



## Mediated Environments | VR & AR in Architecture

### Amber Bartosh | Spring 2018 | W 930-1230

*Our fine arts were developed, their types and uses were established, in times very different from the present, by men whose power of action upon things was insignificant in comparison with ours. But the amazing growth of our techniques, the adaptability and precision they have attained, the ideas and habits they are creating, make it a certainty that profound changes are impending in the ancient craft of the Beautiful. In all the arts there is a physical component which can no longer be considered or treated as it used to be, which cannot remain unaffected by our modern knowledge and power. For the last twenty years neither matter nor space nor time has been what it was from time immemorial. We must expect great innovations to transform the entire technique of the arts, thereby affecting artistic invention itself and perhaps even bringing about an amazing change in our very notion of art.*

*-Paul Valéry, Le Conquete de l'ubiquite (1928)*

The emergence of new media in the form of interactive and hybrid reality tools enables the creation of new virtual content and opens up possibilities for the the augmentation of physical conditions in ways which have previously been unavailable to us as designers. Like the many technological innovations which have proceeded them, their capacity to inform the design process and design product should be interrogated both optimistically and critically. In this course we will be exploring the potential of hybrid reality tools and evaluating their capacity and limitations in creating immersive, interactive *environments – a.k.a. mediated environments*.

- Hands on experience with multiple augmented, virtual and hybrid reality design and representations tools including Augment, spherical rendering for Google Cardboard, Unity, and the HTC Vive VR system.
- Critical analysis of the role of digital technology in the evolution of art & architecture and an evaluation of how saturation of imagery, programming, and ubiquitous computing have shaped and will continue to mold the practice and discipline.
- An exploration of the capacity and role of data in contemporary society -how we as designers create it, use it, and represent it – and how new hybrid reality tools support and demand novel techniques for making data spatial and experiential.
- A developed awareness of the layers of virtual content which already inform our physical environments and how media offers an expanded material palette to architects.





## The Architecture of Court Society

Professor Jean-François Bédard

Throughout the Early Modern period, court society was simultaneously a political structure and a cultural institution. The princely courts were the primary arenas in which the high nobility upheld the prestige of their rank. Along with political and economic power, the nobility dictated the cultural aspirations of the social elites. Architecture and the fine arts were part of a larger material culture that included all manner of luxury goods (furniture, tapestries, objets d'art, decorative objects, dress, and even ornamental food) and played a key role in the display of power.

This seminar will examine the material and visual evidence left by court societies, keeping architecture, garden art, and decoration as its focus. Classes will be structured along the calendar of events and activities—but also the ideological concepts—that regulated noble living. Topics addressed will range from *Étiquette* and Religion to Festivities and Death.

# Slits...tracked and compressed.

## "A pan over alternative realities"

ARC 500 / M005

Syracuse University School of Architecture

Prof. Ivan Bernal / ibernal@syr.edu/ Slocum 308F/ 443-4103

Slocum 004/ 3 credits/ Tuesday and Thursday 9:30 to 10:50 AM

Office hours: By appointment



<http://www.aupremierplan.fr/category/blog/page/5/>

Slits, "tracked and compressed" explores the "**pure**" concepts (but not the techniques) of both slit scanning photography and slit scanning in cinematography as a way to expand on the notion of temporal non-spatial relationships among objects, and the deformations created by positioning added apparatuses between the subject and the viewer. By disassociating the relationship between space, time, movement, distortion, and viewer, the students would explore animations techniques as generative tools to produce a five minute animated **pan** over an **elevation**. Looking for opportunities to stretch, exaggerate, distort, mutate and transform the subject, the scene, the sequence and the time, with the goal to produce alternative realities.

Using a single camera technique "the tracking", students will produce short clips using the unexpectancy of the **left to right** movement of the camera as a way to introduce slow but drastic changes to the scene with the purpose of creating a narrative. The camera movement is not related to the passing of time, it is simply the lense by which the story is told, eliminating any temporal connection between the viewer and the sequence, and allowing the exaggeration of time in the scene to be read independently from the speed of the camera.

The clips will document "**Change**" as the main character of the story, tracking its evolution as the pan moves over. The class will use this set up as a way to explore **animated behaviors** in topics such as:

**Real to abstract:** textures, graphics and metrics.

**Faux Histories:**, erosion and decay.

**Built to Nature:** the non-manicured nature of nature.

**Densification and occupancies:** emerging forms of living.





# Party Favors

ARC 500 Spring 2018  
Wednesday 12:45-3:25pm  
Instructor: Greg Corso



Nick Cave, Soundsuit

The course will operate at the intersection of design and fabrication and will facilitate an investigation in digital design thinking, fabrication techniques/tools, and the relationship between materiality, assembly, and the design process. As a main objective of the course students will prioritize making and iterative fabrication to work through design problems.

The semester will be focused on the fabrication of an object (assembled from parts) and its material effects. The precedent and vehicle for this investigation will be an abstraction of the candy filled children's game, most commonly referred to as a pinata. By utilizing the design protocols of these artifacts (formal features, sectional volume/composition, surface articulation, color) in conjunction with fabrication strategies, efficiencies, and techniques, the course will re-imagine the precedent as an abstract architectural object. Over the course of the semester students will work in small group/pairs utilizing digital and analog tools (cnc mill, vacuum former, 3d printer) to design, fabricate, and represent a novel response to the architectural implications of the "pinata."

Students in the course should be prepared to spend \$100-200 each in material.



# Little utopias: the architecture of progressive pedagogies in the 20<sup>th</sup> and 21<sup>st</sup> centuries

ARC 500 M001 Spring 2018 / Prof. Terrance Goode



Maryann Thompson, *The Children's School* (Stamford, CT)

Frederik-Fritzer, *elementary school* (Bad Blumau, Austria)

This seminar will examine school buildings designed for the “learner-centered” or “child-centered” pedagogical theories and practices that have emerged between the beginning of the 20<sup>th</sup> century and more recent decades.

The best-known of these are the pedagogies of Maria Montessori, Rudolf Steiner (the Waldorf Schools) and the Reggio Emilia pedagogy of Loris Malaguzzi (Reggio Emilia). The Open Classroom movement that emerged in the 1960s is also important in this context. These pedagogical philosophies have been especially important at the kindergarten and primary school levels, on which the course will focus. This has occurred globally but has been especially influential in the United States and Western Europe.

Because these pedagogies generally place great value on learners' agency in determining where, how and with whom they interact as they learn, their spatial settings are correspondingly multivalent, transformable and adaptable. As we will see, this has inspired some exceptional works of architecture within the typology of children's learning environments. The socio-spatial issues raised, and the design tactics used to address them, also have broader applicability to many other building types as well as parallels within current architectural discourse. These issues will also be examined within the seminar.

The primary work of this seminar will be the analysis of exemplary school buildings designed during the last two or three decades. The goal of this analysis, performed by teams of students, will be to identify the formal strategies by which the buildings were organized, and the ways in which these formal strategies also embodied the spatial implications of the pedagogical practices and goals of each. These studies will all be produced in a coordinated graphic format and will be collated into a booklet by the end of the semester, which will be distributed to course participants, and will ultimately form the basis of a web site and potentially a traveling exhibition.

There will be four kinds of meetings in this class: discussions of readings that provide theoretical grounding for the course; instructor presentation of architectural case studies organized as an historical overview; meetings with individual project teams; and interim and final reviews of each team's case study analysis.

Herman Hertzberger, *De Evenaar school* (Amsterdam, Netherlands)

70 N Architects, *kindergarten* (Tromsø, Norway)



# SPACES OF EXCEPTION

## Interventions within Existing Conditions

Spring 2018 | Asst. Professor Harkema | Wednesdays, 9:30am - 12:30pm

*"There is no such thing as a universal architecture of resistance. It is always particular, responding to the specifics of a place and time. To write about it, to advocate it, and especially to create it, one must choose the precise point of its pressure on a given situation. For this reason, an architecture of resistance is transient, impermanent, even ephemeral, because situations change, and with them the very need for resistance."*  
- Lebbeus Woods

**Exception:** (n) an instance or case not conforming to the general rule<sup>1</sup>, a deviation from a given system or context that in turn heightens the awareness or reveals the limits of the norm

### Introduction:

The intention of this course is to investigate strategies of intervention within existing conditions. To begin, we will question the conventional notion of 'public', how it occurs within the urban context. This will entail a study in representation – modes of perceiving, drawing, and mapping 'publicness' – to build an understanding of 'public' as a space of exception. This line of inquiry will then continue as an investigation of strategies for exception within various contexts, through the analysis of a collection of precedent architectural projects.

