

ARCHITECTURE AT COOPER

The Irwin S. Chanin
School of Architecture

The Cooper Union
for the Advancement
of Science and Art

5:10-11

LETTER FROM THE DEAN

In ten years at the School of Architecture, I have many times been presented with the question of the relationships between theory and practice. This conventional division, that emerges often in the debates around the nature of the education of an architect—should it be more directed towards practical or theoretical concerns?—is one that I have always thought to be entirely artificial. It is, after all, confounded by the very fact that any design, however hypothetical, is itself a thought about architecture. Indeed the very practice of design is one of *thinking architecture* in the most fundamental way.

At The Cooper Union we believe that this dichotomy is resolved through the idea of architecture, in the words of Professor Emeritus Peter Eisenman, a project. To think of architecture as a project and not simply a practice, is to have an architectural idea in the first place, one that is iterated and developed through the process of design, itself understood as a thought process in drawn and modeled form. This is why all courses and studios at Cooper *support* the project of an architecture rather than simply the material *practice* of the profession. In this way we hope to encourage our students to think architecture in such a way as to enter the profession armed with a project that might transform the ways in which architectural “problems” have generically been posed—ways of formulating, envisaging, designing and constructing, that confront the norms of the present with ideas for the future.

The knowledge that is essential for a critical understanding of contemporary professional practice,—whether of technologies, economics, business practices, legal frameworks, or ethics—is fundamental to the calculation of a project that is not to be consumed by the routines of practice. But these questions are couched in terms that relate directly to the act of creative design—design that comprises questions of culture, society, environment, and technique—and that looks in a holistic way at the piecemeal solutions generally offered for sustainability, social responsibility, and ecological conservation.

Thus the curriculum at Cooper has evolved over the last ten years, embracing contemporary questions of environmental and technological knowledge, while holding close to our tradition of design, out of our profound humanistic understanding of form and space as the critical articulations of social and cultural understanding. The meaning of architecture and its urban cognates is in this way formulated as embodying structure and function in forms that resonate with particular force as condensers of community. It is for this reason that the act of thinking about architecture, through drawing, modeling, reading and writing has become the central occupation of what we call design, in these terms a theoretical discipline par excellence.

This year’s exhibition is a perfect demonstration of a school that has emerged with its powerful tradition intact and renewed in order to face the conditions of the twenty-first century. Supported by vigorous studio courses in freehand drawing and descriptive geometry, the Architectonics studios explore visual and formal issues of projection and representation in the context of the actual studio while constructing ideal habitations at large scale, using all the resources of the Shop. The Design II studios tackled the complex questions of site, structure and program, in an brilliantly inventive three-dimensional transformation of the School’s own “Nine-Square” program followed by a semester of analysis investigating the programmatic and formal forces that shaped different scales of domestic space from the house to the chair. In this regard, this issue of *Architecture At Cooper* introduces a new center section dedicated to the extraordinary collections of the School of Architecture Archive, a unique resource for students to study the history of the school and for the mounting of our yearly series of exhibitions, themselves didactic and integral to the school’s pedagogy. Here, for the first time, we publish the beginnings of Cooper’s theoretical project in architecture: John Hejduk’s original hand drawn diagram of the Nine Square Problem and its potential for elaboration. Design III, integrating design with the knowledge gained from building and environmental technologies and structures, has moved from the scale of habitat to that of the theater, studying increasingly complex ideas in the realm of a material poetics. The Design IV studios first returned to the scale of the detail, expanding out to the scale of the city, and then re-focused moving from the widest urban perspective to that of the single institution. The fifth year Thesis, exhibiting the most varied interests in many years, took on questions of the architectural environment from the global to the local with inventive intensity. In its second successful year, the new graduate Masters studio conducted design research into urban and natural landscapes, asking fundamental questions about the roles of technology, the media, natural resources, and social conditions in contemporary architectural culture.

These studios do not exist alone. They stand at the center of a network of courses and experiences that introduce students to the special knowledges of the historical, social, anthropological, philosophical, aesthetic, technological, and cultural disciplines that inform architecture and urban design.

The achievements of our students over the last ten years have been nothing less than remarkable. Ten have gained national recognition through Fulbright Fellowships that have led them to South Africa, Tunisia, Kazakhstan, Korea, Japan, Italy, New Zealand, the Czech Republic, and France; twenty more have been awarded Benjamin Menschel Fellowships to

research, travel and develop individual exhibitions. Eleven have been recipients of the prestigious Lotos Foundation Prize in the Arts and Sciences. Several have won fellowships offered by firms; another went on to study in the British School at Rome, and many went on to prestigious graduate schools. Since its establishment by the family of William Cooper Mack, the Thesis Research Fellowship in his name has supported nine students in the travel and preparation of their Thesis projects.

As a school, then, we have continued to prepare students for a full breadth of careers in architecture and the allied arts and professions. Some have forged partnerships among themselves, entrepreneurial and inventive, winning competitions and constructing new forms of collective practice. Others have joined small and large firms, quickly winning recognition as important contributors to practice. Others again have then begun to teach with the experience of the pedagogy they learned at The Cooper Union.

This pedagogy, a precious inheritance from the generations of teachers under the leadership of Dean John Hejduk, is developed and sustained by our professional and scholarly faculty, as they practice, gain recognition in their diverse fields, continue to push the envelope of conventional design, and, in their research, inspire their colleagues and students in the creation of an architecture that can hold its place in a world of rampant commercialism and environmental decay.

Peter Cooper considered The Cooper Union student to already be a citizen of the world, and accordingly he instructed that “Instruction in the science and philosophy of a true republican government formed, as it should be, of the people and for the people” be “continually taught.” With this foundation, the professional education of an engineer, and an artist and an architect could begin. And with this education, Peter Cooper hoped that, as he wrote, “the students of this institution will do something to bear back the mighty torrent of evils now pressing on the world.” In every way, Peter Cooper’s ideal of public service is sustained by an architectural community forged at Cooper, entering a society now, more than ever, in need of the most creative solutions to its increasingly intractable problems.



Anthony Vidler
Dean and Professor

EXHIBITIONS

- 1 Paul Rudolph: LME, Model
- 2 Paul Rudolph: LME, Detail
- 3 Musikerhaus: Detail
- 4 Postcards From Under New York
- 5 Musikerhaus
- 6 Landscapes of Extraction

The Irwin S. Chanin School of Architecture presented three significant exhibitions in the Arthur A. Houghton Jr. Gallery during the 2010–11 academic year. In realizing these exhibitions, the School of Architecture forged new relationships with three important cultural and educational institutions: The Drawing Center (New York), The Insel Hombroicht Foundation (Germany), and The Cooper Union Institute for Sustainable Design. With Steven Hillyer as Director and Sara Jones as Special Projects Assistant, the School of Architecture Archive continues a decades long tradition of presenting beautiful exhibitions that inform and excite students and the public alike of the breath and depth of the discipline of architecture, while engaging students in the design and installation of the shows themselves.

Paul Rudolph: Lower Manhattan Expressway

Presented by The Drawing Center and The Irwin S. Chanin School of Architecture
Featuring facsimiles of the drawings and sketches of Paul Rudolph and a scale model of the project fabricated by students of The Irwin S. Chanin School of Architecture

October 1–November 20, 2010
Curated by Ed Rawlings and Jim Walrod

Transportation planners have contemplated an expressway connecting the Holland Tunnel on the west side of Manhattan to the Manhattan and Williamsburg Bridges on the east side since the 1930s. Robert Moses, mastermind of hundreds of miles of highways around New York City, championed an elevated Lower Manhattan Expressway prior to World War II. Over the course of the project's life it took on different forms: an elevated highway, a depressed roadway below-grade, a cut-and-cover tunnel. It was and is a resilient idea that would see many lives.

In 1967 the Ford Foundation commissioned a study of the project by the architect Paul Rudolph. This study would continue through to 1972, and in 1974 it was published as *The Evolving City: Urban Design Proposals* by Ulrich Franzen and Paul Rudolph, with text by Peter Wolf.

In its final form, Rudolph's proposal calls for a series of large residential towers flanking the approaches to the Manhattan and Williamsburg Bridges to serve as gateways to the city. The elevated roadways of the expressway dive down from the bridges toward their intersection at Delancey and Chrystie Streets, at which point the roadway is below street level. A circular school and parking structure is located at the Manhattan Bridge approach. ...Here Rudolph is exploring a new scale and a new kind of development.
—From the text by Ed Rawlings and Jim Walrod

The Lower Manhattan Expressway project had never before been exhibited in its entirety. Rudolph's original model for the project no longer existed. Using Rudolph's sketches and photographs of the original model, School of Architecture students were part of a team that employed contemporary fabrication techniques to recreate the 1/32" scale model. The completed model, measuring thirty by seventeen feet was the centerpiece of the exhibition.

Landscapes of Extraction: The Collateral Damage of the Fossil Fuels Industries

Featuring the Photography of J Henry Fair
Presented by The Cooper Union Institute for Sustainable Design and The Irwin S. Chanin School of Architecture

January 20–March 1, 2011
Curated by Steven Hillyer and Sunnie Joh, with J Henry Fair

Since the beginning of the Industrial Revolution in the eighteenth century, the global population has increased exponentially, to about 6.9 billion, and continues to grow at a rate of about 78 million people per year. Along with this unprecedented growth comes greater impacts on both human social systems and the many ecosystems on earth, from microbial communities to biomes. The by-products and ecological damage associated with resource production and consumption are altering the geochemical conditions that have evolved synonymously with life. Increasing toxicity in air, water, soils and the nutrient stream are impacting not only the health of humans but also the health of the entire biological chain. The long-term consequences of these rapid environmental changes are not fully known, and the scientific community holds diverse views about the full extent of impact that this growing human population will ultimately bring. But the scientific community agrees that changes are in motion now and there will be adverse impacts across the social and ecological spectrums.

These rapidly changing global conditions have turned sustainability into one of the iconic issues of the 21st century. We now must ask ourselves if humanity can re-imagine and redesign its practices so the economy of the future will be one that does not waste the wealth of the planet but one that conserves and rebuilds it. Can the longstanding perception that caring for the environment lowers economic productivity be overcome by the realization that working with and investing in the environment is the way to build the foundation for the next great era of human progress?

The Cooper Union Institute for Sustainable Design's mission seeks to develop the cross-disciplinary knowledge and skills that architects, engineers and artists need to meet the challenges of creating a sustainable society; a society that prospers because its designed economic, social and engineering systems work in harmony with the ecological dynamics and resource limitations of the earth. This exhibition, which looks at some of the adverse impacts of our reliance on fossil fuels, is the first public exhibition of the Institute.
—From the Introduction by Kevin Bone,
Director, The Cooper Union Institute for Sustainable Design

Musikerhaus: Raimund Abraham

Presented by The Irwin S. Chanin School of Architecture

March 7–April 6, 2011
Curated by Steven Hillyer, with Kevin Bone and Roland Eckl

Raimund Abraham taught at Cooper for thirty-one years, during which time he developed a series of extraordinarily effective programs for the First-Year and the Fourth-Year Studios. Some were analytical, as in the Ledoux analysis, some were architectonic, some were urban and programmatic, but all were invested with his characteristic poetics of feeling and commitment to the most authentic of architectural languages striving to introduce the students to a world of forms beyond all styles; forms that related to the primal elements of the spatial world—earth, fire, air and water—all calibrated to the demands of the body, of human inhabitation and its making of places in, on and above the ground. This was a ground not simply conceived as a site or a figure, but a depth that asked to be plumbed in all its thickness and dimension.

There was no hiding the terror and the beauty of his approach, one that did not shy away from the primitive sublime brought about by the realization of the destructive character of human occupation, the apocalyptic sense of ending, tempered by the incessant urge to make a semi-permanent mark in space and time: an architecture.

—From the Preface by Anthony Vidler, Dean

All architecture is enigmatic and in this regard Raimund Abraham's Musikerhaus in Hombroich is no exception. Abraham was passionately involved with this building, and from this alone we may see it as the culmination of a trajectory that includes within its scope both the Austrian Cultural Forum and his own house in Oaxaca. In contrast with the others, however, this work is an unequivocal monument, although what, apart from the spirit of music, is being commemorated by its form is hard to say. The intention behind this rigorously geometric and tectonic composition remains opaque despite the fact that certain Euclidean tropes are patently in evidence, above all, a tilted cylinder with a circular canopy suspended above. This last assumes a particularly aerodynamic character by virtue of having a directional triangle excised out its surface together with a precise feathering of the circumferential cornice. Although this roof was initially envisaged as being built out of metal, it is now made of reinforced concrete; an all encompassing homogenous, modern material that has by now acquired an archaic affinity such as we find in the *béton brut* of La Tourette.

...This, then, by any standards, is a twenty-first century cult building, comparable to Rudolph Steiner's Goetheanum and Eric Mendelsohn's Einstein Tower. But is there not also here, lying beneath the ever-shifting shadow of its circular canopy, an aura which takes one back to the masonic visions of Claude Nicholas Ledoux? Needless to say, none of this was acknowledged as an intention, neither by the client nor by the architect. And so while the intention was to remain ambiguous, the whole would be brilliantly resolved as a structural tour de force and as a didactic exercise in solid geometry. Since it has yet to be finally furnished, we may use this occasion to reflect on Louis Kahn's contention that there are two moments when a work may be experienced in its true essence: first, when it is under construction, and second, when it is a ruin.

—From "Reflections on Musikerhaus," by Kenneth Frampton

On exhibit were construction documents by Atelier Raimund Abraham, digital prints of photographs by Raimund Abraham, construction photographs by Ute Langanky, models of the project on loan from the Insel Hombroicht Foundation and a model of the final design fabricated by Situ Studio and School of Architecture students.

Postcards From Under New York: Subterranean Travel in the Early Twentieth Century

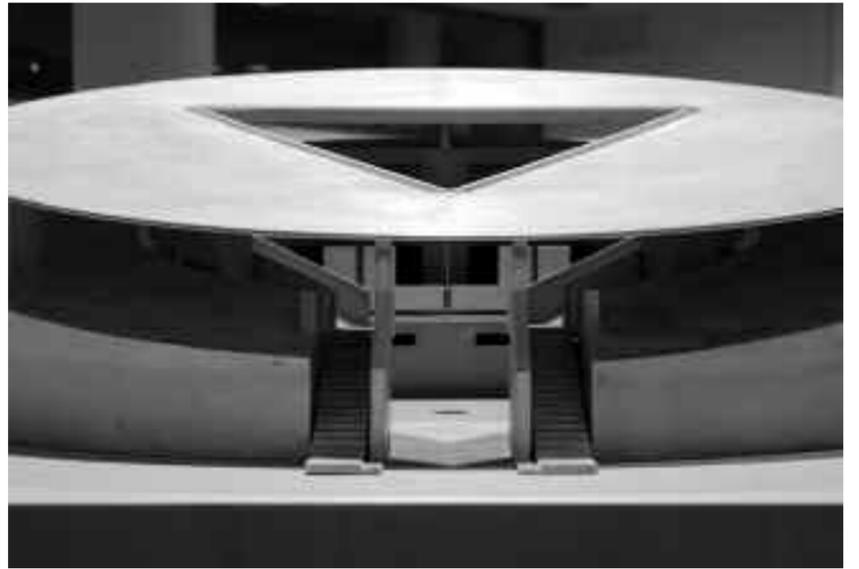
A Selection from the Architecture Archive's Joseph Covino Postcard Collection

September 7–October 15, 2010
The Irwin S. Chanin School of Architecture Hallway Gallery
Curated by Barb Choit

The exhibition consisted of thirty images selected from the Joseph Covino Postcard Collection. Each postcard depicts an underground view of the New York City transit system at the beginning of the Twentieth Century. As shown by stamp cancellations, as well as the postal rates recommended on the back of each card – one cent domestic, two cents international—the postcards in this exhibition can be dated to as early as 1906—two years after the subway system, then called Interborough Rapid Transit, officially opened to the public.

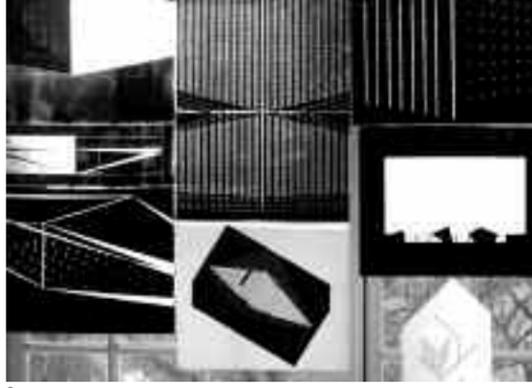
At the time, the move to underground travel in New York City was not only practical, as it eased above ground congestion, but was a modern innovation that stirred public sentiment. These postcards promoted underground travel as a New York City attraction, complete with tourists' inscriptions that convey an element of excitement. Some of these images acted as souvenirs to commemorate the opening of a specific structure or station, and might depict the construction process in itself.

This collection of postcards not only represents what was being built under New York City in the early Twentieth Century, but how it was being promoted and culturally received, and provides access to spaces and structures no longer open to the public.





