COLLEGE OF ARCHITECTURE, ART & PLANNING

DEPARTMENT OF ARCHITECTURE

FALL 2017

ELECTIVE COURSES

Cornell University
ARCHITECTURAL PUBLICATIONS: SOJOURNS

ARCH 4300/4500
B.Arch./M.Arch. Architectural Theory/Visual Representation
Location: 261B E. Sibley
Day/Time: Wed 10:10-12:05
Instructor: Val Warke vkw1@cornell.edu
Credits: 3 Grading: Letter

The design and production of Architecture must be supported, narrated, and motivated by writing. In 2009-10, Sojourns stimulated architecture and writing at Cornell by relaunching The Cornell Journal of Architecture (issue 8: RE), followed, in 2012, by issue 9: Mathematics, and in 2016 by issue 10: Spirits. Similarly, through both the study of publications of the last 70 years and a re-engagement with the practicalities of publishing, the Fall 2017 Sojourns class will engage in the conceptualization and preliminary production of the Cornell Journal of Architecture issue 11.

Cross-listed as both architectural theory and visual representation, Sojourns engages in the freshest contemporary writing and design, allowing students to shape and guide texts submitted by writers from Cornell and further afield, as well as to consider the role of the visual (the image, the drawing, the paratext) in the reading of architecture.

Students are fully involved in and responsible for all aspects of the production. You will be asked to develop creative strategies for the coherent unification of the final collection of essays and projects. You will also learn skills in writing, editing, composition, graphics, publishing, and production.

Regular discussions with co-editors, faculty, and guests will contribute to the journal’s refinement through the semester. Grades are based on weekly presentations and discussions (50%), as well as regular graphic, writing and editing assignments throughout the semester (50%).
Modern architecture cannot be altogether understood without the study of its images dissemination. The merging between photography and architecture proved to be particularly fruitful in constructing the modern visual discourse. Architects became conscious of the full potential of photography beyond its documentary value, and photographers of architecture —architects themselves in many occasions—, shortly became important composers and broadcasters of that narrative. The discourse around photography has become more and more complex, expanding its scope and surpassing a more traditional approach. Photographic documentation gradually gave in its way to new forms of exploring reality, opening a wide range of possibilities and raising photographic and visual culture to a different level.

This theory course will go through the evolution of photography and visual culture along modern architecture, focusing initially in the origins of the avant-garde and going through more contemporary examples. In addition to some better-known topics that settle the main arguments to understand modernity, the discussions will also be held in secondary characters and contemporary photographers directly related to architecture dissemination or engaged to building its visual and theory background.

Lectures will be complemented with readings and student presentations, and a final research paper will be submitted as a result of personal work on any of the photographers, architects, readings, books, buildings or image series. Additionally, the development of a photographic project will help to understand some of the main principles involved in the visual narratives associated to architecture.
Guns: Myth & Manufacture

Ben Nicholson – Baird Visiting Professor

Danny Salamoun – Teaching Associate

Arch 3308/6308/4408

Thursdays 2:30-4:25pm; 261B E. Sibley

Course Outline

The design of revolvers, semi-automatic pistols and rifles changes as quickly as do cellphones, with equal consequence to the social and political fabric. Firearm design contributed significantly to America’s early manufacturing supremacy, based in the Connecticut River Valley. Historic and contemporary firearms & ammunition will be studied, and will include design, patents, manufacturing, hunting, shooting clubs, military & civilian use; law, movies and urban mythology. Each student will research and draw/animate a historical or contemporary revolver.

Rationale for the content of the course.

Firearms are an integral aspect of American culture and the historical and contemporary design of guns touch society deeply. Despite being the frequent subject of writing and art making in art & design schools, firearms generally remain a taboo subject within art/design academia. Aside from their design and use, firearms can rightfully be considered to be works of art, and the world’s major museums include firearms in their collections: The Smithsonian and Met NY have important arms collections, and The V & A and Design Museum in London continue to add contemporary firearm designs.

Guns: Myth and Manufacture positions firearm and ammunition design within an appraisal of the pivotal issues concerning America’s firearm culture, through a series of practical and academic studies of handguns and long guns. The different points of view of both the ‘Red State’ rural and suburban community and the ‘Blue State’ urban & suburban community will be examined, and the question of how to teach a taboo subject will include discussion on the Hunter Education Program and an overview of laws regulating firearms, including the License to Carry Handgun. At all stages of the course, no opinion will be given for or against firearms. The course will be delivered without any individualized political agenda, in order for participants to make an informed opinion of their stance upon the subject.

Overview of course work

The focus of the class is for each student to study one of seventeen pre-selected revolvers spanning 200 years of design development, up to 2009. The lectures will consider the mechanical and ergonomic design, patent development, manufacture, historical and contemporary use, and depictions in cinema. An illustrated research paper will be written on the selected revolver, and will include You Tube films on the gun. A cardboard bas-relief or digital/animated model of the mechanics of the revolver’s action will be made. The documentation will serve as the basis for a short You Tube film about the selected revolver.

Ben Nicholson: sometimes known as a ‘performative architect’ with polymathic interests that engage art, design, scholarship and popular culture, with subjects ranging from gun culture, primitive geometry, labyrinths and political satire. Educated at the Architectural Association, Cooper Union, and Cranbrook, he is now Associate Professor at SAIC, Chicago. Currently, he is co-editing Utopia in the Cornfields: Architecture, Landscape & Preservation in New Harmony. He is also guest-editing an issue of the design journal, CLOG x GUNS, on America’s firearm culture. Over his career, he has exhibited at Foundation Cartier, Canadian Centre for Architecture, the Whitney Museum, and thrice at the Venice Biennale. www.bennicholson.com

Danny Salamoun: Teaching Associate for the Cornell B.Arch program Core Design I and II Studios. Previously, he was an associate in the Introduction to Architecture Summer Studio and a Teaching Assistant for the Cornell B.Arch Pre-thesis Pro-seminar. Danny received his Bachelor’s of Arts from the University of California, Berkeley and holds a M.Arch degree from Cornell University. His graduate thesis explored the assembly and disassembly of war-torn architecture in Beirut via the instrumentality of the Ak47 rifle. Since then, he has held design positions at various architecture firms including Jacobs/Kling-Stubbins, Morphosis and Jenny Sabin Studio.
Design in Real Estate Development
Department of Architecture/PRE Arch3308/6308 (3Cr. Hrs)
Room 261 B Sibley Hall
Tuesdays 10:10 A.M to 12:05 P.M.
Professor Henry Richardson
email: hwr1@cornell.edu