This inquiry will explore the agency of design as a means to resist or deviate from a status quo. Considering a broad survey of existing buildings and projects, from the formally autonomous to the contextually discrete, students will identify architectural design tactics for analysis, interpretation, and future application.

The intention is not to merely point out instances of "otherness", but rather to distill viable and compelling strategies for making new exceptions, forming new instances of publicness and making alternate futures of the built environment vivid.

### General Course Structure:

Investigations in Publicness / 4 weeks  
Spaces of Exception / 4 weeks  
Strategies for Intervention / 4 weeks  
Final Exhibition Production / 3 weeks

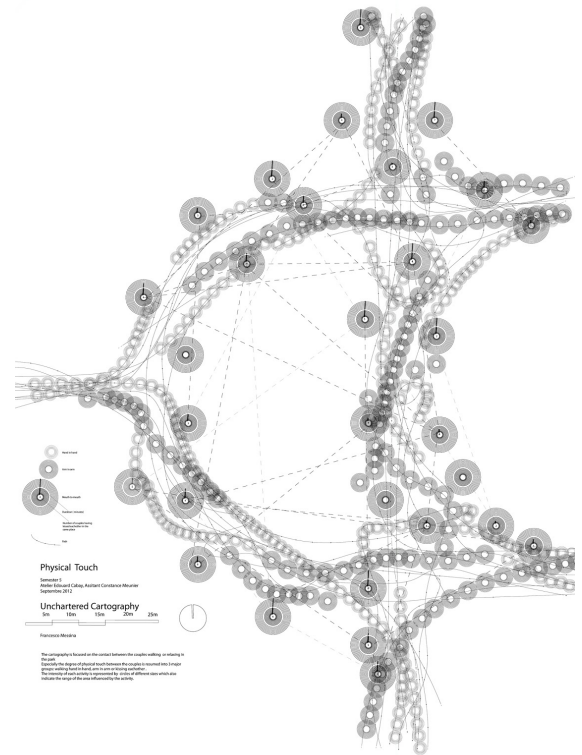


Figure 1 Francesco Messina, "Physical Touch" map of public space, from "Uncharted Cartography", Edouard Cabay Atelier, 2012



Figure 2 Bryony Roberts + South Shore Drill Team, "We Know How to Order", 2015





Figure 3 Absalon, Living Cell No. 1 (For Paris), 1993



Figure 4 Rodolfo Lanciani, Map of Rome, 1907



Figure 5 Schaum/Schieh, "Blow Up The Wall!", 2017

## Course Description:

The foundation of the course will be a critical analysis and experimentation with design and representation strategies as uncovered through analysis of precedent architectural projects. Coursework will include weekly reading assignments and discussions. Working through analytical drawings and animations, 2d and 3d projective studies, and narrative representation techniques, the collective body of work will become the content of an end-of-semester exhibition and digital publication.

## Notes on Exception:

An exception is a deviation from a given system or context (social, political, formal etc.), an instance or case not conforming to the general rule.<sup>1</sup> The notion of exception offers a critical, untapped potential to architecture as methodology for resistance. The term "exception" is a loaded one, having established connotations within architectural theory and discourse. These we will inevitably consider and confront as needed. Philosopher Giorgio Agamben describes a state of exception as the transcendence of the rule of law at times of political crisis, simultaneously enabling systems of authoritative power and the agency of oppressed groups against it.<sup>2</sup> Architect Pier Vittorio Aureli describes exception in the context of the built environment as a spatial condition inflicted by autonomous objects (buildings) that produces difference within a given environment.<sup>3</sup>

As a deviation within the vast, neutral homogeneity of built environment, the exception acts as an architectural form of resistance. This course will seek to establish a discourse around this potential, with a focus on critical analysis and visual representation as modes of operation.

*"An act can only take place in a field already crowded with other endeavors and their consequences, a crowd with which the new entrant immediately interacts, overlaps, interferes."*

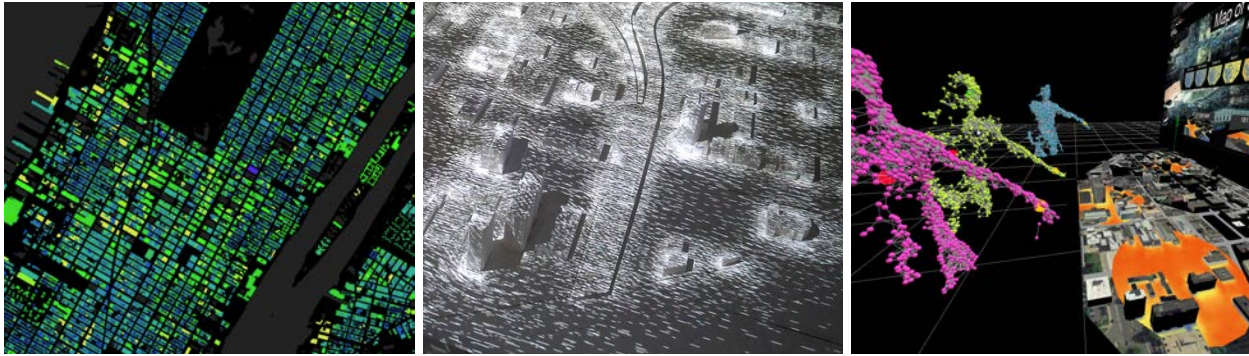
- Jane Bennett

<sup>1</sup> "Exception", <http://www.dictionary.com/browse/exception>, accessed 10/02/17

<sup>2</sup> Giorgio Agamben, "The State of Exception", Chicago: University of Chicago Press, 2005

<sup>3</sup> Pier Vittorio Aureli, "The Possibility of an Absolute Architecture", Ch. 4: Architecture as a State of Exception, Boston: MIT Press, 2011

# Spatializing Data: Visualizing Futures



Instructor: Bess Krietemeyer, Assistant Professor / Director, Interactive Design and Visualization Lab (IDVL)  
Time / Location: Wednesdays, 2:15-5:05pm, Slocum 325 or SyracuseCOE / IDVL\*

How can we leverage data visualization to reveal current conditions and discover future opportunities for more socially and ecologically resilient cities? How do we collect and visualize data about our built environment to communicate these opportunities to a wide audience? What insights do architectural designers generate that not only create awareness but inspire alternative solutions? This course explores how visual, spatial, and analytical thinking creates new approaches toward seeing, understanding, and envisioning our world. This course is part of a larger initiative, in collaboration with the Milton J. Rubenstein Museum of Science and Technology (MoST) and NOIRFLUX, to develop knowledge and tools to educate the wider public about the critical use and interpretation of data across fields in architecture, urban design and planning, and the humanities.

The course covers various data visualization methods, with a focus on how to work with data, by creating narratives of existing and future conditions in our built environment. It provides an introduction to spatial and temporal visualization techniques, data collection and mapping, and geographic information systems to study and create useful, meaningful, and compelling data visualizations. Through the use of tools ranging from Adobe Illustrator, to Rhino, to open-source GIS software and open data, students will learn how to critically use mapping techniques and geographic data for spatial analysis and representation. Through in-class workshops, design charrettes, discussions, and presentations, students will gain a better understanding of how these tools and data can be leveraged to analyze, represent, and study past, present, and future architectural and urban phenomena.

The course is structured in two phases: The first is an introduction to data visualization techniques, mapping theories, and case studies in architecture and urban planning, and provides a series of tutorials for data collection, mapping and analysis. The second phase focuses on a group design project for the remainder of the semester: the development of data visualizations for an interactive museum installation at the MoST featuring the city of Syracuse, whereby students will have the opportunity to design the user experience and observe user feedback with their designed content.

\*Depending on the weekly topic and deliverables, the course will either meet in Slocum Hall or take place at the Syracuse Center of Excellence Interactive Design and Visualization Lab, where students will have access to interactive visualization technologies for design prototyping.





## Whats-the-Problem-with-the-Window-Problem<sup>1</sup>

*"First of all, on the surface on which I am going to paint, I draw a rectangle of whatever size I want, which I regard as an open window through which the subject to be painted is seen."*

*- Leon Battista Alberti, On Painting*

**Whats-the-Problem-with-the-Window-Problem** one might ask? Ever since Alberti's description of perspectival **painting** as a window-in-the-wall the canvas and its' architectural support have been put in direct conversation. Since its inception as single-point perspective—Alberti's metaphorical window—has been a point for looking into modern painting, architecture, and moving-image technologies. Focusing our eyes on the philosophical window as an apparatus that foreshadows the thick plane where **Illusion meets Material**, as well as, the moment where the **Window meets the Wall**, and by proxy, the malleable limits of **Art and Architecture**. Connecting the way artists and architects represent their physical environment with the way we look at or through the window.

