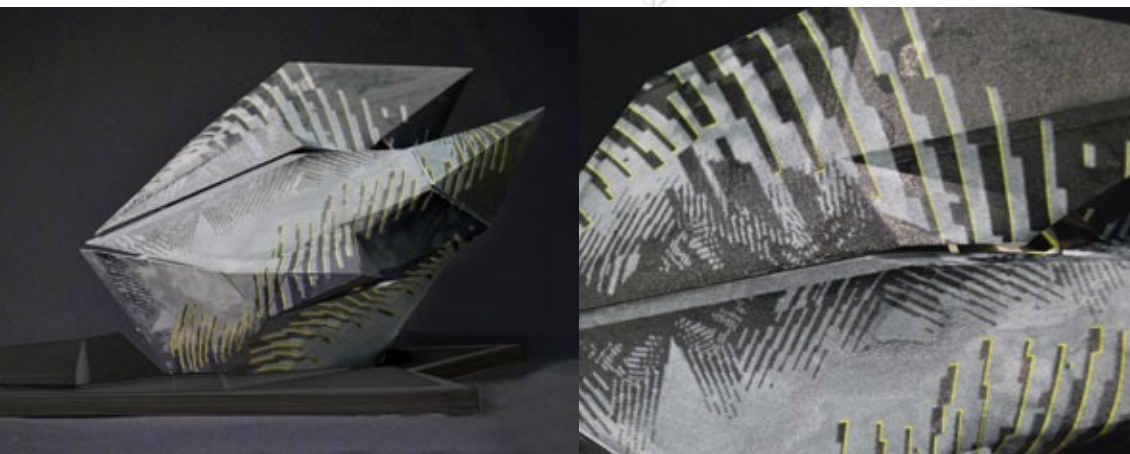
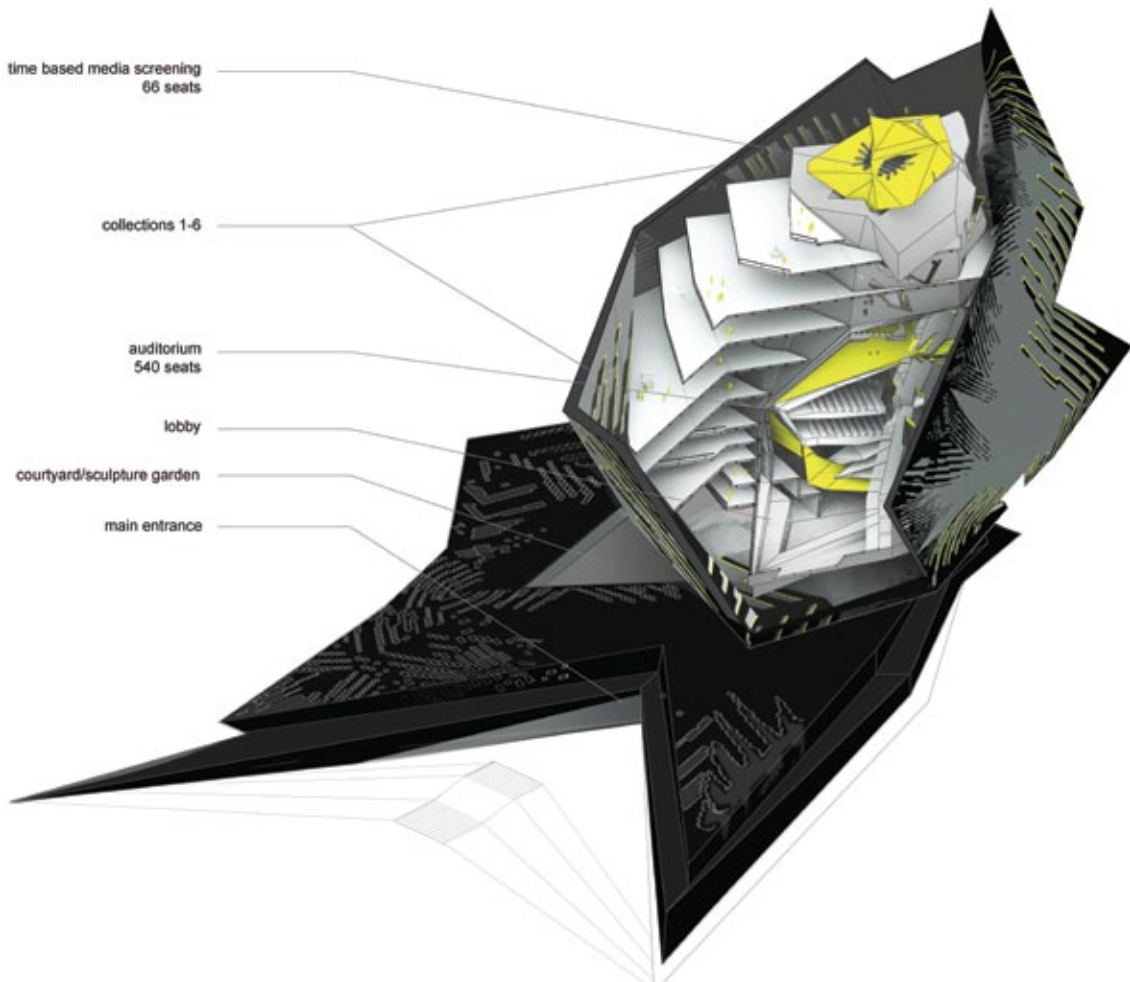
STUDENTS:

Eric Wong

Michael Kipfer

“...the operations of squishing, nestling, & slicing resulted in an entirely new object that is comprised of several objects existing in dialogue and in tension – not totally unified, yet not entirely discrete.” — Eric Wong & Michael Kipfer





CRITICS:

Tom Wiscombe

STUDENTS:

Kristy Kimball

Kathryn Viechnicki

“...focuses on the interfaces among objects...a large directional crystal shell occupies the site with special programmed objects hovering inside. The tattooed exterior serves to accentuate the form...” — Kristy Kimball & Kathryn Viechnicki



CRITICS:

Tony Atkin
Laurie Olin

STUDENTS:

Konstantina
Koligliati
Jiamin Liang

“...a proactive process and an informative model for creating contemporary communities that are ecological and culturally sustainable in the arid southwest United States.” - Tony Atkin & Laurie Olin



Tony Atkin
*Adjunct Associate
Professor*



- Founding Principal and Lead Designer of Atkin Olshin Schade Architects, PA & NM (2003)

- Received an MArch from the University of Pennsylvania and a BA in Anthropology from the University of Utah

- Received the Pennsylvania Society of Architects Silver Medal for Design Excellence, Philadelphia Chapter AIA Honor Award





RESIDENTIAL LAMP

RAIN GARDEN

PERMEATION GARDEN

PEDESTRIAN PATH

SAMPLE GARDEN

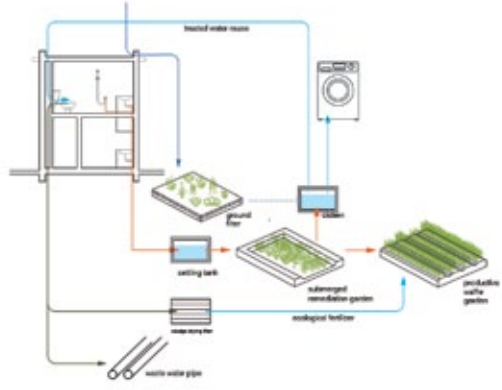
CRITICS:

Tony Atkin
Laurie Olin

STUDENTS:

Mairen Foley
Katherine Dailey

“...a proactive process and an informative model for creating contemporary communities that are ecological and culturally sustainable in the arid southwest United States.” — Tony Atkin & Laurie Olin

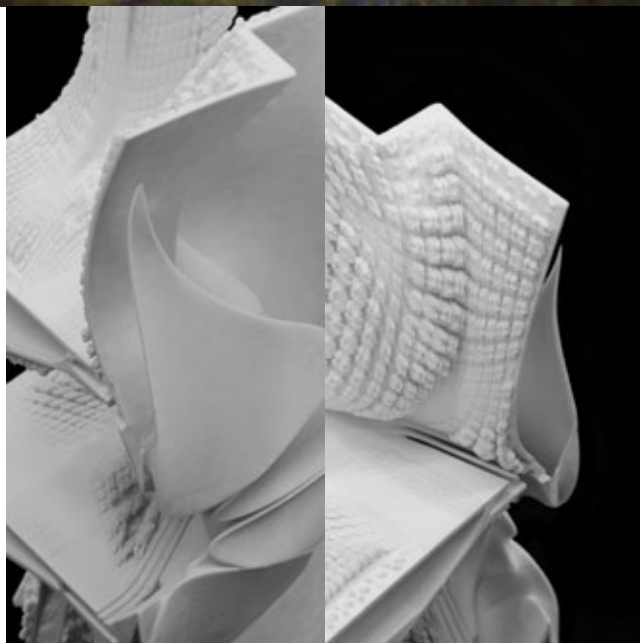


Laurie Olin
Practice Professor
of Landscape
Architecture



- Founding Partner of the landscape architecture and urban design firm, OLIN PA & CA
- Received a BArch from the University of Washington (1961)
- Received the Rome Prize (1972)
- Received the Cooper-Hewitt National Design Award for Landscape Design (2008)
- Winner of the Thomas Jefferson Foundation Medal in Architecture (2013)



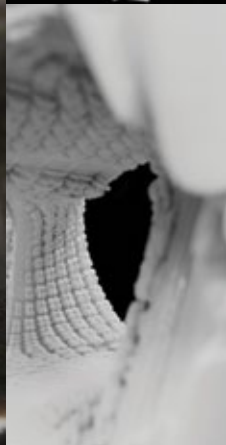
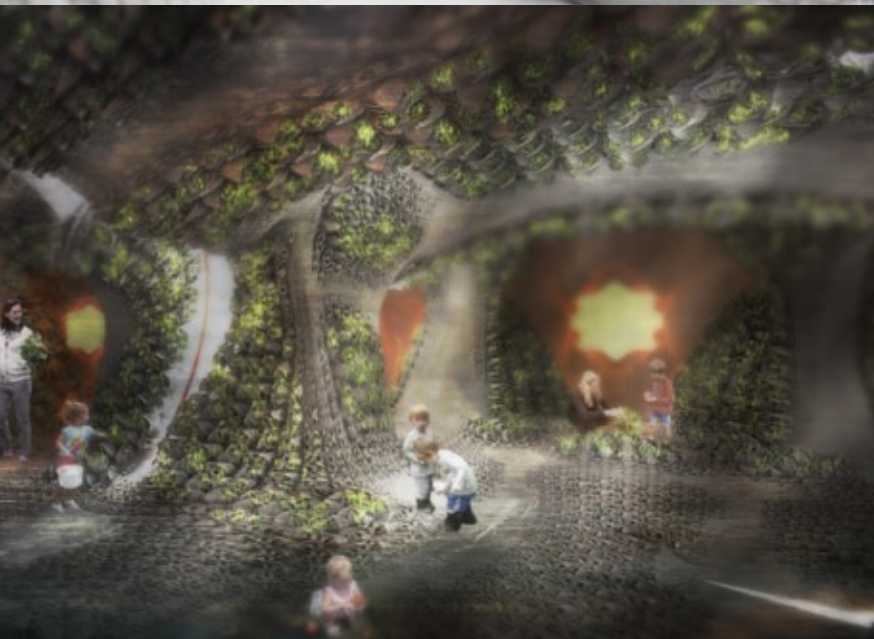
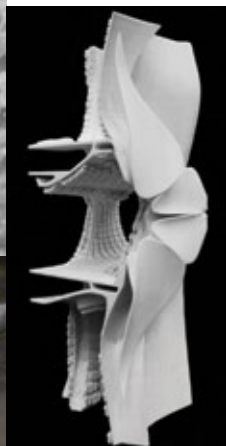


Sulan Kolatan
Lecturer



- Principal of New York-based KOL/MAC LLC (1988)
- Received a MS in Architecture and Building Design degree from Columbia University
- Holds a Dipl.Ing. Arch. degree from the RWTH Aachen, Germany
- Her work has been published worldwide, notably, at MoMA, Cooper-Hewitt, Centre Georges Pompidou, and Barbican Art Gallery London.





CRITICS:

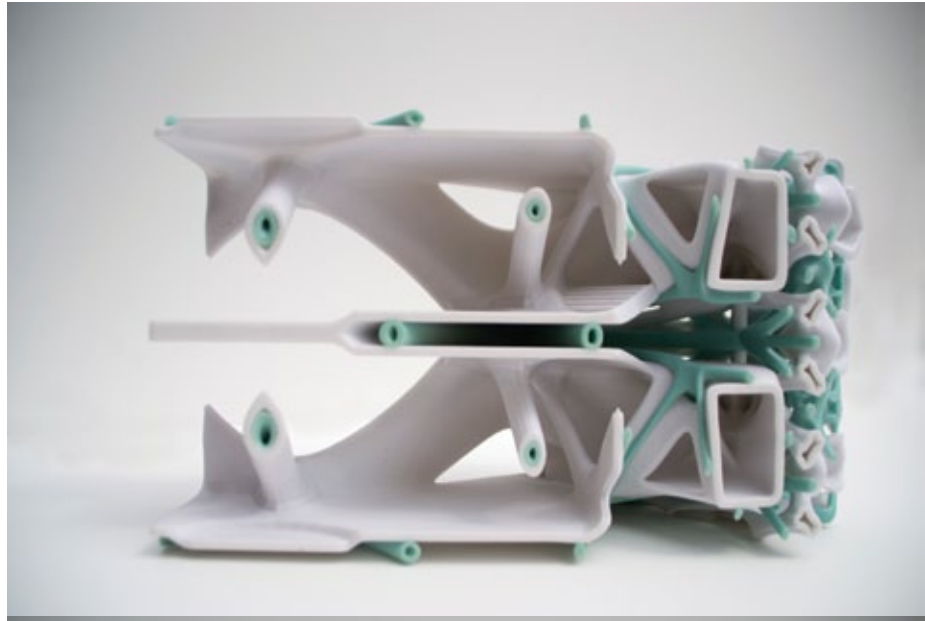
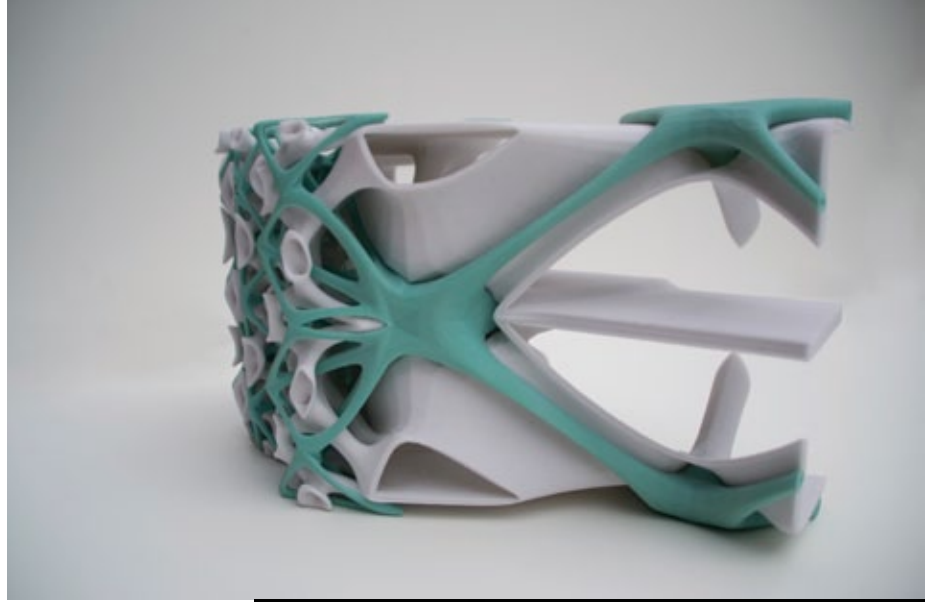
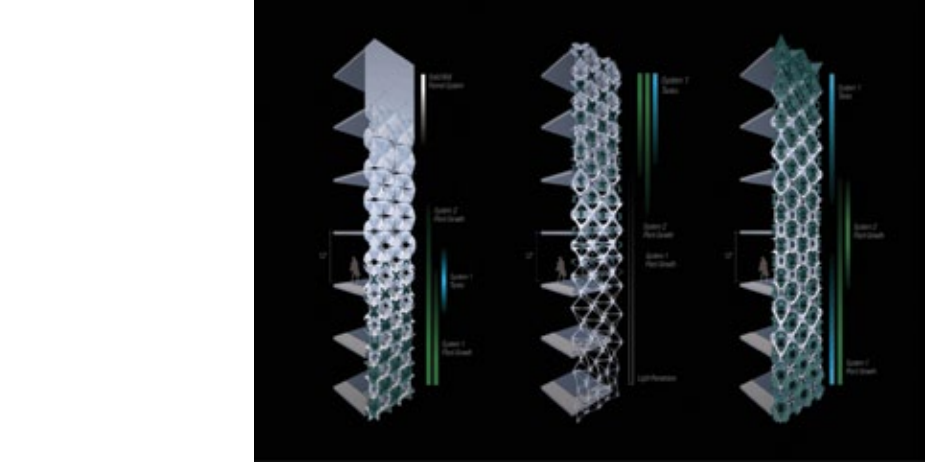
Sulan Kolatan

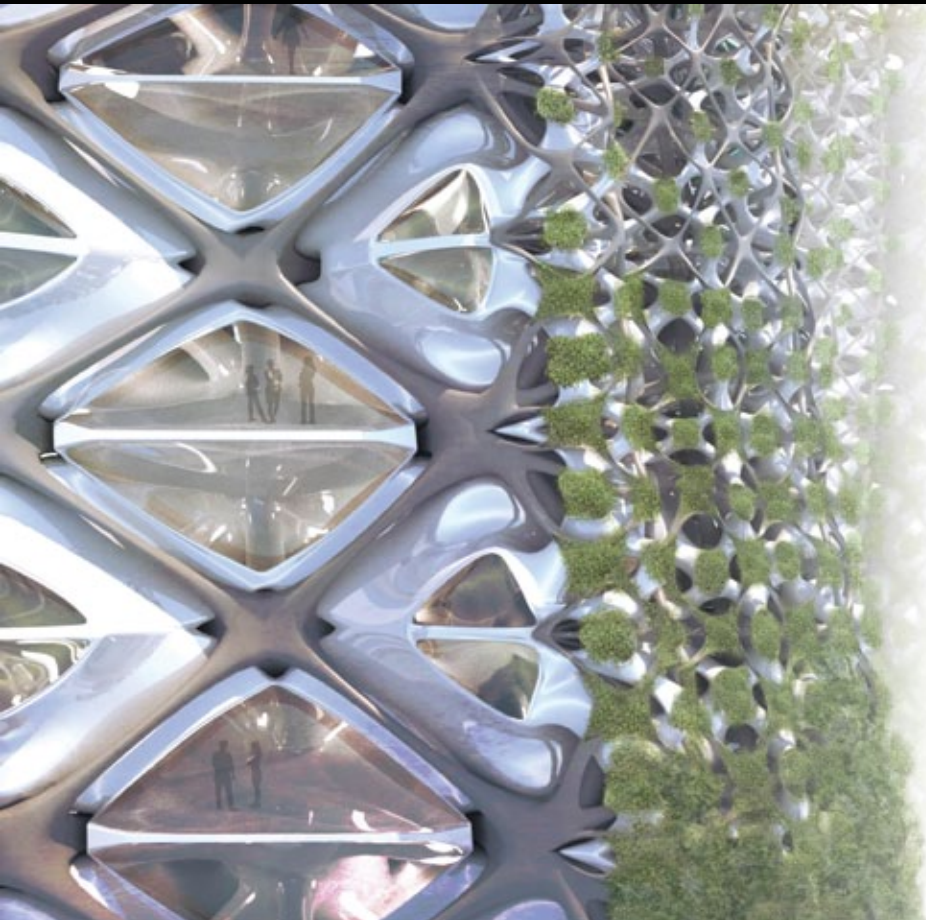
STUDENTS:

Eric Wong

Michael Kipfer

“...the operations of squishing, nestling, & slicing resulted in an entirely new object that is comprised of several objects existing in dialogue and in tension – not totally unified, yet not entirely discrete.” — Eric Wong & Michael Kipfer





CRITICS:

Sulan Kolatan

STUDENTS:

Eric Wong

Michael Kipfer

“...the operations of squishing, nestling, & slicing resulted in an entirely new object that is comprised of several objects existing in dialogue and in tension – not totally unified, yet not entirely discrete.” — Eric Wong & Michael Kipfer



701 Student Work

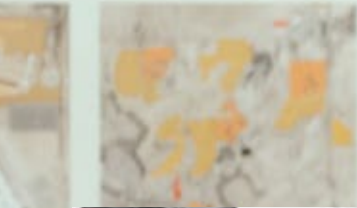
Chair, Winka Dubbeldam with Dana Cupkova in 701 reviews.