Course Objective:
Understand the Role of Design as the Value Creator in Real Estate Development

Course Organization-5 Modules;
Module 1- Urban Design Strategies in Large Scale Development Case of Ground Zero in NYC
Module 2- Real Estate Product Types and their Design
Module 3- Place-Making Case Studies and Strategies
Module 4- Value Add Design
Module 5- Student Papers and Term Projects
ARCHITECTURE OR EVOLUTION:
Evolutionary Thinking & the Potentials of Environment

INSTRUCTOR
Ryan Ludwig (VC)

COURSE NUMBER
ARCH 3308/6308

CREDIT HOURS
3

CLASS LOC
142 E. Sibley Hall

DAY / HOURS
T 12:20pm - 2:15pm

COURSE FORMAT
Elective Seminar

TYPE
Spec Topics in Theory

TIME FRAME
Fall 2017

COURSE DESCRIPTION
According to the historian and theorist Lewis Mumford in his 1934 book *Technics and Civilization* the motivation behind all of man’s technological development was an attempt “to manufacture outside of the body a set of conditions more favorable toward maintaining its equilibrium and ensuring its survival.”¹ Through the design and construction of localized environments for human occupation, Architecture could be regarded as the indispensable product of man’s unwillingness to accept the natural world, the synthesis of both art and technics towards the sustenance of the human organism. Taken a step further the artist and architect partnership of Arakawa + Gins have argued that through a closer alignment of people and architectural surrounds there exists the potential for humans to sustain their lives indefinitely, that “a procedural constructing of the world will constitute a way for our species to take evolution into its own hands.”² Although the proposition of cheating death through architectural intervention may be considered fantastical aspiration, various contemporary architects have explored the potential capacities of architecture to directly impact the human condition through experience, sensation, physiology and psychological means. This explicit rethinking of architecture not as form, function or program, but rather the product of many overlapping environmental systems (material, biological, ecological, social, perceptual, atmospheric, climatic) has produced architecture more capable of engaging with inhabitants, radically affecting both the process and products of design. The synthesis of these overlapping systems is what this seminar posits as a movement towards “Evolutionary Thinking” in contemporary architectural design practice.

METHOD
In order to investigate this new thinking the seminar will work across two parallel trajectories: 1. Understanding basic concepts of evolutionary processes such as adaptation, natural selection, variation, speciation, specialization, population thinking, gene-environment interaction, evolvability, as well as others; 2. Examining the work and design processes of specific contemporary architectural practices who have adopted, at least in part, Evolutionary Thinking in their work: AMID (cero9), Aranda/Lasch, William McDonough + Partners, Bittertang, Arakawa + Gins, Terreform ONE, OCEAN, Achim Menges, Sean Lally (WEATHERS), The Living, Greg Lynn, Jurgen Mayer, MOS, R&Sie(n), Philippe Rahm, Ruy Klein among others.

The seminar will comprise short lectures by the professor and invited guests, in-depth class discussions of assigned readings and the development of independent student research. This self-directed research will be conducted throughout the semester on a chosen contemporary architectural practice, and will provide the basis for an in-class presentation and final research paper that seeks to articulate a critical assessment of the work reflective of a movement towards Evolutionary Thinking.

¹ Philippe Rahm’s diagram of the human biological clock in the brain and its stimulation by light to produce Melatonin as tested in “Hormonorium” installation by Decosterd & Rahm, Swiss Pavilion of the 2002 Venice Biennale. From: Decosterd & Rahm: Physiological Architecture, pg126.
Public [Art-or-Act]?!

The street as the stage for the display of public art ultimately produces two unique conditions: One is the blend between “High” and “Low” art, and the other, is the intersection between artistic and social forms. The former is related to objects, the latter to social events. Since public space consists of both monuments and protests; fixed objects and dynamic subjects; the construction of a social consensus by its spatial arrangement and the subversion of the social order by its users, it is an ideal lab to explore the interrelation between social constructions and artistic expressions. While the political impact of fixed monuments is the object of study of many influential writers, the artistic potential of social occurrences is yet to be explored.

This course will trace the evolution of public art in relation to the construction of social space from modern studies to recent theories. The first part will focus on the function of public art in shaping the politics of space through the study of prominent concepts such as Lefebvre’s *Monumental Space* (1974), Barthes’s *Urban Semiology*, Sommer’s *Democratic Monument* (2008) and more. Following *The Non-Representational Theories*—recent studies which shift the concern for ideology or symbolic order with observation on social actions—the second part will explore possible new directions and expansions of artistic forms in relation to social events.

The course load will include bi-weekly readings, two assignments of analytical drawings of existing sites and a final project that will be a composing and recording of an ephemeral event and/or fixed intervention in a select public square.
Gravity and lightness: From Moneo to SANAA

Architectural form has always been linked to its tectonic and constructive component. Ever since ancient times, heavy materials such as stone or brick have given shape to buildings which are anchored to the ground, governed by the laws of physics. The pyramids of Egypt or the Mesopotamian ziggurats are based on stacking, the foundation of primitive construction: The weight of a piece holds the previous one in place.

Western architecture, since the Roman tradition, has always been accompanied by this notion of gravity. The thick, load-bearing walls established clear boundaries between the exterior and the interior. A certain idea of progress has been linked with the desire to lighten these enclosures and introduce more light to the interior, as shown by the transition from Romanesque to Gothic.

In contrast, much of oriental architecture, and particularly Japanese architecture, has traditionally used light materials, such as wood. The buildings lay gently, slightly elevated off the ground, and their shōji (sliding translucent paper enclosures) blur the boundaries between the interior and the landscape.

