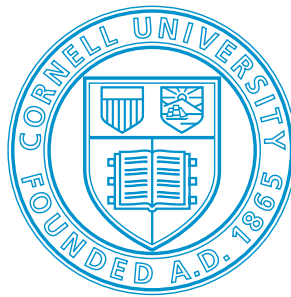


COLLEGE OF ARCHITECTURE, ART & PLANNING
DEPARTMENT OF ARCHITECTURE

FALL 2017
OPTION STUDIOS



BERLIN – city between immigration and gentrification

Prof. Werner Goehner



FRAME

Berlin remains an archetype not only for the complex encounter between memory, renewal and amnesia but lately for the conflict between migration and gentrification. Berlin has been formed by the events of the 20th century. The unintended side effects of political, economical, and military actions have shaped the city. More than any other metropolis, Berlin has absorbed and given gestalt to the essential forces of the modern era: Modernity, Fascism, World War II, Stalinism, Socialism, Cold War, Revolts of the '68, Capitalism and lately Immigration. To get familiar with these phenomena, the studio will concentrate on Kreuzberg, the densest populated district of Berlin and the Dragoner Areal. The studio will occasionally collaborate and may organize a field trip to Berlin with the Mellon Seminar "Migration and Discrimination" directed by Profs. Esra Akcan and Ifthikar Dadi.

GENERAL OBJECTIVES

Because of the availability of cheap housing Berlin, until recently, attracted a great number of refugees and young people. Between 2000 and 2010 nearly 62 000 people have moved to Berlin, with the majority settling in Kreuzberg. The recent influx of refugees from Near East and Africa has increased the need for affordable housing. At the same time increased foreign investment has accelerated the phenomena of gentrification, reducing the amount of affordable living quarters. It is the goal of the studio to shed light into this conflict and eventually propose a housing project with cultural and social facilities in the area of the former Dragoner barracks in Kreuzberg.

STUDIO

An analysis of a film will introduce the studio to Berlin. A series of tracings and interpretative mappings will concentrate on the historical, infrastructural, cultural, industrial phenomena in addition to the distribution of ethnic, migrant or immigrant population in Berlin and Kreuzberg. The disputed area of the Dragoner Areal will be the site for an urban design intervention. The area has been sold by the City of Berlin to the highest bidder, a foreign developer, who intended to build expensive apartments. After popular protests the City of Berlin retracted the deal and awarded it to a local developer. The studio will use the project as a pilot for socially and infrastructurally integrated housing, combined with a majority of affordable apartments and cultural and social facilities.



Beyond Manhattanism

Timur Dogan + KPF (Marianne Kwok, Ellie Gamburg, Luc Wilson)

As cities continue to grow at an exceptional rate—doubling population by 2050— designers and all urban stake holders face exponentially complex challenges. Developing new typologies of density and urban existence is a clear necessity, but how can growth be balanced with environmental concerns? Innovations such as urban data collection, performance based zoning, environmental analysis and parametric tools allow us to more quickly understand buildings and cities and inform innovative design responses to the contemporary urban condition. The mixed-use model as a building type has worked in other global cities to increase density while promoting activity and varied urban experiences but needs further exploration in NYC.

New York City expects 500,000 in population growth by 2030, yet housing production cannot keep up with demand. Its growth requires 60,000,000sf of office space for 2025. 80% of Manhattan's office space was built before 1970, not suitable for the standards of today or the future. Visitors continue to increase - the Airbnb model is not adequate. As retail transforms from physical to digital-physical hybrids, most storefronts fail to activate streets the way retail has traditionally done. There is great demand for growth in New York, but challenges in achieving it. How can much higher densities be achieved, while maintaining access to light and air? Is there a new New York mix-used building type that can be transformative; activating a neighborhood while intelligently increasing density? How could these propositions affect a neighborhood and site in New York?

This is an ambitious undertaking. The studio will be taught by KPF's Elie Gamburg, Marianne Kwok and Luc Wilson as well as Assistant Professor Timur Dogan. Students will be drawing from KPF's enormous technological, material and structural resources as well as architectural expertise in addition to Timur Dogan's research in day-lighting, energy modeling, passive climate control strategies and performance driven design workflows. The site, presently the Jacob Javits Convention Center, is adjacent to the Hudson River, 2 city parks, near transportation links including rail, subway, ferry and bus, amidst the current transformation of the west side of Manhattan. Based on rigorous site and typology analysis together with powerful parametric analytic tools, the studio will reimagine new types of high density mixed used buildings for Manhattan.