**Whats-the-Problem-with-the-Window-Problem** is a research and drawing seminar that continues the Windows' legacy of interpretations that shape Architectures' physical and representational limits. Over the course of the semester students will study theories that frame the Windows alignments with Art and Aesthetic movements – **from Perspective to Abstraction to Pop to Post-Digital**. Each one staking a claim towards how Architects deploy representations on both wall and canvas (drawings, pictures, film, photography etc) to engage physical material with media. From Hatch to Texture, Line to Vector, or Point to Pixel, the plane of the metaphorical window props up the representation techniques architects deploy in their work. And in the best cases materializes to become the work itself. Expanding the role of images from representing the "real" to now constructing **another reality**.

While the pace and consumption of an image is fast, this class will slowly parse through key identities of the Windows and resituate them through technologies available in the present. While a Problem has many interpretations, over the semester **3 Workshops** will reframe the area of inquiry in the course. Each Workshop will consist of a combination of **digital drawing and 2.5D models** informed by **readings** and **lectures** on Windows. As a final outcome the students will design an **Image-Object** in the spirit of the transdisciplinary Windows they've read and seen.

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<sup>1</sup> While the realities of pictorial art may end at its' frames (from art to architecture, and, the canvas atop the wall), in recent years Alberti's ceaselessly regurgitated proto-window now signify many other things. For more knowledge on this plane of intersection you can: Google endlessly, take this class, read The Virtual Window by Anne Friedberg, Frederick Kieslers' Design Correlation Series in Architectural Record, and read *Alberti's Window* by Joseph Moscheck in Grey Room.



**Assistant Professor:** Daniele Profeta

**Meeting Times:** Tue. & Thu. 11am 12:20pm

**Office Hours:** Room 306C - time TBD

**Room:** Slocum Hall 307

**Class:** ARC 500 - M009

**Course Website:** [www.360streetviews.com](http://www.360streetviews.com) (WIP)

### **Course Description:**

*Google Street View* can be understood as one of the most ubiquitous contemporary modes to navigate our built environment: immersed in a multi-perspectival digital bubble, we orient ourselves through a series of Geo-tagged, algorithmically edited, composited images, temporarily displacing ourselves to a *familiar place* as a way to organize our daily life, or to a yet *unexplored landscape* we are planning to visit. Through the interface of our browser or mobile device we begin to inhabit an *environment* that, in as much as it claims to objectively portray 'your world. like you've never seen it', it is actively transforming our understanding as well as our relationship with the built-environment. In this course students will consider the space of Google Street View as a *site* to expose present realities as well as to speculate on the possible futures of our contemporary cities. Working through techniques of photogrammetry, advanced digital modeling and animation, students will design *punctual*, and yet *immersive* animated environments: a series of small-worlds as a collective speculation on our contemporary landscape.

### **Disciplinary Focus:**

Immersive Videos, Animation, Narrative Based Projects, Photogrammetry, Surveying Technologies.

### **Class Deliverables:**

Students, working in groups, will be assigned a series of exercises throughout the semester leading towards the final assignment of a three to five minutes 360 video.

### **Class Structure:**

Predicated upon the idea of Research through Practice, the class meets twice a week, and it is organized around a series of Tutorials and Workshops that will introduce the students to photogrammetry as a surveying technology, advanced digital modeling and texturing, digital animation as well as video compositing. These will be paired with Lectures that will allow the students to acquire a critical position towards the material encountered.

### **Selected Reading List:**

Kurgan, Laura "Close Up at a Distance: Mapping, Technology & Politics" (Zone Books, 2013)

Presner, Todd et al. "HyperCities: Thick Mapping in the Digital Humanities" (Harvard Press, 2014)



**Design as research:**  
**CIAM, TEAM X, METABOLISM.**  
**The city of architecture**

These 3 groups are representative of some of the most important research work done by the avant-garde movements in the mid XX century. Their members are amongst the most recognized names in modern architecture, such as; Le Corbusier, Gropius, the Smithsons, Tange and Maki; as well as less well-known names, such as De Carlo, Candillis and Bakema.

Their aim was to radically re-define our understanding of the city, to create new tools methods and paradigms for modern urbanism and for architecture's role in it.

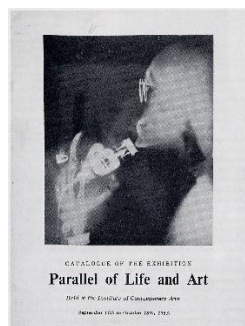
They all, share an interest in new forms of understanding the emergent social and political conditions of the time: post war reconstruction, social democracy, welfare state etc.

Their "project" was to fundamentally re-configure and re-invent the city itself and its role and relation to emergent forms of production and social organization.

The seminar proposes to look at the work produced by these groups, not simply as formulas or final products, but rather as research, that is, as evidence of design as a form of research and knowledge. The seminar will look at original texts, and selected projects from these groups as evidence of this processes.

The period framed by these groups defines not only one of the most prolific periods in architectural history but also one of the most engaged with issues of politics and the construction/definition of the social sphere as a condition of the modern subject. Arguably they expanded the field of urbanism and architecture by exploring new methodologies that in many cases were informed by developments in other disciplinary fields from anthropology to science, from sociology to systems theories etc. Equally important is the research in new technologies and modes of production as well as the fascination with the emerging field of popular culture, from science fiction to the use of mass communication tools and images in the exploration of new forms of urbanity.

We will look at original texts, manifestos, and selected projects in order to un-pack them, a "look in reverse", not towards the result but towards the premises, references, methods and process that may allow a new reading and give us maybe a new possibility of looking at these works; not as an archeology of the recent past but as part of the dynamic history of the discipline and its engagement with the city and the political sphere.



Francisco Sanin  
Tuesday 9:30-12:20  
Slocum 401



*Description* - From the start, and throughout his long and prolific career, Marcel Breuer developed form with particular material specificity. Spanning across furniture, houses, and large civic and institutional projects, Breuer projected design from an intimate and rigorous understanding of material properties. Indeed, for Breuer it seemed form followed material. The primary objective of this seminar will be the close analysis of material configuration and character in this influential architect's design work – beginning with the details. To contextualize our analysis, Breuer will be examined from multiple vantage points, including: European history, architectural history and theory, 20th C design education, work with collaborators, and through the multiple stages of his practice. Particular focus will be devoted to his furniture and residential design work.

It will be a contention of this course that built works of architecture are simultaneously conceptual-formal constructs and material artifacts. And further, that as artifact, the primary presence of a work's form is inevitably material. It follows that the projection of architecture in material terms, and its resolution in detailed assembly, all falls within the purview of design. In this regard, Marcel Breuer's design production is a veritable text book. Breuer's designs display a didactic, yet supple materiality of form. Close inspection reveals manifold lessons in "making" architecture.

*Instruction and Assignments* - Class meetings and coursework will include:

- Illustrated lectures by the instructor
- Assigned reading to be completed before specified class
- A short (1,250 word) research paper identifying, describing, and contextualizing a select design work of Marcel Breuer. Due at mid-term. (Alternate formats possible, subject to instructor approval.)
- An in-depth visual/material exploration of same Breuer work, including: analytic diagrams, and physical and/or digital modeling.

*Objectives* – After successful completion of this class, students are expected to demonstrate:

- Familiarity with the design production of Marcel Breuer.
- Familiarity with the art-historical context of Breuer's work.
- Ability to analyze Breuer's furniture and architectural designs for material use, assembly, and form vocabulary.

