



Assistant Professor: Daniele Profeta **Meeting Times:** Wed. & Fri. 9:30am 11:00am

Office Hours: Room 324A - time TBD **Room:** Slocum Hall 307

Class: ARC 500 - M009 **Course Website:** www.360futurearcheologies.com

Course Description:

"[e]very object is a marvelous archaeological record of everything that ever happened to it"

(Timothy Morton, *Realist Magic: Objects, Ontology, Causation.*)

Archaeology can be understood as the discipline of things *par excellence*: engaging material records to position them within the complex environment that they emerged from and participated in. This class will deploy archaeological modes of investigation to construct a speculative material record and its associated narratives. Through layered and juxtaposed media formats, temporalities and their materialities (physical and digital) will get entangled: we will excavate objects as traces of a *far past* or as clues from a *distant future* to engage in a conversation about our *present* world. The site will be the ongoing archaeological study of the Basilica of San Marco in Venice: working through techniques of photogrammetry, advanced digital modeling and composite renderings, students will design its future findings: a series of multi-media artifacts as a collective speculation on an investigation of what constitutes the human in contemporary culture(s).

Disciplinary Focus:

Immersive Imagery, Digital Fabrication, 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 360° environment, a large scale physical model (*an archaeological artifact*) and photo-realistic renderings.

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, rendering and compositing workflows as well as digital fabrication. These will be paired with Lectures that will allow the students to acquire a critical position towards the material encountered.

Selected Reading List:

Parikka, Jussi *"A Geology of Media"* (London: University of Minnesota Press, 2015)

Carmo, Mario *"The Second Digital Turn: Design Beyond Intelligence"* (Cambridge: MIT Press, 2017)

Assembly & Sequence

*Instructor: Matthew Celmer
ARC 500 Spring 2019
Wednesdays 2:15-5:05
Slocum Hall Room 404*

Assembly:

Cities and buildings are complex assemblages constructed of distinct parts that make a *whole*. In a basic sense, a city is an accumulation of buildings and urban artifacts creating quarters with unique characteristics. A building is physically manifested as an accumulation of discrete construction materials and fabrications. The collection of these materials create containers for program, events and atmospheres, meaning a building can be perceived as an assembly of rooms. We must also acknowledge *time* in the assembly of the built environment. The duration and scale of an assembly will influence its outcome. Our investigations will closely look at these topics and the frictions, overlaps, adjacencies, thresholds, disintegrations, composites, bricolages, distinctions and collages that result.

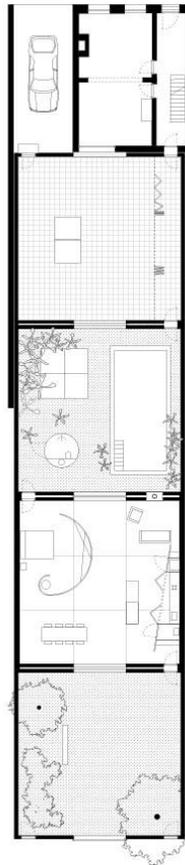
Sequence:

Architecture is experienced by walking through it and observing. As you move through space a sequence of images unfold before your eye. The elements of the architectural promenade form an observer's narrative and are never experienced in complete isolation. This sequence entails the juxtaposition of actual spaces with program (events). In this way architecture can be analyzed frame by frame much like a film, in other words architecture is a mosaic of episodes. Circulation can be used as a tool to unify and connect disparate architectural units. We plan to use movement as a way to understand the relationships of program, space and narrative. What is the role of movement in determining an assembly?