In the twentieth century, starting with the Dom-Ino House by Le Corbusier, modern architecture began to move away from the traditional Western concept, by eliminating the bearing walls and floating the buildings on pilotis, which free the ground plane. Other pioneering architects such as F. L. Wright or L. Mies van der Rohe were strongly influenced by Japanese culture, and laid the foundations of an architecture that aspires to lightness. In Six Memos for the Next Millennium, Italo Calvino announced lightness as the first of the values of the new civilization of the 21st century.

At the present time, the architecture of Kazuyo Sejima and Ryue Nishizawa (SANAA), true to the Japanese tradition, exemplifies better than any other that modern cult of lightness. Since culture has replaced religion as the driving force of the best architecture, two museums could be considered the extremes in this journey from gravity to lightness: the Mérida Museum by Rafael Moneo and the Lens Museum by SANAA.

This course aims to be the opportunity for a critical review of some of the most important architectural works of the last few decades, which should enlighten our own work as architects. The understanding of the underlying reasons behind each project and the development of a critical ability are indispensable requirements for the achievement of project design, based on self-criticism.

In addition to the theoretical lectures, a series of selected readings and some projections, which will be discussed in the classroom, will help develop this critical skill. Through oral presentations and research papers, the students will be invited to make their own analysis of some important examples of recent architecture.
Architecture and medicine have always been tightly interlinked. If classical theories of the Greek polis followed theories of the four humors, contemporary ideas of health organize design theories today. Architectural discourse weaves itself through theories of body and brain, constructing the architect as a kind of doctor and the client as patient.

Vitruvius launched Western architectural theory in the first century BC by insisting that all architects needed to study medicine: “Healthfulness being their chief object.” As Renaissance schools of medicine used casts of body parts, design schools used cast fragments of historical buildings for teaching, and anatomical dissection was a central part of the training.

As medical representations changed, so did architectural representations. In the twentieth century, the widespread use of X-rays made a new way of thinking about architecture possible. Modern buildings even started to look like medical images, with transparent glass walls revealing the inner secrets of the building. Indeed, modern architecture cannot be understood outside of tuberculosis. The symptoms, if not the principles, of modern architecture seem to have been taken straight out of a medical text on the disease.

Every age has its signature afflictions and each affliction has its architecture. The age of bacterial diseases gave birth to modern architecture, to white buildings detached from the “humid ground where disease breeds,” as Le Corbusier put it. The discovery of antibiotics put an end to that age. In the postwar years attention shifted to psychological problems. The architect was not seen just as a doctor but as a shrink, the house not just a medical device for the prevention of disease, but for providing psychological comfort, “nervous health.”

The twenty-first century is the age of neurological disorders: depression, ADHD, borderline personality disorders, burnout syndrome and allergies—the “environmentally hypersensitive” unable to live in the modern world. What is the architecture of these afflictions? What does it mean for design?

After a series of introductory lectures on the relationship between illnesses and architecture, each seminar will be dedicated to the architectural consequences of a different illness, medical technology or theory of health. All students will be required to make a presentation during at least one of the sessions and write a term paper.
MELLON COLLABORATIVE STUDIES IN ARCHITECTURE, URBANISM, AND THE HUMANITIES

FALL 2017 EXPANDED PRACTICE SEMINAR

COURSE DESCRIPTION

This seminar proposes to triangulate three cities from three different countries to understand the connections between migration and discrimination. Istanbul, Lahore, and Berlin, in the context of Turkey, Pakistan, and Germany, will be the foci of analysis through the perspective of urban humanities fields such as architecture, visual arts, urbanism, and literature.

This triangulation will allow for the de-essentialization of “Muslim countries” as homogenous and fixed places by observing the differences between Turkey and Pakistan. It will also enable critical examination of established perceptions of these places as being fundamentally different from the “West,” by identifying diasporas in Germany, and hybrid formations and translations taking place in between the three sites. Discrimination will be discussed both as a cause and a result of migration: internal problems that compel citizens to emigrate out of their countries will be analyzed in conjunction with ideological constructs that subject them to persistent discrimination in their countries of arrival. Immigration from and through these three cities will be discussed as emblematic of the wider problem of increased contemporary displacement from South and West Asia, and North Africa.

Students will travel to Berlin to pursue on-site research on the historical and current migrant and refugee settlements (such as Kreuzberg and the Tempelhof airport), unaffordable rents and recent gentrification of immigrant areas. This seminar will be held in conjunction with the Architecture option studio about Berlin taught by Werner Goehner (enrollment in the studio is not a requirement for the seminar). The seminar will also bring together scholars working in related fields to offer open lectures, as part of the AAP Critically Now series.

Course Instructors: Esra Akcan (Associate Professor of Architecture, College of Architecture, Art, and Planning) and Iftikhar Dadi (Associate Professor of History of Art, College of Arts & Sciences) | Meeting Time: Tuesdays, 2:30 - 4:25 p.m.

CALL FOR APPLICATIONS

The Fall 2017 Expanded Practice Seminar, “Migration and Discrimination,” is an innovative traveling seminar for graduate students in the humanities and design disciplines. Expanded Practice Seminars are offered under the auspices of Cornell University’s Andrew W. Mellon Foundation Collaborative Studies in Architecture, Urbanism, and the Humanities grant and are organized by the College of Architecture, Art, and Planning and the Society for the Humanities.

Selected students receive a $1,500 stipend and a funded, week-long travel program to Berlin in Fall 2017.

Due to the interdisciplinary nature of the Expanded Practice Seminar, a wide range of skills and backgrounds are welcome. Advanced undergraduate students may apply, but preference will be given to students in their first three years of graduate study. Applications require a recent CV and a 500 – 700-word statement of interest describing your background interest in the seminar topic. No letters of recommendation are required. Questions should be directed to Emily Parsons (elp25@cornell.edu).