Fall 2013

Jury members discuss the work produced in ARCH 701's final reviews.



Students look upon work from final reviews.



ARCH 704 reviews with (l-r) Thom Mayne, Eric Bunge and Tom Wiscombe



Spring 2014

Students examine work from Tony Atkin's and Laurie Olin's ARCH 704 studio at final reviews.



Exhibited student work

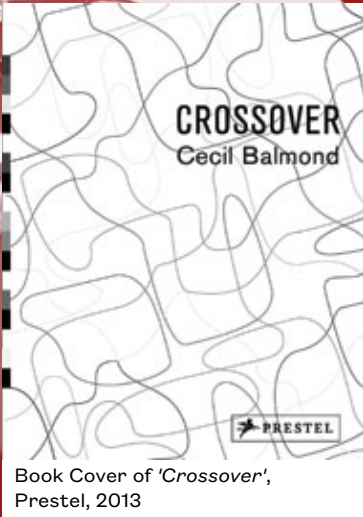


Student presenting her work.

February 26th, 2014

Event : Crossover at PennDesign Meyerson Hall,
Philadelphia

Cecil Balmond, Principal of Balmond Studio and Paul Philippe Cret Practice Professor of Architecture at Penn, spoke about his recent publication '*Crossover*'. Balmond and Manuel De Landa then engaged in a discussion moderated by Aaron Levy, Executive Director of the Slought.



Book Cover of '*Crossover*',
Prestel, 2013

February 27th, 2014

Event : Crossover at Van Alen Books, NYC



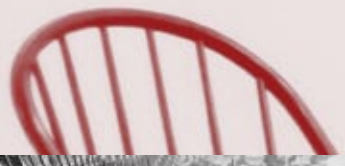
In this long-awaited follow-up to the enormously popular informal, Cecil Balmond invites readers into his creative process as he documents his most innovative projects in art, architecture, and bridge design. This newest book outlines more than a dozen international projects: bridges, towers, pavilions, and sculptures that embody the notion of crossover, which Balmond describes as the movement between idea and substance through pattern. The book includes the Weave Bridge at the University of Pennsylvania, a poetic solution to a pedestrian problem; the Serpentine Pavilion at London's Kensington Gardens; ArcelorMittal Orbit at the site of the 2012 Summer Olympics in London; and the CCTV tower in Beijing.



Cecil Balmond signing books at the event.

Introduction by Chair and PPD Director, Winka Dubbeldam

CLIMATE WATER
RESEARCH CENTER



Emerson College Los Angeles, 2014



Emerson College Los Angeles, 2014

March 19th, 2014

Lecture - Thom Mayne, FAIA, Principal, Morphosis Architects



Giant Interactive Group Corporate Headquarters, Shanghai, 2010



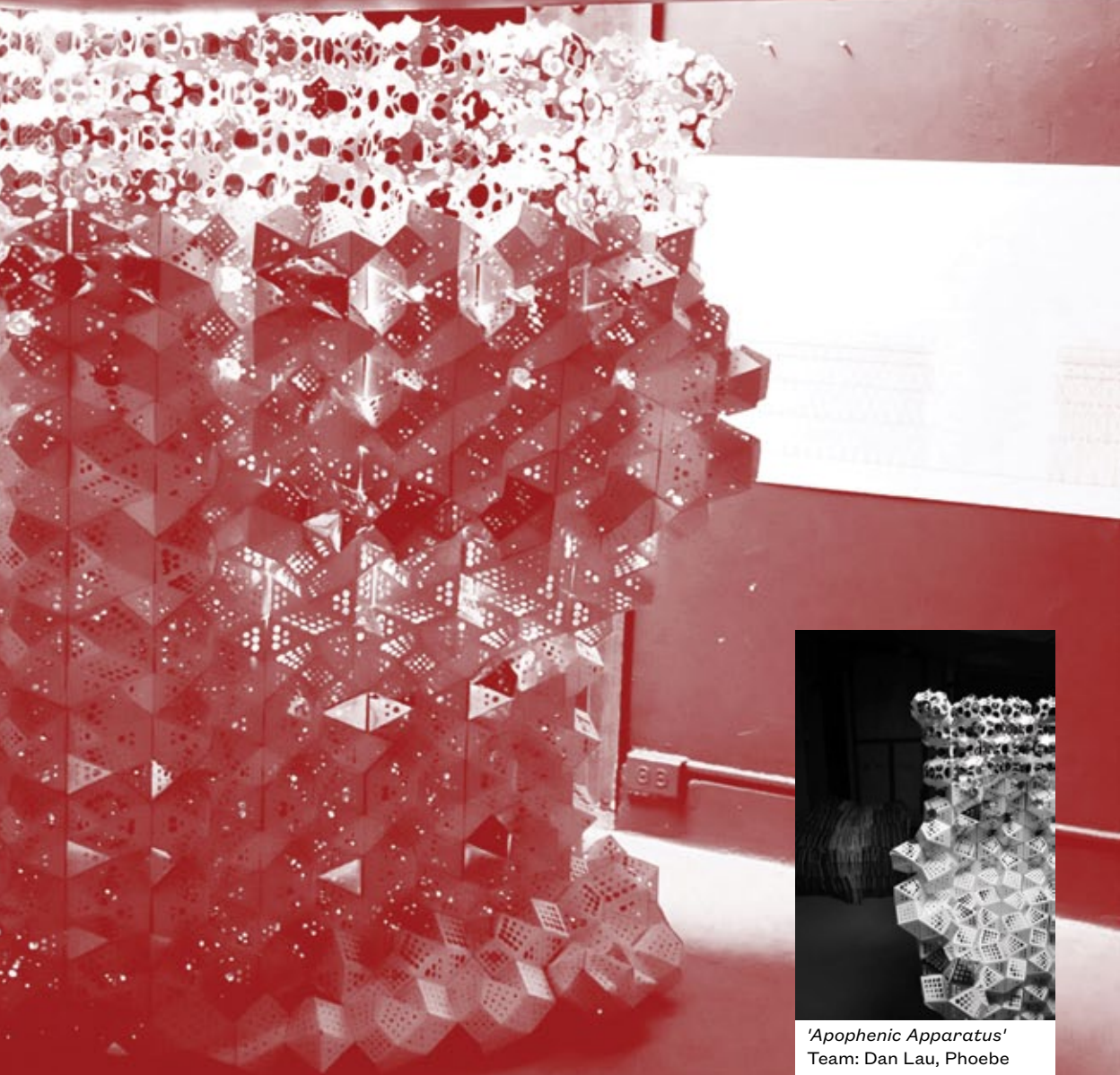
'Deployable Worm'

Team: Rajika Goel, Emily Gruendel and Alex Tahinos

March 21st, 2014

Patarchitecture

An exhibit at the Slought Foundation, Philadelphia. The 500 students joined a larger exhibit and submitted a 'living structure'
Organizers: Aaron Levy, Winka Dubbeldam and Simon Kim



'Apothenic Apparatus'
Team: Dan Lau, Phoebe
Hiunam Leung, Chistopher
Mulford, Chi Zhang

Advanced^{II} 26

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266 Post-Professional Degree (PPD) 703 Introduction by Winka Dubbeldam

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296 MArch - Master in Environmental Building Design (MEBD)

Introduction by William Braham, PhD

304 MS & MSE - Integrated Product Design (IPD) Introduction by Sarah Rottenberg

308 PhD - Doctoral Degree Program Introduction by David Leatherbarrow, PhD

ADVANCED®

PPD

703

MARCH™

Winka Dubbeldam

Director

We are still living under the reign of logic, but the logical processes of our time apply only to the solution of problems of secondary interest. The absolute rationalism which remains in fashion allows for the consideration of only those facts narrowly relevant to our experience. Logical conclusions, on the other hand, escape us. Needless to say, boundaries have been assigned even to ex-perience. It revolves in a cage from which release is becoming increasingly difficult. It too depends upon immediate utility and is guarded by common sense. In the guise of civilization, under the pretext of progress, we have succeeded in dismissing from our minds anything that, rightly or wrongly, could be regarded as superstition or myth; and we have proscribed every way of seeking the truth which does not conform to convention. Andre Breton, Le Manifeste du Surréalisme, 1924

Over the last ten years that I have directed and taught in the PPD program, architectural education has drastically changed. Having had the luxury of great co-teachers, such as David Ruy, Ferda Kolatan, Roland Snooks and Francois Roche, I'd like to take the chance to thank them for their intense and inspirational input in teaching. They have helped the PPD program grow and evolve. Building on this robust foundation, and numerous requests, the program expanded this year from two to three semesters. Parallel to that, it deepened its pedagogical effectiveness, increased the offerings within Penn Design, focused on design excellence, enhanced the profile of the program in the School of Design, and amplified the reputation of the Department of Architecture nationally and internationally.

The program has developed a more specific first semester. This proposed semester will not only entail a specific design studio, but will add specific seminars and lectures squarely focused on the program's

PPD 703 Faculty

Winka Dubbeldam

Stephan Henrich

Ferda Kolatan

Francois Roche

threefold purview of generative design, critical theory, and digital modeling. As the program brings together more and more students from around the world, with diverse personal and professional backgrounds, this new first semester will instill a greater shared design methodology and vocabulary. This robust foundation starts in the Fall and will be carried through the individually directed course of study of the second two semesters, the Spring and following Fall. The benefit here is that the incoming students overlap with the outgoing ones and knowledge can be transferred. Also, the three-semester program will culminate in a publication and an exhibition at Meyerson Hall over December and January, allowing all younger students to see the work. This is the moment where, as I have moved on to be the Chair of the Department of Architecture at Penn, it is my pleasure to pass the PPD directorship on to Professor Ali Rahim, who will start Fall 2014.

The last year also featured a PPD symposium, “the New Normal”, organized by Ferda Kolatan, Roland Snooks and me. The New Normal stated: Since its emergence roughly 20 years ago, generative digital design has fundamentally altered the way in which we conceptualize, design, and fabricate architecture. Virtually every aspect of our profession has been radically transformed. These innovations have not been restricted to questions of technology alone, and have fueled a lively debate among leading educators, theoreticians, and practitioners in their respective efforts to understand the larger cultural ramifications triggered by this phenomenon. The symposium started from the viewpoint that after 20 years of Digital Design, a new

platform was established [The New Normal], and new forms of practice have emerged. For the symposium, we gathered together some of the most innovative of these new practices and formed three panels, moderated by the 3 organizers. Keynote speakers Ben van Berkel and Neil Denari opened and closed the symposium and gave invaluable talks framing the argument in a provocative and inspirational manner.

This year's PPD [2013-2014]

Andre Breton's statement above was the introduction to this year's joined PPD Fall semester, taught by Ferda Kolatan, Francois Roche and me. The PPD has traditionally collaborated with an international network of universities [Puerto Rico, Shanghai, Seoul], International developers [Puerto Rico, Bogota, Delhi] and city governments [Tel Aviv, Shanghai] . This year we were invited to work with Professor Peter W. Ferretto at SNU, Seoul National University, in Korea. The collaboration was initiated and sponsored by Mr. Jeong, CEO of Heerim Architects in Seoul. The students in Seoul and Penn were both asked to design a surrealist Museum in Seoul. The collaboration included a trip to Seoul, where students met and travelled together, and a visit from the Korean students at Penn during our New Normal symposium. It resulted in a very interesting and surreal learning experience for which we extend our warmest thanks to Mr. Jeong and Peter Ferretto. They were both great hosts and collaborators. The results of this amazing studio follows here, and I look forward to seeing the PPD grow and evolve over the next years in its extended format!



ARCH PPD 703 Descriptions

Surrealist Museum Seoul: Museum and Gardens for Surrealist Art in Seoul, South Korea

**Winka Dubbeldam, Stephan Henrich,
Ferda Kolatan, & François Roche**

Collaborator: **Peter Ferretto**, Seoul National University,
Department of Architecture, Fall 2013 – page 272 - 283

I believe in the future resolution of these two states -- outwardly so contradictory -- which are dream and reality, into a sort of absolute reality, a surreality, so to speak, I am aiming for its conquest, certain that I myself shall not attain it, but too indifferent to my death not to calculate the joys of such possession.

- Le Manifeste du Surréalisme, Andre Breton (1924)

Surrealism was a leading European art movement, which began in the early 1920's in Paris and dispersed at the onset of the 2nd World War. The original group formed around their charismatic leader and the author of the "Surrealist Manifesto", Andre Breton and included such diverse personalities as the painters Max Ernst and Salvador Dali, the poets Antonin Artaud and Paul Eluard, the sculptor Hans Arp, the photographer Man Ray, and the filmmaker Luis Bunuel.

Opposing simplistic causality and linear thinking, which they felt was an expression of an anachronistic petit-bourgeois lifestyle and bureaucracy, the Surrealists were fascinated by Sigmund Freud's work and in particular his dream analysis. Through it they saw an alternative and more truthful condition emerge, which they advocated not only as a contemporary art form but, more importantly, as a larger cultural movement

and socio-political provocation to existing and conformist concepts of what constitutes art, politics, society, and even reality. Wikipedia states: "*The aim was to "resolve the previously contradictory conditions of dream and reality." Surrealist works feature the element of surprise, unexpected juxtapositions and non sequitur; however, many Surrealist artists and writers regard their work as an expression of the philosophical movement first and foremost, with the works being an artefact. Leader André Breton was explicit in his assertion that Surrealism was above all a revolutionary movement.*"

The Museum of the 21st Century The students will be asked to conceptualize and design the Surrealist Museum in relation to the paradigmatic transformations, which most Museums are currently undergoing. A new and imaginative 21st-century museum environment is taking shape. Museums have greatly changed over the last few years; where it used to be that the largest area was occupied by exhibition space, now more than 50% is taken over by other functions, such as the museum shop, lecture hall, restaurant, etc. To differing degrees and at different rates, the museums are transforming themselves from risk-averse and slow-to-adapt institutions to creative environments that foster innovation and change by taking a visitor-centered approach to doing business.

This new and altered museum state, one of programmatic and conceptual reorganization, draws a potentially interesting parallel to Breton's famous description of a hypnagogic state in which a strange phrase inexplicably appeared in his mind: "There is a man cut in two by the window." This phrase echoes Breton's apprehension of Surrealism as the juxtaposition of "two distant realities"

united to create a new one.

The studio will examine this altered role of the museum in general and specifically its relation to Surrealist philosophies, concepts, and art, while the museum gardens will investigate and test new and unprecedented relationships to the immediate museum surroundings as well as the city at large.

Three Sites This year's PPD studio is invited to collaborate with the Seoul National University, Department of Architecture, Seoul, where the Surrealist Museum will be planned. Two sites are chosen; the first one is the main island in the middle of the Han River (Nodeul Island), which was the site for a big international competition about 8 years ago, the Seoul Opera House, a project plagued by controversy, which got eventually cancelled by the new mayor. The second site is on one of the islands close to the sea, which are very interesting and very topical especially in regards to their close proximity to North Korea and to the new developments such as the new city of Songdo (an entire city built on artificial land). The third site is Heyri, near the DMZ [Demilitarized Zone], where about one hour north of Seoul, among all these signs of warfare one finds a peaceful and beautiful village for artists. In 2001, after two decades of planning, book publisher Kim Eun-ho's vision became reality, and today, over 500 painters, musicians, photographers, writers and sculptors live and work together in Heyri Artists Village, a cultural commune of sorts located in the city of Paju. - See more at: <http://discoveringkorea.com/081024/heyri-artists-village-in-paju-korea/#sthash.JtcwRYe1.dpuf>. The students are free to choose either site, based on their thorough research, analysis and reasoning.

Design Methodology In adherence with the Surrealist principles of nonlinearity, free association, and enhanced imagination, the studio will experiment with advanced digital techniques that seek to challenge normative ideas of planning and design in favor of a more experimental and decidedly non-hierarchical approach. Robotics, swarm intelligence, dynamic and parametric modeling and other bottom-up systems will be deployed to set up novel design strategies for the project's development.

This methodology is geared towards the generation of structural, informational, and organizational complexity through adaptive systems. As our technologies allow for increasingly more sophisticated digital and material interactions, as well as for a vastly more intelligent parts-to-whole ecology, we find ourselves today in an unprecedented position to challenge fundamental architectural questions pertaining the conceptualization, design, and construction of objects, buildings, cities, all the way to entire ecologies.

The studio will work with robotics, 3D printing, and other advanced fabrication technologies. Software programs such as Maya, Rhino, Grasshopper, and Blog software will be used. The students will present the results of the PPD Studio in BLOG form, and eventually in the annual PPD publication.