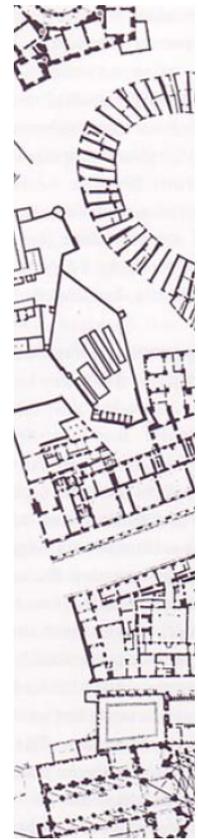
Operational Model:

The course will start with a series of fundamental readings on assembly & sequence. As a class, we will then design a single *building*. We will initially work as individuals on the design of neatly compartmentalized *units*. These *units* will then be assembled to produce the final *building*. The course will be an exercise and experiment in the methodology of *disintegrated design*. We will meet as a class to discuss and debate decisions on the assembly of our *units* into a *building*. The assembly will be an exercise decided upon by group consensus. We will embrace the idea of a building as a collection of autonomous parts and will examine their integration as a whole. The exercise is not one of aesthetics but of organizational qualities. We will look at the intersection between assembly and sequence.

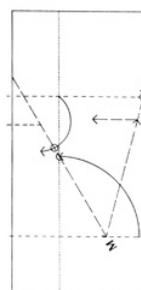
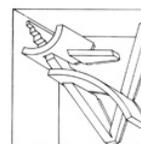
In what sequence do we assemble and what impact does this assembly have on our experience of the spatial sequence? What are our rules for assembly and part to whole relationships?



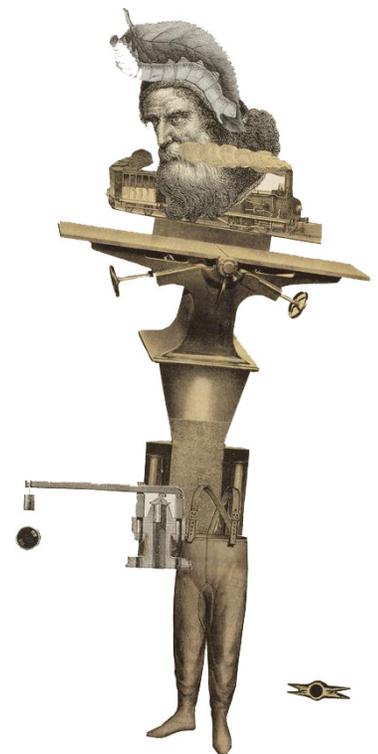
Office KGDVS
(56) Weekend House, Merchtem



Hans Kollhoff
City of Composite Presence



Bernard Tschumi
Screenplays



Breton, Tanguy & Lamba
Exquisite Corpse



(left) Arc 500: Windows?! project by Bonnie Yu and Oswal Perez (right) The Large Glass (Marcel Duchamp), Photograph by Hermann Landshoff

PICTURE WINDOWS.jpeg

For centuries architects have been specifying the location and type of Windows, but it is primarily in the visual arts that theories on viewing an imaginary plane (through a window) have been advanced. 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. Due to the Picture Windows formal resemblances to a canvas, art practices have been thinking about its' physical condition - its frame, flatness, and surface – as a *metaphor* for constructing how we see reality, the real, through art. Focusing our eyes on the canvas as metaphorical window, an opaque substrate for other materials (pigment or other) and their visual qualities to construct another realm within the world we occupy.

If for over 500 years painting benefitted from windows, what then, can windows learn from pictures?

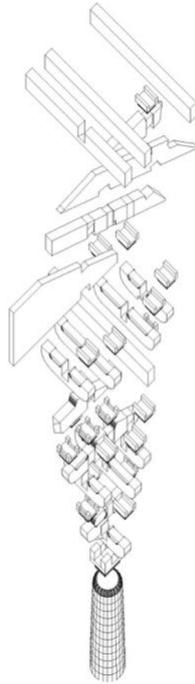
'Picture Windows' is a research and representation seminar that will look focus on the relationship between the Picture Windows' material stuff and its' visual qualities that influence your view. Over the course of the semester we will study theories that frame the Windows alignments with Art and Aesthetic conditions – from Perspective to Readymades to the Popular to Minimalism to the Digital Image – to construct techniques that innovate upon the windowpanes material characteristics and produce new (chance) visual qualities.