VISUAL REPRESENTATION ELECTIVES

Fall 2017
ARCHITECTURAL PUBLICATIONS: SOJOURNS

ARCH 4300/4500
B.Arch./M.Arch. Architectural Theory/Visual Representation
Location: 261B E. Sibley
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Instructor: Val Warke vkw1@cornell.edu
Credits: 3 Grading: Letter

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FALL 2017
TR 11:15AM – 12:05PM
MILSTEIN AUDITORIUM

Visual Imaging
In The Electronic Age
Professor Donald Greenberg

ARCH 3702, ART 2907, CS 1620, ENGR 1620
(FULLIES MQR REQUIREMENT) 4 CREDITS

Color Science
Display Technologies
Animation
3D Printing
Geometry Capture
Virtual Reality
+ Augmented Reality
ethics + the internet

Cornell University
Program of Computer Graphics
Housing has been an essential force in forming our environment and social construct. Its multifarious concerns range from social housing to domesticity and extend from the typological scale of London row house to the territorial scale of informal settlement. The topic of housing has also served as a vital catalyst to larger ideological shift in concepts and speculations of cities, such as Ebenezer Howard’s Garden City on rethinking the relationship between live-work-nature and Yona Friedman’s Spatial City as a response to the 1950s housing shortage in France.

The seminar will study the development of both historic and speculative housing models as well as their implications in shaping the urban environment. Students are encouraged to investigate specific housing precedents as design provocations. Responding to the theoretical underpinnings of related manifestos, students will “invent” alternate housing models by focusing on the representation of housing scenarios and the development of theoretical narratives through the format of a manifesto.

The course is envisioned as a semester long project organized in two parts - theoretical and visual analysis followed by narrative and imagery invention. Students will learn to develop their own representational repertoire (imagery) and a bias towards housing urbanism (narrative) through a series of lectures and guided exercises.
ARCHITECTURAL MODELS • ARCH 4509/6509
ELECTIVE COURSE • VISITING CRITIC JOÃO ALMEIDA • THURSDAYS 12:20-2:15pm • 144 E. SIBLEY HALL

Within an architectural practice models are fundamental throughout the development and execution of a project as they are used during the preliminary stages of new challenges to study overall proportions and volumes, and prove to be equally useful to further explore details during the execution process.

They are a valuable tool to explore unseen or unexpected facets of any design project, which are often and easily overlooked with 3D simulations that seem to be increasingly replacing them.

This course will explore a range of techniques on designing and executing architectural models, using examples from both architectural and artistic practices. Some emphasis will be taken on how to plan architectural models according to the overall expression that needs to be achieved, either more towards the abstract and the conceptual, or the more detailed.

Students will be challenged to re-imagine an existing project, or a fraction of it, in order to explore the model as a representational technique, venturing into different materials, shape shifts and photography to discover what the model can suggest to achieve informed architectural decisions.
STOP MOTION MANIFESTOS examines the collision between film, art and architecture in a spatial, phenomenological, historic, social and political context. Film void of space is inconceivable. This seminar will explore “cinematographic space” through the understanding of film theory and the practice of making short films. STOP MOTION MANIFESTOS will produce animated narratives using cinematic precedents and techniques to re-invent architectural space through the lens of film.

STOP MOTION MANIFESTOS will be structured in three phases: research/readings, practice/exercises, and production of a final film. No prior filming or film editing experience is required. We will begin by researching the various cinematic styles throughout history which reflect the ethos of a given time or place. Research will include viewing films and discussing readings via group discussions. The second phase will consist of directed exercises through which you will produce a series of short clips to develop your narrative, become familiar with film software, and acquire a base set of knowledge relating to cinematic techniques, film editing and production. Finally, based on one or more of your short exercises, you will develop a conclusive narrative film for viewing at the final review which may be produced by individuals or teams. Your final narrative may be influenced by the short exercises done throughout the semester, or previous projects you have completed at Cornell, or both. The set you choose for your architectural narrative could exist at the building scale, or fabricated at a smaller, physical model scale. The animation technique used for your work may be stop motion animation or conventional filming. A selection of guest speakers will join our classes throughout the semester. Spirit of Space, the award-winning filmmaking collaborative may be joining us for an extensive lecture + workshop.

STOP MOTION MANIFESTOS is inspired by the stop-motion film “My Hair is at MoMA PS1” by TempAgency which can be viewed here. Relevant Movements-Techniques/Films include but are not limited to: German Expressionism/Metropolis (Lang), The Cabinet of Dr. Caligari (Wiene, Janowicz, Mayer), Modernism/Mon Oncle (Tati), Bicycle Thieves (de Sica), 2001: A Space Odyssey (Kubrick), Futurism-Montage/Battleship Potemkin (Eisenstein), Mother (Pudovkin), Man with a Movie Camera (Vertov), Surrealism/An Andalusian Dog (Buñuel), Brazil (Gilliam), π (Aronofsky)
We yearn to see how people dressed a century ago, to recognize the familiar features of our ancestors, and experience our city as an un conquered field. We trust photographs, as they allow us a window of comprehension into history. Naturally we subscribe to the idea that seeing is believing.

The evolution of photography however has gradually shifted from documenting and perfecting truths to constructing and fabricating alternate ones. Today's tools enable us to simulate and composite a reality from disparate times and spaces. Apps allow us to document our lives outside of our present day...to create 70's style Polaroids or envision what our child would look like. With additional composited (and complicit) photorealistic 3D computer graphic technologies we are all communicating visually with an alternate language of enhanced truths. The flexibility of time and space in visual communications has become so fluid, yet relentlessly loyal to the idea of 'a realism', that the lexicon of this visual language has radically expanded.

In our course, time will be studied as a photographic 'remixing' device. Through a series of imagemaking exercises, both photographic and computer generated, we will create highly crafted and convincing narrative visions of possible 'realities'.
DIVINITY AND THE DELI:
VISUAL INQUIRIES INTO NEW YORK CITY'S STOREFRONT CHURCHES AND BODEGAS

ARCH 4509: SPECIAL TOPICS IN VISUAL REPRESENTATION
[FALL 2016] THURSDAY 12pm -2:30pm
INSTRUCTOR: OLALEKAN JEYIFOUS, Visiting Lecturer / LEKAN@VIGILISM.COM

The tension between old and new permeates the architecture of New York City's five boroughs. While well-established patterns of design and construction are in some instances expunged from the urban landscape, and in other instances preserved and cherished, a basic and defining feature for many of its long-standing, yet continually evolving, communities, is a deeply felt interaction between culture and the built environment. Nowhere is that more evident than in the bodegas, delis, 99-cent stores, and storefront churches that constitute the most visible yet vulnerable icons of New York City's vanishing urban vernacular. The signage in particular, collages featuring posters for local politicians, governmental enforcement in the form of stickers indicating “We check ID” or “EBT accepted”, signs advertising the sale of obscure ethnic food brands and even ones pertaining to the salvation of your soul, reflect the unique interactions of commerce, politics, law, religion, social activism, crime, and fear that make up the street-front pedestrian experience.