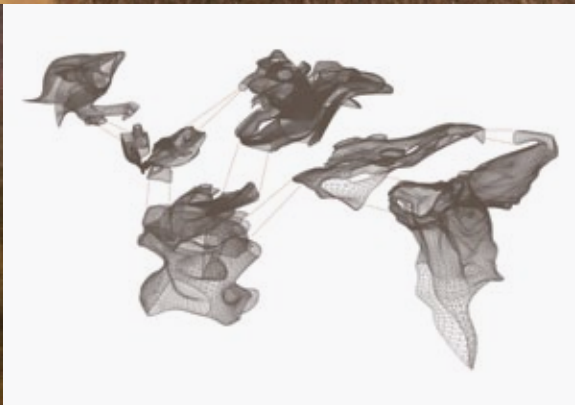
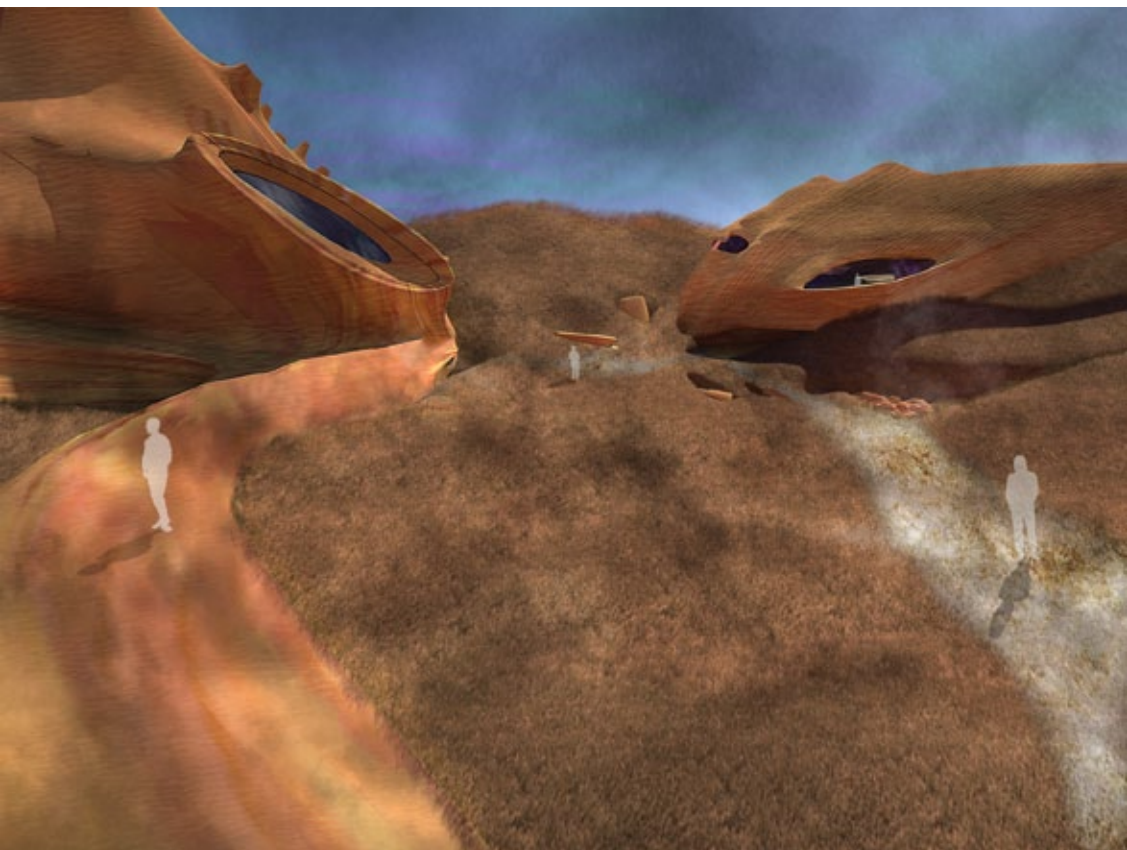
CRITIC:

Winka Dubbeldam

STUDENTS:

Eleni Han
Di Fan

“...obscured between visible & invisible, above & beneath... directions are skewed & intertwined, spaces connected by various paths & on many levels, resulting into a contorted environment as if created in a dream.” — Eleni Han & Di Fan



**Winka
Dubbeldam**
Professor & Chair



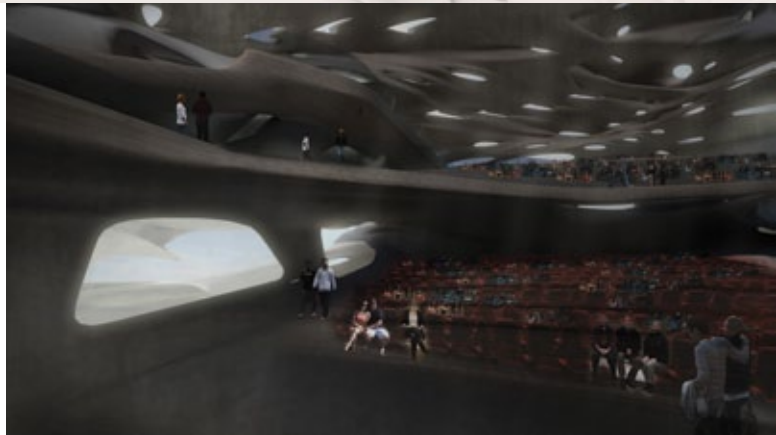
- Founded Archi-Tectonics (1994)

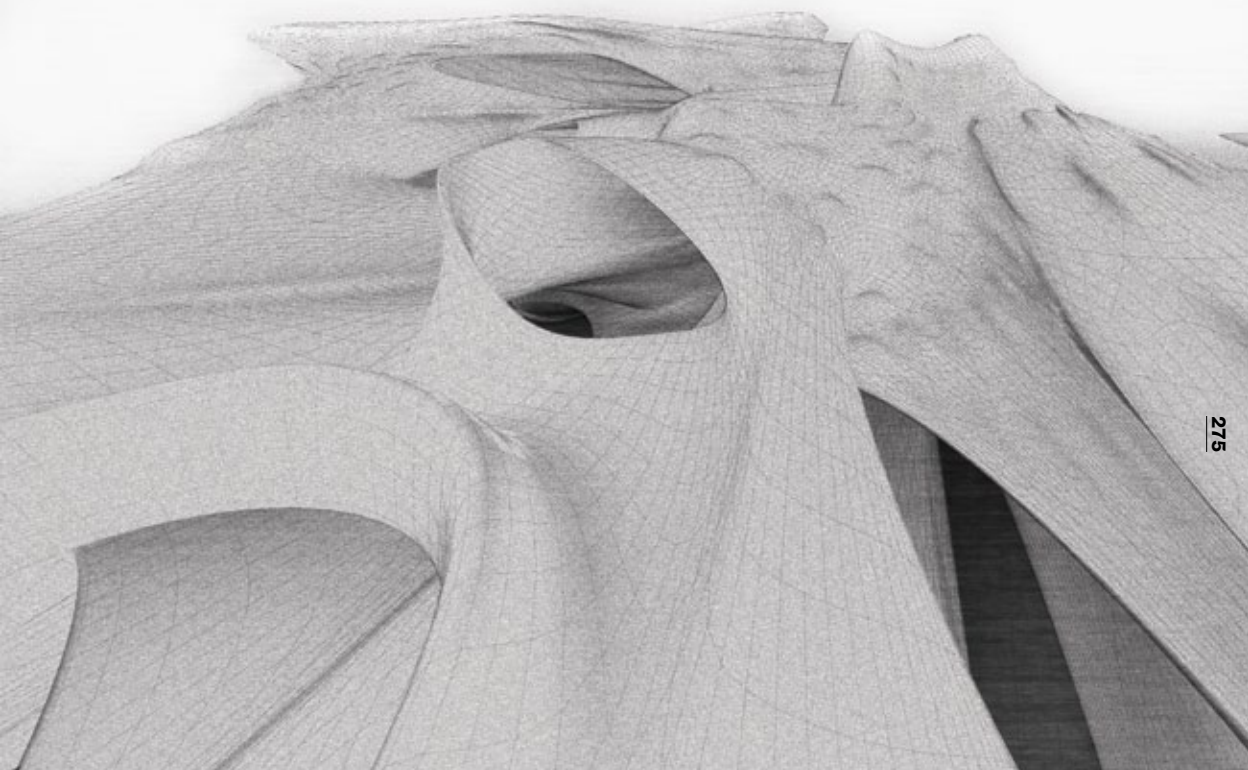
- Received Master's degrees from the Academy of Architecture in Rotterdam (1990) and Columbia GSAPP, NYC (1992)

- Lectured & taught in the master's programs at Columbia GSAPP, Harvard, and Cornell.

- External examiner for the AA's annual RIBA review & on the board of Directors for the Institute for Urban Design, NYC; & for BOFFO, NYC.







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ADVANCED II

Advanced I — ARCH PPD 703
Design Studio — Dubbeldam

CRITIC:

Winka Dubbeldam

STUDENTS:

Elise McCurley

Luli Wang

“...visitors explore without a set sequence—like the landscape & buildings themselves, visitors slips into/out of the layers of the environment by way of unexpected 'glitches' built into the topological forms.” — Elise McCurley & Luli Wang



CRITIC:

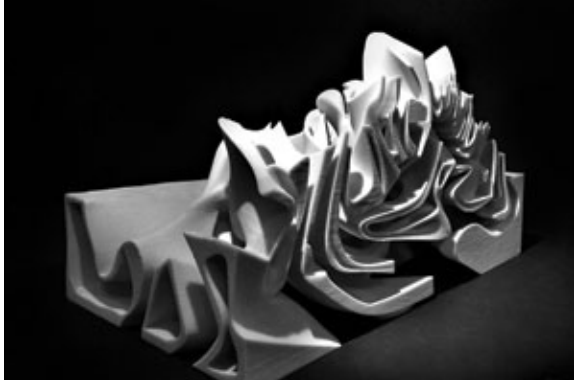
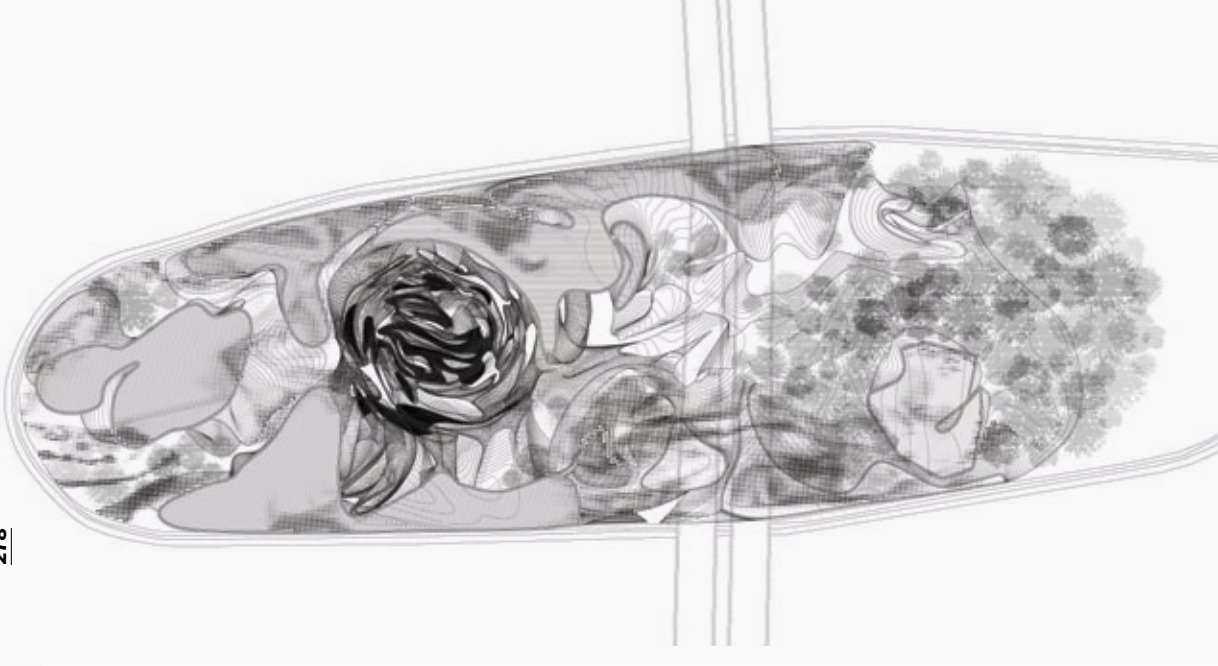
Ferda Kolatan

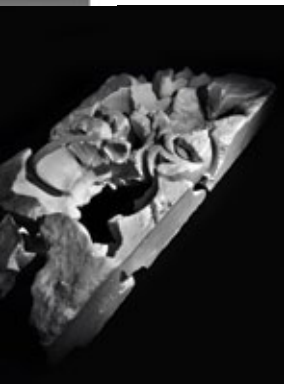
STUDENTS:

Bongkyun Lee
Zhengneng Chen

“...the membrane wraps onto the solids, going in-between, or by being free standing...In this case, interface break the simple dualistic relationship into ambiguity, which creates a new formal language.” —Bongkyun Lee & Zhengneng Chen







CRITIC:

Ferda Kolatan

STUDENTS:

Boram Lee

Haotian Tang

“...projecting a new island on the original stimulates nostalgia—showing the coexistence of the two. The forest is invited into the museum area, with new ground level constructed & people’s activities reformed.” -Boram Lee & Haotian Tang



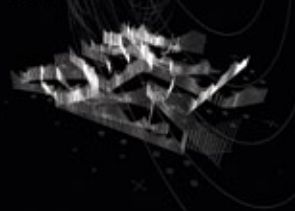
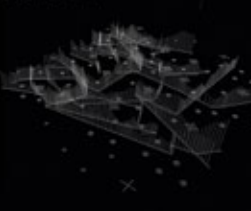
06 MACHINE

Bing Lu & Jamin Seo | LPE&A Fall 2013
François Roche + Stephan Henrich | T.A. Devin Jarrigan

Landscape (Digital) Simulation

Analysis of Network Connections

Physical Model



CRITIC:

François Roche

STUDENTS:

Bing Lu

Jamin Seo

“Silk links are getting intricate by robot’s soft touching, & it’s forming a maze. The museum is the maze itself which is reconfigured continually by new occupants combined with dangers & uncertainties from the past. .” -Bing Lu & Jamin Seo



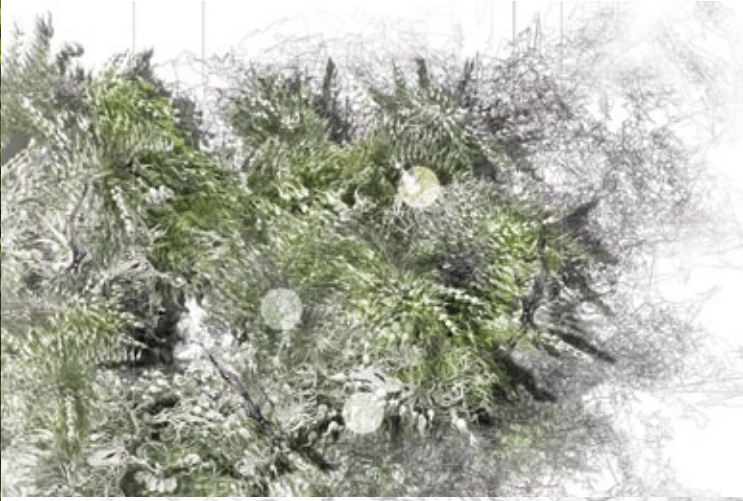
François Roche
Lecturer



- Co-founded New Territories/ R&Sie(n) (1989)
- Graduated from the School of Architecture of Versailles (1987)
- His work was profiled in the book, *'Bioreboot: The Architecture of R&sie(n)'* (2010)







CRITIC:

François Roche

STUDENTS:

Lifeng Lin

Lanmuzhi Yang

“Day after day, year by year, robots keep building glue trees which slowly grow into three different layers—stratification—canopy, lower canopy & ground root... microbes begin invading the whole system.” - Lifeng Lin & Lanmuzhi Yang

Travel

We at PennDesign see travel as an integral part of education. As architecture has become a global discourse that spans cultures, economies, and building practices, PennDesign provides a number of opportunities for students to travel and study abroad. Travel opportunities range from a full semester abroad at the Architectural Association in London (see Architecture 701) to new summer programs in Paris, Colombia and Greece, to week-long study trips in design studios at the 700-level.





Students climb Teotihuacán.



Norten's studio focused on the architecture and urbanism of the city of Puebla's colonial and pre-modern center, specifically the Paseo Bravo area.





Diabetic Patient with his Tools at Komfo Anokye Teaching Hospital: Students interviewed diabetic patients and asked about how they were diagnosed and monitor themselves in between doctor's appointments.



Penn IPD students Emily Dieckmeyer, and Fatima Al Doukhi, Sahib Singh, and IPD Associate Director Sarah Rottenberg with Penn Engineering students Aricia Shen, Bryan Cam, Thulani Tsabedze, Andrew Lee and patients from the diabetes clinic at Komfo Anokye Teaching Hospital in Kumasi, Ghana.





Andrew and Sahib interview community health nurses during one of their monthly outreach clinics.





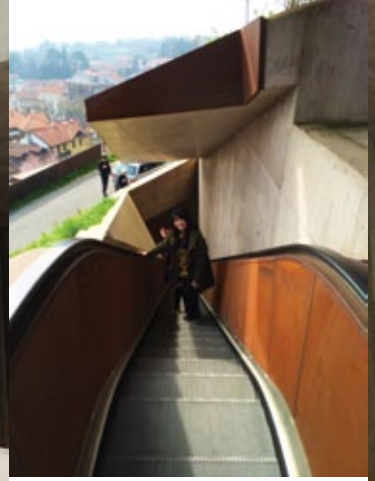
Santo Domingo trading post.



Professor Farjadi & students at Pirelli Tower Roof terrace, Milan, Italy

← aule seminari/seminar rooms
 ← galleria/gallery
 ← spazio espositivo/exhibition space





Hoju Chung riding escalators at Rivoli Castle outside Torino.

ADVANCED I

Thesis

Architecture

706

Annette Fierro

Coordinator

Thesis 706 Advisors

Annette Fierro

Franca Trubiano

The architectural masters thesis at Penn is by definition an open work, that is, its scope is limited only by the parameters of the issues raised within it. These issues, conceived initially as open questions, and finally articulated as the thesis *statement*, are formulated by the individual students with the guidance of faculty advisors. Taken through a rigorous process of assessment at different stages of development, Penn's thesis is an honors program.

A thesis question is both rhetorical and speculative. The thesis question typically begins for students as a residual curiosity from work previously done or ideas left unexplored from arenas of interest that have lingering provisional character. These necessarily reside within realms identified as *architectural*, whether belonging to the spectrum of issues in building practices or the multiple discourses embraced historically or currently within the architectural discipline. Yet while the architectural thesis at Penn resides within the discipline, it also attempts to stretch the boundaries of its definition by challenging modes of practice that are representational, technological, economic and political. Through the full year of the thesis process, these questions are concurrently researched, elaborated, edited, and finally manifested in a work of architectural design. A thesis project is a work of craft: imagining, expanding, honing and composing a set of ideas and processes into a final set of conclusions.

Students pose widely varying topics. Since the process for many students of selecting a topic begins simply with questions still open from previous studios or coursework, students necessarily confront the scope of their education

and choose to extend or alter directions in which they have been taught. A thesis project is thus reflective and self-critical for both students and the general curriculum at Penn. By individually framing and developing a project through one's own set of interests, the thesis project also initiates issues that often continue to develop in the future as students embark on professional or academic careers. A thesis thus looks both backward and forward in time and trajectory.



Computation to Construction (and back again)

Currently, many emerging design practices are creating and generating immaterial forms which cause a rift in the discipline of architecture between that which is being designed and its material and constructive capacity. This thesis presents an innovative process for designing high-performance thin-tile vaults that brings to light the relationship between computation and material construction.

This project is challenging the question of how architects can use computational tools to act through the logic of a structural engineer to begin to expand their capacity to design tile vaults and close the gap between computation and craft-based construction. The design process being proposed here leverages material making to generate knowledge that combined with digital work, bares new techniques for designing, analyzing and constructing high-performance tile vaults without centering.

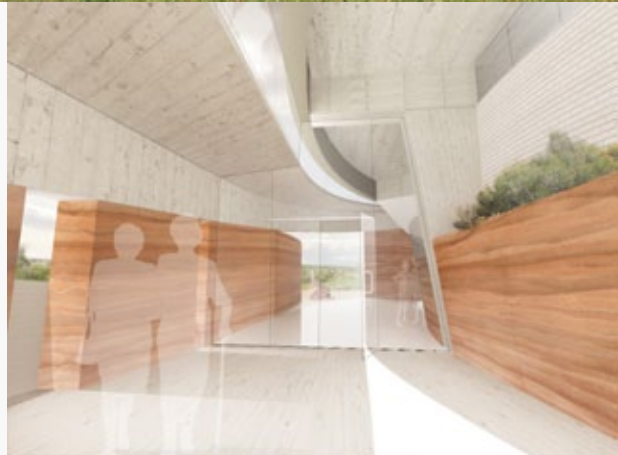
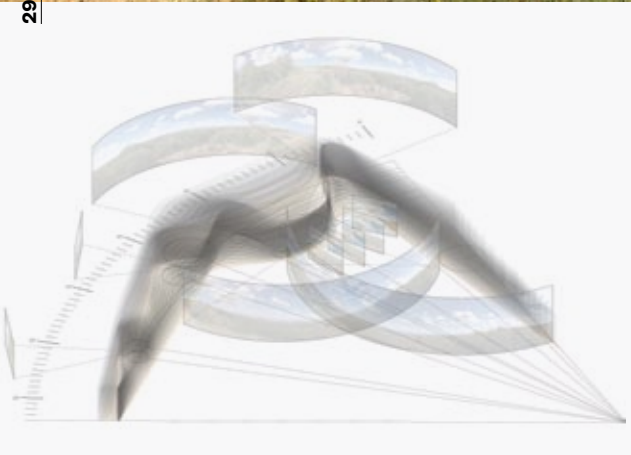
The act of building is a means of recontextualizing digital work into physical reality, thereby validating ideas and computational procedures, and clarifying material knowledge. Since form is only considered as it remains within the realm of demonstration, it is possible to validate the design and analysis activities through building. Thus, the forms generated by this process are a consequence of a unique conjunction of physical and simulated material systems and represent a range of formal possibilities of tile vaults that achieve novelty by identifying with the elimination of centering.

