



Spring 2018 Elective Course Offerings ~ as of 12/15/17

LANDSCAPE ARCHITECTURE

LARP 720-401: Topics in Representation: Printmaking and Making Landscape: Terrains of Wetness

Anuradha Mathur & Matthew Neff

Monday, 9:00am – 12:00pm

Cross-listed with FNAR-720-401

This seminar/ workshop will explore techniques in printmaking (intaglio in particular) as well as alternative printing techniques to engage time and materiality in landscapes. Rather than pictorial depiction, our interest will be in observing processes of transformation in the field and engaging processes of printmaking in the studio in an analogous relationship. We will move towards the iterative and serial, rather than produce singular pieces of work. Besides class time students would be expected to advance their work in the printmaking studios at other designated times. Each student will also need to pay a nominal lab fee for certain materials and supplies provided.

Enrollment will be by the permission of the instructors only.

LARP 741-401: Topics in Digital Media: Modeling Geographic Space

Dana Tomlin

Wednesday, 2:00pm – 5:00pm

Cross-listed with CPLN 632-401

The major objective of this course is to explore the nature and use of raster-oriented geographic information systems (GIS) for the analysis and synthesis of spatial patterns and processes. In contrast to the spring semester course, CPLN 666 – Modeling Geographical Objects, LARP 741 is oriented more toward the qualities of geographical space itself (e.g. proximity, density, or interspersed) than the discrete objects that may occupy such space (e.g. water bodies, land parcels, or structures).

The course focuses on the use of GIS for “cartographic modeling,” a general but well defined methodology that can be used to address a wide variety of analytical mapping applications in a clear and consistent manner. This is done by decomposing data, data-processing capabilities, and data-processing control techniques into elemental components that can then be recomposed with relative ease and with great flexibility. The result is what amounts to a “map algebra” in which cartographic layers for individual characteristics such as soil type, land value, or population are treated as variables that can be transformed or combined into new variables by way of specified operations. Just as conventional algebraic operations (such as adding, subtracting, multiplying, or dividing) might be combined into a complex system of simultaneous equations, these cartographic operations (such as superimposing one map onto another, measuring distances or travel times, characterizing geographic shapes, computing topographic slopes and aspects, determining visibility, or simulating flow patterns) might be combined into a model of soil erosion or land development potential. Open to all PennDesign graduate students.

LARP 745-401: Topics in Digital Media: Advanced Topics in GIS

Dana Tomlin

Thursday, 9:00am – 12:00pm

Cross-listed with CPLN 680-401

This course offers students an opportunity to work closely with faculty, staff, local practitioners, and each other on independent projects that involve the development and/or application of geographic information system (GIS) technology. These projects often take advantage of resources made available through Penn’s Cartographic Modeling Lab [<http://www.cml.upenn.edu>]. The course is organized as a seminar: a series of weekly meetings and intervening assignments that ultimately lead to the implementation and presentation of student-initiated projects. Early in the semester, each student selects a term project dealing with one particular topic in the field of GIS, broadly defined. Topics may range from the basic development of geospatial tools and techniques to practical applications in any of a variety of fields. Projects may be completed working either as individuals or in small groups. Ultimately, they presented in the form of in-class briefings and a final publication. Each week’s class meeting generally involves a lecture and/or discussion

engaging local GIS practitioners and relating to student projects, advanced techniques, or current GIS practice. This course is open to all students who can demonstrate sufficient experience, expertise, and/or initiative to pursue a successful term project.

LARP 750-001: Topics in Construction, Horticulture and Planting Design: Detailing in Landscape Design

Lindsay Falck & Abdallah Tabet

Thursday, 9:00am – 12:00pm

What is the role of the detail in landscape architecture? What makes a good detail, technically and conceptually? How do we understand "detailing" as a process? The detail is the moment of intersection between the conceptual and the practical, born out of the designer's effort to merge an idealized vision with a set of imposed – and often conflicting – parameters and constraints. For some, the detail may contain the essence of a project, a representation of the idea made manifest. Yet it may also be the reason the whole thing falls apart.

Through case studies of exemplary projects, lectures, discussions, and design exercises involving drawing, modeling, and fabrication at a range of scales, this seminar course will explore detailing as an idea, as a process, and as a vital component of design practice and construction methodology. This course offers students the opportunity to develop a strong grounding in the logic and language of details, supporting continued inquiry and critical engagement with design over the course of a career. This course is open to students in other departments if there is space.

LARP 756-001: Arboretum Management II: Evaluating Public Gardens

Instructor: Cynthia Skema, Botanical Scientist, Morris Arboretum

Tuesday, 1:30 – 4:30pm

This interdisciplinary course looks at public gardens as a whole, studying these public institutions and their performance in the four major services they undertake: research, horticultural display, conservation and education/outreach. Students, of any level or discipline, begin the course by learning what arboreta and botanic gardens are, how they function, and what role they fill in our society through a series of lecture sessions at the Morris Arboretum. For the remainder of the semester, the students take that knowledge into the field to apply what they have learned and evaluate some of the many public gardens in 'America's Garden Capital,' the Philadelphia region, with expert instructors from the Morris Arboretum as guides. Course assessment will be based on one exam, and a series of essays pertaining to their garden evaluations. Garden evaluations and the written work can be tailored to a particular subject of interest to a student, if pertinent within the public garden realm. Please note that this course takes place at the Morris Arboretum in the Chestnut Hill section of Philadelphia and students are responsible for transporting themselves to and from the arboretum on their own or to other Philadelphia area public gardens as required, for class each week. For further information about the course, students may contact Cynthia Skema (cskema@upenn.edu).

LARP 760-001: Topics in Ecological Design: Large-Scale Landscape Reclamation Projects

William Young

Friday, 10:00am – 1:00pm

This course will present practical techniques for the restoration of large tracts of disturbed lands. The course will emphasize techniques used to evaluate sites before a landscape design or restoration plan is prepared. Case studies will be employed to illustrate real world, practical application of course principles. Topics will include examples of how to evaluate and assess health and ecological (toxicity) condition of sites, remediation using sustainable practices, and how to add real economic value to clients' projects and portfolios of properties through ecological restoration. The class promotes sustainable design through the application of "the triple bottom line": Ecology-Economy-Culture, and a template approach on how to achieve that on every project. Open to all PennDesign graduate students.

LARP 780-002: Topics in Theory & Design: Designing with Risk

Matthijs Bouw

Tuesday, 1:30pm – 4:30pm

This research seminar investigates designing with risk, particularly as it relates to the problem of climate adaptation and resilience. The role design can have in managing risk is to a large extent uncharted territory. Our aim is to explore the potential roles and tools of design as a means of responding to risk in spatial, infrastructural and policy projects for resilience at a variety of scales. In collaboration with faculty, students and thinkers in other disciplines, we will develop a body of knowledge about risk and how it relates to streams of intellectual energy around resilience, and we will identify design tools and strategies to manage both climate risks and project risks. We will use the research seminar to collectively scope the openings where design can have the greatest agency (in either reducing risk or leveraging the potential for change that risk and instability create). These will be opportunities for further research, design projects, studios, investment or other intervention. Parallel to the seminar, a symposium and a workshop will be organized in conjunction with Rebuild by Design, NYU/Institute for Public Knowledge and Columbia University. Open to all PennDesign graduate students.

LARP 780-003: Topics in Theory & Design: Landscapes of Extraction & Sequestration

Nicholas Pevzner

Friday, 2:00pm – 5:00pm

This seminar is organized into two halves: landscapes of extraction, and landscapes of sequestration.

The first half will investigate the landscape, cultural, and political impacts of large-scale energy infrastructure development, and the deeply-held cultural narratives that accompany this process — how such projects have historically been used to extract value, project power, and reshape patterns of labor and settlement. Seminal examples of regional integrated infrastructure planning, from the TVA and Columbia River dam projects in the mid-20th century, to Germany and Netherlands' program of offshore wind development, to more recent programs of renewable energy development in China and India, among others, will inform our analysis, and will supply lessons that can inform design and planning for the current energy transition.

The second half — landscapes of sequestration — will survey a range of landscape strategies with the potential to reduce or “draw down” the atmospheric carbon pool — from novel agricultural and forestry practices, to the locking up of soil organic carbon through “carbon farming,” to the capture of “blue carbon” through coastal ecosystem management, among others. Students will investigate the ecological principles behind these strategies, and critically analyze the spatial and cultural effects that these practices can have, using case studies of real sequestration landscapes. We will question the effects of carbon markets and carbon trading schemes on local economies and power relationships, asking the question, How do decarbonization practices avoid becoming yet another mechanism of exploitation of developing countries by wealthy global powers? For both halves, students will develop methods for critically diagramming the socio-spatial impacts, landscape effects, ecosystem feedbacks, and political-economic contexts of case study examples, and then apply these lessons to prospective sites of extraction and sequestration. Open to all PennDesign graduate students.

LARP 780-004: Topics in Theory & Design: China in Africa

Christopher Marcinkoski & Javier Arpa

Wednesday, 9am – 12:00pm

This seminar will explore the role of formal (state) and informal (private and institutional) investment by China-based actors into physical urbanization activities being undertaken throughout Africa with a focus on initiatives in a handful of specific countries including Angola, Ethiopia, Kenya, Nigeria, Senegal and South Africa. Special attention will be paid to the instrumentalization of physical settlement and infrastructure building initiatives in official state development policy, as well as the motivations behind, and impacts of similar activities by private actors such as real estate developers and institutional investors. The seminar will explore the role physical urbanization plays in exerting political influence, as well as in creating access to material and territorial resources. Close attention will be paid to the social and environmental consequences of these programs, as well as how these initiatives are framed by the media in three distinct contexts (domestic Chinese media, domestic African media, and Western media). In particular, the seminar will look to reflect upon the potential agency of a retooled approach to these speculative urbanization activities by the urban design and planning professions.

The format of the seminar will mix lectures by outside experts, discussion of assigned readings and a semester-long design-research project developed individually by students. The topic and orientation of this research project will be

established in consultation with the seminar's instructors. The work produced as part of the seminar will be developed into content for upcoming exhibitions in Europe and China. Students who participate in the seminar will have the opportunity to continue on as paid research associates during Summer 2018 to assist in the preparation of the exhibition. This seminar and corresponding exhibition of work is generously supported by the PennDesign China Research Engagement Fund (CREF). Open to all PennDesign graduate students.

