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TOWARDS A NEW NORMAL

The Changing Relationship between Foreign and Chinese Architects in Contemporary China

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ABSTRACT

The period since the implementation of 'Reform and Opening Up' in 1978 constitutes the longest continuous engagement between foreign and Chinese architects since the founding of the modern architecture profession in China at the beginning of the 20th century.

This thesis examines the relationships between foreign and Chinese architects in China, through an evaluation of the historic evolution of these relationships, an assessment of the contemporary challenges facing these relationships, and a speculation on the nature of these relationships in the future.

In addressing this subject area, the thesis relies on a qualitative and heuristic research methodology framed within the context of Grounded Theory, drawing from over sixty first-hand interviews with both foreign architects, Chinese architects, architectural educators, architectural students, developer clients, and government planners in eight different Chinese cities, as well as case studies of seven completed architectural projects in China.

The thesis challenges the common perception that the nature of engagement between foreign and Chinese architects in the post-Mao era is historically unique. Despite distinctively different political, economic, cultural, and social contexts, foreign architects have maintained a persistent presence in China since the beginning of the 20th century. As such, the current and future role of foreign architects in China cannot be discussed in isolation, but viewed as part of a historical relationship which continues to this day, and may continue in the future.

The thesis also argues that there is a cyclical pattern of historic interaction between foreign and Chinese architects, in which each period of engagement begins with foreign architects playing an instigative and catalytic role in the evolution of the profession and the discourse, before their influence wanes as it becomes incompatible with shifting political, economic, and cultural conditions.

The thesis contends that we are witnessing the end of another such cycle of engagement between foreign and Chinese architects, made evident by the emergence of a series of existential challenges facing foreign architects in

China. The uninterrupted period of sustained engagement between foreign and Chinese architects in the post-Mao era has led to the distortion, erosion, and fragmentation of the foreign architects role, and the weakening of their position against their Chinese peers.

As such, the thesis proposes that an emerging professional paradigm under the so-called 'New Normal' represents a significant break from past cycles, in which the future of foreign architects in China will be predicated on the value of their offer within a more equal and collaborative professional environment built on Chinese terms and led by Chinese voices.

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I would like to thank all the interviewees to took part in the research for this thesis, in particular Dr Han Tao from Central Academy of Fine Arts in Beijing, with whom I had many interesting conversations.

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AUTHOR'S DECLARATION

During the period of registered study in which this thesis was prepared the author has not been registered for any other academic award or qualification.

The material included in this thesis has not been submitted wholly or in part for any academic award or qualification other than that for which it is now submitted.

Signature  Date 20/06/2018

NOTES

In dealing with Chinese names and places, romanization has be carried out using the Pinyin system without the use of the diacritic tones.

In the citation or general use of Chinese name in the content of this thesis, surname precedes the first names, as this is the cultural convention and consistent with citation procedures.

Names and places that has become academically accepted in Wade and Giles pronunciation are used where they are recognised. Such as ‘Chung Yung Ho’ instead of ‘Zhang Yonghe'. However, in the case of Liang Sicheng, whose name had been romanised as ‘Liang Ssu-ch'eng, I have chosen to use the Pinyin format as this is phonetically more accurate. Notwithstanding the above, Liang’s written work in English has been cited as they appear in publication.

Where Chinese texts are translated and cited, or quoted, the citation will provide the source material in simplified Chinese, along with English translations.

Where quotations from interviews in Chinese are used in the thesis, it will be noted as the author’s translation.

1.0 INTRODUCTION

This thesis examines the relationships between foreign and Chinese architects in China, through an evaluation of the historic evolution of these relationships, an assessment of the contemporary challenges facing these relationships, and a speculation on the nature of these relationships in the future.

In addressing this subject area, the thesis challenges the common perception that the nature of engagement between foreign and Chinese architects in the post-Mao era is historically unique. Despite distinctively different political, economic, cultural, and social historical contexts, foreign architects have maintained a persistent presence in China since the beginning of the 20th century. As such, the current and future role of foreign architects in China cannot be discussed in isolation, but must be viewed as part of a historical relationship which continues to this day, and may continue in the future.

The thesis also argues that foreign architects' engagement with China, while persistent, is not contiguous. Instead, there is a cyclical pattern of historic interaction between foreign and Chinese architects, in which each period of engagement begins with foreign architects playing an instigative and catalytic role in the evolution of the profession and the discourse, before their influence wanes as it becomes incompatible with shifting political, economic, and cultural conditions.

The thesis contends that we are witnessing the end of another such cycle of engagement between foreign and Chinese architects, made evident by the emergence of a series of existential challenges facing foreign architects in China. The uninterrupted period of sustained engagement between foreign and Chinese architects in the post-Mao era has led to the distortion, erosion, and fragmentation of the foreign architects' role, and the weakening of their position against their Chinese peers.

As such, the thesis proposes that an emerging professional paradigm under the so-called 'New Normal'[1] represents a significant break from past cycles, in which the future of foreign architects in China will be predicated on the

[1] Keynote Speech by Xi Jinping at APEC Summit on 9th November 2014

value of their offer within a more equal and collaborative professional environment built on Chinese terms and led by Chinese voices.

1.1 Definition of Terms

'Architecture'

The term 'architecture' can take on a plethora of different meanings from a variety of perspectives. Architecture can be discussed in material terms as physical artefacts, or in immaterial terms as it pertains to histories, theories, and practices. As such to provide a definition of architecture can be a risky endeavour.

A more useful and relevant exercise would be to define what architecture means as it pertains to the subject matter of this thesis.

This thesis sees architecture as first and foremost a process, in which the built environment is created under the agency of a network of critical human and non-human actors, agencies and relationships.

Instead of examining the built environment through its physical attributes (e.g. style, tectonics, construction, programme, functionality, etc.) this thesis sees architecture as the product of a system that connects regulations, policies, institutions, politicians, planners, clients, builders, architects, users, and the public at large, within which architecture is incentivised, planned, commissioned, designed and delivered.

More specifically, this thesis is interested in the nature of the relationship between two human actors in this system, namely foreign and Chinese architects.

'Style'

For the purpose of this thesis, a building's architectural style is defined by the language of its formal expression, through visual, tectonic, spatial, material and constructional means.

As Chapter Four of this thesis will show, much of scholarly work on Chinese architecture is focused on the evolution and progression of architectural styles. However, following Kostof, this thesis believes that this language of expression, or style, cannot be examined in isolation, and must be situated within and informed by a distinctive philosophical, political,

socio-economic, cultural, and ideological context, which makes it historically identifiable.

Given the above, it is the intention of this thesis for stylistic matters not to become the sole focus and purpose of conversation, but to be understood in their representational role, as the means with which to qualify the differences between foreign and Chinese architects and their work.

'Foreign architects' and 'Chinese architects'

For the purpose of this thesis, 'foreign architects' is best defined as those architects who are from a country other than China and a different cultural frame of reference. This understanding of the foreign as 'other' and 'from without', as far as this thesis is concerned, is much more useful than seeking a definition based on ethnic or racial terms, which is fraught with ambiguity and exceptions. For example, the Chinese American architect Lee Gum Poy, who was born, raised and trained in the U.S. and worked in China, is nevertheless understood as a foreign architect in China. Similarly, the prominent architect I.M.Pei is ethnically Chinese, born in China, but is rightly understood as a Chinese American architect by those both inside and outside China.

Whilst one may still define Chinese architects as those who subscribe to a Chinese frame of reference in their upbringing, education, approach, practice, and ideology, the word 'Chinese' inevitably invokes issues of ethnicity, language, and location as part of this cultural framing. For example, whilst Liang Sicheng, often known as the father of modern Chinese architecture, may have been born in Tokyo, and trained in the U.S., his ethnicity and his cultural frame of reference means that he is identified as a Chinese architect, both by himself and others both inside and outside China. This can also be said of many prominent contemporary Chinese architects, such as Chang Yung Ho, who have trained and worked aboard, but whose ethnicity and cultural frame of reference firmly locate their identities as Chinese. As such, the cultural significance of ethnicity must be acknowledged in the definition of 'Chinese architects'.

As this thesis will explicate, the contemporary condition of architectural practice at a global scale means that the distinction between 'foreign' and 'Chinese' is becoming increasingly difficult and counterproductive. For

example, the firm Neri and Hu, located in Shanghai, was set up by a Malaysian Chinese architect and a Taiwanese Chinese architect, who were born and raised outside China, trained and worked in the United States. For them, the attempt by the media, and their fellow practitioners both inside and outside China to define them as Chinese is a frustrating experience as they do not see themselves as being defined by their Chinese ethnicity or their foreign origin.

1.2 Why study the relationship between foreign and Chinese architects in history?

In the postscript to his novel *Brothers*, the Chinese writer Yu Hua wrote, 'the vast changes the Western Man experienced in 400 years have been experienced by the Chinese Man in merely 40 years'[2]. This somewhat crude comparison nevertheless captures the speed with which the Reform and Opening Up policies instigated by Deng Xiaopeng in 1978 have transformed China.

However, as this thesis will contend, this narrative of rapid change over a short period of time is not a uniquely contemporary phenomenon. In the little over 100 years that followed the fall of the Qing dynasty in 1912, China has experienced several radically different social, cultural, economic and political paradigms, each of which were defined by the changing relationship between China with the outside world.

From a position of superiority prior to the end of the Qing dynasty (1636-1912), when the West marvelled at Chinese achievements, China found itself facing the colonial incursions of militarily and technologically advanced imperial foreign powers at start of the 20th century, culminating in the ceding of territory first to European and American colonial powers, and then large parts of the country to an all-out Japanese invasion in the Second World War. With the founding of Communist China, Soviet Russia's influence on the ideological, political and cultural life of the new nation was as palpable and present as the colonial powers' that preceded it. In the decades since 1978, a re-encounter with developed foreign nations, and the influx of foreign capital, culture and technologies have been a critical part of China's re-emergence as a significant world power.

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[2] Yu Hua - *Brothers* (Picador, 2010)

Critically, this narrative of encounter between China and the outside world is also manifest in Chinese architecture. If, as set out in section 1.1 above, we are to understand architecture as the product of a network of critical human and non-human actors, agencies and relationships, then one of the principle relationships that has defined the nature and character of the Chinese built environment is the one between foreign and Chinese architects.

As the subsequent chapters will elaborate, foreign architects have maintained a persistent presence in China in one form or another, from as far as the mid-eighteenth century, when the European jesuits Giuseppe Castiglione and Michel Benoist designed parts of the Old Summer Palace for the Qing Emperor Qianlong, and demonstrated the use of perspectives, a European means of visual representation. At the beginning of the 20th century, foreign architects worked for both colonial and Chinese clients in cities such as Shanghai and Nanking, designing buildings in neoclassical, Beaux Art, Art Deco and a range of other styles. In the 1950s, Soviet Socialist Realism ideologies were brought to China and disseminated by Russian architects, urban planners and pedagogues. In the post Mao decades since 1978, foreign architects have re-established their presence in China, in increasing numbers and profile, playing a critical role in the creation of new cities, infrastructures, and iconic buildings.

Given the above, one cannot look upon the contemporary conditions of Chinese architecture without examining the underlying relationship between foreign and Chinese architects. Further, one cannot fully analyse the contemporary relationship between foreign and Chinese architects without situating it within history as part of a continuous narrative of encounter.

On the contrary, the persistence of foreign architects' presence in China despite radically different historical contexts is a critical and unique feature of Chinese architectural discourse. As this thesis will argue, it is suggestive of common, reoccurring, and perhaps cyclical patterns of behaviour which transcends specific historic milieus. As such, the history of interaction between foreign and Chinese architects cannot be viewed simply as a general background, but rather, a potently prescient and non-linear set of data which critically informs the present and the future. The understanding

of a historic pattern of interaction between foreign and Chinese architects, be it cyclical or otherwise, is an important method to the understanding and framing the present conditions, challenges and tendencies within Chinese architecture discourse.

Therefore, this thesis will be exploring history in some detail in order to establish more precisely the nature of these reoccurring historic patterns of behaviour in the interaction between foreign and Chinese architects.

1.3 Why Study the relationship between foreign and Chinese architects now?

Since the global financial crisis of 2008-09, it has become increasingly clear that after almost three decades of Reform and Opening Up in China, a myriad of problematic issues have emerged in its built environment. These issues range from the unrestricted urban expansion to the creation of instant cities with instant plagiarised identities; from vanity building programmes and frivolous architectural spectacles at the hands of 'starchitects', to the lack of construction quality in even the most ambitious and prestigious building projects. Other less reported problems include the disengagement of the architecture profession from the housing sector, which alone accounted for 67.3% of new development in China in 2015[3]. Accompanying these problems are much scholarly criticism, media derision, and public frustration.

These visible shortcomings within the built environment are not isolated narratives, but manifestations of current failings in the relationship between foreign and Chinese architects, and the other critical actors that surround the design process.

This thesis is all the more timely as the general conditions under which architects operate and architecture is created are once again undergoing fundamental change, change that will directly affect the relationship and balance of power between foreign and Chinese architects in the immediate future.

The last three decades of growth were the product of a very particular mode of spatial production under very particular political and economic

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[3] 2015年全国房地产开发投资和销售情况 - National real estate development and sales conditions <*http://www.stats.gov.cn/tjsj/zxfb/201601/t20160119_1306094.html*>*[2015]*

models: a fast growing market economy driven by top-down, government-led, and GDP-driven planning and development policies, which David Harvey has ironically described as 'neoliberalism with Chinese Characteristics'[4].

However, there is measurable political and economic evidence that points to quite significant adjustments to this status quo. Economically, China has been forced to contemplate long-awaited structural reforms, in an attempt to wean the country off an economy driven by inward foreign and government investment, to one supported by stronger domestic consumption and innovation, albeit at a slower rate of growth. This 'New Normal', as coined by the present political leadership, points to the possible decline in the government's appetite for unfettered urban expansion, and the decrease of commissions in sectors and typologies that have dominated the output in the built environment so far, to which architects both foreign and Chinese have become accustomed.

Politically, President Xi Jinping, China's leader since 2012, has tightened his grip on matters of culture. In a speech given at a forum with representatives of the creative, entertainment, literary and arts worlds in October 2014, Xi Jinping was reportedly to have made a demand for 'no more weird architecture'. This was widely interpreted as being targeted at the experimental 'starchitecture' projects designed by foreign architects, and this new political and cultural reality coincides with the rising profiles of homegrown Chinese architectural talent such as Wang Shu, who became the first Chinese recipient of the Pritzker Prize.

Therefore, as the country and the architectural profession have reached another possible paradigm shift, an exploration of how the roles of foreign and Chinese architects might evolve in the coming five to ten years under the 'New Normal' has become critically important to both foreign and domestic practitioners.

1.4 Existing body of work and gaps in knowledge

Although this thesis sits within a rich array of works by others, there are gaps in this existing body of knowledge with reference to a critical reflection of the pattern of interaction between foreign and Chinese

[4] David Harvey, *A Brief History of Neoliberalism* (Oxford: Oxford University Press, 2005), p.120

architects in history and up-to-date assessment of how this relationship manifests today and in the future.

The general history of Chinese architecture and the story of dramatic growth in the built environment over the last three decades under the Reform and Opening Up policy have been extensively covered. Sources as *A History of Chinese Modern Architecture*[5]*, Illustration of the History of China Modern Architecture*[6]*,* and *Direction - Observations and Analysis of 20 Years of Chinese Contemporary Architecture 1999-2011*[7] provide a great amount of detail on the key people, buildings and events that have shaped the development of architectural discourse in China in history.

Many of these aforementioned general work of history are detailed chronologies without a more reflective and critical approach to history and the relationship between China and the West. When analysis do happen, there is also a propensity to reduce the motivations of architects to stylistic ones only, without a more detailed exploration of the underlying political, economic, cultural and professional agencies that inform the stylistic decisions. Works in Chinese also carry the extra baggage of political sensitivity, censorship, and self-censorship.

While some important works of specific histories have addressed this problem of criticality, such as *Modernism in China: Architectural Visions and Revolutions*[8]*, Chinese Architecture and Beaux Arts*[9]*, Beijing Record: A Physical and Political History of Planning Modern Beijing*[10]*,* and *A History of Modern Chinese Architecture Education 1920-1980*[11]*,* they do so, successfully one might add, only within their specific historic milieus.

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[5] 邹德侬, 戴路, 张向炜, 中国现代建筑史, (中国建筑出版社, 2010) / Zou Denong, Dai Lu, Zhang Xiangwei, *A History of Chinese Modern Architecture* (China Architecture & Building Press, 2010)

[6] 邓庆坦, 图解中国近代建筑史 (华中科技大学出版社, 2009) / Deng Qingtan, *Illustration of the History of China Modern Architecture* (Huazhong University of Science and Technology Press, 2009)

[7] 黄元炤, 流向 中国当代建筑20年观察与解析(1999-2011) (江苏人民出版社, 2012) / Huang Yuanzhao, *Direction - Observations and Analysis of 20 Years of Chinese Contemporary Architecture 1999-2011* (Jiangsu People's Press, 2012)

[8] Edward Denison and Guang Yu Ren, *Modernism in China, Architectural Visions and Revolutions* (Wiley, 2008)

[9] Jeffery Cody, Nancy Steinhardt, and Tony Atkin (ed.), *Chinese Architecture and the Beaux-Arts* (University of Hawaii Press, 2011)

[10] Wang Jun, *Beijing Record: A Physical and Political History of Planning Modern Beijing* (World Scientific Publishing Company, 2003)

[11] 钱锋 伍江 - 中国现代建筑教育史 (1920-1980) (中国建筑工业出版社, 2008) / Qian Feng and Wu Jiang, *Education of Modern Architecture in China (1920-1980)* (China Architecture and Building Press, 2008)

A more holistic criticality can be found in two key texts for this thesis, *Architectural Encounters with Essence and Form in Modern China*[12] and *Architecture of Modern China - A Historical Critique*[13].

*I*n *Architectural Encounters with Essence and Form in Modern China,* the authors Peter G. Rowe and Seng Kuan consider the historical development of the architectural discourse in China as a history of recurrent struggle between two essential concepts of traditional Chinese philosophy, 'ti' and 'yong', or essence and form. The last century of encounters between foreign and Chinese architects is presented as the confrontation between the concept of 'Chinese-ness' in essence and the application of western modernity in form.

In *Architecture of Modern China - A Historical Critique* (2009), Zhu Jianfei sees history not as a sequence of transformational paradigm shifts, but rather as 'a continuous system running through the twentieth century', where the influence of the West has been both persistent and recurrent. Further, Zhu argues that the 'flow of impact from the world and the West into China' and the 'flow of impact from China to the world and the West' formed a 'moment of symmetry'[14]. This idea provides an effective conceptual framework within which the works of foreign and Chinese architects can be discussed and related to each other during that period, as well as before and after.

However, even in the case of Rowe, Kuan and Zhu, their observation are somewhat dampened by the lack of more up-to-date information. The speed at which circumstances are changing on the ground means that many of these texts do not provide a contemporaneous assessment of the current situation.

The complexity and fluidity of contemporary conditions mean that an understanding of the present is constructed from a thematically diverse and at times disparate collection of scholarly work. Some focus on macro-scale urban issues, such as *Concrete Dragon - China's Urban Revolution and*

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[12] Peter G. Rowe and Seng Kuan, *Architectural Encounters with Essence and Form in Modern China* (Cambridge Massachusetts: MIT Press, 2002)

[13] Jianfei Zhu, *Architecture of Modern China - A Historical Critique* (Oxford: Rutledge, 2009)

[14] ibid., pp.170-171

What It Means to the World[15]. Some choose to deal with specific urbanities, such as *Beijing - The New City*[16], *Shanghai New Towns*[17], and *How The City Moved to Mr. Sun*[18]. Others, are on esoteric scholarly interests such as *Original Copies - Architectural Mimicry in Contemporary China*[19].

This lack of up-to-date information is also somewhat addressed by first hand accounts of practice from architects writing about their experience from the perspective of their roles as actors within the system this thesis wishes to study. This approach can be found in books such as *China China… Western Architects and City Planners in China* by Lu Xin, and John van de Water's autobiographical Y*ou Can't Change China, China Changes You*.

A more wide ranging analysis of the contemporary conditions always runs the risk of becoming anecdotal. A commendable attempt can be found in *Conditions of Chinese Architecture*[20] (November, 2017), by Pier Alessia Rizzardi and Zhang Hankun. The book offer a highly ambitious account of China's recent post-Mao era construction boom by taking a multi-faceted approach. However, it also suffers from being overly descriptive and being once again obsessive over matters of style. The use of interviews is a source of strength, but they are used sporadically and discursively. Critically, the work offers very little insight into the changes that have taken place since President Xi' ascendency and the changes to the political, economic and professional context in the immediate future.

Given the above, the thesis aims to be reflective of the past and up-to-date about the present, in order to speculate on the future. It has yet to be seen what shape the coming years will take. This thesis asks if history will repeat itself, or will there be a break with the past, and the emergence of a new kind of relationship between foreign and Chinese architects.

1.5 Research Approach and Methodology

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[15] Thomas J. Campanella, *The Concrete Dragon - China's Urban Revolution and What It Means for the World (*Princeton Architectural Press, 2008)

[16] C Greco and C Santoro, *Beijing, the New City* (Skira Editore, 2008)

[17] Harry den Hartog, *Shanghai New Towns: Searching for Community and Identity in a Sprawling Metropolis* (010 Publishers, 2010)

[18] Daan Roggeveen, *How the City Moved to Mr. Sun* (Sun Publishers, 2010)

[19] Bianca Bosker, Original Copies - Architectural Mimicry in Contemporary China (Hong Kong University Press, 2013)

[20] Pier Alessia Rizzardi and Hankun Zhang, *Conditions of Chinese Architecture (*Artifice Books on Architecture, 2017)

Perhaps the central contribution of this thesis is the provision of a wide ranging and structured empirical base to understand the current dynamic between foreign and Chinese architects, so their roles can be critically assessed in history, and inform speculations about the future.

To this end, the thesis has relied heavily on original research: primarily interviews with architects, planners, clients, developers, scholars, educators, and architecture students. Over the course of the research period, over sixty interviews were conducted, including prominent Chinese architects, architects in foreign practices, in Local Design Institutes (LDI), and in private studios. Developer clients from both state and private sectors were interviewed, as well as the elusive politicians and planners in local authorities, who collectively, are responsible for the policies and commissions that have shaped the vast majority of the built environment in China in recent decades.

These interviews were conducted during field visits to Beijing, Shanghai, Hangzhou, Taiyuan, Hong Kong, Shenzhen, Chongqing, and Chengdu, cities representative of the range of urban conditions in China, from global cities to provincial capitals, from coastal metropolises that were the earliest to benefit from the influx of both foreign investment and foreign architects, to inland cities that have emerged in the last decade as new centres of urban growth. In addition, the field visits also enabled the examination of seven built projects as case studies. Each project was chosen to reflect the problems and promises of China's contemporary built environment, and against which comments, conclusions and speculations drawn from the interviews were tested.

As such the research for this thesis involved me becoming immersed in the world of my interviewees, gathering and analysing of primary data that are predominantly qualitative and phenomenological in nature, working inductively from the ground up, unprejudiced, without an *a priori* hypothesis, allowing the data to speak for itself and re-shape the research focus as and when necessary.

At the same time, the selection of interviewees, case studies, and field visits to gather primary data required me as a researcher to utilise both my academic objectivity and my subjective professional and cultural

experience as a Chinese-British architect, so that I can offer a balanced and nuanced assessment of current complexities beyond a reliance on anecdote.

These objectives and intentions firmly located the principal research methodology of this thesis within the realms of Grounded Theory.

As a heuristic and qualitative research methodology more frequently deployed in the social sciences, Grounded Theory[21] provides the methodological framework for the thesis to develop new knowledge inductively. The 'all is data' philosophy of the Grounded Theory approach allows the researcher to appraise primary data gathered in the field alongside existing secondary literary sources by others. This means that a more complete and all-encompassing historiography can be built, from which patterns of behaviour can be extrapolated and understood.

Crucially, Grounded Theory facilitates iterative cycles of data gathering, in order to progressively refine both the research question and the tentative conclusions simultaneously. Emergent themes from one set of gathered data, or 'theoretical samples', inform the criteria for gathering the next set of data. For the thesis, this meant re-approaching individual interviewees, for second, and sometimes third interviews, as well as revisiting cities and buildings, in an effort of constant comparison.

Finally, it must be noted however, that Grounded Theory as it is used in the Social Sciences follow a detailed and prescriptive procedure, codified in a series of steps that the researcher must follow, from 'theoretical sampling' to 'coding' and the development of 'conceptual categories'. For this thesis, Grounded Theory is deployed flexibly as part of a range of qualitative methodologies that are being used to carry out the research, such as the inclusion of case studies. As such, the overall characteristic of the thesis research is qualitative in approach but flexible in methodology to maintain a nimble and organic process of data collection and concept development.

1.6 Role of AEDAS

In considering how I carry out research, and reflect upon it, I am also aware of the unique nature of this PhD as a funded research by AEDAS, a Hong Kong based architectural practice with a global profile. As a practice,

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[21] Barney G. Glaser and Anselm L. Strauss, *The Discovery of Grounded Theory: Strategies for Qualitative Research* (Aldine Transaction Publishers, 1967)

AEDAS is one of largest foreign practices operating in China. They have completed a significant number of projects in China, many of considerable scale and public profile. They have financially supported the field trips undertaken as part of the primary research for this thesis. They have also helped with arranging some of the interviews conducted for this thesis.

Further, interviews with several key and high profile AEDAS members at the early stages of the research phase proved very useful in forming a basic understanding of the modes of practice for foreign architects in China and the challenges they faced.

Nevertheless, it must be noted that this thesis does not use AEDAS the practice as a case study. There are two reasons for this decision.

Firstly, AEDAS's output and presence in China is fairly typical of commercially focused foreign architectural firms of their size and background. The story of their development in the Chinese market is very much a consequence of the wider economic, cultural, and professional conditions. As such, despite their laudable interest in supporting academic research on their profession, their role in shaping the trajectory of architecture discourse in China is somewhat limited.

Secondly, I was mindful of the risks that comes with undertaking case studies of a practice that sponsored my research. It was critical that I maintained subjectivity and formed balanced observations. Instead of treating AEDAS as a case study, I consciously sought to counter any AEDAS biases that may befall the research due to the convenience of their input and the availability of their support. Interviews and case studies were organised and conducted independently, soliciting diverse views that often ran contrary to interviewees at AEDAS. 'Fact finding' reports and executive summaries were developed separately for AEDAS, so the thesis is exclusively an independent academic undertaking unaffected by AEDAS's expectations for immediate actionable recommendations.

Nevertheless, AEDAS's motivation for sponsoring this thesis comes from very real professional concerns about the future of their practice in China and the challenges they face in dealing with both their foreign peers and their Chinese counterparts, as well as in attracting talented graduates to

join their practice. In this regard, the issues facing firms such as AEDAS are the very ones being examined by the thesis.

1.7 Outline of Chapters

The application of the Grounded Theory-led methodology and the critical context formed by the works of others will be discussed in further detail in Chapters Two and Three.

Chapter Four offers a historic review of the historic relationship between foreign and Chinese architects in China, organised chronologically into three distinctive historic periods, the Nationalist era (1912-1937), the Mao era (1949-1966), and the post-Mao era(1978-present).

Chapter Five discusses the challenges faced by foreign architects and their Chinese counterparts in contemporary practice.

The chapter is thematically structured where challenges faced by architects in the commissioning, design and delivery of the built environment is examined in relation to the state, the demand and supply of expertise, and the regulatory structure of the profession.

This includes a description and analysis of the complex interactions between foreign practices and state owned Local Design Institutes (LDIs), particularly the LDIs' regulatory advantages and their pedagogic influence.

Supported by interviews with architects, academics, students, developers and planners, the thesis argues that government policies, client motivation, and failings in the professional regulatory system have collectively contributed to the distortion, erosion and fragmentation of foreign architects' role in China, as well as to a change in their recent relationships with Chinese architects.

Building on this analysis, Chapter Six examines the indicators of a new set of professional relationships between foreign and Chinese architects.

The chapter sets out the general political and economic parameters of the 'New Normal' and proposes them a new point of departure for both foreign and Chinese architects. The new developmental priorities and policies of the state and an appraisal of emerging market conditions under the 'New Normal', provide the evidence for this speculation about new

types of clients and developers, who are shifting their focus to explore new typologies, new locations, and the value of quality.

Critically, the chapter will explore the emerging changes within the architecture profession itself. This entails an examination of the impending changes to the regulatory framework that govern the profession. More fundamentally, the chapter addresses the changing attitudes to foreign architects' contribution in China, in contrast to a new generation of western-educated Chinese architects, who are becoming increasingly dominant within the profession and the wider architecture discourse.

Chapter Seven, the concluding chapter, evaluates the claims made in Chapters Five and Six, of a break in the cyclical pattern of western dominance in architecture with the onset of the New Normal, assessing the technological, cultural and ethical relevance of foreign architects' continued presence in China in the coming years.

2.0 METHODOLOGY

In conducting research for this thesis, I have utilised Grounded Theory as its principal research methodology, supported by other qualitative methodologies such as case studies, and ethnographically informed field visits, as well as the use of visual diagramming as a specific research technique in service of these methodologies.

Contemporary Chinese architecture is a vast and multi-faceted field of study. Should one address the much reported issue of architectural imitation? Or perhaps the phenomenon of ghost cities such as Ordos? What of the official fanfare and subsequent public mockery of 'starchitect' icons? Beyond the physical, tangible and visible, are there other aspects of contemporary Chinese architecture that perhaps merit even more attention, such as the state of architectural education, the relationship between native and foreign architects, the changing nature of the Chinese client, etc? Indeed, when faced with the sheer breadth of the area of inquiry at the outset, it is difficult to discern and prioritise one question over another, one issue over another.

