The Ciudad Lineal in the globalized context: a social history of Madrid, 1960s-2010s

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Intake Year: 2017
Research Track: History and Theory of Architecture and Urbanism
Supervisor: Dr. SENG, Eunice
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Dissertation Abstract

This thesis analyses Arturo Soria’s Ciudad Lineal (linear city) as a streetscape that is produced by the negotiations between private and state initiatives that have led to the implementation of particular contested modes of urbanism.

The street is a source and reflection of urban and social crisis. The 1960s witnessed a renewed interest in Soria’s linear city, first by American scholars and later in Spain. The 1968 publication of the last text on Ciudad Lineal by the American art historian George R. Collins, edited by Carlos Flores and commissioned by the left wing Italian editor Alberto Mondadori, coincided with the emergence of mass social movements in the streets of capitalist countries. In the twilight of Francoist dictatorship, this new social consciousness was commencing to slowly penetrate a regime that was hitherto impassable. Most recently, these movements have re-emerged following the 2008 Great Spanish Recession in the context of a globalized Madrid.

Since its realization in 1894, the Ciudad Lineal project has been the site of diverse conflicts between public-private initiatives, center-periphery in a national and local scale, the morals of a liberal economy-Catholicism, upper-lower classes struggle, city-countryside, and car-train-bicycle-pedestrian contestations. Conceived to become a 50-kilometer long by 500 meters wide development along the periphery of Madrid as a nexus between city and countryside, the project was truncated at 5.5 kilometers in the 1930s due to the Spanish Civil War (1936-1939).
Currently, the original completed 5.5 kilometers form an important street running from north to south in Madrid’s downtown with a unique suburban character. Residential gated complexes formed by 4-storey blocks surrounded by gardens with swimming pools are predominant, with very few commercial activities at the street level, being private health centers, schools and religious institutions the main services. The street is formed by 2-3 car lines in each direction plus parking spaces, combined with lawns and large trees, some of them heritage of Soria’s project, contrasting with the denser streets and the urban atmosphere of Madrid’s city center.
The aim of this research is to study the impact of historical and contemporary socio-political events that have shaped and continue to produce this urban space. New phenomena developing since the 1960s will be taken into consideration, in particular, environmental, feminist or pensioners movements; the disputes between a neoliberal urbanism and state/institutional control; the reorganization of the geopolitical context and the presence of international actors in Madrid; and the impact of new global technologies. Archival, statistical and demographic research, field work, graphic and mapping studies will be carried out in order to describe a deeper understanding of this built environment and the conditions that produce the urban space. The analysis of the physical evolution of the street will be conducted in relation to the sociopolitical contexts, expressed through changes in urban legislation and demographic shifts.
Construction of Chineseness in architecture through translation from the late nineteenth century to 1978

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Part-time from May 2013 to December 2015, Full-time since January 2016
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Dissertation Abstract

Chineseness in architecture has multiple definitions. This project traces how Chineseness in architecture was shaped by the shifting sociopolitical conditions of China from the late Qing dynasty to 1978, as China transformed from an imperial country into a modern nation. This project focuses on how architectural discourses in China translated foreign ideas of modern architecture to define modern Chineseness, as the idea of architecture as a discipline was imported into China from Europe, the US, and Japan from the mid-nineteenth century. This project analyzes how Chineseness defined in the discourses was translated into architectural production, and vice versa. The multiple notions of Chineseness identified in this project, exemplified in both architectural representations and constructions, are mapped against Chinese architectural histories and the prevailing notions of Chineseness in contemporary architecture. This project challenges singular notions of Chineseness in architecture, and argues that architectural translation provided a site for shaping multiple definitions of Chineseness.

Cover of the Nanyang Industrial Exposition Commemoration Book Part 1.
Landscape development and performance of landfill after-use

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Co-supervisor: Mr. PRYOR, Mathew

Dissertation Abstract

Rapid urbanization in Hong Kong and Southern China within highly constrained territories has resulted in a dramatic increase in the number of people living close to urban landfills and a sharp rise in concern over the nuisance and potential impact on health of their operation. Public acceptance of landfills has been shown to be linked both to the efficacy of controls on filling operations and the quality and relevance of the long-term site after use. To date, the lengthy construction and operation period of landfills has encouraged the planning and design of the after use to the end of the development process. Once filling and final capping are complete, however, options for after use are severely limited. This research study found that a large number of potential landfill after uses exist, and that these could be categorized as: ball sports, other sports, passive recreation, and facilities & other uses. Analysis of the after uses with respect to the minimum area required for each, the maximum slope gradient and tolerance to landfill settlement revealed distinct relationships between these parameters. This understanding can assist in the selection and design of appropriate after uses, and facilitate acceptance by local residents of the presence of the landfill.
Design of a Free Market: Architecture History of the Hong Kong Stock Exchange