LARP 780-401: Topics in Theory & Design: Environmental Readings

Frederick Steiner

Tuesday, 9:00am – 12:00pm

Cross listed with CPLN 685-401, ARCH 482-401

In this seminar, we will explore this green thread and analyze its influence on how we shape our environments through design and planning. The course has three parts. Throughout, the influence of literature on design and planning theory will be explored. The first part will focus on three most important theorists in environmental planning and landscape architecture: Frederick Law Olmstead Sr., Charles Eliot and Ian McHarg. The second part of the course will critically explore current theories in environmental planning and landscape architecture. The topics include: frameworks for cultural landscape studies, the future of the vernacular, ecological design and planning, sustainable and regenerative design, the languages of landscapes, and evolving views of landscape aesthetics and ethics. In the third part of the course, students will build on the readings to develop their own theory for ecological planning or, alternatively, landscape architecture. While literacy and critical inquiry are addressed throughout the course, critical thinking is especially important for this final section. Open to all PennDesign graduate students.

LARP 710-001: Implementation of Urban Design

Candace Damon & Alex Stokes

Tuesday, 5:00pm – 8:00pm

This course is a requirement for students enrolled in the Certificate of Urban Design program.

With a focus on contemporary major cities this subject charts the various ways in which urban design is typically conceived, procured, administered and ultimately delivered. From the very conception of a project to its completion, the various methods and avenues through which contemporary cities are planned, designed and constructed are examined from multiple perspectives so that students become familiar with the myriad issues and main actors involved in urban development. Through exemplary case studies the subject offers a comprehensive understanding of the complexities and contingencies of contemporary city making, placing a particular emphasis on the role of the urban designer as a practical, ethical and visionary agent of change. This course may open to other interested PennDesign students if there is space and with the permission of the instructor.

LARP 781-401: Contemporary Urbanism

Richard Weller & David Gouverneur

Wednesday, 2:00pm – 5:00pm

Cross-listed with CPLN 673-401

This course will expose students to a wide array of case studies in Planning, Urban Design, and Landscape Architecture. They include: notions of sustainable development, the interplay between open space and built form, the rehabilitation of existing areas as historic districts, commercial corridors, and the improvement of squatter settlements. Also, it will focus on city expansions and new towns, housing, mixed-use developments, and areas of new centrality. The program will address as well territorial planning, the improvement of open space systems, and site specific interventions of parks, plazas, streetscape and gardens. Cases will provide the proper ground for analysis and interpretation of issues related to the design and implementation of "good" landscape and urban form. Class discussions will be complemented with short design exercises. We will also enjoy the presence of outstanding visiting lecturers, who will share with us cutting-edge information, derived from their professional practice and research. Registration limited to students in the MLA 602 level; students in the Certificate in Urban Design program; and a limited number of MLA students; other PennDesign graduate students must seek permission of the instructor.

CITY PLANNING**CPLN 621-001: Metropolitan Food Systems**

Domenic Vitiello

Friday, 9:00am-12:00pm

This course introduces students to the planning and development of community and regional food systems around the world. It focuses on strategies by which planning and allied professionals impact food systems through traditional and non-traditional planning and community economic development institutions. Major topics include foodshed planning; municipal food policy; food justice; food assistance; distribution and markets; enterprise and workforce development; and urban agriculture. The course aims to develop students' broad knowledge of food system planning, with an emphasis on community and economic development strategies for sustainable food systems and community food security

CPLN 630-001: Innovations in Growth Management

Thomas Daniels

Tuesday, Thursday, 12:00pm-1:30pm

The US population is expected to grow by more than 75 million by 2051. This course evaluates the tools and techniques for managing growth in America, especially to control sprawl in metropolitan regions. The course analyzes the form and functions of the central cities, suburbs, edge cities, ex-urbs, and megaregions. Federal, state, and local programs that influence metro change are evaluated. Regional planning approaches are analyzed in case studies.

CPLN 631-001: Planning for Land Conservation

Thomas Daniels

Wednesday, 2:00pm-5:00pm

Land preservation is one of the most powerful, yet least understood planning tools for managing growth and protecting the environment. This course provides an introduction to the tools and methods for preserving private lands by government agencies and private non-profit organizations (e.g., land trusts). Topics include purchase and donation of development rights (also known as conservation easements), transfer of development rights, land acquisition, limited development, and the preservation of urban greenways, trails, and parks. Preservation examples analyzed: open space and scenic areas, farmland, forestland, battlefields, and natural areas.

CPLN 635-001: Water Policy and Planning

Allison Lassiter

Tuesday, 1:30pm-4:30pm

Aging infrastructure, urbanization, climate change, and limited public funds are contributing to urban water management crises in cities around the globe. This course examines the systems and policies that comprise urban water. We begin with the infrastructures that underlie drinking water, wastewater, and stormwater services. Then, we review innovative management technologies and strategies, focusing on case studies of infrastructure shifts in Philadelphia and Melbourne. Finally, we undertake a global investigation of water management challenges and opportunities.

CPLN 655-001: Multimodal Transportation

Erick Guerra

Monday, Wednesday 10:30-12:00pm

The purpose of this course is to explore contemporary multimodal transportation systems, policy, planning, and practice through a series of comparative international case studies. Topics include innovative parking management in San Francisco, congestion charging in London, Metro investments in Mexico City, informal transportation in Indonesia, Bus Rapid Transit in Bogota, and bicycle infrastructure investments in Copenhagen. The course will also include one or more site visits to innovative multimodal transportation projects in the Philadelphia or New York City regions. By analyzing contemporary planning challenges and best practices, students will develop a better understanding of how the transportation system works and how to design and employ specific multimodal interventions and policies effectively.

ARCHITECTURE

ARCH 712-001: Topics in Arch Theory II: Visible Cities: Urban Architectures of Tomorrow

Ariel Genadt

Tuesday, 12:00-3:00pm

Towards what kind of city do architects design? In the 21st century, responses to this question have hovered between two poles: one sees the city as a collection of visually and economically autonomous objects, free from ground and history; the other - as a subset of a realm where all things are connected through topography, air, water, energy flows, cybernetics and economy. In all cases, for designers, questions remain open as to the degree to which architecture should represent or resist mimicking its autonomy from, or continuity with its ecological and social milieus. Since architecture's singularity and connectedness are perforce linked to the vicissitudes of sociology, politics, economy and ecology, the city is a perpetually changing reflection of culture. Though it often appears that a chasm separates singularity and connectedness in urban architecture, their current cohabitation within the same environment indicates that both respond to human needs. This seminar aims to foster conversations around a variety of approaches to these questions. It takes its cues from imaginary visions of cities and future lifestyles, from the late 20th century and first two decades of the 21st, both built and imaginary as some extreme scenarios presented in science fiction films and speculative drawings. The seminar does not aim to provide a historic survey of urban theories that have been covered in other courses. It focuses on architects' contributions to future cityscapes through the design of urban buildings and landscapes. A selective choice of readings and projects will serve to trigger conversations around issues that preoccupy students in their design studio and may appeal equally to future architects, urban designers, and landscape architects. Readings will discuss fictions and reality around the topics of identity, autonomy, ground, megaform, flows, urban ecology, "anarchitecture," heterotopias and cyberspace. Each meeting will treat two projects: one imaginary and one built, assessed in light of two texts that offer complimentary insight on the topic (max 25 pages per week). Weekly reading responses (250 words) will serve to raise questions for class discussion. Each discussion will have a student "respondent." In parallel, throughout the term, students will develop their main project: imagine, design and represent a "possible urban scenario" based on a choice of two course topics. This free critical engagement with the topics will unfold an urban scenario in a specific place, over time. The scale may be from the urban building to the city and its landscape. The final product will be a series of ten 11x17"-size drawings using mixed media: digital, collage and hand drawing

ARCH 712-002: Topics in Arch Theory II: The New Materiality

Manuel Delanda

Thursday, 6:00-9:00pm

This lecture series introduces students to the basic philosophical concepts needed to understand morphogenesis, or the Birth of Form, both as it occurs spontaneously in Nature, and as it takes place under human guidance. Morphogenesis is one of the basic concepts in what has come to be known as the New Materiality. Many important architects (Lebbeus Woods, Jessi Reiser, Achim Mengues, Monica Ponce de Leon and several others) have already embraced the basic ideas of this new philosophy, and entire issues of architectural magazines have been dedicated to it. This class introduces students to the New Materiality using case studies relevant to architects: the fields of structural engineering and materials science and engineering, as well as the field of computer simulations, from the ones routinely used in CAD to those (genetic algorithms, neural nets) slowly making their way into architectural practice.

ARCH 712-003: Topics in Arch Theory II: Articulate Building Envelopes: Construction and Expression

Ariel Genadt

Monday, 3:00-6:00pm

In the 20th century, building envelopes have become the prime architectural subject of experimentations and investments, as well as physical failures and theoretical conflicts. This seminar examines the meaning of performance of 20th-century envelopes by unfolding their functions and behaviors in salient case studies, in practice and in theory. While the term performance is often used to denote quantifiable parameters, such as exchanges of energy, air and water, this seminar seeks to recouple these with other, simultaneous performances, which can be grouped under the term articulation. Albeit numbers cannot describe articulation, its consideration is key to the interpretation of quantifiable performances. Ultimately, the articulation of envelopes' polyvalence is the measure of their civic pertinence.

ARCH 712-005: Detroiters' Spatial Imagination, Vol.2 Architectural Translations of Grassroots Networks

Eduardo Rega Calvo

Thursday, 9:00-12:00pm

Recently designated as City of Design by UNESCO, Detroit has become a key protagonist in American architecture discourse through events like the 2016 US Pavilion at the Venice Biennale. Contesting the uncritical premises of such events, the Detroiters' Spatial Imagination seminar aims to reflect and develop collective architecture research on contemporary Detroiters' visionary architectural and urban activist practices that refuse capitalist exploitation vis a vis the city's economic transformation, from top-down disinvestment to bottom-up self-provisioning and organizing. Through reading discussions and mobilizing various tools of inquiry on the city, the seminar will investigate those involved in the long-term and grassroots processes that have been redrawing the limits of socio-political organization and revitalizing communities in Detroit using spatial practices, art and design to facilitate people's participation in the production of their built environment. The work produced in the seminar will be included in the Architectures of Refusal platform which brings to focus the emancipatory spatial practices of social movements that oppose the neoliberal oligarchical status quo. The work will be part of an exhibition that will open at the beginning of the fall semester of 2018, a publication and will be featured in UrbanNext, an online platform by Actar Publishers.

