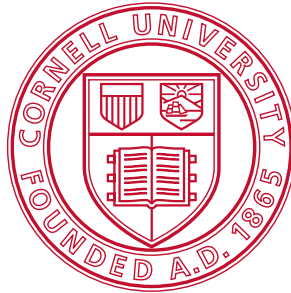


COLLEGE *of* ARCHITECTURE, ART & PLANNING
DEPARTMENT OF ARCHITECTURE
FALL 2010
ELECTIVE COURSES

B. ARCH., M. ARCH., M.A., & PH.D.



Cornell University

COLLEGE *of* ARCHITECTURE, ART & PLANNING
DEPARTMENT OF ARCHITECTURE

THEORY ELECTIVES

FALL 2010

ARCH 3308

Game Theory

Professor Arch MacKenzie

Monday 10:10 - 12:05 p.m.

Uris Hall 262



Arch 3308: Special Topics in Theory of Architecture

Tales of Two Cities: Modern Landscape Architecture in New York and Paris.

Two of the West's greatest cities entered the modern age almost simultaneously, and in the aftermath of cataclysmic national socio-political events. Spurred on by rapid technological innovations, Paris and New York altered the fabrics of their urban personalities with dramatic landscape architectural productions. Public parks, grand avenues, social housing schemes, playground designs, urban corporate estates, rooftop gardens, waterfront recovery and international expositions are but some of the areas which will be investigated during the course. The cross fertilization of ideas between important figures in landscape architecture such as Jean Adolphe Alphand, Eugene Haussmann, Gabriel Gueverkian, in Paris, and Frederick Law Olmsted, Robert Moses and Gilmore Clarke in New York will be reviewed to understand how the "old world" and the "new" contributed to distinctly innovative approaches affecting each city's open space designs.

The course will emphasize three broad periods in the life of these cities: 1850 – 1900, 1900 - World War II, Post W.W. II – The Present. Class sessions will be taken up by background lectures and by student presentations of the findings of their research in aspects of similar patterns of design in both of these cities.

Class meets on Fridays, 10:10 – 12 :05.

3 Credits

Location TBA

Mutations: Architecture and Genetics

ARCH 6308 (Section 103 Class Number: 28841)

144 E. Sibley

Mondays 7:30 – 9:25pm

Instructor: Caroline O'Donnell

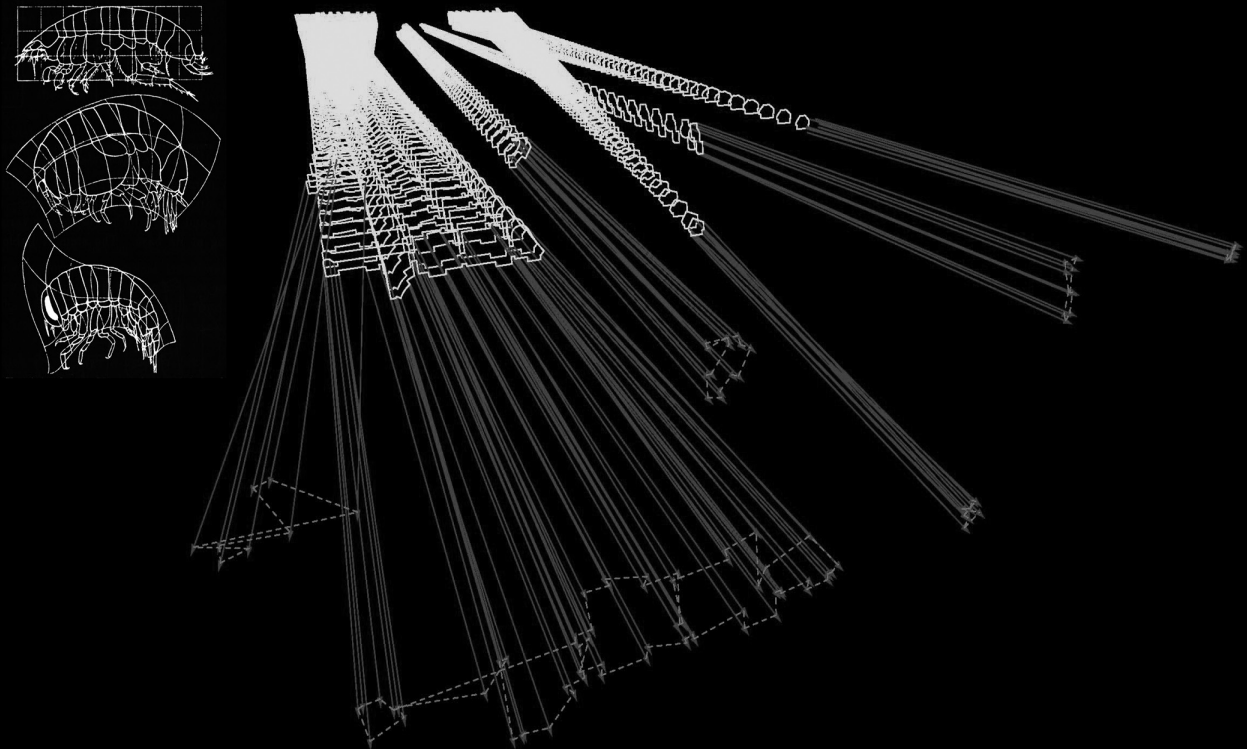
3 Credits. Permission of instructor required (for permission, attend first class).