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- 1 Architectonics, Fall
- 2 Architectonics, Spring
- 3 Architectonics, Fall
- 4 Architectonics, Spring

- 5 Architectonics, Fall
- 6 Descriptive Geometry, Fall
- 7 Design II, Fall

- 8 Freehand Drawing
- 9 Design II, Fall
- 10 Design II, Fall

STUDIO COURSES

FIRST YEAR

ARCHITECTONICS: FALL SEMESTER

Professor David Gersten
 Professor Aida Miron
 Professor Anthony Titus
 Professor Uri Wegman

"Creating new circuits in art means creating them in the brain too... the brain's a spatio-temporal volume: its up to art to trace through it the new paths open to us today."
 —Gilles Deleuze

1. Locate two film cameras in the studio: one on the East wall and one on the West wall. Start the film.
2. Tools of Drawing: Work with the tools of drawing to construct the following:
 - 1- Plan of the tools of drawing
 - 1- Section of the tools of drawing
 - 1- Plan and section of the tools of drawing capturing their motion as they draw themselves.
- 3A. Film the construction of assignment 2 from two station points.
- 3B. Construct a singular image from still frames extracted from each of the two films that captures the choreography of the instruments of drawing and the body as a spatial / temporal structure.
4. *A plan of a photograph, is a straight line?*
 Define a strategy, a theory of distance.
 Construct: Three critical vertical sections and three critical horizontal sections cutting through the singular photomontage constructed for [3B] as an artifact.
- 5A. Working with the drawings from [4], construct: one axonometric of the space of drawing contained within the photomontage.
- 5B. Clear a space, define a site, raise the roof beams and construct a horizon.
 Full class working together, construct: a frame / screen 96" H X 127.5" W built of 1.5" x 1.5" wood members located 15.75" o.c. in both the vertical and horizontal.
- From absorbing to projecting: Start the film.
- 6A. Mount the large photomontage on your drawing surface.
- 6B. Mount a surface of paper on each side of the grid.
 Mount two projectors at the locations of the two cameras.
START THE FILM. Continue to absorb footage with the cameras; at the end of each day add the day's footage to the projecting film.
7. Working with the vertical/horizontal sections and the axonometric of the photomontage, construct: two critical vertical sections and one critical horizontal section of the first year studio space.
8. Working together, construct the following drawings at full

scale: Three vertical sections cut through the clearing defined by the screen/grid. Two of these sections are cut parallel to the screen, one of the sections is to be constructed and assembled in alignment with the space/grid.
 9A. Working together, construct a horizontal frame/screen extending from both sides of the vertical frame/screen.
 9B. Working together, construct a plan located within each of the horizontal frame/screens
 10A. Working together as a class, each of 8 groups will propose an intervention within the site. These interventions are relational; they at once crystallize the existing conditions and propose architectonic responses to the site. Each individual is responsible to construct the following drawings of the group's intervention: one critical vertical section, one critical horizontal section, and one axonometric.
 11. Working together as a class, each of 8 groups will LOCATE A BODY OR BODIES within the site. Each intervention will 'create a situation' of inhabitation within the site. These interventions will be proposed within the site-specific plans, sections and constructions as well as in multiple drawings prepared by each group. Each individual is responsible to construct the following drawings of the group's intervention: one critical vertical section, one critical horizontal section, and one axonometric.

ARCHITECTONICS: SPRING SEMESTER

Professor Lebbeus Woods
 Professor Aida Miron
 Professor Anthony Titus
 Professor Uri Wegman

This semester we focused on the design of four Houses, which we term 'ideal' because each occupies a different elemental volume—cube, cylinder, cone, or pyramid—and each embodies a program of habitation based on a different natural element—earth, air, fire, or water. Furthermore, the inhabitants of each House are assumed to be 'ideal,' in the sense that they embody, for our purposes, only certain universal human characteristics, such as physical size, capabilities of movement, perception of their environment, and interaction with it. The site of each of the four Houses will also be ideal, meaning sloped or flat, horizontal or vertical, and will disregard any inherently idiosyncratic features. In the design of each House, equal emphasis will be placed on the interior and exterior of its volume. In taking this approach, we realize that these ideal types exist only as ideas, yet find these ideas useful in the laboratory of the design studio as a means of understanding the fundamental tectonic elements of architecture.

There is considerable historical precedent for our project. We find ideal architecture—of exactly the sort we are engaging—in examples from Vitruvius, through Alberti and Da Vinci,

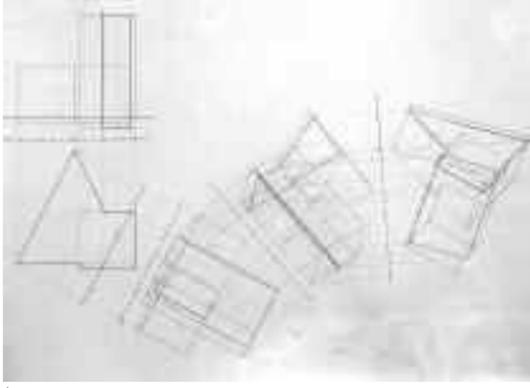
Ledoux, Semper, Taut and Le Corbusier, Archigram, up to the present in ideal projects by Hadid and Holl.

Method: We will arrive at the designs of the Four Ideal Houses by a series of steps or stages, working both individually and in four teams, one for each House. As the design of each House progresses, it will evolve from the ideal forms of its beginnings to the particular forms of its development and conclusion. If we assume, for example, that the House of earth has the form of a cube, we can expect that its 'earth-like' material stability will resist any changes made to the volume; yet, human inhabitation requires changes, for example in the need for openings for going in and out of the cube, and letting in light and air. This transformation will, in itself, be considered a next higher level of the ideal, in that it embodies a fundamental aspect—a continual evolution in time—of both the human and natural worlds.

Collaboration and teamwork: Each of us will approach this project with our own aspirations, our own ideals of architecture. It is crucial that, even when we work in a tightly knit team, we keep our own personal ideals and goals in mind. Teamwork is at its best when individuals who are clear about what they want to achieve collaborate. Collaboration is never a compromise of what each believes, but rather a reinforcement of the most important aspects of it by the similar ideas of other team members. Achieving successful design collaborations is one of our goals this semester.

Human scale: We will emphasize in our work this semester the attainment of human scale for our projects. Human scale in even uninhabited architecture is attained in two basic ways: 1) the presence of tectonic elements required by human use—stairs, windows, doors, and other elements that facilitate human use of spaces. 2) the presence of tectonic elements used to construct a building—its walls, ceilings, floors, and other elements defining and articulating spaces. Buildings are constructed of many parts and pieces put together by human beings, and the pieces are sized accordingly. Achieving human scale in our projects is one of our main goals this semester.

Ideal Houses: The conception and design of ideal houses realizes the highest hopes of their designers, giving form and structure to their aspirations for themselves, architecture and through its place in the broader scheme of things, the many people engaged by it. The truth is that ideal architecture in the sense that we speak of it here can be constructed in the real world and with real materials—indeed, it must be constructed. The final drawings and models of the four Houses will—if made with intelligence, passion, and courage—achieve the reality of ideals. This is our most important goal.



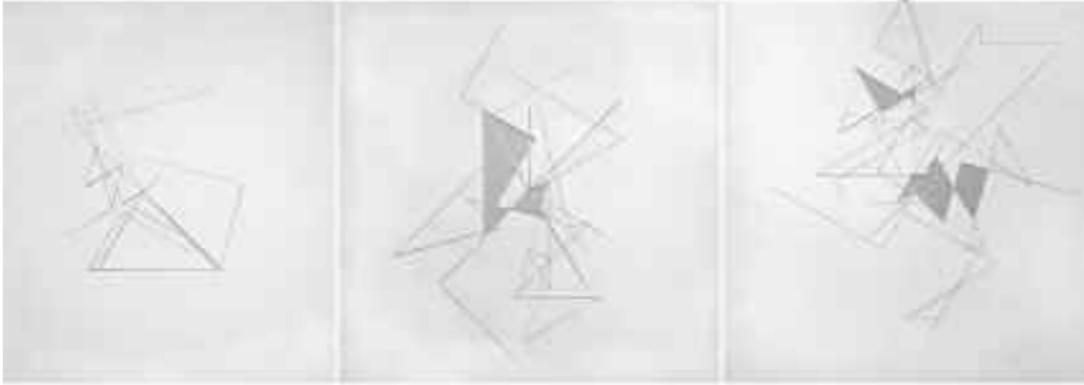
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FREEHAND DRAWING

Professor Michael Webb
Professor Jane Lea

Birds fly. Fish swim. Architects draw. It's as simple as that. The drawing is the medium through which the design, existing in the architect's mind as an inchoate jumble of thoughts and scraps of idea, both borrowed and original (mostly borrowed), gets precipitated on to the two dimensional surface of a sheet of paper. (here the word 'precipitated' is meant to be understood in its purely meteorological sense as: "atmospheric moisture condensed from water vapour by cooling and deposited as rain, dew etc.") And, in the act of precipitation, the idea becomes tangible, coherent and, above all, communicable, both to others and to the drawer. ...

It is that above-mentioned type of drawing, that magical transformation from the incorporeal to the corporeal, drawing's supreme act, which we would like to emphasize in this drawing course. This, then, is the 'course objective' ...and to have you produce a large amount of drawing; for if you feel intimidated, in the first few weeks of the course, ...fear not, through constant effort you will gradually come to master the art, not it you. At the outset you may well feel that the medium is in control of you; by the end you may sense a certain graphic self-confidence that defines mastery over the medium. Drawing then becomes sheer delight, a way of relaxing, even.

We want you to think of drawing, not only as a means of conveying an idea existing in your head or of an actual thing existing in space, but as a means of developing that idea or thing. There are other types of drawing architects make, for example, the presentation drawing which, these days, is almost exclusively digital. The design of the building-to-be has already been decided, for better or worse (usually worse), and the projection system chosen for these drawings is usually the perspective. ...Then there are construction drawings. The purpose here is supposedly to indicate to the contractor how the building is to be built. Supposedly... because, being forced to think of its fine detail, the whole as yet incorporeal building might need to be revised. So the design of a building is far from being a smooth transition from sketch to design drawing to construction drawing.

Drawing is an act of exploration. Success can only be achieved through trial, error, and a willingness to rework each piece. No first attempt is precious and, once that is accepted, the drawing will begin to take on a life of it's own and reveal new possibilities and potentials.

DESCRIPTIVE GEOMETRY AND COMPUTER APPLICATIONS: FALL SEMESTER

Professor Michael Young

"The plane known through its traces"

This course develops the student's knowledge and skill in architectural representation through a close examination of the geometric procedures that underlie representation. The students are encouraged to develop a critical and creative approach to understanding the relations between conceptions, perceptions, tools, and techniques.

In this course we explored the geometrical underpinnings of architectural representation. The course covered the Plane Geometries of Euclid, basic algorithmic procedures, Mongean Descriptive Geometry, Axonometric, Perspective and Projective Geometry. Simultaneously, research was opened into the relations between manual drawing and digital modeling. The coursework was documented in a series of notebooks that the students generated through weekly drawing assignments. These notebooks organize the material of the course into a document that the students will be able to continually reference throughout their architectural studies.

SECOND YEAR

DESIGN II: FALL SEMESTER

Professor Pablo Lorenzo-Eiroa
Professor Lydia Kallipoliti
Professor James Lowder

Towards Cartopological Space

The Design II studio critically revisited the contemporary potential for a formal architecture autonomy. Through the reconsideration of structure, the studio searched for strategies to redefine post-structuralist theories as a continuity of the previous structuralist ones.

Students studied the constitution of form through the development of the source codes and systems that striated them. These systems were displaced and their origin structures were reconsidered implementing different definitions of topology. This constituted the base for a structuring of form that considers the relevance of processes and relationships in systems and that ultimately constitute the basis of some problems in computation. Concepts of systems, parametric design and some of the questions that algorithms raise were discussed as students induced displacement to linear cognitive structures using topology and dynamic representation.

Structures and typologies were deconstructed through multiple definitions of topological displacements: topology as a way of resisting predetermination; topology as relative forces, or as

degree deformations displacing absolute categories; topology as the *topo* logos or the logic of the place; and ultimately non-Euclidean geometric topology of bi-continuous surface deformation that forces spatial continuum and activates spatial warping (Vidler). The enfolding of contemporary canons to revisit architecture limits, proposes the institution of a state of suspension that demands the recognition of a hybrid transitory space. Therefore, a space suspended between a potential *topological* surface-space and its absolute stable referential Cartesian coordinate system, was defined as *Cartopological*.

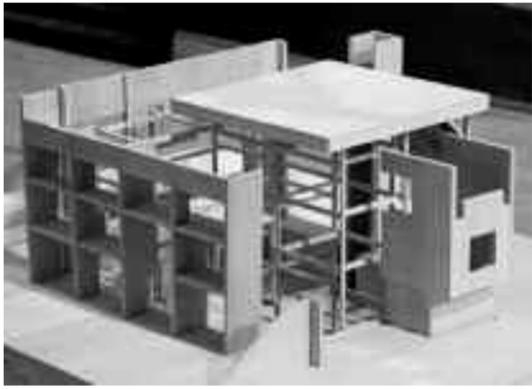
The studio developed an un-house for two individuals. Each student studied architectural language through the development of a conceptual and formal syntax. As a point of departure a parametric nine square grid vectorial frame-space was first described, then analyzed and displaced through topological transformations. Gradual variations were implemented to aim for a typological and structural transform-ation, critiquing the point of departure and its original type. Each student was asked to resolve an architectural syntax departing from an individual sensibility to develop a personal architecture vocabulary in the constitution of architecture systems.

First, the tectonics of a 30' x 30' x 30' Cartesian vectorial matrix was informed by the activation of a generative moment in representation, searching for a certain formal autonomy within each representational stage and interface used. Second, the site for the un-house was understood as an extension of the intrinsic relationships and ideas that the project develops establishing different strategies relative to its XYZ departing coordinates within a 90' x 90' x 90' Cartesian frame. Third, entrance and circulation activated subject-object relationships and experience. The presence of the body activated displacement to the organizational systems. Fourth, three distinct body positions were examined to acknowledge the presence of the inhabitant: vertical (public), sitting (semi-private) and horizontal (private). Fifth, the two inhabitants activated topological relationships in interior-exterior spatial relationships and dynamic programmatic crossed relationships activating spatial warping in the un-house. Finally, preliminary site decisions were challenged by a general group-site structure and its emerging adjoining conditions.

Each student worked with different media understanding the logic of each representational interface and aiming for the activation of a generative moment within each of these intermediary spaces, starting with hand drawings, different software based computer drawings, parametric surface transformations, and also physical performative experimental models and constructions.



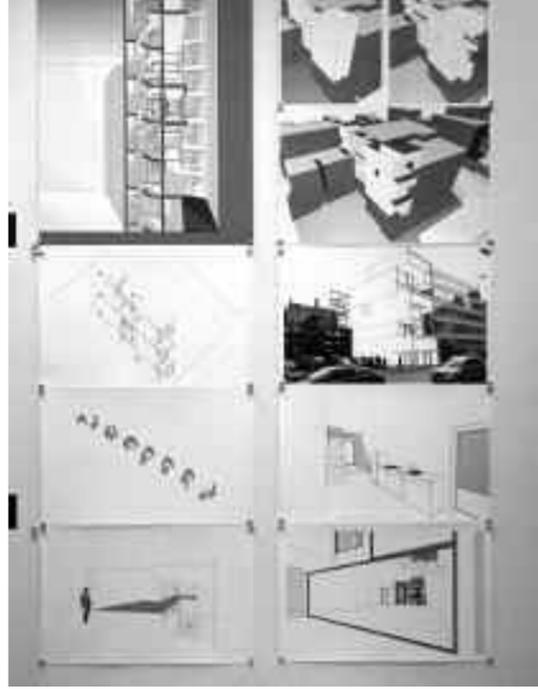
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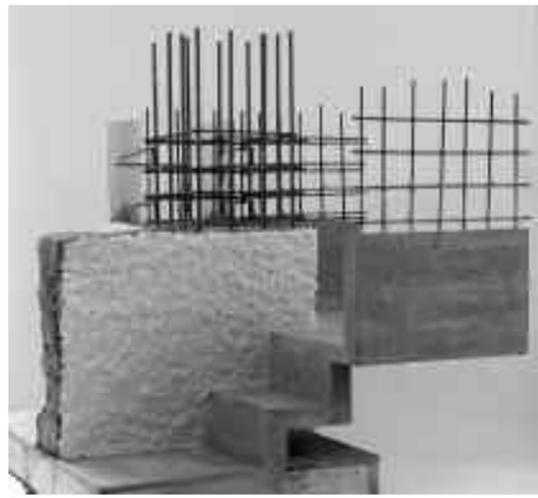
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- 1 Design II, Spring
- 2 Design II, Spring
- 3 Design III, Fall
- 4 Design III, Fall

- 5 Building Technology, Fall
- 6 Design III, Spring
- 7 Design III, Spring

- 8 Design III Spring
- 9 Design III, Spring
- 10 Design IV, Fall
- 11 Design IV, Fall

STUDIO COURSES

DESIGN II: SPRING SEMESTER

Professor Michael Young
Professor Lydia Kallipoliti
Professor James Lowder

ZOOM!

A key concern in the design of architecture is the control of dimension, scale and proportion. Scale and proportion can be conceived in the abstract as the geometric relations of part to whole, but this is to privilege only one understanding. Scale is also crucial in understanding relations of matter and force. All material has scalar properties that alter its potential assemblies. And, in the more intimate concerns of architectural inhabitation, scale affects how the body relates to the spaces and surfaces it inhabits and how people relate socially to each other through use and movement.

The Spring semester of the Design II studio addressed issues of architectural design through the analysis of architectural conditions at shifting scales. Specifically, the studio looked at twelve 20th century domestic projects, and twelve post-war chairs. Key themes focused on the relationships between body and structure: how physical structural systems converge and diverge from organizational structures; how the physical and visual movement of the body through circulation and perception reorganizes program into character and quality; how the body in direct contact with a surface can open an understanding of the dynamics of surface and structure.

Architectural representations require constant shifts of focus through different scales to fully develop an architectural proposition. These shifts effect both our graphic notations and our material fabrications. The students' analyses took on notational and material experiments to develop and extend their observations beyond the object toward the development of design sensibilities.

12 Houses | 20th Century | 1/4" & 1/8" Scale
Mueller House, Adolf Loos; Villa Mairea, Alvar Aalto; Maison Suspendue, Paul Nelson; Schminke House, Hans Scharoun; Casa Malaparte, Adalberto Libera and Curzio Malaparte; Eames House, Ray and Charles Eames; Fisher House, Louis Kahn; Miller House, Jose Oubrerrie; Antonio Carlos Siza House, Alvaro Siza; Villa Dall'Ava, Rem Koolhaas/OMA; Mobius House, UN Studio; Moriyama House, Ryue Nishizawa

12 Chairs | 1945-1955 | 1:1 Scale
Charles & Ray Eames, Jean Prouve, Carlo Mollino

THIRD YEAR

DESIGN III: FALL SEMESTER

Professor Stella Betts
Professor Lyn Rice
Professor Laila Seewang
Professor Anthony Vidler

Professor Sam Anderson
Professor Ashok Rajji

ARCHITECTURE IN DETAIL

During the span of this year, we studied architecture in detail. That is, architecture treated as a complete and synthetic design project, in depth and breadth, conceived as a material art. Our investigations ranged from analyses of existing or projected buildings to the design of parts and wholes of buildings for a range of different purposes, domestic and public. At intervals during both semesters, and with the help of visiting professors to the studio, the projects focused on particular aspects of the architectural synthesis, emphasizing context, human desires and spatial arrangements, environmental issues, technological needs, structural logics, and material assemblies. Architecture is the *art* of realizing in three dimensions, and in more or less durable materials, spaces for human habitation, in their appropriate ecological and sustainable form. A successful architectural *idea*—drawn or modeled, abstract or detailed—already contains the potential for this realization, anticipating the way in which organic and inorganic material will manifest the idea—in general and in detail. The *art* of architecture lies in the (apparently) effortless resolution of the complex demands of human occupation in natural and manmade environments, in order to produce spaces that poetically enhance the acts of life. This can be demonstrated in the simplest architectural act—that of opening up a wall to the light—and the most complex of architectural puzzles—that of distributing the public and private activities of a law courts, for example.