Over the semester we will parse through key identities of the Window in Art and Architecture and resituate them through technologies available in the present. The Course is organized into 4 Workshops that focus on 4 materials and their qualities that are readily seen today: Glass and Reflection, Digital Screen and Pixel (JPEG), Cinema Screen and Projection, Canvas and Pigment. Each Workshop will consist of a combination of digital drawing and modeling that are informed by readings and lectures on Windows. Ultimately, students will use a JPEG to design and fabricate an image-object whose (chance) visual qualities will be made in the spirit of the transdisciplinary Windows they've read and seen.

Over the span of the course students will spend approximately \$80.00-\$100.00 in fabrication time and materials.

Keywords: Picture Plane, Picture, Surface, Material, Visuality, Image, Software and Hardware, Design

ARC 500: Provincializing China: A History of Chinese Architecture
Assistant Professor Lawrence Chua, PhD
MW 3:45-5:05PM SLOC101 Prerequisite: ARC 133/ARC 134



This lecture course traces the development of Chinese architecture from Neolithic societies at Bàn pō to the “urban villages” and megacities of the present. It is divided into six chronologically-based modules that look at 1) the early development of architecture from primitive societies to the downfall of the **Hàn dynasty** 漢朝 (220CE) 2) **Buddhist influence** 三國到五代十國 from the 3rd to 6th century CE 3) The period of **standardization and refinement** 宋朝 from the 7th to 14th century 4) the **Míng and Qīng dynasties** 明朝和清朝 from the 14th to 20th century 5) the “**Modern**” era 現代 and 6) **Contemporary China** 新的中國. This structure seeks to critically examine the relationship between the concept of China as a continuous civilization and how that continuity has been expressed in architectural form. Methodologically, the course integrates techniques of formal analysis with questions of political economic history in order to create an understanding of the importance of architecture, landscape, and urban planning to the idea of “China,” the relationships between building practices in the Chinese nation, “Greater China,” and the Chinese diaspora, and the very notion of a singular Chinese architecture. Particular attention will be paid to how Chinese architectural history has been framed in order to consider the ways Orientalism, modernism and reform, historicism, formalism, Marxist historical analysis, critical regionalism, and globalization have shaped the way we understand China and its architecture.

*Drawing by Jun Cao



Breuer



van der Rohe



Gray



Perriand, Le Corbusier

furniture

histories, fabrications, materials, forms

At the beginning of the twentieth century, as waves of political and social change swept the globe, the arts sought new, foundational significance and novel expression. A generation of artists and designers cast aside nineteenth century eclectic stylings in pursuit of socially liberated and intellectually grounded relevance. Within this context, early modern architects turned to furniture design to experiment - at least it seems so for many. We see this in Corb, and Aalto, and Mies, and etcetera. In furniture, these designers saw potential for more-direct explorations of essential relationships between purpose, material, and form.

Starting with the middle-late nineteenth century Arts and Crafts movement, and focusing on twentieth century modernism, this course will examine changing relationships between form, material, and purpose in furniture design. Particular attention will be devoted to seminal designers, including: Rietveld, Breuer, Aalto, Gray, Perriand, Prouve, and the Eames. Throughout, we will seek to understand design as developed with *material specificity* – material choice, fabrication technique, material-specific configuration, and joinery. To contextualize our analysis, design work will also be considered from other vantage points - its historic, art-historic, and, even, design pedagogy situations and settings.

Additionally, this course will include furniture design and fabrication work – or, design-through-fabrication work. Mid-semester, following extensive presentation and discussion of modern furniture design history and analysis, course-mode will shift with the assignment of a design-and-build project. Each student will develop a furniture design, from research, through maquette and mock-up, and finally to completed full-scale prototype.



Aalto



Breuer



Eames



Perriand

ARC 534: From Stupa to Theme Park: A History of Buddhist Architecture

Assistant Professor Lawrence Chua, PhD

MW 12:45-2:05 Prerequisite: ARC 133/ARC 134



This lecture course traces the development of Buddhist architecture from early reliquaries and monastic halls to contemporary mega-structures and theme parks. It is organized according to a general chronology that begins with the Buddha and his teachings and then develops across regions and themes. This organization seeks to map out the relationship between Buddhist architecture and the teachings and practices of Buddhism, from its genesis and development in South Asia to its dissemination, and translation across the world. The course is designed to provide an understanding of the interaction of different Buddhist cultures and regions in Asia, with different religious practices in Asia, and with “the West.”