ARCH 712-401: Topics in Arch Theory II: Baroque Parameters

Andrew Saunders

Tuesday, 1:00-4:00pm

Deep plasticity and dynamism of form, space and light are explicit signatures of the Baroque Architecture; less obvious are the disciplined mathematical principles that generate these effects. Through art historians, Rudolf Wittkower, Heinrich Wölfflin, and John Rupert Martin in addition to philosopher Gottfried Leibniz (via Gilles Deleuze), Robin Evans and the history of mathematics by Morris Kline, the course will examine how geometry and mathematics were integral to 17th-century science, philosophy, art, architecture and religion. The new revelation of a heliocentric universe, nautical navigation in the Age of Expansion, and the use of gunpowder spawned new operative geometry of elliptical paths, conic sections and differential equations. The geometric and political consequences of these advances are what link Baroque architects Francesco Borromini and Guarino Guarini to other great thinkers of the period including Descartes, Galileo, Kepler, Desargues, and Newton. Through the exploitation of trigonometric parameters of the arc and the chord, Baroque architects produced astonishing effects, performance and continuity. Generative analysis by parametric reconstruction and new speculative modeling will reexamine the base principles behind 17-century topology and reveal renewed relevance of the Baroque to the contemporary.

ARCH 714-001: Museum as Site: Critique, Intervention, and Production

Andrea Hornick

Thursday, 1:00-4:00pm

In this course, we will take the museum as a site for critique, invention, and production. As architecture, cultural institution, and site of performance, the museum offers many relevant opportunities. Students will visit, analyze, and discuss a number of local exhibitions and produce their own intervention in individual or group projects. Exhibition design, design of museum, the process of curating, producing artworks ranging from paintings to installation and performance, as well as attention to conservation, installation, museum education, and the logistics and economics of exhibitions will be discussed on site and in seminar. These topics and others will be open for students to engage as part of their own creative work produced for the class and an online exhibition.

ARCH 724-001: Technology in Design: The Mathematics of Tiling in Architectural Design

Joshua J. Freese

Tuesday, 3:00-6:00pm

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

ARCH 724-002: Technology in Design: Data and Adaptation

Mark Nicol

Tuesday, 9:00-12:00pm

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

ARCH 725-001: Design Thinking

Sarah E. Rottenberg

Thursday, 12:00-3:00pm

Creating new product concepts was once a specialized pursuit exclusively performed by design professionals in isolation from the rest of an organization. Today's products are developed in a holistic process involving a collaboration among many disciplines. Design thinking - incorporating processes, approaches, and working methods from traditional designers' toolkits - has become a way of generating innovative ideas to challenging problems and refining those ideas. Rapid prototyping techniques, affordable and accessible prototyping platforms, and an iterative mindset have enabled people to more reliably translate those ideas into implementable solutions. In this course, students will be exposed to these techniques and learn how to engage in a human-centered design process.

ARCH 727-401: Industrial Design I

Peter W. Bressler

Wednesday, 9:00-12:00pm

Industrial design (ID) is the professional service of creating and developing concepts and specifications that optimize the function, value and appearance of products and systems for the mutual benefit of both user and manufacturer. Industrial designers develop these concepts and specifications through collection, analysis and synthesis of user needs data guided by the special requirements of the client or manufacturer. They are trained to prepare clear and concise recommendations through drawings, models and verbal descriptions. The profession has evolved to take its appropriate place alongside Engineering and Marketing as one of the cornerstones of Integrated Product Design teams. The core of Industrial Design's knowledge base is a mixture of fine arts, commercial arts and applied sciences utilized with a set of priorities that are firstly on the needs of the end user and functionality, then the market and manufacturing criteria. This course will provide an overview and understanding of the theories, thought processes and methodologies employed in the daily practice of Industrial Design. This includes understanding of ethnographic research and methodologies, product problem solving, creative visual communication, human factors / ergonomics application and formal and surface development in product scale. This course will not enable one to become an industrial designer but will enable one to understand and appreciate what industrial design does, what it can contribute to society and why it is so much fun.

ARCH 728-401: Design of Contemporary Products

Mario Gentile

Tuesday, 3:00-6:00pm

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

ARCH 730-001: Techniques, Morphology and Details of a Pavilion

Mohamad Al Khayer

Thursday, 3:00-6:00pm

The course will develop through hands-on workshops and will focus on acquiring knowledge through making (Techne), understanding the morphological transformation of a given geometric packing, and building using readily available materials. The process consists of building and testing physical models that simulate the actual pavilion. In addition to digital simulation sessions to realize the desired design, which answers to the program developed by PennDesign faculty. The second half of the semester will focus on using lightweight construction materials to fabricate the pavilion's actual components, including structural elements, molded components, and joints, which are required for pavilion's final assembly. Additionally students will learn to organize design and fabrication teams, control design and production schedules, and work with set budget, which requires keeping track of construction cost and forecast for required procurements, including material quantities takeoff, ordering and schedule deliveries and receiving.

ARCH 732-001: Tech Designated Elective: Advanced Enclosures: Techniques and Materials

Charles Jay Berman

Wednesday, 9:00-12:00pm

This seminar seeks to expand a framework of understanding enclosures as integral to the student's architectural intentions. We will seek to move beneath the numerical facts of what is accepted as facade design (criteria, codes, loads, forces and consumptions) to seek a deeper understanding of the generative process underlying these physical criteria in order to evade the mere acceptance of these external facts to the intentions of the Architect.

The nature of enclosures will be explored through methods of analysis and interrogation of materials, their attributes, and their forms of assembly and the natures of their manufacture. The vehicle for this interrogation will be the act of drawing and assembling. Case studies of new materials, new processes and new applications will provide the basis gaining this dissecting/cutting ability (Frasconi). In addition the students will engage in generative detailing exercises, at simultaneous scales, to analyze and apply these decontextualized results to reveal their nature manifest in facade.

ARCH 732-002: Tech Designated Elective: Tiny House: Design to Production

Masoud Akbarzadeh

Monday, 9:00-12:00pm

The course intends to address the challenges in the design development process and fabrication of the Tiny House concept developed in the Fall 2017 studio. The primary objectives include ensuring the structural integrity of the prefab systems, sealing strategies and the necessary foundation for the structure, meticulous detailing the interior and exterior of the house, overcoming the fabrication challenges, and defining the assembly logic/sequence to complete the house. To achieve these goals, the students will design the assembly mechanisms for prefab systems and the junction between the glazing and the concrete. Also, they will investigate on the material transition from exterior to the interior and will provide solutions to include furniture, equipment, and embedded lighting within the modules. The outcome of the course will consist of the complete construction document for the whole house and a one-to-one scale prototype of minimum three assembled modules to reflect the solutions for the challenges of building the tiny house.

ARCH 732-003: Tech Designated Elective: Deployable Structures

Mohamad Al Khayer

Thursday, 9:00-10:30am

Thursday, 10:30-12:00pm

The objective of this course is to introduce the rapidly growing field of deployable structures through hands on experiments conducted in workshop environments. Students develop skills in making deployable structures.

ARCH 732-004: Tech Designated Elective: Daylighting

Jessica Zofchak

Tuesday, 6:00-9:00pm

This course aims to introduce fundamental daylighting concepts and tools to analyze daylighting design. The wide range of topics to be studied includes site planning, building envelope and shading optimization, passive solar design, daylight delivery methods, daylight analysis structure and results interpretation, and a brief daylighting and lighting design integration.

ARCH 732-005: Tech Designated Elective: Principles of Digital Fabrication

Mikael L. Avery

Tuesday, 9:00-12:00pm

Through the almost seamless ability to output digital designs to physical objects, digital fabrication has transformed the way designers work. At this point, many of the tools and techniques of digital fabrication are well established and almost taken for granted within the design professions. To begin this course we will review these ‘traditional’ digital fabrication techniques in order to establish a baseline skill set to work from. We will then explore hybrid approaches to digital fabrication in which multiple techniques are utilized within the same work. During all of these exercise we will discuss the development of 3D printing and its place in the digital fabrication dialogue.

ARCH 732-006: Tech Designated Elective: Heavy Architecture

Thursday, 12:30-3:30pm

Philip Ryan

Heavy Architecture is a seminar that will examine buildings that, through their tectonics or formal expression, connote a feeling of weight, permanence, or “heaviness”. Analysis of these buildings and methods of construction stand in relation to the proliferation of thin, formally exuberant, and, by virtue of their use or commodified nature, transient buildings. The course is not a rejection or formal critique of “thin” architecture, but instead an analysis of the benefits and drawbacks of the “heavy” building type in terms of a building’s financial, environmental, symbolic or conceptual, and functional goals. The course will parse the alleged nostalgic or habitual reputation of “heavy” architecture within the context of architecture’s ongoing struggle to be the vanguard of the built environment even while its relevancy and voice is challenged by economic, stylistic, and social forces.

ARCH-734-001: Ecological Architecture – Contemporary Practices

Todd Woodward

Tuesday, 9:00-12:00pm

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

ARCH 736-001: Tech Designated Elective: Building Acoustics

Joseph Solway

Tuesday, 3:00-6:00pm

This course covers the fundamentals of architectural acoustics and the interdependence between acoustics and architectural design. The course explores the effects of materials and room shape on sound absorption, reflection and transmission, and demonstrates how modeling, visualization and auralization can be used to understand acoustic and aid the design process. The course includes a lecture on the history and future of performance space design, a visit to the Arup SoundLab in New York and two assignments, one practical (Boom Box) and one theoretical (Sound Space).

ARCH 736-003 Tech Designated Elective: Speculative Methods on How Product Design Informs Architecture

Aaron Pavkov

Tuesday, 6:00-9:00pm

Innovation in product design is evolving rapidly, with high customer expectations for product aesthetics, performance, intelligence, and connectivity. How does this relate to architecture? What can architects learn from product design to improve design and detail in their work? How can human-centered design, product design methodology, and innovations in the physical and digital product space inform architecture?

This is a project course that will teach about product design processes and tools, and will be structured according to Human-Centered Design Methods developed by the LUMA Institute. Lectures will provide insights and tools from product design that support the project. One class session will be offsite at Bresslergroup, and there will be some in-class time for project work. The final project is a synthesis of the learnings in the course.