For organic evolution to occur, three attributes of matter are necessary: the capacity for reproduction, capacity for change (variation) and the capacity for continuity between generations (heredity). Genetics, by definition, is the study of these two forces change and continuity. While computer “breeding” in architecture leads to proliferation of species, the theory which would provide the constraint is sluggish and deficient.

Mutations: Architecture and Genetics investigates architectural production through the lens of evolutionary theory in order to understand underlying familiarity, variations, and mutations across architectural species and provide not only a framework for criticism but for production.

References to evolution and genetics in contemporary architecture are prolific. Lars Spuybroek considers contemporary design to be “very close to breeding.”¹ Detlef Mertins notes a shift in recent thinking from one focused on form to one focused on the process of formation, “to evolution and diversity.”² Greg Lynn has looked to morphologist D’Arcy Thompson’s geometric system of description in which animals from different species are demonstrated to be mathematical transformations of each other.³ Lynn makes a case for genetic systems in architecture system by citing its capabilities of transforming and reacting with local contingencies: the traditional architectural constraints of program, culture, structure, economics, and context.

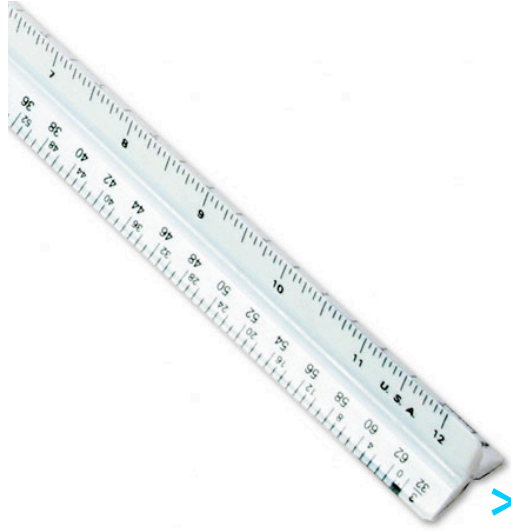
This seminar is linked to the Option Studio: *Mutations* available in Spring 2011 and is recommended for those wishing to participate in the studio. Weekly response to readings and class discussions 40%, final (graphic) paper 60%.



¹ Lars Spuybroek, “Foreword” in *Research and Design: The Architecture of Variation*, (NY: Thames and Hudson, 2009), 33.

² Detlef Mertins, “Variability Variety and Evolution in Early 20th Century Bioconstructivisms,” in *Research and Design: The Architecture of Variation*, (NY: Thames and Hudson, 2009), 55.

³ Greg Lynn, “The Folded, the Pliant and the Supple”, in *Folds, Bodies and Blobs, Collected Essays (Books-by-Architects)*, (La Lettre Volée, 1998)



ARCH 6308 Theory 3 credits
Course Schedule: Monday and Wednesday 11:15-12:05
Location: West Sibley 144
Prerequisites: ARCH 1502 and 2503
Professor: Mark Morris

>> **Scale to Fit**

Imperial, Metric and the Modulator Undone

Overview: This course examines the compromised role of conventional scales in architectural representation as a byproduct of computation and shift in output media. It reviews a history of systems of measurement, including the introduction of Roman imperial units in Britain after 1066 and the adoption of the French metric system in 1795; the weights and measures conference linked to the Great Exhibition of 1851 crystallizes the tension between these two. Le Corbusier's Modulor system is explored as an architectural attempt to resolve both anthropometric and scientific approaches. The course then treats how conventional scales – 1/16, 1/8, 1/4 and so on – applied to architectural drawings and models have traditionally been used as specific calibrations of conceptualization from massing to building to detail.

Finally, the question as to how computation foregoes these calibrations in favor of notionally working at 1:1 will be addressed alongside evaluating how fabrication devices like the 3-D printer disregard conventional scales in favor of maximizing the machine's size limitations. The course intends to postulate a way forward for scale in the digital age and grapple with the size versus scale dynamic imposed by fabrication and a culture of scaling to fit given media. Students will generate a specific case study, conduct an interview with a practitioner and share their own experiences with scale.

Note: This seminar supports the Option Studio – **1:Whatever** – available Spring 2011 and is recommended for those wishing to participate in the studio. Other students are welcome.