BREATHING ARCHITECTURES

Air Remediation Center / Carbon TradeXchange

New Public Atmospheric Infrastructures

Shawn Rickenbacher, Gensler Visiting Critic



Through the use of digital, simulation and analog technologies this studio will address the issue of global air quality while simultaneously exploring the resurgence of public infrastructure architectures to reduce energy consumption, remediate environmental degradation and harvest and distribute renewable energy.

Design Problem:

The environmental and biological impact of poor air quality has plagued many civilizations throughout history. The industrialized age in particular has recorded unprecedented negative environmental effects in addition to staggering health related conditions. "The World health organization says air pollution is responsible for about 3 million premature deaths a year." (NY Times 05/12/16) The post industrial through to the post modern era have each continued to further compromise the fragile environmental equilibrium that many scientist have cautioned is necessary for our continued habitation of the planet. This issue is most prevalent in Beijing, China. Beijing has and continues to record some of the world's highest levels of air pollution, effecting not only it's population but cities as far away as San Francisco. The studio will address this by designing a Urban Air Remediation Infrastructure in Beijing.

Premise:

Digital technologies in design, manufacturing, and robotics are undoubtedly an important evolution in defining the usefulness of architecture as a critical professional practice. Design processes in terms of procedure and outcomes have been greatly restructured by digital technologies. One way is in the ever increasing capacity to solicit and input increased amounts of information and or data. This is highly useful in resolution and provision of design solutions. capable of increased environmental responsiveness and or performance. This studio will research environmental performance criteria (air pollution and remediation) as a conductor of form whereby distinctions are blurred during the design process between geometry and analysis and in design evaluation, between appearance and performance. A predisposition toward an aesthetic will be supplanted by morphological form discovery.



CULTURAL TOURISM IN TRINIDAD AND TOBAGO

Promoting Carnival, Calypso and Bond Culture in Crusoeland

Professor Henry Richardson + Darren Brathwaite, Founder & Director Ten Degrees North

An Eco-cultural Tourism Master Plan for Tobago

Trinidad and Tobago has a wealth of diverse ecological and cultural tourism assets that it is currently not fully tapping for its national development. The main goal of Part 1 design is to weave these assets into a coherent framework for eco-cultural tourism for the Island of Tobago.

Carnival, Calypso, and Bond Culture in Crusoeland

Goat Island, Ian Fleming, and James Bond. Part 2 of the studio will focus on developing a key destination on the Tobago tourism circuit, namely, a “Bond Resort” dedicated to Bond Culture on Speyside and Goat Island in Northeastern Tobago.

Screening of Bond and Carnival Movies

The studio sessions will be complemented by weekly screening and discussion/analysis/interpretation of a selection of Bond movies.

Travel to Trinidad and Tobago

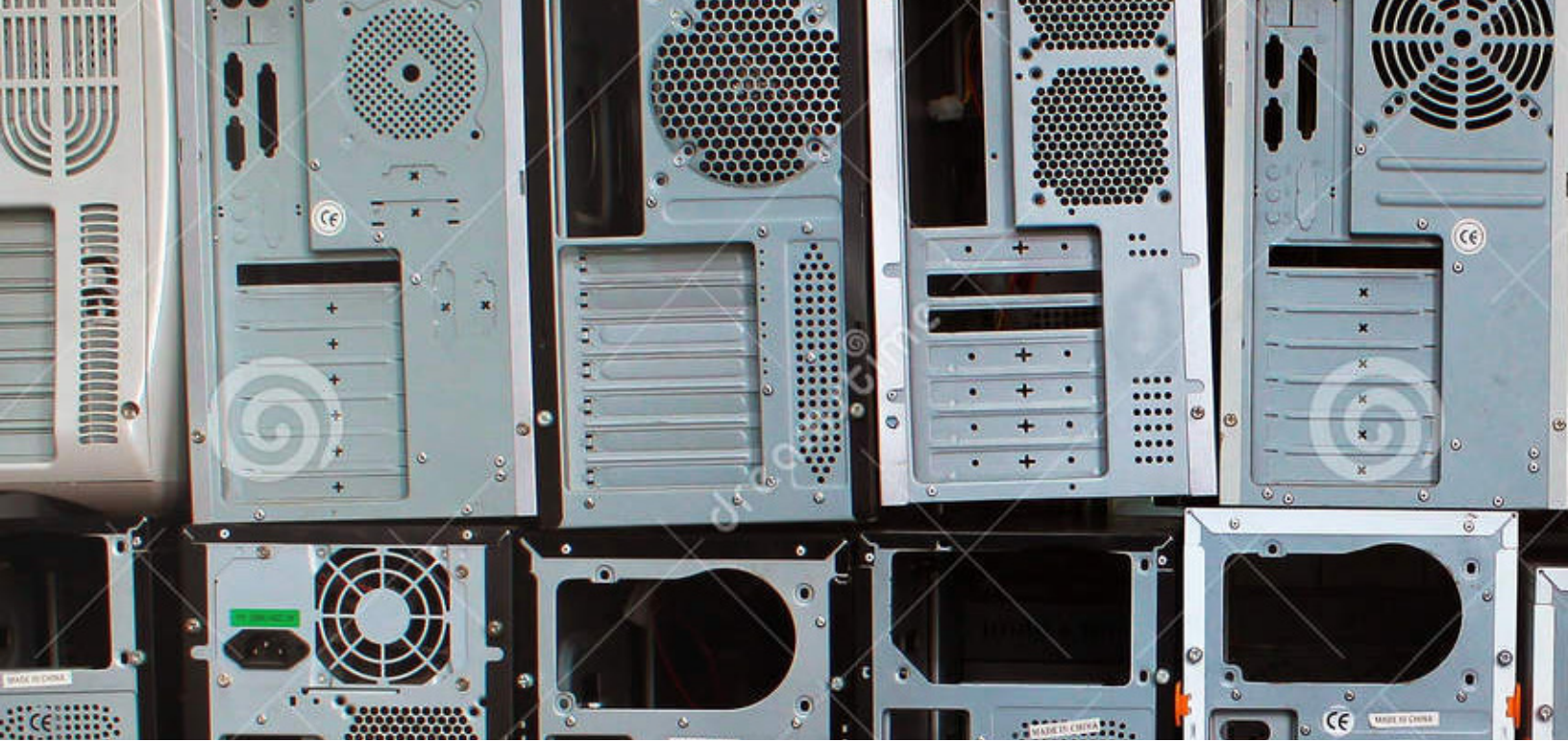
An integral part of the studio is travel to Trinidad and Tobago for the purposes of cultural immersion, site visits, and meetings with government and private sector officials in the tourism sector. Projected dates for the trip are September 16 to September 24, 2017. Expenses for the trip will be partially covered by the Department of Architecture.