ARCH 736-004: Tech Designated Elective: Building Envelopes: the Enclosing Detail

Charles Jay Berman

Tuesday, 3:00- 6:00pm

This seminar seeks to establish a framework of understanding enclosures as integral to the student's architectural intentions. We will seek to introduce the numerical facts of what is accepted as facade design (criteria, codes, loads, forces and consumptions) in order to seek a deeper understanding of the generative process underlying these physical criteria.

The intent is to evade the mere acceptance of these external facts to the intentions of the Architect. The aim of this seminar is to arm the student with a guided understanding of the materials and assemblies available to them to form building enclosures.

ARCH 736-005: Tech Designated Elective: Water Shaping Architecture

Stuart Mardeusz, Jonathan Weiss

Wednesday, 6:00-9:00 pm

This course is an investigation of the ways that architecture is informed by the water resources and availability of each specific project region. We will cover a range of subjects including; the physics of water, the systems to gather, distribute, supply and treat potable water, grey water, waste water, including the correlation to energy and recycling that are integrated into the architecture of buildings. How do our choices as architects impact access to water, and how are those issues predetermined on a building, local, regional and continental scale? How can our projects react resiliently to changing climate and changing reality?

ARCH 736-006: Tech Designated Elective: Architectural Workflows in the Design and Delivery of Buildings

Richard Garber

Wednesday, 9:00-12:00pm

This seminar in design and technology would focus on the concept of the architectural workflow as it pertains to both contemporary operations in design practice as well as novel project delivery methods. The synthesis of digital design platforms with simulation and increasing access to data in the form of natural phenomena, ecology, and building performance has allowed contemporary architects to engage the notion of workflows with others in design and construction practices. Beyond design intent and process, workflows occupy an expanded territory within architectural practice and merge digital design operations with construction activities, project delivery, and post-occupation scenarios in both virtual and actual formats. The implications for the architecture, engineering and construction (AEC) industry could not be greater, and these new collaborative models have become as important as the novel buildings they allow us to produce.

ARCH 736-007 Tech Designated Elective: Bim (Building Information Modeling): Virtual Construction and Detailing with Bim

Franca Trubiano

Thursday, 4:30-6:00pm

The seminar consists of a series of lectures and workshops by architecture and engineering professionals who are active in performance-oriented design. It is held in conjunction with the research studio to fine tune the performative aspects of each student's project. The goal of the seminar is to allow students to develop a deeper understanding of building

performance and how to incorporate context, climate, and user experience into their architectural design. The seminar is required for participants in the Behnisch & Hass design studio (ARCH-704-203).

ARCH 742-001 Function of Fashion in Architecture

Danielle Willems

Tuesday, 6:30-9:00pm

The Function of Fashion in Architecture will survey the history of fashion and the architectural parallels starting from Ancient Civilization to Present. The focus will be on the relevance of garment design, methods and techniques and their potential to redefine current architecture elements such as envelope, structure, seams, tectonics and details. The functional, tectonic and structural properties of garment design will be explored as generative platforms to conceptualize very specific architectural elements. One of the challenges in the course is the re-invention of a means of assessment, the development of notations and techniques that will document the forces and the production of difference in the spatial manifestations of the generative systems.

ARCH 746-001 Cinema and Architecture in Translation

Danielle Willems, Nicholas Klein

Thursday, 9:00-12:00pm

Cinema and Architecture in Translation is a seminar that will survey key cinematic moments and techniques within the history of film and find new intersections between architecture and narratives. The focus will be on the relevance of mise-en-scene, the background and building figures of architecture and future speculations of the city, yet in relation to narrative dynamics. One of the challenges in considerations and techniques that will affect both conceptualization and the production of spatial manifestations using potent visual platforms.

Current pre and post-production techniques in film making methods are converging with architectural digital representation. This is an opportunity that provides fertile ground for architects to re-examine the ‘digital’ in a variety of scales in relation to impactful narratives and visualizations. These tools, specifically the technique of “matte-painting” will be explored in this course. There is a rich history in constructing images, speculative worlds and scenes for the film industry. We will explore the parallels between the tools and strategies of cinematic visualization as it relates to advanced architectural image making. Students will have the opportunity to analyze filmic scene making, learn advanced representation and techniques in matte painting and zbrush.

Above all this course will engage students in the conceptual as well as practical complementarities of architecture and cinema, while watching some of the best films ever made and the most provocative and insightful books to help process them. An important aspect of this course will be to explore the differences between “real” architecture and the cinematic architecture. The expansive Space and Time in which cinematic architecture is located, creates an incubator where true innovated speculation can occur. This is an advanced representation course that produces 2D images and narrative texts.

ARCH 748-001 Architecture and the New Elegance

Hina Jamelle

Wednesday, 9:00-12:00pm

The seminar will define and elaborate on the following topics for the digital discourse- the contemporary diagram, technique, structure, architectural systems and aesthetic projections. Technological innovations establish new status quos and updated platforms from which to operate and launch further innovations. Design research practices continually reinvent themselves and the techniques they use to stay ahead of such developments. Reinvention can come through techniques that have already been set in motion. Mastery of techniques remains important and underpins the use of digital technologies in the design and manufacturing of elegant buildings. But, ultimately, a highly sophisticated formal language propels aesthetics.

ARCH 750-001: Parafictional Objects

Ahmet Kutan Ayata

Friday, 9:00-12:00pm

This representation/design seminar explores the aesthetics of estrangement in realism through various mediums. The reality of the discipline is that architecture is a post-medium effort. Drawings, Renderings, Models, Prototypes, Computations, Simulations, Texts, and Buildings are all put forward by architects as a speculative proposal for the reality of the future. Students will explore the reconfiguration of a "found object" in multiple mediums and represent parafictional scenarios in various techniques of realism. At a time when rendering engines enable the production of hyper-realistic images within the discipline without any critical representational agenda, it has become ever more imperative to rigorously speculate on realism.

ARCH 754-001: Performance Design Workshop

Mostapha Sadeghipour Roudsari

Friday, 9:00-12:00pm

The workshop applies simulation and diagramming techniques to a series of discrete design projects at different scales. The emphasis is on refinement and optimization of performance based building design. Performance analysis techniques can provide enormous amounts of information to support the design process, acting as feedback mechanisms for improved performance, but careful interpretation and implementation are required to achieve better buildings. Energy, lighting, and air flow are the three main domains covered in the workshop. Students will learn how to utilize domain tools at an advanced level, and utilize them as applications to examine the environmental performance of existing buildings. Using the results of analytical techniques, the students will develop high-performance design strategies in all three domains. Lectures will be given on specific topics each week. A series of analytical class exercises will be assigned to provide students with hands-on experience in using the computer models. A case-study building will be provided at the beginning of the course and students will model different components each week throughout the semester. Every week students present the progress of their work, which will be used to correct methodological and technical issues.

ARCH 762-401: Design and Development

Paul D. Sehnert

Friday, 9:00-12:00pm

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

ARCH 765-001: Project Management

Charles Capaldi

Friday, 9:00-12:00pm

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

ARCH 768-401: Real Estate Development

Asuka Nakahara

Wednesday, 3:00-6:00pm

This course evaluates "ground-up" development as well as re-hab, re-development, and acquisition investments. We examine raw and developed land and the similarities and differences of traditional real estate product types including office, R & D, retail, warehouses, single family and multi-family residential, mixed use, and land as well as "specialty" uses like golf courses, assisted living, and fractional share ownership. Emphasis is on concise analysis and decision making. We discuss the development process with topics including market analysis, site acquisition, due diligence,

zoning, entitlements, approvals, site planning, building design, construction, financing, leasing, and ongoing management and disposition. Special topics like workouts and running a development company are also discussed. Course lessons apply to all markets but the class discusses U.S. markets only. Throughout the course, we focus on risk management and leadership issues. Numerous guest lecturers who are leaders in the real estate industry participate in the learning process. Format: predominately case analysis and discussion, some lectures, project visits.

FINE ARTS

FNAR 508: Clay Practices

Section 401 – Sumi Maeshima – Monday and Wednesday: 5:00pm – 8:00pm

Section 402 – Matthew Courtney – Tuesday and Thursday: 5:00pm – 8:00pm

This course introduces clay as a sculptural medium through fundamental clay-building techniques, mold making, model making, and casting. Through experimentation with these methods, this course promotes an understanding of materials, processes, visual concepts and techniques for creating three-dimensional forms in space. In addition to using different water-based clays and plaster, other materials such as wax, plastiline, paper pulp, and cardboard will be explored. Students will explore the full range of clay's capabilities and its role in contemporary art through lectures, readings, demonstrations, and assignments that incorporate conceptual and technical issues.

FNAR 521: Histories of Print

Matthew Neff

Monday and Wednesday, 2:00pm – 5:00pm

What can history tell us about the present? How do archives teach us about the future? Printing has long been at the center of political, social, and economic shifts, as well as a form used by artists, writers, designers, and cultural producers. Utilizing readings, films, field trips, independent research, and discussions, students will learn about the history of letterpress printing and its historically complex relationship with power and technological innovation. This studio/seminar examines the act of printing as a way to expand the boundaries of language and image-making, questioning both historic and contemporaneous approaches. Class readings spanning multiple perspectives on the history of print, access to rare archives, and the use of historic printing equipment will inform studio-based projects and writing assignments throughout the semester. This course will meet in the Common Press located in the Fisher Fine Arts Library.

The Common Press is an interdisciplinary initiative between the Kelly Writers House, the Kislak Center for Special Collections, Rare Books and Manuscripts, and the Fine Arts program within PennDesign; it encourages collaboration with an emphasis on letterpress, and cross-disciplinary approaches to writing and image-making.