As a practising architect and studio teacher with a Chinese ethnic and cultural background, it was important to me that the research should be focused on the relationship between foreign and Chinese architects in China, as they navigate the complex reality of architectural production and practice in China.

As such, the thesis requires an understanding of foreign and Chinese architects, along with other relevant 'actors', from their own subjective perspective and frame of reference.

Therefore, in its examination of the relationship between foreign and Chinese architects within the reality of practice in contemporary Chinese architecture, this thesis will be gathering and analysing 'primary data' that are predominantly qualitative and phenomenological in nature, shaped by the participating 'agencies' or 'actors', as well as the sensibility and sensitivity of the researcher. Nevertheless the objective remains a balanced and nuanced assessment of current complexities developed beyond a reliance on anecdote.

Such an undertaking demands a range of research approaches that works inductively from the ground up, unprejudiced, allowing the data to speak for itself and re-shape the research focus as and when necessary. Such a methodology should also allow one to immerse oneself in the world of the research subject, without predetermined hypothesis, and allow the research question to emerge from the primary data encountered, to be further refined by the researcher's own sensitivity and sensibility.

These objectives and intentions firmly located the principal research methodology of this thesis within the realms of Grounded Theory.

2.1 Grounded Theory and its application

Grounded Theory was first proposed as a qualitative research methodology in the social sciences by Barney Glaser and Anselm Strauss in 1967[22], following the 'constant comparative' methodology in their work on dying hospital patients, which later became Grounded Theory.

Grounded Theory believes in the generation of theories from empirical data, without *a priori* hypothesis, with no pre-conceived theoretical prejudices against the research subject, allowing new knowledge to 'emerge' from empirical data through a process of constant comparison. As such, Grounded Theory often demands that the research question addresses the concerns of the researched. The research question often begins its life as a much broader field of interest. The question is then continually evolved, changed and become more focussed.

It is believed that such an open-ended approach in initiating a research process would avoid the consequences of a theoretical 'Procrustean Bed' where pre-conceived hypothesis may adversely influence the way empirical data about a phenomenon is gathered, and theories are 'forced' onto data, leading to its misuse in validating the favoured hypothesis.

In practice, the majority of researchers, following Strauss and Corbin, utilise a series of now standardised and widely accepted methodological

[22] Barney G. Glaser and Anselm L. Strauss, *The Discovery of Grounded Theory: Strategies for Qualitative Research* (Aldine Transaction Publishers, 1967)

steps in the application of Grounded Theory[23]. The following description tracks this procedure as it is applied in the research for this thesis.

2.1.1 Data and theoretical sampling

Grounded Theory begins with the gathering of data within the researcher's field of interest. Glaser and Strauss differ significantly in their opinion on the nature of this process. Whereas Glaser argues from a more purist point of view where 'all is data', Strauss and Corbin believed that such an approach runs the risk of 'naïve empiricism', and that a certain 'theoretical sensitivity'[24] was necessary to avoid the pitfalls of 'drowning' in data. This 'theoretical sensitivity' is a heuristic filter applied to the data gathering process, informed by the researcher's own knowledge, experience, curiosity and intuitions. The researcher's theoretical sensitivity informs the gathering of data based on their potential ability to contribute towards building new knowledge and new theory. As such, data gathering guided by this implicit theoretical sensitivity is referred to as 'theoretical sampling'.

In the case of this thesis, my theoretical sensitivity is defined by my own prior knowledge, experience and intuitions about the practice of foreign and Chinese architects within the contemporary setting. Sharpened further by the undertaking of literature reviews, this theoretical sensitivity enables me to make heuristic, inductive decisions on what kinds of data I wish to gather, and the method with which I ought to do so.

The primary source of data for this thesis come from first hand interviews. The interviews initially aimed to include a broad range of voices. This allowed for a broad foundation upon which theoretical sampling can comfortably take place. In engaging architects embedded in the world of professional practice in China, I undertook interviews with foreign international architecture practices, Local Design Institutes, as well as private Chinese practices, ensuring that all types of professional practices were covered as part of the sampling process. The same criteria were applied to interviews with categories of clients: international clients, private clients, and state clients, to gain a broad perspective. Educators

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[23] Juliet Corbin and Anselm Strauss, Grounded Theory Research: Procedures, Canons, and Evaluative Criteria, *Qualitative Sociology,* Volume 13 (1990)

[24] Barney G. Glaser, *Theoretical Sensitivity: Advances in the Methodology of Grounded Theory* (The Sociology Press, 1978)

Figure 1: Photos of Chen Yizhong, interviewed at Testbed II, Chongqing, during a tour of the site

from architecture schools and policy makers were also included. All participating agencies, characters, and individuals were at first given an equal voice: the extraordinary and the everyday; the novel and the typical, the majority experience and the minority experience. In total, 59 interviews were conducted in the research of this thesis (See *Appendix 1: Interviewee Matrix*).

The majority of interviews took place face to face in China, in the cities where the interviewees work. The specific physical settings of the interviews were varied and reflected at times the nature of the conversations themselves: from formal discussions in meeting rooms and in front of drawing desks, to gossip over dinner tables and in the back of taxis, and as part of site visits to specific buildings (see Figure 1 above).

The interviewees were provided with an interview agenda in advance, a thesis abstract, and my own personal profile. In keeping with the Grounded Theory approach, the interview questions at the start of the research process were necessarily diverse and exploratory in nature. This was especially important in the very first round of theoretical sampling, where its is crucial that data are not prejudicially or selectively gathered.

As such, the very first interviews conducted in September 2013, were semi-structured and fluid, so as not to disrupt the free flow of opinions from the interviewees on a wider range of topics related to contemporary Chinese architecture, not just the relationship between foreign and Chinese architects. For example, questions regarding education, visual identity, east-west relationships, were asked alongside questions about the details of professional practice.

This discursive approach to the interviews had two purposes. First, it allowed the interviewees, to dictate the agenda, talk about what they are interested in, and relay what they deemed to be the pertinent issues. Secondly, this more conversational approach created a rapport with the interviewees, enabling me to gain insight to them as individuals, and contextualise their specific opinions within their personal world views.

2.1.2 Documentation and memoing

Data gathered from this process of theoretical sampling need to be documented and recorded. As such, the interviews were voice recorded as digital files when permissions were given, otherwise conversations were noted down by hand. The digital voice files and hand written notes are subsequently revisited and developed into verbatim transcripts after all scheduled interviews in the same field trip have been conducted and concluded.

It should be noted that transcribing the interviews had to meet the additional challenge of language translation. Almost half of the interviews conducted for this thesis were in Mandarin Chinese. The difficulty lay in adequately conveying in English the subtleties, ambiguities, and cultural references that may easily be lost in translation. This is particularly true when sensitive subjects are discussed, such as politics, bureaucracy, hierarchy, and criticism of the status quo. The Chinese language can imply much, but remain apparently reserved, requiring that the reader and listener to discern the message amid the ambiguity. Consequently it was crucial that simultaneous note-taking took place during the interviews to ensure that veiled meanings, opinions and messages were noted at the time of the interviews and not left to misinterpretation at a later time.

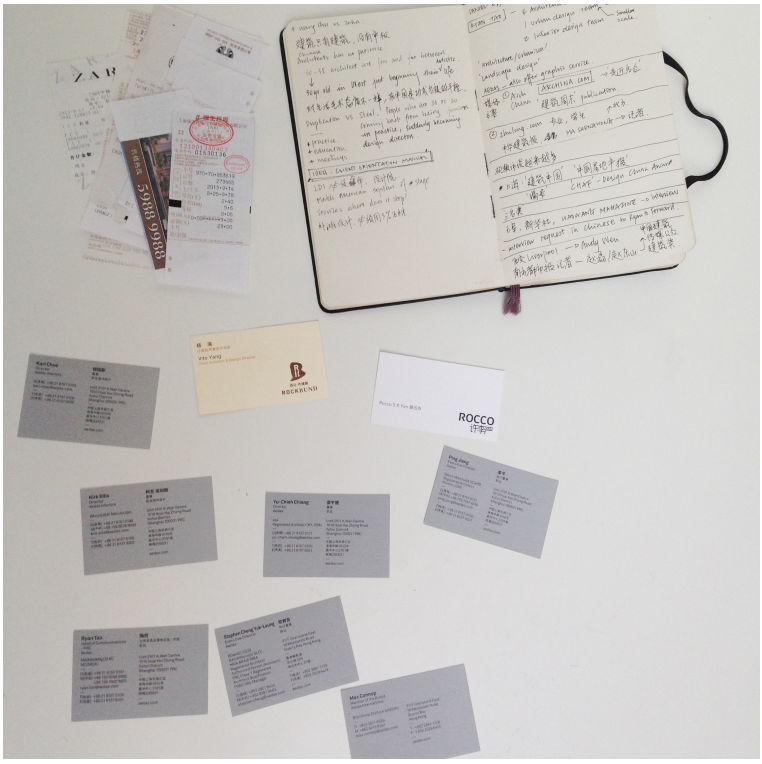

Figure 2: Example photograph of interview notes and memoing.

Throughout this seemingly neutral process of documentation, I also noted down by hand my own thoughts and responses to the interviewees alongside notes of their opinions and comments (see Figure 2 above), in a process known within Grounded Theory as 'memoing'. On several occasions, rudimentary visual diagrams were also drawn in sketchbooks to clarify descriptions and opinions relayed to me by the interviewees. This is a spontaneously, concurrent and reflective process designed to constantly engage the researcher's theoretical sensitivity as the theoretical sampling is taking place. These memos will contribute to the subsequent analysis of the data, guide the curation of further theoretical sampling, and even offer early intuitions that can be developed into theoretical positions.

2.1.3 Coding and conceptual categories

The documented data is immediately analysed thoroughly in painstaking detail. In the case of interviews, the transcript and the recordings are examined by the researcher line by line, noting down important fact, idea, meaning, and opinion as they emerge. This process is known as coding in Grounded Theory. No data is too small, or irrelevant, and all emerging points must be coded thus. Coding can be applied to the data itself as well as the researcher's memos, which, according to Glaser, is also data. Open

Coding could also be coupled with its own memos. The purpose of coding is to extrapolate from the data a series of categories under which the data can be grouped by concepts. In the case of interviews, this exercise helps with the cataloguing of significant content within long and at times meandering conversations. These 'conceptual categories' represent all and any possible theoretical hypotheses that may arise from the coding process. As such, many conceptual categories may emerge from the first round of theoretical sampling and coding. Some of these will be pertinent to the researcher's general field of interest, others whilst not explicitly related, may help to reshape the researcher's field of interest. Therefore it is important that they are not prematurely dismissed.

Where this thesis deviates from conventional methods of coding under Grounded Theory, is its used of visual diagrams as well as written notes in the coding and developing conceptual categories.

In architecture, the diagram plays an important role in both professional and theoretical realms, as a powerful tool to communicate facts, analysis and concepts. It is also a way of think: the generation of a diagram itself is a process of categorising and distilling data and ideas. Diagrams, through their graphic and visual nature, provide conceptual clarity, but at the same time have the flexibility to be re-configured to accommodate the arrival of new data and their interpretation. Critically, the diagram provides a visually explicit and accessible way to identify new and underlying relationships within the data that are difficult to examine or communicate through non-visual means.

As such coding through diagrams is an effective method to capture the emergence of conceptual categories from the research data. For example, initial interviews with foreign architects and Chinese architects provided a basic set of information with which a visual flow-chart was created, diagraming the critical stages of a typical construction project in China involving foreign and Chinese architects, from its commission to its completion. As part of this coding process, the opinions of interviewees extracted from the transcripts are mapped onto various part of this project flow chart to visualise at which stage concerns from the interviewees are registered. This mapping helped to focus the interest of the thesis in part on the crucial relationship between foreign architects and the ex-state owned

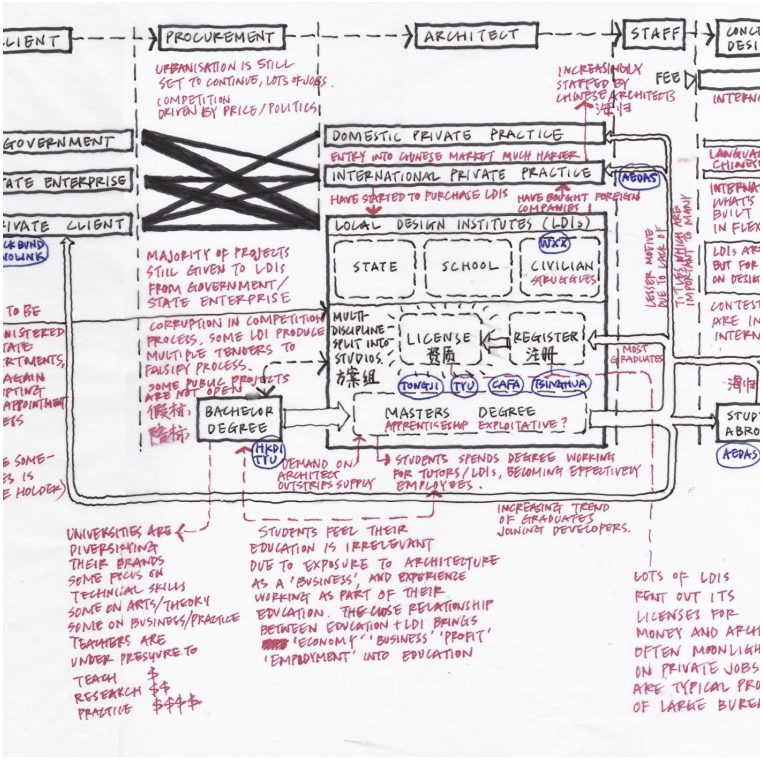

Figure 3:
Excerpt example of hand written notes and diagrams made after interviews as coding

Local Design Institutes (LDIs), and the perceived problems therein (see Figure 3 above). This conceptual category of foreign/LDI relationship, as part of a bigger core concept of the relationship between foreign and Chinese architects, is then able to inform further theoretical samplings in the form of follow-up interviews to offer an explanation for the problems relayed by the interviewees (See *Appendix 5: Typical Project Flow Chart*). Through this process of diagramming, data are categorised, and analysed, and concepts emerge from the analysis of these data, which inspires further theoretical sampling, and the eventual emergence of a hypothesis.

2.1.4 Constant comparison and the development of theory

As the research develops, newly generated conceptual categories will need to be tested against new data, which will begin to curate the list of diverse conceptual categories from the beginning done to a more selective one from which theoretical hypotheses may be developed. As such cycles of theoretical sampling, data coding, and conceptual categorisation ensues. With each cycle, the researcher must constantly compare the new data against their predecessors, and assess the new data against the established conceptual categories. Some of the new data may well fit into established categories; some may not, in which case new categories are established. As

such the cyclical process tests and refines the researcher's theoretical sensitivity as the categories increase or become further embellished. Eventually, one or a few conceptual categories will emerge as dominant, able to incorporate each cycle of new data, indicating their relevance and importance to the development of a theory, and reaching a status of 'theoretical saturation'.

The researcher ultimately must construct a relationship between the established conceptual categories, which work together to formulate a particular reading or interpretation of the data, from which a 'grounded' theory emerges. Critically, the theory must be supported by the data it interprets; every concept that constructs the theory must be substantiated with supporting data, and the validity of the data must be substantiated by the rationale behind its inclusion in the theoretical sampling.

2.2 Appropriateness and limitations

The Grounded Theory methodology allows for the inclusion of a very broad and diverse range of data at the beginning of the research process, which is particularly important for a research looking at the evolving relationship between foreign and Chinese architects. Its emphasis on addressing the concerns of the researched subject and the researcher also echoes my ambition to ensure that the thesis respond to the urgent questions asked by architects practising in China today. The coding procedures of the Grounded Theory approach also lends themselves well to the type of data the thesis will be collecting, such as interviews. The 'all is data' philosophy also accommodates more bespoke and nuanced types of data in the formulation of theories, from the facial expression of an interviewee which may be hard to empirically quantify, to the inclusion of creative writing as a valid and important part of literary review. Ultimately, Grounded Theory allows for the intuitive emergence of a theory through cycles of data coding, as well as the organic immersion of myself into the world of my researched subjects, a breaking of the 'glass wall' that bridges between the observational and the ethnographical.

However, Grounded Theory is not free from criticism, chief amongst which is the issue of 'where' the ground is, or how big is the 'ground'. In the case

of this thesis, if insights into the evolving relationship between foreign and Chinese architects come mainly from interviews with individuals within the system, how does one choose who to interview, and what qualifies someone's opinions as more or less representative than others?

The key lies in Grounded Theory's difference to a more traditional model of research where data are gathered and tested against a hypothesis. In Grounded Theory, data drive the formation of conceptual categories, which converge and connect to form a tentative 'core category', which is the beginning of a theoretical hypothesis. This 'core' does not fit into the dichotomy of right or wrong of classical research. It is simply more or less fit with the data. It informs the constant calibration of the theoretical sensitivity of the researcher and guides the process of further theoretical sampling. Knowing and acknowledging the limitation of the data ensure that the theoretical positions we arrive at under Grounded Theory can adequately explain the data, and is rigorously supported by the data, no matter how narrow or broad the data may be.

2.3 Ethical Considerations

There are important ethical considerations in a thesis of this nature, where interviews are the primary form of data collection. In China, the sharing of information is a particularly delicate process. People's willingness to speak to a significant extent is affected by the prevailing socio-political, and bureaucratic environment within which the interviewees operate. Certain topics and issues are subject to political sensitivity, commercial secrecy, the cultural traditions around 'saving face', and the power relationships in the employment structure. As such the official account of the facts may differ significantly from unofficial accounts 'on the ground'. This is particularly pertinent when discussing issues concerning state affiliated entities, such as the education institutions, and the formerly state owned Local Design Institutes. Some interviewees may feel that their workplace relationships or career progressions could be damaged if their opinions are shared more widely without the protection of anonymity. In fact, several interviewees specifically requested to remain anonymous. To gain balanced views of the agencies under study, I sought out official interviewees and unofficial interviewees from the same organisations, where necessary and possible, to

provide context for each personal account. Most importantly, the thesis strictly respects the request of the interviewee with regard to anonymity.

2.4 Literature Review in Grounded Theory

The critical difference between a literary review under Grounded Theory compared to other research methodologies, is the fact that there is no preconceived hypothesis to guide the selection and inclusion of the literary sources at the beginning. Therefore, at the outset of research, the literature review for this thesis is necessarily diverse in nature, and wide in scope, with the aim to avoid prematurely excluding data based on prejudices. In fact, Grounded Theory approaches tend to defer the undertaking of literature review until theoretical sampling has begun.

Within the guidance of the above, the thesis has draw on academic papers, critical writings, and journalistic reports in both English and Chinese. Discussion of Chinese architectural history by mainland Chinese scholars must always be contextualised within their political environments, in order to identify instances where facts maybe compromised and opinions maybe restrained. Uniquely for China, Chinese digital media articles and social media outlets are important sources of information, as these media are less controlled by the state and can disseminate information more freely. However, Chinese cultural practices on the internet make information and its sources harder to trace and verify, and must be treated with care.

Crucially, and as advocated by Grounded Theory, fiction and creative writing are also valid sources of data in the literature review process. For example, the book *You Can't Change China, China Changes You*, a semi-autobiographical book chronicling life as a foreign architect practising in China, offers valuable insight into the attitudes of an international architect, and provide a point of comparison for the interviews with other international architects.

2.5 Other Supporting Methodologies

2.5.1 Case Studies

In addition to Grounded Theory, which guides the undertaking, documentation, and analysis of interviews, and to some extent the process of literature review, this thesis also relies on cast studies of specific building projects as a supporting methodology.

The commission, design and delivery of a building project is a unique undertaking which bring together multiple actors, agencies and processes, where the relationship between the actors under different agencies are explicated through the process of bring a building into being.

The case study methodology allows the research to provide an in-depth description of a single 'unit' in real life, which can be a building, a site, or a process. Case study utilises multiple data collection techniques and provides a rich, holistic description of the subject matter, the explication of which supports or informs the researcher's development of theoretical hypotheses. The case studies used in this thesis can be best described as 'instrumental'[25] case studies, which are selected because they are representative of the issues under discussion, and their inclusion help with providing insight in the understanding of that issue.

By looking at how a particular project is conceived and commissioned by the client, designed by the architect, approved by the policy maker, executed by the Local Design Institute, and constructed by the contractor, these project case studies provide a narrative context and framework, so the various agencies and characters are not analysed in isolation and their relationships are explored. Vice versa, this methodology also allows the thesis to interpret the quality of the physical built environment in terms of the actions of the agencies and characters that contribute to its creation.

This thesis includes seven such case studies of projects of various scale, nature, and stage of completion, to reflect on the role played by the various agencies in the creation of buildings. The buildings will differ in their public profile, built quality, and the level of involvement from each participating agency that collectively bring them into being. For example,

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[25] Robert E. Stake, *The Art of Case Study Research* (London: Sage Publications Ltd, 1995)

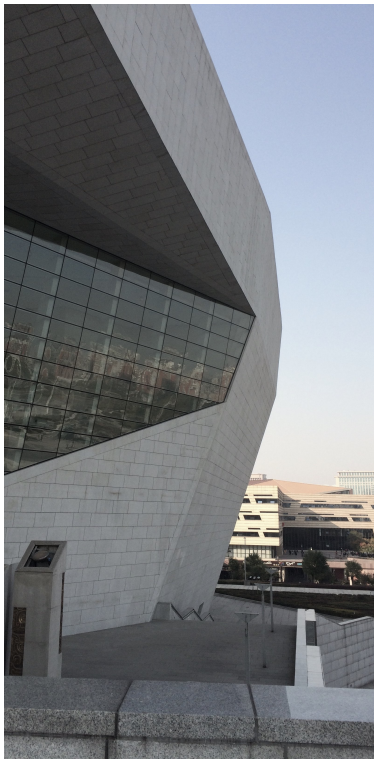

Figure 4:
(Far left)
Rockbund, Shanghai, case study site visit (photographed by the author)

Figure 5:
(Left)
Changfeng Culture District case study site visit (photographed by the author)

in Shanghai, the thesis will examine the Rockbund Development (see Figure 4 above), a high profile, medium scale development commissioned by Sinolink, designed by Architectonica and David Chipperfield, executed by Zhang Min Architecture Design, and constructed by Huajian Construction. In contrast, In Taiyuan, the thesis will identify a high profile, large scale, urban planning project (see Figure 5 above) designed by a collection of foreign and local architects for the local government and executed by Local Design Institutes. As with the criteria for interviews, the case studies are designed to expose how variations in the behaviour of the relevant agencies can result in dramatically different completed project.

2.5.2 Field Visits

Along with the case studies, the research for this thesis also entailed field visits to selected Chinese cities, which allowed me to be completed immersed in the professional and physical environment that I wished to study.

This research approach can be loosely described as ethnographic in nature, which as a qualitative methodology has its roots in anthropology, and studies the naturally occurring behaviour of a subject matter. It seeks to

understand the cultural patterns and perspective of the subject matter within its own natural setting, forming a holistic description of context and cultural themes.

In the case of this thesis, the field visits allowed me as the researcher to gage the validity of some of the claims and opinions offered in interviews, as well as how the case studies are situated within the generalities of the built environment. These visits also provided me with the opportunity to discover other questions and concerns which had eluded the interviews and case studies, but had made themselves know through my own observations and impressions during the field visits.

Chinese cities could be viewed through any number of conceptual lenses, and many levels of subtlety exist. For example, while both cities have an international profile with iconic architecture, the colonial legacy of Shanghai makes it a distinctively different city to Beijing and its cultural-political heritage. Both Shenzhen and Ordos have developed rapidly over a short period of time, but whereas Shenzhen is dense and vibrant after 30 years of development, Ordos is a virtual ghost town just after 10 years. Chengdu and Taiyuan may both be inland provincial capitals, but in reality the first benefits from a western pivot of government economic policies, while the second saw a decline in GDP growth in 2013 and a slower rate of urban development. As with the interviews, case studies and literary reviews, field visits were approached with an awareness of the researcher's theoretical sensitivity. This meant not allowing oneself to be drawn into a whistle stop tour of countless cities, but carefully choosing which cities to examine and visit based on a set of clearly defined criteria relating to their scale, location, political, economic and cultural importance, relationship with the West, and vibrancy of architectural professional activities. The aim of this thesis was to visit cities that represented both the extreme and the typical within the frame work of these criteria, so the 'extraordinary' is experienced and examined alongside the 'everyday'.

Following the above criteria, seven cities were visited extensively as part of the research undertaken for this thesis. (See Figure 6 overleaf, please also see *Appendix 2: Field Visits Location Map*)

Hong Kong is included as part of the field visit due to its position as the most 'westernised' of Chinese cities. As an ex-British colony, Hong Kong

Figure 6:
Map of field visit cities (cities visited highlighted in red)

has a mature architectural profession based on western systems, where a significant number of international practices are based, many of whom saw Hong Kong as a point of entry into the Chinese market. Additionally, Hong Kong was one of the earliest asian cities to undergo a dramatic transformation of its urban environment as a result of market driven economic growth, became an exemplar for mainland China when itself embarked on an agenda of reform and opening up in the 1980s.

Beijing and Shanghai were chosen due to their political, economic, cultural, and professional significance, which put them in a unique class when compared to other Chinese cities. They both have a rich history of engagement with the West, and are hotbeds of architectural practice, theoretical debate, and education, involving both foreign and Chinese. At the same time, their shear size in terms of area and population are representative of many other so called first tier[26] cities. Their pursuit in recent decades of a superlative and iconic built environment is also representative of many other first tier cities.

[26] The division of Chinese cities into first tier, second tier, third tier, and fourth tier has been going on for over a decade. This is not an officially recognised classification as far as the Communist Central Government is concerned. The list is typically compiled by financial journalists within state sanctioned publications. The ranking of tiers is typically based on GDP, population and political importance. The widely recognised first tier cities are Beijing, Shanghai, Guangzhou and Shenzhen. With over 20 second tier cities typically made of provincial capitals, and there are dozens of third tier cities.

As an example of dramatic urban expansion under the post-Mao era market economic reforms, Shenzhen was included on the list of field visits. The transformation of Shenzhen from a small fishing village to a large first tier city in just a little over 30 years, has always represented the pace of progress and transformation in China's urban environments. By learning from and engaging with Hong Kong, Shenzhen's growth path has itself become the exemplar upon which many other Chinese cities have modelled themselves.

Chengdu and Chongqing are included on the field visits list as these represented a whole set of under reported and under-examined second tier (sub-first tier) cities which are gaining prominence and significance politically, economically, and culturally. The growth model of first tier cities such as Beijing and Shanghai continue to perpetuate in places like Chengdu and Chongqing, sometimes at an even faster pace, which has led to both foreign and Chinese practices moving and opening offices in these new regional locations.

Further down the scale of profile, size, and growth, the city of Taiyuan is also included on the list of field visits, as it represented a large number of more inland second tier cities whose development have lagged behind the likes of Beijing, Shanghai, and Shenzhen, despite dramatic growth figures by western standards. In this sense, Taiyuan is representative of the vast majority of urbanity across China. However, Taiyuan and many cities like it, harbour aspiration to emulate the more illustrious first tier cities, albeit under more archaic and bureaucratic professional environments. This means that the city is also representative of the territories beyond the first tier cities where foreign and Chinese practices are increasingly turning their attention to.

2.6 Summary

This chapter has framed the research within a qualitative and phenomenological approach. Grounded Theory was explained and discussed as an appropriate research methodology for a thesis of this kind. As a primary source of material, the criteria, preparation and documentation of interviews were also discussed in length, as well as the

use of diagrams as a tool of conceptual analysis. The chapter also set out the research approaches adopted for case studies and field visits as supporting methodologies. The final component of theoretical sampling, the literature review, is addressed in the next chapter.

3.0 LITERATURE REVIEW

The focus of this thesis, on the evolving relationship between foreign and Chinese architects, is located within a rich body of scholarly works by other, as well as a wider field of existing knowledge on the general discourse of Chinese architecture.

In context of the structure of this thesis, the literary sources consulted broadly fall into two categories: writings on history, and writings about the present in terms of that history.

3.1 Writing about history

Critical to the thesis' understanding of the past are a foundation of descriptive surveys of history which provide a general chronological account of key buildings, people and events in the evolution of Chinese architectural discourse. The sources consulted cover a large span of time, from surveys of China's classical architectural heritage, to documentations of architectural output in the last decade. Some of these writings only touch upon the relationship between foreign and Chinese architects, others are more in-depth and informative. These descriptive work provide a basis for further scholarly writings which seek to critique and reflect on specific histories, or history as a whole. These critical histories are key in setting out the framework within which this thesis develops its own positions on historic interactions between foreign and Chinese architects.

3.1.1 General history

The first part of this thesis addresses the past of the relationship between foreign and Chinese architects, and as such historical texts were an important source for this analysis.

Chinese architecture has long been the subject of scholarly writing as far back as the 5th century B.C., when the ancient text *Kaogong Ji* recorded various aspects of construction crafts. This is followed by other historic text

such as the 11th century *Yingzao Fashi*[27] and the 17th century *Yuan Ye*[28] (园冶), which relayed the principles of design and construction of carpentry, buildings and gardens. Chinese architecture has also been indirectly and visually documented in historic paintings such as *'Along the River during Qingming Festival'*, a painted scroll completed by Zhang Zeduan between 1085 and 1145.

