ARCHITECTURE AND URBANISM SEMINAR
Decisions, Decisions...

ARCH 5705   CRN: 80847

Tuesday   1:30pm-4:00pm
Middle Room, 601 Building
Susan Piedmont-Palladino

Architecture and the city both result from an endless transformation of natural resources into cultural resources through human imagination and energy. In the words of historian of technology Carl Mitcham, we “make to use and use to make,” constantly gathering, assessing, testing, altering, and adapting the resources at hand to construct our world. The built environment that surrounds us represents a series of choices – this, not that; here, not there; this with that – regarding the joining or separating of materials, environments, and populations. Thus, the most difficult task that faces the design professional is that of making decisions.

Focusing on contemporary issues – and there are many complex ones from which to choose – this class will combine urban excursions, lectures, and discussions, with each student playing a significant part in the selection of topics. We will use the city of Washington, DC – a river city – as a vehicle for examining the decisions made, avoided, and pending about architecture and its urban setting. Lectures will explore the historical context, present manifestations, and future possibilities of persistent issues that join architecture, the city, and society. Discussions will focus on manifestations of these issues in current practice, society, and the cultural landscape as a whole.
ARCH AND URBANISM SEMINAR (Cont.)

Some of our questions will include: How is architecture political? How does architecture communicate? How do we communicate about architecture? What is sustainability? Is ornament a misdemeanor or a felony? How is architecture meaningful? What is its value? What is the relationship between architecture and technology? Is there progress in architecture? Drawing on the constant stream of words and images poured into our disciplines by media, old and new, popular and professional, we will dive into these issues and more.
ADVANCED TOPICS: LANDSCAPE PLANTS
Cultivating Landscape: Taxonomies, Ecologies, Technologies

LAR 5304  CRN: 85592

Tuesday  1:30pm-4:00pm
Secret Room, 601 Building
Nate Heavers

This course will prepare students to practice ecological design. Through a series of in-person field investigations in the National Capital Region and online content, the course will deliver the fundamentals of plant identification; discuss the concept of ecosystem as it relates to climate, geology, hydrology, topography, and vegetation; and describe a suite of strategies and techniques available to ecological designers. We will visit landscapes ranging from Hawksbill Mountain in Shenandoah National Park to the National Mall in Washington, DC, and demonstrate the important role of plants in natural and designed landscapes. We'll analyze each landscape’s structure and function, the techniques used to design and maintain it, as well as its ecological benefits. This knowledge will provide an essential background for developing ecological designs, comprising the best practices of landscape architecture and urban design. In their final projects, students will apply several of the techniques developed from their field investigations.
THE PROBLEM OF URBAN DESIGN: Cities exist on multiple levels, as practical environments supporting the daily life of leisure and work; as human ecosystems with a complex relationship to the energy, hydrologic, and material cycles of the world; and as symbolic constructs of human aspiration and imagination. To confront the daunting world of cities, the designer or planner requires an intellectual framework grounded in principles, a rich vocabulary of elements, and experience in application.

PRINCIPLES: Through lectures and discussion, this course will introduce students to principles of urban design that address the scale and complexity of the modern metropolis. The Parks Movement, City Beautiful, the Garden City, and modernism attempted to bring visual and spatial order to the industrializing modern city, transforming it into a humane site for human activity. In our day, New Urbanism continues this search, and Landscape Urbanism further seeks to integrate nature and the city.

ELEMENTS: We will figuratively travel through Paris, London, and New York to study how streets, squares, building types, urban districts, and open spaces are expressed in each of these world cities, with their distinctly different morphologies and patterns of growth; and will consider how these cities contrast with urban situations in other parts of the world.
APPLICATIONS: Using a sketch exercise, we will consider the role of design in advancing the characters of Paris, London, and New York as they face new urban tasks.

SELECTED TEXTS
- Original texts by Olmsted, Howard, Wright, Geddes, Stein, Garnier, Le Corbusier, others
- Robert Fishman, *Urban Utopias in the Twentieth Century*
- Peter Hall, *Cities of Tomorrow*
- Michael Larice and Elizabeth Macdonald, *The Urban Design Reader*
- Mel Scott, *American City Planning Since 1890*
- Specific writings on urban paradigms and on Paris, London, and Chicago

TOPICS
- An Urbanizing World
- The 19th Century City: An Urban Revolution and its Cures
- The Parks Movement: Frederick Law Olmsted and the Origins of American City Planning
- City Beautiful: Columbia Exposition, Washington, Chicago, Canberra; Totalitarianism and Colonialism
- The Garden City: Sir Ebenezer Howard and the British Experiment
- Garden Cities in America: Sunnyside, Radburn, Greenbelt, the New Towns
- Regional Planning: Patrick Geddes and the Regional Planning Association of America
- Modernism: Origins; Le Corbusier and the Radiant City; the Legacy of Modernism
- The Reaction to Modernism: New Urbanism, Landscape Urbanism, and Beyond
- The 21st Century City

REQUIREMENTS: Two presentations and a semester paper; active class participation; in-class sketch exercise
This course will cover the basic elements of professional architectural practice, from marketing to product delivery. We will discuss the history of the profession, noting how the industry has developed through time. We will also review office organization and operation, as well as how to establish relationships with associated professionals, including engineers, consultants, contractors, and owners.