FNAR 523: Drawing I

Section 401 – Lindsay Buchman – Tuesday and Thursday: 5:00pm – 8:00pm

Section 402 – Andrea Hornick – Tuesday and Thursday: 9:00am – 12:00pm

Section 403 – Deirdre Murphy – Tuesday and Thursday: 1:30pm – 4:30pm

Section 404 – Pernot Hudson – Monday and Wednesday: 2:00pm – 5:00pm

This course is designed to develop visual awareness and perceptual acuity through the process of drawing. Students learn to sharpen perceptual skills through observational drawing, and to explore the expressive potential of drawing. A variety of problems and media will be presented in order to familiarize students with various methods of working and ways of communicating ideas visually. Subject matter will include object study, still life, interior and exterior space, self-portrait and the figure. Different techniques and materials (charcoal, graphite, ink, collage) are explored in order to understand the relationship between means, material and concept. Critical thinking skills are developed through frequent class critiques and through the presentation of and research into historical and contemporary precedent in drawing. If you need assistance registering for a closed section, please email the department at fnarug@design.upenn.edu

FNAR 524: Drawing Investigations

Ivanco Talevski

Tuesday and Thursday, 1:30pm – 4:30pm

Drawing is a fundamental means of visualization and a hub for thinking, constructing, and engaging in a wide variety of creative activities and problemsolving. This studio class explores drawing in both its traditional and contemporary forms. The projects are designed to help students in all disciplines find ways express and clarify their ideas through the process of drawing. The semester begins with the refinement of perceptual skills acquired in Drawing I, while encouraging experimentation through the introduction of color, abstract agendas, conceptual problem solving, and collaborative exercises, as well as new materials, techniques and large format drawings. Particular attention is given to ways to conduct visual research in the development of personal imagery. Assignments are thematic or conceptually based with ample opportunity for individual approaches to media, subject, scale and process. The goal is to strengthen facility, develop clarity in intent and expand expression. Attention is paid to the development of perceptual sensitivity, methods of image construction, and the processes of synthesis and transformation in order to communicate ideas through visual means. Recommended for students in all areas.

FNAR 525: Figure Painting

Marjorie Edgerton

Tuesday and Thursday, 5:00pm – 8:00pm

Beyond the introduction to technique and materials this course will emphasis the figure in historical & contemporary painting. This course will be based in perception, working from the model and move through modernism and toward varying approaches to the figure. Further investigation about the language of color through color theory will be covered. Drawing 1 pre-requisite, Painting 1 prerequisite recommended but not mandatory.

FNAR 531: Painting Practices

Section 401 – Ivanco Talevski - Monday and Wednesday: 2:00pm – 5:00pm

Section 402 – Deirdre Murphy – Tuesday and Thursday: 9:00am – 12:00pm

Painting practices is an introduction to the methods and materials of oil painting. This course begins with an investigation of color and color relationships. The beginning of the semester will cover technical issues and develop the student's ability to create a convincing sense of form in space using mass, color, light and composition. The majority of work is from direct observation including object study, still life, landscape, interior and exterior space and the self portrait. Class problems advance sequentially with attention paid to perceptual clarity, the selection and development of imagery, the process of synthesis and translation, color, structure and composition, content and personal expression. Students will become familiar with contemporary and art historical precedent in order to familiarize them with the history of visual ideas and find appropriate solutions to their painting problems.

FNAR 545: Sculpture Practices

Thomas Bendtsen

Monday and Wednesday, 2:00pm – 5:00pm

As an introduction to traditional and contemporary three-dimensional practice, this course is concerned with the concepts and methodologies surrounding three-dimensional art making in our time. Students experiment with a variety of modes of production, and develop some of the fundamental techniques used in sculpture. In addition to these investigations, assignments relative to the history and social impact of these practices are reinforced through readings and group discussion. Processes covered include use of the Fab Lab, wood construction, clay, paper, mixed media, and more. If you need assistance registering for a closed section, please email the department at fnarug@design.upenn.edu

FNAR 547: Environmental Animation

Christopher Landau

Tuesday and Thursday, 5:00pm – 8:00pm

This studio-based course examines the disciplinary spaces of landscape, art, and architecture through the medium of 3D animation and storytelling. We immerse ourselves in environments that may be as small as a cell or as large as a planet. From the refiguring of images, models, graphic design, or video to visualization or coding the genesis of whole environments, this course will allow for a variety of entry point for students of different disciplines and skill levels. Projects will range in scope from animated GIFs to animated shorts.

This course embraces a spirit of invention, collaborative learning, and interdisciplinary crosspollination. Experience in landscape architecture, architecture, animation, programming, film, GIS, and/or graphic design is encouraged. We will examine and discuss some standard typologies such as the walk-through, data-visualization, as well as filmic and avant garde strategies as starting points for creative reinterpretation of space. We will primarily be using 3D Studio Max and After Effects with support from Next Engine 3D Scanner, Rhino, and Grasshopper. Scripting will be included in most assignments to enhance artistic control of the software.

FNAR 550: Intro to Printmaking

Joshua Zerangue

Monday and Wednesday, 5:00pm – 8:00pm

The course offers an introduction to several forms of printmaking including: intaglio, screen printing, relief, and monoprinting. Through in-class demonstrations students are introduced to various approaches to making and printing in each medium. The course enhances a student's capacity for developing images through two-dimensional design and conceptual processes. Technical and conceptual skills are developed through discussions and critiques. If you need assistance registering for a closed section, please email the department at fnarug@design.upenn.edu.

FNAR 552: Printmaking: Relief/Screen Printing

Lindsay Buchman

Tuesday and Thursday, 1:30pm – 4:30pm

This course is an introduction to technical skills and investigative processes in screen printing and relief and examines methods for combining digital technology with traditional print media. The course introduces students to several contemporary applications of silkscreen and relief printmaking including techniques in multi-color printing, photo-based silkscreening, digital printing, woodcut, linocut, and letterpress. Demonstrations include photo and image manipulation, color separating and output techniques, hand carving and printing, as well as drawing and collage. Both traditional and experimental approaches are explored and encouraged and technical and conceptual skills are developed through discussions and critiques.

FNAR 558: Introduction to Clay

Section 401 – Sumi Maeshima – Monday and Wednesday: 2:00pm – 5:00pm

Section 402 – Ryan Greenheck – Monday and Wednesday: 5:00pm – 8:00pm

In this introductory clay class, students will learn all the fundamental skills needed to create three dimensional forms in clay using a variety of methods: wheel throwing, hand building (such as coil building and slab construction), and press molding. Whether creating utilitarian forms or creating sculpture, projects are designed to strengthen both craftsmanship and individual creativity. In addition to developing a working knowledge of the ceramic process, including surface treatments and glazing, students will also be introduced to design issues as well as contemporary art/ceramics topics that influence our aesthetic sensibilities. No prerequisites.

FNAR 566: Graphic Design

Mark Owens

Thursday, 4:30pm – 8:30pm

The aim of this course is to introduce students creative ways to use color, typography, and layout across new materials and media, ranging from print to physical objects. Students will explore visual design through a set of assignments and projects that are geared towards exploring the role of design in visual arts, interaction design, media design and architecture. The course introduces a number of design concepts such as content organization, navigation, interaction and data-driven design and show ways to develop new design metaphors, presentation techniques, and imagery using old and new technologies. course is structured as a combination of lectures and hands on workshops where students will have the chance to work both individually and collaboratively to realize their projects.

FNAR 570: Graphic Design Practicum

David Comberg

Tuesday and Thursday, 1:30pm – 4:30pm

Practicum provides a real world experience for students interested in solving design problems for nonprofit and community organizations. The studio works with two clients each semester, and previous projects have included print design, web design, interpretive signage and exhibit interactives. All projects are real and will result in a portfolio-ready finished product. Students will participate in a full design experience including design, client interaction, presentations, production, and project management. In addition, students will take field trips, meet professionals and go on studio visits.

FNAR 571: Introduction to Photography

Section 401 – Anna Neighbor – Monday: 2:00pm – 5:00pm

Section 402 – Gabriel Martinez – Wednesday: 1:30pm – 4:30pm

Section 403 – Gabriel Martinez – Wednesday: 9:00am – 12:00pm

Section 404 – Karen Rodewald – Tuesday: 1:30pm – 4:30pm

This course is an introduction to the basic processes and techniques of black & white photography. Students will learn how to expose and process 35mm film, SLR camera operation, darkroom procedures & printing, basic lighting and controlled applications. It begins with an emphasis on understanding and mastering technical procedures and evolves into an investigation of the creative and expressive possibilities of making images. This is a project-based course, where students will begin to develop their personal vision, their understanding of aesthetic issues and photographic history. Assignments, ideas and important examples of contemporary art will be presented via a series of slide lectures, critiques and discussion. No previous experience necessary. 35mm SLR cameras will be available throughout the semester for reservation and checkout from the photography equipment room. If you need assistance registering for a closed section, please email the department at fnarug@design.upenn.edu

FNAR 574: Reconfiguring Portraiture

Frederick Brent Wahl

Thursday, 1:30pm – 4:30pm

As methods of representation are constantly shifting, one thing is clear - the photographic portrait is not what is used to be. Exploring both traditional and contemporary methods of portraiture, this class will uncover and discuss the ways in which we perceive each other in imagery, both as individuals and as groups. Throughout the semester, we will consider how portraits deal with truth, physical absence, the gaze, cultural embodiment, voyeurism and the digital persona. This course will build on the combination of perception, technology, and practice. Throughout the semester, students will advance by learning lighting techniques and strategies of presentation - as these core skills will become tools in the execution of project concepts. In tandem with each project, students will encounter and discuss a wide array of photography and writings from the past to the present, in an effort to understand the meanings and psychological effects of freezing the human image in time.

FNAR 580: Figure Drawing

Douglas Martenson

Monday and Wednesday, 5:00pm – 8:00pm

Students work directly from the nude model and focus on its articulation through an understanding of anatomical structure and function. Students will investigate a broad variety of drawing techniques and materials. The model will be used as the sole element in a composition and as a contextualized element.

FNAR 585: Performance Studio

Sharon Hayes

Friday, 10:00am – 4:00pm

This course supports the individual and collaborative production of performance works. As the medium of performance consists of diverse forms, actions, activities, practices and methodologies, the course allows for an open exploration in terms of material and form. Students are invited to utilize technologies, materials and methodologies from other mediums and/or disciplines such as video, photography, writing and sound. In addition to the production component, the course will examine multiple histories of performance through readings, screenings and directed research.

FNAR 589: Mixed Media Animation

Amy Lee Ketchum

Tuesday and Thursday, 1:30pm – 4:30pm

Mixed Media Animation is a contemporary survey of stop-motion animation concepts and techniques. Students use digital SLR cameras, scanners and digital compositing software to produce works in hand-drawn animation, puppet and clay animation, sand animation, and multiplane collage animation. Screenings and discussions in the course introduce key historical examples of animation demonstrating how these techniques have been used in meaningful ways. Students then learn how to composite two or more of these methods with matte painting, computer animation or video.