ADVISOR:

Franca Trubiano

STUDENT:

**Jonathan
Dessi-Olive**



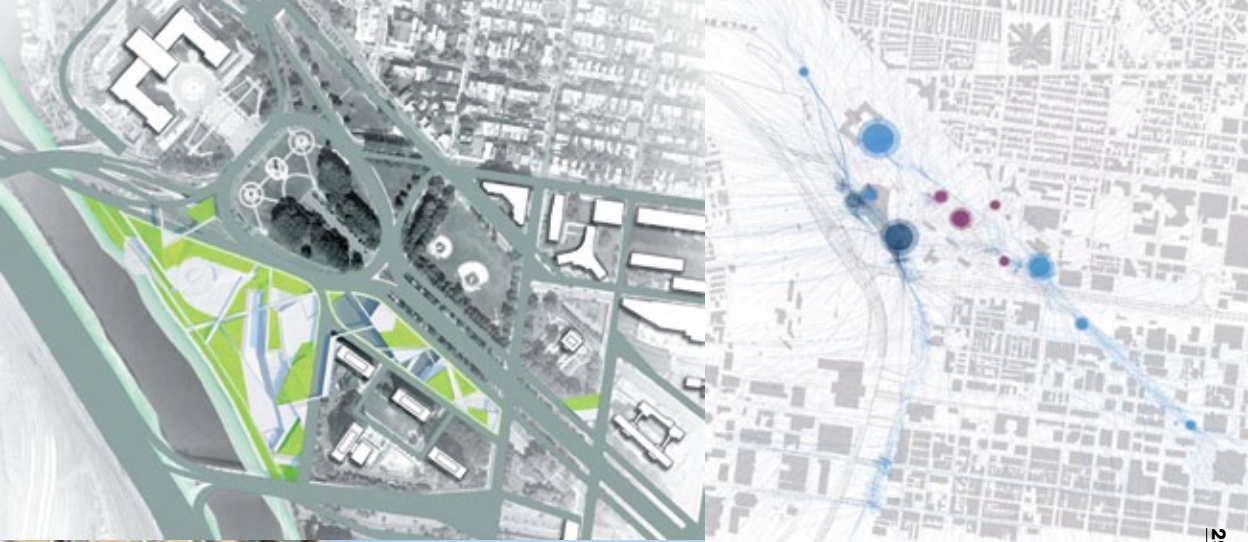
ADVISOR:

Franca Trubiano
David DeLong

STUDENT:

Nathaniel Schlundt

The arrangement of spaces, social relationships, materials, and cultural content is the fundamental way that architecture communicates meaning through abstract conceptual relations and embodied perceptual experience. As a form of representation bound with sequence, space and time, the use of narrative can provide structure through which this content can be presented for interpretation to an audience. In order to understand how meaning is constructed and communicated in architecture and how it can be made actionable in the cause of preservation, this thesis will examine the role of the narrative in the adaptive reuse of the Mission 66 Far View Visitor Center at Mesa Verde.



ADVISOR:

Annette Fierro

STUDENT:

Yiwen Zhang

The intention is to break the boundaries of the movement by introducing layering system on multiple sites to incorporate events of museums and festivals in a single site of action and draw attention from different groups of people and promote a new spectator/performer/circulation relationship and interaction from spontaneous performances on the sites.

ADVANCED I

MEBD

William Braham, PhD

Director

MEBD Faculty

William Braham, PhD

Ali Malkawi, PhD

Franca Trubiano, PhD

Yun Kyu Yi, PhD

The Master in Environmental Building Design (MEBD) is a specialized, post-professional degree developed to train architects in the new skills and knowledge required for environmental design and especially in the design techniques with which those skills must be integrated into the practice of architecture. The one-year course of study includes coursework on building performance simulation, integrated building design, building envelopes and systems, lighting, daylighting, and the theory and practice of environmental design.

Environmental building design is a process of discovery, of deciding what to work on, before it ever becomes a matter of design. Diagramming energy and resource flows and understanding the ecological theories of self-organization, maximum power, and energy exchange hierarchies provide a scientific basis for the different kinds and scales of design practice involved. Advanced simulation tools are used to test alternative design proposals, with parametric exploration deployed to refine and optimize their performance. The challenge is to simultaneously operate at scales greater and smaller than buildings, requiring the understanding of the chemistry of materials as well as consideration of the impact of populations of buildings on local, regional, and global ecosystems.

The MEBD operates organically with the research activities in the TC Chan Center for Building Simulation and Energy Studies. Many MEBD students work as research assistants to faculty working the center, and the public activities of the Center provide an extension of the formal curriculum. For the last three years, the faculty in the TC Chan Center have organized an international

conference on the topic of Architecture and Energy. This year's event was called Energy Accounts, and it looked at the different ways in which energy is represented as data, as part of performance analysis, and as an integral part of any depiction of the future: www.architectureandenergy.com

The coursework in building science, performance simulation, and theories of environmental design are tested in a Performance Design Workshop and then synthesized in an intensive Environmental Design Studio. Through their year of study, MEBD students help develop the research basis for the Design Studio. This year investigations culminated in a student-organized symposium called '*After Growth: Designing Environmental Settlements,*' which invited a variety of faculty and outside experts to help prepare them for the design studio.

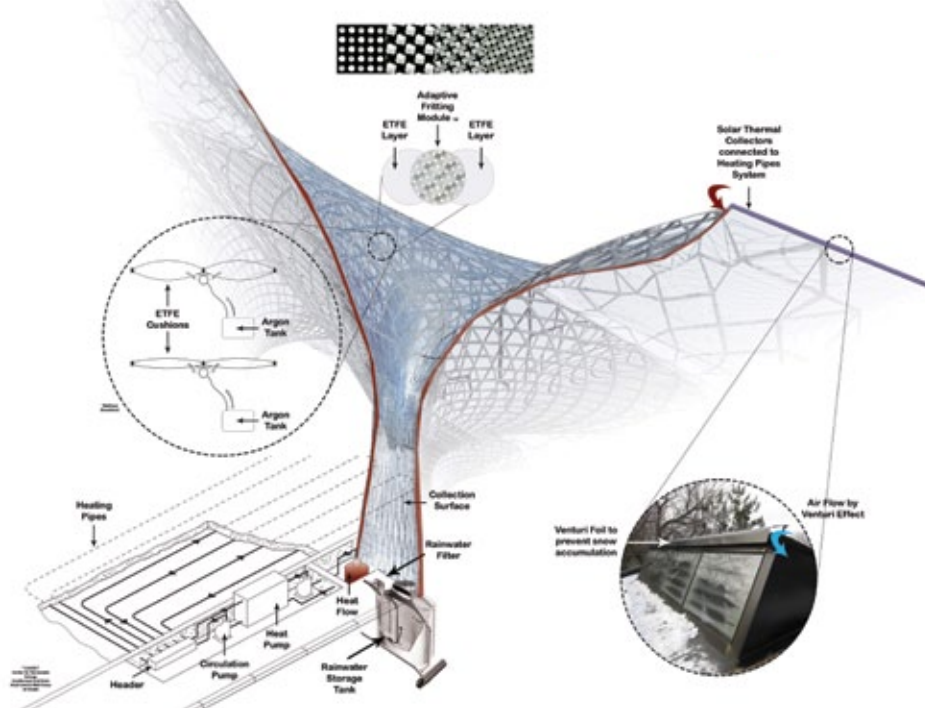
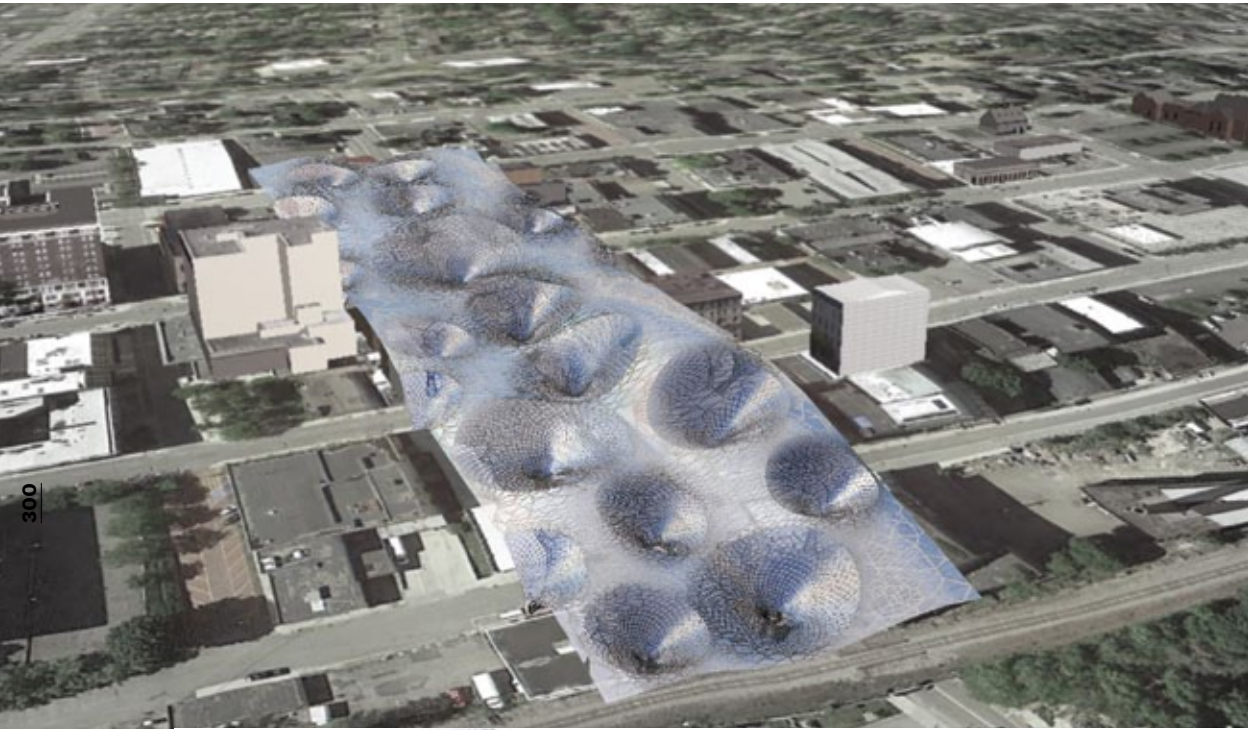


Event : Architecture and Energy

Energy Accounts: Designing the Future

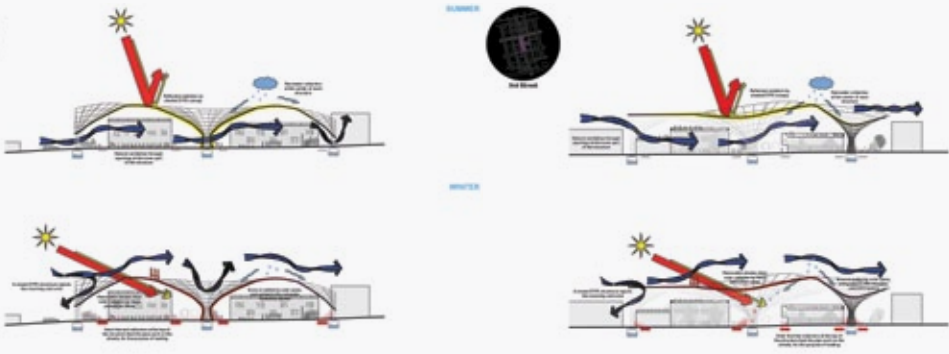
with Daniel Barber, PennDesign, Reinhold Martin, GSAPP, Columbia University, and Ursula Heise, Institute of the Environment & Sustainability, University of California, Los Angeles





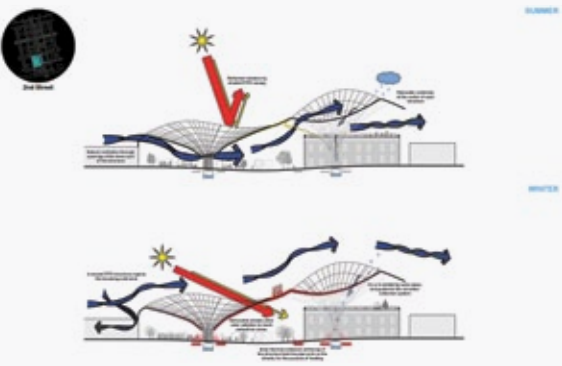
CRITIC:
William Braham
Brian Phillips
 STUDENTS:
Xiufang Zhao
Carolina Gallegos
Navarro

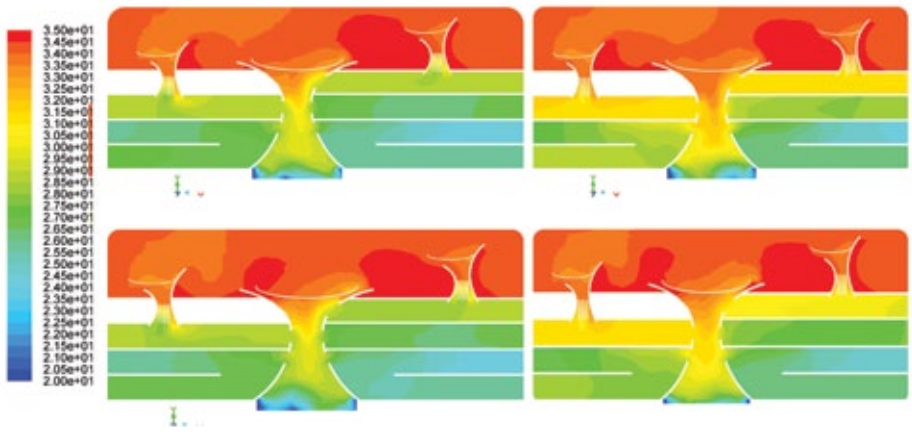
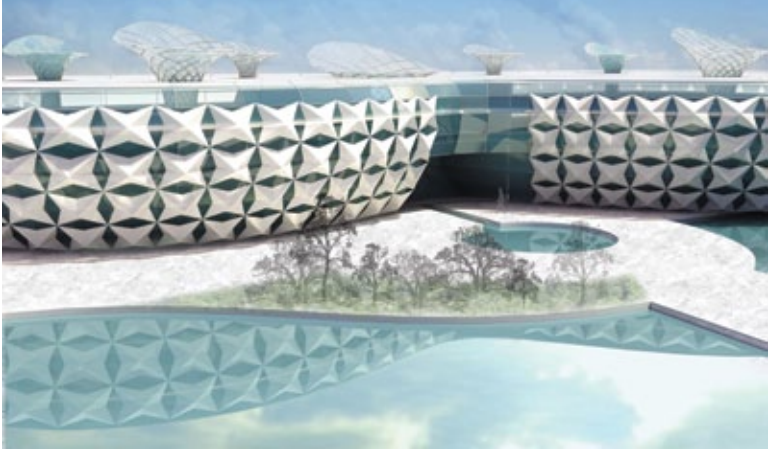
“By acting as a visual attraction, the project intends to welcome new commercial & housing projects for both locals & future visitors...also promotes a distinct activities encouraging an interactive community.” -Xiufang Zhao & Carolina Gallegos Navarro

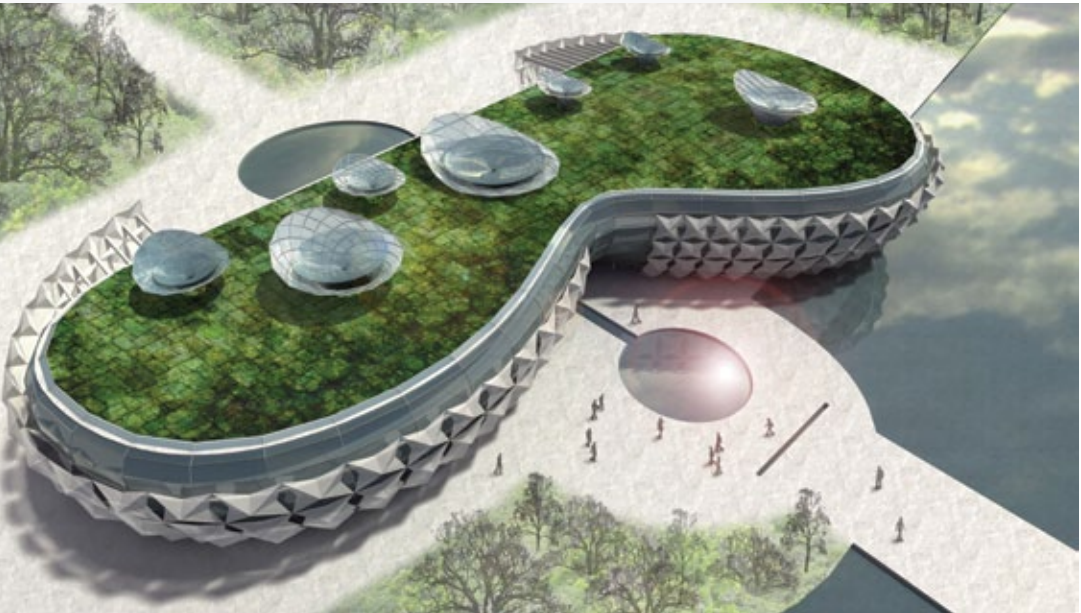
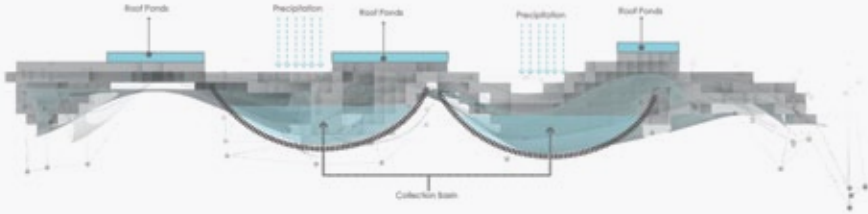


William Braham, PhD
 Assoc. Professor
 of Architecture;
 Director of Master
 of Environmental Building
 Design Architecture

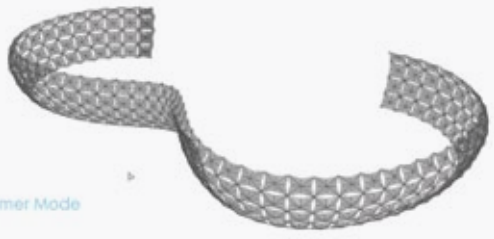
- Received an MArch and a PhD from the University of Pennsylvania and a BSE from Princeton University
- Organized the *Architecture and Energy* symposium and published the books *Rethinking Technology: A Reader in Architectural Theory* (2006) and *Modern Color/Modern Architecture: Amédée Ozenfant* (2002)



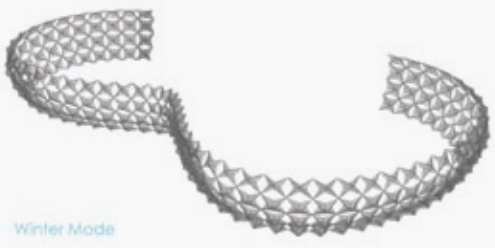




Summer Mode



Winter Mode



CRITIC:
William Braham
 STUDENTS:
Yujiao Chen
Mahnaz Vaez
Maroufi
Sarita Sen

“...the Philly Navy Yard, which is isolated from many city amenities & infrastructures, though touted as a sustainable, green development model...we focused on rectifying the complex traits of this context.” — Yujiao Chen, Mahnaz Vaez Maroufi & Sarita Sen

ADVANCED I

IPD

Sarah Rottenberg

Associate Director

The Integrated Product Design Master's program brings the School of Design together with two other world class institutions, the School of Engineering and Applied Sciences and Wharton School of Business, to offer students an opportunity to develop a holistic understanding of the product design process. There are few programs like it in the country and none that place equal emphasis on all three disciplines. We bring in students from design, engineering, and business backgrounds and teach them to understand and integrate the other disciplines. Our graduates go on to become design engineers, leaders of innovation teams, product designers and entrepreneurs.