Over the course of the semester students will explore the fictions, histories and futures of these local storefront typologies (signage, surfaces and textures) through an expansive approach to developing visual narratives. Sites and spaces of inquiry will include, but not be limited to, the Yemeni delis and Caribbean storefront churches of neighborhoods like Crown Heights, Brooklyn as well as the Dominican bodegas and Pentecostal storefront churches of Harlem and the South Bronx. As a means of re-imagining social spaces wrought with a synthesis of both utopic and distopic ideals, students will examine the cultural, political, and socio-economic relationships these spaces have to their respective communities through sketching, digital collage, photo-montage, as well as moving image.
AAP ROME
Arch 3117
Sp Tp in Visual Representation

C. Ciampaglia, Visiting Lecturer
The means by which we design and make architecture are drastically changing and continue to evolve. The advancement of digital design and fabrication technology opens up distinct possibilities to redefine architecture as a discipline which is once more characterized by hands-on material practices and radical building innovation. We ask: what are new forms of making and what constitutes competent (form)-making in architecture?

This introductory course will give students an opportunity to learn and investigate digital design tools and fabrication methods while confronting materiality and assembly at full scale. Over the course of the semester, students will work in teams to develop and build small scale installations on campus. Addressing material, structure, joinery, space, performance, and budget, each project will have to reciprocally negotiate physical and digital design processes. The seminar will cover fundamental principles of computation and fabrication based on material logics and machine parameters. Students will be introduced to precedent craft techniques in various materials which serve as a foundation for innovation with new tools.

In a series of lectures, the seminar will historically situate the emergence of digital fabrication and address relevant architectural lineages and narratives (beyond the technocratic), helping students to critically position their work within current architectural discourse. Guest speakers and outside critics will contribute to discussions during the semester. Students will make use of the school’s extensive fabrication resources to develop full scale components and prototypes. Fabrication- and digital design tutorials will be given during the semester. Knowledge of digital tools is not a prerequisite for this class. The course is devised to supplement the 2nd Year B.Arch curriculum to give students a solid foundation and skill set, outlining how to design, draw, and fabricate using digital tools.

Digital design tools: Rhino, Grasshopper, Plug-ins.

Image by Xinyu Yi (M.Arch II) and Justin Foo (B.Arch), ARCH 4605/6605: Sp. Tp. in Construction: Methods of Digital Fabrication, 2015, Instructor: Sasa Zivkovic.
Exploring high performance timber constructions and their potentials

Population growth and urbanization challenge us to develop visions for sustainable, cost effective and livable habitats. In this context, modern timber construction is of interest since timber is a renewable resource that is relatively easy to process and has good structural, thermal and aesthetic qualities. According to the so-called 'IKEA effect' consumers place a disproportionately high value on products they create themselves. This observation encourages the development of flexible DIY timber structures through the means of digital fabrication, concepts of mass customization and modular system thinking. Besides its potential for customized and adaptive houses, rethinking timber constructions can lead to reduced construction costs, improved built precision and quality as well as mitigated construction errors.

The goal of this class is to explore the relevance and potentials of timber as a construction material. Structural and physical properties, traditional and modern construction systems as well as detailing will be studied in depth through lectures, hands-on experiments and a small design project. Further, digital planning processes including performance modeling and digital fabrication techniques will be introduced.
Kinetic Facade Systems
ARCH 4605/6605
Thursday 12:20 - 2:15
142 E. Sibley
Instructor: Martin Miller, Visiting Critic
e-mail: mfm97@cornell.edu

This course will explore the potential for building skins to sense and respond to changing environments. Understanding historical implementations of the brise-soleil, both static and kinetic, will establish a datum from which to develop custom actuated facades. Through physical and digital prototyping, the course will examine how computational design, digital fabrication, robotic integration and environmental simulation can seek to create a more intelligent architecture.
Biosphere + Expanded Ecologies:
The New Nexus in the creation of Architecture, Biodiversity, Automation and the Other

"In The Three Ecologies by Felix Guattari, he objects that we have challenged the Earth enough and are now on the brink of ecocide. After a century of unparalleled scientific and technological progress we have made our presence known to the planet in the most dramatic and self-defeating fashion." Now, "we are faced with a very different kind of 'feedback': a bewilderingly complex array of interrelated and unpredictably erratic fluctuations (storms, heat waves, rising sea levels, drifting icebergs, etc.) over which we have little or no control and which remind us that the whole world is a giant ecosystem with a sensitive biosphere that has taken 4.5 billion years to evolve." (Pindar and Sutton)

There is the growing consensus among Guattari, theorists, natural and social scientists alike that we now live in the Anthropocene, an epoch defined by humanity's impact on planetary systems. It posits that human behavior in recent centuries has influenced the earth's ecosystem so significantly as to constitute a new geological epoch, the anthropocene. In the anthropocene, the former dichotomy between the unflinching stability of nature, and that of constantly evolving human culture, falls apart. They are, we now know inextricably linked. So, how do we respond?

This seminar course will engage in the contemporary observation and debate regarding the anthropocene and urban ecologies, how they are defined, envisioned as well as problematized. As populations increase globally and continue to concentrate into urban areas, cities, they are also rapidly transforming both the biosphere and society and challenging both to adapt. Ecological thinking provides design with a useful lens toward understanding and reimagining new complex adaptive systems/ecologies. The course will use readings and video (Latour, Guattari, Marsh, Eames, Fuller, Kwinter, Mostafavi, Leatherbarrow and others) and case studies developed by man and nature to hypothesize how new ecological systems, categories and typologies are understood, designed and or formed, by architects and design professionals.