Reading: Aldo Rossi, *A Scientific Autobiography* (Cambridge, MA: MIT Press, 1981)

We studied Architecture in Detail through the lens of domestic space. Students were given three assignments, each looking at domestic space at a different scale and involving a distinct collection of spaces.

Assignment 1: two weeks

SMALL: Interior Domestic Space(s)

House/Apartment from Memory

As accurately as you are able, draw the house or apartment in which you lived as a child and remember best.

Assignment 2: three weeks

MEDIUM: Single Family Home

You will be given plans of a house without any windows, doors or a section. Your assignment will be to site the house on a given lot and design the section, interiors, and elevations. The clients are a couple (gallery owner + writer) with grown children who come to visit but do not live at home anymore. The property is on a flat hill with views of the Berkshire Mountains and the Valley below.

Assignment 3: ten weeks

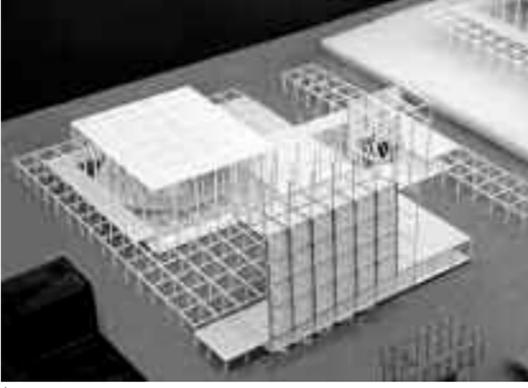
LARGE: Collective Habitat / Small Apartment Building

The building will include several units of varying sizes as well as a public program at the ground floor. You will analyze several sites in downtown Manhattan from which to choose the site for your building. The objective of this design problem is not to invent a new form of apartment living, but to work with, modify and transform typical distributions of attested quality.

Students were encouraged to critically examine means of representation, become familiar with traditional and newer techniques, document precedents of drawings or other media, and develop a unique or inventive method of your own. We explored different forms of analytical and representational drawing and modeling in three dimensions, using where useful the 3D plotter and the shop, as well as experimenting in bas-relief (compressed axonometric constructions and forced 3D perspectives).

Book of Drawings

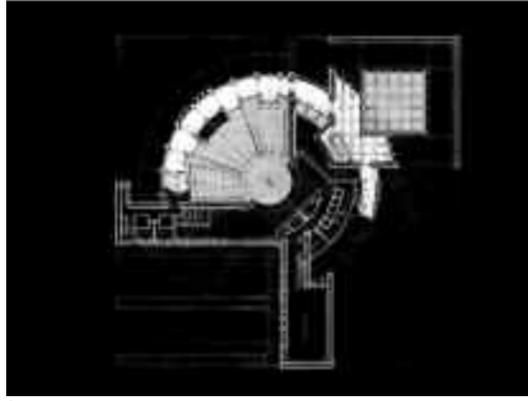
Throughout both semesters, we worked within a given paper size that can be used singularly or in multiple dimensions, but the base size is standard. Students keep a collection of their sketches, drawings, photographs and renderings in an 11" x 17" bound book that will constitute the Book of Architecture III as a complete and chronological record of investigations. All drawings—preliminary sketches, analytical studies, rough drafts, notes and annotations, finished and rendered drawings as well as digital drawings are kept for inclusion in the Book of the Semester.



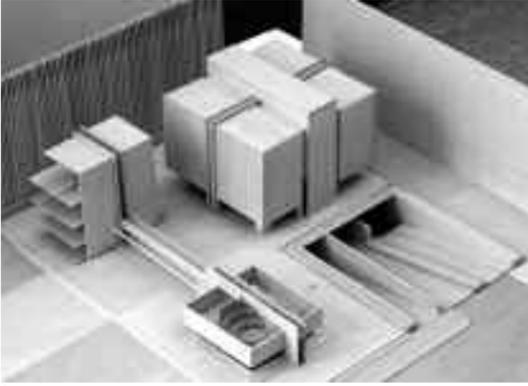
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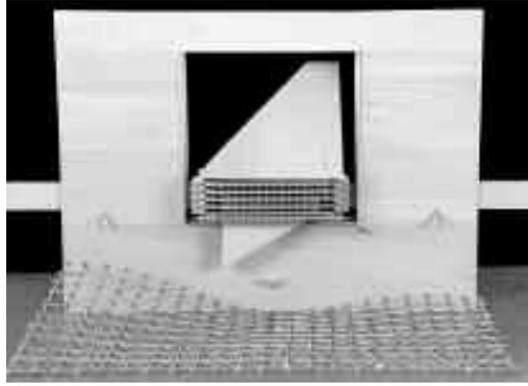
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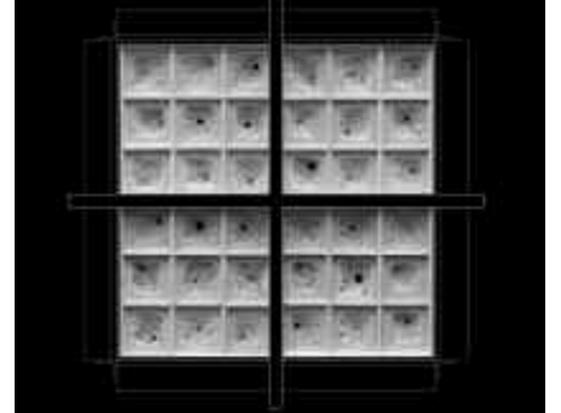
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BUILDING TECHNOLOGY: FALL SEMESTER

Professor Sam Anderson

The Half Scale Detail Project

During the fall semester, the class divides into groups of 3-4 students who select a specific detail from a significant work of architecture and study it closely. Using construction drawings, sketches, photographs, and other archival documentation, the students analyze the materials and assemblies chosen by the architect (Aalto, Calatrava, Dieste, Eames, Kahn, LeCorbusier, and others). The students then draw the detail at full scale (plans, sections, axonometrics), develop a fabrication strategy, and construct the detail at full or half scale. Authentic building materials are used, wherever possible. This exercise illuminates aspects of architectural thinking that smaller scale analyses may not reveal.

DESIGN III: SPRING SEMESTER

Professor Stephen Rustow
 Professor Stella Betts
 Professor Lyn Rice
 Professor Laila Seewang

Professor Sam Anderson
 Professor Ashok Raiji

In the Spring semester the Third Year Studio was organized around an exploration of theatrical performance spaces. The semester began with an intensive analysis problem in which a diverse set of fifteen existing performance spaces, from Epidaurus to the Fun Palace, were documented and compared as references. Drawing on this compendium of audience/stage relationships, the students were then asked to analyze three Manhattan sites—on Theater Alley, the Sanitation Pier at Gansevoort Street and at Lincoln Center—to prepare to work with a program to include two distinct performance spaces within a larger complex with substantial secondary and support space, a total of approximately 45,000 square feet. Studio work was supplemented by a guided visit to the theaters at BAM and a series of lectures covering site and program analysis, structural concept design, and the development of building envelope integrating materials, building systems and climactic performance criteria. At mid-semester students also chose three plays to read from a selection of six as a way of developing a diverse set of references for understanding the demands of text on space.

The pedagogical objectives of the course are focused on the continuing development of students' design skills with problems of increasing complexity that require the integration of supporting contextual material, including site issues, program constraints, technical and regulatory considerations.

FOURTH YEAR

DESIGN IV: FALL SEMESTER

Professor Diane Lewis
 Professor Peter Schubert
 Professor Mersiha Veledar
 Professor Calvin Tsao
 Professor Daniel Meridor

"AUTONOMIES" —
 & SPATIALIZMO:
 a study of principles derived in the work of Lucio Fontana

A project for the architecture of the city—
 in five autonomous phases.

PHASE ONE AND TWO:
 ELEMENTS AND 30-FOOT CUBE PAVILION

SELECT FOUR VARIABLES: The project began with four boxes of paper slips each describing a condition of:

STRUCTURE, ENTRY, PROGRAM, LIGHT SOURCE.

Each participant selected a piece of paper from each of the boxes as a series of conditions that had to be integrated to design an implicit or explicit condition of a 30-foot cubic pavilion.

The drawing set to describe this structure were done at one half inch equals one foot. The model was constructed at one-quarter inch equals one foot. The lexicon of elements including stairs, ramps, entry elements, light elements, and structural elements was drawn at either scale.

PHASE THREE:
 ESTABLISH THE CITY: SITE / TEXT

A site was selected from a box of site plans. The site was to be studied at a minimum of two different eras in its morphology. Site plans and sections at 1/16 inch and 1/32nd inch equal one foot were created, and corresponding site models were created.

PHASE FOUR:
 POSITION THE 30-FOOT CUBE PAVILION AT STREET LEVEL

PHASE FIVE:
 SELECT ANOTHER CONDITION FOR MASSING TO
 COMPLIMENT 30-FOOT CUBE PAVILION.
 PERIMETER BLOCK, PILOTIS TOWER, TOWER ON STREET,
 PILOTIS SLAB OR SLAB AT STREET.

With Mass and the Pavilion positioned, the entire site can be re-read for civic and domestic program inclusive of considerations of surrounding existing fabric, and site morphology at every elevation of the tectonic city landscape.

The principles of Fontana's Spatialismo were studied throughout. Each participant selected a Fontana text and maintained a development of their understanding of that study throughout the project.

The project can be examined in each and every element in equal weight—from the structural elements to the light elements, stairs, the pavilion, site work, or massing—each element is an autonomous identity in the civic space and memory.

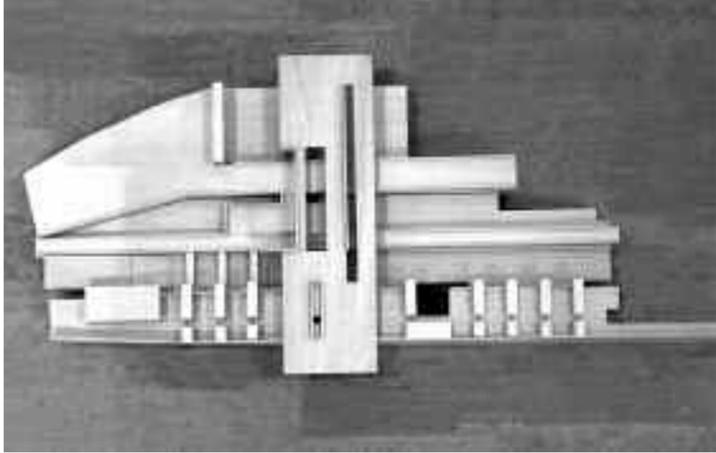
DESIGN IV: SPRING SEMESTER

Professor Guido Zuliani
 Professor Pablo Lorenzo-Eiroa
 Professor Mersiha Veledar

The City, as architecture, is the form that the mutual relations between all its parts assume at a certain moment in time. In this sense, the City cannot be understood as the simple accumulation of discrete artifacts and singular events, but as the articulated ensemble of the relations that each establishes with the others and with the whole. The City emerges therefore as the result of the relations continuously constructed between, for instance, public spaces and private dwellings, systems of infrastructures and single institutions, between implementation of mobility and permanent features ordering urban life. Among all, the relations between the imagery of nature and the production of the built environment and the ones between the specificity of a *locus* and the general character of the concepts that constitute a discipline, hold a particular place within the practice of architecture.

Based on this premise, the Design IV spring semester studio focuses primarily on the definition and investigation of the relations that tie an urban site and the forms of its descriptions, to the process of delineation of the architectural intervention. The exercise begins with the exploration of two topical conditions summarized by the two concepts of *City of Ground* and *City of Sky*. The aim is the understanding of the particular nature of these primary contexts in an urban setting and the definition of paradigmatic architectural representations able to reference the principles of future interventions.

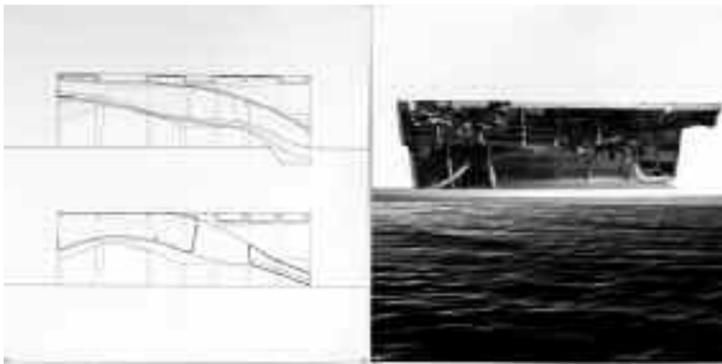
For the design phase, a frame of 260' by 520' is assumed to delimit the site for the intervention. The minor north-south axis is positioned on the axis defined by the eastern wall of Central Park and the built side of 5th Avenue. A specific site is then chosen by each student along the eastern edge of Central Park.



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- 1 Design IV, Spring
- 2 Design IV, Spring
- 3 Thesis, Hearth
- 4 Thesis, Fall

- 5 Thesis, Dead Sea Settlements
- 6 Thesis, State
- 7 Thesis, American Monuments

STUDIO COURSES

In the development of the design, the site is assumed to be an intrinsic component of the project. Its identity is constructed, and represented by means of drawings and models, in terms of the dialectic between its autonomous finite configuration determined by the imposition of the 260' by 520' frame onto the city fabric, and the identities that the individual elements of the morphology of the framed site are to acquire when considered within the topological field of latent relations at a larger scale.

The site configurations emerging from such a dialectic, to all intents and purposes already morphological and conceptual elements of the project, constitute the concrete figurative environment to which the design will respond and within which it will take shape.

The strict figurative integration and conceptual continuity between site and intervention directs the programmatic concern of the project toward the definition of an urban public institution, where its public nature should reverberate with the nature of Central Park understood as a *public building* and with the public space of the *promenade* along its perimeter.

FIFTH YEAR

THESIS: FALL AND SPRING SEMESTER

Professor David Turnbull
 Professor Urtzi Grau
 Professor Hayley Eber

It is clear that many of the dependable certainties, the ethical assumptions, and foundational principles that might guide a young Architect as they shape their future, and plan their individual or collective form of practice, have been profoundly shaken by current events, geo-political and environmental traumas, radical and not so radical social transformations, catastrophic technological failures, technological 'miracles' and unprecedented change, good and bad.

There is a credible atmosphere of 'struggle' in the air, renewed and reinforced everyday... many of our colleagues are justifiably concerned that they cannot find any way of engaging adequately with the uncertainty that these changes induce. Heretical whispers, the scandalous manipulation of the truth, the construction of elaborate hoaxes, phony wars, phony politics and phony architecture create a milieu in which lies are confused with integrity, and an honest, serious engagement with difficult issues is almost impossible. Add to this the near impossibility of 'employment' in any satisfactory situation after graduation and it becomes even clearer that constructing a 'thesis' in an architecture school will be hard, if not pointless. The obligation of intelligent thought and action is more open to criticism than ever. Cynical reason

haunts the discipline. Cynicism, opportunism and a tragic entropic infantilism have driven Architecture (with a big A) into a corner.

In this context we have to be grateful for many things—the abundant spirit and enthusiasm of our students, the profound OPTIMISM that they embody, everyday, and their incredible fortitude. They are hunting, searching for new possibilities for practice in a world where the guidelines, the sign-posts, the guides, the leaders, the mentors, the heroes, have either vanished or have been exposed, revealed as chimeras or as phantoms, unreliable, and untrustworthy. Our students face incredible uncertainty, but they confront it, boldly—they are not timid, they are strong.

The Cooper Union has never been a place where 'anything goes', but it has always been a special place, a secure place where creative freedom is supported, encouraged, stimulated, and where speculative thought and imagination has been directed inward, within the discipline of Architecture, and outward, to the World, simultaneously. The Thesis year allows our students to be strong, but also, to be secure. We insist that real speculative thought, and inventive design can only take place in surroundings that are protective. The School of Architecture used to be described as a sanctuary. In the World, such places are now rare, precious and more necessary than ever. But, it is apparent that the desire for sanctuary can no longer be understood as a symptom of the desire to escape from the world. Rather, the sanctuary has to be conceived as a protected place that provides a protected vantage point, from which a thorough engagement with contemporary realities can be conducted. In this place the studio is both mirror and lens, the work of the studio is both reflexive and projective.

Periods of economic decline and geo-political instability have always provided the circumstances for disciplinary reformulation. This year has been exceptional in this regard. It is no accident that the work this year is strange. The work is strikingly personal, and provocative...at times, perplexing, but always purposeful. As critics we hold up a mirror to the students, reflecting back their thoughts, their hopes and dreams. They hold up a mirror to themselves, to the city, their homes, the World. For these speculative realists, looking through the mirror, there are revelations... at times like these revelations are necessary. Are these revelations 'architectural'? Perhaps. Is this speculative realism 'Architecture'? Perhaps it is... a reflexive relational architecture (with a small a), that is aggregated at multiple scales, distributed, clustered, concentrated and diffuse, magical. To make architecture like this the architect adopts the identities of the ethnologist, the anthropologist, technologist, detective, historian... simultaneously, multiple

faces, not one and never two. Under-cover the architect is free to act on and in reality.

This year there is no parametric design. There are no decorative cover-ups, just RAW architecture.

Thesis Proposals:

THE FRAGILE HOUSE. The project begins with the building of a house as a still life, nature morta, a three-dimensional paradise that is fabricated to become a two-dimensional transfer: the still life decays while giving birth to a house. I have chosen the Spanish Desert as the site for the architectural interventions with the intent of making use of fragility as structure and way of life.

"Never let us forget that Faith alone supports it, and that, if Faith fails, Heaven is lost. The equilibrium is visibly delicate beyond the line of safety; danger lurks in every stone."
 —John Hejduk

GROW A HOUSE, GROW A CITY. Caracas needs 600,000 low-income homes within the next five years, and the shortage is expected to reach 1.5 million homes by 2020. The poor have self-built housing solutions while faced with difficult geologic conditions such as mudslides and earthquakes that undermine their ability to overcome poverty. Safe government built vertical sites, equipped with plumbing, electricity, communications, and transportation, allow families to self-build homes, businesses, and community services over time into the 30 foot bays of the structure. The project calls upon the transfer of knowledge across the formal and informal divide through the construction workers, which traditionally build the formal city while living in the informal city.