The Integrated Product Design program addresses many trends that are reshaping design. Businesses increasingly acknowledge the impact of design on their bottom lines, and bring designers into the product development process earlier and in strategic roles. Anyone interested in creating digital or physical products can do so at low costs. Rapid prototyping capabilities like 3D printing have shrunk the resources required to prototype, test, and manufacture products. And the products, services, and experiences that attract both customers and capital are those that combine hardware and software to create a compelling user experiences.

IPD Faculty

William Braham, PhD

Carla Diana

Jordan Goldstein

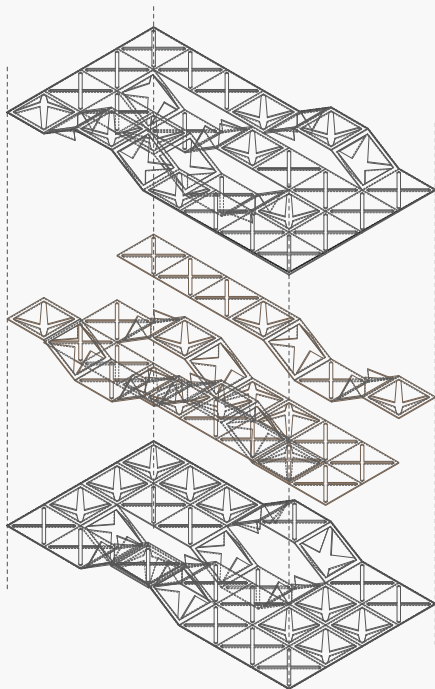
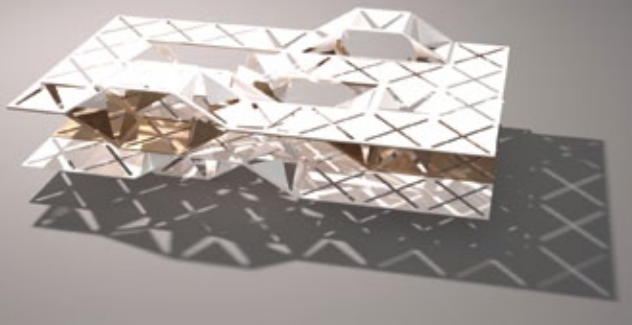
Simon Kim

Ben Krone

Katrin Mueller-Russo

Sarah Rottenberg

Orkan Telhan

**CRITIC:****Sarah Rottenberg**

Morph Table is a coffee table that allows

STUDENT:**Amanda Huang**

the user to customize the form of table by folding parametric panels and triangles to create the various opening and

eliminate the rigid shape.

The table is constructed with three sheets of recycled copper with the laser-cut x-shape patterns overlay on the panels. By colliding the triangles in different layers, it will not only create three dimension void spaces which serve as the function of shelving for storing the books and displaying the decoration, but also act as the self-support structure for the table.

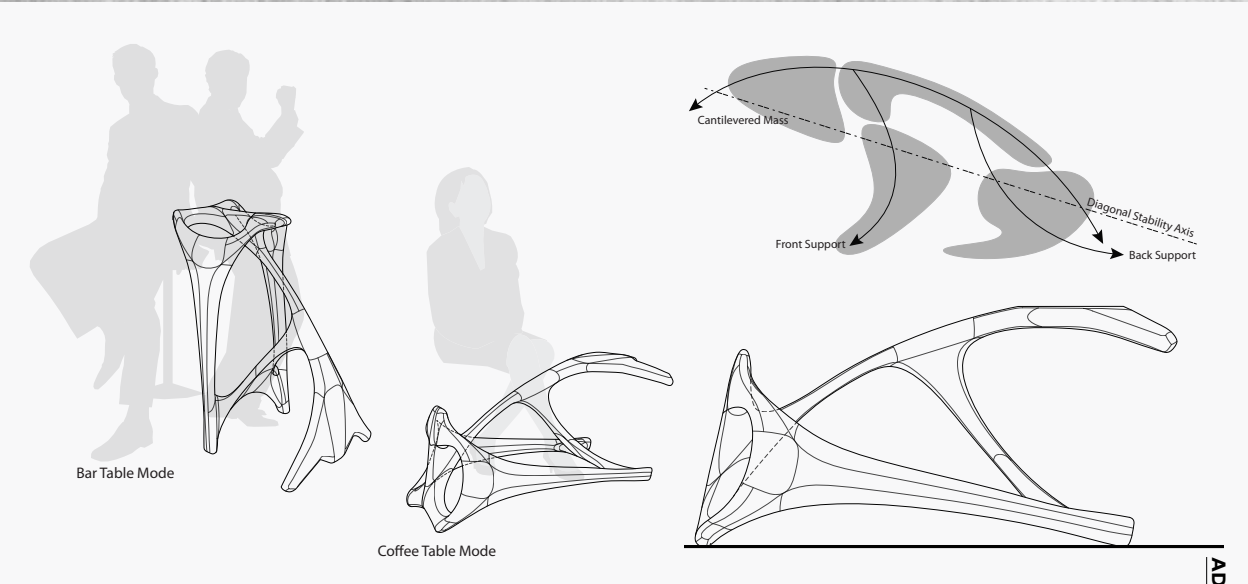
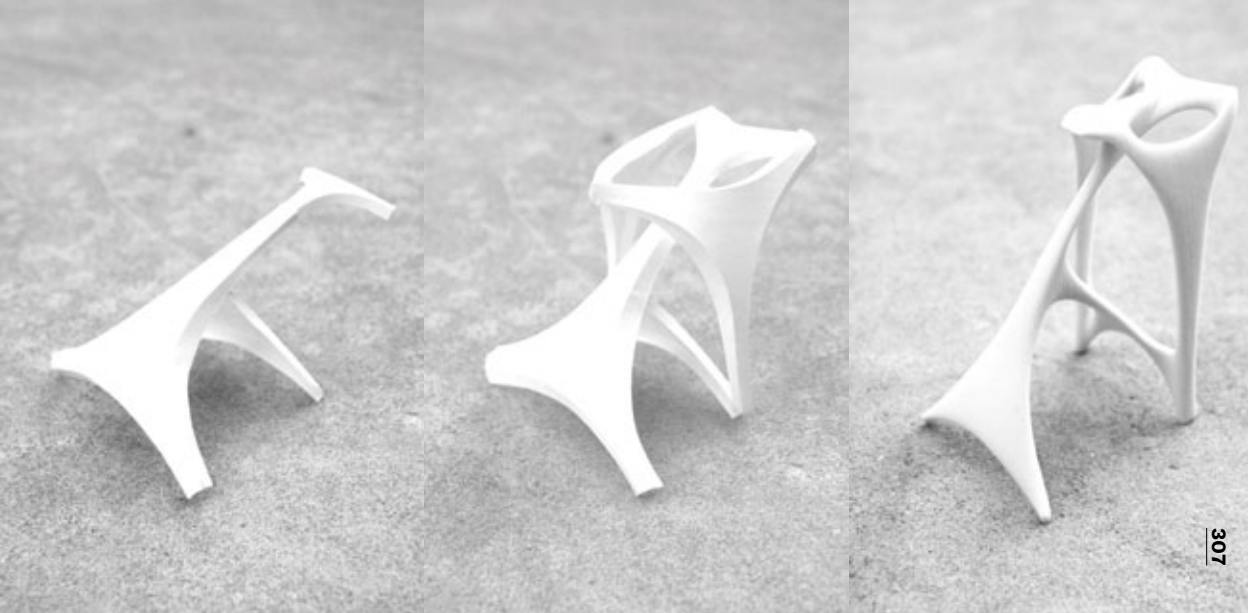
Therefore, the collection requires no additional joinery pieces when building. By introducing the user's interaction during the process of shaping the table, Morph table offers indefinite appearances responding the aesthetic and functional preference of the user.

Sarah Rottenberg
Lecturer



- Directing Associate at Jump Associates, a growth strategy firm
- Received a Master of Science in Social Sciences from the University of Chicago (1997) and a Bachelor's in Foreign Service from Georgetown University (1995)
- Prior to her career in consulting, Sarah worked as an assistant to the Cultural Attaché at the Israeli Embassy in Washington, DC.





CRITIC:
Sarah Rottenberg
 STUDENT:
Fatima Al Doukhi

Animals' skeletons provide support for the body and protection of the internal organs. A frog's skeleton has a particularly interesting structural logic. Unlike other animals, its stability axis is diagonal, cantilevering the skull that is relatively big compared to other parts of the skeleton. I used this structural logic to design a dual use bar/coffee table. The table is crafted entirely from wood without using any metal Joints. The manufacturing process starts with mass formation followed by sanding, polishing and finally finishing with white color.

ADVANCED^I

PHD

David Leatherbarrow

Graduate Group Chair

PHD Faculty

Daniel Barber, PhD

William Braham, PhD

David Brownlee, PhD

Annette Fierro

Raffaella Fabiani Giannetto, PhD

John Dixon Hunt, PhD

David Leatherbarrow, PhD

Frank Matero, PhD

Peter McCleary

Andrew Saunders

Franca Trubiano, PhD

Yun Kyu Yi, PhD

For many years, scholarship in Penn's Ph.D. Program has operated under a double constraint: the development of knowledge that is both descriptive and productive. Although dedication to productive knowledge may not be common in other fields, it is entirely relevant to architecture. Marx's dream for philosophy—to change, not merely interpret the world—is nothing special in architecture; rather, it is a fairly obvious commonplace. Architecture is a form of engagement par excellence, aimless if not oriented toward given conditions, intent on their transformation. The particularity of architecture's productive sort of knowledge, that it gets its hands dirty in the actual transformation of the environment in which we live, has been and remains a central concern of Penn's architectural scholarship.

Dedication to both descriptive and productive knowledge may be apparent in the titles of some of the books published by Ph.D. graduates. Among the recent books are: Jin Baek, *Nothingness: Tadao Ando's Christian Sacred Space*; Raffaella Fabiani Giannetto, *Medici Gardens: From Making to Design*; Thomas Beck, *La Villa*; Nathaniel Coleman, *Utopias and Architecture*; George Dodds, *Building Desire: On the Barcelona Pavilion*; David Haney, *When Modern Was Green: Life and Work of Leberecht Migge*; Zhongjie Lin: *Kenzo Tange and the Metabolist Movement in Japan*; Alex Anderson, *Modern Architecture and the Commonplace*; Claudio Sgarbi, *Vitruvio ferrarese De Architectura, la prima versione illustrate*; William Braham, *Modern Color/ Modern Architecture*; Judith Major, *To Live in the New World: A.J. Downing and American Landscape Gardening*; Harry Mallgrave, *Gottfried Semper: Architect of*

the Nineteenth Century; Gevork Hartoonian, *Ontology of Construction*; and Cornelis van de Ven, *Space in Architecture*.

These books clarify developments in a number of periods and investigate a range of subjects related to architecture, landscape architecture, building technology, and urbanism. Concepts are examined—space, style, or surface color, for example—but also particular figures: Le Corbusier, A.J. Downing, Gottfried Semper, and Mies van der Rohe. This range indicates the real possibility of striking a balance between architecture's disciplinary identity, ultimately based in practice, and its engagements with several subjects and dimensions of scholarship in the university at large.

Yet more than balance is at issue here, for we have learned that neither scholarship nor practice in architecture can be realized fully without reference to the other, that neither drawing nor writing can realize its potential when pursued in isolation. In reciprocity, though, they can help us know the world by productively engaging in its transformation.

ADVISORS:

**David
Leatherbarrow
Franca Trubiano**

GRADUATE:

Eric Bellin

**Detailing Worlds: A
History of Architectural
Particulars, 1752-1899**

What is a detail
in architecture,

and what purposes might it serve? This question is complex, multifaceted, and would likely elicit drastically different answers from any sampling of contemporary architects and academics. For those oriented practically, the term ‘detail’ is often synonymous with a ‘construction detail’, the smallest scale at which a building is designed—an activity involving the configuration of relationships between the work’s most basic constructive components. Others, such as Marco Frascari, have claimed that details are architecture’s “minimal units of signification” and, as such, essential to both “the construction and the construing” of architecture. Still others have decried the detail as a fetish, and called for an architecture with no details at all, if such a thing is even possible. And in popular sources, picture books and mass-market periodicals, the terms detail and ornament are used more-or-less interchangeably, a notion that in fact has the longest history. To be sure, the concept of the architectural detail is complex and contentious, without

clear consensus on either its precise definition or even the necessity of its inclusion within the architectural project. This dissertation seeks to clarify this situation by giving an account of the history of ‘detail’ as a disciplinary concept and term, tracing its origins in French architectural discourse and practice, its gradual evolution from the mid 18th to the end of the 19th century, and its trans-national migration into other contexts.

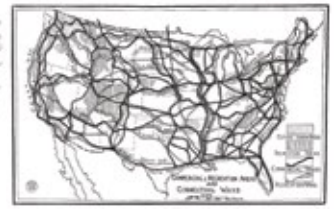
Analyzing the various transformations, orientations, and ambiguities that occur in the detail’s meaning and conceptualization through a series of critical historical moments, I argue that that one can derive an understanding of the general characteristics of the practice of detailing, as an activity of design. I also give an account of the ways in which this practice recognizes, interrelates, expresses or suppresses the conditioning factors, those concerns to which the designer responds, that bear upon the moment in question. Further, and in more general terms, this study also tells a tale of one possible way that an architectural idea can evolve over time, in dialog with socio-cultural, disciplinary, economic, and technological factors.



Warren H. Manning 1896,
"Path Along Ledge"



Warren H. Manning 1919,
"The Future Greater Birmingham
District"



Warren H. Manning 1924,
"Commercial & Recreation Areas
and Connecting Ways"

ADVISORS:

**John Dixon Hunt,
Raffaella Fabiani
Giannetto**

GRADUATE:

Costis Alexakis

**From Gardens to Re-
gions and Back Again:
The Career of Warren
H. Manning and the
Practice of Landscape
Architecture.**

This dissertation will examine the career of Warren H. Manning (1860-1938), a landscape architect from Reading MA and a founding member of the American Society of Landscape Architects who undertook a very broad range of work including small scale gardens, large private estates, public parks, park systems, cities, metropolitan regions, and a plan for the United States as a whole. I will be analyzing his numerous published articles to trace the discontinuities, shifts and contradictions encountered along his professional development from a 'landscape gardener' to a 'landscape architect' and into a 'regional planner', and i will be presenting the reception of his work to interpret these shifts and contradictions.

At its most pedantic, this study may serve as a sort of precedent for recent theoretical formulations such as 'landscape urbanism'. The large scale plans which were drawn up by landscape architects during the early twentieth century exceeded in scale and ambition most landscape

urbanist proposals, and the authors of these earlier plans were well aware of the value and potency of landscape as both lens and medium. However, what is most important is that a close study of Warren Manning's career presents the very practice of landscape architecture, with all of its contradictions and frustrations, as an act of mediation between the small, liminal, sensually rich world of gardens and large territories whose immensity is often difficult to grasp. In other words, by making a profession out of the services offered by garden designers, practitioners inadvertently moved from gardens to large scale regional plans and have consequently wavered between a variety of project scales.

ADVISING COMMITTEE:

Yun Kyu Yi,
Ali M. Malkawi

STUDENT:

Jihun Kim

**Topography
Conscious Rapid
Climate Downscaling
with Urban Contexts
for Early Stage Design
of Buildings and
Neighborhoods**

Assessments of urban contexts by existing microclimate models mostly neglect to consider topographies along with complex layouts of buildings and streets, despite their significant influences on predicting heat and airflow. This neglect is mainly due to the inherent complexities and high computational costs of such study. The task becomes especially challenging at early design stages when time, expertise, and computational resources are limited by default, even though performance enhancement is more available than at later stages.

This dissertation develops a new climate downscaling model that can rapidly assess the impact of urban built environments with surrounding topographies and buildings up to a few kilometers in diameter. Wind pressure on neighborhood boundaries and local wind speed are predicted with a new methodology, which balances prediction accuracy and computational efficiency by incorporating the capacities of a computational fluid dynamics (CFD) simulation and of an existing simple mathematical method.

The proposed model is composed with two main parts: a data-driven algorithmic method for initial pressure calculation and

a modified simple mathematical method for pressure refinement with wind speed calculation. The data-driven algorithmic method interpolates the preprocessed database that has wind pressure data from CFD simulation and the associated geometrical information for various topographies. The preprocessing has a key role in reducing prediction running times while an expert domain, CFD simulation, is incorporated for the topographic effect. The initial pressure is refined by wind speed that is localized by a modified simple existing mathematical method that mainly takes account of buildings and streets with the added consideration of topographies. The two-part structure allows flexibilities to develop each method independently and to import wind speeds from external airflow simulation if necessary.

As a result, the wind pressure outcomes were shown with a reasonable accuracy, compared to the full scale CFD simulation for the same territorial scope. The new model also showed an exceptional computational efficiency that allows a year-long prediction in a few minutes with a personal desktop computer. For non-experts, the pertinence of the model is enhanced with a limited number of parameters, making it easily adaptable during early design stages, while geometric sensitivities are embedded for incremental studies that are crucial in the building and neighborhood scales.

316 Courses and Elective Seminars

31

14 Courses

Courses and Elective Seminars

A = Spring Semester
B = Summer Semester
C = Fall Semester

ARCH 511
HISTORY AND THEORY I
Joan Ockman (2013C)

The century between the Crystal Palace and Lever House witnessed the emergence of a dramatically new building culture with far-reaching consequences. In this overview of international architecture from the second half of the nineteenth century through the first half of the twentieth, we will situate the icons and isms, the pioneers and hero figures within a broad technological, economic, sociopolitical, and cultural context. The thirteen lectures will move both chronologically and thematically, tracing architecture's changing modes of production and reception; its pivotal debates, institutions, and tendencies; and its expanding geography, highlighting the ways the culture of architecture responded to and mediated the unprecedented experiences of modernity. We will also reflect on modernism's legacy today. The objective of the course is not just to acquaint students with seminal buildings and their architects but also to foster a strong understanding of history and of architecture's place in a modernizing world. Readings drawn from primary and secondary literature as well as a recently published text that is among the first to place modern architecture into a global perspective will supplement the lectures and provide a rich introduction to the historiography of the hundred-year period.

ARCH 512
HISTORY AND THEORY II
Daniel Barber (2014A)

This course examines the history of modern architecture since World War II, with an emphasis on relationships between architectural practices and increasing knowledge of the environment. Buildings, projects, and texts are situated within the historical constellations of ideas, values, and technologies that inform them through a series of close readings. Rather than presenting a parade of movements or individuals, the class introduces topics as overlaying strata,

with each new issue adding greater complexity even as previous layers retain their significance.

