

# URBAN DESIGN STUDIO II RE-SCRIPTING URBAN RULES FOR ASIAN NEW TOWNS: TAIPA NEW RECLAMATION, MACAU

2014-15 2nd Term

Mondays & Thursdays 1:30 pm – 6:15 p.m., Venue: AIT Zone A

Instructor: Nuno Soares



This studio is organized as part of a comparative research project of the M.Sc. in Urban Design program, investigating, developing and testing urban rules for different cities in the Pearl River Delta. The studio will be conducted parallel to our studio in Shatin (Hong Kong) and focus on a similar current New Town project in Taipa (Macau). This studio set-up will allow us to learn from the comparison of different but similar urban conditions and design approaches.

## Study Background

With a landmass of only 31.3 sqkm (March 2014) and a population of 552,503 (census 2011), Macau SAR is the most densely populated territory in the world. It is comprised of the Macau Peninsula, the Islands of Taipa and Coloane and the landfill connecting these two islands, named Cotai.

Land has always been a scarce resource in Macau, a condition that has led to a long and still ongoing history of land reclamation. Macau's urban area has increased dramatically throughout the centuries, particularly since the 20th century, having almost tripled from the 11,8 sqkm that made up Macau's total area in 1912.

The currently ongoing New Land Reclamation Plan (NRLP), which is part of a regional plan for the Pearl River Delta, will add another 3,5 sqkm to Macau SAR's total area.

High demographic growth in the second half of the 20th century put Macau Peninsula in need for urban expansion. As a result, in the 1980s plans were made to develop Taipa as an expansion of the Macau Peninsula, a new town-like development to accommodate housing and infrastructural facilities that could no longer be held in Macau, such as the airport, and the University Campus.

The development of the Cotai strip in the late 2000s, however, would change Taipa's urban profile, as the construction of major casino resorts in this area triggered an ongoing fast urban development.

Over the last three decades, Taipa developed in a parceled manner. Macau's "New Town" was never fully accomplished, having resulted in a fragmented territory with contrasting conditions in need of a masterplan.

With a healthy economy, growing population, a fragmented territory and limited land resources, the New Land Reclamation Plan offers a unique opportunity for Taipa to re-define its model and strategic role for the future.

## Design Studio

Our studio will take these circumstances as an opportunity to create a masterplan for one of these yet-to-build-islands on Taipa's waterfront, facing Macau Peninsula. The island will be conceived as a pilot case study for an ideal New Town whose urban principles, layout and infrastructural strategy should be able to influence the future development of Taipa Island at large. Students will be encouraged to rethink Macau's practice of land reclamation and to question how to plan and design a sustainable District.

The studio will focus on the development of urban planning rules and strategies, as well as on design proposals to create a new socially, economically and ecologically sustainable, mixed-use district. A comprehensive urban design strategy is needed to integrate the new development into the existing context while also potentiating the latter's future re-development. Particular attention will be given to the provision of means for spontaneous social and recreational activities and the challenge of finding more ecological techniques for land reclamation. The course will offer a field of experimentation to bring together various interdisciplinary perspectives at CUHK linking to new initiatives of the interdisciplinary Institute for Future Cities.

The studio will include the participation in the coming IFoU Winter School at the end of January 2015, in which we will investigate together with our international partners such new approaches to infrastructure and the design of new mixed-use districts at the occasion of Singapore's 50 years celebration and its leading role in innovative urban design and planning in Asia.

Parallel to the studio on Macau, there will be a second studio focusing on a comparable site of new land reclamation in Ma Liu Shui, Hong Kong. The aim of these studios together is to create new approaches by learning from the lessons of both Singapore and Shatin, and to test these ideas in the new urban expansions of Taipa (Macau) and Ma Liu Shui (Hong Kong) and develop new urban rules and guidelines.