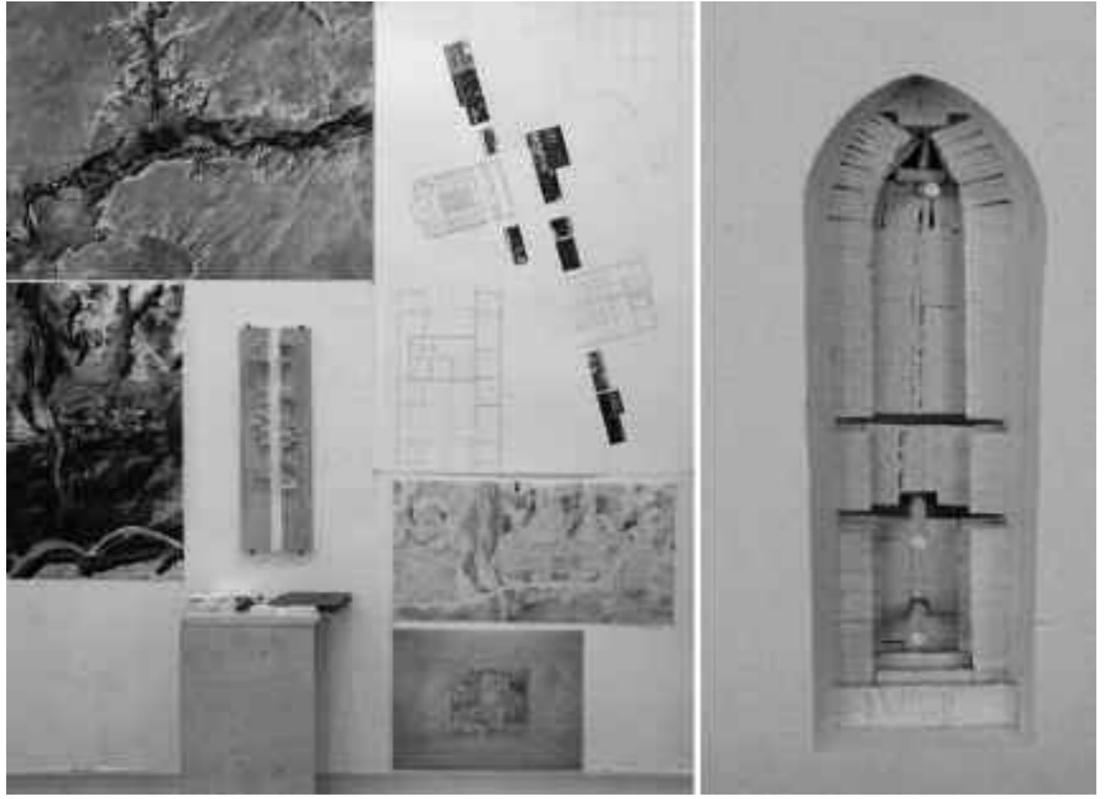
HEARTH is a mobile bread oven that serves as a platform for events sited in the community gardens and parks of New York City that range from bread making demonstrations to the distribution/collection of recipes submitted by event participants. HEARTH embodies the spirit of the communal oven but is adapted to exist in the urban environment. HEARTH travels by bicycle and uses wood collected from event sites as its fuel source. A series of work surfaces unfold from the oven that facilitate in the process of demonstration and promote an engaged and informative public space.



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My thesis is a proposal for a series of prototypical settlements around the shores of the Dead Sea, delineating a path around it. These prototypes, in the form of road stations for both transient travelers and permanent dwellers, integrate wastewater treatment into domestic and public facilities. All the water used on the premises is treated by the use of plants in constructed wetlands and lagoons and released into the sea so as to replenish its declining water level.

Camoës Garden + North Area = A New Macau. Like many other Asian cities, Macau is on the cusp of great change. In the North Area of Macau Peninsula, the answer to this need for development has been generic housing blocks, which deny the specific history and culture of Macau. My proposal gives an alternative to Macau, by having the 125m x 125m block while also grafting the urban fabric of Camoës Garden, an older area of Macau. In doing this, the isolating nature of these blocks is broken and continuity is created with the smaller sub streets, while at the same time maintaining the density of an enclosed housing block.

A person's engagement or interaction with an architectural space can crystallize in theater or performance. This can occur from the point of view of a player playing or an audience member viewing. If there is no disconnect between the theater and the play this unity can be achieved. The theater and the play can exist as one entity, founded at the moment of performance. My project has this intention. By at once writing a play and designing a theater, every aspect of the work has become dependent on every other, rendering it a singular work.

Society's use of technology and digital media is not only changing our understanding of space, but the way we expect to experience it. The demands of architecture are shifting and the embodied experience of it is getting lost. Looking at patternmaking, the goal was to understand the translation process in which the body's dimensions as well as the three-dimensional information of a garment can coexist on the same plane. While it contains the body's information and affects the human form directly, the garment's also has potential to transcend the body and transform our understanding of space. I chose the New York Public Library and Bryant Park as a site to examine how a technologically embedded garment could change the limits of a library. The garment can offer a new interface that can radically alter the experience of the library.

THIS IS NOT A SINKHOLE, IT IS A PIPE. In 2007 and 2010, two 64' wide by 250' deep "sink-holes" formed in Guatemala City. These two points formed a mile-long line parallel to a major expressway. Both holes formed because of a broken black-water pipe in the pumice layer. The controversial notion that these are man-made piping features and not sinkholes, is

radicalized by the corrupted socio-political conditions in Guatemala. Each hole will be perceived as a cenote for a stabilizing water cistern. A tower as high as the cenote is deep would stand adjacent to each hole to house three programs: a leech field system using pumice to purify water, facilities for the San Carlos University School for Engineering, public civic spaces. As new holes are anticipated to form, each tower would participate in a growing and recognizable network of communicable structures that subverts the government's ambivalence to the city's health, and that captivates public imagination.

Playing Ball and Popping Bubbles: Spatial Provocation through Spheres and Pneumatics. From the beginning of pneumatic architecture in Boullée's Cenotaph and Montgolfier's balloons, the theme of spatial provocation through spheres and bubbles has been given breath. Experimental architects and artists in the 1960s and 1970s deviated from structural norms and questioned modernist theory; as a result, provocative pneumatic architecture and spherical art works thrived. These ideas are reappearing in new forms. If the return of bubbles and balls in art and architecture are any indication of our current cultural climate, then we are floating on the surface of a new conception of space.

State. As we continue to encode our thoughts and actions digitally we lack an intuition for observing the record of our output. Empirically, data has dimensions in the same way that space does, but we rarely understand the equivalency. In the pursuit of the universal exchange of information we no longer occupy a site in the traditional sense. We each occupy and possess a state and create sites of varying size and duration. Our ability to transmit and correlate these states is dependent on a consistent set of tools and structures that appeal to our intuition. Our position is similar to the builders standing in the desert thousands of years ago struggling to give consistent form to communal rites and exchange.

On the Art of Building Without a Book On Purification. The expanded definition of architecture that developed in the late 20th and early 21st century that "architecture is everything," is detrimental to architecture itself. The attempt to redefine what architecture is and can be has resulted in a nebulous conception of architecture whose physical manifestation has proven equally as indefinite as that from which it came. Instead, architecture can still be the *art of building*, a return to the immutable constituents, their relationships with each other, and an individual's relationship to them. The project is a bathhouse. It is a sincere attempt to implement material understanding with a program of elutriation.

Nepantla: The Middle Territories of Similarity. Our understanding of reality is constructed through our own translation of images, language, and experience. The first marker placed on the Mexican-American border was a loose mound of stones. Next came a string of obelisks, then a wall of steel. The way the border is marked shows in the image of what it asserts. In order to torch open doors through the physical and mental walls, which separate identity into polar difference—from the past into the future—we must first step beyond the line in both directions towards the infinite territories of similarity. To move this borderline to borderland we must erase the line and draw it open, again and forever more.

Tree and Well—Small London. Guabuliga, a small village of the West Mamprusi District of Northern Ghana has renamed itself Small London predicated on its participation in the global market and the volume of those who have left in search of education and enterprise. The villages are left with fragments of local, national and international systems at play. The thesis attempts to catalog the residual influences, which have generated a heterochronic settlement and places them alongside personal research and experimentation with local materials in Ghana in attempts to find an entrance point to African development that avoids issues of NGO-isms and humanitarian intervention made without proper understanding of the very local equilibrium. The village serves as a lesson in listening and the sensitivity that is necessary for meaningful interactions between architect and client, between architect and environment, between architect and material. A new methodology of interaction is proposed.

American monuments have unfixed meaning and are informed by media, history, and conflicting narratives. The monument is part of the American collective unconscious and is represented in the project through an archipelago of models. These objects and dissections of icons led to the design of four spaces that investigate American memory and contradiction. Located in an apocryphal town called Kodi, the four collaged spaces- the baker/butcher/convenience store, the petro glyph/uranium mine, the Mission/Mormon Church, and the internment camp/reservation, make monuments out of complex and sometimes turbulent histories. The series of models, including the four proposals, represent the Hall of Record, and examine the idea of the index, the relationship between the souvenir and the monumental, and the hand-held and architectural scale.

9 SQUARE PROBLEM

1ST YEAR.

THE 9 SQUARE PROBLEM IS USED AS A DIDACTIC TOOL FOR THE INTRODUCTION OF ARCHITECTURE TO INCOMING STUDENTS.

AN INTERESTING FACTOR IS THAT THE 9 SQUARE PROBLEM HAS BEEN USED BY DIFFERENT INSTRUCTORS WHOM HAVE ADAPTED IT TO THEIR OWN TEACHING METHODOLOGY. THE PROBLEM HAS GONE THROUGH A NUMBER OF EVOLUTIONS AND METAMORPHISIS; YET HAS RETAINED ITS ESSENTIAL CHARACTERISTICS. FROM NOCKING WITHIN THE PROBLEM THE STUDENT BEGINS TO UNDERSTAND A VOCABULARY OF ARCHITECTURE. HE BEGINS TO PROBE THE MEANING OF PLAN, SECTION, ELEVATION, AND DETAILS. HE LEARNS TO DRAW WITH AN IMPERCEPTIBLE OURENESS. HE BEGINS TO COMPREHEND THE RELATIONSHIPS ESTABLISHED BETWEEN TWO-DIMENSIONAL PROJECTIONS AND ISOMETRIC PROJECTION; ALONG WITH THE TRANSLATION OF SYSTEMS INTO THREE-DIMENSIONAL MODEL FORM. THE MODELS ARE BUILT WITH A PRECISION OF FINE CRAFTSMANSHIP.

THE STUDENT STUDIES AND DRAWS HIS SCHEMA IN PLAN, IN ISOMETRIC AND SEARCHES OUT THE THREE-DIMENSIONAL IMPLICATIONS IN THE MODEL. A UNDERSTANDING OF ELEMENTS IN THEIR PRIMARY ESSENCES IS REVEALED; THE IDEA OF FABRICATION ETHOS.

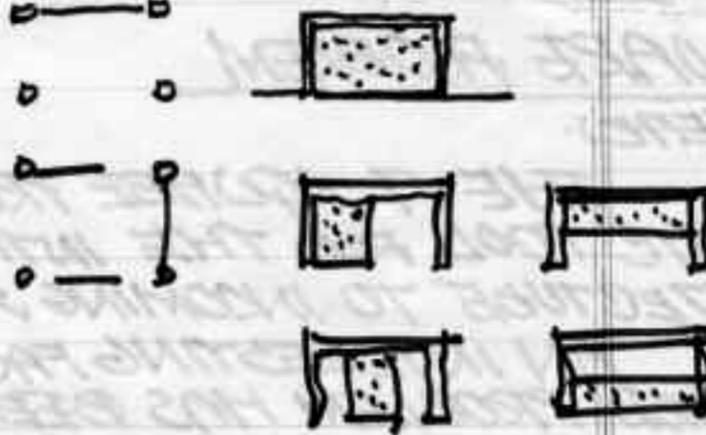
GRID, FRAME, POST, BEAM, PANEL, INFILL, MEASUREMENT, NUMBER, BLACK, WHITE, GRAY, CENTER, PERIPHERY, FIELD, EDGE, BUTT, INTERLOCK, COMPRESSION, TENSION, EXTENSION, ARE BUT A FEW OF THE GENERATORS WHICH MAKE FOR DISCOVERY.

THE FOLLOWING IS A GRAPHIC DESCRIPTION OF SOME OF THE INGREDIENTS AND A LIST OF SOME OF THE PROBLEMS BUILT INTO THE MAJOR PROBLEM. THE LISTING IS THE IDEAL SET UP OF PROBLEM

THE STUDENT PREPARES THE MATERIAL HE WILL BE EXACTLY WORKING FROM AND WITH.

THROUGHOUT THE FIRST YEAR. 1. 1/4" SCALE PLAN OF 9 SQUARE PROBLEM. 2. 1/4" ISOMETRIC, 3 1/4" BASE MODEL. 4. 1/4" PANEL INFILLS. HE PROCEEDS THROUGH A SERIES OF EXERCISES RELATIVE TO THE VERTICAL PLANE AND THEN TO THE HORIZONTAL PLANE RAMIFICATIONS

1. FULL PANEL.
2. HALF PANEL



3 FULL + HALF PANEL



4 CURVED PANEL



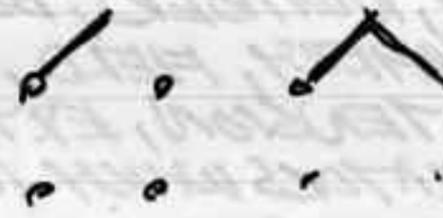
5 CURVED + FULL



6 CURVED + FULL + HALF



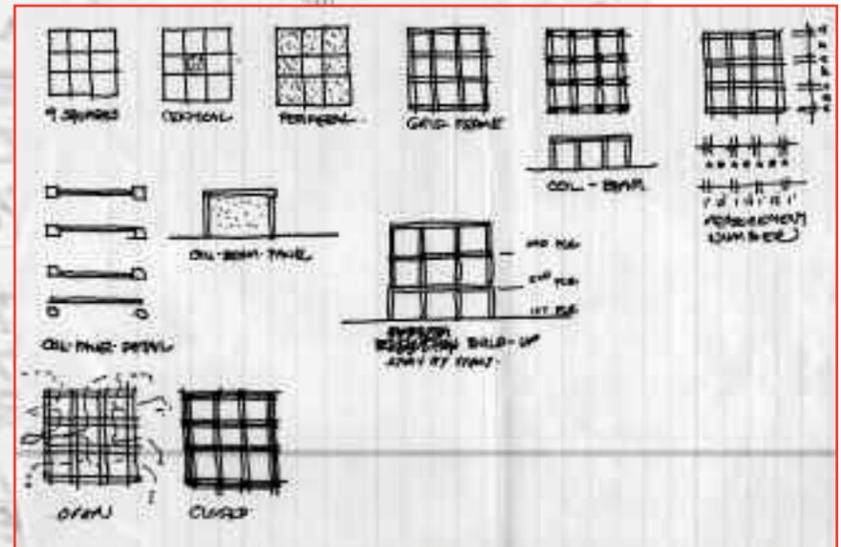
7 ANGLE



8 ANGLE + FULL

9 ANGLE + FULL + HALF

10 ANGLE + FULL + HALF + CURVE





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- 1 Thesis, Stereographic Architecture
- 2 Thesis, The Fragile House
- 3 Thesis: Terroir at the Salton Sea
- 4 MArch II Design Research Studio, Fall

- 5 MArch II Design Research Studio, Spring
- 6 MArch II Design Research Studio, Fall

- 7 MArch II Design Research Studio, Spring
- 8 MArch II Design Research Studio, Spring

POST-PROFESSIONAL GRADUATE DEGREE

MASTERS OF ARCHITECTURE II

PRO-SEMINAR: FALL SEMESTER

Professor David Turnbull

THE ATMOSPHERE OF A QUESTION

The purpose of the pro-seminar is simply to stimulate thought and to explore the ways that these thoughts might be communicated, verbally and visually, enriched by research, and represented. Much of the discussion during the semester addresses issues that appear to be outside architecture—the flight patterns of bees, the production of Honey, the shape of a bottle, Beer, slide guitar technique, jewels (a grandmother's ring), radio-frequency identification (RFID), AC & DC, ice, plastic, a date, an encounter (in a Japanese restaurant), the flight paths of lovers, the cross-section of a pomegranate, children's stories, Homer, Mice.

Readings are taken from ADILKNO, Bateson, Guattari, Latour, Serres, Sloterdijk, and time is spent on the roof of the Foundation building, breathing, and looking (at the sky, not the city). Echoes of Bataille, ACHEPHALE, Spoerri, Dubuffet, FLUXUS, Debord, McHale, East Village Poets, Tantra and OuLiPo are enlisted to confound and confuse, partly because we are where we are, and partly because the end-game of confusion is the pursuit of clarity.

Chinese loam, French water, and Apples are served up as topics that allow a discussion of networks and ecologies, and their interdependence. The life-styles of bees, the digestive tracts of worms, and the feeding habits of orcas enlarge and politicize this discussion. The skilled use of a bottle-neck on the finger of the slide guitar player provides a way in to a conversation about liminality, and fuzziness. Like Charlotte Perriand who brought 'things' into the office at the Rue De Sevres, the students bring some-thing into the seminar each week. They talk, they write and they draw.

The real purpose of the pro-seminar is each student identifies a question. A question that has depth and direction; in the final few weeks this is declared, drawn and its borders, however fuzzy, are designed.

Becoming Hydrophilic—Breathing. The space of inhabitation is conditioned to being hydrophobic, sheltered from the elements. The hydrophilic wall provides a tangible mediation between space, atmosphere, and environment. The wall is no longer a barrier and becomes the joint that articulates the kinship between humanity and water. The wall retains an amount of water for a period of time to allow individuals to extract from it for the needs of life: drinking, bathing, cooking. Overtime the wall dries and re-saturates, contracting and expanding to changes in the environment. Prolonging the presence of water invites and sustains life. A hydrophilic wall perpetually articulates the capabilities of co-habitation with water that is not equal and separate but, symbiotic.

A NEBULAR WRAPPED INSIDE A DYING STAR. An attempt to unify the site-less space of the imagination in an existing condition of objects/structures. Reacting to the contradictions of juxtaposing two things that have a difference in history. A cut in the earth as a surgical fascination.

ENTRY
PATH
CITY

The site is the island of Jersey between France and the UK. The nodes are three bunkers of the Atlantic Wall read under the new conditions of wind power. The structures are reprogrammed to become a center or institution for wind. Removing the entropic forces of war one can channel electricity through a gaze of destruction.