ARCH 521
VISUAL STUDIES I
Danielle Willems (2013C)

Visual Studies-I is the engagement of graphic and visual information found in the world and in media, and its ability to contain – and more importantly, to convey – meaningful information. Intelligence in visual information is deployed to transfer cultural values, to educate and influence, and to create new relationships not easily expressed through mathematics, linguistics, and applied science. One of the challenges in the course is the re-invention of a means of assessment, the development of notations and techniques that will document the forces and the production of difference in the spatial manifestations of the generative systems. Tactility, material, scale, profile, shape, color, Architecture works primarily in the assertion of these modes, and the meaningful production and control of these modes of communication are imperative for all designers.

ARCH 522
VISUAL STUDIES II
Danielle Willems (2014A)

Visual Studies-II extends the use of the computer as a tool for architectural representation and fabrication by engaging in digital three-dimensional modeling. Modeling is approached first of all as a set of techniques for exploring and determining design intent and direction. Attention is given to precision and detailed modeling, paralleled by the development of the critical understanding for the constructive translation between physical and digital working environments.

This course analyzes the intensive and extensive properties at the scale of the city through a series of mapping exercises. Computational strategies of transformation are deployed to create explicit formations, by utilizing the analytical methods as generative procedures. The resulting systems become the basis for experimentation with computer aided manufacturing tools of the school. In parallel to the development of

modeling skills, exercises in visualization emphasize both the analytic and affective possibilities of computer generated imagery.

ARCH 531
CONSTRUCTION I
Franca Trubiano (2013C)

Lecture and digital modeling course exploring the basic principles of architectural technology and building construction. The course is focused on building materials, methods of on-site and off-site construction, architectural assemblies, and the performance of materials. Topics discussed include load bearing masonry structures for small to medium size buildings, heavy and light wood frame construction, glazing, roofing, sustainable construction practices, emerging + engineered materials, and integrated building practices. The course also introduces students to Building Information Modeling (BIM) in a series of 5 workshops that result in construction documents for a residential masonry load bearing/ wood frame building.

ARCH 532
CONSTRUCTION II
Lindsay Falck (2014A)

A continuation of Construction I, focusing on light and heavy steel frame construction, concrete construction, light and heavyweight cladding systems and systems building.

ARCH 533
ENVIRONMENTAL SYSTEMS I
Muscoe Martin (2013C)

An introduction to the influence of thermal and luminous phenomenon in the history and practice of architecture. Issues of climate, health and environmental sustainability are explored as they relate to architecture in its natural context. The classes include lectures, site visits and field exploration.

ARCH 534
ENVIRONMENTAL SYSTEMS II
William Braham (2014A)

This course examines the environmental technologies of larger buildings, including heating, ventilating, air conditioning,

lighting, and acoustics. Modern buildings are characterized by the use of such complex systems that not only have their own characteristics, but interact dynamically with one another and with the building skin and occupants. Questions about building size, shape, and construction become much more complex with the introduction of sophisticated feedback and control systems that radically alter their environmental behavior and resource consumption. Class meetings are divided between lectures, demonstrations, and site visits. Course work includes in-class exercises, homework assignments, and a comprehensive environmental assessment of a room in a building on campus.

**ARCH 535
STRUCTURES I**

Richard Farley (2013C)

Theory applied toward structural form. The study of static and hyperstatic systems and design of their elements. Flexural theory, elastic and plastic. Design for combined stresses; prestressing. The study of graphic statics and the design of trusses. The course comprises both lectures and a weekly laboratory in which various structural elements, systems, materials and technical principles are explored.

**ARCH 536
STRUCTURES II**

Richard Farley (2014A)

A continuation of the equilibrium analysis of structures covered in Structures I. A review of one-dimensional structural elements; a study of arches, slabs and plates, curved surface structures, lateral and dynamic loads; survey of current and future structural technology. The course comprises both lectures and a weekly laboratory in which various structural elements, systems, materials and technical principles are explored.

**ARCH 561
IPD THEORIES/METHODS I**

Sarah Rottenberg (2013C)

The first half of this year-long course will introduce students to the theories and methods of integrated product design through a combination of lectures, readings, and exercises. The course will examine the different ideas and techniques

involved in integrated product design, reviewing critical concepts, historical developments, and the role of different techniques of representation and fabrication.

**ARCH 611
HISTORY AND THEORY III**

Daniel Barber (2013C)

This is the third and final required course in the history and theory of architecture. It is a lecture course that examines selected topics, figures, projects, and theories from the history of architecture and related design fields during the 20th century. The course also draws on related and parallel historical material from other disciplines and arts, placing architecture into a broader socio-cultural-political-technological context.

**ARCH 621
VISUAL STUDIES III**

Nate Hume (2013C)

The final of the Visual Studies half-credit courses. Drawings are explored as visual repositories of data from which information can be gleaned, geometries tested, designs refined and transmitted. Salient strengths of various digital media programs are identified and developed through assignments that address the specific intentions and challenges of the design studio project.

**ARCH 631
TECHNOLOGY CASE STUDIES I**

Lindsay Falck (2013C)

A study of the active integration of various building systems in exemplary architectural projects. To deepen students' understanding of the process of building, the course compares the process of design and construction in buildings of similar type. The course brings forward the nature of the relationship between architectural design and engineering systems and highlights the crucial communication skills required by both the architect and the engineer.

**ARCH 632
DETAIL DESIGN STUDIES**

Lindsay Falck (2013C)

This class will explore notable build-

ings at the overall building's scale and at the very "close-up" detail scale. At the "middle scale" the class will study elements such as stairways, apertures (windows, doors, skylights) and shading devices for external surfaces, such as louvers, tensile membrane elements, etc. At the smallest scale fragments of buildings such as door handles, handrails, hinges, etc. The role of the craftsman, building user, fabricator, installer, will be traced as an integral factor in the design process. Students will research, in depth, aspects of the above which interest them, document them with drawings, text, photographs and physical models built in the Penn Fabrication laboratory. This will be a very "close-up" "hands-on" class focusing on the joy of thinking out details, documenting them, and testing them in use. The Architectural Archives and the many written works on detail design will be used as reference material, as will existing buildings students visit.

**ARCH 632
TECH DESIGNATED ELECTIVE: DAYLIGHTING**

Jessica Zofchak (2014A)

This course aims to introduce fundamental daylighting concepts and tools to analyze daylighting design. A wide range of topics includes site planning, building envelope and shading optimization, passive solar design, daylight delivery methods, daylight analysis structure and results interpretation, and a brief daylighting and lighting design integration. Each session is composed of a lecture and a workshop. The lecture part will cover the fundamental knowledge and case studies that focus on effective daylighting design. The workshop will cover key daylight analysis tools currently used in the industry, and students will have opportunities to explore them to work on assignments and the final project. In addition, in order to orient the students to understand actual light levels, students will keep a daylighting journal with a light meter to discuss interesting daylight encounters via photos and measurements.

**ARCH 632
MATTER AND ENERGY**

Franca Trubiano (2014A)

This seminar/workshop is dedicated to the promotion of architectural innovation in the field of building technology

with Matter + Energy being the two fields of enquiry which guide and structure both the research seminars and the design/build workshop. Learning about Materials such as composites and plastic/polymers is central to the investigation, as are Energy related topics such as of thermodynamics, light/heat studies and solar technology. Invited design and building industry professionals advise student teams and offer critical reviews of their process throughout the semester. Lastly, students design building related prototypes that productively respond to a well documented and socially relevant environmental need all the while learning to introduce design metrics used to evaluate the environmental impact of their material and energy choices, be they embodied energy calculations, carbon emissions, or Life Cycle Assessments.

ARCH 632
DEPLOYABLE STRUCTURES
Mohamad Al Khayer (2014A)

The objective of this course is the introduction to the history, theories and application of the rapidly growing field of deployable structures and folded plates (complex geometric structural configurations that are used as temporary and rapid assembly configurations) through hands-on experiments conducted in a workshop environment. The course's objective is to introduce various concepts and techniques to the design, modeling, simulation and the physical building and execution of deployable structures. Experiments will be conducted using the hand (during the construction and observation of physical models), and computer Modeling of deployable structures using computer simulation software (Solid Works). The course is divided into two parts: in the first part, students work individually on weekly assignments building deployable structures related to the topic taught that week; in the second half of the semester, students work as one team in the fabrication shop, designing and constructing a full-scale deployable structure (working prototype). Studies include geometric studies of Platonic and Archimedean solids, space filling geometries, topology and morphological transformations, studies of different mechanical joints, and computer simulation.

ARCH 632
PERFORMANCE AND DESIGN:
PARAMETRIC INTEGRATION
Yun Kyu Yi (2014A)

This course develops techniques for integrating environmental performance analysis and the design of buildings, with an emphasis on parametric methods. Performance analysis techniques can provide enormous amounts of information to support the design process, acting as feedback mechanisms for improved performance, but careful interpretation and implementation are required to achieve better buildings. Parametric descriptions will be combined with decision-making methods to achieve more complete integration. Students will begin by using analytical tools to examine the environmental performance of buildings. Following the analysis, the students will be introduced to decision-making and parametric form control methods to achieve high performance designs. The course will be given on specific topics each session. No computer programming background is required for this tutorial. However, students are assumed to have some background in using geometric modeling tools such as Rhino, Grasshopper and basic of building environment.

ARCH 632
TECHNOLOGY DESIGNATED ELECTIVE:
PRINCIPLES OF DIGITAL FABRICATION
Mike Avery (2014A)

Through the nearly seamless ability to output digital designs to physical objects, digital fabrication has transformed the way designers work. Over the past several years the techniques of sectioning, tessellating, folding, contouring, and forming have received a great deal of attention and have become standard methods of practice in the field. Drawing from the tradition of the architectural installation as a test bed for new technologies, this course will review the established modes of digital making while focusing primarily on the exploration of 3D printing and its place within this continuum. It is our belief that the 3D printed component has the ability to offer a unique perspective on digital fabrication, one that sidesteps the subtractive and material intensive 'traditional' digital techniques, and can bring with it novel ways of looking at assemblies and structure at the level of the detail.

ARCH 638
BUILDING ACOUSTICS
Joe Solway (2014A)

This six-week course covers the fundamentals of architectural acoustics. The lectures cover the following topics: overview of acoustics in the built environment, the role of the acoustic consultant and the interaction with the architect, fundamentals of sound - sound measurement and representation, sound generation and propagation, sound absorption and reflection and sound isolation and transmission, acoustic materials, case studies of acoustics in building projects, the history and future of performance space design. The course includes measurements and testing in Irvine Hall and two assignments, one practical (Boom Box) and one theoretical (Sound Space).

ARCH 638
SIX FACTS, SIX SCALES
Billie Faircloth (2014A)

This seminar proposes a seven week dissection and remapping of six numerical facts, originating at six numerical scales above or below the macroscopic scale - or the scale at which an object can be measured and observed by the naked eye. Numerical facts, originating from disciplines such as industrial ecology, biogeochemistry, microbiology, biology, materials engineering, geoenvironment and applied geography, will be dissected and relationally mapped to identify each scaled fact's potential participation as a parameter in the generation of innovative design solutions for the built environment.

ARCH 638
MECHANISMS FOR DESIGN
Jonathan Albert (2014A)

Mechanisms enable everything from scissor lifts and corkscrews to elevators and accelerator pedals. To design a properly working mechanism requires knowledge of how to achieve the desired motion and a source of power to make it happen. We will examine a variety of mechanisms to understand how they work and how to apply those concepts to solve mechanical problems at a human scale and beyond.

ARCH 638
BUILDING ENVELOPES
Samina Iqbal (2014A)

This class will provide an overview of enclosure design with a focus on materials, methods, and detailing strategies that contribute to a high-performance building envelope. An overview of design criteria, structural design of framing members and cladding materials with consideration of governing codes and standards will be given. Performance standards and rating systems such as LEED, Passive House, and Net Zero will be compared in the context of envelope design. How the design of the envelope intersects with the design and development of other building systems (including mechanical system, lighting, finishes, and structural systems) for a total building performance will be discussed. Case studies of new construction as well as retrofits of various building types will provide a basis for analyzing the development of the curtain wall through all phases, including schematic design, design development and construction detailing, the bid process, mock-up testing, field installation, and on-site field testing. Research developments such as adaptive facades and energy-generating facades will be examined.

ARCH 638
WATER SHAPING ARCHITECTURE
Jonathan Weiss and
Stuart Mardeusz (2014A)

While efforts in sustainable design have focused on energy use, carbon footprint, light and materials impacts on human occupants, it could be argued that water is the ultimate test of sustainability. Without water, there is no life. Water impacts, influences and shapes architecture in many different aspects. As our planet is ever more challenged to provide for increasing populations with finite resources, our approach to water will need to evolve to meet our new and future realities. This course is an investigation of the ways that architecture is informed by the water resources and availability of each specific project region. We will cover a range of subjects including; the physics of water, the systems to gather, distribute, supply and treat potable water, grey water, waste water, including the correlation to energy and recycling that are integrated into the architecture of buildings. How do our choices as

architects impact access to water, and how are those issues predetermined on a building, local, regional and continental scale? How can our projects react resiliently to changing climate and changing reality? If Sustainability is about providing for our needs while allowing for future generations to do the same, how does our outlook on water shape our decision making process?

ARCH 671
PROFESSIONAL PRACTICE
Philip Ryan (2013C)

Arch 671 is the first of a three course sequence that discusses the issues and processes involved in running a professional architectural practice and designing buildings in the contemporary construction environment. Arch 671 will begin by briefly outlining the overall course sequence in order to locate the first section in the context of the next two courses, Arch 672 and Arch 772. From there the course will describe the methods involved in getting, designing, and constructing a building project. The lectures will draw connections between the student's studio design knowledge to date and the instructor's experience in practice including local building examples and guest lectures by relevant professionals. The second half of the semester will build on the understanding of the project execution process to then shape how an office is formed and managed. This foundation will set up the segue to Arch 672 which will delve into more detailed analysis of legal, financial, and risk/quality management practices.

ARCH 672
PROFESSIONAL PRACTICE II
David McHenry (2014A)

A continuation of ARCH 671. Further study of the organizational structures of architectural practices today, especially those beyond the architect's office. The course is designed as a series of lectures, workshops and discussions that allows students and future practitioners the opportunity to consider and develop the analytical skills required to create buildings in the world of practice.

ARCH 711
TOPICS IN ARCH THEORY:
ARCHITECTURE OF PATTERNS
David Salomon (2013C)

From the structure of the universe to the print on your grandmother's couch, patterns describe a vast array of conceptual and physical phenomena. For architecture, something that so easily traffics between scientific rigor and personal taste demands attention, which partly explains their revival. While traditionally marginalized as frivolous decoration or overly deterministic principles, recent advances in digital and materials technology have helped produce a new generation of patterns with protean vitality and multifarious intelligence. These current versions are imbued with properties of elasticity, aperiodicity, opulence, variegation, and idiosyncrasy – qualities that enable them to simultaneously engage numerous operative and material domains. Their newly developed capacity to link seemingly disparate intellectual and cultural categories – such as organization and sensation, graphics and behavior, and process and content – provides an opportunity for a more precise and expansive role for patterns in architecture.

ARCH 711
TOPICS IN ARCH THEORY: LECTURE
Richard Wesley (2013C)

A seminar on advanced topics in architectural design and theory.

ARCH 711/712
CULTURAL ECOLOGY
David Leatherbarrow and
Richard Wesley (2013C & 2014A)

This course will study and argue a single thesis: that the architects of the early 20th century did not neglect the environmental and cultural context of their buildings because they were narrowly focused on the production of free-standing and radically new objects of design, but developed green buildings that combined attention to environmental issues with both imaginative approaches to social and cultural purposes, and a new understanding of aesthetic content. A review of contemporary ecological mandates will begin the course. In depth studies of specific buildings will follow, looking again at works we assume we know perfectly

well. The course will end with a return to contemporary conditions. With a more nuanced view of our inheritance we will ask what is not only possible but necessary for architecture in our time. The course is envisaged as an upper level course in architectural theory, for both graduate and undergraduate students. Student work will involve reading, writing, and drawing.

ARCH 712
URBAN IDEOLOGY: WAYS OF BEING INNOVATIVE
WITH ARCHITECTURE VIS-À-VIS ACTIVISM
Srdjan Jovanovic Weiss (2014A)

This seminar explores expanding roles of a designer engaged in urban activism, that engulf fields and knowledge of architecture, urbanism and art. The course provides tools for critical thinking to interpret urban tensions that are often self-organized, anonymous and spatial. At the same time we will look into tools to interpret recent shifts in the work of Peter Eisenman, Herzog & de Meuron and AMO/OMA as well as explore younger innovative and alternative practices. The course is given by Srdjan Jovanovic Weiss, PhD (Goldsmiths Centre for Research Architecture, London) and former architect and cultural researcher with Herzog & de Meuron Architects (Basel, Switzerland), founder of NAO (Normal Architecture Office) and co-founder or SMS (School of Missing Studies). The participants in the seminar will be involved in conceptualizing and creating the exhibit *Romancing Power* commissioned by the Anderson Gallery at The New School in New York to open February 2015. The exhibit will be produced in collaboration with Nina Krushcheva, grand-daughter of cold war president of Soviet Union, Nikita Krushchev.

ARCH 712
VISUAL EPISTEMOLOGIES FOR
CREATIVE PROCESSES
Orkan Telhan (2014A)

Diagrammatic thinking informs visual expression and communication in almost every creative discipline and often can be the basis of a visual epistemology—visual information and knowledge systems—that exceeds purely inductive, deductive, analytic, or synthetic means. In this joint seminar between Architecture and Fine Arts, we investigate alternative modes of diagrammatic thinking that are influenc-

ing art and design disciplines. The course provides a historical perspective on the evolution of visual epistemologies from the late 1950s and reviews its current state from the lens of contemporary representation theory, computation, fabrication, and information technologies. The goal is to situate 21st Century design in a constantly emerging visual culture and allow students to have a hands-on experience with the contemporary diagramming techniques to advance both their designs and the thinking behind them.

ARCH 712
NEW YORK AS INCUBATOR OF
20TH CENTURY URBANISM
Joan Ockman (2014A)

This seminar is constructed as an argument among four important urban thinkers whose visions of the twentieth-century city were shaped by their response to New York's modern urban and architectural development: Lewis Mumford (1895-1990), Robert Moses (1888-1981), Jane Jacobs (1916-2006), and Rem Koolhaas (1944-). We will explore the central issues that preoccupied each of them -- from ecological urbanism and civic representation to urban infrastructure and renewal, from community engagement and diversity to urban spectacle and event -- and highlight differences and similarities in their conception of the city. Emphasis will be on the role of "urban intellectual" in the production of architectural discourse as well as the specific historical context to which each was responding. In addition to reading key writings by each of the protagonists, we will consider a number of other relevant urban theories. New York has been called the capital of the twentieth century; part of our task will be to assess and debate the ongoing relevance of the thought of all four thinkers to the cities in the twenty-first century.

ARCH 712
TOPICS IN ARCHITECTURE CULTURE FROM WWII
THROUGH THE 1960S
Joan Ockman (2014A)

This seminar will chart the evolution of architecture from World War II through the end of the 1960s, from the period of wartime planning and postwar reconstruction through the events of 1968, when upheavals rocked cities and

campuses around the world and the École des Beaux-Arts in Paris was shut down after 250 years by student strikes. Architecture underwent significant restructuring during these three decades of social, political, technological, and urban change. The history we will trace unfolded not just in the United States and Europe but increasingly outside the older centers of Western culture as well. The challenges to modernism from both inside and outside the discipline set the stage for a major paradigm shift in the last third of the century. At the level of theory and methodology, the seminar will be concerned with issues of periodization and documentation, exploring the question of how "architecture culture" is produced and reproduced at a specific historical moment.