In modern scholarship, the critical juncture in the writing of architectural history began with Liang Sicheng (1901-1972), one of the first generation of Chinese architects, who emerged in the 1920s to be come a prominent practitioner, academic, and pedagogue, commonly credited as the forefather of modern Chinese architecture. Liang's seminal book, *A Pictorial History of Chinese Architecture: A Study of the Development of Its Structural System and the Evolution of Its Types,* first completed in the 1940s, was the one of the first books in English that introduced the history of classical Chinese architecture to the western readership. The book is a culmination of Liang's prolific field work in cataloguing historic buildings across China whilst deciphering the Song Dynasty (10th century) construction manual *Yingzao Fashi*, which codified the grammar and syntaxes of construction and spatial arrangements. This work is captured in the 10 volumes of *Collected Works of Liang Sicheng*[29]. Along with Liang's work, the Chinese text *History of Ancient Chinese Architecture*[30] by Liu Dunzhen, one of Liang's contemporaries, provides yet another comprehensive official account of the tradition and heritage of the classical Chinese architecture. The works of western scholars such as Nancy Steinhardt and Mary Tregear very much follow the canonical work of these Chinese scholars.

The chronicling of Chinese architecture within its classical setting tends to stop at the end of the 19th century and the beginning of the 20th century, with the collapse of the Qing Dynasty and the Confucian feudal order. Whilst western scholarship refers to the entirety of 16th century to the end

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[27] 李诫(宋), 营造法式 (中国建筑工业出版社, 2007) / Li, Jie (Song Dynasty), *Yingzao Fashi* (China Architecture & Building Press, 2007)

[28] 计成(明), 园冶 / Ji Cheng (Ming Dynasty), Alison Hardie (translate), *Craft of Gardens,* (Yale University Press,1988)

[29] 梁思成, 梁思成全集(1-10) (中国建筑工业出版社, 2001-04) / Liang Sicheng, *Collected Works of Liang Sicheng (Vols 1-10)* (China Architecture and Building Press, 2001-04)

[30] 刘敦桢, 中国古代建筑史 (中国建筑工业出版社, 1984) / Liu Dunzhen, *History of Ancient Chinese Architecture* (China Architecture and Building Press, 1984)

of the Second World War in the West as the 'modern' period (Spengler), in the case of Chinese history, scholars tends to begin their definition of modern Chinese architectural history at this point.

Deng Qingtan's *Illustration of the History of China Modern Architecture*[31] provides a general survey of the buildings made by foreign and Chinese architects between in the first half of the 20th century prior to the founding of the Communist People's republic in 1949.

In *A History of Chinese Modern Architecture*[32] the authors Zou Denong, Dai Lu and Zhang Xiangye included the contemporary milieu in their discussions, covering a history from the 1920s right up to 1999. This is a very authoritative and comprehensive work which provides a detailed account of the trajectory of the architectural discourse in China, covering the evolution of theoretical debates, stylistic expressions, professional structures, and pedagogical models in China over a vast period of over 70 years. It does so by referring to critical buildings and people within each historic periods, as well as the overall political, social, economic, and cultural context. Critically for this thesis, the work of Zou, Dai and Zhang refers to the output and influence of western architectural discourse and foreign architects in China as it discusses the circumstances of each historic periods. The book mentions the contribution of colonial architects in the 1920s, the influence of Soviet architects in the 1950s and 60s, as well the works of foreign architects in the period since the implementation of reform in 1978. However, as an overarching chronology, the book did not go into any significant details with regard to specific architects and their specific works. This is particularly the case in its description of the 1920s and 1950s, there are no mention of specific foreign architect by name. Here it must be noted that as an officially sanctioned scholarly text whose writing began in the 1982, to talk extensively about the contribution of foreign architects would have brought unwanted complexities to the orthodox view of imperialism and colonialism, as well the official history of Sino-Soviet relationships, as far as officialdom was concerned. Indeed, discussion of Chinese architectural history by mainland Chinese scholars

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[31] 邓庆坦, 图解中国近代建筑史 (华中科技大学出版社, 2009) / Deng Qingtan, *Illustration of the History of China Modern Architecture* (Huazhong University of Science and Technology Press, 2009)

[32] 邹德侬, 戴路, 张向炜, 中国现代建筑史 (中国建筑出版社, 2010) / Zou Denong, Dai Lu and Zhang Xiangwei, *A History of Chinese Modern Architecture* (China Architecture & Building Press, 2010)

must always be contextualised within their political environments, in order to identify instances where facts maybe compromised and opinions maybe restrained.

In *Direction - Observations and Analysis of 20 Years of Chinese Contemporary Architecture 1999-2011*[33], the author, Huang Yuanzhao, systematically maps the built work of a large collection of contemporary Chinese architects in terms of their formal and stylistic classifications, where buildings and their designers are grouped under stylistic labels, and connected to their supposed theoretical sources and forefathers in the West. However, by reducing the motivation of Chinese architects to purely aesthetic tendencies alone, Huang's examination of contemporary history and the recent past neglects the underlying political, economic, cultural and professional agencies that inform the stylistic decisions of these Chinese architects. Critically, while Huang's analysis do refer to seminal western architects whose work defined various stylistic precedents, there is a lack of discussion of the works of contemporary foreign architects in China, and how their interaction with their Chinese counterparts shapes the discussion of style.

3.1.2 Specific histories

These aforementioned broad histories are supplemented by a plethora of texts on specific histories, the following of which are particularly pertinent for this thesis.

In *Chinese Architecture and the Beaux-Arts*, edited by Cody, Steinhardt, and Atkin, the emergence of the first generation of modern Chinese architects in the 1920s is appraised in terms of the influence of the Beaux-Arts education they received in the United States, and the influence of the Soviet Union's Beaux Arts approaches to design and pedagogy in the Mao era. The theoretically, and pedagogically positions of Liang Sicheng and his contemporaries are contextualised through the book's discussions of how Beaux Arts influences from different foreign sources took different forms in different historic settings. Most importantly in the context of this thesis, the

[33] 黄元炤, 流向 中国当代建筑20年观察与解析(1999-2011) (江苏人民出版社, 2012) / Huang Yuanzhao, *Direction - Observations and Analysis of 20 Years of Chinese Contemporary Architecture 1999-2011* (Jiangsu People's Press, 2012)

book hints at a cyclical pattern of relationships between foreign and Chinese influences that transcends specific historic milieus.

A more comprehensive and reflective study of the Nationalist period is to be found in *Modernism in China: Architectural Visions and Revolutions* by Edward Denison and Guang Yu Ren. The book provides a detailed account of the works of both foreign and Chinese architects in the first half the 20th century. Through the works of foreign architects such as Laszlo Hudec, Poy Gum Lee, and Palmer & Turner, as well as the output of Chinese architects such as Liang Sicheng and Yang Tingbao, Denison and Ren brought much needed academic attention to a period of Chinese architectural history that is often overlooked and under-researched, whilst beginning to develop a picture of how the interaction between foreign and Chinese architects contributed towards the flourishing of modernism in China over a very specific time period.

Taking a geo-political based approach, *Beijing Record: A Physical and Political History of Planning Modern Beijing* by Wang Jun provides a more nuanced, detailed, and at times critical account of the activities of Liang Sicheng and his contemporaries in the 1950s and 1960s, when faced against the influences from the Soviet Union. While the book's narrative arch is focused around the planning of Beijing in the 1950s and 1960s, it offers insight into the political context and personal stories that shaped architecture discourse at the time. Wang Jun contrasts the inevitability of political will under Soviet influence against the personal stories of individuals such as Liang Si Cheng, Chen Zhanxiang and other contemporaries, who sought to reconcile their design polemics and intuitions against the ideology of Socialist Realism.

Complementing the general history of architectural production, *A History of Modern Chinese Architecture Education 1920-1980*[34] by Qian Feng and Wu Jiang, published in 2008, presents an official account of the history of architectural pedagogy in China which span the nationalist period, the Mao-era, and the beginning of the post-Mao era. It is particularly detailed on the establishment of the modern pedagogic model based on the American Beaux Arts system, as well as the subsequent Soviet influenced

[34] 钱锋 伍江, 中国现代建筑教育史 (1920-1980) (中国建筑工业出版社, 2008) / Qian Feng and Wu Jiang - *Education of Modern Architecture in China (1920-1980)* (China Architecture and Building Press, 2008)

restructuring of the higher education system in 1952, which led to the establishment of technically focused architecture schools and affiliated state-run Local Design Institutes. The book examines design ideology and teaching methodology under different historic settings, critically contextualised the relationship and interaction between Chinese architectural pedagogy and influences from the West.

3.1.3 A critical approach to history as a whole

Whilst these specific histories have some limitations in relating to more recent histories and contemporary conditions, their success lies in their more reflective and critical approach to history and the relationship between China and the West, albeit within very particular historic milieus.

This reflectivity and criticality is carried out at a more expansive scale by two other critical texts for this thesis: *Architectural Encounters with Essence and Form in Modern China* by Peter G. Rowe and Seng Kuan, and *Architecture of Modern China - A Historical Critique* by Zhu Jianfei.

In *Architectural Encounters with Essence and Form in Modern China,* Peter G. Rowe and Seng Kuan explores the theme of cultural exchange and influence between China and the West in detail. The book considers the historical development of architectural discourse in China as a history of recurrent struggle between two concepts of traditional Chinese philosophy, 'ti' and 'yong', or essence and form. The last century of encounters between foreign and Chinese architects is presented as the confrontation between the concept of 'Chinese-ness' in essence and the application of western modernity in form. This approach enables the authors to re-conceptualise the Chinese responses to western influence within architectural discourse as possibly 'nonlinear in its historical trajectory'[35]. Such as when Rowe and Kuan compare the boom enjoyed by the profession currently to similar situations in the 1920s, and juxtapose the architectural consequence of nationalism in the 1930s, with the 1950s and the 1990s. When comparing against Japan's historic response to its own encounter with the West, the authors note that,

[35] Peter G. Rowe and Seng Kuan, *Architectural Encounters with Essence and Form in Modern China* (MIT Press, 2002), p.205

> To date, China's response to influence has been somewhat more varied, with repeated episodes of acceptance and rejection and perhaps only the beginning of assimilation.

However, Rowe and Kuan's analysis, completed and published in 2002, has become dated, and did not anticipate the era of superlative growth that followed. References to people and buildings in the book have since become peripheral, while the proliferation of 'Starchitecture' and the development of a kind of Chinese critical regionalism in the 2000s were too scarce to be observable to the authors at that particular point in time.

In *Architecture of Modern China - A Historical Critique,* Zhu Jianfei sees history not as a sequence of transformational paradigm shifts, but rather as 'a continuous system running through the twentieth century', where the influence of the West has been both persistent and recurrent, 'no matter how dramatic and full of "new" beginnings'[36] each distinct social political shifts may be. Zhu argues that,

development in the in the 1930s, 1950s, and 1970s played a critical role in preparing in China a formal and ideological bias for the new breakthroughs of recent years to arrive.[37]

Zhu identifies the persistent and recurrent influence of the West on China 'even in the Cold War or the Maoist Period of 1949-78…', so that, 'a subtle and pervasive synchronization between China and the outside including the West has been going quietly all the time.'[38]

Further, Zhu argues that the 'flow of impact from the world and the West into China' and the 'flow of impact from China to the world and the West' formed a 'moment of symmetry'[39] during the period between 1996 and 2002, where China was 'absorbing a "criticality" from the West', and the West was 'absorbing a "post-criticality" from China.'[40] This 'moment of symmetry' provides an effective conceptual framework within which the

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[36] Jianfei Zhu, *Architecture of Modern China - A Historical Critique* (Oxford: Rutledge, 2009), p.241

[37] ibid.

[38] ibid., p.242

[39] ibid., pp.170-171

[40] ibid., p.190

works of foreign and Chinese architects can be discussed and related to each other during that period, as well as before and after.

Zhu speculates on the balance of power between foreign and Chinese architects, and the reciprocal impact of China on the West is discussed and given careful and equal consideration. The 'moment of symmetry' is a transformative point of no return, a critical threshold, after which he posits the 'opening of a new era, one that has been and may continue to be liberal and sustained'[41].

Zhu's rather optimistic speculation about the future was based on a period of sustained fast-paced economic growth and development in China, which has since been supplanted by new and significant economic, political and cultural shifts that indicate a more complex future.

3.2 Writing the present

In its effort to understand the contemporary challenges faced by the relationship between foreign and Chinese architects, the thesis refers to a range of scholarly writings on the present conditions of Chinese architecture. The complexity and fluidity of contemporary conditions means that an understanding of the present need to be constructed from a thematically diverse and at times disparate collection of scholarly work. This ranges from texts which focus exclusively on immaterial agencies such as policies and the economy, to work which examine an exclusively visual and physical phenomenon such as urban expansion and architectural imitation. Additionally, in order to understand the present conditions, particularly the context of contemporary professional practice, the thesis also draws from a range of subjective accounts of the reality of practice in China, from both foreign and Chinese sources. Such work offer a rich world of first hand experiences, and echoes the thesis's own phenomenological approach.

3.2.1 Specific issues and phenomena

A chronological approach becomes problematic when it comes to dealing with contemporary histories and current conditions within Chinese

[41] Jianfei Zhu, *Architecture of Modern China - A Historical Critique* (Oxford: Rutledge, 2009), p.244

architecture, particularly since the implementation of the Reform and Opening policy by Deng Xiaoping in 1978.

Understandably, it is very difficult to provide both up-to-date and reflective accounts of contemporary issues given the speed and volatility with which the profession, the discourse, and the built environment are changing in response to constantly evolving political, socio-economic, and cultural conditions. Consequently, works which attempts to capture 'moments in time' risks becoming arbitrary and anecdotal. Books such as *New Chinese Architecture* by Zhi Wenjun and Xu Jie, and *M8 in China Contemporary Chinese Architects* edited by Peter Cachola Schmalz and Zhi Wenjun all risk becoming monographs and coffee table picture books that do not engage in critical observations beyond the impact of the visible.

Given the above, many scholarly writings on contemporary Chinese architecture have adopted an approach which focuses on thematically specific issues within the setting of the present or the recent past.

At a macro scale, works such as *The New Chinese City* edited by John R. Logan, and *Concrete Dragon - China's Urban Revolution and What It Means to the World* by Thomas J. Campanella, provide a focused and critical look at how political and economic agencies have shaped urban development of the China in recent decades, dealing with the rapid expansion of the urban realm, and the destruction and renewal of existing city fabrics. In particular, Campanella succeeds in taking a more comparative approach to examine the similarities between the urban growth of contemporary China and earlier stages of city development in the United States. Scholarly work such as these allowed the thesis to establish critical, cultural, political and economic contexts within which a uniquely Chinese *modus operandi* for architectural practice is located, and help me to create a conceptual and political framework with which further data could be incorporated at a more architectural rather than macro scale.

At an urban scale, some scholars restrict their critical observations and analysis within the confines of specific geographical and urban settings, focusing on specific cities, in order to have more control over and develop a more comprehensive understandings of the material at hand. Works such as *Beijing - The New City* by Claudio Greco Carlo Santoro, *Shanghai New Towns* edited by Harry den Hartog, and *How The City Moved to Mr. Sun* by

Daan Roggeveen all seek to use their analysis of specific cities to reveal insights into the wider narrative of continuity and change to China's built environment.

At a more esoteric level, books such as *Learning From Hangzhou* by Mathieu Borysevicz and *Original Copies - Architectural Mimicry in Contemporary China* by Bianca Bosker examine idiosyncratic aspects of contemporary architectural output in context of their relationships with western discourses and histories, as well as the general economic, political and cultural conditions they emerged from.

While these aforementioned work offer critical examinations of contemporary issues from a variety of perspectives, their specificity is also their limitation. By focusing exclusively on a very narrowly field of interest or set of phenomena, these texts can become rather disparate and isolated as academic endeavours.

3.2.2 Wide-ranging analysis

A commendable attempt to provide a panoramic and contemporaneous perspective on Chinese architecture, whilst retaining a sense of historic criticality, can be found in the recently published *Conditions of Chinese Architecture* by Pier Alessia Rizzardi and Zhang Hankun. The book offer a highly ambitious account of China's recent post-Mao era construction boom by taking a multi-faceted approach. Quantitative data and statistics are used to develop an understanding of the underlying political and economic agencies which shape the acute demands on the architectural profession within the contemporary setting. This forms the background for a more revealing thematic examination of the output of Chinese and foreign architects in terms of their varying positions on history and identity, set against a history of western influence in Chinese architecture. The book then solicits contemporary opinions via interviews from prominent Chinese architects at the forefront of contemporary practice.

The expansive approach of Rizzardi and Zhang carries a number of risks. To a certain extent, the work can feel rather descriptive as it portrays the contemporary conditions through big data, the very thing the authors, according to publisher's notes, purports to reject. Secondly, in a very similar folly to Huang's *Direction,* Rizzardi and Zhang once again assess the

contemporary discourse in terms of the stylistic tendencies of Chinese architects, albeit with a better sense of the political, economic, and cultural context that are at play beyond mere theoretical considerations. Whilst they clearly call out a historic continuity of western influences on Chinese architecture, it is still rather episodic, with a lack of an overall criticality in looking at this history and developing any positions on how the role of western architects have evolved, or not as the case may be. The use of interviews with avant-garde Chinese architects is certainly a source of strength. However, they are structured in a way that feels sporadic and discursive. In particular, there's no further discussion of how they are situated against the two other critical parties within the profession, foreign architects and large ex-state Local Design Institutes (LDIs). Finally, the work, developed and published over the last three to four years, offers very little insight into the significant contemporaneous changes that have taken place to the political, economic and professional context, and what this means for the architecture profession in the immediate future, particularly since the ascend of president Xi Jinping in 2013 and the implementation of new government priorities under his leadership.

3.2.3 First hand accounts

Nevertheless, what Rizzardi and Zhang begin to do in their book with first hand interviews and conversations with Chinese architects, represents another approach to writing about contemporary issues.

Such an approach acknowledges the difficulties of maintaining historical objectivity and criticality when dealing with the fluidity of the present, and instead embraces subjectivity as a necessity to understanding the perspective of those who are involved as actors within the system one wishes to study.

Such an approach, which is phenomenological in a manner of speaking, can be seen in books such as *China China… Western Architects and City Planners in China* by Xin Lu, where the author uses first hand interviews and his personal experience of working in China and the West to shed light on the reality of interaction between foreign and Chinese architects in contemporary China.

In a similar manner, one of the most revealing and engaging account of practising architecture in China from a western perspective is found in John van de Water's autobiographical Y*ou Can't Change China, China Changes You*. In a humorous and anecdotal manner, more reminiscent of fiction than non-fiction, the book recounts the experiences of the Dutch architect in China in the lead up to the 2008 Olympic Games, intent on realising his architectural ambitions during China's construction boom. Through his vivid stories of wealthy but under-informed clients, inventive yet apathetic colleagues, and projects that changed hands from one architect to another and one style to another, van de Water depicts a chaotic yet vibrant professional environment where his western inhibitions, instincts, and even ethics were constantly challenged, leading him to reconsider his entire position on how best to build in China. Van de Water uses the term 'differentiated architecture' to describe a mode of practice in which architects must acknowledge a different definition of their remit, and work within those new parameters. According to van de Water, the architect must be able to see the necessity of engagement even in the most compromising situations, and endeavour to add value with his or her intervention to maintain integrity. Quality is to be achieved not because, but despite the brief, the client and the project context. To the degree that these conditions still pertain, this book provides a benchmark against which opinions of selected relevant interviewees can be measured. John van de Water was also interviewed for this thesis, where further questions on the role of the foreign architect were put to the author (see Chapter Five).

These long form subjective accounts are complemented by a rich supply of Chinese language texts, as well as articles in magazines and journals, in which practising Chinese architects offer their personal experiences and observations on what it means to practice architecture in China. A survey of *Time and Architecture,* a Chinese language periodical magazine with a wide professional readership and acknowledged academic reputation, shows regular issues in which practitioners elaborate on their experiences and the questions facing their practice. These articles are diverse in their subject matter and plural in their opinions, but nevertheless there are shared concerns, particularly with regard to how practitioners should reposition themselves in changing pedagogic, political, and economic conditions.

Articles such as *Consumption Dreams and Architectural Carnival in China Since 1992*[42] and *Shanzhai Architecture under Extreme Conditions with Two Cases*[43] are typical of these concerns. The reality of practice can be glimpsed in insightful articles such as *Unravelling Trajectory - An Alternative Description of the Discourse of Contemporary Chinese Architects' Thinking and Practice*[44]. Articles such as *Architectural Design Companies' Lack of Architects*[45] explores the economic factors shaping the nature of the profession. *The Essence of Architectural Education*[46] and *Architects' Perspectives on Education and Professional Practice*[47] explore the evolving nature of the pedagogic system, how its contemporary version fits with current professional practice. In the articles *The Institutional Genes of Urban Landscapes*[48], and *Citizen Participation and Community Empowering*[49] the authors examine how changing political policies and ambitions inform the way cities are shaped and decisions are made. These aforementioned topics also on the agenda of many of the official professional and academic forums that take place in China every year. In the Chinese Contemporary Architectural Design Strategic Development Forum which took place in Nanjing, in November 2013, architects publicly disapproved of official intervention in the design of public buildings, as well as their perceived adversarial relationships with foreign architects, both seen as sources of tension in the delivery of the built environment. These and other articles, conference speeches and papers collectively reflect an emergent concern with the political, economic, professional, and pedagogic agencies that confront the architect in the delivery of quality.

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[42] Hua Xiahong, 'Consumption Dreams and Architectural Carnival in China Since 1992', *Time and Architecture* (2010/01)

[43] Wang Yan and Wang Fei, 'Shanzhai Architecture under Extreme Conditions with Two Cases', *Time and Architecture* (2011/03)

[44] Wang Shuo, 'Unravelling Trajectory - An Alternative Description of the Discourse of Contemporary Chinese Architects' Thinking and Practice', *Times and Architecture* (2012/04)

[45] Li Wuying, 'Architecture Design Companies' Lack of Architects', T*imes and Architecture* (2011/02)

[46] Gu Daqing, 'The Essence of Architectural Education - Personal Explorations and the Characteristics of a Time', *Time and Architecture* (2012/04)

[47] Wang Xiaoan, 'Architects' Perspectives on Education and Professional Practice', *Time and Architecture* (2012/04)

[48] Zhao Yanjing, 'The Institutional Genes of Urban Landscape', *Time and Architecture* (2011/03)

[49] Peng Nu, 'Citizen Participation and Community Empowering', *Time and Architecture* (2010/01)

3.3 Summary

The literature review, both academic and general, Chinese and western, provides a critical starting point in understanding the historical and contemporary context, as well as the reality of practice in China over time. It has also revealed a number of gaps in knowledge.

There is for example, a need to critically assess the historic interaction between foreign and Chinese architects beyond the confines of each specific historic milieus, in order to extrapolate patterns of behaviour that may inform how this relationship may evolve in the future.

Further, many existing work examining contemporary architectural production focus exclusively on stylistic matters, without a more substantial and meaningful exploration of the wider political, economic, and professional conditions that drive matters of style. In addition, the role of contemporary avant-garde Chinese architects are always examined in isolation of the other two critical actors within the profession, foreign architects and ex-state Local Design Institutes (LDIs).

Finally, the speed at which circumstances are changing on the ground means that many literary sources no longer provide an up-to-date critical assessment of the current situation, which in turn hinders any pragmatic attempts to speculate about the future.

Given the above, and to answer these gaps, the thesis aims to develop an understanding the relationship between foreign and Chinese architects that is historically reflective, as current as possible in its assessment of contemporary issues, in order to offer insight into the immediate future. It has yet to be seen what the coming years of 'New Normal' will turn out to be. This thesis asks if it is simply another iteration of the ebb and flow of power and influence between China and the West, or the start of a break with the past, and the emergence of a new Chinese architecture culture.

4.0 THE PAST - A persistent presence

Despite dramatically different socio-economic, political, and cultural circumstances, foreign architects have maintained a surprisingly persistent presence in China over the last approximately 100 years, shaping the direction of Chinese architectural discourse, and leaving an indelible mark on the Chinese built environment.

In fact, this persistence of foreign presence can be traced as far back as the mid-eighteenth century, when Italian jesuits Giuseppe Castiglione and Michel Benoist were consulted on the designs of parts of the Old Summer Palace (Yuan Ming Yuan) for the Qing Emperor Qianlong in 1747.

However, as far as the interaction between foreign and Chinese architects is concerned, it begins with the conception of the modern architectural profession in China at the beginning of the 20th Century, and is often divided by scholars into three distinct periods:

The first period spans between 1912 and 1949. A republican revolution led by Dr Sun Yat Sen overthrew the Qing Empire in 1912, founding the Nationalist Republic of China in the same year. Despite the revolution, society remains largely feudal in nature, whilst colonial powers still exercised control over territories ceded to them by the Qing Empire in cities such as Shanghai, Dalian, Qingdao, Guangzhou and Hong Kong. Subsequent Communist historians often referred to this era as semi-colonial and semi-feudal in nature. The end of this era is marked by the defeat of the Nationalists at the hands of the Communist party in 1949, resulting in the founding of People's Republic of China under the Chinese Communist Party. For the purpose of this thesis, I shall simply refer to this era as the Nationalist era. During this period, the presence of western colonial powers brought about the arrival of foreign architects, such as Hungarian architect Laszlo Hudec, British firm Palmer & Turner, and American architect Henry Murphy, who, amongst others, through their practice and projects, disseminated a wide variety of fin de siecle western architectural styles. Along with the dissemination of stylistic inclinations, these foreign architects also introduced to China new building materials and new methods of construction. In response, the period saw the emergence of the first generation of western-educated Chinese architects,

who would go on to shape the course of the native profession, pedagogy, and theoretical discourse.

The second period spans between 1949 and 1976, coincide with the rule of Communist China under Chairman Mao. For the purpose of this thesis I shall refer to this period as the Mao era. This period saw China take on the Soviet model of political organisation, and economic planning. The era is also characterised by a series of political campaigns and purges inited by Chairman Mao, from the Great Leap Forward to the Cultural Revolution, designed to enshrine Mao's vision of socialist China and root out what he saw as its enemies. During this period, particularly the 1950s and early 60s, Soviet architects, acting as expert advisors, played a pivotal role in overhauling the Chinese architectural profession into a system of collectivised practice, where all architects are employed by state administered practices called Local Design Institutes (LDIs). The guidance and influence of Soviet Russian architects and planners such as A.S. Mukhin, E. A. Achepkov and Andreyev, also shaped the trajectory of the Chinese discourse on matters of style, with the adoption of the Soviet interpretation of Socialist Realism in architecture.

The third period begins in the wake of Deng Xiaoping's 'Reform and Opening Up Policy' in 1978. This is a period of re-engagement between China and the West, where reforms were being instituted across the political, economic, and cultural spectrum, to varying extents. While the Communist Party remained firmly in power, market forces and some associated economic liberties were introduced into the economy. The reform allowed for a greater degree of cultural and academic freedom, as western investments, products, and cultural outputs where introduced in China. This process somewhat stalled in the 1990s following the state suppression of Tiananmen Square student protests, following which there were a period of western withdraw from China, reciprocated by a wariness of western influence on the rule of the Communist Party, who had witnessed the collapse of the Soviet Union and the Eastern Bloc. Deng's tour of southern China in 1992 re-established the impetus to continue with market reforms and western engagement, making the way for a period of sustained economic and urban growth which continues to this day. For the purpose of this thesis, I shall refer to this period as the post-Mao era. The start of this period saw the Chinese architectural discourse re-engaging

with the West at the height of postmodernism[50] in the 1980s. Foreign architects such as John Portman came to China in as early as 1979, having met with Deng the year before in the U.S. In the same year, I. M. Pei began designing the Fragrant Hill Hotel in Beijing. This process accelerated from the early 2000s onwards, when foreign architects began to arrive in China in significant numbers, and to take on increasingly high profile projects. This narrative was catalysed by key national events such as the 2008 Beijing Olympics and the 2010 Shanghai World Expo, around which saw the emergence of projects by the likes of OMA, Zaha Hadid, Herzog de Meuron, and Paul Andreu. This period of superlative growth not only saw the rise to prominence of foreign architects in China, but also but also the growth of the Local Design Institutes, a form of practice inherited from the Mao era, having undergone reforms of varying extents. Simultaneously, during the late 1990s and particularly early 2000s, the first generation of Chinese architects who had studied in the West also began to return to practice in China, amongst who are the likes of Chang Yung Ho, Ma Qingyun, Ma Yansong and so on. However, building on this persistence of western presence, this thesis contends that this presence is not contiguous but rather cyclical, characterised by certain re-current patterns of behaviour and interaction between foreign and Chinese architects, despite seemingly distinctive, historical periods. This is demonstrated below in a trilogy of more detailed analysis of the three aforementioned periods.

4.1 The Nationalist era (1912-1949)

As the Qing Empire collapsed in 1912 and the Nationalist government was established, China was in desperate need of modernisation. The preceding century of one sided encounter with the colonial powers had fully exposed the economic, scientific, technological, military, and to some extent cultural superiority of the West at the turn of the 20th Century. Known as the 'sick man of Asia', China's disadvantaged position against the West had made learning from the West all the more prescient.

As early as the end of the 19th century, prominent Chinese scholars such as Zhang Zhidong were already seeking to 'endow foreign knowledge with a

[50] Charles Jencks, *Language of Postmodern Architecture* (Rizzoli International Publishers, 1988)

legitimacy as always being Chinese'[51] in order to justify learning from the West and justify the shifting of balance of power in the West's favour, by advocating 'Zhongti Xiyong' (中体西用) or 'Chinese in essence, Western in application'.