KORSH, Sben
Intake Year: 2017
Research Track: History and Theory of Architecture and Urbanism
Supervisor: Dr. CHU, Cecilia
Co-supervisor: Dr. SENG, Eunice, Prof. WANG, Wei Jen

Dissertation Abstract
This thesis examines the ways in which the spatiality of finance has transformed within the Hong Kong Stock Exchange (HKSE), from its imperial origins in the late nineteenth-century British colony to its present form as a central node in the neoliberalization of China. In tracking the role of architecture (thought of as the urban geographies, spatial practices and aesthetic imaginaries of buildings) I show how the material history of the HKSE is an active force in the shaping of this century-long transformation. I use the conceptual framework of “imperial formations” to detail historical shifts in the power relations of state, people and capital which make up the exchange.

These formations are examined through thickly-detailed historical case studies that tell how the architecture of the exchange came to be over different time periods, and the major political-economic issues that shaped its making in those times. The thesis provides the first scholarly account (though not intended as compressive) of the HKSE’s history from the 1860s to the present, as well as a methodological contribution to critical inquiry into architecture’s role in the design of free markets.

Keyword: stock exchange, architecture, urban history, imperialism, neoliberalism, free market
The 'Shanghai Plaster' –
A study on colonial agencies in Asian modern architecture, 1927-1937

LAI, Chun Wai Charles
Intake Year: 2016
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Supervisor: Dr. SENG, Eunice
Co-supervisor: Dr. ZHU, Tao

Dissertation Abstract

This dissertation focuses on the role of cement in the shaping of architectural and urban culture before 1960s. Current narratives often date the birth of Hong Kong’s modern urban culture to the 1960s, where the modern, “brutal” aesthetics of exposed concrete and cement were extensively used. This dissertation seek to expand these discussions by understanding the “pre-history” of these aesthetics, through analysing how the production, culture and labour of cement in modern architecture before the 1960s influenced the emergence of modern architecture in Hong Kong, and how the knowledge, representation and technique associated with cement circulated within the colonial geopolitical network, one that was constituted by both Western and Asian agents, in the Asian Pacific region. By studying the associations between cement and modern aesthetics and how was it represented in text and images, the thesis propose an alternative way to historicize modern architecture, one that rely less on the biographies of architects and more on architecture’s patronage, audienceship, labour, in attempt to map the plurality of the material before the 1960s and position cement as a proactive element in a modern architectural movement that was shaped by a transnational network of regional and global knowledge and culture.

Keyword: Asian, Colonial, Modern Architecture, Cement, Transnational
The rural built environment is a dynamic complex that assembles multi-dimension variables of time, space, and people. Nothing is constant, but only constant changes all the time. The transformations are not caused by single force whatever political or economic. Indeed, it is the result of a composition of various forces including official and folk powers. The forces always change by themselves, and impact on different levels of built environment, to different extents respectively.

This research tries to understand the dynamic process of transformation happening in the rural built environment of China, by a detailed case study of the Xiaqiao village (下桥, under bridge). It attempts to figure out the series of transformations in the specific rural context during the recent 400 years. It contains four socio-economic periods representing the different development stages that are the Qing dynasty (1616-1911), the Republican China (1912-1948), the Planned Economy PRC (1949-1979), and the Market Economy PRC (1980-2015).
Survival landscapes: Migrant Workers’ Everyday Politics and Production of Remitted Space in China

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Supervisor: Dr. CHU, Cecilia
Co-supervisor: Prof. CHAN, Roger

Dissertation Abstract

The proposed research explores the emergence of the remitted buildings in South China after the Chinese economic reform. In the 40 years, Special Economic Zones and open coastal economic zones have become the engine of the growth and the base for massive migrant workers to work and live as well as to accumulate and remit money. The working cities and the home villages offer dotted yet continual connections to study what I call “survival landscapes,” wherein the migrant workers act as urban pioneers show their agency and mobility in and out of the factory regime. A goal of this study is to elucidate how the survival strategies of the “successful” migrant workers in cities have facilitated the remitted buildings and nurtured a variegated landscape in rural areas.
LIU, Sibei
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Research Track: Building Science, Technology and Sustainability
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Research Track: History and Theory of Architecture and Urbanism  
Supervisor: Prof. WANG, Weijen  
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LUO, Lan
Intake Year: 2018
Research Track: History and Theory of Architecture and Urbanism
Supervisor: Dr. JIANG, Bin
Co-supervisor: Dr. JIA, Beisi
Chinese Architects’ Thinking of Chinese Garden
– An Intellectual History 1930-2015–