ARCH 712
HISTORIANS, ARCHITECTS, AND THE INVENTION
OF MODERN ARCHITECTURE
Daniel Barber and
David Brownlee (2014A)

This course reviews those architectural historians who have taken 'modern architecture' as the primary engine for narrative and conceptual development. We will read texts of Pevsner, Giedeon, Banham, Tafuri, Colquhoun, and other, and place them both in the disciplinary contest of architectural developments and the interdisciplinary context of parallel histories of technology, art, politics, and environment. Students will be expected to make a seminar presentation and produce a significant research project relevant to the seminar's themes.

ARCH 712
PHILOSOPHY OF MATERIALS AND STRUCTURES
Manuel DeLanda (2014A)

This lecture series introduces students to the basic philosophical concepts needed to understand contemporary science. Most of the examples and case studies discussed in class come from two fields that are intimately connected with architecture: structural engineering and materials science and engineering. But in addition, the class deals with the philosophical underpinnings of two other fields, one which has been the backbone of science since its inception, mathematics, and the other which has revolutionized mathematical models by setting them into motion: computer simulation.

ARCH 717
PHILOSOPHY OF URBAN HISTORY
Manuel DeLanda (2013C)

Cities are among the most complex entities that arise out of human activity. For some of these cities (Versailles, Washington DC) the process through which they emerge is not hard to grasp because it is planned up to the last detail by a human bureaucracy. Other cities, such as Venice and its labyrinthian system of streets, emerged spontaneously without any central agency making the relevant decisions. But even those cities in which urban structure was the result of a deliberate act of planning, house many processes which, like Venice, represent the spontaneous emergence of order out of chaos. This seminar will examine a variety of these processes, from markets to symbiotic nets of small producers, from epidemics of urban diseases to the creation of new languages and urban dialects. It will also explore the interaction between these self-organized phenomena and centrally controlled processes which are the result of human planning.

ARCH 719
ARCHIGRAM AND ITS LEGACY
Annette Fierro (2013C)

Acknowledging the ubiquitous proliferation of "Hi-Tech" architecture in contemporary London, this research seminar examines the scope of technology as it emerges and re-emerges in the work of various architects currently dominating the city. This scope includes the last strains of post-war urbanism which spawned a legacy of radical architecture directly contributing to the Hi-Tech; a particular focus of the course will be the contributing and contrasting influence provided by the counter-cultural groups of the 60's-Archigram, Superstudio, the Metabolists and others. Using the premise of Archigram's ideas of infrastructure, both literal and of event, the course will attempt to discover relational networks between works of the present day (Rogers, Foster, Grimshaw, etc.) As this work practices upon and within public space, an understanding of the contribution of technology to urban theatricality will evolve which is relevant to contemporary spheres of technological design practices. Students will be required to produce and present a term research paper.

ARCH 724
TECHNOLOGY IN DESIGN: IMMERSIVE KINEMATICS
Simon Kim (2014A)

The aim of this course is to understand the new medium of architecture within the format of a research seminar. The subject matter of new media is to be examined and placed in a disciplinary trajectory of building designed and construction technology that adapts to material and digital discoveries. We will also build prototype with the new media, and establish a disciplinary knowledge for ourselves. The seminar is interested in testing the architecture-machine relationship, moving away from architecture that looks like machines into architecture that behaves like machines: An intelligence (based on the conceptual premise of a project and in the design of a system), as part of a process (related to the generative real of architecture) and as the object itself and its embedded intelligence.

ARCH 724
TECHNOLOGY IN DESIGN: DATA AND ADAPTATION
Mark Nicol (2014A)

Data + Adaptation seeks to study emerging tools and workflows that allow designers to tap into abundant sources of data and leverage them towards crafting adaptable, dynamic constructions. Low cost sensors and simple scripting techniques will be used to collect and visualize complex data fields. Design tools within the Rhino/Grasshopper or Maya ecosystem with the capability of designing and simulating dynamic responses to shifting data fields will be explored. In the end, students will take a position with regards to how data might affect design and furthermore how architectural constructions might be designed with the capacity to dynamically adapt to those fluctuating data.

ARCH 724
TECHNOLOGY IN DESIGN:
EMERGING TECHNOLOGIES AND URBAN SPACE
Shawn Rickenbacker (2014A)

The Motorola sponsored Slim Cities research seminar will introduce students to concepts associated with the emerging field of urban computing, an emerging multidisciplinary field focused on computing and digital networks in the urban environment. The seminar

will investigate the role of the designer and the cultural and social implications of this new field. Through an introduction to HCI (Human Computer Interaction), urban field research and analysis students will examine ways to research, provide insight and propose prototype API's, applications and user case studies applied to mobile, wearable, and embedded devices and technologies for use in the urban environment. In the process the course is intended to answer questions surrounding the present challenge of re-imagining more livable, productive, responsible, and resilient architecture, spatial systems and urbanism through these technologies. The course will also provide insight on near-future urban computing and put forth observations to be forwarded to Motorola Solutions in the form of a final report/publication.

ARCH 724
TECHNOLOGY IN DESIGN: A PERIODIC: THE MATHEMATICS OF TILING IN ARCHITECTURAL DESIGN
Josh Freese and Josh Dannenberg (2014A)

Repetition and difference in geometric tiling patterns produce visual complexity, intricacy, economy and articulation. From textiles and ceramics to architectural design, the tradition of tiling has culled from mathematical systems that inscribe two- and three-dimensional geometric conditions, ultimately yielding cultural effects that are unique to their time. By examining this tradition across time and disciplines, this course will explore a range of mathematical systems, tools and media as well as how they advance contemporary architectural topics such as parametrics, optimization, fabrication, and implementation.

Through lectures, readings and workshops, the course will lead students to develop contemporary and future-oriented methods that establish new parameters for tiling systems. Students will identify particular tiling families from guest lectures, historical precedents and readings, and will establish conditions for scripting new assemblies for generating three-dimensional patterns and assemblies.

Fabrication methods will consider an economy-of-means, using minimal variation in base models and molds to achieve maximum differentiation in the aggregation of tiles into 3-dimensional volumetric models. It is through this negotiation between fixed rules and

variable freedoms that tiling systems have historically asserted their cultural value – and this will be the ultimate goal of the course.

ARCH 726
CONTEMPORARY FURNITURE DESIGN
Katrin Mueller-Russo (2014A)

This course provides a platform, in the form of furniture, to execute and deploy architectural and engineering principles at full scale. It will be conducted as a seminar and workshop and will introduce students to a variety of design methodologies that are unique to product design. The course will engage in many of the considerations that are affiliated with mass production; quality control, efficient use of material, durability, and human factors. Students will conduct research into industrial design processes, both traditional and contemporary, and will adapt these processes into techniques to design a prototype for limited production. Instruction will include; model making, the full scale production of a prototype, its detailing; design for mass production and the possibility of mass customization; design for assembly, furniture case studies; design techniques, software integration, optimization studies; Computer Aided Manufacturing (CAM) and a site visit to a furniture manufacturer.

ARCH 727
INDUSTRIAL DESIGN I
Peter Bressler (2014A)

Industrial design (ID) is the professional service of creating and developing concepts and specifications that optimize the function, value and appearance of products and systems for the mutual benefit of both user and manufacturer. Industrial designers develop these concepts and specifications through collection, analysis and synthesis of user needs data guided by the special requirements of the client or manufacturer. They are trained to prepare clear and concise recommendations through drawings, models and verbal descriptions. The profession has evolved to take its appropriate place alongside Engineering and Marketing as one of the cornerstones of Integrated Product Design teams. The core of Industrial Design's knowledge base is a mixture of fine arts, commercial arts and applied sciences utilized with a set

of priorities that are focused firstly on the needs of the end user and functionality, then the market and manufacturing criteria. This course will provide an overview and understanding of the theories, thought processes and methodologies employed in the daily practice of Industrial Design. This includes understanding of ethnographic research and methodologies, product problem solving, creative visual communication, human factors / ergonomics application and formal and surface development in product scale. This course will not enable one to become an industrial designer but will enable one to understand and appreciate what industrial design does, what it can contribute to society and why it is so much fun.

ARCH 728
DESIGN OF CONTEMPORARY PRODUCTS:
SMART OBJECTS
Carla Diana (2014A)

Smart objects are information-based products that are in ongoing dialogs with people, the cloud and each other. By crafting rich interactions, designers can create expressive behaviors for these objects based on sophisticated programmed responses. At the same time, sensor technologies have enabled us to introduce natural gestures as a means of interacting with a product. (Not only can we push, pull and twist a data value, but we can wave at, caress, tilt and shake it as well.) With an explosion of new possibilities for object interaction and human control, it is the designer's role to envision new solutions that are both meaningful and responsible. This course will explore product design solutions through a combination of physical and digital design methods. Beginning with an examination of case studies, students will gain a sense of the breadth of product and interaction design practice as it applies to smart objects. Through a series of lectures and hands-on studio exercises, students will explore all aspects of smart object design including expressive behaviors (light, sound and movement), interaction systems, ergonomics, data networks and contexts of use. The course will culminate in a final project that considers all aspects of smart object design within the context of a larger theme.

ARCH 731
EXPERIMENTS IN STRUCTURE
Mohamad Al Khayer (2013C)

This course studies the relationships between geometric space and those structural systems that amplify tension. Experiments using the hand (touch and force) in coordination with the eye (sight and geometry) will be done during the construction and observation of physical models. Verbal, mathematical and computer models are secondary to the reality of the physical model. However these models will be used to give dimension and document the experiments. Team reports will serve as interim and final examinations.

In typology, masonry structures in compression (e.g., vault and dome) correlate with "Classical" space, and steel or reinforced concrete structures in flexure (e.g., frame, slab and column) with "Modernist" space. We seek the spatial correlates to tensile systems of both textiles (woven or braided fabrics where both warp and weft are tensile), and baskets (where the warp is tensile and the weft is compressive). In addition to the experiments, we will examine Le Ricolais' structural models held by the Architectural Archives.

ARCH 733
BUILDING PRODUCT DESIGN
Jordan Goldstein (2013C)

This course introduces students with a design background in architecture, landscape architecture and engineering to the design of products for buildings. The emphasis will be on market-driven product design, with discussions and exercises that move from macro to micro, from market analysis to prototyping, through the course of one semester. The goal of the course is to develop a concrete understanding of the building product design process, which encourages the integration of engineering and business concerns along with the experience of human interaction and emotive qualities. The course will engage with a real manufacturer, establishing the project orientation for the semester and providing access to their design, marketing, and manufacturing strategies. Course work will include marketplace research and analysis and a design project culminating in a final prototype and presentation.

ARCH 734
**ECOLOGICAL ARCHITECTURE:
CONTEMPORARY PRACTICES**
Todd Woodward (2014A)

Building is an inherently exploitive act – we take resources from the earth and produce waste and pollution when we construct and operate buildings. As global citizens, we have an ethical responsibility to minimize these negative impacts. As creative professionals, we have a unique ability to go farther than simply being “less bad.” We can learn to imagine designs that heal the damage and regenerate our environment. This course explores the evolving approaches to ecological design – from neo-indigenous to eco-tech to LEED to biomimicry to living buildings. Taught by a practicing architect with many years of experience designing green buildings, the course also features guest lecturers from complementary fields - landscape architects, hydrologists, recycling contractors and materials specialists. Coursework includes in-class discussion, short essays and longer research projects.

ARCH 735
MATERIAL AND STRUCTURAL INTELLIGENCE
Mark Nicol (2013C)

The semester long project will involve a gradual development of architectural ideas that are intimately informed by and centered around knowledge about Structure and Materiality. Employing both physical and digital simulations, the students would be required to synthesize knowledge acquired in previous courses in structures, materials, and construction methods to develop architectural solutions within a carefully selected set of determinants.

ARCH 737
**PRACTICING INFLUENCE:
STRATEGIES FOR TACTICAL ARCHITECTURES**
Julie Beckman (2013C)

This seminar will survey and propose tactical approaches for architectures that seek social, economic and environmental impacts in response to a current contemporary cultural trend.

ARCH 738
**THE MODERN HOUSE:
TECHNOLOGY THEN AND NOW**
Annette Fierro (2014A)

In the current age of new fabrication methodologies, methods are emerging for the conception and design of the contemporary house which have radical potential for enclosure, habitation and practices of daily life. This course begins by examining the canonical houses of the original avant-garde--Adolf Loos, Frank Lloyd Wright, Le Corbusier, Mies van der Rohe and Alvar Aalto—on the premise that their houses were working manifestos for rethinking space, form and indeed ideas of life itself—all of which were prompted by new concepts of construction. From this spectrum of issues, contemporary houses and contemporary methods and materials will be studied extensively to develop equally new ideas between matter and quotidian life. As the primary task of the course, students will work in teams to develop highly detailed constructional proposals for a portion of a speculative home.

ARCH 740
FORMAL EFFICIENCIES
Erick Carcamo (2014A)

The seminar is a discourse based in the use of multi-layered techniques and production processes that allow for control over intelligent geometries, calibration of parts, and behavioral taxonomies, normalizing an innovative field of predictability. Our goal is to explore innovative, potential architectural expressions of the current discourse around form through technique elaboration, material intelligence, formal logic efficiencies and precision assemblies as an ultimate condition of design.

The seminar will develop and investigate the notion of proficient geometric variations at a level of complexity, so that questions towards geometrical effectiveness, accuracy and performance can begin to be understood in a contemporary setting.

ARCH 744
DIGITAL FABRICATION
Ferda Kolatan (2014A)

This seminar course investigates the fabrication of digital structures through the use of rapid prototyping (RP) and

computer-aided manufacturing (CAM) technologies, which offer the production of building components directly from 3D digital models. In contrast to the industrial-age paradigms of prefabrication and mass production in architecture, this course focuses on the development of repetitive non-standardized building systems (mass-customization) through digitally controlled variation and serial differentiation. Various RP and CAM technologies are introduced with examples of use in contemporary building design and construction.

ARCH 741
ARCHITECTURAL DESIGN INNOVATION
David Ruy (2013C)

The mastery of techniques, whether in design, production or both, does not necessarily yield great architecture. As we all know, the most advanced techniques can still yield average designs. Architects are becoming increasingly adept at producing complexity and integrating digital design and fabrication techniques into their design process - yet there are few truly elegant projects. Only certain projects that are sophisticated at the level of technique achieve elegance. This seminar explores some of the instances in which designers are able to move beyond technique, by commanding them to such a degree so as to achieve elegant aesthetics within the formal development of projects.

ARCH 743
FORM AND ALGORITHM
Cecil Balmond and Ezio Blasetti (2013C)

A course on the philosophy and generative tools of Informal design, which is defined in terms of non-Cartesian, non-linear geometries and borrows algorithmic procedures from models in mathematics and the physical sciences. The course reviews readings on the topic, introductory instruction in scripting and assignments through which students gain familiarity and skill with specific non-linear models.

ARCH 751
ECOLOGY, TECHNOLOGY, AND DESIGN
William Braham (2013C)

The course draws on theories of eco-

logical design and on the history and philosophy of technology to examine the complex interaction between the built and natural environments. The energy diagramming techniques of HT Odum are used as a common framework for projects in the course.

ARCH 752
INTEGRATED BUILDING DESIGN
Muscoe Martin (2014A)

The interrelationships of environmental control systems will be explored by means of building type studies. Innovative systems will be emphasized. Projects such as residential, educational and commercial buildings, office and assembly buildings, and facilities for research and manufacturing will be analyzed in details. The Operational characteristics of buildings will be studied with regard to occupancies and their needs. The relationship between energy conservation and the principles of initial building cost versus life cycle costs will be discussed.

ARCH 753
BUILDING PERFORMANCE SIMULATION
Yun Kyu Yi (2013C)

The course provides students with an understanding of building design simulation methods, hands-on experience in using computer simulation models, and exploration of the technologies, underlying principles, and potential applications of simulation tools in architecture. Classroom lectures are given each week, with a series of analysis projects to provide students with hands-on experience using computer models.

ARCH 754
PERFORMANCE DESIGN WORKSHOP
Yun Kyu Yi (2014A)

The workshop applies simulation and diagramming techniques to a series of discrete design projects at different scales. The emphasis is on refinement and optimization of performance based building design. Performance analysis techniques can provide enormous amounts of information to support the design process, acting as feedback mechanisms for improved performance, but careful interpretation and implementation are required to achieve better buildings.

Energy, lighting, and air flow are the three main domains covered in the workshop. Students will learn how to utilize domain tools at an advanced level, and utilize them as applications to examine the environmental performance of existing buildings. Using the results of analytical techniques, the students will develop high-performance design strategies in all three domains.

Lectures will be given on specific topics each week. A series of analytical class exercises will be assigned to provide students with hands-on experience in using the computer models. A case-study building will be provided at the beginning of the course and students will model different components each week throughout the semester. Every week students present the progress of their work, which will be used to correct methodological and technical issues.

ARCH 762
DESIGN AND DEVELOPMENT
Paul Sehnert (2014A)

This course provides an introduction to the relationship between architectural design and real estate development. Following a discussion of fundamentals, examples focus on commercial building types, and illustrate how architectural design can contribute to real estate development. Topics include housing design, commercial buildings, adaptive reuse, downtown development, mixed-use projects, and planned communities. The course consists of lectures, reading assignments, short essays, a group project, and an mid-term test. Invited lecturers include architects and real estate developers. Readings consist of a Bulkpack available from Wharton Reprographics. There is one course text: Witold Rybczynski, "Last Harvest."

ARCH 764
VERTICAL CITIES ASIA
Chris Marcinkoski (2014A)

This seminar will develop entries to the Vertical Cities Asia International Design Competition: www.verticalcitiesasia.com/. Organized by the National University of Singapore School of Design and Environment, and sponsored by the World Future Foundation, the competition is predicated on the belief that a new paradigm of high-density compact urban settlement is necessary for rapidly

urbanizing Asian territories besieged by massive rural-urban migrations. Jet-tisoning the notion of recycling existing urban architectural models to accommodate increasing populations with devastating effects on land, infrastructure, and the environment, the competition endeavors to elaborate fundamentally new models of urbanization within a rapidly transforming 21st century Asian milieu. The first portion of the seminar will focus on developing a dossier of research related to the particular site and theme of this year's competition. This work will be developed collectively within the seminar. The second portion of the seminar will explore canonical 20th century proposals for new urban form and settlement. This work will be developed individually with each student contributing a short chapter on their case study for the seminar dossier. The remaining portion of the seminar will focus on the elaboration of individual strategies for a new 1 sq km urban district for 100,000 residents. While this is not a studio, the expectation remains that students will develop their individual propositions using a range of visual means and modeling techniques.

ARCH 765
PROJECT MANAGEMENT
Charles Arena (2013C)

This course is an introduction to techniques and tools of managing the design and construction of large, and small, construction projects. Topics include project delivery systems, management tools, cost-control and budgeting systems, professional roles. Case studies serve to illustrate applications. Cost and schedule control systems are described. Case studies illustrate the application of techniques in the field.

ARCH 768
REAL ESTATE DEVELOPMENT
Asuka Nakahara (2014A)

Predominately case analysis, discussion, some lectures, and project visits. This course evaluates "ground-up" development as well as re-hab, re-development, and acquisition investments. We examine raw and developed land and the similarities and differences of traditional real estate product types including office, R & D, retail, warehouses, single family and multi-family residential,

mixed use, and land as well as "specialty" uses like golf courses, assisted living, and fractional share ownership. Emphasis is on concise analysis and decision making. We discuss the development process with topics including market analysis, site acquisition, due diligence, zoning, entitlements, approvals, site planning, building design, construction, financing, leasing, and ongoing management and disposition. Special topics like workouts and running a development company are also discussed. Throughout the course, we focus on risk management and leadership issues. Numerous guest lecturers who are leaders in the real estate industry participate in the learning process. Format: predominately case analysis and discussion, some lectures, project visits.