Whereas the role of the architect has been acknowledged in the West since the likes of Alberti during the Renaissance, prior to its encounter with the West China had no formalised equivalent to the role of the architect. Architecture, as a professional practice, did not exist in China prior to the onset of the 20th century. The word 'architecture' as it is translated in Chinese today, 'Jianzhu', did not exist within the Chinese language. In fact, it is a word borrowed from two Chinese characters used in the Japanese Kanji written language. The equivalent word that the Chinese language did use, was 'Yingzao', meaning to 'organise the building of', which relates to the root of architecture in the act of construction and the craft of building. Architecture, as a first and foremost, practical discipline, was certainly not the focus of high-minded Confucian scholarly pursuit. Those who conceptualised, designed, and supervised the realisation of buildings were certainly not worthy of veneration in the Confucian annals, for the activity was rooted in the ungentlemanly reality of construction. In the classic text *Yuan Ye*[52], the author refers to an established consensus that 30% of a completed building should be attributed to the craftsmen that brought it into being, with 70% of credit due to the building's owner. Instead of architects, there were simply master carpenters and masons, who passed their knowledge to their apprentices, and followed the guidelines set out in immutable treatises such as *Yingzao Fashi*[53], written in the twelfth century, which provided clearly instructions on the principles of spatial planning, the motifs of stylistic expression, the use of materials, the building methods, and the details of construction.

It is under these circumstances that the arrival of foreign architects in China must be framed.

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[51] Leigh Jenco, *Changing Referents: Learning Across Space and Time in China and the West* (Oxford Scholarship Online, 2015), Chapter 1

[52] 计成(明), 园冶 / Ji Cheng (Ming Dynasty), Alison Hardie (translate), *Craft of Gardens* (New Haven & London: Yale University Press,1988)

[53] 李诫(宋), 营造法式 (中国建筑工业出版社, 2007) / Li Jie (Song Dynasty), *Yingzao Fashi* (China Architecture & Building Press, 2007)

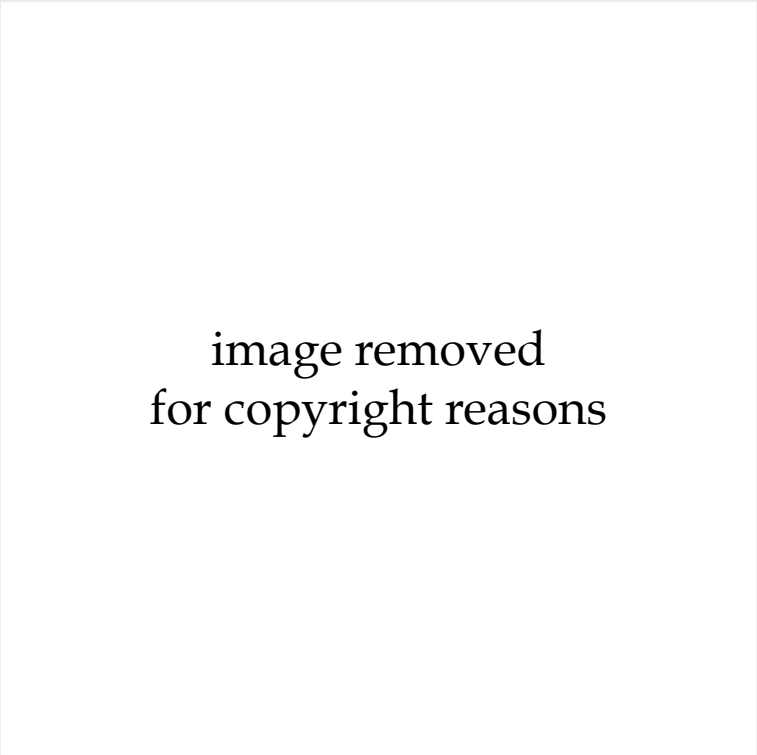

Figure 7:
View of the Bund in Shanghai in 1930s, the cupola of the HSBC Bank by Palmer & Turner can be seen in the centre of the photograph (source: U.S. Marine Signal Corp)

4.1.1 Nature of foreign architects' presence

The arrival of foreign architects in China can be traced back to as early as the 1870s, when the Qing Dynasty began to cede Chinese territories to western colonial powers. In these colonies and concessions, foreign officials and merchants began to build for themselves administrative headquarters, offices, banks, residences, and places of entertainment. For example, Palmer and Turner, a prominent British practice which has survived to this day, was first established in Hong Kong in 1868 by William Salway. The practice then opened its office in Shanghai in the 1920s, where the built environment in the concessions districts, and particularly the Bund, had grown rapidly under the combined auspice of the colonial occupiers (see Figure 7 above). This was the background against which more foreign architects began to congregate in China.

In cities such as Beijing, Shanghai, Tianjin, and Nanjing, foreign architects from diverse backgrounds undertook the design and delivery of many prominent buildings for the colonial enclaves in those cities. Critically, through their presence, foreign architects introduced into China the role of the architect as a critical design professional working within the

Figure 8:
(Above)
Laszlo Hudec
(1893-1958)

Figure 9:
(Left)
View of the China Baptist Publication Society Building (photographed by the author)

organisational setting of private practice, in the delivery of the built environment.

The buildings produced by foreign architects during this period were completed in a variety of architectural styles, ranging from Beaux Arts, eclecticism, neo-classicism, art deco, and early Bauhaus modernism. The most prominent architect amongst this cohort is undoubtedly the Hungarian architect Laszlo Hudec (see Figure 8 above). In a prolific professional career spent mostly in Shanghai, Hudec's work came to define the metropolitan identity of Shanghai and the skyline of the iconic Bund district. His art deco designs can be seen in iconic building such as the China Baptist Publication Society Building (see Figure 9 above) and the Park Hotel in Shanghai.

Beside stylistic differences, these new buildings at the hands of foreign architects were also radically different in terms of the materials used and the method of construction. Buildings such as those by Hudec mentioned above, introduced the use of concrete, steel, glass, and other modern materials to China, whose traditional architecture was one of masonry and timber construction.

In addition to the introduction of new construction methods, architects from Europe, the U.S., and Japan, also brought with them knowledge of how to plan and design a broad range of new building types, which had emerged in China, as modernisation and industrialisation, following the capitalistic models of the West, took place. Building types such as cinemas, department stores, and Fordian factories simply did not exist in China prior to the start of the 20th century. Buildings such as the Lyceum Theatre by British architects Davies & Thomas (1930), and Custom House by Palmer & Turner (1927), were the first of their kind in China.

As the presence and output of foreign architects in China became more notable in the 1920s, the fledgling Nationalist government under Generalissimo Chiang Kai-shek began to engage with and patronise the work of foreign architects. The state sought to cement its political legitimacy and standing amongst nations through the physical creation of administrative and civic institutions which had themselves been based on western models, such as government buildings, universities, and even masterplans for entire cities.

This is evident in the works of foreign architects such as the American Henry Murphy (see Figure 10 overleaf), who drew the attention of Generalissimo Chiang Kai-shek, and was invited by the Nationalist government to design a new masterplan for the city of Nanjing itself in 1928 (see Figure 12 overleaf), then the seat of Nationalist republic's power and China's capital. At this point Henry Murphy had already been involved in the designs of education institutions in Beijing and Nanjing (See Figure 11 overleaf), albeit for foreign client. Separately, Palmer and Turner designed the Bank of China in Shanghai for the Nationalist government in the 1930s. Lee Gum Poy, a Chinese American architect, was entrusted with the completion of the Sun Yat Sen Mausoleum, a monument of national importance which experimented with Chinese vernacularism in masonry. Even Hudec, known mostly for his buildings for foreign clients, had also designed the government endorsed Chapei Power Station in Shanghai in 1924.

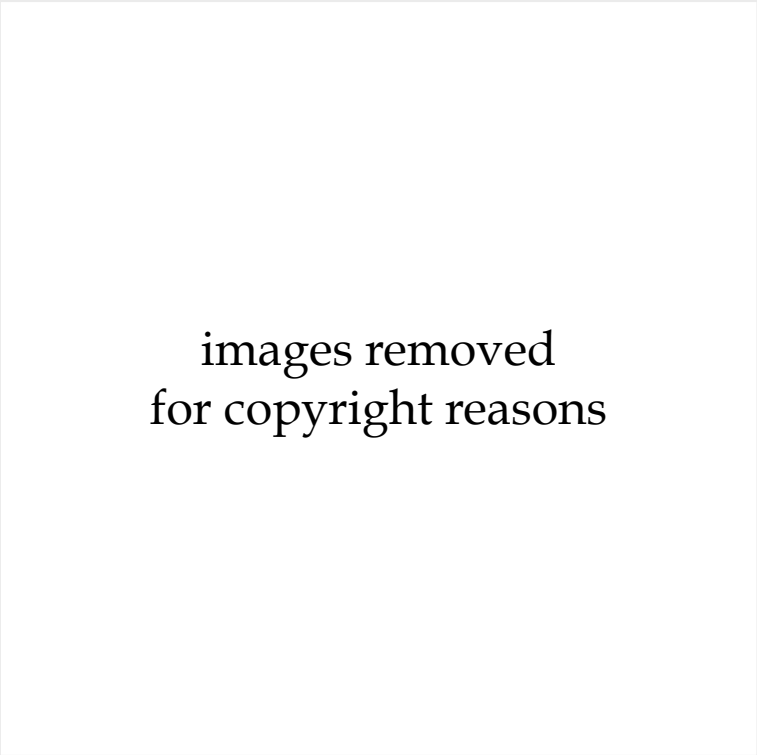

Figure 10:
(Left)
Henry K. Murphy (1877-1954)

(Source: Duke University Digital Collection)

Figure 11:
(Far Left)
Jinlin College, Nanjing by Henry Murphy (Source: Duke University Digital Collection)

Figure 12:
(Left)
Nanking Government Centre Masterplan by Henry Murphy (Source: Jeffrey. W. Cody)

4.1.2 Effect on Chinese architecture

The arrival of foreign architects in China was reciprocated by the movement of Chinese students of architecture abroad during the same period.

Between the 1870s and the 1920s, the clear superiority of western technology at the beginning of the 20th century led to three separate waves of state sponsored students who travelled abroad to study. The first wave, sponsored by the Qing dynasty government, went to study in the USA in 1872, only to be withdrawn in 1881, with the Qing officials fearing that their young minds were being corrupted by the very western thoughts and customs they were dispatched to learn. A second wave of state-sponsored students were dispatched after 1903, this time mainly to Japan, which subsequently became a hotbed of Chinese radicals revolutionaries, from where Dr. Sun Yat Sen plotted to overthrow the Qing empire. A third wave followed in the late 1910s and the early 1920s, this time with Europe and America as the main destinations. Many of those students were funded by the Chinese government as war reparation to the U.S. following China's defeat to multi-national forces in 1900.

Figure 13:
(As numbered)
1. Paul Cret
2. Liang Sicheng
3.Yang Tingbao
4. Tong Jun
5.Lü Yanzhi
6.Chen Zhanxiang
7.Hua Lanhong
8.Wu Liangyong
9.Liudunzhen

This third wave of travelling scholars would return to become the defining voices of their professions. Among them were those who would become the very first generation of Chinese architects, such as Liang Sicheng, Lü Yanzhi, Yang Tingbao, Chen Zhanxiang, Tong Jun, Liu Dunzhen, Wu Liangyong, and Hua Lanhong, etc (see Figure 13 above No. 2-9).

Liang, Yang and Tong had all studied at the University of Pennsylvania, between 1921-1925 under the tutelage of Paul Philippe Cret (1876-1945) (see Figure 13 above No.1), who ran an influential and distinctively Beaux Art curriculum between 1903 and 1937, which in turn had a profound influence on the trajectory of architecture and pedagogy in modern China. The 'sense of esprit de corps that developed among these Chinese students during their years at Penn carried over into their architectural practices and teaching careers.'[54] Chen Zhanxiang was studying under Sir Patrick Abercrombie in 1938 at the University of Liverpool. Liu Dunzhen began his studies at Tokyo Institute of Technology in 1916. Lü Yanzhi studied at Cornell in 1913-1918. This cohort of Chinese architects became the defining figures in the creation of the Chinese architectural profession. The first Chinese private practice, Hua Hai, was founded by Liu Dunzhen and Liu

[54]Jeffery Cody, Nancy Steinhardt, and Tony Atkin (ed.), *Chinese Architecture and the Beaux-Arts* (University of Hawaii Press, 2011), p.59

Shiying in 1922, both of whom were trained in Japan. Other notable practices such as Fan Wen Zhao, and Jitai, all emerged in the 1920s and 1930s, founded on western models and by western-educated Chinese architects.

The development of this first generation of Chinese architects and their practice were catalysed and propelled by foreign architects and practices. Many of the prominent Chinese architects of the time all had experiences in foreign practices either abroad or in China prior to setting up or joining Chinese practices. Yang Tingbao worked in the office of Paul Cret in the United States, before joining the Chinese practice Jitai (Kwan Chu & Yang) in 1927. Lü Yanzhi worked for Henry Murphy first in his New York office, then in the Shanghai office from 1921, before setting up his own practice Zhenyu in partnership with Huang Tanpu. Zhuang Jun, another Chinese architects who had also assisted the work of Henry Murphy in Beijing, before setting up his own practice in 1925. This engagement between foreign and Chinese architects facilitated the transmittance of new architectural styles, technical expertise, and methods of practice in China.

Critically, this engagement was not simply one directional. As foreign architects exercise their influence on China, they were simultaneously being influenced by the Chinese context and the presence of their Chinese counterparts amongst their ranks. There are ample precedents of the presence of Chinese architects working with foreign architects in opening up dialogues about the future of the Chinese architecture discourse, resulting in more nuanced attempts to by foreign architects to address the issue of traditional Chinese architectural culture. Foreign architects such as Henry Murphy, with the help of the foreign-trained Chinese associates Lü Yanzhi and Zhuang Jun, designed buildings such as the Jinlin Women's College (see Figure 11), where explicitly Chinese vernacular architectural motifs were tested in the design of an essentially modernist building with a western programme. Similarly, Lee Gum Poy, an American-Chinese architect raised and trained in the U.S., explored the visual language of his Chinese heritage in buildings such as the YWCA on the Bund in Shanghai, best described as a hybrid of Art Deco and Chinese decorative motifs (see Figure 14 overleaf).

images removed for copyright reasons

Figure 14:
(Far left)
YWCA by Lee Gum Poy (photographed by author)

Figure 15:
(Left)
Peking University Geology department building (1934) by Liang Sicheng (Source: Liang Sicheng)

Figure 16:
(Below)
Sun Ke Villa by Yang Tingbao (Source: Denison, Edward)

On the other hand, whilst foreign architects were experimenting with ideas of Chinese-ness in architectural expression, these activities were reciprocated by foreign trained Chinese architects. Yang Tingbao's Sun Ke Villa in Nanjing is decidedly modernist (see Figure 16 above), reminiscent of the Shroder House by Rietveld. Liang Sicheng designed buildings such as the Bauhaus and Art Deco influenced female students dormitories and Geology Department Building (see Figure 15 above) at Peking University. For his Jen Li Company building, Liang experiments with a masonry interpretation of traditional Chinese timber column and beam detailing, on an Art Deco driven facade. In a smilier vein, Lü Yanzhi's influential Sun Yat Sen Memorial enlarged and replicated in masonry the complex timber roof structures of traditional Chinese architecture, producing a monumental edifice that conveyed permanence, resulting in an almost Beaux Arts interpretation of traditional forms. In an example of deep engagement between foreign and Chinese architects, the project was taken over by Chinese American architect Lee Gum Poy after Lü's death in 1929. These experimentations, by both foreign and Chinese architects, demonstrated how the works of foreign architects set a precedent for subsequent Chinese architects to question the future direction of their profession.

At a more fundamental level, the western education of the Chinese architects had a profound effect in the formation of the Chinese architectural education system, shaping the future of the profession. Liu Dunzhen and Liu Shiying, both educated in Japan, established the very first department of architecture in China at the Suzhou Industrial Specialist College in 1923, offering classes on construction technology, structure engineering, surveying, Chinese and western construction methodologies, Chinese and western history of architecture, and art. Five years later in 1928, Liang Sicheng, established the architecture department at Northeast University in Shenyang, the first formalised higher education curriculum that taught architecture following the western model. Liang's curriculum at Northeast University was the country's first architectural curriculum and it drew heavily from the Beaux-Arts model at Pennsylvania. The Beaux Arts training was rigorous, and hierarchical, with an emphasis on drafting, and a reverence for established canons of historic precedents by previous masters as a necessary point of departure as part of any design process. Such a pedagogy shared many similarities with Confucian principles of learning, which helped in its acceptance and wider adoption in China.

4.1.3 Diverging trajectories

The deep reaching interaction between foreign and Chinese architects during the Nationalist era was brought to an abrupt end by the onset of the Second World War in 1937, signalled by the full invasion of China by Japanese forces in 1937, who had already occupied Manchuria since 1931. The Japanese invasion and occupation brought death and destruction to cities such as Beijing, Shanghai, and Nanjing. The calamities of war, which by the late 1930s had enveloped the entire world, made the practice of architecture virtually impossible, for foreign and Chinese architects.

Critically, the Japanese invasion posed an existential threat to the very notion of Chinese identity, which demanded a response from architects. It is in this regard that the trajectories of foreign and Chinese architects began to deviate from each other. Whilst foreign architects may have facilitated the inception of the Chinese profession, and participated in early experimentations to reconcile China's architectural heritage with western modernity, the war exposed the transitory nature of foreign architects

presence in China, underscored by the colonial root of their presence in China.

Palmer and Turner disbanded their Shanghai office and closed their Hong Kong office during the war. Whilst Laszlo Hudec remained in Shanghai, he ceased his practice and became an administrator at the Axis aligned Hungarian Consulate, leaving China altogether for the U.S. in 1947. Henry Murphy left China in 1935, returning to the United States for the remainder of his life. The Shanghai home of Lee Gum Poy was confiscated by the occupying Japanese forces during the war, leaving him and his family in destitution. Lee eventually left China in 1945 and returned to professional practice in the United States.

The response from the first generation of Chinese architects were decidedly different. Despite the fact that they, along with the Chinese population at large, became refugees and fled the occupied territories for more inland locations, there was an urgency to continue to practice, to teach and to research architecture. With the civil and military administrations of the country relocating to inland western cities such as Chongqing, Kunming and Guiyang, after the fall of Nanjing, Chinese architects such as Tong Jun and Liu Dunzhen opened their practices in these new cities, completing new, albeit mostly state sponsored commissions. Tong Jun completed the provincial archive building, science museum, and library in Guiyang, after which he began teaching architecture as well in the relocated Central University in Chongqing. In the same period, Liang Sicheng turned his attention to the surveying and preservation of historic architecture, traversing non-occupied territories to conduct surveys and research of ancient buildings across China. This period of research would go on to inform his deciphering of the Song Dynasty text *Yingzao Fashi,* and the writing of his seminal work *A Pictorial History of Chinese Architecture*[55].

As such, the war exacerbated and catalysed the breakdown of the relationship between foreign and Chinese architects. The situation was further compounded at the end of the Second World War as the Chinese Civil War took place, which ended with the defeat of the Nationalist government and declared the formation of the Communist led People's Republic of China. By then, the preambles of the Cold War had already

[55] Liang Ssu-Ch'eng (Liang Sicheng) and Wilma Fairbank, *A Pictorial History of Chinese Architecture: A Study of the Development of Its Structural System and the Evolution of Its Types* (MIT Press, 1984)

started to take shape, where the Communist government aligned itself with the Soviet Union, viewing the United States and western Europe as adversaries, which ruled out the possibility of any western architects from Europe and the U.S. returning to practice in China.

4.2 The Mao Era (1949-1978)

The founding of the Communist People's Republic of China in 1949 represented a fundamental paradigm shift in the political, social and economic conditions in China. The country, which was part feudal, part colonial, and part capitalist, became subsumed under the ideologies of communism, which in turn dictated how the political system, the economy, and society ought to operate.

In the aftermath of the Second World War and the Civil War, the newly founded Communist republic was in desperate need of assistance to deal with the devastation of 12 years of upheaval and rebuild the nation.

Between 1950 and 1953, with the absence of foreign architects, Chinese architects took up the task of designing for a new nation rising out of the ashes of war. Continuing the explorations which they had started in the late 1930s, Chinese architects such as Hua Lanhong, Yang Tingbao, and Xia Shichang, saw in modernism the means to address the urgent needs of the nation, delivering functionally driven buildings that can be delivered efficiently, whilst meeting the needs of its users. Caoyang New Village in Shanghai by Wang Dingzeng etc, the Children's Hospital in Beijing by Hua Lanhong, and the Biology Building at Zhongshan School of Medicine in Guangzhou by Xia Shichang (see Figure 17 overleaf), were exemplar modernist projects of the time, where the architects, in providing modern utilities to citizens, also experimented with how the modernist language can engage with China's architecture heritage. Professionally, private and state owned architecture practices co-existed. Pedagogically, the influence of Bauhaus can still be discerned in the curriculum, first instituted by individuals such as Liang Sicheng.

However, these explorations became short lived, as China began to align itself to the Soviet Union more explicitly from 1953 onwards.

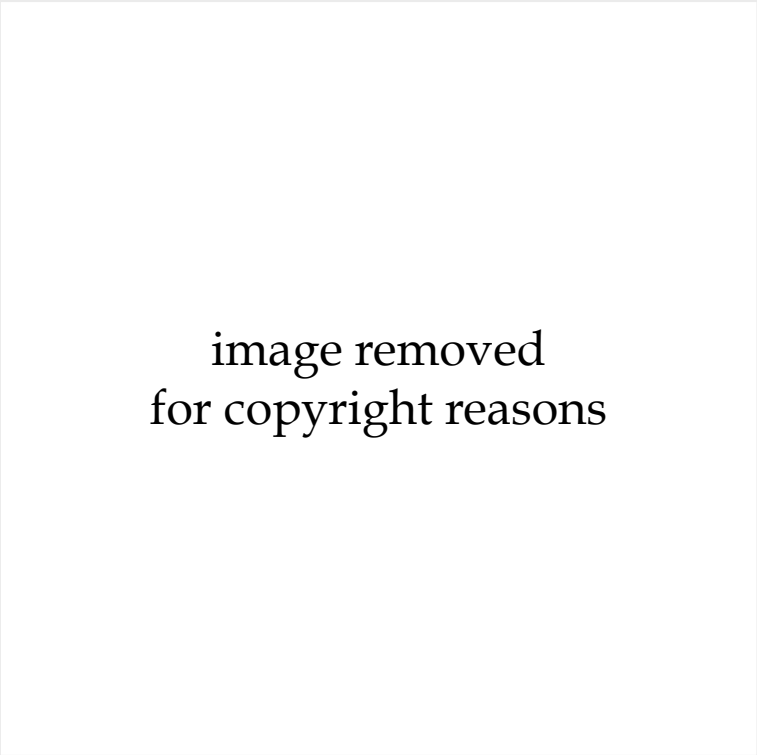

Figure 17: Photograph of Zhongshan School of Medicine Biology Building (1953), Guangzhou, by Xia Shichang (Source: former China State Department of Construction Engineering)

4.2.1 Nature of foreign architects' presence

With a shared political ideology and common strategic global perspectives at the onset of the Cold War, the Soviet Union and China became natural allies. The Soviet Union, being the 'big brother' of Communist International, naturally became the model for China in matters of political ideology, administrative operation, economic activity, and cultural production. This was know as the 'Lean to One Side' policy. These general conditions facilitated the arrival of a second wave of foreign architects and planners in China, this time from the former Soviet Union. Under the Sino-Soviet *Treaty of Friendship, Alliance and Mutual Assistance*, signed in 1950, over 20,000 Soviet experts came to China to assist in the construction of the new nation between 1949 and 1960[56], providing expertise in the field of economic management, manufacturing industries, science, technology, and construction. The government's very first Five-Year Plan for 1953-1957,

[56] 沈志华, 对在华苏联专家问题的历史考察: 基本状况及政策变化 当代中国史研究 2002年第1期 / Shen Zhihua, 'A Historic Investigation of Soviet Experts in China: General Conditions and Policy Changes', *Journal of Contemporary Chinese History Studies*, (2002 Issue 1)

drafted with the help of the Soviet leadership, envisions the completion of 156 major construction projects with the help of Soviet experts in China.[57]

The input of Soviet experts were critical in the dissemination of specialist knowledge relating to new technologies and building types that were hitherto absent in China, but had become critical to the programme of modernisation and industrialisation by the beginning of the 1950s: mass housing, factories, offices, and other state and civil institutions. The Changchun No.1 Automobile Factory, the Harbin Measuring and Cutting Tool Factory, and Factory 798 in Beijing are all examples of foreign designed industrial infrastructure, built with the direct involvement of Russian and East German architects and advisors.

While it was their technical expertise that first brought Soviet experts first to China, it is the dissemination of their positions on the structure of professional practice, language of architectural expression, and model of architectural pedagogy, that have made a deeper and lasting impact on the Chinese architecture discourse.

Firstly, following the Soviet model, the entire architectural profession was incrementally nationalised and collectivised. In 1952, a government review of the track record of the construction industry between 1949-1951 led to the creation of the first state owned and administered design institute, the Central Design Institute, which became the China Architecture Design and Research Institute (Group)[58]. Provincial and regional governments followed suit and thus the Local Design Institutes (LDIs) were born, which decades later would exert a major influence on the practice of foreign architects in the post-Mao era. LDIs are organisations to which all architects were required to belong. They were organised around regional administrations, various industrial sectors, as well as educational institutions, firmly under the leadership of the government and the Communist Party. Party cadres held key positions within the institutional structure of the LDIs. The LDIs undertook the designs of all building projects in China, which were planned and commissioned by the state based on the social, cultural, economic, and logistical needs of the nation. Critically, LDIs were the only

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[57] 邹德侬 戴路 张向炜, 中国现代建筑史, (中国建筑出版社, 2010) / Zou Denong, Dai Lu and Zhang Xiangwei, *A History of Chinese Modern Architecture*, (China Architecture & Building Press, 2010), p.34

[58] *ibid.*, p.22

bodies accredited by the Ministry of Construction to undertake the design and delivery of any new construction projects. This accreditation was predicated on the competency and experience of the institution and its staff.

Secondly, the Soviet higher education system was also adopted in China, specifically in the form of a nationwide government led re-structuring of universities across China in 1952. This was a wholesale overturning of the previous higher education system, which had been based on the western European and American model. Private universities and missionary universities were abolished. Communist party cadres were integrated into the running of education institutions, and political studies became a mandatory class for students. As such educational institutions became a part of the party political apparatus. Critically, as the new Communist nation embarked on the path of rebuilding and industrialisation, disciplines that were deemed critical in contributing to the industrialisation of the nation were separated out from the humanities, and new universities were created around them. There was therefore a demand for graduates with practical and technical trainings in fields such as engineering, aeronautics, hydrology, medicine, geology, etc. Thus, as part of the restructuring in 1952, universities with a wide range of subjects were fragmented to form new specialist universities, sometimes with a sole focus on a particular field of technical knowledge. By 1952, only 8 institutions had architecture departments, most universities had absorbed the discipline of designing building into the department of civil engineering.

Finally, the Soviet architects in China were instrumental in the rejection of modernism and embracement of Socialist Realism as the principal means of architectural expression. The debate over the appropriate form of architectural expression for a Communist society had already taken place in the Soviet Union in the 1930s, prior to the arrival of Russian experts in China. In that particularly theoretical battle, the earlier avant-garde experimentations in modernism and Constructivism, as seen in the works of Lissitzky, Tatlin, and Melnikov, was soundly rejected by Soviet officialdom as exercises in formalism, labelled as bourgeois and capitalist. By the early 1950s, the position of the Soviet profession was that architecture must be ‘nationalist in form, and socialist in content’, expressed through the language of Socialist Realism, which in reality took

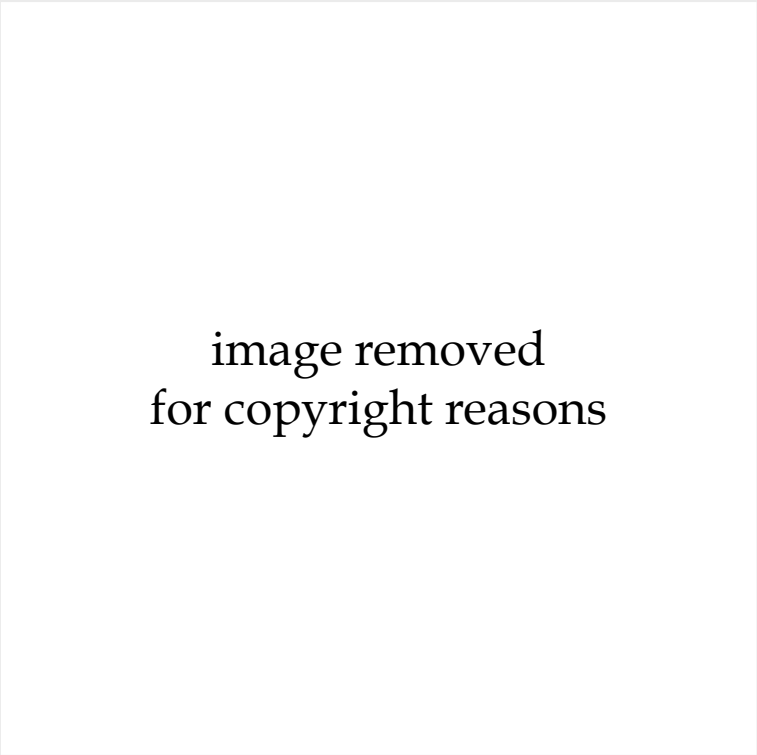

Figure 18: Historic photograph featuring Soviet planner, A.S.Mukhin first from the right of the photograph, Liang Sicheng is first from the left. (Source: Tao Zongzhen 陶宗震)

the form of an eclectic historicism, with an almost post-modern use of historic and ethnic architectural motifs, perceived as more humane and engaged with the cultural tastes of the masses. This attitude and theoretical position is precisely what Soviet architects and planners espoused in China as they arrived in the early 1950s. Critical figures such as the planner A.S. Mukhin (See Figure 18 above), the pedagogue E.A. Achepkov, and architect Sergei Andreyev, were the conduit through which the Soviet doctrine was disseminated. Buildings such as the Beijing Exhibition Hall, designed by Andreyev, explicitly referenced Russian vernacular motifs, and was held as an exemplar for Chinese architects. In his role as professor of architecture at Tsinghua University, Achepkov provided a course on 'Soviet Architecture History', providing a systematic and comprehensive understanding of the logic of Socialist Realism. Mukhin, on matters of urban planning, and the overall vision of the city, echoed the sentiments of Socialist Realism, particularly with regard to how key spaces and buildings in Beijing, the seat of Communist power, must be symbolically reinforce socialist rule, and reflect China's ethnic identity, implying a historicist approach to matters of stylistic expression. The expansion of Tiananmen Square and the architectural language of the key new buildings of national importance located around it, are evidence of this Soviet influence. Mukhin's

recommendation to maintain the political centre of Beijing within its historic centre, as a symbolic gesture of socialist rule and legitimacy, contrary to Liang Sicheng and Chen Zhanxiang's plans, provides further evidence of Soviet doctrines been perpetuated in China.