FNAR 605: Topics in Contemporary Art: Art and Resistance

Sharon Hayes and Karen Redrobe

Thursday, 1:30pm – 4:30pm

An experimental class for artists and scholars. Organized around a series of case studies of artists, collectives, infrastructures, and curatorial projects, the course includes: in-class discussion and viewing; workshops with class visitors; site visits; participation in small reading groups. In the first half of the class, students will complete some short assignments. In addition, students will complete a final project that is intentionally open in terms of form. The project, which can be collective or individual in nature, will enable an in-depth material investigation of one of the threads of the class.

FNAR 609: Materials and Actions: Ocean in a Rock

Kelly Nipper

Thursday, 12:00m – 4:00pm

In this advanced course students will experiment with the evolutionary and sculptural qualities of contemporary materials by means of studio-based projects. Through various stages of conceptual development, students will explore how materials transform within radically different settings and processes, which may include but are not limited to working with photography, performance, architecture. The course will consider performance as a method by which research is shaped and disseminated. Students will focus on the tacit, embodied, and intrinsic acts of doing as both expression and practice, by blurring the divide between art and production. Students will create an experimental artistic community, with its own rituals, missions, ethics, and aesthetics. The work conceived in the course will include 10 actions that are central to the foundation of the community. The course will culminate in the creation of individual projects, the cooperative making of environmental forms, and the ten actions. Discussions, screenings, readings supplement studio practice, providing an index to the historical, cultural, and environmental forces that affect both the development of an artistic vision and the reception of a work of art.

FNAR 614: Tiananmen Square

Ken Lum

Thursday, 1:30pm – 4:30pm

This course takes as its subject the systems of representation and design that have historically and presently operate in Tiananmen Square in Beijing – and will include a trip to Beijing. There have been several incarnations of Tiananmen Square since its original form in 1651. During Imperial times and through the period of foreign legations, the square was once surrounded by walls and gates, creating a city within a city. With the advent of the Republic of China established on January 1, 1912, much of the enclosures were removed, opening up for public use previously restricted imperial areas. After the Communist Revolution in 1949, planning was afoot to enlarge the square. With its enlargement completed in 1958, the square expanded its footprint by four-fold, making it one of the largest public squares in the world. The enlarged and remodeled square coincided with the completion of the massive Monument to the People's Heroes. In 1976, a large mausoleum containing the preserved body of Mao Zedong was built near the site of the former Gate of China, further increasing the size of the square. In the 1990s, the building of the National Grand Theatre and expansion of the National Museum on grounds contiguous to the square necessitated further alterations to both the Eastern and Western skirts of the square.

In recent years, there have been a widening debate regarding the transformation of the concrete heavy and by and large featureless square into a green space. Today, Tiananmen Square holds sacrosanct status to the Communist revolution of 1949, designed more for military parades and massive public rallies than public space repose. In a city that has few green

spaces, such a verdant transformation in the heart of the Chinese capital would signal a radical symbolic deviation to China's development-first guiding principles. The square fronts Tiananmen Gate and the Forbidden City and is situated at the intersection of the historical east-west and north-south axes. Chang'An Avenue, important for military processions, separates the square from Tiananmen Gate and is considered the most important thoroughfare in the Capital and the path of the east west number one subway line. The entirety of the Tiananmen Square area is marked by ideology and political prominence, often confusingly. Tiananmen Tower, functions as a conflation of monumental facade with political embodiment. This course will focus on imagine interventions through public art and landscape design within Tiananmen Square and its contiguous areas. It is a studio practice course with a significant seminar component that will include lectures and readings relating to issues of public space and urban design in contemporary China. The course will also study the development of contemporary art in China. The tragic events of Tiananmen Square in 1989 represented a turning point in terms of a generation of Western exiled Chinese artists and curators including Hou Hanru, Chen Zhen, Xu Min, Huang Yong Ping and Yan Pei Ming among many others. The class will study the strategies deployed by these so-called First Generation of Chinese artists. Making use of their double identity as traditionally taught Chinese artist residing in the West, their art offered a pointed critique of both China and the West.

FNAR 616: Art and Social Work: Art and the Ecology of Justice

Matthew Neff

Wednesday, 9:00am – 12:00pm

How can the arts help us build a more just society? How can the arts transform social structures and systems? Public health crises involving clean water (Flint), police violence (Baltimore), and a lack of economic and educational opportunity following reentry (Philadelphia) make legible the need for a new visual language that critiques these conditions and challenges entrenched structural inequalities. We will engage the work of creative practitioners who are mapping new relationships between art and social justice and directly impacting individual and communal well-being. In so doing, the course seeks to challenge traditional constructions of public health, which often isolate individual histories from their social life and their relation to families, communities, and geographies. Readings will build upon disciplinary perspectives in the arts, humanities, and social policy. Requirements include weekly readings, class participation, and a collaborative final project. The course will meet in the Health Ecologies Lab at Slought Foundation, an arts organization on campus.

FNAR 622: Big Pictures: Mural Arts in Philadelphia

Jane Golden and Shira Walinsky

Monday and Wednesday, 2:00pm – 5:00pm

The history and practice of the contemporary mural movement couples step by step analysis of the process of designing with painting a mural. In addition students will learn to see mural art as a tool for social change. This course combines theory with practice. Students will design and paint a large outdoor mural in West Philadelphia in collaboration with Philadelphia high school students and community groups. The class is co-taught by Jane Golden, director of the Mural Arts Program in Philadelphia, and Shira Walinsky, a mural arts painter and founder of Southeast by Southeast project, a community center for Burmese refugees in South Philadelphia.

FNAR 633: Digital Illustration

Scotty Reifsnyder

Monday and Wednesday, 1:00pm – 4:00pm

Digital Illustration is a course designed to expose students to the diverse techniques and approaches used in creating digital illustration for print publication. Course assignments will include two dimensional animation storyboard rendering, figure illustration, technical diagram illustration, photographic retouching and enhancing. Digital applications will include morphing with layers, surface cloning, three-dimensional modeling and spatial transformation of scenes and objects. Students completing this course will possess the capability to design and plan creatively and skillfully execute finished artwork.

FNAR 634: Art of the Web: Interactive Concepts for Art and Design

Sebastien Derenoncourt

Monday and Wednesday, 6:00pm – 9:00pm

Art of the Web: Interactive concepts for art and design is a first step in learning how to create, analyze and discuss interactive content, as a visual creator. It is an exploration of the culture of the internet, the ideas behind its quirks, the dreams and freedoms it encapsulates, and the creative power it gives to us. Students will be assigned projects that will challenge their current understanding of the web, and the ways it shapes human connectivity and interaction. Upon completion of this course, students will possess a working knowledge how to organize and design websites and learn to critique web-content including navigation, UX design and information architecture. The course will require analytical and conceptual skills and foster creative thinking.

FNAR 635: 3-D Computer Modeling

Scott White

Monday and Wednesday, 10:00am – 1:00pm

Students will develop a comprehensive knowledge of how virtual worlds are constructed using contemporary computer graphics technique with a fine arts perspective. The course will offer the opportunity to explore the construction, texturing, and rendering of forms, environments, and mechanisms while conforming to modeling specifications required for animation, real-time simulations or gaming environments, and rapid prototyping.

FNAR 636: Art, Design, and Digital Culture

Section 401 – Scotty Reifsnnyder – Monday and Wednesday: 10:00am – 1:00pm

Section 402 – David Comberg – Tuesday and Thursday: 9:00am – 12:00pm

Section 403 – Marianna Williams – Monday and Wednesday: 4:00pm – 7:00pm

Section 404 – Avery Lawrence – Monday and Wednesday: 7:00pm – 10:00pm

This course is an introduction to the fundamental perception, representation, aesthetics, and design that shape today's visual culture. It addresses the way artists and designers create images; design with analog and digital tools; communicate, exchange, and express meaning over broad range of media; and find their voices within the fabric of contemporary art, design, and visual culture. Emphasis is placed on building an extended form of visual literacy by studying and making images using a variety of representation techniques; learning to organize and structure two-dimensional and three dimensional space, and designing with time-based and procedural media. Students learn to develop an individual style of idea-generation, experimentation, iteration, and critique as part of their creative and critical responses to visual culture. If you need assistance registering for a closed section, please email the department at fnarug@design.upenn.edu

FNAR 637: Information Design and Visualization

Mahir Yavuz

Tuesday, 4:30pm – 8:30pm

Information Design and Visualization is an introductory course that explores the structures of information (text, numbers, images, sounds, video, etc.) and presents strategies for designing effective visual communication appropriate for various users and audiences. The course seeks to articulate a vocabulary of information visualization and find new design forms for an increasingly complex culture.

FNAR 640: Digital Photography

Section 401 – Sarah Stolfa – Monday: 10:00am – 1:00pm

Section 402 – Sarah Stolfa – Monday: 2:00pm – 5:00pm

Section 403 – Gabriel Matrinez – Tuesday: 10:00am – 1:00pm

Section 404 – Gabriel Martinez – Tuesday: 1:30pm – 4:30pm

Section 405 – Karen Rodewald – Tuesday: 5:00pm – 8:00pm

Section 406 – Frederick Brent Wahl – Wednesday: 10:00 – 1:00pm

Section 407 – Jamie Diamond – Wednesday: 2:00pm – 5:00pm

Section 408 – Jamie Diamond – Wednesday: 5:00pm – 8:00pm

Section 409 – Heather Phillips – Thursday: 1:30pm – 4:30

Section 410 – Theophile Mullen III – Thursday: 5:00pm – 8:00pm

Section 411 – Tony Ward – Friday: 10:00am – 1:00pm

This class offers an in-depth technical and conceptual foundation in digital imagery and the opportunity to explore the creative, expressive possibilities of photography. Students will become proficient with the basic use of the camera, techniques of digital capture, color management and color correction. They will also develop competency in scanning, retouching, printing and a variety of manipulation techniques in Photoshop. Through weekly lectures and critiques, students will become familiar with some of the most critical issues of representation, consider examples from photo history, analyze the impact of new technologies and social media. With an emphasis on structured shooting assignments, students are encouraged to experiment, expand their visual vocabulary while refining their technical skills. No previous experience is necessary. Although it is beneficial for students to have their own Digital SLR camera, registered students may reserve and checkout Digital SLR cameras and other high-end equipment from the department. If you need assistance registering for a closed section, please email the department at fnarug@design.upenn.edu

FNAR 643: Language of Design

Sharka Hyland

Wednesday, 4:00pm – 8:00pm

The course will explore the changing relationship during the modern era between design (structure, model, plan of a work of art) and language (metaphor for a system of communication; speech, writing, literature). Our readings and visual presentations will focus on topics in the decorative arts, painting, architecture, typography and visual communication. We will focus on primary sources in order to situate our inquiry in a larger historical context. The discussion will center on claims about the inherent meaning of form, discuss different roles for design -as an ideological statement, as an agent of social change, and as an idiosyncratic expression. Topics will also include the search for a universal visual language, attempts at bridging the perceived gap between spoken and written language, and the impact of visual form on the meaning of literary texts (particularly when the author has been involved in the publication process). Students can suggest additional topics related to their field of study.