CYCLO: Architectures of Waste

ASSOC. PROF. CAROLINE O'DONNELL

Studio Associate DILLON PRANGER

With Hans and Roger Strauch Visiting Critic DIRK HEBEL and FELIX HEISEL



Human beings have traditionally built enclosures from close-to-hand materials: tents from animal hides in the desert, log cabins in forests, stone huts in rocky areas, and so on. But the advent of our disposable culture in the mid-twentieth century has brought with it a new set of 'local' materials, in the form of waste.

While much emphasis has been placed on recycling (recycling rates in the US are steady at 34%), many materials sent to recycling facilities — especially 3-7 plastics and e-waste — are never recycled, and are instead sent to landfills or incinerators.¹ These materials are untapped resources, ripe for use, in need only of design strategies to harness them.

The CYCLO studio will begin by understanding global, continental and national trends in waste: How much waste is produced, where does it go, how is it processed, etc. Students will chart flows of materials at a range of scales. Through this process and through visiting local waste and recycling plants, students will begin to understand the economy and ecology of the waste world, and to find weak points in which to intervene. As a result of their findings, students will choose specific materials and forms (plastic bags, plastic cutlery, glass bottles...).² Through understanding the materials' formal, physical, temporal, economic, ecological properties, students will begin to aggregate/reformulate the materials into 1:1 mockups. Students will participate in a pavilion design competition. Finally, students may consider the industry/architecture scale consequences of their proposals. The work will be disseminated via publication and installation/exhibition.

In addition to building on O'Donnell's work with unconventional materials, the CYCLO studio will feature workshops with world-renowned experts including Dirk Hebel and Felix Heisel, professors of Sustainable Construction at the Karlsruhe Institute of Technology, and co-authors of the books *Cultivated Building Materials* (2017, Birkhäuser), and *Building from Waste: Recovered Materials in Architecture and Construction* (2014, Birkhäuser, also with Marta H. Wisniewska). They practice architecture by activating unusual building materials such as air, water, bamboo, or waste (as in the New York ETH Pavillion for IDEAS CITIES 2015 and the award-winning project UNITED_BOTTLE). Visitors will give a lecture and/or workshop, and a review over several days at Cornell.



FROM INSIDE

INTERIOR URBANISM AND ADAPTIVE REUSE

photo by Jure Zivkovic

SASA BEGOVIC, Visiting Associate Professor, DANICA SELEM, Visiting

Critic Schedule: M, W, F 12:20-04:25pm

This Option Studio will focus on the central urban zone of Zagreb, Croatia. We will work on the revitalisation of disused urban industrial spaces - an assembly of abandoned State Rail factory buildings dating from 1894. They are located in the center of Zagreb, between the old Central European urban block matrix and the Functional City of the 1950's CIAM urbanism. For decades these amazing structures were unavailable to the public - urban development thankfully ignored them - and now this industrial landscape offers unbelievable urban and architectural potential in the very center of the city.