Format: The course combines lectures, roundtable discussions based on assigned readings and presentations. Each student will share a case study of an imperial or metric scale. This will include brief text, a graphic and an interview element. Case studies will abide by a given template and will combine to form a class book.

Texts:

Frank Orr: *Scale in Architecture*

Ian Whitelaw: *A Measure of All Things: The Story of Man and Measurement*

Cláudia Piantá Costa Cabral: "ZOOM-IN, ZOOM-OUT: Architectural scale and digital technology"

Albena Yaneva: "Scaling Up and Down: Extraction Trials in Architectural Design"

Films: "Synecdoche, New York" (Charlie Kaufman, 2008) and "Něco z Alenky" (Jan Svankmajer, 1988)





FALL 2010 ARCH 6803

Seminar in the History of Theory: CounterSign

Christian F. Otto

This course brings focus to the overlay of aesthetic/spatial considerations and cultural meanings/behaviors in modern and contemporary architectures and their urban contexts. Authenticity and meaning, memory and nostalgia, and the implicit difficulty of the aesthetic capture of the ephemeral and everyday will be points of focus. Spaces/practices that will be analyzed are the café and market; the monument and museum; and the tourist path as delineated in guides, maps and urban signage. Readings will focus on current theories of geography and everyday life, and include Benjamin, de Certeau, Lefebvre, Simmel, Bender and Upton.

ARCH 3308 (Rome)

Itopia: Building the Public City

Professor Gabriele Mastrigli

Rome Program

ARCH 3308/6308 (NYC)