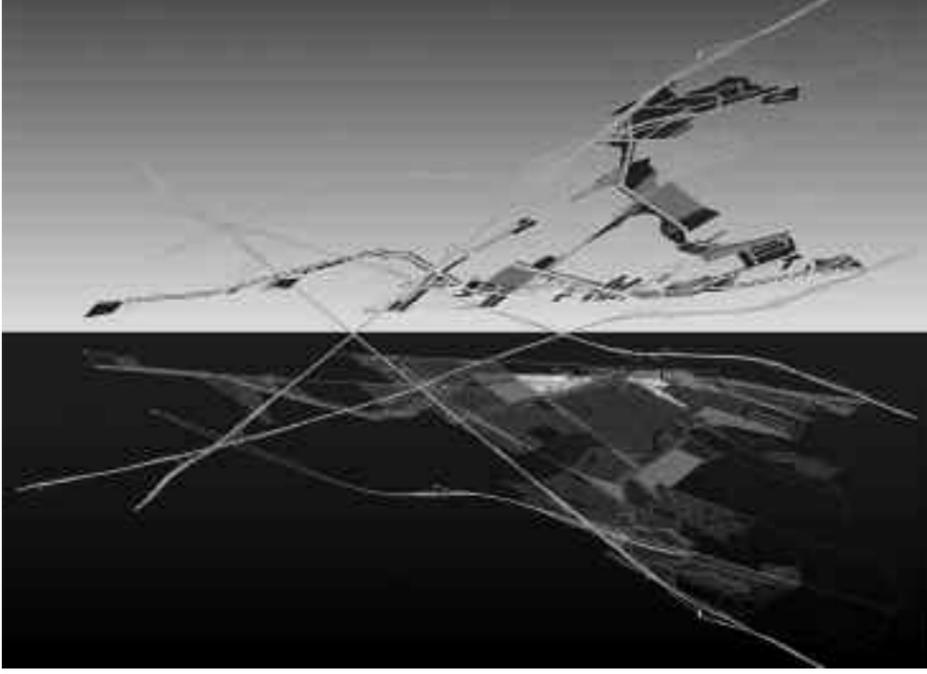
Stereographic Architecture. My thesis experiments with the way architects see and represent space, and the notation of space in drawings to make volumetric results. Since the Renaissance, architects have effectively used the Cartesian grid to develop perspectival representational drawings on a 2-dimensional surface, stimulating an understanding of our 3-dimensional world. With our current technologies and digital tools, how are we as architects today able to articulate the possibilities of what we can see? How can we further our investigation of space to present the overlapping dimensions of our bifocal existence by new means of drawing? Through a series of experiments in anaglyph form, I aim to stimulate and rewrite what a 2-dimensional surface can offer in the way we see architecture.

Air. There is perhaps nothing as elemental to living as air. Air creates motion and sustains life; without it, everything is still. Be it a whisper or a gust, it has the ability to transform the ethereal into the visual and the visceral. What if the effect of force on a building was as predictable or unpredictable as air on material? We could start to envision how buildings and cities might react in response to the specifications of both their location and function. In the end, the goal of this project is to build a program of form, material and performance.

Capsules. Since small spaces can afford mobility, these units are able to plug into any series of programs: aerial trams transport us from one side of the river to another, elevators bring us to different datums, and Ferris wheels rotate us to a voyeuristic height. However, instead of focusing on capsules as a mode of transportation, I wanted to define them as a space of place. The site chosen is on the shores of Roosevelt Island, facing the major hospital blocks on the Manhattan waterfront between 68th and 72nd Street. The program is a hospice for palliative care and consequently the capsules are for the patients to inhabit. The capsules float in the water, plugging into any five of the available programs: the hospice, the emotional and financial counselors, the congregation, the marketplace, the church. Each program represents an infrastructure that extends its docking piers to the capsules.

Terroir at the Salton Sea. Chinampa: method of ancient Mesoamerican agriculture, which used small, rectangle-shaped areas of fertile arable land to grow crops on shallow lakebeds. Trajinera: buoyant structure used for transportation and trade within calm and shallow waters. Terroir: the special characteristics that the geography, geology, and climate of a certain place bestowed upon particular varieties of plants. Agricultural sites in the Salton Sea share similar soil, weather conditions, and farming techniques, which all contribute to the unique qualities of the crop. Architecture is the cultivation of space. I choose the word CULTIVAR to represent the function and form of my project. It is a Spanish verb meaning to cultivate and grow, and an English noun denoting a plant variety selected for desirable characteristics within a hierarchy maintained by propagation.

This thesis is a project in two parts. First, is a critique of the museum as a receptacle of the aesthetic treasures of culture. The goal is to make a non-museum, permeable, and non-linear. Parallel, is a challenge on the notion of architectural design. It is a criticism of the guilty conscience of the architect who is simultaneously impotent (addicted to hyper-functional logic for justification of any design) and omnipotent (megalomaniacal self-expression reliant on unique eccentricity). The goal is to approach architecture as basic human necessity and pleasure, in which its best examples reflect not idealized notions of perfection, rather an open understanding of human relationships.



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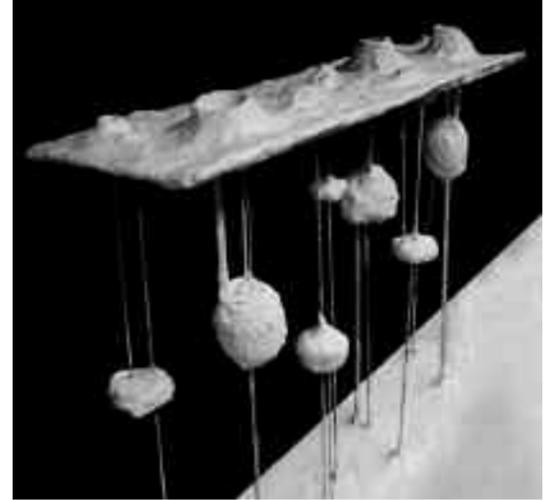
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**GRADUATE RESEARCH DESIGN STUDIOS I AND II:
FALL AND SPRING SEMESTERS**

Professor Diana Agrest
Professor Maria Elena Fanna

The MArch. II design studio focuses on projects dealing with critical issues in architecture now. The exercises, while given for the whole class, afford opportunities for individual students to focus on their area of interest, be it Urban Studies, History Theory Criticism or Technologies. Emphasis was placed on the design process developed through a series of productive readings. Drawing was emphasized as a tool for critical thinking and as an intrinsic part of the process. Most of these projects as they were “customized” by students in relation to their particular interest became for the most part the basis for the student’s thesis.

FALL
INCURSIONS INTO URBAN DISCOURSE
LOS ANGELES
JERUSALEM

This studio focuses on Urban Form through the exploration of the many different forces that intersect in generating it. Two cities with apparently opposite backgrounds were given as the site of this enquiry, revealing through the discovery of their own many specificities a number of paradoxically similar issues.

One of the two given cities was to be selected and (not comparative but independent) readings were produced from an Urbanistic, Technological or Theoretical/Historical Perspective. A reading is the articulation between a creative subject (you) and the various texts of the city, in this case written, drawn and aerial photographs. Through the drawings produced in the reading process, another city is revealed and manifested.

The Readings were developed through personally elaborated: Plans, Maps, Graphics, Diagrams and other Drawings at Various Pertinent Scales.

SPRING
ARCHITECTURE OF NATURE/NATURE OF ARCHITECTURE
POTENTIALS

This Studio focuses on the question of Nature, from the philosophical and scientific discourses that have explained it throughout history in its transformations to the present condition as they affect our modes of habitation.

A different dimension of time and scale is the object of this exploration. In this project, those questions take a preeminent position in the type of natural sites that are selected and the subsequent process of transformation. The scale is vast in most cases, dealing with places such as deserts, canyons,

rivers, glaciers, fault lines, volcanoes, lakes and sea shores. These are places that took millions or billions of years to develop and thousands for transformations to be perceptible until the most recent past where processes of transformation have accelerated. Time here is of a cosmic dimension that relates to the Universe. It not only becomes essential in every transformative proposal but also places them outside the traditional boundaries of architecture, urbanism or landscape. Historically, there has always been an active interaction between Nature—as a real object and as an object of study—and Architecture, but this interaction takes a prominent position at this moment in time. The subject of Nature in its many complex modes of articulation with Architecture—economic, political, ideological, scientific and technological—is critically reexamined in this studio, through a process of “reading and rewriting,” at various scales ranging from the national to the regional and the local.

“Potentials” is the leading concept for this exploration; potential sources, potential sites, potential elements, potential new Architectural concepts.

GRADUATE THESIS: SPRING (following mid-term)
AND SUMMER SEMESTERS

Professor Diana Agrest and faculty

The Thesis projects focus on issues related to the particular areas of concentration as established in the MArch. II Program: Urban Studies; History, Theory and Criticism of Architecture; Technologies. The Theses are developed in studio through research and readings in conjunction with the Pro Seminar and through drawings developing critical readings of the individually selected Thesis subjects. The second half of the spring semester is dedicated to this end and to formulating the direction for the development and completion of the Thesis project during the summer term and which will be presented at the beginning of the new Academic year. Some of the Thesis projects propose to continue on the questions brought up by their previous projects.

Three seminars were given as part of the Design Studio:
Spyridon Papapetros:
Space as Membrane, The Architecture of Sigfried Ebeling
Diana Agrest:
The Theory Practice Continuum : Architecture and Ideology since WWII
Diana Agrest:
Questions of Representation: The Case of Las Vegas

Thesis proposals:

STRANGE CO-OPERATION: Urban Parasite—from plane network to vertical volume. This thesis will explore how urban illegal occupation interacts with the configuration of urban fabric. What is the force behind this network? What is the continuous movement among these circulations? How can we connect the urban fabrication in three dimensions? The new strange cooperation of the city can be established through this active action. These complex systems will be explored in Hong Kong and transformed into a potential proposal.

Extraterritoriality Nexus: A new genealogy: Investigations on the city through redefining extraterritoriality in the context of Ecology. We no longer map territories, but territories map us. Our inscription upon the Earth’s surface is being mapped upon the territory and therefore changes due to human’s impact are exceeding the capacity to sustain us. Extraterritoriality, in many ways, is used as a political tool to subscribe order over the unrecognized. The context of extraterritoriality is not given: it has to be created. Implanting the notion of exception and encouraging the creation of a broader, interdisciplinary context in the creation of a true ecological spectacle. A constitutive mobility. An elusive implication. The nexus for investigation on Extraterritoriality is the City of Los Angeles. Due to its magnificent and rich yet dangerous and unpredictably wild atmosphere is the departure for explorations in a socio-ecological context.

Urban Energetics. The city’s many and diverse energy forces are bound into a constantly changing complex social and physical form. It is these energies that act upon the city as a radical charge, mutating the urban landscape into new potential configurations. Using the traced spaces of human occupation as a generative force that defines the dynamic transfer of energy, potential energies and infrastructures will be proposed as defining forces for the new city.

on s e c t i o n: Reading and constructing through section. Considering the section as a research tool that reveals the invisible. This Thesis proposes to investigate this dimension as a tool to penetrate a space, an event or an object in order to comprehend and transform “naturally” assumed viewpoints. The initial focus of this exploration will be a series of films.

An Aeolian sense. Sand dunes are a visual manifestation of wind forces. A constantly vibrating field of sand grains created by wind molding. The Odyssey is a journey negotiated through god—°©—controlled winds. Odysseus’s return is expedited or obstructed depending on wind directions. Somewhere between these, architecture should be able to engage and interact with the invisible force field that is in constant flux called wind.



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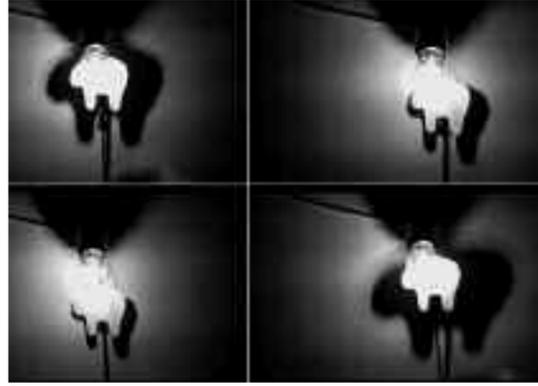
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- 1 MArch II, Pro Seminar, Fall
- 2 Advanced Geometry & Digital Fabrication
- 3 Advanced Drawing

- 4 Advanced Geometry & Digital Fabrication
- 5 Feltman Seminar, Video Stills

Floating Figures. We are highly mobilized. We are nonstop. In an environment composed of nested structures of speed, architecture calibrates space, providing an inhabitable index of movement. Its essential function is to continuously acclimate the body, between natural and mechanized systems—at all scales—for performative and sensational effect. This Thesis will explore various domains and scales in which these important issues can be probed.

The Void in Manhattan. The concept of void is at the center of this thesis and will be explored through various cases namely the Korean traditional courtyard house and Manhattan. Readings of Manhattan will be generated through this concept and proposals will be produced through a subsequent process of transformation.

SELECTED STUDIO ELECTIVES

GRADUATE SEMINAR IN TECHNOLOGY: ADVANCED GEOMETRY & DIGITAL FABRICATION

Professor Michael Young

Taking our cue from the moiré effect, this course sought to explore the “interference” between the material, the sensory, and the geometric in architectural design and fabrication. Although the emphasis was placed on digital modeling and notations, this course opened a dialog between the working methods of a digital environment, and the physical, visceral, sensory relations we have with our material environment. The course set out to understand contemporary digital techniques by investigating the theories and history of geometry in relation to architectural construction, computation, and representation. The topics under investigation included explorations of curvature sensation and notation, gradient field manipulations, ornamental pattern as continuous variation, digital fabrication through contouring, folding, and aggregation, and material feedback in a computational system. Exploring these concepts opened alternate understandings of contemporary architecture in relation to construction, geometry, representation, and sensation. A semester long fabrication project done in groups was presented at the end of the semester. Each project attempted to move out of the realm of the representational model to engage real materials with specific qualities and processes of fabrication.

ADVANCED DRAWING SEMINAR

Professor Sue Ferguson Gussow

The Advanced Drawing Seminar meets weekly for extensive group and individual critique. Having explored the fundamental vocabulary of freehand drawing in first year, students are now encouraged to develop a series of drawings based on themes of their own choosing. Hence there is no predetermined syllabus. In the Fall semester of 2010 three examples of such folios were (1) the portrayal of stones collected by a student’s grandmother on land bordering the Rio Grande, (2) the translating to drawing terms of a fire in its act of consuming, and (3) the tracing of passing cloud formations in motion across the day and night time sky.

The question might be posed: how are these freely chosen themes relevant to the education of an architect? How would tracking these images develop an architect’s spatial vocabulary? Imagination lies in the realm of memory and dreams, deeply rooted in the facts, forms, events and spaces of our actual lives. Flights of fancy take off from that which can be touched, tasted, measured and observed. For instance the student who has been portraying stones has found in those drawings the key to her thesis—treating with the Texas/Mexico border.

It is the pedagogical thrust of the Advanced Drawing Seminar that in pursuing freely chosen themes, the student will be motivated to expand and hone technical skills—to take risks.

In the fall out from charcoal, pencil, pastel, pen and ink wash, in the repetitive process of searching through drawing—of sifting through layers to find the gold, the essential element—a sense of “self” is realized. Only in part is it the struggle to conquer a particular medium—although that may be part of the endeavor. It is the struggle to find resonance between the visual world that engages our eye and the realm of our imaginings.

The discipline of drawing further serves as a means and model for creative research. It seeks to clarify the direction the next step must take, and simultaneously provides a clearer conception (or even a reformulation) of the meaning and intent of the theme. This process has a considerable similarity to creative writing, wherein one writes, rewrites and rewrites again. This goes beyond merely correcting or expunging words or phrases that seemed clumsily or irrelevantly embraced in a “messy” first draft. It simultaneously leads to rethinking and clarifying the direction of the intended work itself.

THE FELTMAN SEMINAR

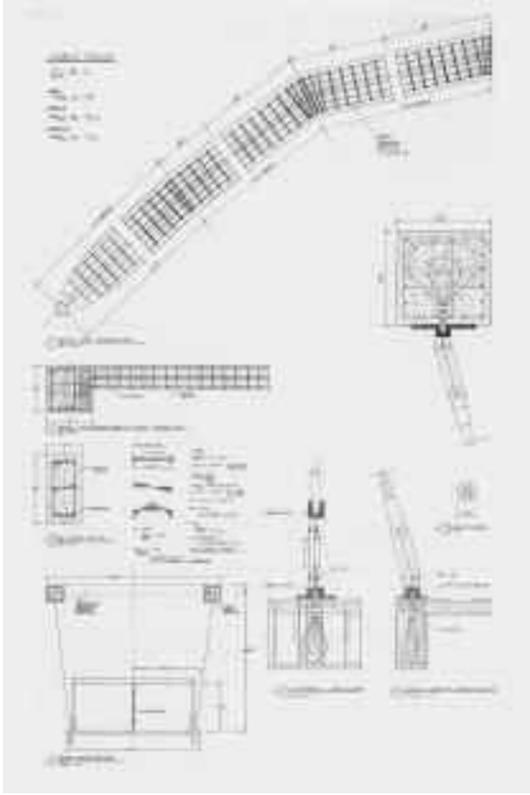
Professor David Gersten

IT’S ALL ABOUT LIGHT

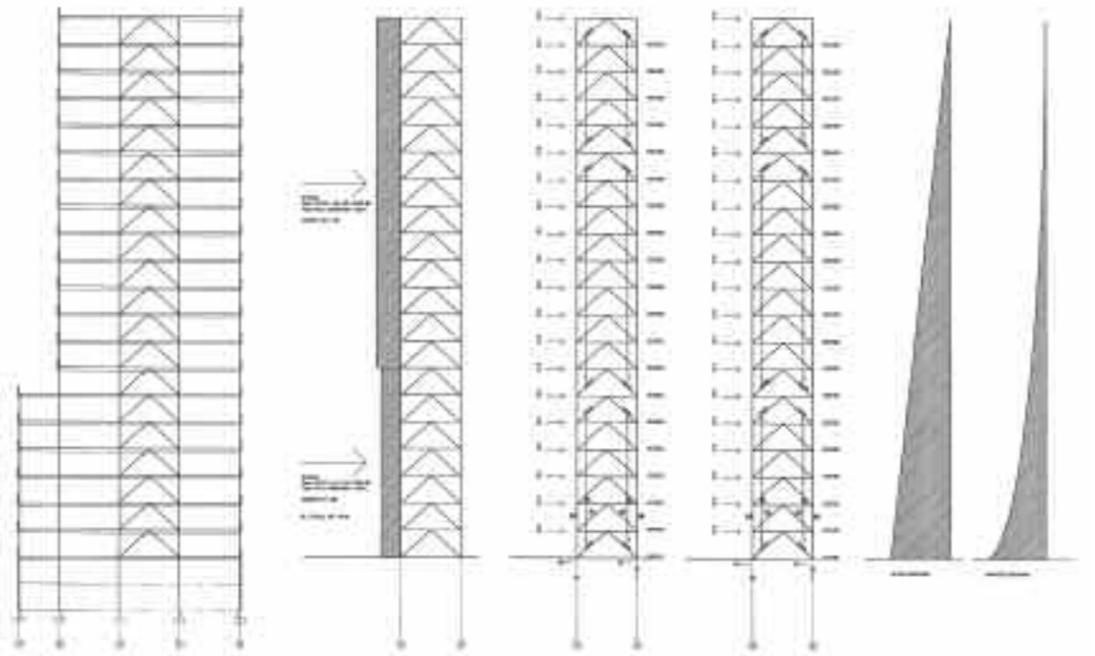
Light is fundamental to all forms of life, so much so that it’s role and impact tests the limits of human comprehension. From the far reaches of the cosmos, to our evolution as a species, to the history of civilization, to our present tense perceptual and cognitive experience, one could say: it’s all about light.