*Evaluation* – Seminar participation and coursework will be weighted as follows:

- 20% attendance, preparation, discussion participation
- 30% research paper
- 50% graphic and material analysis



# The Other Place: Ghosting Unspoken Nothings

Course  
Time  
Location  
Instructor

ARC 500 SEC M004 – Spring 2018  
Wednesdays 12:45pm – 3:35pm  
Room 404 Slocum Hall  
Linda Zhang – lzhang69@syr.edu

## Course Description

*'It [history] is a palace of unsaids, lingering with hushes, everyone hurtling through it and uncertain how they got there, moving from pain to ecstasy, from boredom to purpose.'*

- Rob Goyanes, "A Palace of Unsaid" in e-flux Journal #85, September 2017

*'To live is to be haunted...We are always caught up in invisible and intangible webs of the past, of the Other, of the future, of death. Our existence is therefore always in-between, defined of course by the materiality of our present being, but also by this immaterial flux that surrounds and situates us.'*

- Elisabeth M. Loevlie, "Faith in the Ghosts of Literature. Poetic Hauntology in Derrida, Blanchot and Morrison's *Beloved*" in Religions Journal, July 2013

History and identity are as much constituted by presences (of memories, monuments, and commemoration) as they are composed of absences (of omissions, repression, amnesia, gaps, the accumulate silences). These silences make up the Other of history. Hovering just beyond the here and now, lurking in its shadow, is an unseen necropolis, underbelly, or doppelgänger. Behind every spoken utterance, lies its unspoken silences. Every place has its Other, its unspoken Real, its unspoken nothings.

In this seminar, we will explore how to make sense of the pile up of omissions, willfully ignored or simply forgotten in time. Rather than embarking on the endless (and impossible) task of reifying all that has been silenced and marginalized, we will investigate and explore ways in which to introduce the unspoken Real into our physical reality. Moving beyond the endless substitutions played out in our built environment, this seminar explores possibilities that moves beyond the paradigm of reification (which problematically and necessarily implies repression elsewhere).

Through the material process of image transfer and the theoretical notion of "ghosting" we will explore how these silences can "touch down" upon our present reality to disrupt and destabilize the experience the here and now. The seminar explores both how to evoke and trigger something that is not-there and uses the silence of the not-there to question how new realities can be formed.

A ghost always has a foot in both doors. By definition, it exists not fully in the realm of the living nor in the realm of the dead, but simultaneously in both. Ghosts mediate between the here and now, and the beyond (the other doppelgänger of the present). They are a surplus which should not be there. They are uncanny, not eerie. Where eerie is experienced through the presence of absence (aka the absence of something), while the uncanny is experienced through a presence in what ought to be absence (aka a surplus where there should be absence). We will explore material loss and fuzzy unsharpness of image transfers to negotiate between present reality and the other Real beyond reality.

## Learning Objectives

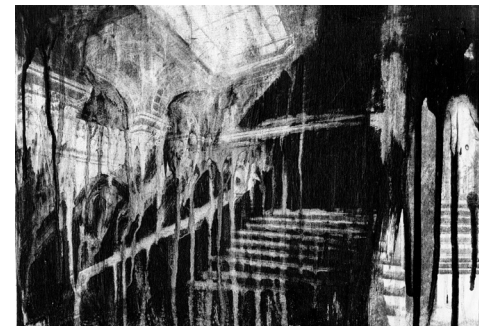
Students will begin with site research and analysis working with both archival materials as well as field research and recordings. Students will define and discover the real and unreal dimensions of their site. In addition to readings, students will use the technique of image transfers (acetone and matte medium) to work through and understand the theoretical material of the course. After a series of small assignments, students will produce large scale transfer paintings, which will be a part of the Boghosian Fellowship exhibition in the Spring.

## Prerequisites

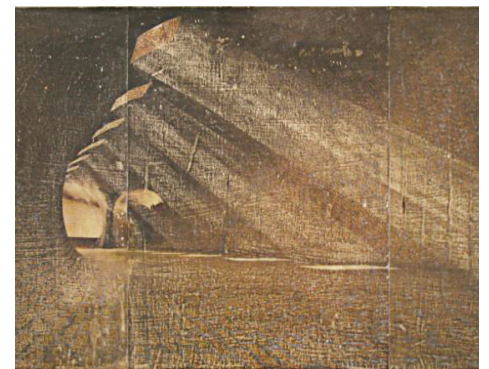
This seminar targets upper level undergraduate as well as graduate students. Previous experience photoshop and rendering is required. Experience with watercolor and acrylic painting and/or mixed media is recommended but not required.

This seminar is a complimentary research component to a VC Studio in spring, which will focus on the process of ceramic slipcasting. It is highly recommended that the two courses be taken together, however, enrollment in the studio is not required to take this seminar.

## Image Transfer Sampler



Matte medium image transfer on wood, over painted in acrylic  
© Linda Zhang



Matte medium image transfer on wood, with sanding  
© Linda Zhang



Matte medium image transfer on wood, over painted in acrylic  
© Linda Zhang



Acetone image transfer on gray paper, and spray painted  
© Linda Zhang

## **ARC 555- Intro to Building Information Modeling (BIM)**

Class meeting time will be conducted **Tuesdays** in the Slocum Computer lab 6:30-9:20 PM

This course will give the student an in-depth look at Building Information and how it is used for coordination, visualization and production in the architectural field. The primary software will be Autodesk Revit version 2016. The area of emphasis is how well students can produce buildable construction documents while being able to relay their design through perspectives and isometric views, and data lists such as door and window schedules. Once complete the students will be competent in the use of Revit and the understanding of Building Information Modeling.

The class is conducted as an instructor-led, step-by-step examination of each area of Revit as it relates to architectural building systems such as wall systems, floor systems, roofing systems, and stairs/ramps. Also, this class will cover structural systems, and the relation of architecture to mechanical, electrical and plumbing (MEP) systems.

The class deliverable will consist of each student creating their own model on their own. This model can be commercial or residential. It can be a real building, or a made up design of the student's desire. Grading will be judged by the construction documents produced. Plans, elevations, sections enlarged dimensioned details are the most important. Effort plays a critical role, as does classroom attendance and participation.

Reading material is Revit Architecture No Experience Required. This will be furnished for free by the instructor.



## **ARC 500- Advanced BIM and 3D Design using Revit**

### **Section M010**

Class meeting time will be conducted **Wednesdays** in the Slocum Computer lab 6:45-9:35 PM

Building on the fundamentals learned in the Intro class, this course prepares the student for Revit production in a live firm, sharing live models in a wide area network capacity. The students will learn how to set up projects for their firms, and how to work with other trades in the BIM spectrum. In-depth instruction on how to model custom content will be a main area of focus as well as reconstruction, design options and of course free form massing and curtain systems. Once this course is completed, our students are ready to work in any firm, big or small using Revit. Also, this course allows the students to adding potential BIM coordinator to their resumes.

This course will be instructor led, with more lab time allocated to students working on file sharing, custom content, and collaboration with other students. The class will have a stand-alone project that the students can work on as a group, or as individuals. The focus is on the students' understanding of multi-user, collaborative model sharing, as well as development of phasing plans and custom content.

This course will be accompanied with the use of Lynda.com courseware which is provided through the University

# CONSTRUCTING in the ANTHROPOCENE

OBJECTS

| ENVIRONMENT

| SPECULATION

| VISUALIZATION

Professor Julie LARSEN  
ARC 500 Prof. Elective



Vivek Njanappilly, FA 2013

## INTRODUCTION

Course: ARC 500  
Prerequisite: NONE  
Required: Yes  
Credits: 3

M @ 2:15-5:05  
Space: 404 SLOCUM

Instructor: Julie Larsen  
Assistant Professor  
email: jmlarsen@syr.edu

## DESCRIPTION

*"While visualization is normally carried out by the agent of an action, the Anthropocene is a human-created machine that is now unconsciously bent on its own destruction, a purposiveness without purpose." In Visualizing the Anthropocene, by Nicholas Mirzoeff*

The Anthropocene is a new geological age, characterized by long-term climatic change and the commencement of significant human impact, as a result of industrialization, on the Earth's geology and ecosystems. And if the Anthropocene is a human-created machine, is it possible for this planetary machine to be rendered visible with purpose? If so, what commentary can 'Constructing' in the Anthropocene make in the wake of destruction and decay of our planet, and can we speculate a foreseeable future (good, bad or ugly)?

This P.E. will focus on the design, fabrication and representation of objects in response to the Anthropocene.

Digital technology and fabrication of objects have evolved from being mostly representational tools to having significant impact on the environment and architecture as a material practice. How can we define aesthetic and formal outputs of the Anthropocene through digital and material making? The notion of objects as fixed forms is obsolete and will be replaced with objects that are emergent and responsive to their environment. Short exercises will focus on form, speculation, and ecologies (water, earth, energy, resources, etc.) that define new interpretations of 'Constructing in the Anthropocene'.