An interdisciplinary approach drawing from the natural sciences, design, and technology will be used to consider not only re-shaping the built environment but nature as well. Students working in topical groups will combine readings, design and systems research toward developing speculative presentations of new, emerging and expanded concepts of ecological design.
Haunted Houses

ARCH 4605/6605: Sp. Tp. in Construction
Fall 2017
157 E. Sibley
Thursday 12:20 - 2:15pm
Peter Stec, Visiting Critic

Will spaces behave, on a scale from symbiosis to malice? Isn't the future of architecture about designing the interactions and behaviors of spaces, in addition to their form?

The studio explores the architecture of performance, rather than form, on a domestic scale: it imagines the near future of architectural elements interconnected over the web, responding to users and to each other in an ongoing spatial whispering.

Almost “inside out,” it proceeds from small detail to large synthesis, from a 1:1 scale to the overall plan, from an interactive, precisely prototyped element to a scaled model demonstrating the detail in the spatial “ecosystem” of the house.

But its final aim is not only the synthetic model: it is the design of behavior for its spaces. These may adapt to moods, guests, devices, but they may even acquire characters that the students will learn to program themselves.

Students will be encouraged to imagine cinematic, excessive spatial behaviors, as envisioned by Murnau, Tati, Tarkovski, Kentridge... The houses can turn gloomy or mischievous, extrapolate a visitor’s mood, perhaps actively seducing him with their spatial personality?

Based on the expected trickle-down effect of speculative design, it is to be expected that elements or vectors present in studio works can be later developed for real-world opportunities.

The timeline starts with a research in architectural performance, including inspiration in dramatic arts and theater. The seminar aims to develop interactive architectural elements at a scale of 1:1, with a final synthesis presenting a project endowed with responsive behavior.
A collaborative faculty team between Architecture and Mechanical Engineering has funding to build a conceptual architectural/engineering dynamic sculpture in the Spring and Summer of 2018. Zimmer is a ‘building’ with legs instead of columns, no walls, and a porous roof truss that is analogous to a multi-legged animal body. It should walk a few hundred meters over a few months, off the grid, using some mixture of solar, wind, water and human power. The plan is to use a building frame that is 50’ x 25’ x 15’ made of light-gauge steel. Students will consider the mechanism, the power source, the design details, parts selection, fabrication and installation. This is an engineering project that involves all stages, from ideation, to design details, to the practical aspects of construction.

While Architecture has frequently made reference to architecture as a “machine” (Le Corbusier) and paper designs for mobile and dynamic projects like Archigram’s Walking City or Cedric Price’s Fun Palace have captured our imaginations, the interplay between mechanical systems and architecture has been limited. This project hopes to provoke, through real construction and operation, a new era of dynamic architecture.

The faculty and student team will meet once per week at a time and location to be determined. Number of credits is optional. Letter grade or P/F.

Initial information meeting will be on Thursday August, 24 at 5 PM in Upson 566. Architects meet at main architecture office at 4.40 for walk over.

Andy Ruina Dept: Mechanical and Aerospace Engineering ruina@cornell.edu
Interests: Dynamics, especially of locomotion, especially the energetics and balance of walking, biking and boating, both human and robotic. Other interests include the mechanics of friction and collisions.
Jason Cortell jbc2@cornell.edu
Martin Miller: Dept: Architecture
Interests: Architecture and Robotics, computational design and fabrication.
Caroline O’Donnell: Dept: Architecture cao53@cornell.edu
Interests: Architecture and change, architecture and unconventional materials.
Anchoring the east and west coasts, New York and Los Angeles have been celebrated and excoriated in films. On the edge literally and metaphorically, these cities seemingly present competing visions of urban form, culture, and modernity. And the iconic forms of New York (tenements and skyscrapers) and of Los Angeles (freeways and suburban homes) have fascinated film makers from the 19th century to the present day. We will both evoke and complicate contrasts between New York and Los Angeles by mapping the intersections of each city with cinema. We explore how urban experiences have produced particular cinematic genres and how cinematic styles may be translated into urban design. Topics include: cities and re-presentation; fabrication and infrastructure; economies, industries, and creativity; ethics and values; and mainstream vs “indie” production. In-class screenings of documentary, experimental, and commercial films cover such genres as early actualities, city symphonies, film noir, musicals, science fiction, etc. Readings will be drawn from theories and histories of film, urbanism, and architecture. Guest lecturers and special screenings at Cornell Cinema.

N.B. Architecture students can satisfy elective history credit (Arch 3819/5819) or out-of-college elective credit (Amst 3812 or PMA 3441 or Visst 3812)
The popular mediation of architecture gives meaning to form. The public is introduced to canonical architecture as well as everyday manufactured vernacular forms through a range of mass media and in the process is taught to recognize, desire and consume forms. As a result, mass media is an essential architecture material. This course will critically analyze a range of mass media from advertisements to the James Bond film genre in order to create a more nuanced and complete understanding of 20th-century architecture.
Modern architects, curators, and critics have consistently engaged exhibitions as a medium of design, despite the inherent paradox of exhibiting architecture: namely, that it relies on representations - drawings, fragments, photographs, models, temporary structures, etc. Even house museums, UNESCO world heritage sites, and 1:1 scale structures arguably ossify once preserved or transformed into objects of display and tourism. Is architecture no longer architecture once put on display? What are the ambitions and goals behind such a referential practice as curating architectural exhibitions? Or preserving buildings, and indeed entire towns, as museums?

This seminar explores the history of modern architectural exhibitions, such as the evolution of collecting and curatorial practices in architecture, including casts, period rooms, historic preservation, and the accessioning of architectural drawings as art objects; World Fairs such as the Panama-California Exposition and Century of Progress; model houses such as those designed by Le Corbusier, Mies van der Rohe, and Marcel Breuer; seminal exhibitions such as the International Style (1932) and Brazil Builds (1943) at The Museum of Modern Art; curating sites and memorials such as Colonial Williamsburg, the 9/11 memorial, and the Memorial to The Murdered Jews of Europe; critical heritage or experimental preservation; contemporary forms of social practice such as Estudio Teddy Cruz; the rise of global fairs such as the architecture biennials in Venice and Chicago; as well as popular forms of architectural and urban display such as Disneyland and EPCOT.