LUO, Ran
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Research Track: History and Theory of Architecture and Urbanism
Supervisor: Dr. ZHU, Tao
Co-supervisor: Prof. WANG, Wei Jen

Dissertation Abstract

This research maps out an intellectual history: how three generations of Chinese architects examined and analyzed the Chinese garden both as a unique element of traditional architectural culture and important source of inspiration for their designs from 1930 to 2015. Chinese architects utilized various approaches to interpret the Chinese garden to realize their goals in twofold: the rich spatial concepts and architectural languages of Chinese garden are essentially different from western ones; the Chinese garden can be translated into a series of distinctive concepts and languages that helps to modernize the China’s architecture in a particular way.

Through archival materials, notes, field trip memoirs, interviews and relevant publications of these architects’ research and designs, this research explains as well as highlights both the different perspectives and limitations of this intellectual development.

Being interwoven into a global context, this study contributes to the philosophy and design methodology of contemporary Chinese architecture and landscape since it offers a cross-reference to fill the research gap from the perspective of historiography and ameliorates the narrow view of current studies to a broader extent. The output also contributes to the history of contemporary Chinese arts, architectural educations and the strategy for high-density cities.
During the 20th century, many cities in China underwent a dramatic acceleration in their urban development and the transformation of their natural environments. This process was deeply influenced by the Modern Movement and the will of building a modern country. As an important site in the history of China’s modernization, the city of Tianjin offers an outstanding example of how a city’s urban form changed in relation to its aquatic environment. My study will trace the history of Tianjin’s physical form in relation to its natural environment over the course of the 20th century, with particular attention paid to the following moments in time: 1897 -1927, 1928-1948, 1949-1978, and 1979 to 2000.

This research seeks to establish linkages between the history of urban planning in Tianjin and its water conservancy. By exploring how the river and the city have participated in the ideological construction of the Chinese nation and its cultural identity, I intend to illuminate how notions of the “modern” were introduced into China, and how the definition of the modern changed over time. My research will also investigate the sociopolitical institutions and cultural conflicts at work in this history and their effects on the modernization of Tianjin and China at large.
Terrain of Tientsin along the Hai-Ho River around 1902. Source: La Chine a terre et en ballon. Planche 30-1

**Keyword:** urbanization, water environment, modernization, Tianjin, the 20th century
From Monastic practices to garden practices, a transition of garden history from Yuan Dynasty to Ming dynasty

MU, Yanjie
Intake Year: 2016
Research Track: History and Theory of Architecture and Urbanism
Supervisor: Prof. WANG, Wei Jen
Co-supervisor: Dr. ZHU, Tao

Dissertation Abstract

This dissertation looks at interactions between Buddhist and garden practices in China’s Jiangnan region during the Yuan (1271-1368) and Ming (1368-1644) dynasties. Through selected cases across this region, this study analyzes how the garden type experienced shifts in meaning, function and ownership practices in response to social, economic and hydrological changes. Based on an examination of this garden network, my work tries to uncover the shifting relationship between the state, gentry society and monasteries and the tension between the Jiangnan area and the imperial capital at Beijing. This work also seeks to understand how economic and political change affected the region’s hydrologic topography.

My research relies on a number of historic primary sources, including gazetteers, texts, maps, and Chinese paintings. Methodologically, my work is influenced by the fields of art history and sociology Resituating garden sites within their social contexts and urban environments reveals the Jiangnan garden type to be unusually complex while challenging existing assumptions regarding Chinese gardens as little more than the private retreats of the era’s literati—a discourse constructed in the last half of 20th-century. By establishing new scholarly perspective on the garden, I hope to enrich our understanding of the nature of landscape design and cultural production during the Yuan-Ming periods.

Keyword: garden studies, Buddhism practices, gentry society, political power, urban-scape
Modern Monuments: The Revitalisation of Asian Port Cities through Iron and Steel-framed Buildings in the early 20th Century

TAN, Yuk Hong Ian
Intake Year: 2018
Research Track: History and Theory of Architecture and Urbanism
Supervisor: Dr. ROSKAM, Cole
Co-supervisor: Dr. CHU, Cecilia

Dissertation Abstract

A number of monumental civic buildings in former British colonial cities remained treasured today. Most originated from the early 20th century. Their grandeur, intricate building ornaments and advanced modern construction technology using structural iron and steel set them apart from vernacular buildings and structures constructed earlier by the British colonisers.