We will review construction document delivery options, procedures and client services, marketing, and fees. We will also gain an understanding of legal matters and professional ethics. Finally, by seeing our designs through to fruition, we will review the role of the architect during construction and the many relationships involved in that process.

Guests to the class will include general contractors, owners, representatives, engineers, and attorneys, all of whom will share their views of the profession.

Students will be required to complete a series of exercises and encouraged to participate in class lectures and discussions. Midterm and final exams will test students’ comprehensive understanding.
This course will explore the medium of photography through documentation, analysis, and creation in the visual environment. The course will also discuss the work of historical and contemporary photographers as a vehicle for studying the issues and methods of the medium.

This is not a course in photographic technique. This is a studio course emphasizing the images each student will create. Each student will produce a self-assigned, cohesive body of work along with a documentation of architectural projects or the built environment. No previous knowledge of photography is required.

EQUIPMENT: This course will focus on the images you create and not so much on the tools you use. We will discuss how cameras work, but it will be within the context of the best way to use the tools you have effectively. You can use your phone, fancy DSLR, or analog camera for any of the projects in this course.

The school has a full darkroom for the processing of black-and-white silver-based film, which all students will be welcome to use. The course will teach basic darkroom technique, but students will not be required to work there unless they are interested in the process.
MEDIA AND ENVIRONMENT (CONT.)

Access to your own digital camera (phone cameras are OK) or analog camera is highly preferred, but the school does have a limited number of analog 35mm, medium format, and 4x5 cameras available for students to borrow.

COST: Students will be expected to cover their own costs for printing, paper, matboard, and other materials for the course. Most students spend between $150 to $250.
Artifacts – buildings and cities, drawings and models – largely define our shared architectural inheritance. Equally important for our edification, however, are the treatises written and drawn by architects. Unlike handbooks, which give rules for design, a treatise describes the philosophical framework within which design occurs. In short, a treatise defines an architect’s cosmology. In this seminar, students will read the words and images that architects have left for us in their treatises from the blending of Greco-Roman traditions in the ancient scrolls of Vitruvius, practical geometries in the stereotomy of Medieval master builders, narrative interpretations of the Renaissance, to the enlightened stylings of early modern times, revealing fundamental continuities and discontinuities about the conception of architectural practices. A knowledge of architectural history and theory opens up apparently fixed assumptions to critical examination and, therefore, allows us to project new futures. Theory as the study of architectural treatises is intended to resist the faddish consumption of architectural celebrity and instead examine the sources and modes of architects’ poetic descriptions of human dwelling.

Course requirements include participation in class discussions, presentations, and a research paper with an original frontispiece.
This course will give an overview of site construction practices with particular emphasis on applied grading, site layout, hydrology, stormwater design, and vegetation management. It will also address the ways in which sites are constructed in theoretical discourse. Theoretical readings will serve to bridge the perceived separation between theory and practice, and between design and construction. Because site construction is a broad and expanding topic, the theoretical perspectives will also serve to organize the material in a coherent framework and relate it to other discourses of landscape architecture. The **first class will meet at 12:00 noon at Windmill Hill Park, at the corner of Lee and Gibbon Streets.** Bring a sketchbook.
One of the final acts architectural designers take to complete their designs is to drop a few people into their drawings. While this can enliven perspectives and renderings, architecture, as embodied space, is more than dropping a few figures into a space. In this course, we will argue that the consideration of human proportion, size, dimension, and form should be the first act of the design process. We should inhabit a project at its beginning and we (they) should always lurk there like ghostly presences. Our embodied presence is an active partner within and throughout architectural design.

This design methods seminar will address the intimate and intimidating human-embodied presence in/as architecture proceeds throughout the design process. We will interpret settings, architecture, designs, drawings, writings, and performances to discover the ongoing performed presence of our bodies. Rooted in ancient
practice and reinvented continuously, we will study how architecture acts between, among, and surrounding us. Our bodies have been a source for and partnered with architectural design over centuries: Vitruvius and Leonardo’s Vitruvian Man and Le Corbusier’s Modular are just two examples. Buildings become our partners in motion, as a stair meets the foot and a railing the hand; as windows frame views either inward to present other people or outward to a landscape, releasing the eye. Architecture is a setting and world that defines all action in place, giving it scale, orientation, and meaning: a greeting on the stairs is vastly different than a greeting in a bedroom, even if the words are identical. We see, smell, feel – engage all of our senses – in the material that makes architecture.