## COURSE OBJECTIVES AND EXPECTATIONS

This seminar is an experimental, professional elective focusing on representational tools, digital fabrication, and material investigation in response to environmental changes we face today. The class is comprised of lectures, readings, lab sessions, pin ups, and group discussions. The students will research historic, current and future practices of digital technology and ecologies within the Anthropocene to help construct and represent their objects. Students should gain an understanding of how to translate digital and material artifacts into environmental representations. Digital and analog techniques (both modeling and representation) will be used to speculate on the impact of an object's aesthetic within a particular environment. Emphasis will be placed on an iterative process and methodologies for working from the digital and material form making to sophisticated representations of objects in particular environments.

## REQUIREMENTS

Digital proficiency in Rhino/Maya/etc. is recommended. There will be tutorials offered for those who need assistance with projects.

## SAMPLE READINGS

Mirzoeff, Visualizing the Anthropocene  
Gissen, Subnature  
Turpin, Architecture in the Anthropocene  
Combs, Perry, Computational Ecologies: Design in the Anthropocene  
Bonneuil, The Shock of the Anthropocene  
Graham, Climates: Architecture and the Planetary Imaginary

# Iterative Ceramics: Containing Ritual Through the Architecture of Nothingness

Course           ARC 500 SEC M001 – Fall 2017  
Time             12:45pm – 2:05pm (Mo/Wed)  
Location        Room 325 Slocum  
                    Syracuse University  
                    School of Architecture  
Instructor      Linda Zhang – lzhang69@syr.edu

## Context

*If we find a mound six feet long and three feet wide in the forest, formed into a pyramid, shaped by a shovel, we become serious and something in us says, "someone lies buried here." That is architecture*  
– Adolf Loos in "Architecture" (1910)

Although Vitruvius is better known for relating the origin of architecture to the primitive hut<sup>1</sup>, he also relates the origin of architecture to the funerary urn. Citing the ancient myth of a young maiden from Corinth who fell ill, Vitruvius tells the story of the origin of the Corinthian column, which comes from the acanthus plant overgrowing the funerary urn of the maiden<sup>2</sup>. Reading Adolf Loos' quote against this backdrop, architecture emerges from the primordial need to house the mind-body in death and in life, including a symbolic meaning-making dimension which goes beyond pragmatic functionalism. Moreover, this symbolic beyond has universally recognizable forms, as given in the example of the mound. This course explores architecture not as the simple sheltering function of the primitive hut, but rather as something which emerges in the attempt to contain and bring forth the wholeness of human experience and meaning.

## Course Description

Slipcasting ceramic urns, students will develop methodologies for manipulating tangible materials to make the intangible and the invisible visible – architecture as a container for the immaterial. Thinking through making, the course aims to introduce students to a critical understanding of the spatial and temporal power of material processes to inform architecture. Exploring how to contain rituals through the making of urns, students will learn how to think spatially through emptiness, the material process of casting, and the material of ceramics.

The course will use the ceramics slipcasting process to explore the formal and symbolic aspects of transference, inversion, imprint, and trace. The semester will begin with casting exercises in "thinking inversely" to both introduce to the students to the notion of negation (thinking about emptiness inversely) as well as getting hands-on experience with the mold making and slipcasting processes. Students will spend the rest of the semester testing methodologies through the iterative casting of ceramic urns.

## Ceramic Facilities

Students will have access to facilities within the School of Architecture for slip-casting as well as supervised access to the Glaze Lab and Kilns at the College of Visual + Performing Arts' Ceramic Studio in the Comstock Art Facility. Our course will meet at various intervals in the semester with Prof. Errol Willet's (Coordinator of the Ceramic Program) slipcasting class to share and discuss our work.

## Prerequisites

This is an advanced elective in both theory and fabrication. Therefore, previous experience in architectural thinking and making (or equivalent) is required. Experience in 3d modelling, casting, mold making, CNC milling, vacuum foaming, and 3d printing are highly recommended. Previous ceramic experience is not required.

## On Nothingness

Lacan's reading of Heidegger's vase – it [the vase] creates the void and thereby introduces the possibility of filling it. Emptiness and fullness are introduced into a world that by itself knows not of them.<sup>3</sup>

Heidegger's temple – A building, a Greek temple, portrays nothing. It simply stands there in the middle of the rock-cleft valley. The building encloses the figure of the god, and in this concealment lets it stand out into the holy precinct through the open portico. By means of the temple, the god is present in the temple.<sup>4</sup>

Timothy Morton's Hyperobjects – ...nothing is ever experienced directly, but only as mediated through other entities in some shared sensual space. We never hear the wind in itself, argues Heidegger, only the wind in the door, the wind in the trees...We see the footprint of a dinosaur left in some ancient rock that was once a pool of mud. The dinosaur's reality exists interobjectively: there is some form of shared space between the rock, ourselves, and the dinosaur, even though the dinosaur isn't there directly.<sup>5</sup>

Loazi's Dao De Jing, Ch. 11: The Use of What Has No Substantive Existence – We put thirty spokes to make a wheel: But it is the hole in the center that the use of the cart hinges. We make a vessel from a lump of clay; But it is the empty space within the vessel that makes it useful. We make doors and windows for a room; But it is the empty spaces that make the room livable. In the same way matter (material body) is necessary to form (existence), the value of reality is measured by its immaterial soul.<sup>6</sup>

三十辐共一毂，当其无，有车之用。埴埴以为器，当其无，有器之用。凿户牖以为室，当其无，有室之用。故有之以利，无之以用。道德经 第十一章 老子。<sup>6</sup>

- 1 Marcus Vitruvius Pollio, *Book II of The Ten Books on Architecture*, trans. Morris Hicky Morgan (Cambridge: Harvard University Press, 2004), 38–41.
- 2 Ibid. *Book IV*, 102–106.
- 3 Jacques Lacan, *Seminar VII, 145/S VII* (New York: W. W. Norton & Company, Inc., 1959–60), 120.
- 4 Martin Heidegger, *Origin of the Work of Art, Poetry, Language, Thought* (New York: Perennial Classics, 2001), 40.
- 5 Timothy Morton, *Hyperobjects: Philosophy and Ecology After the End of the World* (Minneapolis: University of Minnesota Press, 2013), 72.
- 6 Loazi's Dao De Jing, *Chapter 11: The Use of What Has No Substantive Existence: The Function of the Non-Existent / The Value of Non-Existence* (475 BC – 221 BC).



## ARE WE THERE, THERE?!

Fall 2017 ARC500 M002

T TH 11:00-12:20pm SLOC 325

Nicole McIntosh 1 nmcintos@syr.edu

www.architectureoffice.org



Left: Twentieth Century Fox Film Corporation; courtesy of the Library of Congress Photochrom Print Collection

Right: Wes Anderson's 'The Grand Budapest Hotel', 2014

In an age of mass communication and disneyzation<sup>1</sup>, we see bizarre **URBAN MUTATIONS**. Strewn across the American landscape emerge enclaves that exude qualities and characteristics that follow European cultural themes. Not quite authentic, they represent both a familiar and exotic value set through a vocabulary of traditional cultural elements that narrate back to a destination. With names, such as: Frankenmuth (Germany), New Glarus (Switzerland) or Lindsborg (Sweden) these towns use specific classifications of symbols to identify back to an existing place and time. Originally founded by immigrants, these towns become a postproduction of the theme park, a new tourist destination.

Their **TRANSCULTURAL SETTINGS** are regulated through building codes that are derived from a collection of imagery from foreign countries that collide with the local construction type.

The 'Are we *There*, there!?' seminar is on how we can construct an **IDENTITY** with **IMAGES** to share immediate cultural experiences. The class will question aforementioned characteristics, typical elements, and significations that create a character of a **PLACE** and its **CULTURE**. Additionally, as designers we are interested in how we can actualize these codes<sup>2</sup> through materiality and assembly techniques. Over the course of the semester students will analyze **ARCHITECTURE**, **PHOTOGRAPHY**, and **FILM** that use architectural **DETAILS** and imagery that evoke certain associations and feelings for a place. In combination with **LECTURES**, **READINGS** on theory will be assigned to enhance the discourse in class.

As a case study of one of these towns, students will examine New Glarus, Wisconsin this semester. **4 WORKSHOPS** will support the production of an **IMAGE COLLECTION** and a detailed **PHYSICAL MODEL**, that document and deploy what currently flourishes under the Swiss themed building codes in Wisconsin's little Switzerland... As a final outcome, the seminar is asking students to design an Ensemble<sup>3</sup> in the transcultural setting of New Glarus in form of a **DIORAMA**.