My PhD dissertation aims to firstly, provide a historical understanding of how structural iron and steel frame construction played a key role in creating a golden age of British colonial architecture during the early 20th century, particularly in cosmopolitan port cities such as Calcutta (now Kolkata), Rangoon (now Yangon), Singapore and Hong Kong. Secondly, the research aims to uncover technical details of how construction technologies were transplanted from the UK to her colonies in the early 20th century, particularly the factors crucial to the initial geographical relocation and the subsequent technical knowledge transfer. Thirdly, the dissertation will use these prior historical and technical understanding of steel and iron construction to develop an urban revitalisation strategy for iron and steel framed buildings in Asia cities.

The proposed dissertation has the following objectives:

- Compare urban and architectural development among principle port cities, namely Calcutta and Rangoon (part of the former Bengal Presidency), Singapore and Penang (formerly the Straits Settlements), Hong Kong and Shanghai. In particular, we will explore how cities were constantly shaped by technological advancements and trade environments.
- Understand how the definition of port cities had changed over the last century.
• Uncover how building legislation, design specification and other forms of communications were necessary to facilitate the global process of prefabrication and shipping of iron and steel components

• Conduct on-site surveys of existing iron and steel buildings in port cities to develop a deeper understanding of the construction of iron and steel structures in early 20C and to inform possible means of conservation and adaptive reuse of colonial buildings which is sensitive to the character of port cities and its urban development.

Keywords: Colonial Cities, Historic Ports, Construction History, Urban Planning

Lam Qua, Harbour at Hong Kong, c. 1830, The Bridgeman Art Library, Boston, MA
Water, Sand and Settlements—Land Reclamation and Creation of Landscape, Pearl River Estuary after the Late-seventeenth Century

TIAN, Mengxiao
Intake Year: 2016
Research Track: History and Theory of Architecture and Urbanism
Supervisor: Prof. WANG, Wei Jen
Co-supervisor: Dr. SENG, Eunice

Dissertation Abstract

This thesis will examine the Pearl River Estuary’s shifting geographic pattern over time, taking into account the extensive land reclamation that occurred from the late-seventeenth to the early-twentieth century. Furthermore, it will trace the relationship between the changing processes of land reclamation and settlement formations, in addition to landscape creation.

By defining “reclamation landscapes” as the settlements formed in the reclamation area with the reclaimed land itself, the work identifies various prototypes of landscape form and questions how and why these landscapes became such shapes. In examining the broader historical and cultural contexts, it intends to reveal how the physical appearances of Pearl River Estuary (PRE), is not the result of one power’s domination but is rather a process of competing relationships between human agency and natural energy, and also a shift in land and water notion.

The thesis will construct a historical narrative through an examination of society, environment, form, and explore key factors in selected areas and distinct time periods to build a spatial-temporal network for morphological analysis. In the course of a discussion of a typical case’s formation history, this work will also conduct a horizontal comparative study of several examples of reclaimed landscapes. In doing so, the thesis will not only underline the importance of providing a critical understanding of the human and natural worlds, reclamation activities and the landscape but will also generate an evaluation of the sustainability of reclamation landscapes.

Keyword: Pearl River Estuary, land reclamation, reclamation landscape
Linear settlements on the newly reclaimed land. Buildings stood on the water, facing the waterway which let people trade agricultural products by boats.
Situated on the crossroads of maritime trading routes for centuries, many traditional Asian port cities have been the hubs of overseas trade and cultural exchange throughout recorded history. Their civilizations and the lifestyles of people have been influenced by the specific driving forces – trading activities and culture blending. The evolutionary process of urban morphology and building typology are testimony to this. This paper is a study of Asian port cities and their most predominant traditional dwellings – that are subject to a typo-morphological analysis carried out from three aspects: the description of physical form expression, such as position, outline and internal arrangement, the analysis of formation and transformation process, and the exploration of the connotative non-physical elements. By selecting several port cities – Quanzhou, Malacca, Penang, Singapore, Hanoi, Bangkok, etc – as case studies, the two urban values – utility value and cultural value, as well as their interaction and transformation reflected in this process are discussed. The evolutionary modes of these port cities can be summarized into two categories – the self-assimilation type and the transplantation type.
The role of local knowledge in China’s water resource management: A comparative study of the challenges to Landscape Integrated Water Resource Management (LIWRM) of Yangtze River Delta and Pearl River Delta regions