ARCH 772
PROFESSIONAL PRACTICE III
Phillip Ryan (2014A)

Architecture 772 is the conclusion of the three part Professional Practice Sequence. Architecture 671 and 672 introduced the students to the processes used to design and construct a building and the administrative, legal, and business structures necessary to run a successful architecture practice. Architecture 772 focuses on the aspects of the practice that will be relevant to graduates in their first five years in the professional world; be it in architecture or another related design or construction field. The course will re-examine, in greater detail, relevant topics from Architecture 671 and 672 as well as discuss portfolio and resume creation, salary negotiation, interview and communication skills, the Intern Development Program (or IDP), and what students should be equipped with for their first five years as professionals. The Course is lecture based and grading will be based on select assignments, attendance, and a final assignment.

ARCH 811
ARCHITECTURAL RESEARCH
David Leatherbarrow (2013C)

The purpose of this course is to provide to students who are embarking on career in teaching and scholarship in architecture a first introduction to some of the principal issues and writings of the tradition. In addition to introducing themes and texts, this course aims to

help students develop the practices that are typical of scholarship, the forms and habits of scholarly inquiry. The course is two-part: 1) close reading of the writings of author architects in the history of architectural theory from antiquity to the 20th century, and 2) a introductory study of some of the key topics that the writings of author architects typically address, as they have been set forth in different kinds of texts: architectural, art historical, and philosophical.

2013-2014 Complete Roster

ARCH 501 - SEMESTER: 2013C

DESIGN STUDIO I

INSTRUCTOR: SIMON KIM

Bae, Seung-Hyeok
Fu, Can
Huang, Ya Wen
Mcbride, Katie Ann
Park, Jonghyun
Pattah, Roza Patricia
Soe, Jessica
Vazquez, Judith
Wang, Shiyuan
Yin, Shanshan
Yin, Siyuan
Yu, Lei

INSTRUCTOR: EZIO BLASETTI

Ahn, Jae Geun
Dukhnevich, Irina V
He, Zuoda
Liu, Haiteng
Manohar, Tanuja Jayant
Martin, Karen Larissa
Meng, Di
Shen, Chenyi
Wang, Yingfei
White, Caleb William
Zhao, Feifei
Zhuang, Yanhua

INSTRUCTOR: SOFIA KRIMIZI

Badger, Leonie Nana Adwo
Cai, Fang
Hiller, Peter Caleb
Huner, Basak Gulsen
Kang, Hyemi
Knoche, Taylor Michelle
Lin, Audrey Tseng
Reiser, Zachary Ehrhart
Rho, Ae Ree
Wang, Wei-An
Ye, Mengyao

INSTRUCTOR: LASHA BROWN

Brown, Morgan Jessilyn
Cai, Yangmei
Chen, Xinyi
Chow, Whitney Wing Yin
Giampietro, Joseph Michael
Gompers, Hannah Lynn
Huang, Yanghui
Kang, Moon Ju
Luo, Tianxin
Pena Toledo, Ramon Gabriel
Subagyo, Adrian Emanuel
Yoas, Andrea Grace
Zheng, Kangyi

INSTRUCTOR: MICHAEL LOVERICH

Chan, Chih-Kai
Goel, Rajika
Gruendel, Emily Canby
He, Yuhang
Huang, Chi-Wei
Jang, Keun-Hyuk
Kim, Dami
Kim, Grace Kwieun
Tahinos, Alexander Marc
Wang, Di
Wang, Ruo
Yao, Xi
Yoon, Heunsun

INSTRUCTOR: SANDRA MANNINGER

Choi, Dunbee

Han, Lu
Kim, Gene
Lau, Daniel Kin Hoe
Leung, Hiu Nam
Molloy, Emma Margaret
Mulford, Christopher Dean
Shafir, Michael O
Wang, Qi
Xu, Yidi
Young, Elizabeth J
Zhang, Chi
Zheng, Liangjie

ARCH 502 - SEMESTER: 2014A

DESIGN STUDIO II

INSTRUCTOR: ANNETTE FIERRO

Cai, Fang
Choi, Dunbee
Huang, Chi-Wei
Lin, Audrey Tseng
Pattah, Roza Patricia
Shafir, Michael O
Tahinos, Alexander Marc
Vazquez, Judith
White, Caleb William
Yao, Xi
Zhao, Feifei
Zheng, Liangjie

INSTRUCTOR: DANIELLE WILLEMS

Giampietro, Joseph Michael
Kang, Hyemi
Kim, Dami
Knoche, Taylor Michelle
Shen, Chenyi
Soe, Jessica
Subagyo, Adrian Emanuel
Wang, Ruo
Xu, Yidi
Yin, Siyuan

INSTRUCTOR: SRD.JAN JOVANOVIC WEISS

Brown, Morgan Jessilyn
Chen, Xinyi
Hiller, Peter Caleb
Huang, Ya Wen
Huang, Yanghui
Jang, Keun-Hyuk
Kim, Grace Kwieun
Lau, Daniel Kin Hoe
Liu, Haiteng
Luo, Tianxin
Mcbride, Katie Ann
Rho, Ae Ree
Yoon, Heunsun

INSTRUCTOR: JOSHUA FREESE

Badger, Leonie Nana Adwo
Dukhnevich, Irina V
Goel, Rajika
He, Yuhang
He, Zuoda
Manohar, Tanuja Jayant
Meng, Di
Molloy, Emma Margaret
Park, Jonghyun
Wang, Di
Wang, Wei-An
Zhang, Chi

INSTRUCTOR: NATHAN HUME

Chan, Chih-Kai
Chow, Whitney Wing Yin
Kang, Moon Ju

Kim, Gene
Leung, Hiu Nam
Martin, Karen Larissa
Reiser, Zachary Ehrhart
Wang, Shiyuan
Ye, Mengyao
Yin, Shanshan
Yoas, Andrea Grace
Zheng, Kangyi
Zhuang, Yanhua

INSTRUCTOR: EDUARDO REGA CALVO

Ahn, Jae Geun
Bae, Seung-Hyeok
Fu, Can
Gruendel, Emily Canby
Han, Lu
Huner, Basak Gulsen
Mulford, Christopher Dean
Pena Toledo, Ramon Gabriel
Wang, Qi
Wang, Yingfei
Young, Elizabeth J
Yu, Lei

ARCH 601 - SEMESTER: 2013C

DESIGN STUDIO III

INSTRUCTOR: HINA JAMELLE

Delano, Olusomi O
Ellis, Stephen A
Lee, Brett Dong Ha
Lopez, Matthew Joseph
Naraynsingh, Anamika
Park, Bum Jin
Rodriguez Diaz, Yannick E
Turner, Cass P
Wang, Peng
Wang, Shiyun
Wong, Elaine
Xu, Jingxian
Yu, Siwei

INSTRUCTOR: SCOTT ERDY

Chang, Kaihong
Chin, Alex S
Florian Rodrigue, Rose M
Galvez, Nathan T
Hammitt, Nathaniel A
Liu, Bailong
Mariakis, Nicholas E
Patel, Anoop V
Song, Anyi
Tyner, Emily S
Whitney, Gregory T
Youn, In Hea
Zimmerman, Michael A

INSTRUCTOR: BRIAN PHILLIPS

Burgess, Taylor S
Cabezas, Nicole
Canter, Jon D
Franz, Christina A
Gorder, Jonathan C
Kim, Eunil
Kim, Jee H
Kong, Bernice A
Lewallen, John P
Nargi, Brittany C
Ochoa, Hugo Fabian
Prifogle, John L
Zhong, Ming

INSTRUCTOR: MATIAS DEL CAMPO

Auger, Nicholas W
Gu, Heng
Henry, Kordae N
Ingber, Kyle J
Karabinech, Olga
Kulesza, Kayleen M

Lin, Yongjia
Park, Soohyun A
Pawlyszyn, Alexandra S
Royer, Michael S
Stokes, Dana L
Tejedor, Juan C
Zeng, Chunlan

INSTRUCTOR: JONAS COERSMEIER

Arth, Christopher Gabriel
Chamilakis, Natasha X
Grandjean, Andrew Watts
Han, Xiao
Kim, Yong Jae
Kim, Yun-Su
Lee, Eunbyul
Moses, Sarah R
Tseng, Yu Chang
Vergeyle, Kathryn C
Wang, Billy
Yang, Hua

INSTRUCTOR: KUTAN AYATA

Berliner, Joshua F
Gerhart, Margaret A
Huang, Amanda
Kim, Aidan J
Lam, Harry M
Lee, Geongu
Li, Yihan
Liu, Xiaoping
Niebeling, Matthew Thomas
Sehwal, Walaid B
Wildfeuer, Peter
Yang, Hyeji

INSTRUCTOR: BENJAMIN KRONE

Gargullo, Rhea G
Guo, Tiantian
Holguin, Jose Rafael
Hsu, Chang Yuan Max
Jones, Jeffrey M
Karaman, Joanna M
Laurence, Claire A
Leach, Erik C
Lee, Julie H
Lu, Ye
McClintock, Nicholas S
Rice, Dana J
Roberson, Philip R

ARCH 602 - SEMESTER: 2014A

DESIGN STUDIO IV

INSTRUCTOR: FERDA KOLATAN

Auger, Nicholas W
Delano, Olusomi O
Kim, Yun-Su
Laurence, Claire A
Lee, Brett Dong Ha
Lopez, Matthew Joseph
Naraynsingh, Anamika
Park, Bum Jin
Tseng, Yu Chang
Turner, Cass P
Wang, Shiyun
Wong, Elaine

INSTRUCTOR: FRANCA TRUBIANO

Chamilakis, Natasha X
Chin, Alex S
Gorder, Jonathan C
Holguin, Jose Rafael
Karabinech, Olga
Kim, Jee H
Leach, Erik C
Lewallen, John P
Ochoa, Hugo Fabian
Pawlyszyn, Alexandra S
Tejedor, Juan C

Wildfeuer, Peter

INSTRUCTOR: HINA JAMELLE

Arth, Christopher Gabriel
Han, Xiao
Kim, Yong Jae
Lee, Eunbyul
Lee, Geongu
Prifogle, John L
Stokes, Dana L
Tyrer, Emily S
Wang, Billy
Yang, Hua
Yang, Hyeji
Zhong, Ming

INSTRUCTOR: SHAWN RICKENBACKER

Canter, Jon D
Day, Frederick W
Florian Rodrigue, Rose M
Kulesza, Kayleen M
Lam, Harry M
Mcclintock, Nicholas S
Mcveigh, Brian P
Roberson, Phillip R
Vergeyle, Kathryn C
Whitney, Gregory T
Yu, Siwei

INSTRUCTOR: BENJAMIN KRONE

Berliner, Joshua F
Grandjean, Andrew Watts
Gu, Heng
Hammitt, Nathaniel A
Li, Yihan
Liu, Bailong
Liu, Xiaoqing
Moses, Sarah R
Niebeling, Matthew Thomas
Rice, Dana J
Song, Anyi
Wang, Peng

INSTRUCTOR: KUTAN AYATA

Cabezas, Nicole
Ellis, Stephen A
Franz, Christina A
Gargullo, Rhea G
Hsu, Chang Yuan Max
Kong, Bernice A
Lee, Julie H
Lu, Ye
Nargi, Brittany C
Rodriguez Diaz, Yannick E
Royer, Michael S
Xu, Jingxian

INSTRUCTOR: JUSTIN KORHAMMER

Chiu, Yu-Han
Galvez, Nathan T
Gerhart, Margaret A
Guo, Tiantian
Huang, Amanda
Ingber, Kyle J
Kim, Eunil
Lin, Yongjia
Mariakis, Nicholas E
Martinez, Jacqueline A
Sehwal, Walaid B
Youm, In Hea
Zimmerman, Michael A

ARCH 701 - SEMESTER: 2013C

DESIGN STUDIO V

INSTRUCTOR: ALI RAHIM

Carey, Laura G
Cheung, Megan Y
Chiang, Joyce W
Dessi-Olive, Jonathan

Gardner, Andrew A
Iskandar, Michael Y
Kimball, Kristy A
Kipfer, Michael S
Potter, Jason J
Shim, Minjoong R
Viechnicki, Kathryn J
Wong, Eric

INSTRUCTORS: ENRIQUE NORTEN

Al Doukhi, Fatima H
Casariego, Jonay
Cho, Grace H
Garmon, Gray B
Hsin, Poyi B
Jordan, Joshua C
Koella, Ryan D
Li, Jinglu
Liu, Ming Chang
Martinez, Peter J
Rohrer, Cynthia H
Zhang, Tianqi

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Blitzer, Sarah J
Bolino, Jenna W
Buckley, Michael J
D'Aversa, Alexander J
Holstein, Alexander
Hull, Eric R
Jansen, George T
Kim, Yongdae
Mears, Lauren D
Morris, Jessica L
Padgett, Katherine H
Rosen, Samuel B
Simpson, Kristin E

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Berger, Kelly E
Berk, Brian D
Chiang, Hung Ju
Guo, Xinyue
Kikuno, Tadashi
Lin, Xiao
Liu, Bonnie G
Zhang, Yiwen
Zhang, Yuchen

INSTRUCTOR: HOMA FARJADI

Blitzer, William L
Hosseini, Arman R
Ishii, Anna M
Kim, Jia V
Kocher, Steven A
Krieg, Stacy J
Obot, Michael E
Wong, William
Xu, Zhichun

ARCH703 - SEMESTER: 2013C

POST-PROFESSIONAL DESIGN STUDIO

INSTRUCTORS: WINKA DUBBELDAM & JOSHUA FRESSE

Chen, Donghua
Chen, Kaiyu
Chung, Hoju
Deuling, Laurens Tijmen
Fan, Di
Han, Eleni
Liu, Xi
McCurley, Elise Marie Virata
Wang, Luli
Zhao, Yilin
Zu, Hanxing

INSTRUCTORS: FERDA KOLATAN & HART MARLOW

Cai, Sheng
Chen, Zhengngeng
Guo, Shuang
Hur, Chang
Lee, Bongkyun
Lee, Boram
Liang, Jiamin
Shah, Kshiti
Shen, Qi
Tang, Haotian
Xu, Zelong
Yu, Siyang

**INSTRUCTORS: FRANCOIS ROCHE
STEPHAN HENRICH & DEVIN JERNIGAN**

Jiang, Jiannan
Koliglati, Konstantina
Lin, Lifeng
Lu, Bing
Seo, Jamin
Stone, Matthew Stephen
Wang, Runing
Xia, Li
Yang, Lanmuzhi
Ye, Cong
Zhang, Biqi

**ARCH 704 - SEMESTER: 2014A
RESEARCH STUDIO**

INSTRUCTOR: MARION WEISS

Blitzer, William L
Blitzer, Sarah J
Bolino, Jenna W
Cho, Grace H
Garmon, Gray B
Hong, Eunjee
Ishii, Anna M
Jan, Sandy Y
Koella, Ryan D
Liu, Xi
Mears, Lauren D
Park, Soohyun A

INSTRUCTORS: HOMA FARJADI & CHARLES CURRAN

Chen, Kaiyu
Chung, Hoju
Jordan, Joshua C
Lin, Lifeng
Liu, Bonnie G
Lu, Bing
Morris, Jessica L
Tang, Haotian
Xu, Zelong
Zhang, Tianqi
Zhang, Yuchen
Zhao, Yilin

INSTRUCTORS: THOMAS WISCOMBE & RYAN MACYAUSKI

Carey, Laura G
Chiang, Joyce W
Kimball, Kristy A
Kipfer, Michael S
Kocher, Steven A
Obot, Michael E
Seo, Jamin
Shim, Minjoong R
Simpson, Kristin E
Viechnicki, Kathryn J
Wang, Luli
Wong, Eric
Xu, Zhichun

INSTRUCTORS: CECIL BALMOND & EZIO BLASETTI

Buckley, Michael K

Cai, Sheng
Chen, Donghua
D'Aversa, Alexander J
Jiang, Jiannan
Kikuno, Tadashi
Li, Jinglu
Liu, Ming Chang
Martinez, Peter J
Potter, Jason J
Yu, Siyang

INSTRUCTORS: TONY ATKINS & GAVIN RIGGALL

Chiang, Hung Ju
Guo, Shuang
Guo, Xinyue
Koliglati, Konstantina
Liang, Jiamin
Lin, Xiao
Padgett, Katherine H
Patel, Anoop V
Rosen, Samuel B
Xia, Li
Xie, Sisi

INSTRUCTORS: SULAN KOLATAN & ROBERT CERVELLIONE

Cheung, Megan Y
Gardner, Andrew A
Hosseini, Arman R
Hur, Chang
Iskandar, Michael Y
Kim, Jia V
Krieg, Stacy J
Shah, Kshiti
Ye, Cong
Zu, Hanxing

INSTRUCTOR: SIMON KIM & JEREMY JIH

Al Doukhi, Fatima H
Berk, Brian D
Deuling, Laurens Tijmen
Han, Eleni
Lee, Bongkyun
Lee, Boram
Mccurley, Elise Marie Virata
Wang, Runing
Wong, William

INSTRUCTORS: STEPHEN KIERAN, JAMES TIMBERLAKE & JACOB MANS

Achrati, Adam B
Chen, Zhengngeng
Fan, Di
Hsin, Poyi B
Kutchko, Katelin
Rohrer, Cynthia H
Rosenberg, Joseph Hyunjin
Shen, Qi
Stone, Matthew Stephen
Yang, Lanmuzhi
Yang, Ran
Zhang, Biqi

ARCH 706 - SEMESTER: 2014A

INDEPENDENT THESIS

ADVISOR: ANNETTE FIERRO

Zhang, Yiwen

ADVISOR: FRANCA TRUBIANO

Dessi-Olive, Jonathan
Schlundt, Nathaniel T



Spring 2014

YES: Year End Show 2014 at Meyerson Hall

YEAR END SHOW 2014



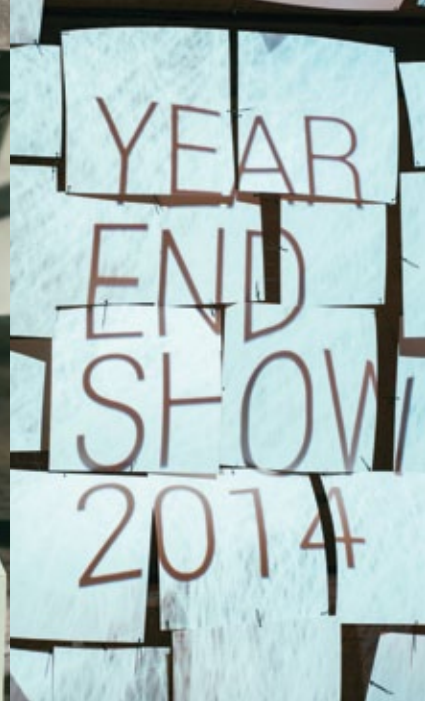






Spring 2014

YES : Year End Show 2014 at Meyerson Hall







Credits & Acknowledgements

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Printed in the United States of America on acid-free paper

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DESIGN:

WSDIA | WeShouldDoItAll (www.wsdia.com)

Typefaces: Founders Grotesk Text, Founders Grotesk X Condensed,

Tiempos Text & Headline designed by Kris Sowersby of Klim Type Foundry

PUBLISHED BY:

University of Pennsylvania School of Design

Department of Architecture

Philadelphia, Pennsylvania 19104

PRINTING:

CRW Graphics (www.crwgraphics.com)

PHOTO CREDITS:

Maria Teicher

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ISBN: 978-0-9796087-2-8

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