Manhattan as Cauldron of Liberal Urbanism

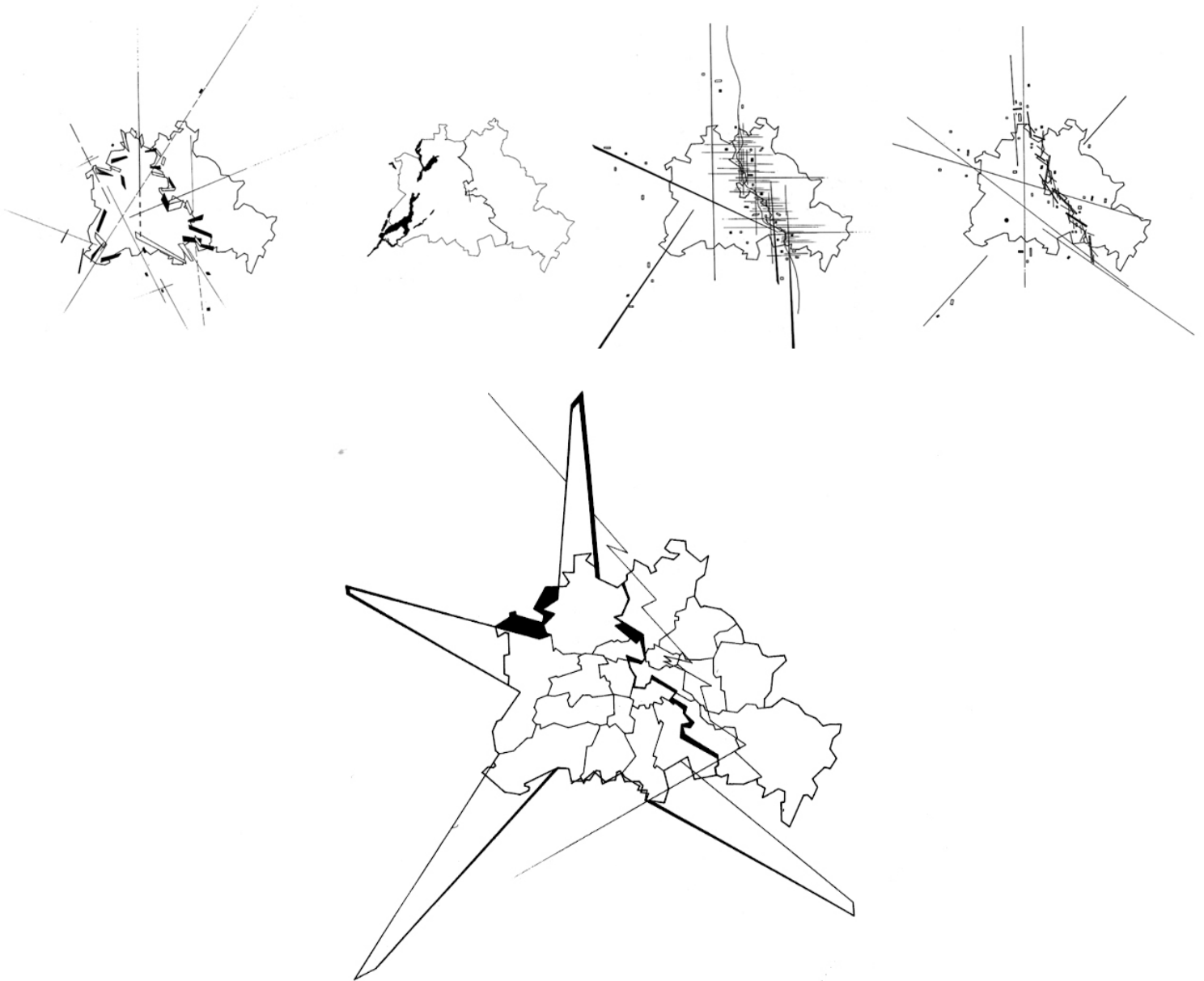
Professor Joan Ockman

NYC Program

COLLEGE *of* ARCHITECTURE, ART & PLANNING
DEPARTMENT OF ARCHITECTURE

**ARCHITECTURE,
CULTURE & SOCIETY
ELECTIVES**

FALL 2010



CASE STUDY: BERLIN -VISIONS FOR BERLIN

The city as an organism, embedded in its natural environment. This is the essence of Hans Scharoun's visions for Berlin. His plans were never fully realized, but have left some areas in a stage of becoming: ruins of a vision for Berlin. Starting from the Scharoun Berlin plans, the course will explore visions for Berlin in different scales, from utopian mega-dreams to the scale of a single building. It will supply a survey of Berlin's city development as seen through the ideological eyes of planners, sovereigns and dictators: Schinkel's Italian Berlin, the romantic "Havellandschaft" of Friedrich Wilhelm IV., Hobrecht's planning for the rapid growth, modern housing schemes by Mies and Taut, Hitler's Germania, the anti-imperial wake of social and socialist postwar society, the divided city with their competing development projects in east and west, reunification, the "critical reconstruction" of 19th century Berlin and finally today: the post-Stimmann era with its chances, risks, protagonists and their agendas.

Berlin is a unique collection of opposing city ideals: A city without structure but full of partially realized visions. Based on the historical development of these city layers, the course will investigate the validity of extreme visions, their advantages and disadvantages for the city's development, Berlin's identity that stems from its fragmentation and the role of Berlin as an experimental field for other cities in the world.

Instructor: Matthias Ballestrem / Arch 4408/3 credits / meeting time and place: Thursdays 12:20-2:15 , 142 Sibley Hall

Grades based on response to readings, discussion, statement, research paper/project

The Seminar is highly recommended for the participants of the Design Studio *BERLIN - City between Memory, Renewal and Amnesia*

ARCHITECTURE 4408: EAST MEETS WEST: THEORIZING THE VERNACULAR



First meeting: W August 31 12:05 The aim of this course is to provide a schedule of discussion topics, lectures and readings that draw out the ways in which the vernacular has been understood as a value in architectural practice as well as, more neutrally in the scholarly traditions of the humanities, notably in anthropology. We will undertake case studies that explore that role of the vernacular tradition in the formation of national and communal identities. We will look at examples of university campuses, government centers, museums and hotels that owe an apparent debt to the “folk.” We will thus attempt to define the role the vernacular building has been popularly assigned in the transmission of tradition and the understanding of social history. A wide range of writers who have had something to say on these matters will be consulted including Ananda Coomaraswamy, Geoffrey Bawa, LeCorbusier and in this his centennial and Claude Levi Strauss. Examples will be drawn from Asia, the Americas and Europe. Three presentations required and attendance required at every class. Final paper on a topic of your own choosing, preferably one developing a case study previously explored as a short presentation.

COLLEGE *of* ARCHITECTURE, ART & PLANNING
DEPARTMENT OF ARCHITECTURE

**VISUAL
REPRESENTATION**

FALL 2010

F'10 - Visual Imaging in the Electronic Age

3 credits - 131 Warren

TR 11:15AM - 12:05PM

ARCH 3702, ART 1700, CIS 1620, CS 1620, ENGRI 1620

Prof. Donald P. Greenberg



How are these pictures made?

Why do they work?

How do we interact?

ARCH 3704

Computer Graphics I

Professor Douglass James

Tuesday/Thursday 8:40 - 9:55 a.m.