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Intake Year: 2018
Research Track: Environmental and resource management, landscape architecture and planning
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Co-supervisor: Dr. CHAN, Roger

Dissertation Abstract
The aim of this research is to explore the growing significance of local knowledge in Integrated Water Resource Management (IWRM) in ‘Green era’ of China, in which the construction of the environment has been anchored in the government achievements. Functional water management has been incorporated into the landscape design as a way of ‘return to nature’ political ideology. However, the Landscape Integrated Water Resource Management (LIWRM) as a decentralized application of IWRM obtained little attention, especially on the extent to which it is able to address context specific issues as well as the role of evolving local knowledge. The multidimensional knowledge structure includes various water related perceptions, principles, institutions and approaches to interact with the ecology. Using the lens of political ecology and anthropology, this research will conduct a comparative study of Yangtze River Delta and Pearl River Delta regions. By enquiring in the physical, political and social forces of LIWRM, this research will bring new insights in contextualized adaptation of IWRM, an imported ‘umbrella approach’, in water resource discourse.
Immigrant city: mapping Haikou urban space, 1858-1939

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Intake Year: 2015
Research Track: History and Theory of Architecture and Urbanism
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Co-supervisor: Dr. SENG, Eunice

Dissertation Abstract

The aim of the study is to look at the process of Haikou city’s construction in the period from 1858 to 1939, during which Haikou had gradually grown from an open port that appeared in the south of Hainan Fucheng bund to a modern city in the southeast of China. In that period, immigrant settlers gradually transformed the urban fabric and architectural forms in Haikou. Thus, this study is aiming to investigate the relationships among immigrant settlers (former immigrants and returned oversea Hainanese), the social and spatial segregation, and collaged urban space, especially to explore eight remarkable old residential areas, including Renhe Lane, Juren Lane, Huanhai Lane, etc.

Based on the researches on the immigrant settlers and their influences on cityscape and urban form, this study argues that Haikou city as an immigration city, which is not mainly a copy of port city model in Guangdong province, nor mainly influenced by Southeast Asia. Instead, it is a collaged urban space mapped by various layers/classes of immigration. The cityscape of Haikou was transformed by those immigrant settlers mentioned above with different characters. Furthermore, Haikou city, which has long been labeled as one of peripheral areas in China, was once an important trading city closely connected with mainland china and Southeast Asia.

Keywords: Immigration, Haikou City, Urban Morphology and Typology, Spatial Segregation, Transformation
Body, *Zhuangzhe* 装折 and *Tategu* 建具: The Development of Lesser Carpentry of East Asia from Tenth to Fourteenth Century

ZHOU, Yi  
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Supervisor: Prof. WANG, Wei Jen  
Co-supervisor: Dr. SENG, Eunice

**Dissertation Abstract**

This dissertation aims to study the development of traditional lesser carpentry of East Asian from 10th to 14th century A.D. firstly and mainly through looking into Chinese *zhuangzhe* and Japanese *tategu*. Korean lesser carpentry will only be invited in after them. In this study, the relationship between body and the design of lesser carpentry is the key parameter to be examined.

The term “lesser carpentry” (both *zhuangzhe* and *tategu* belong to this category) denotes a series of non-load bearing structures such as screens, doors, and built-in desk, in comparison to the “great carpentry”- the load bearing structure of a building. The selected time span mainly covers the so-called “Japan-ized period” and onward, at the beginning of which the Japanese architectural culture has ceased the direct communication with the continental, and thereby initiated a movement of digesting, adapting, and reforming the imported Chinese architectural culture into their own. As a significant notion repeatedly discussed within the discipline of architectural theory, as well as one pertinent to the relationship between human body and architecture, “tactility” will be reviewed and redefined under the cultural contexts, and through time, namely, under the Chinese chair-sitting and the Japanese floor-sitting dwelling modes respectively, and particularly through the time of the abovementioned Japan-ized period. I will center my discussions on the relationships between the sensations of human body and its encounters, which include not only the architecture, but also natural elements such as wind, rain, sceneries, and how the design of lesser carpentry has effectively mediated in between. Furthermore, the dissertation will provide observations of how development of lesser carpentry has also changed and inaugurated that of the main structure. Ultimately, it hopes to rediscover the spatial essence of the Chinese courtyard, Japanese *shinden*-style, and *shoin*-style buildings. Any of these building styles, I argue, was collectively formed by the human body, lesser carpentry work and the main structure altogether. The role the lesser carpentry work plays is irreplaceable.