One need only to pause briefly and focus on our optical field of vision to recognize just how rapidly we are absorbing light, taking multiple views, layering and assembling a coherent whole of the space we are in. Much of this deep cognitive process is structured by our evolution as a species; our eyes are next to each other because we have been looking at the horizon for millions of years...our binocular optics has a significant impact on our present experience. This is where the light in this room meets and joins together with the light of the dawn of civilization. Our present tense experience arises from many durations including; evolution, history and daily life. Light is an arrow piercing through these multiple time frames, engaging and offering insight to all aspects of human activity. As both an “immaterial matter” and a subject of cultural, creative and intellectual inquiry, light has echoed through the history of civilization. The disciplines of Art, Architecture and Science transform and are transformed by light. Often light exposes both what the disciplines share and their differences and this can be of great value in illuminating the questions of individuals work within any given discipline.

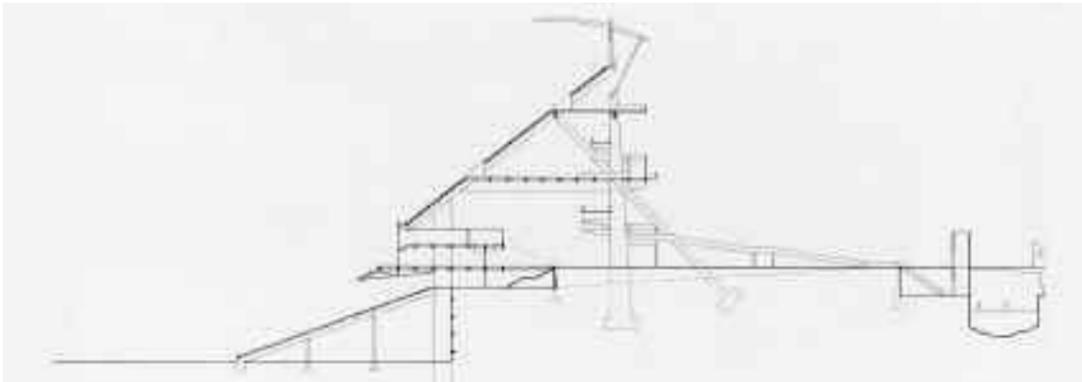
The seminar will engage a spectrum of disciplines in asking questions of light. Including: architecture, astronomy, biology, cognitive science, economics, film, painting, physics, photography, poetry and theatre. In addition to a series of guest speakers from a range of disciplines the seminar will directly engage light through a series of experiments and studio based light works.



1



3



2

- 1 Structures IV, 1994, Pedestrian Bridge
- 2 Structures IV, 1996, Stadium Design
- 3 Structures IV, 2001, High Rise Analysis

In over forty years of practice, through the work of the firm Cantor Seinuk, as well as his own firm, Professor Seinuk was involved in the creation of structural concepts and designs for some of the tallest, most complex and most important buildings in the world. He had a singular impact on the skyline of New York City, having designed over fifty high rise office towers, including three of the tallest reinforced concrete structures in the city, as well as over a hundred hotels and apartment buildings. Among his projects world wide are the Trump World Tower (the most slender reinforced concrete building in the world), the Time Warner Center, the Trump International Hotel and Tower, the Miami Performing Arts Center, the renovation of Grand Central Station, the New York Mercantile Exchange, Four Times Square, the "Lipstick" Building, the Arthur Ashe Tennis Stadium in Flushing Meadows, the JFK International Airport light rail system, Morgan Bank Headquarters, 7 World Trade Center, the Galleria, the landmark 450 Lexington Avenue building, the Grand Hyatt, the steel-framed "Cube" residential building in Miami, and the O-14 building in Dubai. For the Chapultepec Tower, a 57-story office building in Mexico City, one of the most extreme seismic areas of the world, Professor Seinuk and his colleagues invented a stabilizing system so unique that it was patented; in speaking about the building he noted, "The building already went through an earthquake. A newspaper in Mexico said you might want to run *into* this building during an earthquake."

YSRAEL A. SEINUK 1931-2010



Ysrael A. Seinuk, world-renowned structural engineer of incomparable genius, and gifted teacher, beloved by generations of School of Architecture students and his colleagues, served on the faculty of The Irwin S. Chanin School of Architecture for over forty years. Appointed in 1968 by John Hejduk as an adjunct instructor to teach structures to second year day students and mechanics of materials and structural design to third year day students, the Department of Architecture had a two-year structures program. "Ysrael impacted," Dean Hejduk would later recall, proposing a challenging structures curriculum that would be unique among schools of architecture, engaging four years of the five-year program. Professor Seinuk designed the sequence to begin with a full year of qualitative study, focused on principles and the relationship between structure and form. He would begin Structures I with the load bearing principles of a cable, the simplest of structures; he would keep a chain in his impeccably tailored jacket pocket, all the better to be prepared for an impromptu structures lesson. "I can teach everything I know about structures... which is a lot... using just this chain," [another prop was a sheet of paper, with which he would demonstrate the connection between shape and structure]. He never taught from notes, and he rarely showed slides. He drew beautifully on the blackboard and lectured distinctively. He made complex structural behavior clear; he didn't explain structures as much as he illuminated and *revealed* it.

Subsequent years of the sequence were more quantitative in their approach to shaping and sizing structures and structural elements. After two additional years of studying statics and mechanics, determinate and indeterminate structures, design in steel and reinforced concrete, the sequence would conclude with the analysis, design, detailing and oral presentation and defense of a complex project: a bridge, a stadium, an air-plane hangar, a high rise office building, a residential tower.

In his own practice, Professor Seinuk was a consummate professional. He received more than 60 industry, professional, and community awards including the Concrete Industry Board's Leader of Industry Award and The Cooper Union Urban Visionaries Award. He was elected a Fellow of the American Concrete Institute, the American Society of Civil Engineers, and the Institution of Civil Engineers (U.K.). Professor Seinuk was the only American invited by the Institution of Structural Engineers of Great Britain to participate in the publication of standards for tall building design for the European Union.

Professor Seinuk's curriculum was extremely ambitious for a school of architecture, and his students relished its challenges. He made visible the dynamic world of structural behavior: force flows and load paths, action and resistance, stress and strain, the inner life of shells, membranes, plates, grids, nets, and domes. Students learned effective methods of design for not only simple beams and columns, but moment-connected frames; not only reinforced concrete but pre-stressed and post-tensioned concrete; not only shear walls, but shear wall footings, and shear wall footings on piles. Students analyzed structures for gravity, wind and seismic loads and sized and detailed stadia and fifty story towers. Professor Seinuk was immensely proud of his architecture students who were as knowledgeable about structures as graduates of a civil engineering program.

Professor Seinuk was a generous teacher, who spoke often of the poetry of making architecture, as well as the importance of finding its proper, inherently structural form. "Every building has a structure that is the best structure for that building," he would say. "First you have to see the building inside you; you have to feel it." He introduced students to fellow structural masters, such as Felix Candela and Pier Luigi Nervi. He instilled in all of his students an understanding of the role of architects as leaders in a collaborative process, as teachers themselves. He was a humanist, whose stories about making buildings revealed his own deep appreciation for construction as a social endeavor, through which knowledge, skills, technologies and ideas are both exchanged and employed. Professor Seinuk valued the contributions of every person in the construction process, from the most skilled engineer to the most junior laborers; everyone needed to be fully engaged, ready to offer suggestions, ideas, solutions, in order to make the best building possible. He instilled that same respect for the collaborative nature of construction, and the joy of building, in all of his students.

LECTURES AND EVENTS

The Irwin S. Chanin School of Architecture/ The Architectural League of New York

The School of Architecture annually co-sponsors and hosts a number of events with the Architectural League of New York in The Great Hall. This ongoing relationship has fostered an expanding forum for contemporary architectural dialogues at The Cooper Union community.

Friday 10/1

Jo Noero, Founder, Noero Wolff Architects
The Everyday and the Extraordinary
Moderated by Andres Lepik, Curator of Architecture and Design, The Museum of Modern Art

Wednesday 10/20

Workshopping New York: Change Spaces
A symposium with exhibitors and curators of Workshopping, the U.S. Pavilion at the 2010 Venice Architecture Biennale
Jonathon Solomon, Co-curator, Workshopping
Michael Sorkin, Principal, Michael Sorkin Studio
Hilary Sample, Principal, MOS
Michael Meredith, Principal, MOS
Guy Nordenson, Principal, Guy Nordenson and Associates
Catherine Seavitt, Principal, Catherine Seavitt Studio
Adam Yarinisky, FAIA LEED AP, Principal and Co-founder, Architecture Research Office
Stephen Cassell, AIA LEED AP, Principal and Co-founder, Architecture Research Office
Anthony Fontenot, Ph.D. Candidate, School of Architecture, and Fellow, Society of Woodrow Wilson Scholars, Princeton University
Moderated by Eva Franch, Director, Storefront for Art and Architecture

Wednesday 11/3

Yoshiharu Tsukamoto, Co-founder, Atelier Bow-Wow
Current Work: Architectural Behaviorology
Moderated by Anthony Vidler, Dean and Professor

Friday 11/12

Minsuk Cho, Founder, Mass Studies
Current Work: Hike-ability, Collective Intimacy, etc.
Moderated by James Slade, Co-founder, Slade Architecture

Monday 11/22

Charles Renfro, Principal, Diller Scofidio + Renfro
Current Work: Unnatural
Moderated by Lyn Rice, Founding Principal, Lyn Rice Architects

Monday 12/6

Christo, Artist
Current Work: Two Works in Progress: Over the River, Project for the Arkansas River, Colorado and The Mastaba, Project for the United Arab Emirates
Introduced by Wendy Evans Joseph, Founder, Wendy Evans Joseph Architecture

Wednesday 1/26

Gregg Passquarelli, Founding Partner, SHoP Architects
Current Work: Out of Practice
Moderated by Mark Robbins, Dean, School of Architecture, Syracuse University

Tuesday 2/1

Ben van Berkel, Founding Partner, UNStudio
Current Work: The New Understanding
Moderated by Stan Allen, Principal, Stan Allen Architects; Dean, School of Architecture, Princeton University

Monday 3/14

Bijoy Jain, Principal, Studio Mumbai
Current Work: Dialogue and Discovery
Moderated by Billie Tsien, Partner, Tod Williams Billie Tsien Architects

The Irwin S. Chanin School of Architecture/ Center for Architecture

Wednesday 4/20

Ed Mazria, Founder and Chief Executive Officer, Architecture 2030
Architecture on the Brink

The Irwin S. Chanin School of Architecture/ The New Museum

Festival of Ideas for the New City
Organizing partners: New Museum (Founding Partner); The Architectural League of New York; Bowery Poetry Club; C-Lab/Columbia University; Center for Architecture; The Cooper Union; The Drawing Center; NYU Wagner; PARC Foundation; Storefront for Art and Architecture; Swiss Institute

Thursday 5/5

THE HETEROGENEOUS CITY
Panelists:
Vito Acconci, Artist
Jonathan Bowles, Director, Center for Urban Future
Rosanne Haggerty, Founder and Director, Common Ground
Suketu Mehta, Author; Professor of Journalism, New York University
Moderator: Jonathan F.P. Rose, Principal, Jonathon Rose Companies

THE NETWORKED CITY

Panelists:
Adam Greenfield, Founder and Managing Director, Urbanscale LLC
Natalie Jeremijenko, Artist, Professor, Steinhardt School of Culture, Education and Human Development, New York University
Anthony Townsend, Research Director, Institute for the Future
McKenzie Wark, Professor, Chair of Culture and Media, Eugene Lang College, The New School for Liberal Arts
Moderator: Joseph Grima, Editor in Chief, Domus magazine

KEYNOTE ADDRESS

Jaron Lanier, Author; Founder, VPL Research

Friday 5/6

THE RECONFIGURED CITY
Panelists:
Robin Chase, Founder and CEO, GoLoco
Elizabeth Diller, Founding Partner, Diller Scofidio + Renfro
Frank Duffy, Founder, DEGW
Pedro Reyes, Artist

KEYNOTE ADDRESS

Antanas Mockus, President, Corpovisionarios

MAYORAL PANEL:

THE SUSTAINABLE CITY
Introduction by David Byrne, Musician, artist, producer, activist
Panelists:
Sergio Fajardo, Mayor, Medellín
John Fetterman, Mayor, Braddock, PA
Greg Nickels, Mayor, Seattle, WA (2009-2010)
Michael Nutter, Mayor, Philadelphia, PA
Moderator: Kurt Andersen, Host, Studio 360; Co-founder and Editor, Spy magazine

The Irwin S. Chanin School of Architecture/ Parsons the New School for Design

Tuesday 10/26

Wolfgang Feist, Founder, Passivhaus Institut
Principles of Passive House
Moderated by Laura Briggs, Research Chair of Sustainable Architecture, Parsons New School for Design

The School of Architecture Lectures and Events

Tuesday 3/8

Horst Kappauf, Structural Engineer
House for Musicians: A Great Architecture by Raimund Abraham

Friday 4/8

Zvi Hecker, Principal, Zvi Hecker *Work of Architecture*
Moderated by Rafi Segal, Principal, Rafi Segal; Design Critic in Urban Planning and Design, Harvard Graduate School of Design

The 2011 Feltman Lecture Series

The Feltman lectures were made possible by the Ellen and Sidney Feltman Fund established at The Cooper Union to advance the principles and benefits of lighting design through the exploration of the practical, philosophical and aesthetic attributes of light and illumination.

The 2010 Feltman Chair in Lighting was held by David Gersten.

Wednesday 3/23

Thomas Zimmer, Artist
In[ter]vention: Attitude, Disposition, Inclination

Tuesday 4/5

Juhani Pallasmaa, Architect, Professor, Writer
Spring 2011 Annual Feltman Lecture: The Touch of Light
Co-sponsored by the Architectural League of New York

Tuesday 4/5

Remo Guidieri, Professor of Anthropology and Aesthetics, Nanterre University, Paris; Ecoles des Beaux-Arts, Paris, Co-Founder, Res: Journal of Anthropology and Aesthetics
About our present architectural pop-surreal post-imperial style

The Cooper Union Institute for Sustainable Design

Thursday 1/27

Helena Norberg-Hodge
The Economics of Happiness
Co-sponsored with Grace Communications Foundation/ Sustainable Table, Slow Food NYC, Brooklyn Food Coalition, New Economics Institute, New Economy Network, New Rules Project of The Institute for Local Self-Reliance, and Awakening the Dreamer— Changing the Dream Symposium.

Wednesday 2/2

Thomas Rau, Founder and Director, RAU
oneplanetarchitecture institute (OPAi)

Thursday 2/3

Josh Fox, Filmmaker
Film Screening: *Gasland, 2010*

Monday 2/7

Bill Haney, Filmmaker
Film Screening: *The Last Mountain, 2011*

Thursday 2/24

Simón Vélez, Architect
Current Work: Bamboo Structures
Moderated by Nat Oppenheimer, Principal, Robert Sillman Associates
Co-sponsored with the Architectural League of New York

Wednesday 3/2

Dr. Alexander J.B. Zehnder, Founder and Director, the Sustainable Performance Group
Thirteenth Annual Jack and Lewis Rudin/Charles E. Schaffner Distinguished Lecture: Opportunities and Challenges on the Way to Sustainability



DrawNow!



Storefront for Art and Architecture, Spacebuster by Raumlabor at the Draw-Think-Tank

FESTIVAL OF IDEAS FOR THE NEW CITY: STREETFEST Saturday 7 May

Draw-Think-Tank

The Storefront for Art and Architecture hosted *Draw-Think-Tank: Emerging Territories of Movement 15x360* manifestos. The event took place in the Spacebuster, a mobile space structure designed by the German urban and architectural design and research group Raumlabor, located at the intersection of Houston Street and Sara D. Roosevelt Park.

School of Architecture students participated in Draw-Think-Tank, a unique Storefront iPad platform designed with artist Joshue Ott specifically for the Festival. The platform allowed the students to collaborate in the construction of a collective drawing, which was projected on to the walls of the Spacebuster, transforming the space into a public arena for the exchange of ideas and creation of synergies. The mutating drawings were printed out in intervals throughout the event as a series of 360 unique, instant visual manifestos.

Occurring simultaneously, Christian Gärtner, Director of Stylepark, and Eva Franch, Director of Storefront for Art and Architecture, moderated a series of three one-hour sessions during which a multidisciplinary group of individuals presented 4-minute manifestos. This group of 15 emerging architects, engineers, writers, sociologists, anthropologists, philosophers, and other relevant figures discussed Emerging Territories of Movement in different spaces of action. Professors Hayley Eber and Urtzi Grau presented their manifestos at the symposium.

DrawNow!

The Drawing Center presented *Drawing an Urban Intervention through Dialogue and Trace* led by Professors Aida Miron and Uri Wegman. This urban drawing revisited the idea of 'units' imagined by Paul Rudolph and used the human body as a 'unit' (a stencil provided to the participants), to construct a temporal-spatial construction at a 1:1 scale along an axis. The 'unit' drawing stencil was a tool for capturing full-scale fragments from the surrounding urban space. These fragments were reconfigured as a group drawing to create new urban spaces, networks, and temporalities. As an extended exquisite corpse, the participants were asked to trace fragments of their bodies to re-inhabit the spaces, while engaging with the drawings and spaces of their neighbors. The reinvented units and traces served as critiques of standardization and mega agglomerations by looking closely at the interwoven fabric, which emerged within the one-hour drawing.

