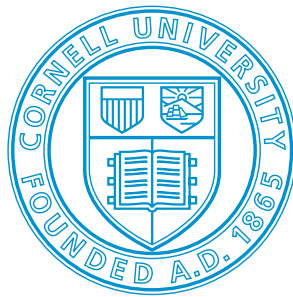


COLLEGE *of* ARCHITECTURE, ART & PLANNING  
DEPARTMENT OF ARCHITECTURE

**SPRING 2013  
OPTION STUDIOS**



*Cornell University*

BRICK  
CONCRETE  
STEEL  
GLASS

TRASH

CORNELL UNIVERSITY  
ARCHITECTURE OPTION STUDIO  
SPRING 2013  
ARTHUR HUANG  
PROF. JERRY WELLS  
IVAN R. PEREZ

SEXY



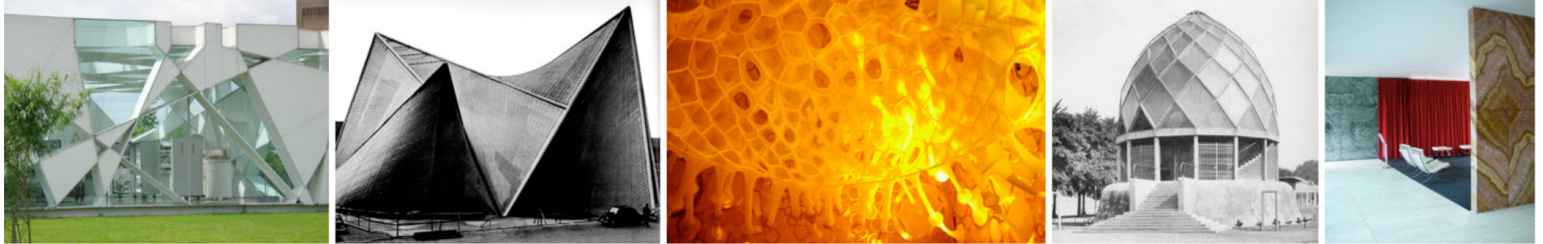
## IT'S TIME TO START A REVOLUTION

TO FIND A SUSTAINABLE AND EXECUTABLE ECO SOLUTION TO SOLVE THE EPIC URBAN RESOURCES / WASTE PROBLEM WE FACE TODAY BY USING TRASH UPCYCLING TECHNOLOGY

Sustainability is about managing resources efficiently and the success of any civilization, economy and urbanity depends precisely on that efficiency. Unfortunately our virgin resources are running dry and our appetite for new, sexy products is insatiable. How do we balance this equation? The answer is simple: TRASH – the only resource on earth that is abundant and growing.

ARCH 5116 & Arch 4101/4102, 5101: Option Studio  
Cornell University, AAP Department of Architecture  
Spring 2013; 6 Credits

Instructor: Jenny E. Sabin, [jsabin@cornell.edu](mailto:jsabin@cornell.edu)  
TA: Simin Wang, [sw629@cornell.edu](mailto:sw629@cornell.edu)



## ***Serpentine Bodies***

### **Rationale**

This studio will explore ***Biodynamic Models & Digital Organicism in Pavilion Architecture***.

The evolution of digital media has prompted new techniques of fabrication alongside new understandings in the organization of material through its properties and potential for assemblage. Recent advances in computation, visualization, material intelligence and fabrication technologies have begun to alter fundamentally our theoretical understanding of general design principles as well as our practical approach towards architecture and research. This renewed interest in complexity has offered alternative methods for investigating the interrelationships of parts to their wholes, and emergent self-organized pattern systems at multiple scales and applications. This studio will build upon these technological breakthroughs through the lens of successful work from two prior seminars, one on *Digital Ceramics* and the other *Bio-Inspired Materials and Design*. Using the pavilion as architectural ground for experimentation and questioning, this studio will probe speculative and applied design work that aligns crafts-based techniques with digital fabrication alongside questions related to the body and information mediation. We will probe the visualization of complex spatial datasets alongside issues of craft, fabrication and production along two distinct material tracks: 1. Ceramics 2. Textiles. Generative design techniques will emerge with references to natural systems, not as mimicry but as trans-disciplinary translation of flexibility, adaptation, growth and complexity into realms of architectural manifestation. In particular, this work includes long-standing traditions of shared relationships between art, architecture and biology, with sub-topics that include biomimicry, digital fabrication, textile tectonics, responsive architecture, experimental structures, algorithmic design through scripting procedures and materials science.