FNAR 645: Book and Publication Design

Sharka Hyland

Monday, 5:00pm – 9:00pm

Book and Publication Design will focus on the theory and professional practice of designing multi-page publications. Students will analyze formal structures of different types of books-literature and poetry, fiction and non-fiction compilations, illustrated volumes such as art catalogues, monographs and textbooks, and serial editions-discussing both traditional and experimental approaches. The format of the course will be split between theoretical and historical evaluations of book formats by drawing on the Van Pelt Rare Book Collection-and studio time where students will design books with attention to the format's conceptual relationship to the material at hand with a focus on typography and page layout, as well as on understanding production methods of printing and binding. In addition to the conventions of page layout students will examine paratextual elements (title page, practices of pagination and other internal structuring, content lists and indexes, colophons, notes and marginalia, end-leaves, binding, etc.).

FNAR 646: Advanced 3D Modeling

Scott White

Friday, 10:00am – 1:00pm

Advanced 3-D Modeling will give students the opportunity to refine skills in modeling, texturing, lighting and rendering with an emphasis on the evolution of ideas through constant revision based on class critique. Students will use a variety of industry standard software packages, including, but not limited to Maya and Mudbox to compose complex environments. Projects are designed to give students the opportunity to work with original content within a simulated production environment.

FNAR 652: Dispersive Lens

Demetrius Oliver

Monday, 2:00pm – 5:00pm

This studio course will explore the nexus between photography, sculpture, installation, drawing, painting, and the moving image. The course is informed by the printed image, as students will explore how photography can encourage thinking in other mediums, in addition to how other mediums can influence the making of photography. When does an abstract painting appear more like a photograph? How can a photograph suggest ways to make a video? Can a sculpture exist as a

photograph? A variety of assignments will expose students to interdisciplinary approaches addressing these questions and more. Class projects will be supported by regular slide lectures, group critiques, and readings examining modern and contemporary artists and practices.

FNAR 654: Printmaking and Publications

Kayla Romberger

Tuesday and Thursday, 9:00am – 12:00pm

This course introduces students to independent publishing and artists' publications through print methods in letterpress, Risograph, and Xerox. The class will focus on the self-published artists' zine/ book as an affordable, accessible, and easily reproducible format for exploring ideas, disseminating artists' work, and collaborating across disciplines. Students will learn a range of skills, including techniques in both mechanized and hand-pulled forms of printed media (Risograph, copy machine, Vandercook letterpress); short-run editions and binding; design and layout; pre-press and print production; and the web as it relates to and supports independent and democratic modes of distribution. Students will learn about and become acquainted with some of the most significant independent publishers working today and throughout history. Students will leave class having completed three individual projects: a 16-page booklet/zine; a carefully considered online publication, and a final collaborative book designed, developed and published as a class. The course commences with a field trip to New York City's Printed Matter, one of the oldest and most important nonprofit facilities dedicated to the promotion of artists' books, where students will be encouraged to submit a publication by semester's end.

FNAR 661: Video I

Section 401 – Michael Crane – Monday and Wednesday: 2:00pm – 5:00pm

Section 402 – Emory Van Cleve – Tuesday and Thursday: 9:00am – 12:00pm

Section 403 – James Howzell – Tuesday and Thursday: 5:00 – 8:00pm

Section 405 – Sosena Solomon - Monday and Wednesday: 5:00pm – 8:00pm

In this studio based course, students are introduced to video production and postproduction as well as to selected historical and theoretical texts addressing the medium of video. Students will be taught basic camera operation, sound recording and lighting, as well as basic video and sound editing and exporting using various screening and installation formats. In addition to a range of short assignment based exercises, students will be expected to complete three short projects over the course of the semester. Critiques of these projects are crucial to the course as students are expected to speak at length about the formal, technical, critical and historical dimensions of their works. Weekly readings in philosophy, critical theory, artist statements and literature are assigned. The course will also include weekly screenings of films and videos, introducing students to the history of video art as well as to other contemporary practices. If you need assistance registering for a closed section, please email the department at fnarug@design.upenn.edu

FNAR 665: Cinema Production

Emory Van Cleve

Wednesday, 10:00am – 1:00pm

This course focuses on the practices and theory of producing narrative based cinema. Members of the course will become the film crew and produce a short digital film. Workshops on producing, directing, lighting, camera, sound and editing will build skills necessary for the hands-on production shoots. Visiting lecturers will critically discuss the individual roles of production in the context of the history of film.

FNAR 673: Machine for Seeing: Architecture and the Moving Image

David Hartt

Monday, 10:00am – 1:00pm

Architecture's relationship with cinema was established with the very first motion picture. In *Sortie de l'usine Lumiere de Lyon* by Auguste and Louis Lumiere we see a didactic presentation of film titles as workers from the Lumiere brother's factory stream forth from its interior at days end. In many ways the context of the film is its subject as well. The title of the class plays on Le Corbusier's maxim that architecture is machine for living and perhaps cinema is simply a machine for helping us understand the vast construct of our built environment. A device, which allows us to imagine even greater follies or more importantly to think critically about architecture's relationship with and impact on society. Readings, screenings, discussions and critiques make up the curriculum along with studio time. Students will produce their own film and we will look at films produced by a range of practitioners: From architects speculating on the nature of and use of

public space and urban development to documentarians researching the pathologies of neo-liberalism and its effect on the privatization of space. We will also look at the work of artists who engage with the poetics of space and who unpack the conflicted legacies of the built environment.

FNAR 678: Interfacing Cultures: Designing for Mobile, Web, and Public Media

Sebastien Derenoncourt

Friday, 9:00am – 1:00pm

This course introduces advanced topics related to contemporary media technologies, ranging from social media to mobile phones applications and urban interfaces. Students learn how to use new methods from interaction design, service design, and social media and work towards prototyping their ideas using new platforms and media. The class will cover a range of topics such as such as onlinegaming, viral communication, interface culture, networked environments, internet of things and discuss their artistic, social, and cultural implications to the public domain.

FNAR 720: Topics in Representation: Printmaking and Making Landscape: Terrains of Wetness

Matthew Neff and Anuradha Mather

Monday, 9:00am – 12:00pm

In these advanced representation courses the work extends to new ways of documenting and seeing landscape. These courses are open to all interested School of Design students who have previous drawing experience or have taken foundation studios. Recent topics have been: Traces and Inscriptions (spring 2013), instructors: Anuradha Mathur, Matthew Neff; Landscape Representation (fall annually), instructors: Valerio Morabito; Landscape Drawing (spring annually), instructor: Laurie Olin; Landscape Drawing (spring 2008), instructors: David Gouverneur, Trevor Lee; Shifting Landscapes: A Workshop in Representation (spring 2005, 2004), instructor: Anuradha Mathur; and The Agile Pencil and Its Constructs (spring 2004) instructor: Mei Wu.

FNAR 802: Critical Issues in Art II

Section 401 – Michelle Lopez - Covert Structures – Wednesday: 1:30pm – 4:30pm

What is the shape of invisibility? How do we explore materiality within industrial everyday sources to expose cultural resistance or a disappearance? These are some questions that will be asked in order to challenge modes of creativity by unweaving conventional narratives in order to build other, non-linear spaces. The seminar contends with the physicality/obstruction of “things” while simultaneously persevering through the material to piece together subversive structures in relation to your images, ideas, your secrets.

Through reading that begins with Ellison’s *Invisible Man* and ends with critical readings on our prevalent invisible ecosystem of social media and the resistance of hacking, we will negotiate what it means to make a gesture, that is very real and physical (possibly failing), towards an incisive silence with the potential to move beyond boundaries, including the materials and bodies that bind us. Research at the material library and material Connex (NY), along within other departments will be a part of the class, but also each person’s willingness to step out of the comfort zone of artistry that often illustrates, finger-points, or displays. At the root of this class is unearthing one’s own process of creativity, by jumping off cliff into the unknown, and honestly looking at the common forms and strategies that oblige us.

Section 402 – Matthew Freedman – Praxis & Poiesis: A Studio Practice Intensive – Monday: 2:00pm – 5:00pm

This seminar examines the essential nature drawing has in an artist’s process. Direct visual perception, self-referential mark making, the viability of space and understanding it, and drawing from one’s own work are some of the drawing experiences encountered in the course. There are regular critiques and discussions based on the work and readings.

FNAR 804: Critical Issues in Art IV

Section 401 – Michelle Lopez - Covert Structures – Wednesday: 1:30pm – 4:30pm

What is the shape of invisibility? How do we explore materiality within industrial everyday sources to expose cultural resistance or a disappearance? These are some questions that will be asked in order to challenge modes of creativity by unweaving conventional narratives in order to build other, non-linear spaces. The seminar contends with the physicality/obstruction of “things” while simultaneously persevering through the material to piece together subversive structures in relation to your images, ideas, your secrets.

Through reading that begins with Ellison’s *Invisible Man* and ends with critical readings on our prevalent invisible ecosystem of social media and the resistance of hacking, we will negotiate what it means to make a gesture, that is very real and physical (possibly failing), towards an incisive silence with the potential to move beyond boundaries, including

the materials and bodies that bind us. Research at the material library and material Connex (NY), along within other departments will be a part of the class, but also each person's willingness to step out of the comfort zone of artistry that often illustrates, finger-points, or displays. At the root of this class is unearthing one's own process of creativity, by jumping off cliff into the unknown, and honestly looking at the common forms and strategies that oblige us.

