

ARCHITECTURE (ARCH)

* ARCH 006a, Architectures of Urbanism: Thinking, Seeing, Writing the Just City

Michael Schlabs

What is architecture, and how is it conceived, relative to notions of the urban – to the broader, deeper, messier web of ideas, forms, and fantasies constituting “the city?”

Can architecture play a role in defining the city, as such, or does the city’s political and social construction place it outside the scope of specifically architectural concerns?

Likewise, what role can the city play in establishing, interrogating, and extrapolating the limits of architecture, whether as a practice, a discourse, or a physical manifestation of human endeavor in the material environment? This course addresses these and other, related questions, seeking to position art and architecture in their broader urban, social, cultural, political, intellectual, and aesthetic contexts. It explores issues of social justice as they relate to the material spaces of the modern city, and the manner in which those spaces are identified, codified, and made operative in service of aesthetic, social, and political experience. Enrollment limited to first-year students. Preregistration required; see under First-Year Seminar Program. Prerequisite: general knowledge of 20th-century history. HU

ARCH 150a, Introduction to Architecture Alexander Purves and Trattie Davies

Lectures and readings in the language of architecture. Architectural vocabulary, elements, functions, and ideals. Notebooks and projects required. Not open to first-year students. Required for all Architecture majors. HU

* ARCH 154b, Drawing Architecture George Knight

Introduction to the visual and analytical skills necessary to communicate architectural ideas. Observation and documentation of architectural space on the Yale campus.

Drawing exercises introduce the conventions of architectural representation: plan, section, elevation, and isometric drawings, as well as freehand perceptual drawings of architectural space.

* ARCH 161a, Introduction to Structures Erleen Hatfield

Basic principles governing the behavior of building structures. Developments in structural form combined with the study of force systems, laws of statics, and mechanics of materials and members and their application to a variety of structural systems. Prerequisites: trigonometry and some knowledge of calculus. Enrollment limited to 20. QR, SC

* ARCH 162b, Materials in Architecture Timothy Newton

Science and technology of basic building materials studied together with historic and current design applications. Skills and processes required to create, shape, and connect materials experienced through hands-on projects. Technical notebooks, drawings, design and build exercises, and projects required. Enrollment limited to 20.

ARCH 200b / URBN 200b, Scales of Design Bimal Mendis

Exploration of architecture and urbanism at multiple scales from the human to the world. Consideration of how design influences and shapes the material and conceptual spheres through four distinct subjects: the human, the building, the city, and the world. Examination of the role of architects, as designers, in constructing and shaping the inhabited and urban world. Lectures, readings, reviews and four assignments that

address the spatial and visual ramifications of design. Not open to first-year students. Required for all Architecture majors. HU

*** ARCH 250a, Methods and Form in Architecture I** Anne Barrett

Analysis of architectural design of specific places and structures. Analysis is governed by principles of form in landscape, program, ornament, and space, and includes design methods and techniques. Readings and studio exercises required. Enrollment limited to 25. Open only to Architecture majors. 1½ Course cr

*** ARCH 251b, Methods and Form in Architecture II** Michael Schlabs

Continuation of ARCH 250. Analysis of architectural design of specific places and structures. Analysis is governed by principles of form in landscape, program, ornament, and space, and includes design methods and techniques. Readings and studio exercises required. 1½ Course cr

ARCH 260a / HSAR 326a, History of Architecture to 1750 Staff

Introduction to the history of architecture from antiquity to the dawn of the Enlightenment, focusing on narratives that continue to inform the present. The course begins in Africa and Mesopotamia, follows routes from the Mediterranean into Asia and back to Rome, Byzantium, and the Middle East, and then circulates back to mediaeval Europe, before juxtaposing the indigenous structures of Africa and America with the increasingly global fabrications of the Renaissance and Baroque. Emphasis on challenging preconceptions, developing visual intelligence, and learning to read architecture as a story that can both register and transcend place and time, embodying ideas within material structures that survive across the centuries in often unexpected ways. HU 0 Course cr

*** ARCH 271a / HSAR 266a / MMES 126a / SAST 266a, Introduction to Islamic Architecture** Staff

Introduction to the architecture of the Islamic world from the seventh century to the present, encompassing regions of Asia, North Africa, and Europe. A variety of sources and media, from architecture to urbanism and from travelogues to paintings, are used in an attempt to understand the diversity and richness of Islamic architecture. Besides traditional media, the class will make use of virtual tours of architectural monuments as well as artifacts at the Yale University Art Gallery, accessed virtually. HU 0 Course cr