4.2.2 Effect on Chinese architecture

The effect of these influences on the Chinese architecture profession was profound, both in how the Chinese architects reflected on their previous modernist endeavours, and what they would go on to design from the 1950s onwards.

In the first instance, the Soviet critique on modernism, constructivism, and the international style was wholeheartedly accepted by the Chinese profession. This critique saw formalist experimentations of constructivism as bourgeois frivolity, whilst viewing the uniformity of the international style as representative of global capitalism lacking in humanity. This led to Chinese architects such as Liang Sicheng question their own modernist tendencies from the preceding decades. Liang wrote an influential article in 1953 entitled *The Question of Socialist Realism in Architecture*[59], in which he quoted Achepkov by saying that, 'the development of art and understandings of aesthetics is born from brutal class struggle, and is still being made by brutal class struggle.' Liang would go on to say that,

> In today's China, in the practice of architecture, there is an ongoing struggle between the architecture thoughts of Soviet socialism and European-American capitalism, this struggle is intertwined with the problem of nationalism in architecture. Therefore, an architecture full of nationalist characters and suited to today's life, will always be fighting against an architecture that is devoid of nationalism, full of capitalism, which propagate globalism through American style glass boxes.[60]

As such, the language of architectural expression became a political issue. The fervour the profession had for this newly founded nation and the

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[59] 梁思成, 建筑艺术中社会主义现实主义的问题 1954年2月《新建设》/ Liang Sicheng, 'The Question of Socialist Realism in Architecture', *Xin Jianshe* (February 1954)

[60] ibid.

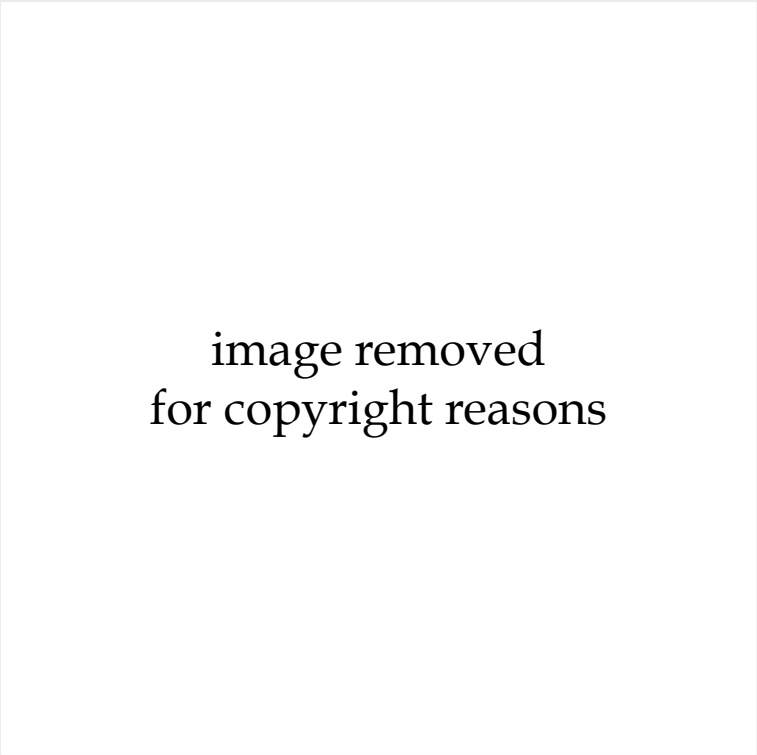

Figure 19:
Far left:
All Russian Exhibition Hall (1954), Moscow
Left:
Sino-Soviet Friendship Hall (1954), Shanghai.
(Source: K. Fan Sizheng)

utopian vision it promised, coupled with a passion for the study and preservation of traditional architecture, led to the wholesale rejection of modernism and the adoption of Socialist Realism, in pursuit of 'Nationalist in form, socialist in content'.

In its most explicit form, Soviet styles of Socialist Realism were imitated like for like. For example, the Sino-Soviet Friendship Building in Shanghai, completed in 1954, was designed by Soviet architect Sergei Andreyev, with Chinese architects Chen Zhi as co-designer. The building bears a strong resemblance to the All Russian Exhibition Hall in Moscow, also completed in 1954 (see Figure 19 above).

Critically, this new doctrine can be seen in the dramatically different works of Chinese architects such as Liang Sicheng, Yang Tingbao, and Liu Shiying. Having designed buildings such as the Bauhaus inspired Female Dormitory at Peking University, Liang now propagated what became the 'Big Roof' style, the pastiche of traditional Chinese roof forms typically deployed in palatial architecture, over otherwise modern buildings accommodating modern programmes. In his *Sketches envisioning nationalist architecture of the future*, Liang drew up idealised tall buildings of over 30 storeys with traditional Chinese roofs and eaves details at different parts of

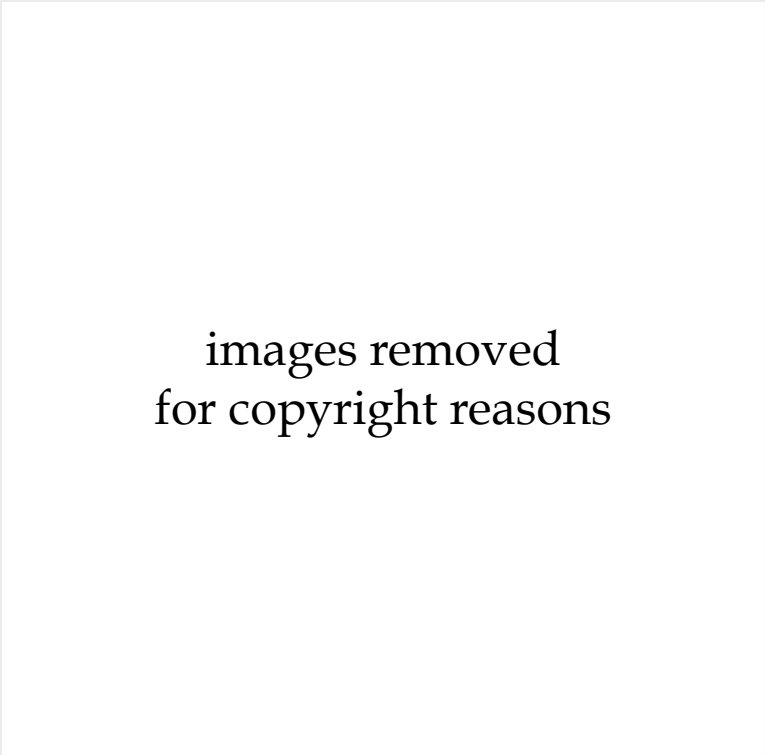

Figure 20:
(Left & below left)
Liang Sicheng's sketches envisioning nationalist architectures of the future 1954 (Source: Liang, Sicheng)

Figure 21:
(Far left)
Sanlihe Government Buildings by Zhang Kaiji, Beijing, (1952-1955) (Source: Zhang Kaiji)

the elevation to modulate the overall height and silhouette of the building (see Figure 20 above). This approach can be seen in the Hunan University Library by Liu Shiying, the Beijing Railway Station by Yang Tingbao, and the Beijing Sanlihe Government Buildings by Zhang Kaiji (see Figure 21 above).

In a twist of fate, Liang's 'Big Roof' was subsequently criticised as wasteful and revisionist, reflecting changes in Soviet politics Khrushchev came to power and condemned the excesses of Stalinist historicism, providing further evidence for complete indoctrination of the Chinese profession in following Soviet agendas.

While the wave of 'Big Roof' receded after the late 1950s, Chinese architects maintained the essence of the Soviet 'Nationalist in Form, Socialist in Content' doctrine by deploying more subtle and pared back interpretive traditional Chinese motifs on what are essentially modernist and utilitarian buildings. This can be seen in Wang Fujing Department Store in Beijing by Yang Tingbao, and The Beijing Telegraph Building by Lin Yueyi.

It is important to also point out that the theoretical indoctrination by the Soviet union was not always accepted blindly by Chinese architects. Whilst

absorbing the technical expertise from their Soviet counterparts, there were notable occasions where Chinese architects deviated from the all encompassing narrative of ideology and pursued technically novel and challenging projects, which bared more resemblance to earlier modernist endeavours or even Soviet constructivist experimentations. The reinforced concrete space-frame of Tongji University dining hall by Huang Jiahua completed in 1961 comes to mind, as well as the explicitly modernist Qiaobashan Hotel and Residences in Mongolia by Gong Deshun in 1960.

Nevertheless, underscoring these occasional challenge to theoretical doctrines, was the fundamental adoption of the Soviet method of practice and pedagogy. The nationalisation of the profession and the establishment of the LDI structure following the soviet model defined how the built environment was to be delivered for the next six decades before any meaningful reform of the system took place, lasting well into the post-Mao period. Under this model, the production of architecture is under the control of the state and consequently took on a political nature. In addition, in a planned economy local LDIs dealt with local commissions most of the time, which meant that competition between LDIs were infrequent, and innovation were not incentivised. When this is viewed in light of the politicisation of stylistic issues under Soviet indoctrination, one begins to see how creativity, which by its very nature constitute a challenge to orthodoxy, can become a dangerous undertaking, with the risk of deviating from party political ideology. Instead, the LDI system were perfectly structured to propagate the standardisation of design solutions with the aim to achieve technical efficiency and conformity.

The orthodoxy of the profession is also reflected in the education system, where the Soviet model of pedagogy resembled less the modernist approach but more a conservative Beaux Arts-like teaching method, with an emphasis on technical skills within a prescribed ideology and visual style[61]. Aspects of architectural education pertaining to the humanities and social sciences, mistrusted by the authorities as 'bourgeois' and 'pseudo-scientific', were often removed from the curriculum. The anthropologist and sociologist Fei Xiaotong famously pleaded with Chairman Mao for Sociology not to be eliminated as a university subject, to no avail.

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[61] 邹德侬 戴路 张向炜, 中国现代建筑史, (中国建筑出版社, 2010) / Zou Denong, Dai Lu and Zhang Xiangwei, *A History of Chinese Modern Architecture*, (China Architecture & Building Press, 2010), p.37

Disciplines such as urban planning were removed from the curriculum as its practice was moved from academics and professionals into the hands of the state. As such, the teaching of architecture, which once required the gathering of broad knowledges across the fields of philosophy, science, technology, arts and humanities, was now taught in a utilitarian and technical manner, almost akin to engineering. A compound result of the Soviet professional practice system and education model is the creation of LDIs that are associated with education institutions, which facilitated the direct transfer of the practically skilled workforce from the classroom straight into the drafting room.

These theoretical, professional, and pedagogical consequences of Soviet indoctrination would sow the seeds for the unique problems that the Chinese profession would go on to encounter in the decades following the implementation of the Reform and Opening Up policies.

4.2.3 Diverging trajectories

In a remarkably similar fashion to the preceding Nationalist era, the presence and influence of Soviet architects and Soviet architectural discourse in China was also brought to an abrupt end. In this cycle, instead of warfare, it is a series of political upheavals that ended this period of engagement between foreign and Chinese architects. The criticism of Stalin after his death led by Khrushchev was the first sign of breakdown in the Sino-Soviet relationship, where Mao saw how his own legacy might be overturned after his death. He instigated the Great Leap Forward campaign, which sought to develop China rapidly by force, through collectivisation of industry and agriculture, with the lofty ambition to overtake the UK in 7 years, the US in 15 years. This led to a flurry of major building works between 1958 and 1959, before Sino-Soviet relationship completely collapsed in 1960. On July 20th, the Soviet Union unilaterally withdrew all of its 1390 experts in China[62], taking documents and drawings with them, halting the progress of over 200 projects of collaboration and 600 contracts. The consequent expertise vacuum coupled with the devastation resulting from the developmental adventurism of the Great Leap Forward, meant that very few new buildings of note were completed

[62] 邹德侬 戴路 张向炜, 中国现代建筑史, (中国建筑出版社, 2010*) / Zou Denong, Dai Lu and Zhang Xiangwei, *A History of Chinese Modern Architecture*, (China Architecture & Building Press, 2010), p.76

in the first half of the 1960s, as the country sought to recover economically from the damages caused by the campaign. However, before the scars of the Great Leap Forward could be fully healed, Mao instigated the Cultural Revolution in 1966, which was to last for the next decade until Mao's death in 1976.

Even before the Cultural Revolution itself, Mao launched a 'Design Revolution' in 1964, in which he urged the design institutes to undertake a 'design revolution campaign of the masses, to full discuss and talk openly.' The outcome of this campaign was the official condemnation of the Soviet model of profession structure. The Soviet doctrine by then had been given the labels of revisionism and dogmatism. This criticism, whilst rightly pointing out aspect of Soviet doctrines which did not suit Chinese conditions, ultimately became a vehicle to attack the establishment, and the intellectual class, to which architects belonged. Architects were accused of being trapped in their own ivory towers and removed from 'reality' and 'the masses'. As the political environment turned toxic with the onset of the Cultural Revolution proper in 1966, architects turned on their leaders, their teachers and their peers, accusing each other as revisionists, restorationists, capitalist roaders, anti-revolutionary academic authoritarians. Consequently, design and construction activities were severely reduced and curtailed, with design institutions were in effective paralysis. Senior architects and academics were removed from their post and sent to 're-education through labour' camps. As the situation worsened with the Soviet worsened and potential war loomed, the tension was used as further excuse to 'evacuate' design professionals from their posts to rural locations. By one account[63], of all the construction professionals employed under the Ministry of Construction in China, 291,000 of 382,000 people were removed from their posts in the aforementioned manners.

These events exerted a devastating force on the capacity and capability of the architectural profession, the effect of which would go on to shape the profession long after the end of the Cultural Revolution.

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[63] 邹德侬 戴路 张向炜, 中国现代建筑史, (中国建筑出版社, 2010) / Zou Denong, Dai Lu and Zhang Xiangwei, *A History of Chinese Modern Architecture*, (China Architecture & Building Press, 2010), p.79

However, As Paul Clark points out in C*ultural Revolution - A History*[64], the production of culture did not completely cease during this chaotic period, some architecture were delivered during this period. Some, like the Long Live the Victory of Mao Zedong Thoughts Exhibition Hall in Chengdu, were festooned with visual symbolism, in an almost quasi-religious manner, alluding explicitly or implicitly to Communist and Mao-related iconography. Some large sports stadiums were also built in the mid 1970s, in mostly modernist utilitarian styles, such as the Wutaishan Sports Stadium in Nanjing, to partly accommodate the mass gatherings that typified public life during the Cultural Revolution. Interestingly, there were sporadic explorations and experimentations with modernism, in a few highly evocative regional projects, far from the political centres of the country, such as the Ludiyan Hotel by Shang Dun, in the southwestern city of Guilin. This rapprochement with modernism can also be seen in several projects of foreign assistance, such as the Sri Lankan National Congress Building by Dai Nianci, and the People's Palace in Guinea by Chen Deng Ao. These buildings provided further evidence of the divergence from the Soviet doctrines of 'Nationalist in form, Socialist in content'.

4.3 Post-Mao era (1978-present)

The death of Mao in 1976 saw the end of the Cultural Revolution, and the purge of the 'Gang of Four'. Over the next few years, Deng Xiaoping eventually emerged as China's de facto political leader, cementing his position at the 3rd Plenary Session of the 11th Central Committee in 1978. This was a turning point in China's recent history, where the damage caused by the Cultural Revolutions and the mistakes made by Mao was finally acknowledged officially.

Architects, and academics who were purged during the Cultural Revolution were rehabilitated and reinstated. The pre-Cultural Revolution contribution of the first generation of Chinese architects such as Liang Sicheng, Liu Dunzhen, and Tong Jun were once again re-acknowledged, documented and discussed. Places of work, culture, education and administration, which had collapsed or were in states of paralysis, were re-

[64] Paul Clark, *Cultural Revolution: A History* (Cambridge: Cambridge University Press, 2008), p.2

established, restoring a certain level of stability within the professional environment.

Within a somewhat more relaxed and open political environment, practitioners and scholars proactively sought to re-engage with the western architecture discourse. Western architectural history and theory became taught and discussed in architecture education again. Works of western theorists and architects were being translated. Imported and domestic publications showed the works of architects from across the world to a new Chinese readership. Tentative contacts were made between foreign and Chinese academic institutions, scholars, and practitioners.

Deng Xiaoping acknowledged the fact that, 'compared to developed nations, we are 20 years behind in the field of science, technology and education.'[65]. He urged for more students to study abroad, 'in their thousands and tens of thousands'. In an echo of the footsteps of their predecessors just over 100 years ago in 1872, a new wave of students and academics began to study abroad. Between 1986 and 1990, through state funded and self-funded routes, 130,000 students were able to study abroad, a trend that continues to this day.

Politically, campaigns and class struggles no longer dominated the political agenda of the government. The architecture discourse was no longer dictated exclusively by politics, ideology and class struggle. This de-politicisation process loosened the straitjacket of Soviet influenced Socialist Realism on Chinese architecture.

China embarked on a programme of economic reforms, including the de-collectivisation of agriculture, allowing private enterprises, the privatisation of state industries, and the opening up of the country to foreign investments. This 'Reform and Opening Up' policy allowed a market economy to begin to flourish in China, which Deng called 'Socialism with Chinese Characteristics'.

As far as the built environment is concerned, Deng saw the construction industry as a major driver of economic growth, where urban expansion, infrastructure building, and city making would facilitate rising levels of

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[65] 邓小平决策恢复高考讲话谈话批示集, 中共中央文献研究室编辑, (中央文献出版社出版, 2007) / *Collection of Deng Xiaoping's conversation and instructions on the restoration of university examinations,* (Central Party Literature Press, 2007)

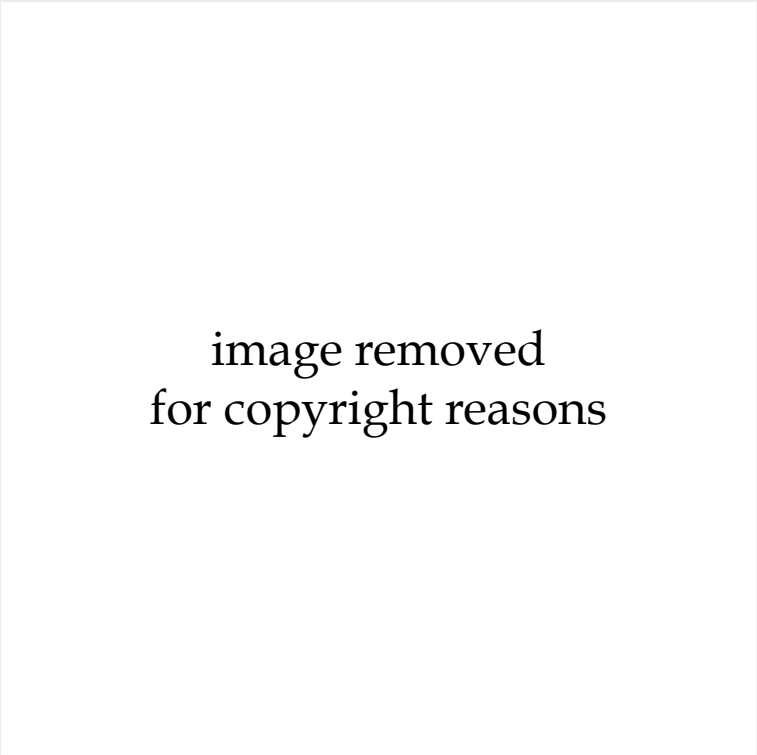

Figure 22: The transformation of Shanghai between 1987 (above) and 2013(below) (Source: Carlos Barria)

economic activities and improve standards of living. A series of Special Economic Zones (SEZ) were created in 1980, including Shenzhen, Zhuhai, and Xiamen, all located within the Pearl River Delta on the border with Hong Kong. These areas were set up with special policies that encouraged entrepreneurial activities and attracted foreign investments from Hong Kong, Taiwan, Singapore, and further afield. As a result of these policies, these SEZ cities saw dramatic growth to their size and population. In the case of Shenzhen, a fishing village of less than 30,000 people has become a city of around 15 million people in a little over 30 years. In other places, New District were created as expansions of existing cities to accommodate and encourage increased economic activities and foreign investments, such as Lujiazui in Shanghai, whose skyline became transformed (see Figure 22 above). This strategy of *tabula rasa* urban expansion would continue in the decades following Shenzhen's creation, in places such as Chengdu and Chongqing, where the population now stands at 29.9 million, covering an area of 82,000 square kilometres. This expansion of the built environment involves the building of huge volumes of new buildings, ranging from factories, hotels, and offices, to retail and residential real estates.

These buildings were no longer centrally planned by the government, but instead were being commissioned by both the state and private sectors in a competitive, market driven economy, under the general policy framework of the state. These conditions demanded the LDIs to become more like enterprises and less like government institutions. The market now acknowledged the monetary value of design, and in return design was becoming increasingly seen as a service product. In 1983, the government ordered the LDIs to charge their fees from the commissioner of the building rather than central government budget. In 1984, LDIs were urged by the government to begin transition from government institutions to market oriented enterprises. By 1990, all LDIs had become either State Owned Enterprises (SOEs), private enterprises, or some combination of the two. The state now actively encouraged competition within the construction and design industries amongst these enterprises.

While the above is evidence of progress made in the early years of the reform, there was still a significant gap between China and the West, in terms of professional practice, technical knowledge, theoretical awareness, and pedagogical approach.

Theoretically, a rejection of the wider global theoretical discourse since the 1950s and the subsequent rejection of the Soviet doctrine in the 1960s has left somewhat of an intellectual vacuum in China. Chinese architects, particularly those who graduated after the 1950s, had little exposure to the trajectory of the theoretical discourse in the West. With the onset of the Reform and Opening Up, Chinese architects were now faced with a plethora of competing and constantly evolving theoretical positions, ranging between modernism, brutalism, international style, structuralism, metabolism, hi-tech, postmodernism, critical regionalism, and the early onset of deconstructivism. Whilst Chinese architects were very excited to engage with this global discourse, there were also a great deal of mis-interpretation and mis-translation of ideas and practices. Wang Shu, in an interview for the book *Learning from Hangzhou*[66] says that,

> 'In the early 1980s, Japanese architecture had a great impact on China. It was not long after the Opening Up policy, books were rarely available and most people could not read foreign

[66] Mathieu Borysevic, *Learning From Hangzhou* (Timezone 8, 2009), p.150

languages. However, Japanese magazines were half written in Chinese characters, and some were figured out through guessing. China was heavily influenced by the Metabolic style of the 1950s. It was a school of architecture that produced many fantastical buildings, for instance, large cylindrical forms as affixes, etc. It was influential at the time because it was modern and utopian. But when it was realised in China, it just became a common building with a spiral staircase.'

In particular, an eager Chinese profession desperate to recover destroyed past heritages and experiment with newer forms of expression took to postmodernism in ernest, often without the self-aware irony of works in the West, resulting in a cut and paste pastiche, crude symbolism, and outright mimicry, which would go on to plague Chinese architecture for many decades to come. One such example is the Beijing West Railway Station, a postmodernist building with traditional Chinese decorative pavilions in the style of Liang's Big Roof, and access gangways and clock towers in Pompidou inspired hi-tech style.

Critically, the station, executed by an LDI, (Beijing Institute of Architectural Design) was poorly planned and finished, and has since become infamous for its congestion, poor internal environments, and the pickpocketing that plagues its vast dark public undercrofts. These failures exposed the lack of expertise within an LDI dominated profession, in how large modern building projects ought to be designed to respond to contemporary needs, ranging from the planning of spaces to ensure efficiency of efficiency, to the choice of materials and approach to environmental performance to ensure comfort and enjoyment of the building.

The combination of the aforementioned need for theoretical engagement and the lack of certain technical expertise facilitated the arrival and re-emergence of foreign architects in China.

4.3.1 Nature of foreign architects' presence

The story begins with I.M.Pei's Fragrant Hill Hotel, completed in 1982, one of the first projects to be designed by a foreign architect in the post-Mao. I.M.Pei, a Chinese American who grew up in China, offered a nuanced postmodern response to traditional Chinese architectural themes,

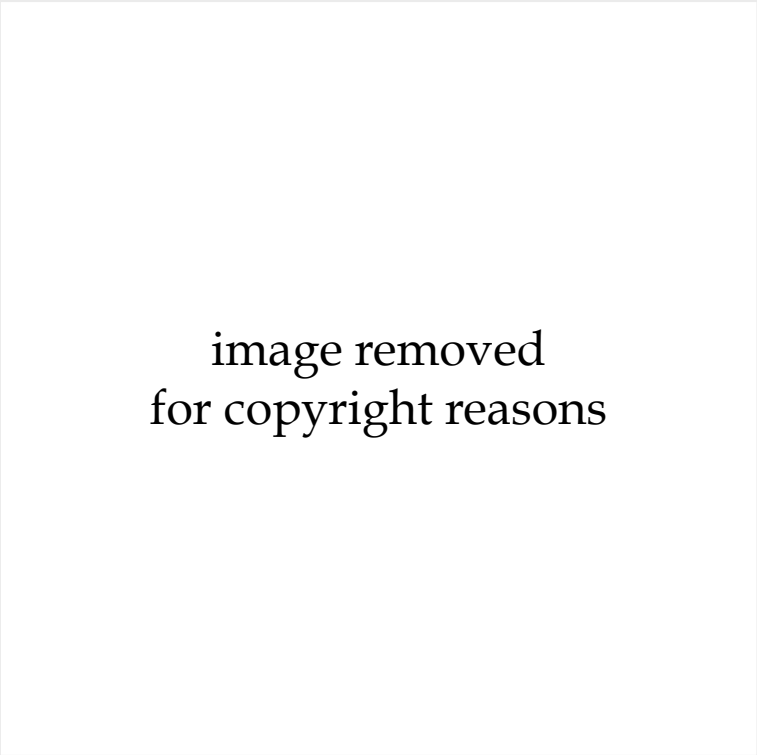

Figure 23:
Fragrance Hill Hotel by I.M.Pei (1982)
(Source: Wang Jun)

particularly southern Chinese architectural and garden design heritages. His 'perennial courtyard', a covered indoor garden space with a glazed roof structure, is an innovative response to the climatic conditions in Beijing and the programmatic needs of the hotel, whilst drawing inspiration from the traditional gardens of southern China (see Figure 23 above).

At around the same time, several other hotels were being designed by foreign architects across China, from the Beijing Jianguo Hotel (completed 1982) by American architect Chen Xuanyuan, and the Jinlin Hotel (completed 1983) by Hong Kong based Palmer and Turner. The Great Wall Hotel by American architecture firm Beckett International Corporation was the first project in China to utilise a curtain wall system.

John Portman's Shanghai Centre was another milestone in terms of the story of foreign architects in China. Completed in 1990, the Shanghai Centre was one of the first mixed used high-rise retail development in China (see Figure 24 overleaf). John Portman, drawing on his commercial expertise and experience in the West, demonstrated how retail experiences can be liberated from the elevator, to offer shared private public spaces, to see and be seen, and an arena for interaction. Shanghai Centre was part of the wider revitalisation of Shanghai, which included the creation of

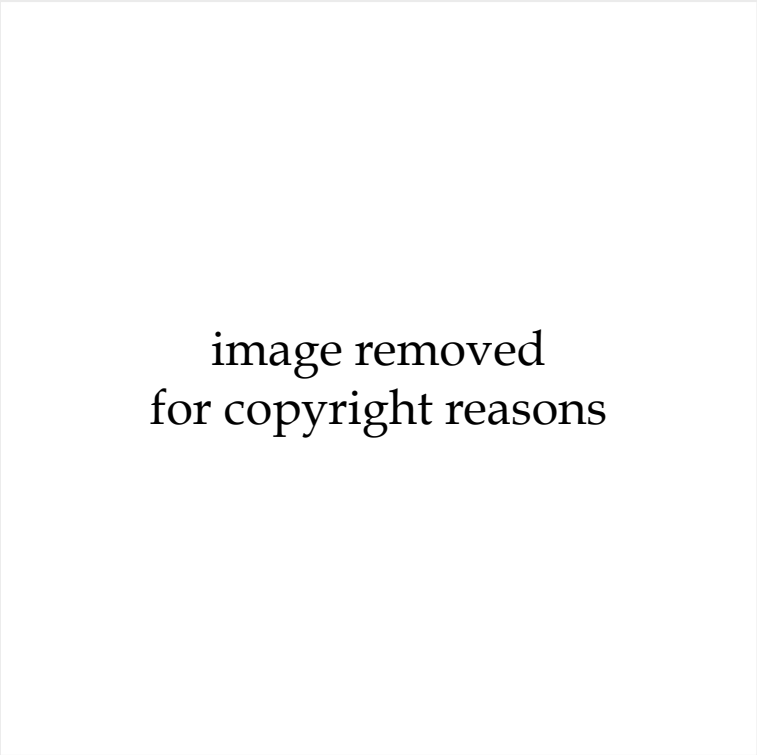

Figure 24:
Shanghai Centre by John Portman (1990)
(Source: Michael Portman)

Pudong New District in 1990. The government invited Richard Rogers, Dominique Perrault, Toyo Ito and Massimiliano Fuksas to participate in the design of the masterplan of the Lujiazui CBD.