PHL 219

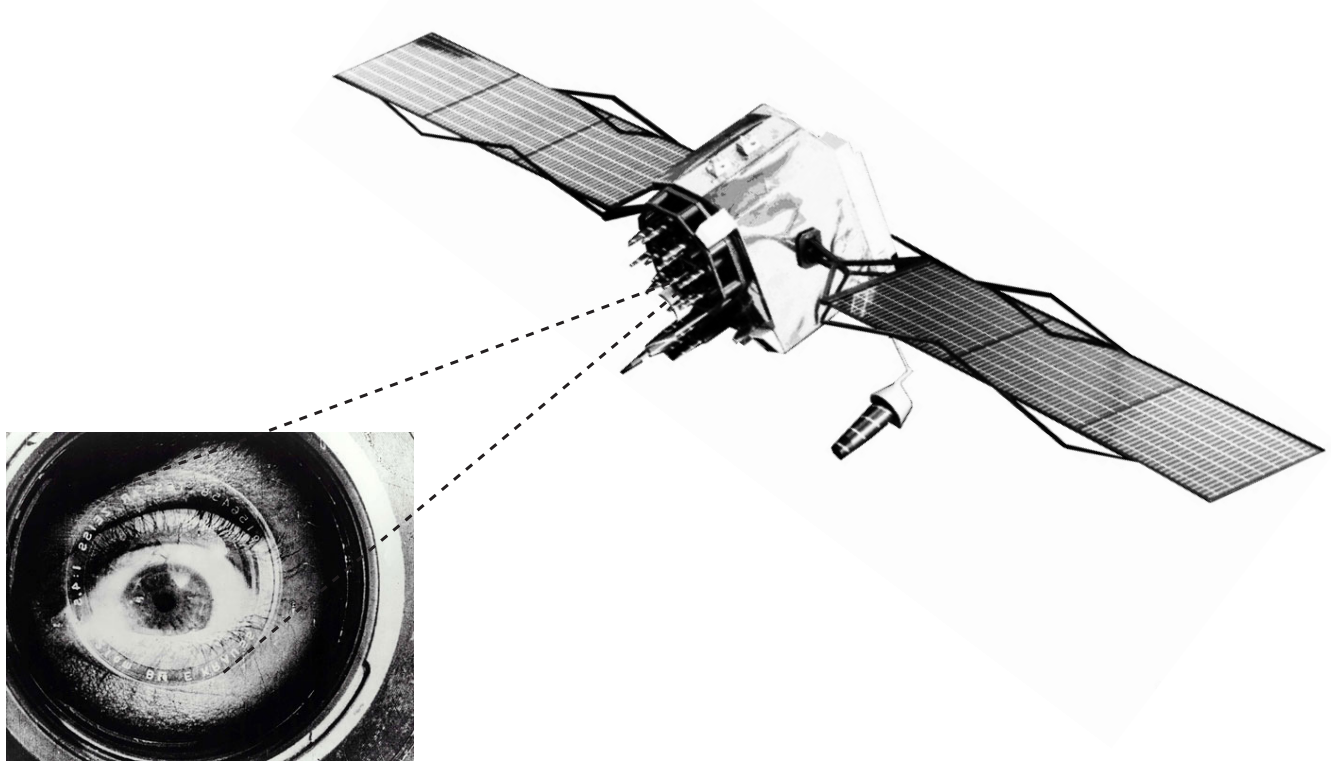
ARCH 4509/6509

Special Investigations in Visual Representation

Mondays, 7:30 – 9:25pm

Instructor: John Zissovici

3 credits. Permission of the instructor required.



New CINEMATIC CITIES: Animating the Digital Image of the City

From its earliest days, the moving image has been used to observe and document the dynamic relationship between the city and its occupants, both human and mechanical. The mechanisms for capturing and projecting moving images emerged from the same industrial revolution that made the contemporary city possible, necessary, and inevitable. Cinema and the modern city have been linked to each other as emblems of modernity.

While cities and the way we use them have changed relatively little, today's digital imaging technologies like Google Earth have opened radically new possibilities for looking at and thinking about cities. What has been missing is a new cinematic language for the city that exploits these new modes of representation.

The course will look at the radical techniques of early film-makers like Dziga Vertov, and of the experimental film and video artists of the 60s and 70s to develop a new language of representation for the city. Students will use found images and 'footage' from Google Earth to create short animated films of the city. For their final projects students will make a 3 1/2 minute animation that examines an aspect of the contemporary city.

ARCH 4509 (Rome)