This course draws on art historical and religious studies methodologies to approach Buddhist architecture but integrates them with methodologies borrowed from political and economic history, religious studies, and comparative literature in order to understand the ways that Buddhist teachings were translated into physical geometries. While art history has been primarily concerned with the object, usually removed from its social, political, and economic context, this course seeks to create an understanding of the importance of architecture to Buddhist teachings and practices. Particular attention will be given to Buddhist theoretical teachings and the ways that the past has been re-framed and re-deployed over time and in different cultural contexts. We will examine the role of architecture and the built environment in the performance of ritual, the transmission of religious meaning and the teaching of felicity, salvation, and enlightenment. At the center of our investigations there will be three writing assignments which explore the relationship between the “aesthetic” and “religious” aspects of Buddhist architecture, and the mediating roles that cultural, political, economic, and historical conditions, and art historical context play in shaping this relationship.

Assistant Professor M. Dixit
ARC 500
T, Th 0930 - 1050
Spring 2019
Syracuse, New York

Material Contours

Introduction to Critical Cartography

“...instead of focusing on how we can map the subject... [we could] focus on the ways in which mapping and cartographic gaze have coded subjects and produced identities.” - J. Pickles, 2004

Abstract

With the emergence of digital technologies such as google maps, GIS, and hand-held devices, we have begun to cease the modes of production from the elite institutions that have controlled the making of maps and cartographic knowledge for the last two centuries. Everyone now has the ability to make a map, not simply a 2d orthographic projection, but real-time 3d interactive maps which expose and debunk the ‘certainty’ of centuries of map and map makers. The combination of open source information and digital applications, has given each of us the tools to make maps, which could allow us to challenge the ‘purity’ and ‘rationality’ of academic cartography and architectural mapping. But just the opposite has happened, the map still has a credibility and perceived certainty, so not only States and Institutions can make such knowledge claims, but so can private business and special interest groups. It is now essential, that each of us begin to develop both the intellectual and technical abilities of map making as a means to question the dominant ideological networks, as well as evolving our understanding of the built environment, one that is more holistic, intuitive, and less ocular-centric. We must liberate ourselves from a Cartesian understanding of space and develop the techniques to investigate our material contours in a way that will enable us as architect to reconceive and question the very nature of how we illustrate and design our built environment.

Employing forensics, analysis, and physical documentation, we will develop a methodology to separate and examine the elements which define the layers of multiple conditions. We will simultaneously unpack the physical conditions of a defined site, and through selected readings, examine the dominant ideologies that have created both its hard & soft contours. A trajectory of integrated seminars, lectures, and tutorials will enable us, via digital and analog techniques, to catalogue and document the varying investigations into new methods of architectural illustration and mapping. The collective work of the course will be organized into a single document: Comparative Border Atlas.

Objectives

This course will introduce students to advanced digital mapping tools, Illustrator, and InDesign. By means of a rigorous and iterative mapping process, students will develop a comprehensive series of maps that investigate the multiple layers of infrastructure that define ecologies. Throughout the semester, the studio research will evolve from data collection into a comprehensive and coordinated document.

Method

The seminar will examine seven border conditions. These borders represent unique models of development, growth, and organization, with each exhibiting different physical definitions of a border. This selection will allow for us to identify and visualize multiple types of border formations.

Students will work in teams of two and be assigned one of the seven borders. Teams will ‘unpack’ each territory and organize the information into the assigned InDesign template, with graphic standards. Students will organize the data via Illustrator and InDesign to construct a visual narrative to ‘begin’ a project.

Happenings

ARC 500 Spring 2019

Wednesday 12:45-3:35pm

Instructor: Greg Corso



Student work from 2018 version of course (pinatas)

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 introduced at the beginning of the semester. 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 seminar topics.

While unlikely, students in the course should be prepared to spend \$100-\$150 each in fabrication material. Please consult instructor about this or any other questions.