China's economic activities and pace of development continued to intensify in the 2000s, with the Chinese government pursuing an investment-led economic model, relying significantly on infrastructure building, city making, and rapid expansion of the real estate sector as engines of growth.

As private investments poured into China from Hong Kong and further afield, the design and delivery of increasingly complex and novel new buildings in the commercial, retail, mixed use, and residential sectors required an expertise that frequently could only be fulfilled by foreign architects. This sustained demand ensured the flourish of foreign architects in China. Conditions were made more fertile for foreign architects to join the Chinese market following China's admission into the World Trade Organisation in 2001, which further reduced the barrier to entry into the Chinese market for foreign companies in general. Firms such as SOM, RTKL and Callison had all entered the Chinese market in the late 1990s, with the likes of KPF and Gentler joining them in the 2000s. These foreign firms, drawing on their specialist technical expertise and experience,

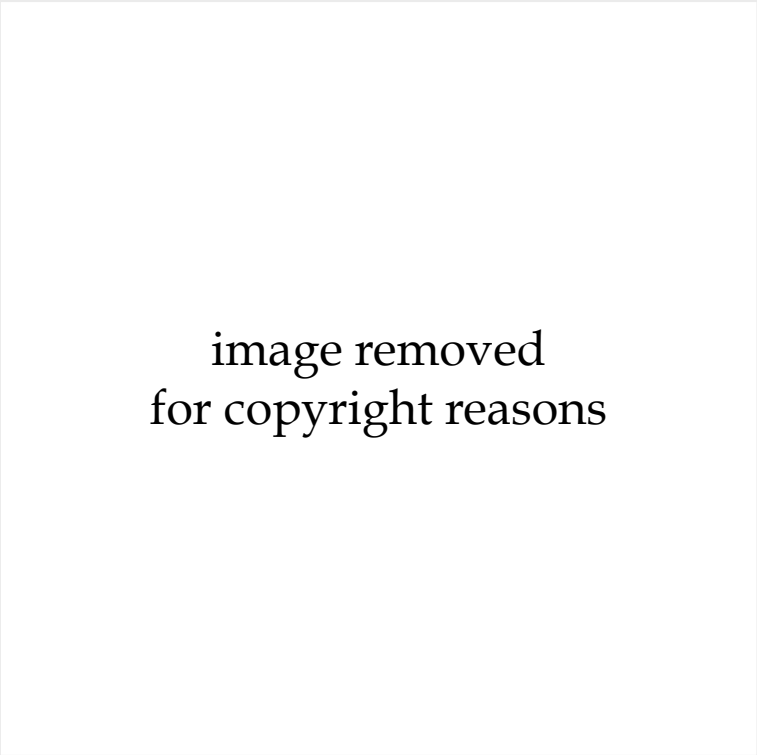

Figure 25: Beijing Capital International Airport Terminal 3 (2008) by Foster + Partners (Source: Foster + Partners)

continued to play a critical role in the delivery of large scale and complex buildings such as the Jinmao Tower, designed by SOM. At the same time, foreign architects began to move from design for China to designing in China. International practices began to consider creating field offices in China. For example, AEDAS, having first operated from Hong Kong since the late 1990s, created their Beijing offices in 2002, followed by their Chengdu office in 2004.

Meanwhile, the rising economic profile of China was coupled by a growing political and cultural confidence and assertiveness on the international stage. This was exemplified by events such as the 2008 Beijing Olympics and the 2010 Shanghai Expo, and resulted in the creation of many major infrastructural, cultural and civic projects of national or regional significance. As prestigious demonstrations of China's power parity with its western counterparts, and its international outlook, these 'landmark' buildings were frequently awarded to foreign architects, due to their technical expertise, their perceived novel approaches and their international profile. These ranged from Rem Koolhaas's CCTV headquarters, to Foster & Partner's Terminal 3 at Beijing International Airport (see Figure 25 above), Paul Andreu's National Centre for Perming

Figure 26: The National Olympic Stadium by Herzog and de Meuron (2008) (photographed by the author)

Arts, and Herzog & de Meuron's 'Bird's Nest' National Olympic Stadium (see Figure 26 above). This was the beginning of what many have since coined the era of 'Starchitecture'.

As the 2000s drew on, the influx of foreign practices to China continued, with practices of different sizes and reputations coming to work on a diverse range of both private and public Chinese projects, in first tier cities, as well as second, third and even fourth tier cities. For example, Hawkins Brown, by no means the biggest practice in the UK, became involved in the master planning of an entire new town on the outskirts of Chengdu. Other practices, such as Henn Architects, a Swiss practice sough out work in second tier cities such as Wenzhou and Taiyuan.

4.3.2 Effect on Chinese architecture

Foreign influence on Chinese architects in the post-Mao can be framed within three related narratives. Firstly the re-engagement with the West have created a new generation of western-educated Chinese architects, who in turn have reshaped the nature of architectural education. Secondly, this new generation of Chinese architects have developed their stylistic and formal approaches in response to the works of foreign architects. Thirdly,

the structure of the profession as a whole, which is still dominated by the LDIs, have been changed by the presence of foreign architects.

As discussed previously, the Reform and Opening Up enabled a whole generation of Chinese students to study abroad, including students of architecture. Many of the prominent contemporary Chinese architects who have gained global recognition in recent years have followed this trajectory. Chang Yung Ho left China in 1981 on a self-funded scholarship to study architecture in UC Berkeley. Li Xiaodong travelled to Delft to study architecture in 1989. And a certain Ai Weiwei arrived in New York in 1981 to study at the Parsons School of Designs. Of a younger but equally prominent cohort of contemporary Chinese architects, Zhang Ke of Standard Architecture studied at Harvard in 1998, Ma Yansong of MAD studied at Yale in 2002, and Wang Hui of Urbanus studied at Miami University.

Much like their predecessors in the 1930s, this new generation of Chinese architects returned from their studies abroad and became involved in the teaching of architecture. Chang Yung Ho is a professor at Tongji University. Ma Yansong is an adjunct professor at School of Architecture, Tsinghua University, and a visiting professor at Beijing University of Civil Engineering and Architecture. Both Wang Hui and Zhang Ke teach at Tsinghua University. Ma Qingyun teaches architecture at Shenzhen University, Tongji University and Nanjing University. The increasing involvement of foreign educated Chinese architects in pedagogy accelerated the adoption in the late 1990s of the Anglo-American studio system in the teaching of architectural design, in which the practitioner/tutor enjoys a greater degree of freedom to dictate the direction of design interest, research and polemic. More importantly, the foreign education of these practitioners/educators introduced a sense of criticality in the teaching of architecture. It also engendered a greater degree of cross-cultural fertilisation and a more explorative, innovative, and independent learning environment.

In another echo of the 1930s, this first generation of foreign educated Chinese architects in the post-Mao, much like their predecessors, carved out a new professional territory that did not exist prior to their return to China, where the profession had been monopolised by the LDIs. The

establishment of private practices, outside of the LDI system, by these foreign educated Chinese architects fundamentally altered the constituency of the profession, creating a tripartite profession made of foreign practices, private Chinese practices and the LDIs. Chang Yung Ho practiced architecture in the U.S. for 15 years before setting up Atelier FCJZ in China in 1993, one of the first private practitioners to be established in the post-Mao. Ma Qingyun, educated in at the University of Pennsylvania, once Rem Koolhaas's collaborator on the *Project on the City* programme at Harvard, founded MADA s.p.a.m. in 1996. Ma Yansong founded MAD in Beijing in 2004 after working for Zaha Hadid in London. Wang Hui co-founded Urbanus in 1999 and Zhang Ke founded Standard Architecture in 2001, both of whom had worked in architecture practices in the U.S..

The stylistic and formal approaches of this new generation of foreign educated Chinese architects are very much influenced and informed by the works of foreign architects in China. They had witnessed the postmodern offerings from foreign architects in the 1980s and early 1990s gave away to the prevalence of commercial modernism in the late 1990s, followed by the onset of formally exotic and iconic architecture, or 'starchitecture' by the likes of OMA, Herzog and de Meuron, Paul Andreu, and Zaha Hadid in the 2000s which answered the need for branding and spectacle[67].

These endeavours by foreign architects both inspired and provoked their Chinese counterparts to consider how their own practice should be positioned against that of the foreign architects, in particular with regard to an appropriate response to cultural heritage and identity in a rapidly developing built environment. On one end of the spectrum, there are those Chinese architects who propagate, elaborate and re-interpret the approaches of the foreign architects who have influenced them. On the other hand there are also those whose positions and approaches have develop precisely to challenge the works of foreign architects.

For example, having worked for Zaha Hadid, it is unsurprising that the works of Ma Yansong (MAD) is heavily influenced by the design techniques of parametricism (see Figure 27 overleaf). Similarly, the influence of Steven Holl is clearly visible in the works of Li Hu, the founder

[67] The issue of 'starchitecture' will be discussed in detail as part the thesis' analysis of contemporary challenges facing foreign architects in Chapter 5. Its inclusion here is to complete our historical survey of the conditions of Chinese architecture since 1978, a history of the recent past in a certain regard.

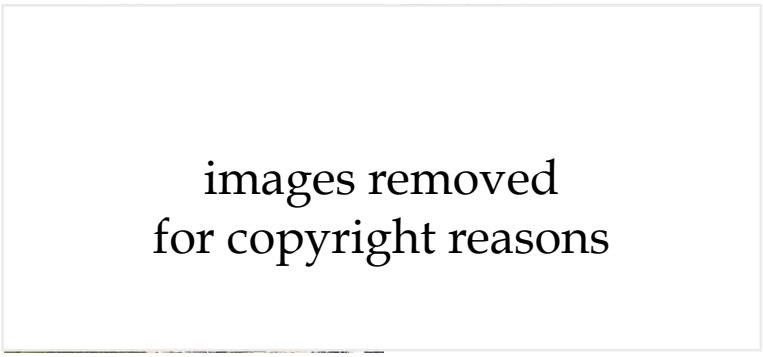

Figure 27:
(Far left)
Chaoyang Park Plaza by MAD (2017) (Source: MAD)

Figure 28:
(Left)
Shizilin Villa by Chang Yung Ho (2004) (Source: FCJZ)

Figure 29:
(Below)
China Academy of Art Xiangshan Campus
by Wang Shu (2009) (photographed by the author)

of OPEN Architecture, who had worked for Steven Holl on his Beijing Linked Hybrid project. The formal approach of DnA, a prominent Chinese practice run by Xu Tiantian, is very much informed by contemporary Dutch architects and particularly the works of OMA, for whom Xu had worked for. In fact, Rem Koolhaas' theoretical polemics and formal positions has directly and indirectly influenced a whole generation of Chinese architects, whose approaches to what Zhu Jianfei calls 'mega-structure modernism', have been heavily influenced by Koolhaas' thoughts on 'Bigness'. This can be seen in the works of Chinese architects such as MADA s.p.a.m and Zhu Pei.

On the other end of the spectrum, and informed by their foreign training and work experience, architects such as Chang Yung Ho who have developed a distinctively critical regionalist approach to design (see Figure 28 above), which through their material and spatial configurations speaks to a sense of place and engages with the construction heritage and the wider Chinese culture. This stands in contrast to the works of most foreign architects in China. Chang Yung Ho has company in the likes of Wang Shu, who is not foreign trained, whose work is also deeply rooted to Chinese local and artistic cultural (see Figure 29 above). Wang Shu holds foreign

architects responsible for much of what he perceives as the destruction of China's urban and rural architectural culture[68].

Between these two contrasting approaches, there are a plethora of foreign educated Chinese architects who seek the best of both worlds, deploying the criticality that has informed their western education, in developing innovative solutions to very Chinese problems, without subscribing and succumbing to simplistic stylistic labels. The works of practices such as Urbanus, TAO and Vector Architects are informed by the western discourse in dealing with complex and large scale urban matters whilst adopting a much more nuanced and informed position towards both on identity and place-ness.

Beside the stylistic and formal influences on Chinese architects, the presence of foreign architects in China also spurred on the reform of the LDI system itself.

Under the Soviet LDI model, Architect as a professional title did not really exist. Despite market driven organisational reforms, LDIs in the early 1990s, with a few exceptions, were still a body of largely bureaucratic and stagnant organisations lacking in innovation and competitiveness, used to producing dated and standardised design solutions, which were increasingly incompatible with the ambitions of their clients. The LDIs were simply unequipped to undertake the design and deliver of many new types of buildings and constructions.

In contrast, foreign practices were more efficient, better managed, and market aware. Technically, they possessed both expertise and experience when it came to programmatically, constructionally and technologically complex projects. Methodologically, they were flexible and less dogmatic, drawing from a rich theoretical framework as well as the Chinese cultural context within which they worked. One could argue that without the government's protection of their monopoly on accreditations, the LDIs as a form of practice would have eventually been eliminated by the market economy, much like it did in Russian and the ex-Communist eastern european countries.

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[68] 王澍访谈, 环球人物 2012年第8期 / 'Interview with Wang Shu', *Global People Magazine*, (2012) 8

However, this was not the case in China, the LDIs retained their Mao era regulatory privileges as the only form of practice accredited to undertake construction project to completion, which made them indispensable in the delivery of projects on site.

Nevertheless, the practice of foreign architects forced the LDIs to reconsider their own modes of operation, in order to reduce bureaucracy, increase competitiveness, and attract and support design talents. Many LDIs, following their transition to State Owned Enterprises (SOEs), became semi-privatised, entirely privatised, or collectively owned by employees, with the aim to improve competitiveness and financial independence in a market place with a strong foreign presence. In some cases allowing virtually independent studios to operate under the umbrella of the LDI.

In addition, the exposure to western practices and professional structures accelerated the formalisation and protection of the professional title of Architect in the 1990s. As early as 1984, the then vice minster of construction, and architect Dai Nianci had said that the design should be able to be undertaken by the state, in organisations, or individually[69]. This was a clear re-engagement with the western mode of practice, which China had previously adopted in the 1930s. In 1994, the National Architects Management Committee was formed, responsible for setting out the framework for an architects' registration system modelled on western precedents. A trial registration examination was trialled in the same year in Liaoning province, with foreign observers from the US, UK, and Hong Kong. In 1995, the first countrywide examination for the registration of Class 1 Architects were held, in the presence of foreign observers from the US, UK, Japan, South Korea, Singapore and Hong Kong. By 1996, an architects registration system was fully formalised.

4.3.3 Diverging trajectories?

Unlike the preceding Mao era and Nationalist era, the relationships between foreign and Chinese architects in the post-Mao have not suffered any fundamental disruption at the hands of any major political upheavals, at least not at the scale and nature of the Second World War, the Communist takeover, the Sino-Soviet Split, and the Cultural Revolution.

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[69] 邹德侬 戴路 张向炜, 中国现代建筑史, (中国建筑出版社, 2010) Zou Denong, Dai Lu and Zhang Xiangwei, *A History of Chinese Modern Architecture*, (China Architecture & Building Press, 2010), p.106

The political consequences of the Tiananmen Square protests in 1989 represented the only significant moment that threatened China's engagement with the West in general, and Chinese architectural discourse specifically.

In the 10 years leading up to 1989, whilst the Chinese government was still playing catch-up with the political, legal, and cultural impact of reform they had implemented, exposure to western culture and democratic values were coupled with a greater level of intellectual and creative freedom in China. In 1989, a student led mass protest formed on Tiananmen Square, demanding a more transparent government and democratic reforms. Subsequently the military was deployed in suppression of the protestors, leading to several hundred civilian deaths, in an incident which has become known in the West as the Tiananmen Square Massacre.

These events shocked Chinese scholars and students who were studying abroad at the time. The United States enacted the Chinese Student Protection Act in 1992, allowing instantly 80,000 Chinese nationals residing in the US on student visa to work legally under a green card. Other disillusioned students arriving in subsequent years in the US and Europe also sought to find means to remain abroad. This started a period of outward intellectual migration and brain drain from China, including those within the architectural profession and academia. Ai Weiwei, who was already in New York at the time of the protests vowed at the time to never return to China. At the same time, the Communist party tightened its control on pedagogy, introducing mandatory political studies classes at university level, which enshrined Marxist Leninism, Mao Zedong Thoughts, and Deng's Socialism with Chinese Characteristics. As part of a global reaction, international loans and foreign direct investments were canceled, economic and military embargoes were applied to China, and the exchange of people and ideas stalled. After a flurry in the late 1980s, the activities of foreign architects in China also subsided for most part of the early 1990s, during which Chinese architects once again became somewhat isolated from their foreign counterparts as they searched for a path forward.

Despite the above, the aftermath of the Tiananmen Square protests did not alter the fundamental principles of Reform and Opening Up, which Deng

Xiaoping sought to preserve. China's relationship with the West eventually thawed, and the progress of engagement and exchange resumed. Foreign investment began to flow again and foreign architects began to work in China again from the mid-1990s onwards. Since then, China has remained politically stable, whilst its economy soared, under an investment led model of development, practiced in both the public and the private sector. The rule of the party and the country has now been passed between three separate political leaderships since Deng, whilst the economy and living standards maintained their upward growth. Consecutive political leaderships have maintained the developmental agenda, and pursued further reforms, propagating Deng's legacy.

4.4 Conclusion

The preceding sections have shown that despite appearing in seemingly different educational, professional, theoretical and historical contexts, foreign architects have maintained a persistent presence and influence in China for the last century.

It is also clear that foreign architects' engagement with China, while persistent, is not contiguous. Instead, there is a recognisable cyclic pattern to the interaction between foreign and Chinese architects.

Each 'cycle' begins with the arrival of foreign architects, often with official endorsement, at a critical and transitional historic juncture. They would then go on to play a catalytic role in transferring new technical expertise, introducing new structures of professional practice, propagating new models of pedagogy, and facilitating debates on styles and identity. This is often then followed by the waning of foreign architects' influence and the weakening of their value, ultimately leading to their declined presence.

During the Nationalist era, the arrival of colonial foreign architects such as Hudec and Murphy was instrumental in the inception of the modern Chinese architectural profession itself. The fledging nationalist government sought to cement their aspirations and legitimacy through the works of foreign architects and western-educated Chinese architects. The buildings these pioneers made and the architectural education system they helped to create were clearly influenced by their foreign counterparts and their own

studies abroad. However, as the political tides turned, colonial architects' association with imperialism and capitalism made their position and influence untenable as the Communist rose to power in China after the calamities of the Second World War.

During the Mao era, Soviet Russian architects and urban planners arrived in China under the invitation of the Chinese Communist government. They were responsible for the transference of new technical expertise, the introduction of a new mode of practice organised around the LDIs, the adoption of a Soviet Beaux Arts system of architectural education, and the dissemination of Socialist Realism in the formal expression of architecture. The work of Chinese architects, heavily politicised within a highly prescriptive ideology, adhered to these Soviet influences and guidelines. However, as Sino-Soviet relationship deteriorated and the chaos of the Cultural Revolution was unleashed, Soviet doctrines were abandoned and the Russian experts withdrew.

The post-Mao followed a similar pattern, with foreign architects arriving in the 1980s after the Reform and Opening Up was implemented, under the auspice of the reform minded Chinese government. The likes of I.M. Pei and John Portman, working on hotels and commercial development, opened up the dialogue between foreign and Chinese architects for the next three decades. Their presence changed the dynamic of the professional structure by introducing an alternative to the LDI model of practice, and in turn affecting the practices of the LDIs themselves. Along with their technical expertise, foreign architects also opened up the conversation on style and forms of expression. The foreign education of a new cohort of Chinese architects also led to changes in the architectural education system.

However, here is where a divergence from historic pattern occured. In the preceding Nationalist and Mao eras, the relationships between foreign and Chinese architects were denied the chance to evolve naturally and cut short by a succession of external political upheavals that affected cultural production like everything else. One could even find a repetition of this past pattern in the temporary disruption to the rapprochement between China and West in the aftermath of the Tiananmen Square Protests, where there was a temporary retreat of foreign architects and flight of native talents.

However, as discussed in the preceding section, the Tiananmen Square Protests and its aftermath did not affect the long term trend of Opening Up, engagement, and exchange between China and the West, between foreign and Chinese architects. The government driven, investment-led developmental model of economic growth regained momentum, and continues to shape the built environment.

As such, we find ourselves in the 2010s, where the relationship between foreign and Chinese architects have endured an uninterrupted period of almost four decades after the first implementation of Reform and Opening Up in 1978, and almost 3 decades after the post-Tiananmen Square 'restart'.

It would appear that this unprecedented period of encounter and interaction in the post-Mao era sets itself apart from the calamitous collapses of the relationship between foreign and Chinese architects in the past.

This is true, but only in so far as the change of political and economic agencies, which dictate the relationship between foreign and Chinese architects, have been externally imposed onto the prevailing paradigm of the time. Whilst we can refer to the entirety of the recent past since the implementation of Reform and Opening Up as a single period, the reality is that the relationship between foreign and Chinese architects have been evolving for this entire time, and continues to change. As such, this has not been a static relationship. A divergence of trajectories between foreign and Chinese architects is not contingent on fundamentally opposing externalities only. Rather, the accumulation of internal challenges, and the subtle changes in the political, economic, cultural, and professional parameters of an externally uncontested paradigm, can also lead foreign and Chinese architects down very different paths. This narrative of internal challenges and shifting parameters will be the focus of discussions in the following Chapter Five and Chapter Six.

5.0 THE PRESENT - Current challenges facing foreign architects in China

The period since the implementation of Reform and Opening Up in 1978 constitutes the longest continuous engagement between foreign and Chinese architects since the beginning of the 20th Century and the founding of the modern architectural profession in China.

During this period, China underwent a process of unprecedented economic growth, rapid urbanisation and dramatic expansion of its built environment. In 2005, 42% of the population were living in urban centres; by 2015, this figure had grown to 56%[70].

In this post-Mao economic paradigm, much of this urban growth was fuelled by a construction boom, in which the Chinese government have continuously encouraged, facilitated, and pursued infrastructure building, property development as drivers to maintain GDP growth, becoming directly involved in the creation of new cities and towns through the leasing of public land for property development.

Under the auspice of the state, the post-Mao period has witnessed the re-emergence of private sector developers as a major force in the production of the built environment. This reached a new height in the later half of the 2000s, where GDP growth entered double digits, and the annual growth rate for investment in the construction sector peaked at over 40% in 2010[71].

Significant building programmes were undertaken, spurred on by a series of events, such as the Beijing Olympics and the Shanghai World Expo, that were of both national and global importance. A huge stimulus package to combat the effects of the global financial crisis of 2008 further boosted growth in the property market, and investment in the western provinces led to the growth of a new generation of metropolises.

By the late 2000s, China had emerged as a global superpower under the continued leadership of the Communist authorities. This was a golden age for foreign architects, who had returned to China in large numbers, attracted by the speed, scale and ambition of development in China. An overview of this process was provided in Chapter Four.

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[70] Source: National Bureau of Statistics of China (NBSC), data from 2005 to 2015

[71] ibid.

This sustained period of engagement between foreign and Chinese architects have, over time, evolved into a series of existential challenges now facing foreign architects, bringing in to question their position of influence, which appeared favourably clear in the early years of reform.

Many of these challenges stem from an increasingly problematic relationship between foreign and Chinese architects. The nature and causes for these new volatilities in the relationship between foreign and Chinese architects are discussed below, framed as they pertain to the development priorities of the state, the demand and supply of expertise, and the regulatory structure of the profession.

5.1 Relationship with the state

As with previous cycles of foreign involvement in China, the presence and practice of foreign architects in post-Mao China is contingent on the role played by the state in the creation of the built environment.

There are now two principal challenges facing foreign architects in China in terms of their relationship with the Chinese state. One relates to the perception of the role of the foreign architect in the eyes of the state-as-client. The other relates to the role foreign architects play in the creation of vast swathes of residential and commercial real estate, as part of the state's particular model of urban planning and development.

5.1.1 'Starchitecture' and political legitimacy

Despite the introduction of reforms in the post-Mao era, the state in China remains the principal underpinning actor in the physical creation of the built environment.

Central government, local governments, and the state's various branches and departments, are directly engaged in commissioning foreign architects in the design of significant infrastructural, civic, institutional, or cultural buildings across the country in recent decades. These buildings such as Foster & Partner's Terminal 3 at Beijing International Airport, Herzog and de Meuron's National Olympic Stadium, OMA's CCTV Headquarters, and Paul Andreu's National Opera House, are visually striking, technologically complex, and conceptually pioneering.

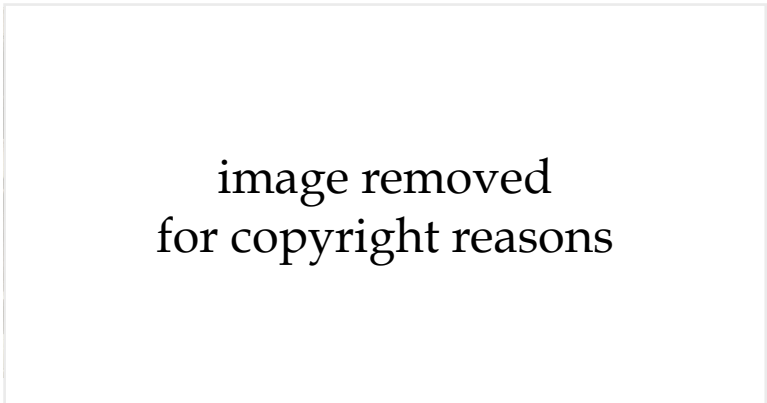

Figure 30:
(Left)
The National Opera House by Paul Andreu seen from the Hutong streets to the west in 2009 (Source: Wang, Jun)

Figure 31:
(Below)
The Galaxy Soho development by Zaha Hadid seen from the Hutong streets to the south in 2013 (Photographed by the author)

Simultaneously, these project are often unbuildable in the West due to their scale, cost and complexity. This has made China a 'laboratory' of experimentation by foreign architects to test their ideas, and the results are often very problematic in terms of their relationships with existing urban context (see Figures 30 and 31 above). The rarity and novelty of these buildings have imbued them with huge political significance. For the Chinese state, these superlative 'starchitecture' projects have come to symbolise China's advanced modernity, and were promoted as evidence of China's economic and cultural resurgence on the world stage. The traumas of the past are left behind, and the country fixes its gaze firmly on the future, towards what President Xi would call the great 'rejuvenation'[72] of the Chinese nation.

Importantly, as well as speaking to the world, these buildings are also a message from the state to the Chinese public: that prosperity has only been made possible through the leadership of the Communist party. As such, this 'starchitecture' is a projection of the state's political power and a validation of the government's claims to legitimacy. Conceived as an image

[72] First mentioned by Xi Jinping in his China Dream speech on 29th of November 2012 after visiting the China National Museum.

Figure 32: CCTV Headquarters by OMA (2012) (photographed by the author)

and a symbol before anything else, these 'starchitecture' offerings often proved to be problematic in their built quality and use.

Consequently, the foreign architects who design these buildings become caught up in the conflict between the functional and practical purposes of the buildings and the political logic of their commissioners, and become complicit in the management of these buildings, sometimes at odds with the designers' intentions.

For example with the CCTV Headquarters building in Beijing (see Figure 32 above), designed by OMA, to accommodate the state broadcaster China Central Television, Rem Koolhaas and Ole Sheeren saw an opportunity to create 'some kind of new utopia, partly social, partly constructive, [that] reclaims the ground from the seemingly rational territories of the global market economy . . . it is a scale beyond the simple addition of its individual components: Bigness'[73]. They were acutely aware of the political nature of their work, as CCTV is the Communist party's mouthpiece. However, Rem Koolhaas noted that,

[73] Ole Scheeren, 'Introduction: Made in China, CCTV by OMA', *A+U Architecture and Urbanism,* July (2005): 5

> We noticed that in China, there was a sincerity and ambition to run operations like this with more integrity, and with a more straightforward relationship between the intentions – with respect to the people – and the result. It also coincided with the change in leadership in the political party. That was a part of the effort of China itself to become more legitimate, more straightforward. And we wanted to support that.[74]

Koolhaas and Sheeren had conceived of a public space under the impossibly cantilevered form of the building, leading to a public visiting route that would loop through the entirety of the building. In reality, the entire meticulously landscaped realm within the site boundary is inaccessible to the general public. A fence has been erected around the perimeter of the site to restrict access to two gated checkpoints with uniformed security guards, who check everyone for their identifications. The 'loop' that connects the entire building's various functional spaces is certainly not open to the public without prior appointment or invitation. The building instead remains shrouded in mystery, at least for the public at large. When the building cannot be read as it is intended by the architect, incomprehension prevails. The citizens of Beijing have resorted to mockery as a way of mediating their difficult encounters and experiences with the CCTV building, calling it the 'Big Pants' building, which has stuck as an unofficial moniker.