The studio theme is coordinated with the topic of the upcoming World Expo 2015 "Feeding the Planet, Energy for Life" in Milano (Italy) and we plan to present the results together with the results of a parallel design competition for Italian

and Hong Kong urban designers supported by the Italian Consulate and The National Council of Architects, Planners, Landscapers and Curators at the Expo. (CNAPPC)

### **Objectives of The Design Studio**

- To create a sustainable mixed-use district, with focus on increasing living quality, social interaction and economic vitality;
- To create a Conceptual Plan and study schemes indicating, land use with program layout;
- To identify and understand how existing urban areas (here Taipa) emerged and are currently transforming;
- To develop strategies to improve and enhance the neighborhood's economic vitality and sustainability;
- To explore new opportunities for integrated infrastructure planning to guide the development of more cost-effective and resilient green infrastructure investments over time;
- To create a comprehensive urban design strategy to integrate the new development into the existing community including analysis of different scenarios;
- To increase the potential of Taipa's northern shoreline as a place for public enjoyment and leisure

### **Student Learning Outcome**

Upon completing the studio, students will be able to:

- Understand how to organize a sustainable development strategy for Taipa, that will integrate economic, social and environmental perspectives;
- Understand, map and interpret the urban morphology of an important part of Macau;
- Understand the complex relationships between enhancing urban mobility and environmental, economic and social sustainability;
- Learn from key examples of New Town Planning in Macau, Hong Kong and Singapore;
- Create a comprehensive urban design strategy by learning to work in different scales in the fields of architecture, urban design and city planning;
- Understand and address contemporary urban issues with particular focus on development of advanced urban design, presentation and communication skills while addressing key issues and developing context sensitive strategies and designs
- Determine priorities and strategies to create a healthy urban ecosystem that protects and regenerates habitat and ecosystem function;
- Develop concepts on how urban design can foster and support healthy living.

### **Studio Output**

Students will develop individual strategies and designs for the improvement of urban integration including public spaces and street level building interfaces based on prior identified issues and realizing opportunities. Drawings and models in 1:500 / 1:200, plus detail studies, montages and perspectives should show the intended qualities of urban transformation and integration of public spaces usable in various seasons and times of the day. Statements of addressed issues and design intentions should be formulated in text and drawings. With progression of the design project they should be revised and updated. Research findings and projects will be gathered in a joint studio booklet. All students have to submit a digital documentation.

## Deliverables

- Group studies according to defined issues
- Developing a site model
- Written description of addressed issues and design intentions (500 words)
- 1:500 group drawings and models with strategic propositions
- Phasing plan of proposed development strategies
- 1:200 urban integration, public space/building design drawings and models
- 1:100 detailed study of urban integration incl. mixed development & public spaces
- Photo montages, Sketch Up models, visualizations and perspectives studies of urban integration
- Joint studio booklet

(Digital documentation of group and individual work is compulsory after final review)

## Assessment Scheme

- Group Research 20%
- Overall Group Strategy 20%
- Individual Design Work 50%
- Participation 10%

## Course Format

The course is organized in a research part (group work), overall and group strategy and individual design. The research encompasses field and precedent studies allowing for team and individual work. As part of the course students will join the related IFoU Winter School at the National University of Singapore. Please start early to apply for the relevant visa.

## Required Readings

Alex Lehnerer, *Grand Urban rules* (Rotterdam: 010 Publishers, 2009)

Roger Bristow, *Hong Kong's New Towns: a selective review* (UK: Oxford University Press, 1989)

Jan Gehl, *Life Between Buildings: using public space* (Van Nostrand Reinhold New York, 1987)

Jan Gehl, *Cities for People* (Island Press, 2010)

Shane, David Grahame, *Urban Design Since 1945: A Global Perspective* (Wiley, 2011)

Richard Rogers, *Cities for a Small Planet* (Boulder: Icon Editions, 1998)

Shelton, Barrie, Karakiewicz, Justyna & Kvan, Thomas, *The Making of Hong Kong: From Vertical to Volumetric* (Taylor & Francis, 2010).