Among questions the class will explore: How do powerful museums construct architectural history? How do architectural exhibitions operate as a form of soft diplomacy to advance certain political and economic interests? What is their relationship to advertising, media, the market economy, and entertainment? What are the critical possibilities for architectural exhibitions to question our assumptions about power, social relations, and the built environment? The students will complete a final project that involves researching and curating an imaginary exhibition. Additionally the class will take a field trip to New York on September 30 – October 1 to visit the exhibitions Frank Lloyd Wright at 150: Unpacking the Archive at MoMA and Living in America: Frank Lloyd Wright in Harlem at the Wallach Gallery, Columbia University, where they will engage with the curators, researchers, and conservators who produced them and learn about competing curatorial strategies.
Foundations of the discipline
(of architectural history)

prof. d. medina lasansky / dml34@cornell.edu/ 219 w. sibley / arch 6801 / fall 2017 / fridays 10:10-12:05
MIGRATION + DISCRIMINATION

Mellon Collaborative Studies in Architecture, Urbanism, and the Humanities
FALL 2017 EXPANDED PRACTICE SEMINAR

COURSE DESCRIPTION
This seminar proposes to triangulate three cities from three different countries to understand the connections between migration and discrimination. Istanbul, Lahore, and Berlin, in the context of Turkey, Pakistan, and Germany, will be the foci of analysis through the perspective of urban humanities fields such as architecture, visual arts, urbanism, and literature.

This triangulation will allow for the de-essentialization of “Muslim countries” as homogenous and fixed places by observing the differences between Turkey and Pakistan. It will also enable critical examination of established perceptions of these places as being fundamentally different from the “West,” by identifying diasporas in Germany, and hybrid formations and translations taking place in between the three sites. Discrimination will be discussed both as a cause and a result of migration: internal problems that compel citizens to emigrate out of their countries will be analyzed in conjunction with ideological constructs that subject them to persistent discrimination in their countries of arrival. Immigration from and through these three cities will be discussed as emblematic of the wider problem of increased contemporary displacement from South and West Asia, and North Africa.

Students will travel to Berlin to pursue on-site research on the historical and current migrant and refugee settlements (such as Kreuzberg and the Tempelhof airport), unaffordable rents and recent gentrification of immigrant areas. This seminar will be held in conjunction with the Architecture option studio about Berlin taught by Werner Goehner (enrollment in the studio is not a requirement for the seminar). The seminar will also bring together scholars working in related fields to offer open lectures, as part of the AAP Critically Now series.

Course Instructors: Esra Akcan (Associate Professor of Architecture, College of Architecture, Art, and Planning) and Iftikhar Dadi (Associate Professor of History of Art, College of Arts & Sciences)

Meeting Time: Tuesdays, 2:30 – 4:25 p.m.

Photo: Esra Akcan, Graffiti on senior’s club designed by Alvaro Siza during Berlin-Kreuzberg’s urban renewal

CALL FOR APPLICATIONS
The Fall 2017 Expanded Practice Seminar, “Migration and Discrimination,” is an innovative traveling seminar for graduate students in the humanities and design disciplines. Expanded Practice Seminars are offered under the auspices of Cornell University’s Andrew W. Mellon Foundation Collaborative Studies in Architecture, Urbanism, and the Humanities grant and are organized by the College of Architecture, Art, and Planning and the Society for the Humanities.

Selected students receive a $1,500 stipend and a funded, week-long travel program to Berlin in Fall 2017.

Due to the interdisciplinary nature of the Expanded Practice Seminar, a wide range of skills and backgrounds are welcome. Advanced undergraduate students may apply, but preference will be given to students in their first three years of graduate study. Applications require a recent CV and a 500 – 700-word statement of interest describing your background interest in the seminar topic. No letters of recommendation are required. Questions should be directed to Emily Parsons (elp25@cornell.edu).

Applications must be submitted via http://urbanismseminars.cornell.edu/apply/ by May 30, 2017
When walking around Rome, you can not but become aware of its past, of the impact that history has had upon the city: everywhere are remains of ancient buildings, medieval houses and churches, renaissance and baroque palazzi and more. Sometimes they are right next to each other, other times they are on top of each other or mixed together into a collage of different materials and techniques. After all this city that extends along the Tiber, across the low lands on to the surrounding hills has existed for almost 3000 years, a continuous urban work in progress. Centuries of construction and restoration, destruction and transformation have created one of the most intricate layered city centers of the world.

This course intends to peel off the layers one by one to reconstruct the history of Rome within the Aurelian walls from its origins to the late Middle Ages, when a cityscape was created that became the base for the later development of the city from the Renaissance until the modern age. During this almost surgical removal of the layers of the city, we will pay attention to the development, use and continuity of the urban infrastructure (the streets, bridges, aqueducts and walls), the building typology (both public and private), the building materials and techniques.

A central theme in this course will be the emphasis upon the concept of continuity through transformation of the urban fabric from antiquity until the present day. At the base of this concept is the way a historical city continuously recycles itself. It does that in its spaces, open or closed, public or private, and in the materials and methods of construction. To understand this process we will look at the well preserved remains of the ancient and medieval city and combine them with the latest results in urban archaeology in order to gain better insight in the dynamics of the city as an ever changing living organism. Therefore, the course will also dedicate some time to the most important urban interventions that occurred in Rome after it was proclaimed Capital of Italy in 1870 and the way these projects interfered with its historical urban texture.

Every week one or two different "regions" will be studied, that cover a specific moment of the urban history of Rome. Each time the urban and architectural elements of the ancient and medieval phase will be analyzed, contextualized and interpreted in the light of what has been said before. Week after week, the layers of the city will be put in place and the complex urban history of the city reconstructed.

Course objectives.
- To unravel the “layers of Rome” by using the material evidence available for the study of city’s architectural and urban history and implementing it with other sources (e.g. literary, epigraphical, etc.).
- To gain thorough and direct knowledge of the Roman and Medieval urban landscape and the way this landscape has survived until today.
- To understand how the development of Modern Rome can not be separated from that of its ancient and medieval legacy.