The example of CCTV is representative of the cultural complexities faced by foreign architects in China. The involvement of foreign architects on these types of building projects has become associated with an official pre-occupation with the creation of 'starchitecture': exotic building projects commissioned to generate political kudos, often overriding any pragmatic concerns over planning and user needs. In this power structure, architects have become an unwitting instrument for creating political kudos for government officials, a goal that can conflict with the design intentions, and even professional ethics.

This dilemma persists not only at a national level, but is also local.

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[74] Rem Koolhaas and Ma Weidong, 'Interview with Rem Koolhaas', *A+U Architecture and Urbanism*, July (2005): 10

Just as the Chinese state have used 'starchitecture' to promote itself on the world stage, provincial and city governments in China have also come to rely on the commission of architectural 'objet d'arts' by foreign architects as a way to put themselves on the map, the 'Bilbao Effect' with Chinese characteristics. In the West, the same tactics was adopted, as declining post-industrial cities commissioned high profile cultural institution design by world leading architects in order to enhance the local cultural identity and attract investment. In China, rapidly developing second and even third tier cities are trying to do the same with foreign architects.

This can be seen in the case study of the Changfeng Cultural and Business District, in Taiyuan, a second tier provincial capital of Shanxi.

Case Study 1: Changfeng Cultural District, Taiyuan, Shanxi Province

The Changfeng Cultural District is located in the southwest of the city of Taiyuan, on what used to be marsh grounds on the outskirts of the city, sitting along the west bank of the River Fen.

Situated in the northern Chinese heartland, Taiyuan is an inland second tier city, and the provincial capital of Shanxi. Like much of the rest of China, it has a rich and ancient history, with remnants of Tang Dynasty architecture still in preservation. It was once part of a rich banking and trading province, participating in the exchange of monies, silk and tea along routes that included the Silk Road. The city became dominated by heavy industries and coal mining starting from the 1910s. Its development since 1949 echoes that of many typical Chinese cities, and its architecture reflects this. Since the reforms of the 1980s, a clear gap in wealth and development has appeared between Taiyuan and the coastal Special Economic Zones that benefits from political and financial incentives as well as infrastructural advantages. It was largely seen as a primary industry hub that provided the resources and raw materials that fuelled the coastal cities. In more recent years, the economic pivoting to the western parts of China has also bypass the city. Dramatic growth by western standards has nonetheless taken place in Taiyuan. Its economy currently ranks 17th out of 25 provincial capitals cities in China. Its population ranks 126th of the 336 designated cities. In recent years, the city has expanded dramatically, from large malls catering to the Nouveau Riche, to speculative office

Figure 33: Changfeng Cultural District, Taiyuan masterplan by Arte Charpentier (Source: Arte Charpentier)

development in the new CBD, as well as enhanced infrastructures and public spaces.

The Chanfeng Cultural District occupies 2.56 square kilometres of public land. In 2006 the Taiyuan local government designated this area for the provision of public cultural institutions as part of their urban development vision for the city of Taiyuan, to be delivered between 2006 and 2020. The district was to become a cultural hub that accommodated a relocated science museum, and library, as well as a new Taiyuan Museum of Art, a Museum of Taiyuan, a Coal Exchange, and a new Shanxi Grand Theatre. The entire project delivered an architectural built area of 2.3 million square metres, at the cost of 10 billion Yuan, with construction commencing in 2008-2009 and completion in 2011. The conception of this grand ambition reflected a national appetite for the superlatives at the time, following the Beijing Olympic in 2008, and the Shanghai World Expo in 2010.

To achieve this ambition, Taiyuan a second tier city, appointed the French architectural practice Arte Charpentier in 2006 to undertake the masterplan of the entire district. Working in a site that lacked any discernible urban context, Arte Charpentier developed a masterplan that arranged a collection of cultural institutions around the perimeter of a trapezoidal moated man-made peninsula in the River Fen (see Figure 33 above). The

Figure 34:
The Shanxi Grand Theatre to the right of the photograph forms the centre piece to the master plan
(photographed by the author)

Figure 35:
(Far left)
The raised podium undercroft of the Grand Theatre 'framing' the city
(photographed by the author)

Figure 36:
(Left)
The vast public space within the Changfeng Cultural District
(photographed by the author)

buildings sit like objects around a vast public space. The whole peninsula is then connected to the banks on either side of the river with a series of bridges. Each building on the island district itself is conceived to be an icon in itself, with the chief aim of putting Taiyuan on the cultural map of China.

Arte Charpentier were also put in charge of the design of Shanxi Grand Theatre (see Figure 34 above), the most important of these cultural buildings. The design bore a striking semblance to OMA's Casa da Musica in Porto, with a bulky masonry clad exterior composed of triangulated carved surfaces. However, in the case of Taiyuan, a hole was carved through the middle to create a large rectangular external covered space, which in the words of the architect, is a 'window' or a 'gate', which 'framed' the river, the landscape city behind. In reality, as the whole site sits on a higher datum to the river, the river is simply invisible from the opera house. In addition, due to the flatness of the land around it, a wind tunnel effect can be felt on the calmest of days in this covered space (see Figure 35 above).

The vast size of the public space (see Figure 36 above) is a generous gesture to the public, and according to locals, does attract footfall, particularly in the evenings, where retired ladies come in large groups to dance there.

Figure 37:
(Left)
Access to site is mainly by private vehicles. The Taiyuan Museum of Art visible to the top left (photographed by the author)

Figure 38:
(Left)
The vacant Museum of Taiyuan by Paul Andreu (photographed by the author)

However, this belies the difficulty the public has accessing the site. Located far away from the built-up area, access is mainly via private vehicles (see Figure 37 above). It can take up to an hour to reach the cultural facilities via buses from the main residential areas of the city centre. Even with private vehicles, for which the site's access strategy is primarily intended, it can take up to half an hour to reach the site from city centre. Even on the busiest days, the sheer size of the space means that large part of the district still feel sparsely used, even abandoned.

This is exacerbated by the underuse of some of the cultural facilities themselves. With the exception of the public library, a building designed by a Local Design Institute, the other buildings are infrequently visited by the public. The Museum of Taiyuan, designed by renowned French architect Paul Andreu, remains unoccupied and closed to the public since its completion in 2011 (see Figure 38 above). The Taiyuan Museum of Art, designed by Harvard professor and architect Preston Scott Cohen, is used occasionally for hosting officially sanctioned art exhibitions, with visitors arriving as officially organised parties with tickets handed out for free.

The Grand Theatre, as the centrepiece of the collection of new buildings, sits on an axis perpendicular to the river, pointing to two more vast pieces

Figure 39: The empty land and residential development visible behind the Cultural District (Source: Arte Charpentier)

of empty land to the west of the district. These are critical to the reading of the Changfeng Cultural District, as one is slated to be a large residential development that will surround the Cultural District, and more importantly the other will accommodate the relocation of the entire local government facilities from their existing city centre locations (see Figure 39 above).

While the local government will claim that their office relocation is simply to attract more growth and investment in the local area, the design of the district, with its axial layout relating explicitly to the yet to be constructed government buildings, confirms the symbolic subservience of this public realm to the state.

For the local government, the front end delivery of the public space and cultural institutions ultimately serves a politically driven purpose. It is hoped that the facilities offered by the district will attract big real estate development firms to locate their projects close by, and purchase land from the government at a premium, thereby boosting local authority income and drive up GDP growth, all of which will add political kudos to the officials in charge, and bring the recognition from their superiors necessary for career progression.

The spatial proximity of the public and the governmental promotes the notion that the public spaces and facilities are predicated on the good governance of the local officials, without whom the public good cannot be delivered. In fact, the politicisation of these public buildings can be inferred from their use by the local government since their completion. The opera house, soon after its completion in late 2011, was used in early 2012, to host the 6th meeting of the 11th Congress of Shanxi province, an annual gathering of great political significance, where the governor, Wang Jun inspected the opera house and delivered his Working Report.

As the Changfeng Cultural District illustrates, for government officials, 'starchitecture' projects are often used to yield short term gains in economic growth, irrespective of the appropriateness of the project from an urban planning point of view in terms of public usage and access, or to what extent it constitute a public good.

The public realm in other words, is exceptionally politicised in China, in cases like this, a means of earning recognition and/or promote in government bureaucracy. In an essay[75] on designing buildings in Erdos, infamous for its ghost cities, Chinese LDI architect Yan Lizhong describes how his original design for a series of government building arranged in a garden landscape cluster was had to be revised because local officials wanted the buildings to instead line the route where more senior officials would be inspecting the city, so that the success of the new town can be experienced 'immediately and speedily'[76].

The role and public perception of foreign architects have therefore become distorted as China has undergone dramatic economic growth and development in the post-Mao era. Through the state-sponsored push for the exotic and the superlative, particular in the last two decades, foreign architects have come to be viewed not only as holders of expertise, but as generators of 'weird architecture'[77], whose work is vulnerable to political manipulation and public mockery.

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[75] 郑世伟 主编, 建筑 十四室记 (东南大学出版社, 2013) / Zheng Shiwei (ed.), *Journal of Architecture Studio 14* (Southeastern University Press, 2013), p.199

[76] ibid

[77] Quote attributed to Xi Jinping from the Literary & Arts Workers Forum, First reported by People's Daily Micro Blog, October 15th, 2014.

5.1.2 'Starchitecture' and instant identity

While the aforementioned government backed icon making is well documented. Such projects only account for a small percentage of the total volume of construction output. Of the total construction volume begun in 2013, only 11% was categorised as 'other', which covers a plethora of building types, leisure, cultural, hospitality, civic, institutional, etc[78], while 78% was residential or commercial in nature. According to data from 2014, 'the residential markets collectively accounted for 72.3% of the total construction industry in 2013'[79]. Data from the National Bureau of Statistics of China suggests that the residential sector accounted for 67.7% of total sales volume of property development in 2015, and the commercial real estate sector accounted for another 21%[80].

In reality, far more than 'starchitecture' projects, it is the residential and commercial real estate markets that have defined the character of the majority of the built environment in China. The production of this 'silent majority', which constitutes the day-to-day urban experience of the average Chinese citizen, is where the state exercises a more far-reaching, albeit not always immediately direct, power, which in turn which affect the practice of architects, particularly foreign architects.

To understand this less explicit relationship between architects and the state, one must first understand that the growth of the built environment in China over the last three decades, driven by the state through its policies of investment-led infrastructure building, city-making, and real estate development as major engines of economic growth.

This is evident in the pattern of city growth and city creation in cities such as Shenzhen, where a unique top-down economic agency in China was capable of creating a city of around 15 million people from a fishing village of 30,000, in a little over 30 years since the 1980s. By setting up Special Economic Zones (SEZ) such as Shenzhen, and others around the Pearl River Delta, the government pursued rapid urbanisation and economic

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[78] 2014 中国统计年鉴, 国家统计局 / *China Statistical Yearbook 2014*, (China National Bureau of Statistics of China)

[79] Construction in China - Key Trends and Opportunities to 2018, *Timetric Construction Reports*, (Timetric Consultancy, 2014)

[80] 2014年全国房地产开发和销售情况 / National real estate development and sales conditions for 2014 <*http://www.stats.gov.cn/tjsj/zxfb/201501/t20150120_671070.html* >*[2014]*

growth that have since been described as 'miraculous'. For developers and architects, this created, from virtually nothing, opportunities to produce large numbers of new buildings and new urban environments. More recently since the late 2000s, inland and western cities such as Chengdu, Chongqing, and Changsha have emerged as the next generation of first tier cities, following the central government's 'Development of the West Region'. This policy saw government incentives, subsidies, and direct investments into the region, in order to encourage investors and developers to move in. The result has been the rapid expansion of these cities both in population, physical size, and socio-political importance. Chongqing's population now stands at 29.9 million, covering an area of 82,000 square kilometres, and is centrally administered. Government investment in infrastructure was coupled with property development, creating a skyline that begins to rival those of Shanghai and Hong Kong. Arguably, much of the private investments would not have flowed into these cities without the programme of investment by central government itself. This of course in turn attracts the service sectors to follow the money.

The rapid growth of these new cities has undoubtedly resulted in tangible improvements to their urban and infrastructure provisions. This is seen by many as the evidence of success in the government's policies, and vindication of an economic policy in which expansion of the urban environment is used as a tool for GDP growth, and GDP growth figures are used as the sole indicator of living standards and quality of urban environment.

Problems arise when the GDP goal set by the central government begins to distort the way local governments manage and plan urban development. Fundamentally, this is attributable to the poor state of local government finances. Control of the economy by central government and an ineffective system of local taxation mean that local governments are often running their budgets at a deficit.[81] To reconcile this cash-poor situation against their ambitions for GDP growth, officials have come to rely more and more heavily on bank loans and the 'transfer' of public land to private developers as a primary means of maintaining spending and investment.

[81] *Yang* Zhong, *Local Government and Politics in China: Challenges from below (*Routledge, 2003)

Designed to bypass the ideological question that all land is technically public property in a Communist republic, a 'transfer' allows local government to effectively lease public land to private sector in order for real estate projects to be constructed. Much like a lease, the transfer is in exchange for payment to the government, and has a limited period.

According to local government logic, the leasing of public land will generate income for the local government; the subsequent construction of the building project and creation of a new urban environment will generate further investment, jobs and income, thereby pushing GDP towards their target, as well as improving their finances. As all land is technically owned by the state, there is a seemingly abundant supply of sites that can be offered up and leased to maintain this model of growth. At times, this means land is made available by the government through compulsory purchase of sites with existing occupiers, against strong citizen opposition, resulting in the much reported cases of 'Nail Houses', where some residents refuse to move out.[82]

In 1993[83], a government-backed residential real estate boom resulted in runaway prices and empty apartment towers in Hainan province, which triggered the government to rein in credits within the state-backed banking system to prevent developers from borrowing too much too quickly, but the damage to the entire housing market was already done, leading to a five year downturn and negative growth, as well a cityscape of unfinished buildings: a blight on the built environment. Conversely, the government had to do the opposite in 2014 and 2015, to ease restrictions on purchases of second homes, in respond to a general slow down in the economy, propping up the real estate market despite an oversupply of housing, to preserve GDP growth.

Indeed, under these local government imperatives, planning policies and urban strategies are often devised to serve the distorted short term goals of making new land available for development. At times this means large swathes of urban areas are planned and leased for development without

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[82] Li Jing Jing, *Property Right Fragmentation and Value-distribution in Redeveloping China's Old Urban Neighbourhood: an Analysis of Nail-houses* (Open Dissertation Press, 2015)

[83] 邹东涛, 发展和改革蓝皮书 - 中国改革开放30年 (1978～2008) (社会科学文献出版社, 2008) / D. Zou (ed.), *Blue Book of Development and Reform: Report on China's Economic Development and Institutional Reform - China 30 Years of Reform and Opening-Up (1978-2008)* (Social Sciences Academic Press, 2008)

Figure 40: Residential towers in Taiyuan on the outskirts of the city (photographed by the author)

consideration of the likely demand and long term sustainability of the projects.[84] The resulting oversupply of residential real estate under this state-driven narrative of 'if you build it, they will come' has led to the emergence of the so-called 'instant cities' (see Figure 40 above). Across the country large numbers of residential towers have been and are being erected on recently claimed and flattened new grounds, fed by newly completed motorways, and surrounded by nothing but a vague notion of what might be in the future. The lack of topographical, cultural and formal urban context mean that the *tabula rasa* nature of the site itself is transferred to the buildings that sit on top.

It is in this context that foreign architects are being asked, by clients and, more often than not, their marketing agencies, to create or recreate instant identity, imbue prestige, and add brand value to real estate, so they may stand out in an oversupplied and competitive market place driven by the state's imperative to pursue a land lease-based model of urban development, with the primary aim of balancing local government finances and achieving state prescribed GDP targets.

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[84] Zhou Feizhou and Tan Mingzhi, *Relationship between the Central Government and Local Governments of Contemporary China* (Springer, 2017)

Case Study 2: Thames Town, Shanghai

Thames Town, on the outskirts of Shanghai is another example of this policy. Designed and constructed to resemble a romantic and nostalgic version of a quintessential English market town, Thames Town has meandering cobbled streets, lined with residential, retail, and leisure buildings in a range of pastiche styles, from Tudor houses to Georgian terraces. Surprisingly, the English theme was not dreamt up by an eccentric developer, but conceived by Shanghai's own planning authority as one of eight new towns in the Songjiang District, and designed to relieve the housing pressure on central Shanghai. Each new town was to be modelled on a European motif, ranging from Scandinavian and Italian to Spanish and German.[85] Developed by Shanghai Songjiang New City Construction and Development, a state-backed organisation, and Shanghai Henghe Real Estate, the project was masterplanned and designed by the British multi-disciplinary practice Atkins. Typically know for their highly sophisticated and complex urban infrastructure projects, on this occasion, Atkins designed buildings that at times were direct replications of existing English precedents.[86] Atkins' ambivalence about this project can be seen from the absence of any reference to the project in their publicity and their online archive of their China projects. The Chinese can come at a high price for foreign architects.

Case Study 3: Ordos 100, Kangbashi

The Ordos 100 project illustrates this perfectly. A city located in inner Mongolia, the city of Ordos underwent dramatic growth following the discovery of a vast reserve of coal and natural gas in the 2000s. Its expansion saw the creation of a new city district called Kangbashi, raised from the empty desert that forms the outskirts of Ordos. The local government led the way in conceiving the idea for the new city, as well as actively investing in its development. Between 2004 and 2009, the local authority had built in Kangbashi a collection of governmental and education institutions, and facilitated the construction of factories, retail venues, and most importantly large volumes of residential real estate.

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[85] Harry den Hartog, *Shanghai New Towns: Searching for Community and Identity in a Sprawling Metropolis* (010 Publishers, 2010)

[86] Louisa Lim, 'China Gets Its Own Slice of English Countryside', World News (NPR, 12 December 2006)

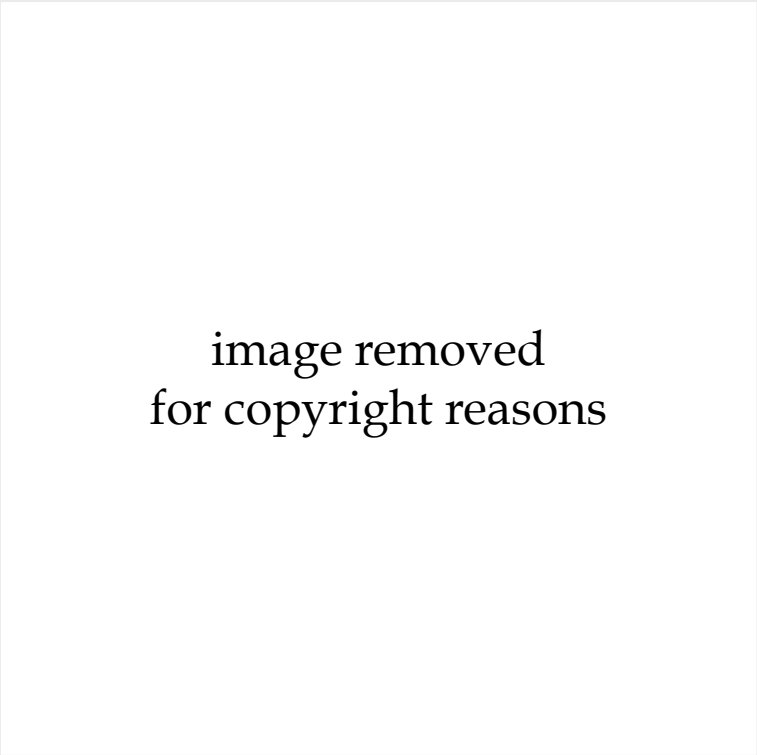

Figure 41: One of the unfinished and abandoned houses of Ordos 100 Project (Source: Raphael Olivier)

Report of its under-occupation and 'ghost city'[87] status first surfaced as a photo essay in Time magazine in 2009, since then rate of occupation has improved, but according to reports from foreign news media, the district was still only one-third full[88] in 2016.

This was the context when Ai Weiwei was asked in 2008 by local developer Jiang Yuan Culture & Creative Development Company to curate the creation of 100 villas by 100 international architects, selected from 29 countries by the architects of the 'Bird's Nest' stadium, Herzog and de Meuron. The project garnered international attention for both Ordos and the developer. Just under 10 years later, however, only an art museum by DnA architects have been completed; of the 100 villa only five were ever started, which now lie in various states of ruination (see Figure 41 above). The site, along with the designs for the 100 villas, were sold on to another developer even before any construction was completed. Nothing materialised subsequently after the sale.

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[87] Wade Shepard, *Ghost Cities of China: The Story of Cities without People in the World's Most Populated Country* (Zed Books 2015)

[88] Wade Shepherd, 'An Update On China's Largest Ghost City - What Ordos Kangbashi Is Like Today', *Forbes Magazine*, (19th April, 2016)

In the case of the Ordos 100 project, the perceived creativity and innovation typically attributed to foreign architects were used as tools by the developer to add value to their real estate speculation.

As Michael Alexander Ulfstjerne, a Danish cultural studies scholar with a keen interest in Ordos notes,

> Private real estate developers and, to some extent, local governments appropriate the recent emphasis on creativity and clustering as a short-term strategy to accumulate capital, where creative industries can be a shortcut for what is nothing more than a land grab leading to further speculation…[Ordos] is instructive of a more general trend in which political buzzwords are appropriated by entrepreneurs and developers to gain access to land. In the process time they become benchmarks in local officials' political careers.[89]

As Thames Town and Ordos 100 have shown, the economic logic of the local governments' planning policy have distorted the perceived value and remit of foreign architects, who have, to some extent, become generators of brand identities.

Foreign architects have played to this demand, returning to recognisable styles and motifs, in order to produce branding for their clients, often at the sacrifice of innovation and more thoughtful responses that would take into account the need of Chinese citizens as well as the financial targets of their clients. The architectural language of Steven Holl's Beijing MOMA hybrid residential towers is remarkably similar in his Chengdu Raffles City project, with the exception of the inclusion of the world's only built Lebbeus Woods project. Zaha Hadid's Wangjing Soho was clearly conceived to be part of an ensemble with the earlier Galaxy Soho, designed for the same client, Soho China.

Ironically, this kind of architecture from foreign architects has bred a culture of Chinese architectural imitation as a shortcut to obtaining instant identity. For example,Zaha Hadid's Wangjing Soho project was virtually copied like-for-like by the Chongqing-based developer Meiquan, who

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[89] Michael Alexander Ulfstjerne, 'The Ordos 100 Spectacle Revisited' <*http://www.creativetransformations.asia/2012/10/creative-land-grabs-the-ordos-100-spectacle-revisited/*>*[2016]*

completed the copy prior to the completion of the original Wangjing project itself.

Stephen Cheng, Executive Director at AEDAS Hong Kong, recalls in 2013:

> When we did competitions in China ten years ago, the client would come to us and say: "I would like you guys to give me a proposal in two weeks." When we go to the presentation in two weeks with initial concept sketches, a competing LDI turned up with dozens of computer renderings, ten different building forms but no layout. This is what the local developers want, they just want to visualise it. But the exterior they [the LDI] provided were all copies of other examples. What will they really do for the client? We learned this ten years ago. Now, the pressures on time and from the client are the same if not worse. Clients are still looking at the appearance to make decisions. The copiers see something in a magazine and copy it quickly, just like a product, like a Prada bag… In China, the clients sometimes don't know what they want.[90]

This experience exposed the emphasis Chinese client put on the image of a spectacle over design, and the branding power of their buildings over other practical concerns. To compete, many foreign architects have had to adapt to this image driven process of winning work, as they wait for Chinese clients to become more professionalised and mature in their taste and priorities.

5.1.3 'Starchitecture' and its backlash

Foreign architects' involvement in the narrative of superlatives and 'starchitecture' has also had an impact on their authority, their ability to influence the discourse on architectural style and expression in China, as they have done in previous historic cycles (See Chapter 4 section 4).

As China re-opened its doors in the 1980s, the visual and theoretical vacuum of the preceding decade was suddenly filled by the discourse of postmodernism in the West. Postmodernism offered Chinese architects a theoretical justification to re-engage with issues of style, allowing them

[90] Interviewed on 9th September 2013 at AEDAS Offices, Hong Kong.

once more to draw from a wide palette of architectural traditions, both Chinese and none-Chinese. As they sought new means of expression after the straitjacket of Soviet Socialist Realism, and the destruction brought by the Cultural Revolution.

Initially, the work of foreign architects was an important source of influence and inspiration for native architects, their stylistic experimentations welcomed by virtue of its simple difference from what had gone before. Among the early examples of foreign architects working again in China, there were genuine attempts to offer a more critical reflection on China's architectural traditions, such as I.M.Pei in his Fragrant Hill Hotel.

However, as the economy gathered speed, foreign architects found themselves largely responsible for either monotonous international commercial modernism, or the novelty of 'starchitecture', even if not always designed by 'stars'.

By the 2000s, any critical reflection by foreign architects on China's past or its engagement with modernism prior to the Cultural Revolution and Soviet Socialist Realism had dissipated.

Nevertheless, a new generation of Chinese architects felt compelled to assess their own attitudes to the visual, spatial and material expressions of postmodernism, deconstructivism, parametricism, and monotonous international commercial modernism. Some began to explore how the formalist approaches of 'starchitecture', by architects like Koolhaas and Hadid, could be better adapted to respond to Chinese sensibilities, both in their conception and execution. This can be seen in the works of practices such as MAD, whose founder Ma Yansong, is western-educated and had worked for Zaha Hadid. His parametrically driven architecture attempts to reference the ancient aesthetic system of *Shanshui*[91] (mountains and water in classical painting compositions) in esoteric sculptural objects, which closely resemble works by Hadid.

Other Chinese architects have begun to critically reflect on the contribution of foreign architects since the 1980s. Wang Shu, for example, has become vocal in questioning the role of foreign architects and their work in China, as well as challenging the western hegemony on theoretical and stylistic

[91] Ma Yansong, *Shanshui City* (Lars Müller Publishers, 2015)

Figure 42:
(Left)
Ningbo History Museum by Wang Shu

(Right)
Xiangshan Campus of China Academy of Art by Wang Shu

(both Photographed by the author)

discourse. The works of Wang Shu (see Figure 42 above), and others such as Liu Jiakun and Chang Yung Ho, re-assesses the meaning of modernism in the contemporary Chinese context, in approaches that can be best described as a 'Chinese Critical Regionalism'[92] [93].

As this native talent matures foreign architects are finding themselves increasingly excluded from this examination of the future of Chinese architecture, led principally by Chinese architects seeking to reconcile China's architectural heritage with its new global status.

5.2 Relationship with clients

As with previous cycles of foreign presence, a skills and knowledge vacuum at the end of the 1970s spurred the need for foreign expertise in the construction industry and facilitated the re-entry of non-Russian foreign architects in China from the 1980s onwards.

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[92] Kenneth Frampton, *Towards a Critical Regionalism: Six Points for an Architectural Resistance, The anti-aesthetic: essays on postmodern culture* (Bay Press, 1983)

[93] Alexander Tzonis and Liane Lefaivre, *Critical Regionalism (Architectural Design Profile)* (St Martins Press, 1995)

At that time, the architectural profession consisted solely of LDIs and had experienced three decades of ideology-led practice based on a centrally planned economy, and lagging behind the West in construction technology know-how.

As the pace and complexity of construction grew in post-Mao China, the LDIs found themselves increasingly ill-equipped to meet the demands of a rapidly changing construction environment and the needs of their clients. Commissions were no longer after the tried and tested templates of public buildings and housing inherited from the Soviet era, which formed the LDIs' dated repertoire. Instead, governments wanted gleaming business districts, new infrastructures, and new cultural buildings. A new breed of aspirational private clients emerged, who wanted unique projects, as well as new apartments, shopping malls, and office towers.

While state architects within the LDI system did experiment with new found forms of expression and technologies in the early years of the reform, producing buildings such as the Oriental Pearl TV Tower in a High-Tech style, these belied a broader lack of knowledge and expertise on a variety of design and construction related fields.

It was under these conditions that foreign architects entered the market and buildings such as the Shanghai Centre by John Portman, one of China's first foreign investment mixed-use skyscrapers, was completed in 1990. Similarly, the American firm SOM was tasked with designing what was at the time China's tallest building, the Jinmao Tower in Shanghai, completed in 1998. Thereafter, the knowledge and expertise of foreign architects and engineers became a much sought-after commodity, as Chinese clients pursued increasingly ambitious goals.

The increasing standing of foreign architects in the profession and in the public eye can be clearly seen in the list of 'Beijing Top Ten Buildings of the Decade'. Although state-sponsored and exclusively focused on large scale projects, the drawing up of the top ten list is nonetheless a comparatively useful gauge of the general condition of the construction industry and architecture profession. From the 1980s onwards, it has been organised by Beijing Daily, Beijing Evening News, Beijing Construction News, along with Beijing Construction Industry Associate, backed by Beijing

government's propaganda department, national resources department, and construction department.

Foreign architects first appeared in the top ten in the 1980s, with the Great Wall Hotel designed by American company Beckett International Corporation, with China's first ever curtain wall system. The list in the 1990s contained New Dongan Mall by American architects RTKL, and two projects delivered with the help of practices from Hong Kong.[94] The 2000s list, however, drawn up in 2009, contained eight cultural, infrastructural and commercial projects by foreign architects or in collaboration with foreign architects[95], from Terry Farrell's Beijing South Station, to Paul Andreu's National Opera, as well as Jean-Marie Duthilleul and Cui Kai's Capital Museum.

This overall trend of increasing reliance on foreign architects in the delivery of major or pioneering construction projects appear to confirm foreign architects' role as the holders of superior knowledge and expertise.

However, there are two aspects in which this does not appear to be the case, which have had a detrimental impact on the practice of foreign architects, and, to some extent, their Chinese counterpart. These are elaborated below.