STUDENT LECTURES AND EVENTS

**The School of Architecture
Student Lecture Series**

This lecture series provides the opportunity for students to invite architects, writers, theorists, and artists to speak to the school.

Thursday 11/18

Andres Lepik, Curator of Architecture and Design, The Museum of Modern Art
Small Scale, Big Change

Thursday 12/2

Yehuda Safran, Professor, Graduate School of Architecture, Planning and Preservation, Columbia University
Mies van der Rohe: Matrix in Time

Thursday 12/9

Eva Franch, Director, Storefront for Art and Architecture

Thursday 2/17

Guido Pietropoli, Founder, Studiopietropoli
Creative Confession: Carlo Scarpa and the Villa Ottolenghi

Thursday 3/3

Spyridon Papapetros, Professor, History and Theory Faculty, Princeton University School of Architecture
MICRO/MACRO: Architecture, Analogy, and the Vitruvian Complex

Monday 3/7

Preston Scott Cohen, Principal, Preston Scott Cohen, Inc.
Stacking Plans

Thursday 4/21

Charles Lemert, Andrus Professor of Social Theory, Wesleyan University; Senior Fellow, Center for Contemporary Research, Yale University
The Democracy of Objects: Design in a Posthuman World

Thursday 4/28

Eric Sanderson, Senior Conservation Ecologist, Wildlife Conservation Society
Projections of the City's Ecological Past: Perspectives from the Mannahatta Project

**Fall 2010 Faculty Talks/
Sponsored by the
School of Architecture
Student Council**

Faculty Talks is a series of conversations between students and faculty to foster interaction in the school outside of the formal structure of lectures and studios. The talks are completely open and limitless.

Tuesday 11/16

Aida Miron, Professor, The Irwin S. Chanin School of Architecture
Sven Eggers, Founder and Director, Büro Schwimmer
After Berlin: Artifact Myth

The Cooper Union Motion Picture Club**Six for Six**

Six films selected by Monica Shapiro, Administrative Associate, The Irwin S. Chanin School of Architecture

Friday 3/3

Dead Man, Director Jim Jarusch, 1995
Decasia, Director Bill Morrison, 2001

Friday 3/25

The Terminator, Director James Cameron, 1984
Orpheus, Director Jean Cocteau, 1950

Friday 4/1

Our Man in Havana, Director Carol Reed, 1959
Dr. Strangelove, Director Stanley Kubrick, 1964

**GUEST SPEAKERS
IN SCHEDULED CLASSES**

ADVANCED TOPICS

Professor Roderick Knox

Judith DiMaio, AIA, Dean, School of Architecture and Design, NYIT

ADVANCED TOPICS

Professor Diane Lewis

Daniel Sherer, Architectural Historian and Theorist

ADVANCED TOPICS

Professor Georg Windeck

Daniel Schuetz, Dipl.-Ing, Architect, Munich/New York

Alberto Foyo, RA, Architect, New York
Will Laufs, PhD, PE, Structural Engineer, Principal, Büro Happold, New York

Jair Laiter, Architect and Artist, Mexico City

ADVANCED TOPICS

Professor Tamar Zinguer

Larry List, Curator

CROSSINGS: FELTMAN SEMINAR

Professor David Gersten

Bill Morrison, Filmmaker

Antonio Furguele, Architect

Ed Keller, Architect, designer, writer, musician and multimedia artist.

Remo Guidieri, Professor of Anthropology and Aesthetics, Nanterre University, Paris; Écoles des Beaux-Arts, Paris, Co-Founder, Res: Journal of Anthropology and Aesthetics

Wes Rozen, Co-founder and Partner, Situ Studios
Gearoid Dolan/SCREAM MACHINE, Artist

Pablo Castro, Co-founder, OBRA architects

Thomas Zimmer, Artist

Bradley Horn, Architect

David Resnick, Architect

HISTORY OF ARCHITECTURE II

Professor Tamar Zinguer

Dr. Benoit Jacquet, Professor, École Française d'Extrême-Orient, Kyoto

Steven Nelson, Professor of African and African American Art History, UCLA

Vikram Prakesh, Professor, University of Washington

HISTORY OF ARCHITECTURE II

Professor Guido Zuliani

Francesco Benelli, Professor, Department of Art History and Archaeology, Columbia University
Patricio Del Real, PH.D. Candidate, Architecture History and Theory, Columbia University

TOWN PLANNING

Professor Grahame Shane

Dennis Crompton, Founding Member, Archigram

Nicholas Boyarski, Co-founder and Co-Director, Boyarsky Murphy Architects

PROFESSIONAL PRACTICE

Professor Michael Samuelian

TJ Gottesdiener, FAIA, Managing Partner, SOM

Elizabeth Graziolo, Partner, Peter Pennoyer Architects

Mark Kolodziejczak, AIA, Co-founder, Studio Tractor Architecture

Michael Tower, AIA, Co-founder, Studio Tractor Architecture

Anik Pearson, Principal, Anik Pearson Architect

Theodore Liebman, FAIA, Principal, Perkins Eastman

Francine Monaco, Partner, D'Aquino Monaco

Carl D'Aquino, Partner, D'Aquino Monaco

SPECIAL LECTURES

Tuesday 12/7

Benedetta Tagliabue, Principal, Enric Miralles—Benedetta Tagliabue (EMBT Studio)
Recent Works

Wednesday 11/17

Matthijs Bouw, Founder, Architecture One
In conversation with David Turnbull, Professor, The Irwin S. Chanin School of Architecture, and Malkit Shoshan, Founder and Director, The Foundation for Achieving Seamless Territory (FAST)

Fall 2010 Seminar Series:

Critique of the Situationist Critique

Remo Guidieri, Professor of Anthropology and Aesthetics, Nanterre University, Paris; Ecoles des Beaux-Arts, Paris, Co-Founder, Res: Journal of Anthropology and Aesthetics

Monday 10/11

Alienation

Tuesday 10/12

Das Ding

Monday 10/18

Fetish

Tuesday 10/26

Revolt

Thursday 10/28

Potlatch

STUDENT HONORS

2011 William Cooper Mack
Thesis Fellowship Awards

Fabio Alvino-Roca traveled to Zaragoza, Spain, to research traditional, sustainable building practices specific to the region.

Salomé Balderrama traveled to Caracas, Venezuela to research its architectural history and identify a specific site for the program of a Courthouse/Theater.

Janice Chu traveled to Macau, SAR of China, to study urban density and the condition of "urban hinge."

Deborah Ferrer traveled to Guatemala City, Guatemala to study the relationship between infrastructure and catastrophe.

Standish Lee traveled to Benxi, China, the site of the largest underground mine in the world.

Emily Nguyen traveled in the South, West and New England to study the American Monument.

Jesús Yopez traveled to the Salton Sea, California to research its geography and the abandoned settlements on its periphery.

2011 Menschel Fellowship

Rachel Browning (Art) and Sean Gaffney (AR'12)

Jessica Helen Russell (AR'12)

Mauricio Cortes (Art) and Laura Genes (AR'13)

Lotos Foundation Prize in the Arts

Fabio Alvino-Roca (AR'11)

Daphne Binder (AR'11)

Ricardo Escutia (AR'11)

Emily Vo Nguyen (AR'11)

Graduate Study

This year graduating students and recent graduates were offered admission to the following graduate programs: Harvard University and Yale School of Architecture.



Saturday Program

Saturday Program Architecture Class

Benjamin Johnson (AR'13)

Bunmi Fagbenro (AR'13)

Irene Wangpataravanich (AR'12)

Jimmy Pan (AR'11)

The Saturday Program Architecture Class seeks to cultivate an environment that promotes the emergence of creativity. Students who enter this program rarely have previous architectural experience. In order to harness each of their individual sensitivities, classes include individual and group projects. Students are asked to be precise in thought, drawing, model making and the verbal articulation of their ideas. Students were introduced to Architecture by being asked to construct a chair using corrugated cardboard that could support the weight of one person. Other projects included creating models of intersecting volumes, recording a chess game in a developed symbolic language, and drawing sections and plans of compositions. Occasional critiques foster critical opinion and discussions between students. By being exposed to questions and techniques, students are asked to take responsibility for their decisions and to develop integrity in their ideas. By the end of the program students have transformed from being timid to having greater confidence in their work. The enthusiasm of the students is evident in their models, writings, and drawings.

RECENT FELLOWS

2009 Fulbright Fellowship

Anna Kostreva (AR'09) was a Fulbright Fellow to South Africa in 2009–2010 and a visiting researcher to CUBES in the Department of Architecture and Planning at the University of the Witwatersrand. She led a collaborative project with young people about visualizing post-apartheid urbanism in Johannesburg at the Africa Cultural Centre. This work was exhibited during the FIFA World Cup, at the Architecture festival AZA2010, and can be found online at <http://allmycities.blogspot.com>.

2009 RTKL Traveling Fellowship

Noah Garcia (AR'10) traveled to Jirapa, Ghana to work along with the local community and peers from The Cooper Union to explore alternative building methods. The current building practices are dependent on imported junk metals and dwindling lumber supplies. The project has since been exhibited in the 2009 African Perspectives Conference along with the work that Caitlin Martusewicz (AR'11) and Dr. Toby Cumberbatch have developed in previous years. The project is currently being developed by Cooper Union students.

2009 KPF Traveling Fellowship

Espen Vatn (AR'10): I spent three months in Rome investigating the ruins of the Palatine Hill and Pompeii, where I was perplexed by the scale of Tempietto and carefully documented the works of Borromini. It is in Rome where simultaneity and presence of the past are not born out of mimicry, but of dialogue and invention. I finished my travels with seven days staring at the Queyra mountains from my room at the Unite de Habitation.

2010 German Academic Exchange Service (DAAD)

Elizabeth Feder (AR'10): Berlin is a city that explores the temporal architectural expression alongside the monumentality of construction. The 2010–2011 DAAD has enabled me to intensely explore and engage this architectural relationship on the scale of the Berlin block. I have had interviews with Berlin-based artists and architects, as well as excerpts of writings on and drawings/photographs of my project, published on the website Berlin Art Link, and I have become one of the site's head-writers and main content-contributors. I am currently developing specific design interventions in response to my research.

2010 Menschel Fellowship

Daphne Binder (AR'11) and Salome Balderrama (AR'11): This last summer, we circumnavigated the Dead Sea on the border of Israel and Jordan. We visited and documented factories, archeological sites, settlements, tourist resorts, scientist stations and more. We observed the consequences of the drop in its water level and the sea's receding perimeter. We documented the current built environment alongside the natural one in a series of maps, plans, photographs and interviews that were held with the people that live there, all of which we exhibited at The Cooper Union last November.

FACULTY AND STAFF ACTIVITIES 2010–2011

Professor **Diana Agrest**, FAIA, this year has taken a leave from her practice Agrest and Gandelsonas Architects, LLP, and lecture engagements in order to work on her film *The Making of an Avant-garde*©: *Institute for Architecture and Urban Studies 1967–1984*, for which she is the Writer, Producer and Director, so that it will be completed this summer.

Visiting Professor **Samuel Anderson** has recently completed expansion and renovation projects for the Allen Art Museum at Oberlin College, the Penn Museum of Archaeology and Anthropology, and several artists' residences. Ongoing projects include labs for Buffalo State College and the Gardner Museum (with RPBW). His firm started designs this year for new conservation labs for the Guggenheim Abu Dhabi (with Gehry Partners) and the Dallas Museum of Art. His redesign of the director's suite at the Guggenheim Museum in NY is nearing completion.

Associate Professor Adjunct **Stella Betts** and her partner David Leven of LEVENBETTS were awarded their fifth NYC AIA Award this spring for their project *caseXcase: PhX Cactus Flower Housing*. A model and several images of their project are on view at the Center for Architecture through June 25, 2011. This project will also be published in a forthcoming book, *Making a Case* by 306090 Publications. LEVENBETTS has also been selected for the Chengdu 2011 Biennale in Chengdu, China. LEVENBETTS is also included in a forthcoming book *New York Dozen*, edited by Michael Crosbie.

Professor **Kevin Bone** served as the Distinguished Visiting Professor of Design in the Masters Program at the City College of New York. In 2011, Bone oversaw the production of an exhibition and associated publication, *Landscapes of Extraction, the Collateral Damage of the Fossil Fuel Industries*. The exhibition, initially shown at The Cooper Union, was installed in Grand Central Terminal. Bone co-curated (with Steven Hillyer and Roland Eckl), "Musikerhaus," an exhibition on Raimund Abraham's last built work. Bone has continued his work as director of The Cooper Union Institute for Sustainable Design. The Institute, in association with The Cooper Union School of Architecture, recently received a substantial grant from the Stavros Niarchos Foundation for the study, exhibition and publication of "Modernist Architecture and Its Influence on Sustainable Design." Throughout the academic year the Institute maintained an active agenda of public programs and independent research.

Professor **Anthony Candido**, in regards to his exhibition "The Great White Whale is Black," stated that "planning must become ARCHITECTURE" and that "...architecture has lost its way and is not addressing the major architectural and societal issues of our time, which I maintain are the city form and the conditions that generate form." His spring semester seminar, *Mega Structures Now*, was rooted in this statement addressing the existential conditions—physical, material, and spiritual—of which the student should be cognizant of and that confront all of us. He continues to do independent work in his studio, which has always informed his teaching. Candido designed and made the costumes for the Nancy Meehan Dance Company's 40th New York City season, which was performed at St. Mark's Church in May of 2011.

Assistant Professor Adjunct **Hayley Eber** participated in the installation *Open House*, a project led by Droog Lab in collaboration with Diller Scofidio + Renfro. *Open House* was presented as a one-day event in Levittown, Long Island and was kicked-off with a symposium at Columbia's Studio-X New York. She also presented a manifesto at The Storefront for Art and Architecture's "DRAW-THINK-TANK: Emerging Territories of Movement" for the *Festival of Ideas for The New City*. Her design studio, EFGH, has recently completed three restaurants for Chop't Creative Salad and is currently working on a prototypical franchise concept for Pop-Bar. Other projects include a 1,800 sq. ft. spec house in Mattituck, Long Island and a proposal for The Stratford Kiosks situated in Meridian Square, London.

Instructor Adjunct **Urtzi Grau**, principal, Fake Industries Architectural Agonism, received the Fundación Mutua Madrileña for Dissertation Completion in 2010. He delivered several presentations at Storefront for Art and Architecture along with a lecture at GSD Harvard. His current work includes: AM Lab, strategic plan for developing old mining village, Aldea Moret, Caceres, Spain; OE House (under construction), Barcelona; Sound of Silver, installation at Levittown for Droog-Open house. Grau was also the image editor for the publication *Clip Stamp Fold: The Radical Architecture of Little Magazines*.

Professor **David Gersten** held the Spring 2011 Feltman Chair in Lighting and is a visiting professor at the Rhode Island School of Design. He participated in workshops at Aarhus School of Architecture, Denmark, and *Bridging STEM to STEAM: Developing New Frameworks for Art-Science-Design Pedagogy* presented by RISD and the National Science Foundation (NSF). His work was exhibited in the RISD Museum of Art and was acquired by the Print Collection of the New York City Public Library. He delivered the lecture "Hejduk, Hamlet and the Ghost Promise" in the *Education of an Architect 40 Years Later* conference at the University of Puerto Rico, as well as lecturing at the 99th ACSA Annual Meeting, The Royal Danish Academy of Fine Arts, Aarhus School of Architecture, Parsons the New School for Design, and the ACADIA 2010 Conference LIFE in:formation.

Professor Emerita **Sue Ferguson Gussow** was invited to speak on her book *Architects Draw*, to the Pollock-Krasner House and Study Center summer lecture series of Stonybrook University in July 2010. That month she conducted a drawing workshop at the D'Amico Institute on MoMA's Art Barge. In August, she participated in *Authors Night* at the East Hampton Library. During the academic year she lectured on *Architects Draw* at Harvard GSD and Parsons the New School for Design. She conducted a Freehand Drawing Workshop at the Royal College of Art School of Architecture, Copenhagen, Denmark. At The Cooper Union's Urban Visionaries benefit auction in November her pastel, *Katie II*, went to trustee William Sandholm.

Director of The Irwin S. Chanin School of Architecture Archive **Steven Hillyer**, mounted three major exhibitions for The Irwin S. Chanin School of Architecture during the 2010–11 academic year. In addition, he is currently developing his next feature film, *High As the Sky*, which he co-wrote and will produce. The project received Fiscal Sponsorship from the New York Foundation for the Arts in 2008. As with his previous film, *The Event*, Olympia Dukakis is attached to play a major role. Hillyer is also developing a stage play, *Mend*, which he co-authored. The project received a grant from Great Performances in 2009, and a table reading of the play was held in The Cooper Union's Rose Auditorium on June 14, 2010. The actors participating included Joanna P. Adler, Kathleen Chalfant, Dominic Chianese and Alfredo Narciso.

Special Projects Assistant in the School of Architecture Archive **Sara Jones**, worked on the exhibitions "Landscapes of Extraction: The Collateral Damage of the Fossil Fuels Industries" and "Musikerhaus: Raimund Abraham," and continued to teach drawing classes at Pratt Institute. She exhibited her own work in the Dean's Gallery at Pratt Institute, Brooklyn, the Textile Arts Center Gallery, Brooklyn, and Target Gallery, Alexandria, VA. She is currently curating two exhibitions, which will open in the summer and fall of 2011.

Assistant Professor Adjunct **Lydia Kallipoliti** received a silver medal for environmental awareness at the 2010 International W3 Awards organized by the International Academy of Visual Arts and Sciences. The award was given for the development of EcoRedux, an innovative ecological online resource. Kallipoliti edited a homonymous issue of *Architectural Design* magazine (AD) published by Wiley & Sons in January 2011. The book launch of *EcoRedux* took place at the Storefront of Art and Architecture in New York. Kallipoliti also curated and designed the exhibition *EcoRedux 02: Design Manuals for a Dying Planet at the Barcelona Design Museum* (Disseny Hub). Her theoretical work was published in a number of books and magazines internationally, such as, *Future Anterior*, *Cornell Journal of Architecture*, *AD (Architectural Design)*, *Slum Lab magazine*, *Journal of Architectural Historians (JSAH)* and *Praxis: journal of building + writing*. Kallipoliti gave lectures at Ohio State University, Auburn University, the University of Waterloo in Canada, the Storefront for Art and Architecture, and at Columbia University. Kallipoliti taught graduate advanced design studios at Columbia University and Pratt Institute in parallel to Cooper Union. She exhibited the design installation "Envirobubble" at the Barcelona Design Museum (Disseny Hub), in collaboration with professors Michael Young and others. She was selected as one of two architects for an outdoor-programmed infrastructure at Renzo Piano's Faliron coastline development, Athens. She was also selected by the Architectural League of New York to lead a workshop for the *Festival of Ideas for the New City*.