WHY HOW WHAT

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<sup>1</sup> According to Alan Bryman Disneyzation is the process by which the principles of the Disney theme Parks are coming to dominate more sectors of the American society as well as the rest of the world. To read more on the topic: Alan Bryman, Disneyzation of Society (2004)

<sup>2</sup> Codes in the seminar are understood as a set of cultural symbols and characteristics that classify or identify with a place.

<sup>3</sup> According to Miroslav Šik designing an ensemble means choosing from the variety of a setting a few characteristic allusions, to emulate them, and at the same time mixing them with other architectures that may be alien to the particular setting. To read more on the topic: Miroslav Šik, And now the Ensemble!!! (2012)

**Credit Hours:** 3  
**Course number:** ARC 500.9 (13950)  
**Professor:** Roger Hubeli  
**Disciplinary Concerns:** Tectonics, Construction, Materiality and Fabrication  
**Prerequisites:** non  
**Meeting time:** W 2:15-5:05pm  
**Enrollment cap:** 14  
**Location:** 325 Slocum Hall (Some classes will be held in the lab)  
**Office hours:** By appointment (326c Slocum)  
**Email:** rhubeli@syr.edu

# THE TECTONICS OF CONCRETE

## **POSSIBLE SUBTITLES:**

OUT OF PLANE

POP UP

BEND AND FLEX

WARP AND WRAP

## **Course Context:**

Many of the current research and development in concrete technology form radical departures from the typical rebar reinforced, formwork casted, concrete that is proliferate through-out the construction industry. While the actual research and development on the material itself is far advanced, the potential for new formal and performative application of contemporary concrete in architecture are in their infancy and offer a wide array of possible innovations, both from a technical as well as from a design perspective.

## **Course Description:**

In this context, the course will look at early to midcentury concrete structures and explore the potential for new tectonic and atmospheric qualities that can emerge from revisiting these projects through the lens of advanced concrete technology, fabrication and construction methods.

The course is divided into two concurrent parts: theoretical and practical. The place of origin for the theoretical part is a series of readings and case studies, including the work of Fisac, Isler and Mangiarotti among others. These studies will be compiled through presentations that include images, drawings and text. The second part will be dedicated to the development of an assembly system for a roof structure. A key component of the course will be that the design, which will be developed through drawings, renderings and prototype models will be emergent from the construction and fabrication process of the system itself. The course will require group work.

## **What you will learn:**

The course will give you an understanding of the possibility of advanced concrete technology. While part of the class is dedicated to research through design, the students will also be able to work with the material hands on through making test casts and prototypes. Students will get a better understanding of different mixes, formwork and casting techniques and realize the potentials and limitations of the material and its corresponding methods.

## **What you will produce:**

There will be a digital as well as a physical outcome to this class. The digital outcome will be a series of presentations, short texts and drawings. The physical outcome will be a series of study models and concrete casts for a mid to long span roof structure.

## **Expectations:**

The complexity of the seminar demands an intense engagement with the topic and requires an interest in historical as well as current discussions in design and construction. The students should be self-driven to research historic as well as current precedents. For the drawings and models, students need to be proficient in Adobe CS (Illustrator, Photoshop and InDesign), AutoCAD and Rhino. These programs will be used for digital modeling and fabrication techniques.

The course is part of a larger research agenda that investigates the relationship between formal and performative aspects of concrete, a long-standing collaboration with Cemex Global R&D.



# ARC 511: ADVANCED STRUCTURAL RESOLUTION

Credits : 3

Instructor: Mac Namara

Pre-req: ARC 311 or ARC 612

This Professional Elective is best suited to either students in Integrated Design Studio or Thesis students who have a thesis project with a complex structural engineering dimension

The course will engage in a series of short structural design problems in the first five weeks of the semester to learn structural problem solving tools and techniques such as FEA software SAP2000. The rest of the semester will produce a full structural resolution of the students current design work in either Comprehensive Studio or Thesis. Iterations of the design will be analyzed and tested to facilitate design decisions. Final designs will be fully analyzed and rationalized from a structural engineering perspective, and detailed design calculations will allow a rich, fine grained representation of the students projects.

OVERTURNING

$$0.9(96) = 86.4$$

$$86.4 < 126.6 \text{ NG}$$

KEEP BR BTL  
LEVELS HZ ON  
LINE B BTL  
3+4

11.3'

11.3'

(1K)

4

5.0

$$266(20.5') = 436.1 \text{ NG}$$

$$12.4''$$

$$A = 13.1$$

$$I_x = 348$$

$$I_y = 50$$

$$S_x = 52.7$$

$$S_y = 12.4$$

80k  
DRAG  
FORCE

SHEAR

$$106$$

$$0.75(30) = 4.5 \text{ (1.5)}$$

$$106 = 7.6'' \text{ of } 8.6''$$

$$2(7.6'') = 15.2''$$

$$106 = 7.5'' \text{ of } 8.6''$$

$$2(7.5'') = 15.0''$$

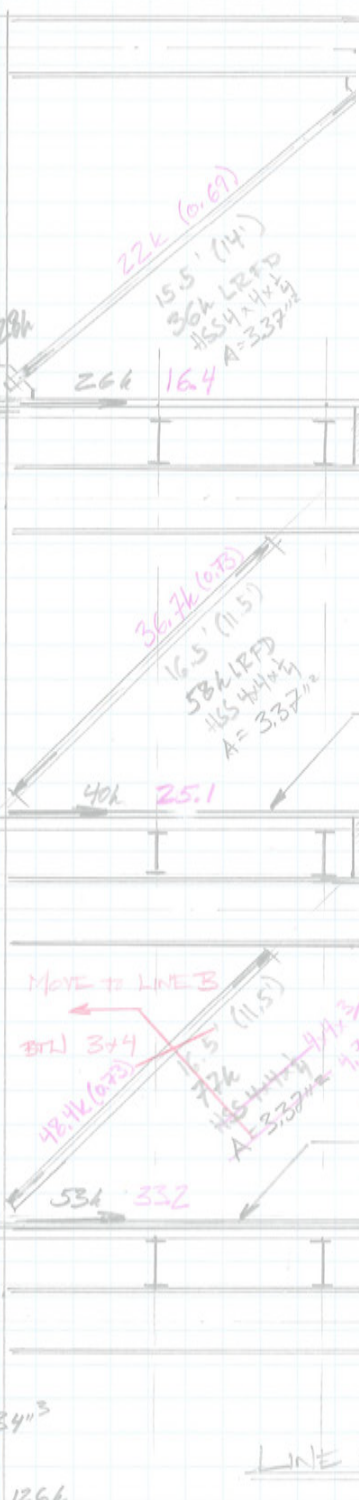
SHEAR  
2'-0" x 1/2"

$$106(20') = 2120'$$

$$S_{WED} = 2(0.25(0.25)(20')^2/6 = 34''^3$$

$$2120 = 626.8 \text{ NG}$$

$$34$$



$$DL = 60 \text{ psf}$$

$$F = 40 \text{ psf}$$

7

3

24k

48k

CHANNEL TENSION

$$53k = 1.64''^2$$

$$0.9(30)$$

$$C4x7.25$$

$$A = 2.13''^2$$

$$0.32(13/12) = 0.26$$

$$2.13 - 0.26 = 1.87''^2$$

SYRACUSE  
ARCHITECTURE

Wednesday 2.15 - 5.05 PM

File No.  
31210

Sheet No.  
3

ARC 511 Advanced Structural Resolution





# 40 Years Later: Architecture, Activism, Alliances

arc 500 M008  
professor lori brown  
fall 2017  
t 9:30 - 12:20



This seminar will examine the last 40 years in architectural activism, alliance building and advocacy for a more equitable, diverse discipline. The point of departure is the 1977 Women in American Architecture exhibition curated by Susana Torre at the Brooklyn Museum. It was an extension of the larger Women's Liberation Movement, itself spurred by the Civil Rights Movement. The course takes a critical look at the progress made in fostering a more inclusive discipline; progress which was not inevitable, but the result of a hard-won battle by impassioned advocates to keep the unique struggles of marginalized groups at the forefront of national consciousness. This will include movements such as Black Lives Matter, LGBTQ, gender, environmental, and immigration rights, as well as others that provoke us to envision a future for architecture that enables all architects to achieve their potential, regardless of gender, race, sexual orientation or physical ability in pursuit of a better world.