The studio will focus on One Big Workshop Hall originally designed for the railway wagon equipment - an enormous and beautifully designed industrial building. We will study, research and understand the realm of the building - not only its possibilities, potentials, and capacity to be transformed, but also to finally become an important part of the newly developed center of the city.

First, we will develop an Interior Urbanism, simple and regulatory, establishing the Inside Territory as the beginning of occupation of space. Inside, the existing condition makes its own rules and regulations: no constraints. Exploitation of the building's full potential will give rise to a new hierarchy of interior space in relation to the building envelope. A building's deep plan is a tool to provide spatial heterogeneity within which to build an inner world - loft like urban qualities such as adaptability, flexibility and powerful authentic spaces in which people can work and can live.

After the introductory research and analytical investigations, and after students develop an Interior Urbanism, the emphasis of the project will be focused on the designing of several smaller projects. Proposals will be informed by considering temporary, adaptive, generative and innovative objects and structures that transform the existing spaces into sites of urban and cultural production that construct social interaction with neighbouring parts of the city. The anticipated outcome of the work is an elaborated project that moves from the initial concept of construction, through material selection, to detail development. The studio will demonstrate the viability of an architectural concept through design development as a clear transition between the conceptual and referential discourse to the concrete proposal.

A project is a work that begins from the interior of the space: **From Inside**

A field trip may occur to Zagreb, Croatia. Travel dates are September 16 - September 24.



The Magic Hedge Studio

Ben Nicholson – Baird Visiting Professor

Erin Pellegrino – Visiting Critic

There are some locations on Planet Earth whose ground is so saturated with ‘goings on’ that they plead for attention. Such a place is the Montrose Magic Hedge, a man-made spit of land in Chicago that pushes out into Lake Michigan. Once a base for Nike nuclear missiles defending the megalopolis, it is now a safe haven for over 400 species of birds on their semi-annual migration on the Mississippi Flyway. The pastoral setting, crisscrossed by eager-beaver bird watchers, also makes a perfect cover for illicit sex. The studio will create a project for the intersection of Nukes, Migration and Forbidden Love: when the chips fall, these are sure to be three quintessential components of the 21st century, prophetically speaking.

The studio will begin by making a deep study of the life of a bird and its nest, utilizing the Cornell Ornithology Lab, the world’s center of bird study. An Everything Drawing will be created, a new form of architectural representation, that combines the figurative, the technical, the textual and the diagrammatic aspects of understanding the complexities of space. The Everything Drawing will show the rich interconnections between predator & prey, materials & construction, systems of camouflage, gender roles (of who-does-what), site & weather, migration patterns and the immutable form of eggs. On one sheet, an architectural drawing will be created that demonstrates the rich interconnectivity of all that constitutes a construction, be it emotive, practical, political or global.

The second project addresses the site. We will comb through its nuclear history, and study Chicago’s underground of illicit love. The nuts & bolts of the site will be pulled apart and everything examined, from the grand majesty of the weather-whipped dynamics of Lake Michigan to the disposal of oceans of trash on Chicago’s beaches. A similar Everything Drawing will be made of the rich politics & practicalities that compose rustic parkland within a pulsating urban fabric.



Working in the old city

PROF. FERNANDO TABUENCA

The studio will work within the walls of the old city of Pamplona (Spain). Its plan reflects the city's history: the oldest part dates from Roman times, and new neighbourhoods have been added from the Middle Ages up to the present day. We will focus on the relationships between old and new buildings in terms of form, texture, materials and architectural language. The aim is to understand the influence of the site and the context in shaping the project, and how this collage of interventions from different periods can work together and constitute a unique and harmonious urban ensemble through the addition and juxtaposition of different pieces.

Program

We will propose the enlargement of the current "Museo de Navarra" (the regional Art Museum) by the addition of a new building. On the edge of the old city, facing a square to the south and overlooking the mountains to the north, this strategic site offers a good opportunity to create a landmark and contribute to the urban regeneration of this area. As an introductory exercise, the students will have to design a small art gallery in a more abstract context. The flexible program of a museum or an art gallery is an occasion to return to the basic principles of architecture: space, light and form. It also exemplifies the dynamic condition of architectural perception. We will analyze the importance of such concepts as proportion and scale, and see how a container of artwork can aspire to be an artwork itself.

Tools

We will work extensively on models on a large scale, and on 3D drawings. A field trip to northern Spain may be offered to visit Pamplona and other cities of architectural interest (Bilbao, San Sebastián, Vitoria).