Memorializing Darkness:

Architecture that Connects Present to Past

Spring 2019 / 3 Credits

Professional Elective ARC500

Thursdays 9:30-12:20 in Slocum Hall 401

Instructor:

Yutaka Sho, Associate Professor, School of Architecture

This seminar course will examine theories of history-making in the form of text, images and space that may impact social engineering ideologies, policies, and culture. Students will investigate case studies of memorials, museums, monuments, archives, landscape and planning work dedicated to remembering calamities. Students will bring theories and practice together by creating a viewing experience for chosen images or objects that testify to an event.

There are different ways to memorialize calamities. Some proudly celebrate the righteousness of the violence as means to achieve peace or to minimize further damage. Some celebrate the present peace. Some display victimhood. Yet others are ambiguous in their positioning and offer witnesses and mementos of the event. None of the above are innocent or neutral regardless of their stated claim. Students will assess these positions and choose one or create new ones in their proposal.

Memorialization spaces are often designed by those who did not experience the event directly, yet the designer is asked to make the event tangible for a wider audience. There is an inevitable distance that separates the event and the designer. The distance is further amplified by the passage of time. Witnesses of the event may be dispersed or deceased, the site of the calamity may be unrecognizable, and yet many societies attempt to remember the event after all the affected people are gone. The course does not ask students to overcome the distance. Students will research how to recognize, theorize, communicate and materialize this distance.

The course will question the naturalized and static understandings of historical events, reveal the historian/ curator/ storyteller/ designers' intentions and biases, their dissemination mechanisms, and the roles of space in these processes. The course will examine subsequent political and social impacts of such curations and constructions in the contemporary world and will seek alternative methods and meanings.

The course will focus on historical atrocities and current risks, especially on nuclear disasters. Many of the contemporary global threats, including nuclear radiation, climate change and economic crises, tend to affect those who are already disadvantaged, because of their class, race, gender, or otherwise. Many of the risks are difficult to imagine because they are slow to develop, often invisible, until their effects are irreversible. Among these risks, however, nuclear risk may be the most unpredictable because radiation symptoms may manifest many years in the future to someone who had limited contact with it, and without their knowledge. In this way, nuclear radiation is difficult to fix in one's memory because it may resurface at any time. Society is tasked with inventing a new way to communicate the urgencies of these risks. The course will seek architectural means to participate in the on-going effort to understand and respond to these cataclysmic risks.

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 558- Advanced BIM and 3D Design using Revit

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 a New Portrait for The Three Gorges

Prof. James Leng

ARC 500 Section M003

Wednesdays, 9:35-12:35pm

Slocum 325

Description:

This seminar will be geared towards the hands-on production of the end-of-Spring semester Boghosian Fellowship Exhibition, to be held simultaneously in Slocum Hall and the Everson Museum of Art. Students will work in pairs, and will be assigned to one of eight concepts for a physical artifact - ranging from the scale of a small model to that of a room size installation - each a fragment of a narrative to re-examine the identity of the Three Gorges, and its possible alternate futures. Every project team will work closely with the Boghosian Fellow to develop the design of the concept, refine the material palette, and the digital fabrication techniques required to bring each design to reality. Please note that this course will likely have an intensive workload outside of class time.

The 1960s: Alternatives

ARC 500 Section M600

MW 3:45-5:05pm, Sloc 307

Prof. Susan Henderson

email: srhender@syr.edu

Professional Elective for UG, History Elective for Graduate students

DESCRIPTION

The 1960s was a time of speculation and experimentation, and its communes, lifestyle and music have become fixed in the American imagination. The events and experiments of the counter-culture were many and various. Drop City and Whiz-Bang Quick City exemplify 1960s utopias that took built form as their primary concern; on the other hand American communes in cities, San Francisco's Diggers and the Cockettes, for example, engaged alternative lifestyles as their primary terrain. Many others, like Twin Oaks, Virginia, retreated to the countryside to reinvent a back-to-the-land economy that emerged as a nascent environmentalism. There were also 'instant' communities, event-based and ephemeral; be-ins, political demonstrations and concerts, like famed Woodstock, that functioned as exemplary utopian moments, suggesting a "situationist" social order. This course asks students to explore the documents, projects and alternative culture of the 1960s.