Learning objectives.
- To “see” the different phases of the city through its building typology, building materials and building techniques;
- To interpret the specific nature of urban development in a certain part of the city at a certain time against the background of changing political, religious, economic or social standards.
- To understand the complexity of a historical city and the problems it creates for the management of its urban landscape in a contemporary environment.
Offered on-site at Cornell in Rome, this course focuses on the Renaissance and Baroque phases (15th-18th centuries) of Rome’s history. The first class sessions will survey the city’s urban history and form from its origins to the present, and we will often turn our attention to earlier and later developments, without an understanding of which the Renaissance and Baroque periods would be only partially intelligible. While the history of urban and architectural design will be our main focus, we will also look at key episodes of painting and sculpture, especially by artists who are also among the principal architects of these periods (Michelangelo, Bernini).

Class sessions will be held once a week and will largely take place on-site, at times preceded by a slide lecture in our studio. There will be a mid-term exam, a paper or project, and a final exam, weighted equally in the calculation of the final grade.

The course is offered for 3 credits and is open to any student enrolled at Cornell in Rome.
**Guns: Myth & Manufacture**  
**Ben Nicholson** – Baird Visiting Professor  
**Danny Salamoun** – Teaching Associate  
Arch 3308/6308/4408  
Thursdays 2:30-4:25pm; 261B E. Sibley

**Course Outline**
The design of revolvers, semi-automatic pistols and rifles changes as quickly as do cellphones, with equal consequence to the social and political fabric. Firearm design contributed significantly to America’s early manufacturing supremacy, based in the Connecticut River Valley. Historic and contemporary firearms & ammunition will be studied, and will include design, patents, manufacturing, hunting, shooting clubs, military & civilian use; law, movies and urban mythology. Each student will research and draw/animate a historical or contemporary revolver.

**Rationale for the content of the course.**
Firearms are an integral aspect of American culture and the historical and contemporary design of guns touch society deeply. Despite being the frequent subject of writing and art making in art & design schools, firearms generally remain a taboo subject within art/design academia. Aside from their design and use, firearms can rightfully be considered to be works of art, and the world’s major museums include firearms in their collections: The Smithsonian and Met NY have important arms collections, and The V & A and Design Museum in London continue to add contemporary firearm designs.

*Guns: Myth and Manufacture* positions firearm and ammunition design within an appraisal of the pivotal issues concerning America’s firearm culture, through a series of practical and academic studies of handguns and long guns. The different points of view of both the ‘Red State’ rural and suburban community and the ‘Blue State’ urban & suburban community will be examined, and the question of how to teach a taboo subject will include discussion on the *Hunter Education Program* and an overview of laws regulating firearms, including the *License to Carry Handgun*. At all stages of the course, no opinion will be given for or against firearms. The course will be delivered without any individualized political agenda, in order for participants to make an informed opinion of their stance upon the subject.

**Overview of course work**
The focus of the class is for each student to study one of seventeen pre-selected revolvers spanning 200 years of design development, up to 2009. The lectures will consider the mechanical and ergonomic design, patent development, manufacture, historical and contemporary use, and depictions in cinema. An illustrated research paper will be written on the selected revolver, and will include You Tube films on the gun. A cardboard bas-relief or digital/animated model of the mechanics of the revolver’s action will be made. The documentation will serve as the basis for a short You Tube film about the selected revolver.

**Ben Nicholson:** sometimes known as a ‘performative architect’ with polymathic interests that engage art, design, scholarship and popular culture, with subjects ranging from gun culture, primitive geometry, labyrinths and political satire. Educated at the Architectural Association, Cooper Union, and Cranbrook, he is now Associate Professor at SAIC, Chicago. Currently, he is co-editing Utopia in the Cornfields: Architecture, Landscape & Preservation in New Harmony. He is also guest-editing an issue of the design journal, CLOG x GUNS, on America’s firearm culture. Over his career, he has exhibited at Foundation Cartier, Canadian Centre for Architecture, the Whitney Museum, and thrice at the Venice Biennale. [www.bennicholson.com](http://www.bennicholson.com)

**Danny Salamoun:** Teaching Associate for the Cornell B.Arch program Core Design I and II Studios. Previously, he was an associate in the Introduction to Architecture Summer Studio and a Teaching Assistant for the Cornell B.Arch Pre-thesis Pro-seminar. Danny received his Bachelor’s of Arts from the University of California, Berkeley and holds a M.Arch degree from Cornell University. His graduate thesis explored the assembly and disassembly of war-torn architecture in Beirut via the instrumentality of the Ak47 rifle. Since then, he has held design positions at various architecture firms including Jacobs/Kling-Stubbins, Morphosis and Jenny Sabin Studio.
Public [Art-or-Act]?!

The street as the stage for the display of public art ultimately produces two unique conditions: One is the blend between “High” and “Low” art, and the other, is the intersection between artistic and social forms.

In 1917, when Marcel Duchamp exhibited a ready-made urinal in a museum, he ridiculed the relations between the context of display and the artistic value of an art work. According to Duchamp, any work would be considered an “art”, if exhibited within an art institution. Using the same logic, it is easy to ask the reverse question: Could any work displayed outside of an art institution be considered “Not an Art”? Public Art is based on a tension between high and low because it is an art form, which is “Not an Art”.

But the social meaning, which is attached to art in public space, reveals a whole new range of possible interpretations. Since public space hosts both monuments and protests; fixed objects and dynamic subjects; the construction of a social consensus and the subversion of the social order, it demonstrates a unique intersection between social constructions and artistic forms. And if we can raise questions regarding the political impacts of fixed public art, could we possibly raise questions on the artistic value of a social protest? Could we read a social protest as an artistic form?

This course will explore the intersection between public art and public act through reading, drawing and other possible media, in relation to two—seemingly unrelated—aspects. In the first part of the semester students will analyze existing art forms in relation to political impact through a close observation on their content, context, typology, space activation and audience participation. The second part of the semester will be comprised of a series of speculative experiments on new public art forms. For the final project student will compose, construct and record an ephemeral event and/or a fixed intervention in a select public square.

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1 Marcel Duchamp. *Fountain*. 1917
AAP NYC
Arch 5204
Professional Practice

Nina Freedman, Visiting Critic