## Recommended Readings

*Urban visions and experimental massing*

WORKac, *49 CITIES* (New York: Storefront for Art and Architecture, 2009)

Stan Allen and Marc Macquade, *Landform Building* (Lars Muller Publisher, 2011)

R. Klanten and L. Feireiss, *Utopia Forever: Vision of Architecture and Urbanism* (Gestalten, 2011)

Winy Maas, *Visionary Cities* (Rotterdam: NAI Publishers, 2010)

Winy Maas, *Hong Kong Fantasies* (Rotterdam: NAI Publishers, 2012)

Aurora Fernández and Javier Arpa, *Density Projects* (Vitoria-Gasteiz: a+t ediciones, 2008)

### *Site and Situation*

Frédéric Edelman, *In the Chinese City. Perspectives on the Transformation of an Empire* (Barcelona: Actar 2008)

Johannes Widodo, *The Boat and the City: Chinese Diaspora and the Architecture of Southeast Asian Coastal Cities* (Singapore: Marshall Cavendish Academic, 2004)

Filipe Jorge and Francisco Figueira, *Macau From the Sky* (Lisbon: Argumentum, 1999)

Victor Sit, *Macau through 500 years: Emergence and Development of an Untypical Chinese City* (Hong Kong: Enrich Professional Publishing, 2012)

Wang Weijen and Cheong Cheok Kio, *Study of Macao's Historical Urban Fabric: Regenerating Pátio* (Macau: Cultural Heritage Department, 2010)

### *City and Citizens*

Anne Mikoleit and Moritz Purckhauer, *Urban code: 100 Lessons for Understanding the City* (Cambridge, MIT Press 2011)

Kevin Lynch, *The Image of the City* (Cambridge, MIT Press, 1960)

Gordon Cullen, *The Concise Townscape* (Oxford: Architectural Press, 1996)

Jane Jacobs, *The Death and Life of Great American Cities* (New York, Random House, 1961)

Magda Anglès, *In Favor of Public Space. Ten years of the European Prize for Urban Public Space* (Barcelona: Actar, 2010)

Aurora Fernández Per and Javier Arpa, *The Public Chance: New urban landscapes* (Vitoria-Gasteiz: a+t ediciones, 2008)

### *Sustainability*

Albert Ferré, *Total Housing: Alternatives to Urban Sprawl* (Barcelona: Actar, 2010)

Mohsen Mostafavi and Gareth Doherty, *Ecological Urbanism* (Baden: Lars Muller Publishers, 2010)

Mason White, Maya Przybylski, *On Farming: Bracket 1* (Barcelona: Actar, 2010)

### **Schedule**

(Will be handed in the first day of class)

### **FIELD TRIP**

Yes  Local;  Overseas Date(s): TBC Destination(s): Macau & Singapore

No

### **SAME COURSE OFFERED BEFORE**

Yes Offer year [2013] Term [2] Course code [URBD 5720b]

No

## ACADEMIC HONESTY AND PLAGIARISM

Attention is drawn to University policy and regulations on honesty in academic work, and to the disciplinary guidelines and procedures applicable to breaches of such policy and regulations. Details may be found at <http://www.cuhk.edu.hk/policy/academichonesty/>.

With each assignment, students will be required to submit a signed declaration that they are aware of these policies, regulations, guidelines and procedures. For group projects, all students of the same group should be asked to sign on the declaration.

Students are required to submit a softcopy of the assignment to the VeriGuide system at: <https://veriguide2.cse.cuhk.edu.hk/cuhk/>. After submission, student should receive a receipt and an academic honesty declaration statement via an e-mail from VeriGuide. Please print the receipt and the declaration statement (below) and submit them to the lecturer together with a hardcopy of the assignment.

I declare that the assignment here submitted is original except for source material explicitly acknowledged. I also acknowledge that I am aware of University policy and regulations on honesty in academic work, and of the disciplinary guidelines and procedures applicable to breaches of such policy and regulations, as contained in the website <http://www.cuhk.edu.hk/policy/academichonesty/>

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Signature

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Course code      Course title