# MADRID RE-USED



Madrid's river at the end of the 19th century

## **CORNELL UNIVERSITY**

College of Architecture, Art and Planning  
Department of Architecture

ARCH 4101/4102/5101/5116/8913

Spring 2013

Professor Iñaki Carnicero

Two extreme architectural situations have been embraced in Madrid in the last 15 years. First came a short period of time when the city invested more in infrastructures and public buildings than any other term in history. After the excesses committed during the first period, an economic crisis is currently transforming design strategies and fostering interventions in the existing heritage.

Historically, the south part of the city, defined by the boundaries of the river, has been considered a decadent area for many years. Even though the city was founded in the ninth century as a muslim fortress to defend the river path during the reconquest period, developers have not looked at this area near the river as an opportunity to define the most attractive façade of Madrid. On the contrary during many years it has been occupied by the M-30, which is a ring road of traffic that has brought contamination and pollution to the river.

It cost 6 years of intensive work to place this huge highway underground, and as a result, a very important urban park has been developed on it's surface, bringing back the leading role to the buildings located in the first privilege line of the city. The complex of the former slaughterhouse in Madrid is located in this area. It has been abandoned for decades and today, after an important renovation activated by a cultural program, has become one of the hottest points in the city.

This type of interventions by which an existing building is transformed to become part of a new one has been repeated in different areas of the city. The Caixa forum by Herzog and de Meuron, the deposit of Canal Isabel II, Tabacalera's building, San Miguel's market are some of this successful operations that have confronted old constructions with new structures. This dialogue between the pass and the present will be encourage to the students during the semester They will have to look again with new eyes and consider what is already built as a potential part of their new proposals.

Growing is not an option anymore, we just need to redefine and activate underused constructions with new programs and flexible structures that allow adaptations to new functional requirements.

## **WINTER URBANISM**

### **THEMES & OBJECTIVES**

The twentieth-century versions of modernity envelop us and continue to persist, but it is clear that, as we move forward, our conceptions require radical reevaluation. This entails new considerations of materials and methods, of economic well-being, of public relations and social configurations, of climates and microclimates, and of the role of locality and vernacular in the built (and used) environment.

Perhaps we can look for inspiration to the adaptations in spatial practice that are made due to seasonal change, especially where temperatures or weather conditions undergo extreme fluctuations. As an example, to ‘winterize’ refers to the activities of a building or physical objects to prepare it for the colder climates, below-freezing temperatures, or even complete burial under snow. What are the adaptive processes in which buildings and cities winterize? Along this line, we would like to interrogate the central and essential role of *shelter*: that is, the housing, use, and maintenance of the city that is not restricted to just the human. How can we reconfigure and reimagine the complex, intertwined relationships between the components of a city and the activities of its residents?

The context for this interrogation is the city of Montréal. Students will be asked to study the complex spatial forms and behaviors of the winter city — local and universal — from a variety of angles, employing analytical, observational and design tactics. For one, the studio will necessarily examine the role of snow in its shaping of Montréal — as design variable, material, infrastructural consideration, cultural subject, friend, and foe.

Investigations, both individual and group, will take into account not just notions of ‘temporary architecture’ but of the city’s inherent temporality: its seasons, rituals, and patterns of behaviour. In what ways does the public realm — indoor or outdoor, macro or micro — adapt to routines, demands, rifts, traditions, legal issues, and emergency concerns? We will study the routines and traditions that exist and persist, as well as seeking out appropriate alternatives, toward a more nuanced understanding of Montréal’s potential.

### **FORMATS & PROCEDURES**

*How is the course structured, and how will class be carried out?* The option studio will be generally divided into three parts. Part one will examine notions and strategies of a “universal winter urbanism” — and the requisite unpacking of the three concepts located therein. This will also include a “Model Montreal” groupwork period, towards the creation of a behavioral almanac. Part two will begin with an exploratory research trip to Montréal, and continue back in Ithaca with thorough analysis of the local context. Part three will aim to bring together universal and local, transforming the accumulated knowledge into proactive design interventions.

From the outset, it will be necessary to start both research and design project aspects of the work together, before the research visit to Montreal. Students will be asked to collect, analyze, and synthesize information from a variety of sources pertaining to Montreal. In any case, the individual project will begin to take shape in this period.