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HISTORIC PRESERVATION

HSPV 620-402/HSSC 530: Seminar in American Architecture: Philadelphia: Urban Experience and Public Memory

Aaron Wunsch and David Barnes

Wednesday, 9:00 - 12:00pm

This seminar will challenge students to encounter and interpret the city around them in unconventional ways. At a time when public commemoration has vigorously and sometimes violently re-entered our country's public discourse, we wish to re-examine how monuments, memory, politics, and our senses shape our understandings of Philadelphia's past, present, and possible futures. Our focus is on two intertwined themes: *How* we remember and *What* we remember. Treating monuments, films, and historical texts as key forms of interpretation – the building blocks of an official if unstable "public past," we will likewise attend to the "backdrop" of such written and built statements: everyday urban and domestic life as well as more public histories that have remained silent or risen to the surface at key moments.

In addition to readings representing history, historic preservation, sociology, anthropology, geography, literary studies, and other disciplines, students will design and conduct original research projects involving:

- interviews with Philadelphians from diverse backgrounds about their experiences of various urban landscapes;
- archival research involving architecture, city and regional planning, urban infrastructure, civic culture, and historical commemoration; and
- conceptual design of monuments, installations, public events, and other forms of commemoration.

Regular outings and field trips (along with guest speakers representing a variety of disciplines and institutions) will ground class discussions in the present-day fabric of Philadelphia.

HSPV 625-001: Preservation Economics

Donovan Rypkema

Tuesday, 9:00 – 12:00pm

The primary objective is to prepare the student, as a practicing preservationist, to understand the language of the development community, to make the case through feasibility analysis why a preservation project should be undertaken, and to be able to quantify the need for public/non-profit intervention in the development process. A second objective is to acquaint the student with measurements of the economic impact of historic preservation and to critically evaluate "economic hardship" claims made to regulatory bodies by private owners.

HSPV 606-001: Historic Site Management

Stephanie Phillips & Faculty

Friday, 9:00 – 12:00pm

This course focuses on management, planning, and decision making for all types of heritage sites from individual buildings to historic sites to whole landscapes. Course material will draw on model approaches to management, as well as a series of domestic and international case studies, with the goal of understanding the practicalities of site management. Particular topics to be examined in greater detail might include conservation policy, interpretation, tourism, or economic development strategies.

HSPV 531-001: American Domestic Interiors

Laura Keim

Tuesday, 1:30– 4:30pm

This course will examine the American domestic interior from the seventeenth through the twentieth centuries with emphasis on the cultural, economic, and technological forces that determined the decoration and furnishing of the American home. Topics covered include the evolution of floor plans; changes in finish details and hardware; the decorative arts; floor, wall, and window treatments; and developments in lighting, heating, plumbing, food preparation and service, as well as communication and home entertainment technologies. In addition to identifying period forms and materials, the course will offer special emphasis on historic finishes. The final project will involve re-creation of a historic interior based on in-depth documentary household inventory analysis, archival research, and study. Students will create a believable house interior and practice making design and furnishing choices based on evidence. Several class periods will be devoted to off-site field trips.

HSPV 703-301: Urban Regeneration in the Americas: Conservation & Development of Urban Heritage Sites

Eduardo Rojas

Thursday, 1:30 - 4:30pm

This studio-based course will focus on the challenges confronted by the conservation profession in preserving the urban heritage of small and mid-size cities in developing countries. This is a problem that is in the cutting edge of the research and practice of urban heritage conservation and has planning and design implications making it ideally suited to a multi-discipline studio approach. The preservation of urban heritage is moving to a new paradigm of intervention responding to an increasing interest in communities for preserving their urban heritage; growing development pressures on historic neighborhoods; the generalization of adaptive rehabilitation as a conservation strategy; and recent international agreements calling for expanding the role of the urban heritage in the social and economic development of the communities.

The course is modeled on successful 1-CU spring studios conducted in recent years—the Gordion Site Planning Studio (2011), Parks for the People (2012), and the Regeneration of Historic Areas in the Americas (2012, 2014, 2016)—that are designed to attract students from across the School (especially CPLN, ARCH and LARP in addition to HSPV) and that fit easily with core studios and thesis projects. Students from multiple departments are encouraged to participate in the course; enrollment will be kept to about 12.

The course will combine the methodologies of a seminar and a studio in ways that they support each other. The knowledge acquired through the seminar work will be put to use in a studio exercise whose objective is to design urban heritage conservation regulations for small cities in Ecuador working in close cooperation with government officials in charge of assisting municipalities in managing their urban heritage. The students will benefit from the experience gained by Ecuadorian conservators in preserving a World Heritage site: the historic center of Cuenca.

HSPV 705-301: Topical Studio/Seminar: Interpretation in the Future Tense

Randall Mason & Bill Adair

Thursday, 1:30 - 4:30pm

The interpretation of heritage places is a core concern of historic preservation professionals, no matter what their area of specialization. Explicit and implicit interpretation is embedded deeply in the field's theory, history and contemporary practice. In contemporary practice, site interpretation is challenged to draw on traditional preservationist modes of practice (based in historical scholarship and formal analysis) as well as new ideas about representation, communication, visitor experience, and information design shared by other fields (including museum studies, art, exhibit design, educational psychology, community development/social justice, and digital media design).

This hybrid seminar-studio explores next-generation ideas and practices of heritage place interpretation: first, by building on a thorough program of research and analysis of contemporary best-practices in site interpretation; second, by experimenting along lines suggested by new audiences and innovative thinkers and designers inside and outside the preservation field. The course will include a series of guest presenters from design, public history, management and other fields; exercises to analyze the theoretical bases, best practices and issues facing contemporary practice; and prototyping of new/experimental approaches in partnership with a HSPV-based research project underway with the National Park Service. Prototypes will be based at NPS sites in their Northeast Region.

HSPV 747-401 / ANTH 508-401: Conservation and Management of Archaeological Sites + Landscapes: Impossible Ruins

Clark Erickson & Frank Matero

Wednesday, 2:00-5:00pm

Archaeological sites and landscapes have long been considered places of historical and cultural significance and symbols of national and ethnic identity. More recently they have offered new opportunities for economic and touristic development in both urban and rural settings. With a unique set of physical conditions including fragmentation, illegibility, extreme environmental exposure and material deterioration, as well as contested ownership and control, their conservation, management, and interpretation as heritage places require special knowledge and methodologies for both heritage specialists and archaeologists.

This seminar will address the history, theories, principles, and practices of the preservation and interpretation of archaeological sites and landscapes. The course will draw from a wide range of published material and experiences representing both national and international contexts. Topics will include site and landscape documentation and recording; site formation and degradation; intervention strategies including interpretation and display, legislation, policy, and contemporary issues of descendent community ownership and global heritage.

The course will be organized as a seminar incorporating readings, lectures and discussions on major themes defining the subject of ruins and archaeological site conservation. Readings have been selected to provide exposure to seminal works in the development of theory and method as well as current expressions of contemporary practice. This will set the background for the selected case study site which will provide students the opportunity to work with primary and secondary materials related to archaeological and ruin sites: excavation reports, stabilization work, conservation and interpretation plans, etc. Students will study specific issues leading toward the critique or development of a conservation and management program in accordance with guidelines established by UNESCO/ICOMOS/ICAHM and other organizations. This year the course site will be FORT UNION NATIONAL MONUMENT, NM.

KLEINMAN CENTER FOR ENERGY POLICY

ENMG 505: Chokepoints and the Global Energy System

Mark Hughes, Cory Colijn, Nick Pevzner

Tuesday, 1:30-4:30pm

This research seminar will explore the movement of energy resources around the world, the physical and economic impact of that role on these cities and regions, and the opportunities and challenges of these flows in the complex and uncertain energy transition currently underway. The discovery and invention of more concentrated forms of energy during the modern era has generated infrastructures for transporting fuels and transmitting electricity over increasingly large distances. These infrastructures have created landscapes characterized by land use patterns and interindustry configurations that are massive, expensive, durable and highly specific. They continue to generate great wealth and wages, while also generating externalized climate, environmental, and health costs that are better regulated in some places than in others. All of these conditions yield policy and design challenges for cities and nations, especially as the world slowly but steadily builds a policy regime for mitigating climate change. The global energy system is a key source of the greenhouse emissions driving climate change. As policies are developed and enforced to reduce and eliminate those emissions, these landscapes will change dramatically over the long transition of the next 50 years. How can cities and nations guide that transition with policy and design choices? How can nations use port cities and other elements of the energy landscape to meet their global climate commitments? The seminar will discuss weekly assigned readings and students can expect to read approximately a book a week throughout the semester. Students will write three 1-page papers on weekly readings and lead part of the seminar discussion on those readings. They will submit a 10-page final project in the form of a research agenda that identifies a set of important questions that could help guide policy and design choices facing energy flows and the industries and nations that influence them.

ENMG 503 403: 21ST Century Energy Revolutions

Anna Mikulska, William Hederman

Thursday, 1:30-4:30pm

Energy markets at the beginning of the 21st century have been revolutionized by several stunning developments that, while in many ways contradictory in their goals and aspirations, in others have exhibited complementary characteristics. This is particularly true for the so called “shale revolution” and boom in the renewable technology facilitated by cheaper wind and solar energy options. In the world, where climate change issues came to the fore and culminated in the Paris Agreement, renewables occupy a particularly important position as a zero-carbon source of energy, though one that cannot prevail for now due to the issues of access and intermittency. Meanwhile, shale development promotes use of fossil fuels, but in the case of shale gas, also provides a viable and less-carbon intensive alternative to the dirtier - coal. In this class, we will look at these energy revolutions that have been unfolding in the 21st century. We will discuss the market and technology dynamics of each looking at the US and international markets. We will explore the synergies and conflicts that the use of these new sources of energy implies. We will start with the US as a case study and then compare and contrast the opportunities and challenges have arisen in other countries. The students will have an opportunity to learn about the process of shale development and renewable energy growth. They will learn about the political, financial, economic and technology aspects of both and will be able to apply the US experience to what other countries have encountered when trying to activate either renewable resources or unconventional fossil fuels that lie within their borders.

DEPARTMENTAL CONTACT INFORMATION:

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- Fine Arts: fnarug@design.upenn.edu or mfa@design.upenn.edu
- Historic Preservation: pennhspv@design.upenn.edu
- Landscape Architecture: landarch@design.upenn.edu
- Kleinman Center for Energy Policy: ccolijn@design.upenn.edu

DETAILED INFORMATION ON REGISTRATION IS AVAILABLE ONLINE AT: [COURSES AND REGISTRATION](#)

QUESTIONS/CONCERNS REGARDING COURSE REGISTRATION: REGISTRAR@DESIGN.UPENN.EDU