Professor **Diane Lewis** Architect PC secured a Rockefeller Foundation Chairman's Grant for an outer borough cultural institution, which commissioned her office to develop an urban design research project and exhibition. She presented this project and the urban design projects of the office at the Louise Blouin Congress in September of 2010. Current architectural projects include the ongoing construction of a penthouse on Central Park West with a multi-layered sustainable curtain wall fabricated in Treviso, Italy and a Fifth Avenue domicile in a historic Emery Roth building. Her 2011 Rizzoli *Masseria* book was launched at Christie's London and Feltrinelli, Milan in May and June. Two essays were published on Lebbeus Wood's wordpress entitled "Einstein & Le Corbusier," and "Antilegomena: The Disputed Texts: A Tribute to Raimund Abraham." Diane appears in Merrill Elam's film *On Imagining: Conversations with Architects*. She lectured on her architectural projects in Lower Manhattan in the closing evening panel of the *Festival of Ideas for the New City*, and has been invited to contribute her Harvard GSD lecture entitled "Nature After Mies" to the Routledge Volume for the "Return of Nature." She is the keynote speaker on "The Education of an Architect at Cooper Union from 1964 to the Present" at the University of Puerto Rico conference on May 17.

Assistant Professor Adjunct **Pablo Lorenzo-Eiroa** was the Conference Chair for the ACADIA 2010 Conference. He published a research article based on Revista Summa in the book *Clip, Fold, Stamp*, by Beatriz Colomina, and developed research for the upcoming book *Digispeak* by Greg Luhan. He is also publishing the article "Carlo Rainaldi's Post-Historical Suspension: Anticipating Cartopological Space" in *Pulsation in Architecture* by Eric Goldemberg. Pablo Lorenzo-Eiroa stated his manifesto "Topographies Of Systems Resistance" at the Storefront for Art and Architecture as part of the *FreshLatino: Emerging Latin territories* curated by Ariadna Cantis in collaboration with Eva Franch Gilabert. EIROA ARCHITECTS PC (EA) was recently featured in many media and is currently undertaking multiple projects. Ecoinduction developed a controversial landscape-urbanism ecological proposal for the Rio de la Plata Bay exhibited at Disseny Hub Barcelona and curated by Lydia Kallipoliti and Anna Pla Catala. Pablo also briefly participated of the *Instant*

Architecture Marathon drafting AutoCAD lines on NYC facades in an event curated by Eva Franch Gilabert. EA is working on a landmark building redevelopment project in the Upper West Side in New York City; a large beachfront landscape urban ground scraping project implementing continuous differential scales in Punta del Este, Uruguay; a slender 14-story interstitial building intended to break Buenos Aires city fabric; and the design for a house, which departs from a Cartesian frame that enfolds topological displacements from the horizontal landscape to a vertical structure.

Assistant Professor Adjunct **James Lowder** received third place in Ostrava Black Meadow Cluster urban design competition in collaboration with Peter Stec and Brian Tabolt, an international architectural competition sponsored by the Czech government in their bid for 2015 City of Culture. He was also awarded a commission for an eight-unit housing/mixed-use design project in La Paz, Bolivia.

Instructor Adjunct **Daniel Meridor** graduated from The Cooper Union's inaugural Master of Architecture program. As an independent designer he has produced two architectural projects in Manhattan and Long Island, and as a collaborator, participated in three international competitions alongside colleagues and a former classmate. Subsequent to his experiments with photomontages within the context of an architectural discourse, his collages were translated to a short film and exhibited and reviewed in New York City. Recently, Meridor has been invited to present his work on the cover of Seachange Magazine to be published shortly, and is currently contributing to the design of two publications.

Assistant to the Deans **Emmy Mikelson** exhibited work in group shows at the International Curatorial and Studio Program, Brooklyn, NY; Seraphin Gallery, Philadelphia, PA; and at NY Studio Gallery, NYC. Her solo show, "Stalemate," was exhibited in the LZ Project Space at NY Studio Gallery. Her work was also featured in the GLAAD exhibition and auction, "OUT Auction 2010," held at the Metropolitan Pavilion, NYC.

Instructor Adjunct **Aida Miron** was invited by the Student Lecture Series to give a joint lecture with Sven Eggers entitled "Berlin: Artifact Myths." She collaborated with the Drawing Center along with Uri Wegman in the event "Draw Now," as part of the *Festival of Ideas for the New City*, as well as giving a talk and joining the panel discussion at the Angel Orensanz Foundation on urban reconfiguration and landmark preservation. Miron recently completed a research trip to Bogota as part of new investigations into Latin American urbanism.

Associate Dean and Professor Adjunct **Elizabeth O'Donnell** returned to teaching Structures following Professor Ysrael Seinuk's death in the second week of the fall semester. Her syllabus for Structures I continued to eschew formulae and mathematics for a qualitative approach that emphasized principles and relationships to space and architecture, through diagrams, models and the study of built works. She plans capital projects for the school, was one of The Cooper Union liaisons for the *Festival of Ideas for The New City*, was invited to serve on the Inauguration Committee for The Cooper Union's new president, and produces the school newsletter. O'Donnell also serves as a guest critic at City College. She is an alternate on the Zoning Board of Appeals for the Town of Taghkanic and continues as a consultant in practice.

Visiting Professor **Ashok Raiji** has completed significant projects in the US and overseas. One of his projects, the Kresge Foundation Headquarters in Troy, MI achieved LEED Platinum certification and received awards from the AIA Chicago (Distinguished Building Award) and the American Council of Engineering Companies (Platinum Award for Engineering Excellence). Two other projects, the Convention Center and a large urban Central Park in New Songdo City, Korea received Honor Awards from the American Council of Engineering Companies. A masterplan for Meixi Lake in Hunan Province, China, received the McGraw Hill "Good Design is Good Business" China Award Best Planning Project of 2010. Ashok has given talks at The Cooper Union School of Architecture Student Council Lectures on "Integrated Urbanism" and on Sustainable Design at the Museum of the City of New York and at the Urban Green Expo.

Visiting Associate Professor **Lyn Rice**, principal, Lyn Rice Architects (LRA), received an AIANY Merit Award for The New School Welcome Center and a SARA/NY Design Award of Honor for the Joan Mitchell Foundation in 2010. LRA completed work on a Student Study Center for The New School and was selected to collaborate with artist George Trakas in the visioning project *Civic Action*. Rice's work was exhibited in the CFA's "Made In New York," in The Architectural League of New York's "The City We Imagined/The City We Made," and in "Ordos Now" in Beijing. Rice lectured at the CFA and at NJIT, and was featured in books *Left, Right, Up, Down - New Directions in Signage and Wayfinding and Details in Architecture: Creative Detailing by Leading Architects*, among others.

ACADIA 2010 Conference *Life in:formation*

hosted by The School of Architecture



Professor **Stephen Rustow's** firm, Museoplan, is working on several new projects. In September, the firm won an international competition with Apostolov Architects to redesign and make substantial additions to the Bulgarian National Museum Complex. The 22,000 square meter project consolidates several major art collections in a combination of new construction and renovated buildings grouped around the former Royal Printing House in the historic center of Sofia. Museoplan completed a master programming and planning study for a cultural complex in Hangzhou, China, which includes four new museums to be housed in a group of historic industrial buildings. Museoplan worked with Keenen/Riley and Paratus Group in the context of a comprehensive development plan by Herzog de Meuron, who will be the architects for the complex.

Visiting Assistant Professor **Michael Samuelian**, AIA, AICP, has worked on the planning, design and marketing of the Hudson Yards project in Midtown Manhattan as Vice President at the Related Companies. As the single largest piece of undeveloped property in Manhattan, Hudson Yards will become a new mixed-use neighborhood with 6 million square feet of office space, 5,000 residences and 1 million square feet of retail space. With over 12 acres of public open space, a new public school and a 100,000 square foot cultural center, Hudson Yards is destined to become a great public destination as well. As co-chair of the AIA Planning and Urban Design Committee, Michael has hosted a number of public programs focused on Brooklyn Bridge Park, Riverside Center and other urban planning projects throughout New York City. Michael is also actively involved with Habitat for Humanity's Unity Day build in the Bronx.

Professor Adjunct **David Grahame Shane's** recently completed book, *Urban Design Since 1945: A Global Perspective*, will be published by Wiley in London on June 15 and it will be available in the US in fall 2011.

Professor **David Turnbull** founder and director of the non-profit design research organization, ATOPIA_Research, built a full-size mock-up of the PITCH_Africa Street Soccer Venue in the Port of Los Angeles for an event to launch Phase 2, sponsored by the Annenberg Foundation, and timed to coincide with the Soccer World Cup Finals in South Africa. The event with children from the Boys and Girls Clubs of America included a live video link to Charlize Theron in South Africa, and a real-time demonstration of the PITCH_Africa rainwater harvesting technology. The event was covered by ABC/KTLA & Reuters, and was reviewed in *Fast Company*, *The LA Times*, and on many websites and blogs, including P.Diddy's blog where it was called "The Cup of Life." The project was presented at TEDx, ESTAD / Princeton and Global Health Innovation/Yale. Phase 2 involves building the first pilot projects in Africa—6 sites have been identified and strategic alliances are being built to support PITCH activities. The first structure will be built at The Nelson Mandela Institution's African University of Science and Technology (AUST) in Abuja, Nigeria. ATOPIA_Research have completed the pre-fabrication stage of a Water-Bank and 3,600 sq. ft. community space for an IOM Camp in Jacmel, Haiti in collaboration with Princeton University, supported by a grant from the NSF. This structure is currently being commissioned and tested before shipping to Jacmel. Publications this year include: *NO PLAN* (Superfront), a manifesto, *ATOPIA with LOVE* (MAK), an essay in *The Smithsons: an Anthology* (to be published in English by Ediciones Polygrafia in Barcelona, edited by Max Risselada, TU Delft), and *Making a Case*, a special publication by 306090.

Instructor Adjunct **Mersiha Veledar**, is currently working on the first 'net zero energy' primary school in New York State that will also serve as a prototype for future educational projects with the same energy goals. Prior to this, she worked on a new mosque proposal for a university campus in Kuwait and the winning competition for a new conference center, all done as part of Roger Duffy's Studio at Skidmore, Owing and Merrill. She curates the SOM evening lecture series and recently won, with Fiyel Levent, a design charrette for a new condominium, a public plaza and a farmer's market in Greenpoint, Brooklyn. The two-hour design charrette, done only in sketches, will be published on Urban Omnibus and Architizer.

Life in:formation was co-chaired by School of Architecture Associate Professor Adjunct Pablo Lorenzo-Eiroa with Assistant Professor Aaron Sprecher of McGill University and Assistant Professor Shai Yeshayahu of Southern Illinois University. The conference offered a space for the discussion of the problems involved in how architects, engineers and artists collect, analyze, assemble, represent and implement information.

The architecture of information implies a critical intermediary abstract space relative to processing that has been producing a shift in the core of the discipline. These questions imply the overall ideological ambition of the conference. There is indeed a trajectory that intends to build up a critical alternative axis to the way digital information systems have been understood in architecture since 1990s, primarily based on a visual logic. Media has repressed digital architecture to a mere representational role, negating the potential relational logic of systems, a formal aesthetic fundament based on the structuring of mental relationships. It is becoming quite clear that if architects do not break or displace the given source codes of algorithms and create their own, their work is trapped by the predetermination of the set of ideas contained within those programs. What this concept questions is authorship, the necessity to displace and create structures that organize and process information; and the extent of an autonomy within the constitution of the logic of formal processes. This understanding is based on an ambition that may help a historical venture. Ultimately architecture may inform and be relevant to technology, as opposed to architecture being relative to technological actualization.

The growing array of interfaces that striate digital architecture are layers where information is represented, crossed, manipulated and ultimately presented. If interfaces are spaces of representation, they are spaces of differentiation, and since there is no information without representation, these spaces activate a generative capacity, as architectural content is constituted in a responsive topological loop between form and content. The interface is the context within which the work is made possible, implying a topological relationship between the apparently formless flow of data that is seen extrinsic to form, structure, the interfaces involved and how information is constituted.

Dean and Professor **Anthony Vidler** curated the exhibition, "James Frazer Stirling: Notes from the Archive," which opened at the Yale Center for British Art in October 2010 and then traveled to the Tate Britain in April 2011. The exhibition has been reviewed by Ada Louise Huxtable in *The Wall Street Journal* amongst other publications such as *Architectural Record*. The concurrent publication of the same title was published by the Yale University Press (October 2010). He delivered lectures on the exhibition at the Tate Britain, Princeton University School of Architecture, and AA School of Architecture. He also lectured at the conference *Greening Modernism* held at Baruch College and spoke at City College School of Architecture. He delivered the welcome note for the ACADIA 2010 Conference as well as participating in the "Arch Schools 2010 Exhibition Reception and Deans' Roundtable" held at the Center for Architecture. Vidler participated in the launch of Van Alen Books with a book signing of his latest publication, *The Scenes of the Street and Other Essays* (Monacelli Press, March 2011). He was a contributing author to the publication *EcoRedux: Design Remedies for an Ailing Planet* (Wiley, 2011). In May he received the 2011 American Academy of Arts and Letters Award in Architecture.

Professor Adjunct **Michael Webb's** was the Senior Research Fellow at the Canadian Center for Architecture (CCA) in Montreal, for the month of November 2010 and again, for the months of June and July 2011. Some of the 1962 Sin Palace project drawings will form part of the CCA archive. Webb was honored by Storefront for Art and Architecture during their April 2011 auction. He also delivered a lunchtime lecture at Columbia University during April. Webb along with other surviving Archigram members in taught a course offered by Prof. Zissovici concerning the spatial impact of electronic media at Cornell University. He wrote an article for the Museum of the Moving Image (Astoria, NY) for their eponymously titled book. The article was a critique of the museum's new headquarters, designed by Thomas Leeser.

Overall, *Life in:formation* featured an extraordinary number of academic and experimental activities over three days that included 18 presentations and a round table discussion; 5 keynote lectures; 14 guest speakers; 16 moderated round table discussions, and 36 paper presentations selected from 120 submissions by an international expert peer reviewing committee.

This conference also involved an exhibition of work curated by the Exhibition Chairs of ACADIA 2010: Chandler Ahrens of Morphosis, Axel Schmitzberger Assistant Professor at California State Polytechnic University, Pomona and Michael Wen Sen Su Visiting Assistant Professor at Pratt Institute. The exhibition was at the Siegel Gallery at The School of Architecture at Pratt Institute in Brooklyn, and both its content as well as its form were discussed in a round table moderated by the Exhibition Chairs.

The closing event, "ACADI@NY", was a digital, energetic, spatial affection of The Great Hall moderated by Meredith Bostwick, transforming the historic space to the rhythm of avant-garde media artists, including DJ Rob Swift, visual artists Chika Iijima and Peter Kirn, Laura Escude, and DJ Endo, all of whom framed the work of 20 students representing the work of architecture schools in the Tri-State Region.

The conference attracted over 600 attendees from more than 25 countries around the globe.

The keynote lectures were given by: Georges Teyssot, Antoine Picon, Karl Chu, Evan Douglass, and Georges Legendre.

The work in progress sessions and the peer review papers included: Antonino Saggio, Alexis Meier, Ingeborg Røcker, Andrew Saunders, Chris Perry, Christian Derix, Antonino Di Taimo, David Gersten, Martin Bressani, Alessandra Ponte, Jesse Reiser, Nader Tehrani, Scott Marble, Matias del Campo, Rhett Russo, David Ruy, Achim Menges, Emily Abruzzo, Mario Carpo, Alberto Estevez, Eva Franch Gilabert, Eric Goldemberg, James Lowder, Jenny Sabin, Mohamed Sharif, and Michael Young.

The workshop sessions included small, medium and large software developers: from small innovative software developers such as Hans-Christoph Steiner or Mustafa Bagdatli implementing sensors and interaction in physical computation through Arduino and Firmata at NYU ITP directed by Dan O'Sullivan; to large software companies that develop information parametric relationships to coordinate large flows of data in building construction that are also tested in environment simulation; other workshops included the aesthetically sophisticated interfaces developed for fabrication coordination experimentation with open source infrastructure. These presentations were followed by a round table discussion moderated by the Conference Chairs with Paul Seletsky.

Associate Professor Adjunct **Georg Windeck** has been invited to speak at the *Intelligent City Forum* in Berlin, an international research symposium on the transformation of urban infrastructure in response to the challenges of climate change, energy security and global urbanisation, organized by the London School of Economics in collaboration with MIT Media Lab. He has been a founding member of the committee for the establishment of a *Thomas Mann Gedenkbibliothek*, a memorial library and research archive in the former residence of the author in Princeton, New Jersey. He has been lecturing in the Advanced Structures for Architects program at the Graduate School of Architecture, Planning and Preservation of Columbia University. In his professional practice he has been working on residential projects in Berlin and New York.

Assistant Professor **Michael Young's** firm Young & Ayata, exhibited their project "Optic Puffs" in the EcoRedux2 exhibition in Barcelona, Spain. Michael also participated as a visiting professor in the associated workshop for EcoRedux in Crete, Greece. Michael exhibited the series of drawings titled "Involutions and Atmospheres" at the LOTLEX gallery in Lexington, Kentucky. His drawings were also included in the exhibit "Drawing in the Post Digital Age" in Los Angeles, California, sponsored by Woodbury University. His article "The Limits of Control," will be published this summer in the book *Pulsation in Architecture*, edited by Eric Goldemberg. Young & Ayata, in collaboration with Bryan Young of Young Projects, completed and installed the digitally fabricated light fixture "Hive Lamp" in New York City.

Professor **Guido Zuliani**, principle of AZstudio, in association with Eisenman Architects and DEArchitetti, completed the definitive design for a 125,000 sq. ft. residential building in Milan, Italy. The construction of this complex, rated "A" from the point of view of energy conservation, is scheduled to begin in November 2011. In October 2010, professor Zuliani was invited by the Doctoral School of the Istituto Universitario d'Architettura di Venezia to participate in the international symposium *The Clinic of Dissection of Arts Lo studio della Composizione*. The text of his presentation "Una, Nessuna e Centomila. Note sulla Cooper Union di J. Hejduk, R. Abraham, P. Eisenman... e molti altri" will be published with the proceedings of the symposium in the fall of 2011. Also in 2010, professor Zuliani was appointed member of the Peer Review Committee by the Scientific Committee of the University of Padova, Italy. He is currently developing a manuscript on the architecture of the XV and XVI century, and a monograph on the oeuvre of the architect John Hejduk.

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