# **To be an architect is to be of service – Billie Tsien and Tod Williams**

## **Spring semester /2013/ Options studio**

**Instructors: Billie Tsien and Tod Williams**

**with Amber Bartosh ([abartosh@cornell.edu](mailto:abartosh@cornell.edu)), 201A Rand**

**Office Hours: Wed. 1130-1230 or by appointment**

**Class held on studio plate MWF 1230-425 and selected dates including non studio days (see schedule below ) with Billie Tsien, Tod Williams, Paul Schulhof**

### **I. Rational:**

This studio will work on the design of a building small enough in size so that there can be an emphasis on the understanding of scale, detail and materials. Although we will study precedents, the work will be focused on building not theory. And although we will expect a fully realized project we are as interested in teaching a way of working as much as a result.

### **II. Course Aims and Objectives:**

#### **An Institute for Public Action**

What kind of world are we making?

What kind of world should we be making?

What kind of world can we be making?

These are the questions that will be addressed at the Institute for Public Action. This institute will be the home of the program of study at Haverford, Swarthmore and Bryn Mawr Colleges called Peace Justice and Human Rights.

The building(s) will be located on the campus of Haverford College which is located about ten miles from downtown Philadelphia and only a few miles from both the Swarthmore and Bryn Mawr campuses. Haverford was founded in 1833 by a group of New York and Philadelphia Quakers and is the oldest institution founded by the Society of Friends in North America. The grounds are exceptionally beautiful since the campus is also an arboretum. The site will be adjacent to two new dormitories that were designed by our studio. A large earth berm runs between the two buildings and this project will ask that you engage this berm in some way – perhaps through sectional intervention.

The program will include classrooms, offices, meeting rooms, and a large seminar room for public presentations. There will be small suites for six visitors to stay who may at times be people invited to participate in specific programs related to the Institute. There will be a place of contemplation which will also serve as Quaker meeting house.

In addition to the Institute there will be an additional 80 beds added to the existing 160 that are in the Tritten and Kim dormitories which are immediately adjacent to the site. These rooms can be doubles or quads. The design of these dormitory rooms should in some way represent an idea about social equality, the importance of being solitary and the importance of communal space.

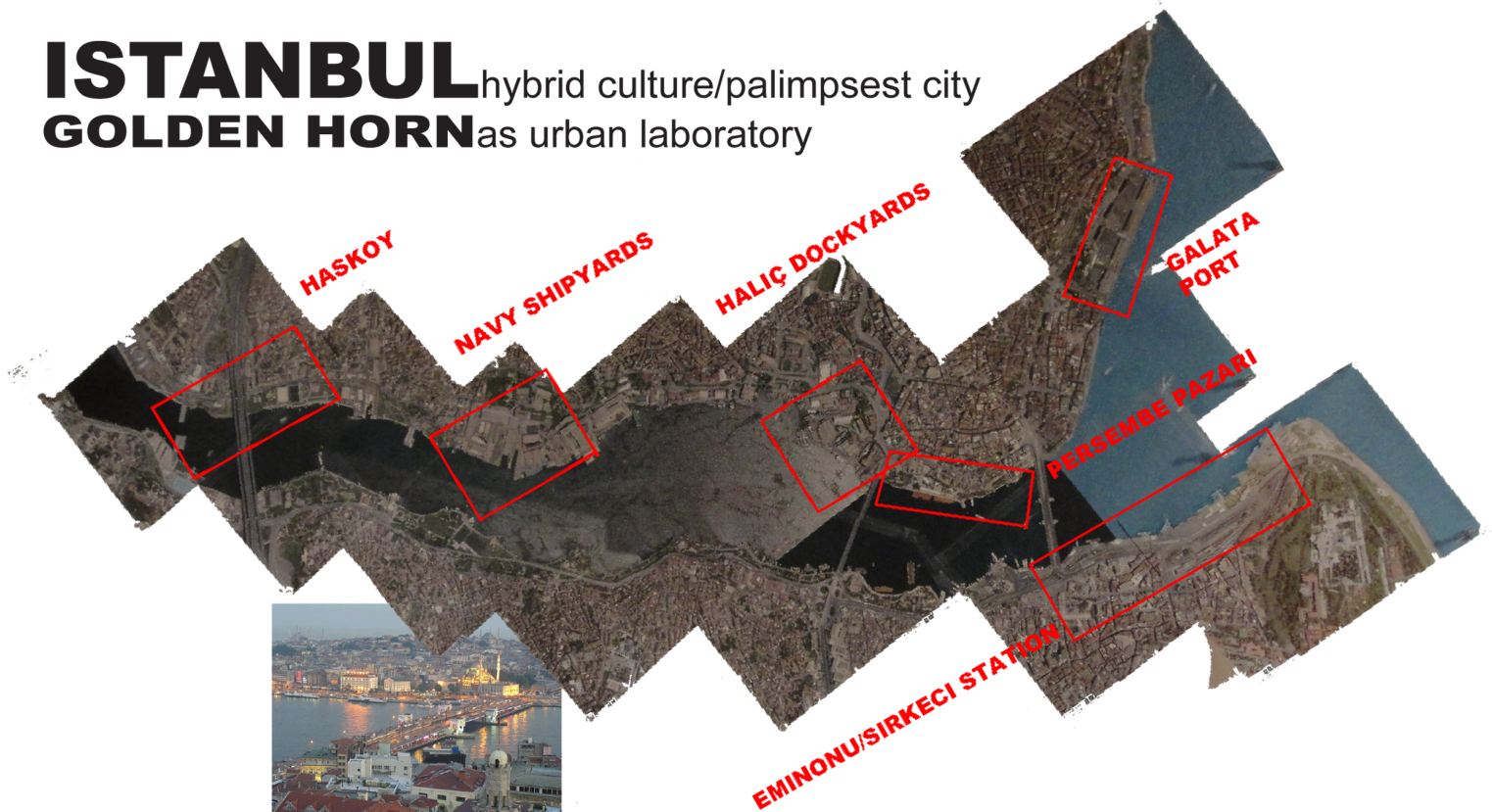
The total gross square footage will be about 30,000 square feet.