Gender, Space & Power in Europe & America:

*Ancient Theory*

To

**Modern Thinking**

ARC 500 M300

Fall 2017 MW 2.15 to 3.35 pm

Dr. Sara L. French, instructor

This course will investigate the idea of gender as a fluid concept with fixed characteristics from the ancient world to modern day issues of bathrooms, locker-rooms, and accessibility. Ancient Greek treatises on public & domestic life; Roman laws regarding **marriage & divorce**; **Medieval ideas of women's roles**; **Renaissance** transgressions of gender norms; and 19<sup>th</sup> & 20<sup>th</sup> century gender theories will inform historical and modern questions of domestic v. public space; religious, social, and cultural segregation; privilege and power in political, religious, and academic life; the issue of privacy; and modern questions of gender identity and social interaction

ARC 334 & 634 / HOA 454

# The Architecture of Revolutions

*European Architecture from the Scientific to the Industrial Revolution*

Professor Jean-François Bédard

MW, 3:15pm-5:05pm, 110 Maxwell Hall

*Course description.* History and theory of architecture in Europe, from 1650 to 1850, with a focus on France, England, and Germany.

*Course rationale.* The course covers one of the most innovative periods in European architecture. It is designed to provide foundational knowledge on the origins of modernity in architecture and allied disciplines.

*Conceptual framework.* Students will be introduced to the idea of “revolution” in European episteme during the seventeenth century and the resulting critical thinking associated with the Enlightenment, which challenged traditional knowledge in science, technology, and the fine arts, including architecture. Key concepts covered are: Vitruvianism, humanism, antiquarianism, aesthetics, modernity, techno-science, sensualism, associationism, and reception theory.

*Course goals/expectations/outcomes.* At the end of the course, students will be familiar with the principal actors and the important debates in European architectural theory between 1650 and 1850. They will have examined the most significant buildings and unbuilt projects that paralleled these discussions. Semester-long assignments will ensure that students can identify the techniques used in architectural drawings. Students will learn how to perform advanced bibliographic research, write a full research paper that follows the conventions of scholarly writing (footnotes, bibliography, illustrations, and captions).



ARC 433&737 / HOA 439

## French Architecture

### Sixteenth and Seventeenth Centuries

Professor Jean-François Bédard

MW, 12:45pm-2:05pm, 306 School of Management

This class traces the French approach to the reinterpretation of antique architecture during the periods commonly known as the Renaissance and the Baroque. We will confront the presuppositions of this periodization in the light of the diversity of phenomena that make French architecture of the early modern era one of the most creative moments in the art of building in the West.

Each meeting will focus on the historical, cultural, and intellectual contexts of key buildings and projects, important architects and theorists, and outstanding patrons. Special attention will be devoted to the many different incarnations of architecture, from realized buildings, drawn projects, to written treatises and pattern books. Architectural practice will be related to the larger world of ideas in the arts, the sciences, philosophy, and literature. Some individual themes will include: the chivalric imagination at work in the early châteaux of the Loire Valley; the techniques of projective geometry developed by Philibert de l'Orme for stereotomy, the art of stone cutting; the political use of architectural publications in the printed work of Jacques I Androuet du Cerceau; the influence of Descartes in the architectural and scientific work of Claude Perrault; and the political use of spectacle by Louis XIV in his gardens and château of Versailles.

Two threads will be constantly picked up in our examination. The artistic outcome of political power, architecture, then as now, relied heavily on its institutional sponsors. This class will look at the ways in which, in the hierarchical society of the Ancien Régime, the monarchy, the clergy, even the merchant class used buildings to proclaim their status. This period also saw the emancipation of the architect from the position of mere builder to that of respected intellectual. The class will end on a discussion of the French institutions that sealed that transformation—the Royal Academy of Architecture founded in 1671 and the *Bâtiments du Roi* (the King's Building Works) as reorganized and amplified by Jean-Baptiste Colbert and Louis XIV. These bodies, magnified until the French Revolution, announced the key features of contemporary architectural practice: the development of theoretical and practical knowledge delivered in formal education and the design and supervision of building projects in specialized offices.

## **Represent Represent: Hip-Hop Architecture in 2D**

ARC 500 M004, Fall 2017 - 3 Credits

Tuesdays and Thursdays 9:30 – 10:50, 325 Slocum Hall

Instructor: Sekou Cooke

### **Introduction**

*"I start to think and then I sink into the paper like I was ink ..."*

*Eric B. & Rakim from "I Know You Got Soul"*

Graffiti, one of the original four elements of hip-hop culture, has long surpassed the narrow perception of simple vandalism. It created the visual backdrop for the other three hip-hop elements (deejaying, emceeing, and b-boying) while actively transforming urban environments through simple repurposing of its 2D surfaces. Graffiti, along with hip-hop fashion, party posters, magazine covers, album art, and music videos, helped shape the visual identity of the early counter-cultural movement.

Reframing these areas of hip-hop visual culture through the lens of architectural representation will be the primary area of research within this seminar. The course will investigate popular understandings of the hip-hop image as evidenced by its visual products. How can architectural tools (composition, proportion, projection, line weight and line quality) be used to generate a legible understanding of hip-hop culture in two dimensions? How can this new understanding, in turn, support the production of a coherent architectural language?

The subject of Hip-Hop Architecture will be primarily explored through analog and digital drawings, collages, and other modes of 2D image making. Students will also expand their understanding of the topic through targeted readings and written responses.

### **Course Objectives**

- Expansion of the graphic language used to describe Hip-Hop Architecture.
- Increased vocabulary analog and digital representation tools
- Material generated within the course will add to the collective body of knowledge being developed within the study of Hip-Hop Architecture.

### **Bibliography**

Craig L. Wilkins (2000) "(W)rapped Space: The Architecture of Hip Hop," JAE, 54:1, 7-19

Jabari Garland (2005) "Flow-Tektoniks: Re-mixing Architecture to a Hip Hop Beat," ACSA

Craig L. Wilkins (2007) "The Aesthetics of Equity," University of Minnesota Press, Minneapolis

Sekou Cooke (2014) "The Fifth Pillar: A Case for Hip-Hop Architecture," HJAPP

Craig L. Wilkins and Kara Walker (2014) "Ruffneck Constructivists," Institute of Contemporary Art

Jeff Chang (2005) "Can't Stop Won't Stop"

Tricia Rose (1994) "Black Noise," Wesleyan University Press

# Re-Presenting History:

## Use of Art and Architecture to Memorialize and Revive Connections to the Past

Fall 2017 / 3 Credits

Professional Elective ARC500 M005 / TRM500

Thursdays 9:30 – 12:20/ Slocum 404

Instructors:

Edward Morris, Professor of Practice, Transmedia, VPA

Yutaka Sho, Associate Professor, School of Architecture

This course will examine the theory of historiography in the context of museums and/or memorials, and will also put theories and ideas into practice with an exhibition produced by the class during the course of the semester in the Everson Museum of Art in Syracuse.

The course will question the naturalized and static understandings of historical events, reveal the historian/ curator/ storytellers' intentions and biases, and their dissemination mechanisms. The course will examine subsequent political and social impacts of such curations in the contemporary world and will intervene in order to propose alternative methods and meanings. We will focus on historical atrocities, especially on the atomic bomb attack on Hiroshima in 1945, and will bring such atrocities into relation with the present.

The choice to focus on the Hiroshima's experience was inspired by the encounter with Ms. Keiko Ogura from Hiroshima. Ms. Ogura was eight years old when she was exposed to the atomic bomb at her home, about 1.5 miles north of the hypocenter. In October we will welcome Ms. Ogura to our class. The students will conduct in-depth research in to the Hiroshima's and Ms. Ogura's experiences and incorporate it in their specific projects.

Atrocities such as nuclear weapons attacks are indicative of global risks we face today. Many of the contemporary global threats, including nuclear radiation, climate change and economic crises, know no boundaries, geographical, class, racial or otherwise. Yet many of them are difficult to imagine because they are slow in development, often invisible, until the effects are irreversible. The society is tasked to invent a new way to communicate the urgencies of these risks, and artists and architects are well-equipped to take up the challenge. The course will seek radical and courageous means to participate in the on-going efforts to mitigate risks.