Introduction to Photography

Professor Liana Miuccio

Rome Program

COLLEGE *of* ARCHITECTURE, ART & PLANNING
DEPARTMENT OF ARCHITECTURE

**BUILDING
TECHNOLOGY
ELECTIVES**

FALL 2010

ARCH 3605

Bridge Design 2010: *The Footbridge*

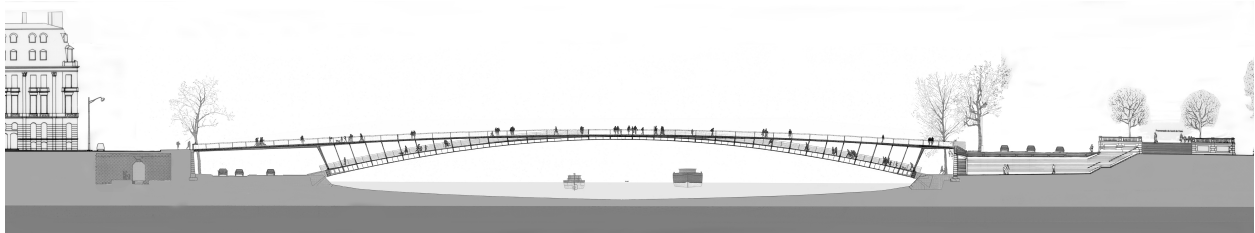
ARCH 6605

Prof. Mark Cruvellier

Thursdays 2:30 - 4:25

Prerequisite: ARCH 3603 / 6603 or equivalent

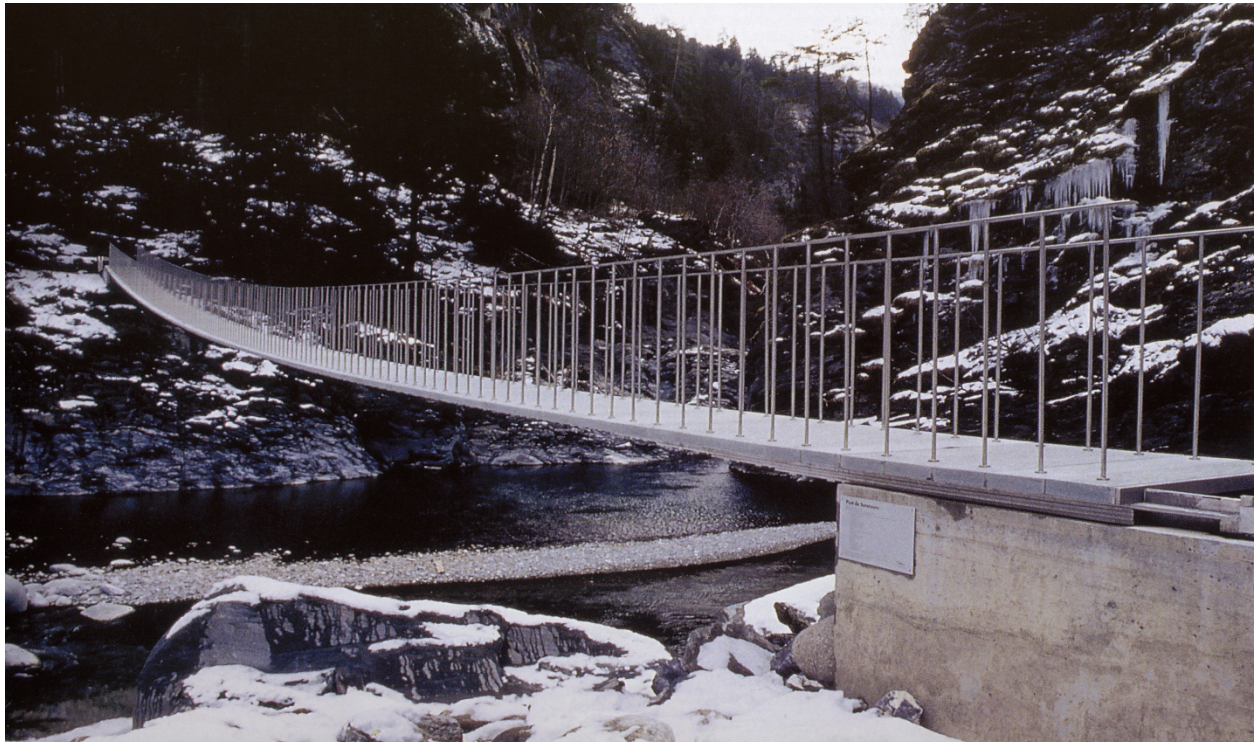
Enrollment: limited to 15, permission required



Bridges are often regarded as structures that serve prosaic functions, whose forms are derived from the rigorous application of the cold logic of mathematics and physics. Yet the major visual and societal impact of bridges cannot be denied – whether as an integral part of an urban built environment or as a distinctive man-made object in a rugged natural landscape. And if during the last century architects had largely abandoned their historical role in the design of bridges while engineers had claimed this field as being their responsibility, today one can increasingly recognize a resurgence of interdisciplinary interest and collaboration in the design of such structures.

Students in this course will examine and experiment with the design of bridges. Overall structural strategies, the effect of variations of form, and detail design development will be the central focus, but these topics will be addressed in the context of representations of bridges in art, as part of a cultural environment, and as key elements of contemporary urban design and renewal. The human scale of the *footbridge*, in particular, lends itself especially well to such multifaceted explorations; the *passerelles/pasarelas/Fußgängerbrücken* of Robert Maillart, Santiago Calatrava, Marc Mimram, and Jürg Conzett, among others, will be studied closely for instruction and inspiration.

Weekly meetings will include lectures, reading discussions, local site visits, and student project presentations.