# ISTANBUL

hybrid culture/palimpsest city

## GOLDEN HORN

as urban laboratory



### ISTANBUL FRAME

The cultural situation in Istanbul can be characterized by finding a connection to the pluralistic Europe, to globalization and at the same time digging out, discovering and being proud of its own roots. The uniqueness of Istanbul is its history, its complex relationship to Modernism and its geopolitical situation between the West and the Non-West. Istanbul has the unique distinction of straddling two continents, Asia and Europe, yet refuses to be defined by either. Located along the Bosphorus, between the Black Sea and the Sea of Marmara and with a leg on each side of the Golden Horn, Istanbul has been dubbed the "City of the World's Desire". Geography and history have determined the development of Istanbul's singular and complex character. East meets West in Istanbul, the Islamic past mingles with the modern Europe of today. History oozes from Istanbul's every pore. Layers upon layers of dense urban and architectural history have been deposited over three thousand years, making it one of the richest urban palimpsests rivaled only by Rome. On the surface designer shops and trendy cafes appear and vanish at the speed of light, but underneath another world of architectural splendor remains beautiful and timeless.

### HALIÇ/GOLDEN HORN, SITE

The Golden Horn, played an important role in the development of Istanbul. It was an old trading point and popular residential area during the Byzantine era. During the Ottoman period the shores were largely inhabited by Jewish immigrants from Spain. The mixture of Armenians, Greek, Gypsies, and Turks who lived along its shores reflected Istanbul's colorful mosaic. The Golden Horn is a narrow inlet of approximately 8 km length which divides the European side of Istanbul into two: To the south the old city with its many famous historical monuments; opposite to the north the Galata district. It was considered since ancient times one of the best natural and safe harbors in the world, due to the lack of currents and tides. Uncontrolled building speculation and a lack of efficient enforcement of planning regulations, together with the population explosion in the 1950ies and concomitant traffic chaos not only overburdened the city's infrastructure but also threaten Istanbul's picturesque skyline as well the city's relationship to the water of the Golden Horn, depriving the shoreline of its quality as a lively urban space. In the 1950ies many shipyards and other businesses were established along the shoreline of the Golden Horn turning it into a cesspool of grey city-sewage and industrial waste, thus contributing to the deterioration of the once scenic area. In the last four years, more than four thousand houses, businesses and factories along its shores have been torn down. Since the 1980ies, pollution has been controlled and the area has started to recover.

### INTENT

It is the objective of the studio to use the area of the Golden Horn as an urban laboratory to improve the situation along its shores, coming up with strategies and proposals to bring the city back to the waters of the Golden Horn with lively urban public spaces for living, working and recreation in an environmentally responsible way. Between the Haliç Bridge for the Express Way and the Galata Bridge at the mouth, the shores will be divided into six project areas: Haskoy, Navy Shipyard, Haliç Dockyards, Persembepazari, Galata Port and Eminönü/Sirkeçi Station. After building a model of the Golden Horn area, the six project areas will be assigned each to a group of two students to analyze, map and program the area, to then come up with individual proposal and urban design schemes.