Organized as a topic-based seminar, this course will approach embodiment and architecture through both written and graphic texts, along with associated lectures and workshops. Students will develop a collection of linked architectural representations that interpret the topic, while exploring their own design projects through body and embodiment. Master’s students will co-lead a portion of one class. PhD students will lead one class and write one scholarly paper.
COMPUTER APPLICATIONS IN DESIGN
Autodesk Revit 2019

ARCH 4164   CRN: 80735    (UG)
ARCH 5064   CRN: 80822    (G)

Thursday    4:15pm – 7:00pm
Computer Lab, 1001 Building
Samer Bitar

Computer Applications in Design will focus on key concepts of Building Information Modeling (BIM) and develop fundamental skills required to utilize this software as a designer. The course will integrate BIM into the design process by teaching methods of design, analysis, and production that compliment methods used in studio. Along with learning the fundamentals of BIM, we will also examine BIM’s implications for the professional practice of architecture. The course will be structured as a series of workshop-style lectures with related tutorial assignments, including two project presentations (mid-term and final) showcasing the student’s design project as developed in Autodesk Revit software.
“The mass of the subject matter, like a lump of wax, is at first resistant to handling; but if diligent application kindles the intellect, suddenly the material softens under this fire of the intellect and follows your hand wherever it leads, docile to anything.”

- Geoffrey de Vinsauf, ca. 1200

Ever since L.B. Alberti famously declared in the Renaissance that, “the carpenter is but an instrument in the hands of the architect”, the constructing of buildings has been increasingly separated from their construing. While various efforts have been made throughout history to re-unify the architect and the builder, a clear schism remains between those who conceive of building and those who carry out the conception. With new software technologies (BIM) promising a reunification of hand and mind through the rise of a ‘digital’ master builder, the desire to resurrect the pre-Renaissance notion of the architect as master builder is as powerful as ever.

The directness of touch is largely absent from the daily work of a modern architect. Stuck on cellphones or behind the screens of computers, architects nowadays have lost many of the basic sensibilities one can only learn through the sense of touch, via direct confrontation with materials. In WAAC Design Build, the hand will become the singular and proper instrument with which to explore the realm of matter, allowing one to not only physically, but mentally, grasp architectural concepts. The hand thus becomes a direct extension of the architect's imagination.
Design Build students will undertake projects involving the skilled application of both hand and mind, engaging in the full spectrum of constructive thinking, from conception to drawing and modeling, all the way through to execution and reflection. Many Design Build projects involve renovation of the 1001 Prince Street building itself, allowing students to leave behind a small part of their work here to act as future inspiration for others.

ORGANIZATION: Class meetings will be devoted primarily to group work and workshop instruction. Occasionally, we will hold a short seminar to discuss project progress and pertinent theoretical topics. Shop demonstrations, field trips, and relevant readings will be utilized as necessary. Given the conversational nature of building projects, no pre-determined schedule is provided. Rather, the direction of the course will depend on the progress of students’ projects.

REQUIREMENTS AND ASSESSMENT: Students will be evaluated based on participation and personal initiative in the workshop, as well as on contributions during seminar discussions. In addition to completing one’s chosen Design Build project, each student must finish an initial workshop-based project and participate in final presentations.

- Introductory Project: 25% of grade
- Attendance and Participation: 25% of grade
- Final Project and Installation: 50% of grade

Students will be expected to allocate appropriate time outside of class toward the production of their projects. A GTA will be available during posted hours (exact days and times TBD). The workshop will be open 6:00am to midnight, seven days a week.
This advanced seminar will be devoted to developing critical thinking, reading, and writing skills with texts focusing on the philosophy of architecture drawn from a variety of sources. Specific readings will be selected each semester and all participants will actively engage in their discussion. Guests will present their research to the group throughout the semester. Class participants will also present specific research topics to the group. Final grades will be based on class participation and the development or expansion of a final project, which may include a written paper and an interpretive drawing.
Landscape architecture is both a discipline and a profession. As a discipline, it constitutes various ways of thinking, seeing, and doing, and various modes of engagement with the world. As a profession, it is a slowly-evolving collection of histories, practices, technical capacities, and constraints, legally codified and regulated, which shape the materialization of the discipline in time and space.

This course will prepare students to embark on careers in landscape architecture, concentrating on the operations, organizational structures, professional ethics, and legal frameworks of professional practice. Though rigorously focused on the present, the course will also reflect to the past and project into the future – discussing how choices, events, and people have shaped present practice and inviting speculation into the shape of landscape architecture to come. The course will present the argument that a clever professional practitioner not only understands these practices, structures, and constraints, but utilizes them to her advantage as a designer and actively participates in shaping them. Moreover, this course will help young designers navigate these structures to achieve both personal and career goals.

Presented in modules, the course will include a series of audio-taped interviews with practitioners from the Washington, DC metropolitan area, whose work oversees and contributes to the design and management of urban, natural, and historic landscapes, including private firms, public agencies, and non-governmental organizations. The interviews will be supplemented by readings, online discussions, and a term project.