ARCH 280a / AMST 197a / HSAR 219a / URBN 280a, American Architecture and Urbanism Elihu Rubin

Introduction to the study of buildings, architects, architectural styles, and urban landscapes, viewed in their economic, political, social, and cultural contexts, from precolonial times to the present. Topics include: public and private investment in the built environment; the history of housing in America; the organization of architectural practice; race, gender, ethnicity and the right to the city; the social and political nature of city building; and the transnational nature of American architecture. HU 0 Course cr

*** ARCH 306a, Ornamenting Architecture: Cosmos, Nature, Neuroaesthetics** Staff

From foliated friezes to snaking spirals, gruesome gargoyles to graceful guilloches, humans have used ornament for millennia to adorn objects and buildings. What is the function of ornament in the built environment? How does it mediate between the objects it adorns, the viewers it addresses, and the cosmos? What role does it play in orchestrating building occupants' sense of space, order, and time? And is there scientific

evidence for any of these claims? This course provides a venue for exploring these questions through hands-on design and analysis while finding empirical grounding in the emerging fields of biophilic design and neuroaesthetics. Design exercises introduce students to symmetry operations, tessellation, repeat patterns, and foliation, giving the class a basic fluency in the language of ornament. As we study historic precedents and the fundamental geometric properties of ornament, we simultaneously research how these patterns are perceived by the brain, both in the scientific literature and through the use of our own eye trackers and EEG sensors. Students are led through a series of design exercises of increasing complexity in both two and three dimensions, culminating in an ornament project for a shared site. This seminar is meant to nurture methodologies of design that fuse a grounding in the history of ornament with the application of cutting edge technology, enabling novel forms of empirically-grounded design. It is recommended, but not required, that students have some experience with visualization (digital or hand-drawing) and a willingness to explore physical prototyping. HU RP

ARCH 312b / HSAR 312b, Modern Architecture in a Global Context, 1750-present

Craig Buckley

Architects, movements, and buildings central to the development of modern architecture from the mid eighteenth century through to the present. Common threads and differing conceptions of modern architecture around the globe. The relationship of architecture to urban transformation; the formulation of new typologies; architects' responses to new technologies and materials; changes in regimes of representation and media. Architects include Claude Nicolas Ledoux, Giovanni Battista Piranesi, John Soane, Frank Lloyd Wright, Le Corbusier, Ludwig Mies van der Rohe, Lina Bo Bardi, Louis Kahn, and Kenzo Tange. HU o Course cr

*** ARCH 314a / URBN 314a, History of Landscape in Western Europe and the United States: Antiquity to 1950** Warren Fuermann

This course is designed as an introductory survey of the history of landscape architecture and the wider, cultivated landscape in Western Europe and the United States from the Ancient Roman period to mid-twentieth century America. Included in the lectures, presented chronologically, are the gardens of Ancient Rome, medieval Europe, the early and late Italian Renaissance, 17th century France, 18th century Britain, 19th century Britain and America with its public and national parks, and mid-twentieth century America. The course focuses each week on one of these periods, analyzes in detail iconic gardens of the period, and places them within their historical and theoretical context. HU RP

*** ARCH 325a / URBN 417a, Marronage Practice: Architectures, Design Methods, and Urbanisms of Freedom** Ana Duran

This seminar introduces and explores Black, indigenous, and other historically marginalized modes of cultural production—collectively referred to here as “fugitive practices.” The course confronts the erasure (and re-centering) of these modes by rethinking the episteme of architecture—questioning history, planning, and urbanism—but also of the body, the design of objects, and making. Modes of sociocultural and aesthetic production explored in the course may include: improvisation in jazz, hip-hop and social dance; textiles of the Modern African Diaspora and indigenous peoples; informal economies; ingenuity in vernacular architecture; and others. The course is structured around seven two-week “modules,” each containing a seminar discussion,

a design exercise, and a short written accompaniment. It is conducted in collaboration with a parallel seminar being offered by faculty at Howard University. HU RP

* **ARCH 327a / URBN 327a, Difference and the City** Justin Moore

Four hundred and odd years after colonialism and racial capitalism brought twenty and odd people from Africa to the dispossessed indigenous land that would become the United States, the structures and systems that generate inequality and white supremacy persist. Our cities and their socioeconomic and built environments continue to exemplify *difference*. From housing and health to mobility and monuments, cities small and large, north and south, continue to demonstrate intractable disparities. The disparate impacts made apparent by the COVID-19 pandemic and the reinvigorated and global Black Lives Matter movement demanding change are remarkable. Change, of course, is another essential indicator of *difference* in urban environments, exemplified by the phenomena of disinvestment or gentrification. This course explores how issues like climate change and growing income inequality intersect with politics, culture, gender equality, immigration and migration, technology, and other considerations and forms of disruption.