ARCH (NYC)

The Devil is in the Details

Professor CHRISTOPH a. KUMPUSCH

NYC Program

COLLEGE *of* ARCHITECTURE, ART & PLANNING
DEPARTMENT OF ARCHITECTURE

**HISTORY OF
ARCHITECTURE &
URBAN DEVELOPMENT
ELECTIVES**

FALL 2010



FALL 2010 Arch 3808
History of Architecture: Modernism
Christian F. Otto

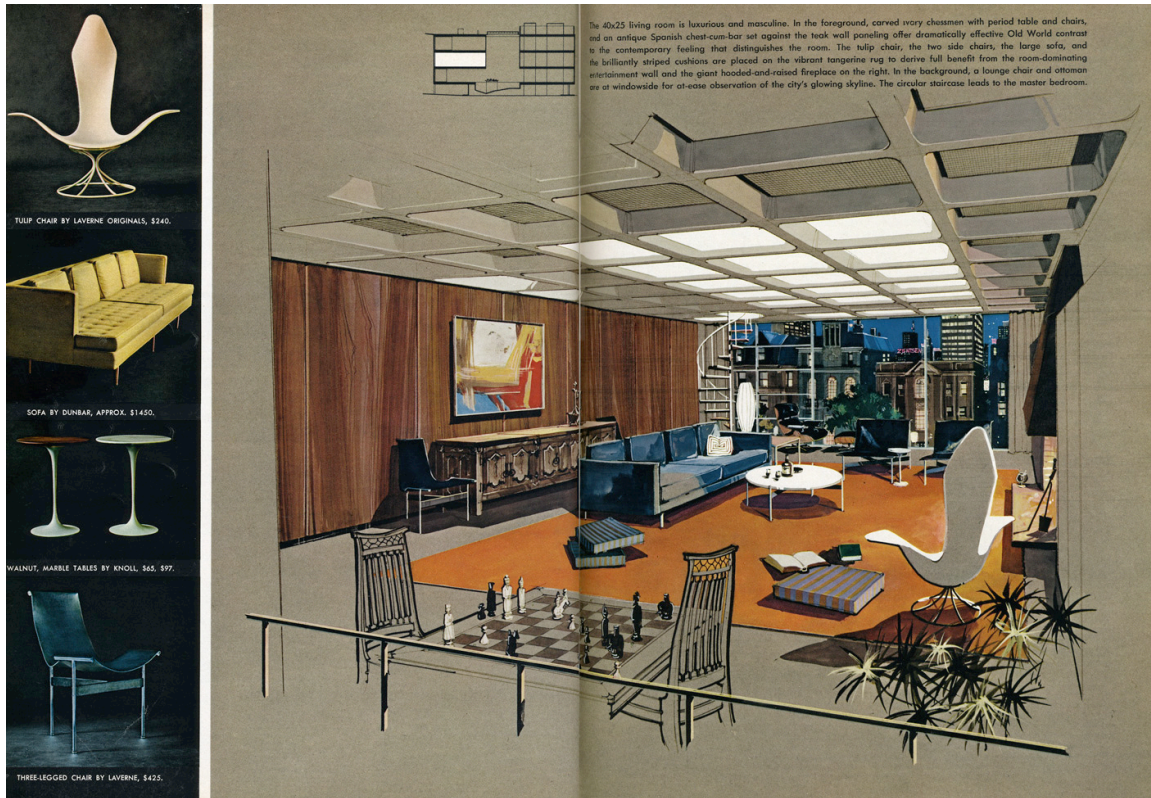
This course surveys developments in modern architecture and urbanism over the course of the long twentieth century, concentrating on the period from 1880 through World War II. Primary focus is on the canon of High Modernism, as established by the primary actors of the movement and by institutions such as the Bauhaus and the Museum of Modern Art. The course also considers other modernisms in Central Europe, the Americas and the Pacific Rim. Architecture and its allied fields will be observed as internalized intellectual/aesthetic systems whose products are both shaped by and shapers of political and cultural realities.

This course provides a foundation for ARCH 6808: Seminar in the History of Architecture and Urbanism: Texts of Modernism offered in Spring 2011.

archi • pop

20th-century architecture as mediated by popular culture
tabloids/television/trends/tourism
film/photography/fiction/fads

professor medina lasansky
arch 3819, 3 credits, fine arts library seminar room
tuesday & thursday 2:55-4:10



The popular mediation of architecture gives meaning to form. The public is introduced to canonical architecture as well as everyday manufactured vernacular forms through a range of mass media and in the process is taught to recognize, desire and consume forms. As a result, mass media is an essential architecture material. This course will critically analyze a range of mass media from advertisements to the james bond film genre in order to create a more nuanced and complete understanding of 20th-century architecture.

History of European Landscape Architecture

ARCH 3918/LANAR 5240

Course Schedule: Tuesday-Thursday, 11:15 am - 12:05 pm

Location: 461 Kennedy Hall

Professor: Leonard Mirin



Course Overview:

The course examines the influences and the forms that have established a basis for the landscape architecture tradition in Europe and parts of the Orient. Emphasis is placed upon the recognition of the principles and techniques, and upon the continuity of design imagination inherent in specific examples of the altered environment. Public and private spaces, gardens, estates, streets, parks, housing sites, and new town plans are analyzed with reference to the historical manner in which a variety of determinants - cultural, ecological, legal, strategic, economic - suggest themselves in design solutions. As a parallel theme, the course traces the changing role of the landscape architect from designer for the elite to planner in the public service.