Throughout the semester the course will extract archival materials from three different sources to create historical constellations. Students will select, organize, exhibit and eventually manipulate the archival pieces and their relationships in order to tell new histories. There is only one restriction: all archival resources must be from or around 1945. Chosen pieces should be thoroughly analyzed. Three archival sources are:

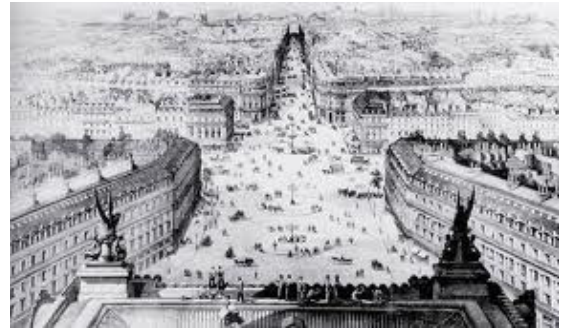
- **Everson Museum of Art**
- **Syracuse University Bird Library and Belfer Audio Archive**
- **Hiroshima Peace Memorial Museum**

The students will then create their own work and interventions in response to the archival material. This process will take place in the Member's Gallery at Everson Museum throughout the semester. The Gallery will act as a revolving, experimental, interactive curatorial space that invites interaction and response from the audience that will also be open to the public. We will organize a public event in conjunction with the class and exhibit.



# BUILDING BLOCK STREET: SEMINAR IN URBAN HOUSING Syracuse University School of Architecture

ARC 575 | fall 2017 | 3 credit hours | Professor Elizabeth Kamell | Class Hours: W 2:15pm-5:05pm | Rm 307, Slocum Hall



*Everyone relies on the city and all the public services that it contains. If we have concluded rightly, from what the philosophers say, that cities owe their origin and their existence to their enabling their inhabitants to enjoy a peaceful life, as free from any inconvenience or harm as possible, then surely the most thorough consideration should be given to the city's layout, site, and outline. Yet, opinions vary on these matters."*

- Leon Battista Alberti, De Re Edificatoria, Book 4, chp. 2, c.1450

## INTRODUCTION

Cities represent the aspirations of our common interests and the realities of political compromise. They are the product of the power invested in regime, of political will, of contention and compromise, of cultural ambition and economic exigency. Cities are made, they are crafted with intention, but they are also circumstantial and the product of climate and geography. Cities are negotiated territories and they are the place of dwelling.

Although there are many factors that bear on the quality of urban life, often omitted from a very long list is the relationship of the individual living unit to the larger structure of streets, blocks, and open space. But, formal and social aspects of the private city in the context of the public realm, both buildings and open space, are among the significant factors that render urban centers amenable to human life. The ways in which we dwell determine and are determined by larger urban systems.

Too often, the study of architecture and the city is limited to a review of monuments, buildings of cultural and institutional importance and smaller projects by known architects. Iconographic monuments and open spaces are the ones by which cities are readily identified - and they usually are the buildings and places in which public life resides. But cities are primarily composed of residential fabric, the place of daily, domestic activity. Given the predominance of housing fabric over other types of building, it may be argued that the kind and character of housing, of residential streets and blocks, is what gives form to the city as a spatial and sociopolitical entity.

Cities are distinguished not only by the quality of the public realm, the streets and open spaces, but also by the private, habitable spaces, the place of quotidian existence. This course examines urban housing within the context of cultural, social, political, economic and formal ambitions from the 17th century to the present as the product of political and social ambition, aesthetic culture, a twentieth century, modernist urban agenda, technology, economic markets, and sustainability. The relationship of the formal and socio-political, the private dwelling and urban, collective ambition focuses discussion in the seminar.

# BUILDING BLOCK STREET: SEMINAR IN URBAN HOUSING

## Syracuse University School of Architecture

ARC 575 fall 20XX 3 credit hours Professor Elizabeth Kamell Class Hours: W 2:15pm-5:05pm

*"The architecture of the large city depends essentially on the solution given to two factors: the elementary cell and the urban organism as a whole. The single room as the constituent element of the habitation will determine the aspect of the habitation, and since the habitations in turn form blocks, the room will become a factor of urban configuration, which is architecture's true goal. Reciprocally, the planimetric structure of the city will have a substantial influence on the design of the habitation and the room."*

- Ludwig Hilberseimer, *Grosstadtarchitektur*

### Summary Schedule and sample readings:

1	W	<b>Introduction</b> Snow, Dan	Filthy Cities / London, BBC Documentary
2	W	<b>Idea of Community</b> Plato	"Fundamentals of Inner Politics," <i>Republic</i> , translated by Robin Waterfield, Oxford University Press, pp.57-69
		<b>London and Bath: residential squares and the English terraced house</b> Evans, Robin	"Rookeries and Modern Dwellings," <i>Translations from Drawing to Building</i> , AA Documents 2, The MIT Press, pp. 92-117
3	W	<b>Paris: royal squares and the emergence of the apartment</b> Lipstadt, Helene	"Housing the Bourgeoisie," <i>Oppositions Books, no. 8, Paris Under the Academy: City and Ideology</i> , Spring 1977, pp. 35-47
4	W	<b>Ildefonso Cerda and the plan for Barcelona</b>	
5	W	<b>New York City: the grid, rowhouses, tenements, "French" flats, apartments</b> Hawes, Elizabeth	"Introduction," "Greater New York at the Turn of the Century," "Selling Apartments," New York, New York: How the Apartment House Transformed the Life of the City 1869-1930, Knoph, New York City, 1993
6	W	<b>Research progress presentations - by appointment during the week.</b>	
7	W	<b>German housing estates and Red Vienna</b> Miller-Lane, Barbara	"The New Architecture in the Service of Society," "The Debate over the New Architecture," <i>Architecture and Politics in Germany</i>
8	W	<b>Weissenhofseidlung</b> Kirsch, Karin	"The Weissenhofsiedlung," <i>The Weissenhofsiedlung</i> , Rizzoli, NY, 1990
9	W	<b>Housing of Le Corbusier</b> Sert, J. L., et. al.	The Athens Charter
10	W	<b>"Taken for a Ride,"</b> The rise of the auto industry and suburban growth. Jim Klein and Martha Olsen, producers, 1996	
		<b>Exurban: Radburn, Levittown, Sunnyside, and New Urbanism</b> Fishman, Robert	"Bourgeois Utopias: The Rise and Fall of Suburbia," Basic Books, Inc. 1987
11	W	<b>Research progress presentations - by appointment during the week.</b>	
12	W	<b>Team 10 and the metabolists</b> Smithson, Alison	<i>Team Ten Primer</i> , MIT Press, Boston, 1968 Alfred A. Knopf, Inc., New York City, 1992
13	W	<b>Urban Development Corporation (UDC)</b>	

## **ARC 555- Intro to Building Information Modeling (BIM)**

Class meeting time will be conducted **Tuesdays** in the Slocum Computer lab 6:30-9:20 PM

This course will give the student an in-depth look at Building Information and how it is used for coordination, visualization and production in the architectural field. The primary software will be Autodesk Revit version 2016. The area of emphasis is how well students can produce buildable construction documents while being able to relay their design through perspectives and isometric views, and data lists such as door and window schedules. Once complete the students will be competent in the use of Revit and the understanding of Building Information Modeling.

The class is conducted as an instructor-led, step-by-step examination of each area of Revit as it relates to architectural building systems such as wall systems, floor systems, roofing systems, and stairs/ramps. Also, this class will cover structural systems, and the relation of architecture to mechanical, electrical and plumbing (MEP) systems.

The class deliverable will consist of each student creating their own model on their own. This model can be commercial or residential. It can be a real building, or a made up design of the student's desire. Grading will be judged by the construction documents produced. Plans, elevations, sections enlarged dimensioned details are the most important. Effort plays a critical role, as does classroom attendance and participation.

Reading material is Revit Architecture No Experience Required. This will be furnished for free by the instructor.



## **ARC 500- Advanced BIM and 3D Design using Revit**

### **Section M006**

Class meeting time will be conducted **Wednesdays** in the Slocum Computer lab 6:45-9:35 PM

Building on the fundamentals learned in the Intro class, this course prepares the student for Revit production in a live firm, sharing live models in a wide area network capacity. The students will learn how to set up projects for their firms, and how to work with other trades in the BIM spectrum. In-depth instruction on how to model custom content will be a main area of focus as well as reconstruction, design options and of course free form massing and curtain systems. Once this course is completed, our students are ready to work in any firm, big or small using Revit. Also, this course allows the students to adding potential BIM coordinator to their resumes.

This course will be instructor led, with more lab time allocated to students working on file sharing, custom content, and collaboration with other students. The class will have a stand-alone project that the students can work on as a group, or as individuals. The focus is on the students' understanding of multi-user, collaborative model sharing, as well as development of phasing plans and custom content.

This course will be accompanied with the use of Lynda.com courseware which is provided through the University