* **ARCH 337a, Field to Building, and Back** Mae-Ling Lokko

From plant fibers to peat particles, cellulose to lignin, fungi to carbon-neutral concrete—the use of a broad renewable material ecology from the field is becoming the feedstock of the 21st century materials revolution. On the one hand, the design of such renewable material streams are framed within today’s carbon framework as ‘substitutes’ within a hydrocarbon material economy and on the other, such materials are proposed in direct resistance to these very systems, as ‘alternatives’ to such ‘development’. The seminar explores the spectrum of biobased design histories and pathways within Arturo Escobar’s pluriversal framework. From the North Atlantic Scottish blackhouses, equatorial Tongkonan to the wetland ecologies of the Totoro, the course begins with an exploration of field materials through vernacular architecture and agricultural practices. The second part of the course explores the relative levels of displacement of field materials from today’s material economies in response to empire—both botanical and industrial. Finally, students investigate continuation of local narratives alongside the relocalization of global narratives of three materials—timber, biomass and fungi-based building material systems. HU

* **ARCH 341b / GLBL 253b / LAST 318b / URBN 341b, Globalization Space** Staff
Infrastructure space as a primary medium of change in global polity. Networks of trade, energy, communication, transportation, spatial products, finance, management, and labor, as well as new strains of political opportunity that reside within their spatial disposition. Case studies include free zones and automated ports around the world, satellite urbanism in South Asia, high-speed rail in Japan and the Middle East, agripoles in southern Spain, fiber optic submarine cable in East Africa, spatial products of tourism in North Korea, and management platforms of the International Organization for Standardization. HU o Course cr

ARCH 345a / URBN 345a, Civic Art: Introduction to Urban Design Alan Plattus

Introduction to the history, analysis, and design of the urban landscape. Principles, processes, and contemporary theories of urban design; relationships between individual buildings, groups of buildings, and their larger physical and cultural contexts. Case studies from New Haven and other world cities. HU

* **ARCH 360a / URBN 360a, Urban Lab: An Urban World** Joyce Hsiang
 Understanding the urban environment through methods of research, spatial analysis, and diverse means of representation that address historical, social, political, and environmental issues that consider design at the scale of the entire world. Through timelines, maps, diagrams, collages and film, students frame a unique spatial problem and speculate on urbanization at the global scale. Prerequisites: For non-majors: permission of the instructor is required. For ARCH majors: ARCH 150, 200, and 280. HU 1½ Course cr

* **ARCH 386a or b / ENGL 421a or b, Styles of Academic and Professional Prose** Staff
 A seminar and workshop in the conventions of good writing in a specific field. Each section focuses on one academic or professional kind of writing and explores its distinctive features through a variety of written and oral assignments, in which students both analyze and practice writing in the field. Section topics, which change yearly, are listed at the beginning of each term on the English departmental website. This course may be repeated for credit in a section that treats a different genre or style of writing; may not be repeated for credit toward the major. Formerly ENGL 121. Prerequisite: ENGL 114, 115, 120, or another writing-intensive course at Yale. WR

* **ARCH 450a, Senior Studio** Tei Carpenter
 Advanced problems with emphasis on architectural implications of contemporary cultural issues. The complex relationship among space, materials, and program. Emphasis on the development of representations—drawings and models—that effectively communicate architectural ideas. To be taken before ARCH 494. Enrollment limited to Architecture majors. 1½ Course cr

* **ARCH 471a or b, Individual Tutorial** Michael Schlabs
 Special courses may be established with individual members of the department only. The following conditions apply: (1) a prospectus describing the nature of the studio program and the readings to be covered must be approved by both the instructor and the director of undergraduate studies; (2) regular meetings must take place between student and instructor; (3) midterm and final reviews are required. For juniors and seniors with DUS approval; meetings by appointment with DUS.

* **ARCH 472a or b, Individual Tutorial Lab** Michael Schlabs
 RP ½ Course cr

* **ARCH 490a or b / URBN 490a or b, Senior Research Colloquium** Staff
 Research and writing colloquium for seniors in the Urban Studies and History, Theory, and Criticism tracks. Under guidance of the instructor and members of the Architecture faculty, students define their research proposals, shape a bibliography, improve research skills, and seek criticism of individual research agendas. Requirements include proposal drafts, comparative case study analyses, presentations to faculty, and the formation of a visual argument. Guest speakers and class trips to exhibitions, lectures, and special collections encourage use of Yale's resources.