The course format of slide-accompanied lectures surveys the classical tradition in order to establish the focus on developments from the Italian Renaissance to the present. Weekly discussion sections offer opportunities to present ideas developed in short exercises in the graphic comprehension of historic spaces, and are used to elaborate on thoughts presented in either the lectures or readings.

architectural historiography

Fall 2010 Arch 6800 (4 credits)

prior permission of instructor

Fridays 10:10-12:05, Fine Arts Library Seminar Room

Prof. Medina Lasansky (dml34)

This seminar will provide a survey of architectural historiography paying particular attention to the paradigm shifts of the last twenty-five years. Through a series of readings (a combination of case studies and critical theoretical pieces) we will assess the preoccupations of current scholarship. We will consider the relationship of contemporary practice to history; the relationship between architectural history and the disciplines of art history and historic preservation; the extent to which their separation has both energized and handicapped the separate fields; canon formation and the mechanics of fame; and the changing role played by institutions (museums, universities, journals, publishers) in re-framing the field.

Through the critical readings of important texts we will discuss the current state of the field while simultaneously reconsidering our position in it. Our discussions will focus as much upon the historical studies of others, as upon our own practice of history. How can we intelligently apply theory to practice, develop research strategies that maximize methodological alliances, imbue the study of the past with contemporary relevance, and contribute as much to other disciplines as we borrow from them.



ARCH 6805

Practicum: Teaching Architectural Design in Contemporary Academia

Professor Dagmar Richter

Tuesday 2:30 - 4:25 p.m.

142 E. Sibley

DEPARTMENT OF ARCHITECTURE
ARCHITECTURE 6816
PROFESSOR BONNIE MACDOUGALL

COLLEGE OF ARCHITECTURE, ART AND PLANNING
W 10:10

INDIAN ARCHITECTURE AND ITS INTERPRETATION



INDIAN ARCHITECTURE AND ITS INTERPRETATION

This course builds an appreciation of the architectural legacy of greater India with an emphasis on stupa, temple and urban traditions. It devotes attention to two interpretative periods: first beginning in the early 19th century to European efforts to write a Western-style architectural history for India and to the British fascination with explaining and exporting knowledge about Indian architecture, ethnology and history over 200 years. To this end, we will attempt to evaluate the claim made by the historian James Fergusson that architecture provided the most reliable basis for reconstructing an imperfectly known Indian past. We will also evaluate the contemporary view that scholarly enterprises were closely entwined with colonial strategies for domination and command.

Flash forward to the present. The second interpretive period/condition is the present one in which to an unparalleled extent knowledge about South Asian architecture and culture has been engendered and exported by the forms themselves. We will focus specifically on the recreation of temples, stupas, mosques and other devotional forms that have established a vernacular representing newly emerging South Asian communities in the Americas, especially in the United States.



Motorcyclists in Ahmedabad Eye the First Tata Nano Sold in Gujarat, India, July 28, 2009

ARCH 6816 - FALL 2010

CARS, CULTURE, AND THE CITY: FROM THE FORD TO THE NANO

HISTORY OF ARCHITECTURE GRADUATE SEMINAR

In 1908 Henry Ford produced the first Model T, a miracle of prefabrication and mass production that created the first car for the people. “Fordism” became synonymous with the twentieth century. Ever since then the car, mobility, and highways have been touchstones of modernity. Modern life, the historian Sigfried Giedion proclaimed, was experienced most intensely behind the wheel of a car. Le Corbusier, Frank Lloyd Wright, Buckminster Fuller, Archigram, and now Zaha Hadid have emulated, celebrated, and even designed cars. Revisiting the impact of cars on culture and the city is especially timely now given Ratan Tata’s introduction of the Nano, at only \$2,500 US a people’s car for the twenty-first century. Focusing on cities like Detroit, Los Angeles, New York, Nagoya, Leipzig, Zhongshan, and now Sanand, the seminar probes how automobility impacts architecture, materials, construction, infrastructure, planning, social mores, and high and popular cultures in the past and today.

Professor Mary N. Woods <mnw5@cornell.edu>

Thursdays 9:05 am to 11:00 am, 101 W. Sibley Hall

Permission of Instructor Required for Enrollment

Attend first meeting, Thursday, August 26th, if interested

ARCH 3819 (Rome)

Aspects of Urban Design, Arch and Art in Ren. Rome

Professor Jeffrey Blanchard

Rome Program

ARCH 3820 (Rome)

Topography and Urban History of Ancient Rome

Professor Jan Gadeyne

Rome Program