5.2.1 Loss of design expertise to developer clients

The preceding section (5.1) has already discussed the importance of the real estate sector in the making of the built environment, as well as the distortion it exerts on the role of foreign architects, whose value have become increasingly understood only in terms of brand power and prestige rather than knowledge and expertise, in the process of producing 'starchitecture'.

There is another dimension to this erosion of the traditional role of the architect by real estate developers. To understand it, one must first understand the origin and constitution of China's real estate developers.

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[94] Henderson Centre by BIAD and Simon Kwan, Beijing New World Centre by Dennis Lau & Ng Chun Man Architects

[95] The Water Cube, the Bird Nest, National Opera, Capital Museum, Capital Airport T3 Terminal, Beijing South Railway Station, the New Poly Plaza, Beijing Television Centre.

As early as 1979, Deng Xiaoping was already advocating for private individuals and private money to play a bigger part in the construction of dwellings to meet the urgent housing needs of the nation, with the urban dweller's average living area per capita dropping from 4.5m^2 in 1949 to 3.6m^2 in 1978[96]. In 1980, the government, in its *Outline Report on National Capital Construction*, first suggested that residential housing could be commodified and opened up to the market, paving the way for the eventual legalisation of the private ownership of dwellings by private individuals in 1998.

What started as changes in policies to meet the challenges of housing needs became a more fundamental political and legislative reform of land ownership itself in China. The State ownership of all the land in China had been enshrined in the Chinese Constitution in since 1949, which forbade private ownership of land or the monetary transaction of land. Now, as the reform started to take shape in the 1980s, the government amended the laws in 1988[97] to put into place the legal mechanism for the transfer of development rights (转让) on public land from government ownership into the hands of private individual(s) and organisations, at an agreed price.

This can be compared to the sale of the Leasehold by a Freeholder in a more conventional western model of land ownership, where the state is the 'Freeholder' of the land, but through a monetary transaction, has given the rights to the use of the land to a second party, the Leaseholder, for an agreed period of time.

Precedent was set on December the 1st, 1987, in a then little known village called Shenzhen, not yet designated a city, when the first parcel of land was 'transferred' by the local government to developers in an auction[98], and the first private developer in China was born. For the first time since before the Mao era, the state was no longer the sole commissioner of architecture.

Over the course of the 1990s, real estate developers from Hong Kong and Singapore were the first to move into mainland China, attracted by the

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[96] 邹东涛, 发展和改革蓝皮书 - 中国改革开放30年 (1978～2008) (社会科学文献出版社, 2008) / D. Zou (ed.), *Blue Book of Development and Reform: Report on China's Economic Development and Institutional Reform - China 30 Years of Reform and Opening-Up (1978-2008)* (Social Sciences Academic Press, 2008)

[97] ibid.

[98] ibid.

huge market and potential for further growth in real estate. Companies such as Sun Hung Kai and Cheung Kong from Hong Kong, and Capitalland and Far East from Singapore were some of the earliest to move into the virgin territory of China, building housing, commercial, retail and mixed use schemes in key first tier cities such as Beijing, Shanghai, and Guangzhou. These companies had already established themselves in their home countries as credible and substantially sized developers, with established development models. The transition into the mainland Chinese market was made easier for these developers as they were from locations where the Chinese language, culture and sensibility were familiar to them. This gave them a great advantage over other western based foreign investors, a rarity in the 1990s, and over domestic developers, who were still in their professional infancy.

The first generation of domestic private real estate developers modelled their operations and products on the precedent set by their Hong Kong, Taiwan, and Singaporean counterparts, and progressed from being amateurs at the beginning of the 1990s, to being the dominant force in the market place by the 2010s. Different kinds of businesses from a variety of backgrounds would turn their hand to real estate development as means of diversifying their portfolios and growing their income exponentially. Vanke, now China's largest real estate company was established in 1988 as a company that sold scientific equipments. Evegrande, the largest real estate developer in China by volume of land, started its life as a chain of stores. This narrative of amateur developers with large capital funds turning their hand to real estate continues in China to this day.

The third and by no means the least important type of real estate developer in the Chinese real estate sector are the State Owned Enterprises(SOEs). SOEs once embodied the very meaning of production in pre-1978 Communist China, when all goods and services were produced based on collective needs. They were large, often grossly inefficient entities that often enjoyed monopoly within their industry. The introduction of the free market led to a crisis for SOEs in the 1990s, with mass lay-offs and closures. Since then, however, through structural reform, partial privatisation, and the exploitation of their historic advantages, SOEs became the dominant players in their respective industries, and large investment vehicles. In their current guise, SOEs have become the instruments through which central

government exercises what many consider 'State Capitalism', in which according to Ian Bremmer:

> '…governments use various kinds of state-owned companies to manage the exploitation of resources that they consider the state's crown jewels and to create and maintain large numbers of jobs. … The state is using markets to create wealth that can be directed as political officials see fit. … This is a form of capitalism but one in which the state acts as the dominant economic player and uses markets primarily for political gain.'[99]

This has fed the emergence of SOEs that have turned their hands to real estate development, irrespective of their sector of origin. For example Huarun Property is actually a specialised subsidiary of China Resources Group, which first established itself as an SOE in the energy sector.

These so called 'Red Chip' companies account for a substantial proportion of the construction output in real estate. Based on 2013 data collected by this thesis, 5 of the largest 10 real estate developers in China are SOEs. Greenland, an SOE set up by the Shanghai city government in 1992, is now the third largest real estate developer in China by sales, and the largest among the SOE real estate developers. They have established a specialism in super high-rise mixed-use developments, commissioning some of China's tallest buildings, and have an expanding overseas portfolio. Greenland even has its own in-house architectural design team in the form of a subsidiary Local Design Institute, which was acquired in 2004.

The jostling of foreign, private Chinese, and SOE developers in the real estate market has in turn shaped their relationship with architects, and particularly foreign architects. During the 1990s, developers from Hong Kong enjoyed a clear advantage in the market, and brought with them a preference for architects either from Hong Kong or further afield, who were familiar with their specifications, briefs, processes, and ambitions.

For private Chinese developers and SOEs, still in their infancy in the 1990s, working with foreign architects was difficult due to the lack of any infrastructure that facilitated their engagement with each other. Critically

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[99] Ian Bremmer, *The End of the Free Market: Who Wins the War Between States and Corporations?* (Portfolio, 2011)

for the domestic developers, foreign architects lacked a full understanding of the complexities of the domestic market and the subtleties of the pattern of demand in China. Reciprocally, foreign architects saw domestic developers as less professionalised and more difficult to work with. In addition, foreign architects found it difficult to negotiate the archaic, complex and locally specific regulations and building codes that must be met in China.

At the same time, the Chinese architectural profession, which at the time was dominated by the LDIs, offered a poor alternative to foreign architects. Yet to be fully reformed an unaware of market forces in the late 1980s and early 1990s, LDIs lacked the knowledge and experience in sectors that did not exist in pre-Reform China, such as mixed use developments. The archaic LDI system was unable to provide the design resources to meet the needs of these new developer clients, and produce market-driven solutions in a timely fashion, particularly in the housing sector.

In this knowledge gap, domestic developers were forced to become self-reliant in developing in-house design capabilities, by recruiting and forming their own team of architects and designers, in order to meet the challenges of the market and the rapid pace of development.

According to Guo Zhen, the design director of Chengdu based developer BRC,

> '…when we started, the design industry were just too weak at the beginning… in the 1990s, developers such as Vanke had ambitions that simply could not be met by the LDIs, or even foreign architects, that's why they created their own mechanism for draughting designs, inspecting construction drawings, and making scaled models…'[100]

As the real estate sector entered the 2000s, the speed of development gathered pace in an increasingly crowded and competitive market, these conditions further spurred mature developers, both private and SOEs, to further consolidate their in house design capabilities, formalise their research and development operations, and standardise their designs, thereby reinforcing their roles as the design experts in their own sector.

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[100] Interviewed for this thesis on 10th May 2015, at BRC Headquarters, Chengdu

Guo Zhen:

> '…the market moves very quickly, so we developers want low risk when we take out loans at 10% interest rates. In an ideal world, we would like to be able to show the customers what they're buying 3 months after we procure the land from the government, and start selling in the fourth month…this timeline does not allow for more bespoke or risky decisions when it comes to design…that's why we have our internal research institutes to standardise design and carry out R&D, where we collaborate with architects at the strategic and research phase…'[101]

As Guo Zhen raised, most of the research work is undertaken by real estate developers such as BRC are in-house, by teams of largely Chinese qualified architects and designers who have decided to join developers than the architectural profession as they often feel that they are more empowered and have better control over design from the client side. Where collaboration does happen between developers and the profession, these are normally with Local Design Institutes on very specific technical aspects of design such as material choices and environment comfort parameters. These are in support of the design procedures and principles already established by the developer and rarely challenge the fundamental design thinking already developed by the developers.

Case Study 4: Wanda Plazas

An example of this consolidation and standardisation is private developer Wanda's template for their Wanda Plazas.

Wanda is by measure of asset, the world's biggest real estate developer and owner.[102] From a small development company set up by its owner Wang Jianlin in 1988, Wanda is now a privately owned conglomerate with a portfolio that covers hospitality, retail, entertainment, tourism, and cultural industries. Wanda is well known for their Wanda Plazas, mixed use developments of shopping malls, office buildings, and hotels. As of 2017, there are currently 203 Wanda Plazas distributed throughout 30 provinces

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[101] Interviewed for this thesis on 10th May 2015, at BRC Headquarters, Chengdu

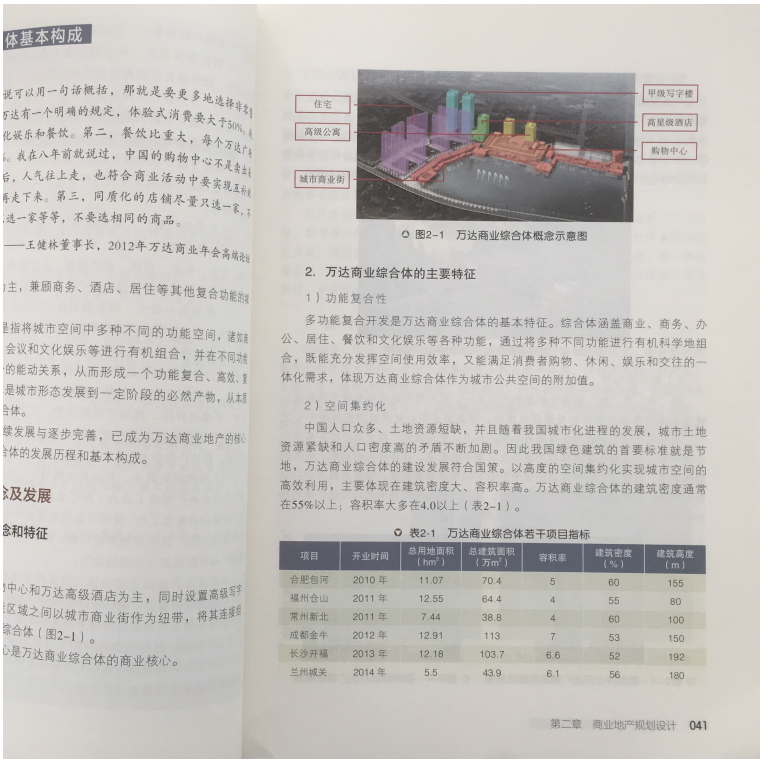
[102] 'It's a Wanda-ful life', *The Economist* (February 14, 2015)

Figure 43:
A Wanda Plaza development being constructed in Taiyuan in 2014 (photographed by the author)

and Directly Administered Region in China, covering hundreds of first tier, second tier, and even third tier cities. 70 more Wanda Plazas are currently under construction (see Figure 43 above).

To maintain the consistency of their development model and the brand image of Wanda across such a large number of sites, Wanda has over the years established an effective and efficient in-house planning and design department, called Wanda Commercial Planning. The organisation consolidates Wanda's design resources into two major subsidiaries: the Commercial Planning Research Institute and the Commercial Design Centre. They comprise 17 separate sub-departments, 142 staff members, including 32 registered architects, 7 registered engineers, and 8 registered planners. As of 2017, Wanda Commercial Planning has also created its own department of Research and Development, comprising 21 people investigating topics related to BIM (Building Information Management), Intelligent Cloud Computing and Big Data, as well as Operational Maintenance.[103]

[103] 万达商业规划研究院简介 / Wanda LDI <*http://www.wanda-gh.com/xtjj/index.jhtml*>[2015]


体基本构成

住宅
高级公寓
城市商业街
甲级写字楼
高星级酒店
购物中心

图2-1 万达商业综合体概念示意图

2. 万达商业综合体的主要特征

1）功能复合性

多功能复合开发是万达商业综合体的基本特征。综合体涵盖商业、商务、办公、居住、餐饮和文化娱乐等各种功能，通过将多种不同功能进行有机科学地组合，既能充分发挥空间使用效率，又能满足消费者购物、休闲、娱乐和交往的一体化需求，体现万达商业综合体作为城市公共空间的附加值。

2）空间集约化

中国人口众多、土地资源短缺，并且随着我国城市化进程的发展，城市土地资源紧缺和人口密度高的矛盾不断加剧。因此我国绿色建筑的首要标准就是节地，万达商业综合体的建设发展符合国策。以高度的空间集约化实现城市空间的高效利用，主要体现在建筑密度大、容积率高。万达商业综合体的建筑密度通常在55%以上；容积率大多在4.0以上（表2-1）。

表2-1 万达商业综合体若干项目指标

项目	开业时间	总用地面积（hm²）	总建筑面积（万m²）	容积率	建筑密度（%）	建筑高度（m）
合肥包河	2010 年	11.07	70.4	5	60	155
福州仓山	2011 年	12.55	64.4	4	55	80
常州新北	2011 年	7.44	38.8	4	60	100
成都金牛	2012 年	12.91	113	7	53	150
长沙开福	2013 年	12.18	103.7	6.6	52	192
兰州城关	2014 年	5.5	43.9	6.1	56	180

第二章 商业地产规划设计 041

Figure 44:
Page from Wanda's manual on the template for programme and massing composition Wanda Plazas (photographed by the author)

Under this model, there are strict guidelines followed by Wanda on the choice of candidate sites to procure, the mixture of tenure and use, the density of built volume, and even the specifics of interior fit-out. Their methods have been documented in two volumes published by Tsinghua University Press: *Investment and Development of Commercial Real Estate*[104] and *Operation and Management of Commercial Real Estate*[105].

What this means in the execution of the architecture Wanda creates, is that the role of the architect has been curtailed significantly to become effectively a 'window dresser' of prescribed design templates that dictate the general mix, layout and massing of any Wanda Plazas. A simple survey of Wanda Plazas from various cities in China reveals a remarkable consistency (see Figure 44 above). They are almost always located in mature dense urban centres, into which they are inserted large single mega-block shopping malls operated by Wanda itself. Each shopping mall serves as a podium for a series of high rise towers, which almost always contain a

[104] 万达商业地产股份有限公司, 商业地产投资建设 (清华大学出版社, 2013) / Wanda Commercial Real Estate Development Co. Ltd, *Investment and Development of Commercial Real Estate* (Tsinghua University Press, 2013)

[105] 万达商业地产股份有限公司, 商业地产运营管理 (清华大学出版社, 2013) / Wanda Commercial Real Estate Development Co. Ltd, *Operation and Management of Commercial Real Estate* (Tsinghua University Press, 2013)

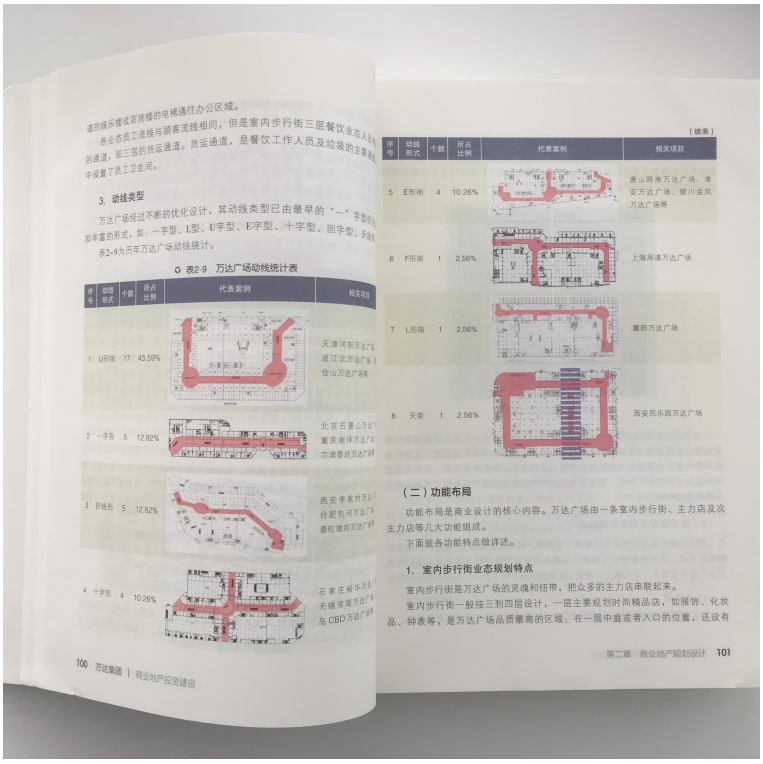


Figure 45:
Page from Wanda's manual on the template for internal retail unit and circulation route layouts (photographed by the author)

five star Wanda Hotel, as well as lettable commercial office spaces. The shopping mall will also typically contain entertainment operated by Wanda, such as their chain of cinemas. There is also always a provision of some kind of public space attached to the mall. This 'standard' template is remarkably consistent across the different Wanda Plazas.

Consequently, the role of any external architects in the design of Wanda Plazas has been restricted to the fine tuning of these established arrangements and principles established by the in house team. They maybe called on to tailor the masterplan to fit better into the local urban context, or they may be asked to develop novel and exotic facades for the mall or the towers that imbue them with a strong visual identity and added visual interest, but not to question or change the established typology.

However, these variations in decoration do very little to break the homogeneity of the experience of Wanda Plaza's from across China, and indeed this is precisely what Wanda wants, a consistency of experience is a reinforcement of their brand (see Figure 45 above). For example the Wanda Plazas in Chongqing, Shanghai and Tianjin bare a strong resemblance to each other, not only in their spatial and massing arrangements, but also their facade treatment. In reality, many of the architects that are involved in

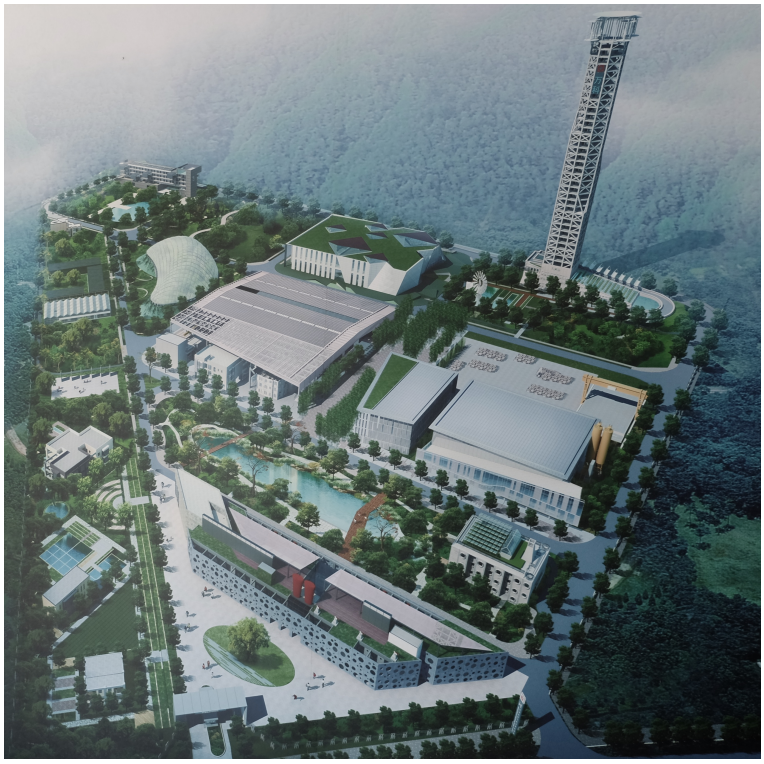


Figure 46: Layout of Vanke R&D Centre in Shenzhen (photographed by the author)

these types of projects are often LDIs whose enormous size and running costs forces them to take on large volumes of work of little design merit.

Even when Wanda ventures into more bespoke typologies, they cannot escape their 'cookie cutter' reputation. This can be seen in their Han Show venue in Wuhan, a bespoke lantern-shaped performance centre designed by British specialist Stufish, which nonetheless belongs to a family of oval-shaped entertainment venues, each formally inspired by a cliche Chinese object: a drum for Hefei Wanda Exhibition Centre, a teapot for the one in Wuxi.

Case Study 5: Vanke Research and Development Centre

Another example of the substantial design and delivery capacities of the developer-client in China can be seen in Vanke's Architecture Research Centre in Shenzhen (see Figure 46 above).

Vanke is a public company that was first set up as a state-owned company in 1984, trading in scientific equipments. It became a public company in 1988 and entered the real estate market as a developer for the first time under the stewardship of now company Chairman, Wang Shi.

Figure 47:
(Far left)
Shell tower
(photographed by
the author)

Figure 48:
(Left)
Workers building a
facade prototype
(photographed by
the author)

Figure 49:
(Left)
Prototype housing
units on display
(photographed by
the author)

The Centre was established in 1999 on the outskirts of Shenzhen, in the city of Dongguan, on a 130,000m^2 site. Construction of the Centre began in 2006 and over the next decade the site was slowly filled with a range of research-related facilities that showcased Vanke's in-house research capabilities, and facilitated research outputs that fed into their business. Within the grounds of the centre, there is a structural shell tower that replicates at full scale the construction of a residential high-rise, used to test drainage, air conditioning and fire fighting systems in-situ (see Figure 47 above). A large factory space is provided for the manufacture and testing of pre-fabricated building element prototypes (see Figure 48 above). An area within the site is populated with prototype housing units, clustered in self-contained blocks, which show cases both the external and internal construction details of Vanke's completed projects (See Figure 49 above). There are labs that test the performance of interior fit-out and furniture materials, along with a plethora of research spaces set aside for collaboration with various universities' postdoctoral research programmes (see Figure 50 overleaf). An energy centre feeds the entire site via sustainable energy sources, and there is a Zero Carbon Centre which showcases Vanke's ambitions for sustainable development. Within this campus there are also an 'experience centre' and staff office quarters. The landscape, designed by international

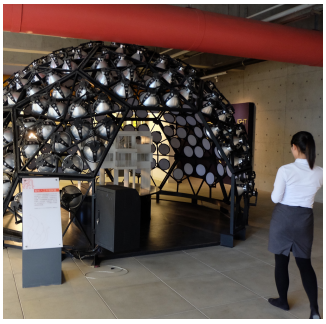


Figure 50:
(Far Left)
Research labs in collaboration with local universities
(Left)
Sunlight simulation lab (photographed by the author)

Figure 51:
(Left)
Foul and rain water filtration beds (photographed by the author)

firm Z+T, contains ponds and wetlands that harvest rain and foul water from the site, clean them through filtration beds and feed back into the water supply system (see Figure 51 above).

A visit to the Centre, however reveals signs that some of the claim about the Centre's research output is somewhat exaggerated. According to the tour guide Miss Zhang, the Zero Carbon Centre is zero carbon in theory only, and many of the research labs seemed vacant. To some extent, the Centre is as much about public relations as it is about research. Nevertheless, the intention and the ambition of the company to be the expert in their own field is clear. The most convincing elements of the Centre are the prototype apartment mock-ups that are already part of what Vanke provides in their various real estate projects, where 65% of their construction uses pre-fabrication, so it is no surprise that in 2007, the Centre was named as a 'National Base for Housing Industrialisation' by the Construction Ministry of China. The fact of the matter is that Vanke, rather than architects within the profession, who are the ones trying to understand the demographic shifts that will have an impact on housing types, and the changes in the living habits and tastes of the users of their homes.

Where Chinese and foreign architects are involved with Vanke, they are typically not involved with their well established real estate models, but rather on their flagship one-off projects. For example, the renowned Chinese practice Urbanus was involved in designing the Experience Centre within the Architecture Research Centre campus. Urbanus was also involved in the design of Tulou Collective Housing, a one-off commission by Vanke to test how the round typology of the traditional Tulou clan house in Fujian can be adapted to suit high density urban housing needs. Vanke also engaged American architect Steven Holl, to design Vanke's headquarter in Shenzhen: Vanke Centre, an experimental building described as a 'Horizontal Skyscraper' by Steven Holl, where the head office of Vanke is only a part of a long meandering ground-scraper than also contains housing, offices, and a hotel.

Vanke and Wanda are not anomalies within the real estate sector in China. A survey for this thesis of the top 10 real estate developers by sales volume in 2012-2013 revealed that 9 had some form of formalised and consolidated in-house design organisation[106]

In an interview for this thesis, David Gong, project manager at Sinoland, a Singapore developer operating in Chengdu, explained why developers are holding on to so much of the design role,

> A lot of developers, such as Vanke, they want to maintain a consistency of brand. So if they look for different architect to design their different development across the country, it takes a lot of effort to maintain the same standard across the country… For developers with very specific demand and tastes that have been developed over many years, and large volume of production, it's hard for them to collaborate with different architects all the time…Architects must be able to think from the perspective of the market, that's what we hope, but we're still not seeing enough architects doing this…[107]

With regard to foreign architect in particular, David Gong further explained,

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[106] Data drawn from Annual Report of respective companies as well as the China Index Academy, a part of National Bureau of Statistics

[107] Interviewed for this thesis on 10th May 2015, over lunch at Sinoland Offices, Chengdu

> There is a big difference between foreign and domestic architects. Foreign architects do bring a lot of advanced ideas, but are they really appropriate for the local conditions?…The worse example I've seen is when foreign architects come on board, they don't really know the context around the site that they are working with,…because they operate from far away. We give them the site plans, and they have to rely on a single site visit and information on the internet to develop their designs…They close their doors and crunch the parameters of the brief, when we ourselves go and visit the site so many times, to understand the orientations, views and infrastructure, etc…If the foreign architects don't operate from Chengdu, but from Hong Kong, how can we have enough faith in their work? So in my personal opinion, in the world of residential real estate design, foreign architects are no longer that important…[108]

Gong's sentiments are echoed by many real estate clients in China. Increasingly, foreign architects who are typically stationed in first tier cities such as Beijing and Shanghai are having to compete for and work on projects beyond their geographical proximity, in more inland and second tier cities. This means that their understanding of site and context are often severely hindered by the physical dislocation between themselves and their site.

The consequence of this view of foreign architects is the encroachment of the client on the traditional role of the architect. Architectural professionals, foreign as well as domestic, are increasingly excluded from the design process, particularly in the residential real estate sector, which accounts for a substantial segment of the total construction output in China.

For both foreign and LDI architects, their involvement on residential projects has been relegated to a very narrow focus.

Xu Min, an architect working for a local LDI in Taiyuan, Shanxi, described the reality of the LDI architect's role in the residential sector:

> We are mostly only asked by developers to design facades for real estate residential buildings. This is often done by us sitting

[108] Interviewed for this thesis on 10th May 2015, over lunch at Sinoland Offices, Chengdu

> with the CGI rendering company, where the technician cycles through their existing bank of different facade decoration options, for us to say 'yes' or 'no' to. You might be asked to change the colour of the render, or change the height of the neoclassical cornicing detail from one floor to another. There's no design to speak of in this process…[109]

It is important to say that this erosion of the architect's role by developers is not necessarily an exclusively contemporary Chinese phenomenon. The sidelining, or at least a decentralising of the architect's roles has been slowly taking place in the West since the 1980s, when neoliberal market economy propelled real estate developers as clients to a position of prominence as commissioners of architecture.

It is also important to note that the while the above job description does not cover all architects in China, the LDI which employs Xu Min do represent a significant proportion of LDIs, who are based in second and third tier cities, whose reputation and design capabilities cannot compete against foreign architects or larger more competent LDIs from first tier cities. To survive, they exploit their regulatory advantages, where only LDIs can issue construction drawings, and have become specialists at producing construction drawings for developers in bulk and at low costs, with fees charged per drawing. The LDIs regulatory privileges are discussed in section 5.3 later in this chapter.

Foreign architects can be in a similar position. In his book *You Can't Change China, China Changes You*[110], and in interviews for this thesis, Dutch architect John van de Water described how he was asked to work exclusively on the facade design of a project, working almost out of context and in a very fragmented manner. These are facts of life in the residential sector. Foreign involvement is increasingly used as a ploy to embellish the brand of the Chinese real estate developers' products.

Chinese architectural practices have not ventured far into residential real estate either. They are all too aware of the limitations that are imposed on the design process by the market and developer clients. Qianjiang Shidai in

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[109] Interviewed for this thesis on 27th June 2014, in Taiyuan. The name of the LDI Xu Min works for has been made anonymous at the request of Xu Min.

[110] John van de Water, *You Can't Change China, China Changes You (*010 Publishers, 2012)

Figure 52: Qianjiang Shidai residential development in Hangzhou by Wang Shu (photographed by the author)

Hangzhou, Wang Shu's one and only real estate project comes to mind (see Figure 52 above). In that case, the conflicting priorities between the architect and the developer was enough to dissuade Wang from taking on any further real estate commissions. As discussed previously, other anomalies include the Tulou Social Housing by Urbanus for the developer Vanke. However, this project for low income inhabitants is clearly a deviation from Vanke's typical development model, and was seen as a way for Vanke to project a socially responsible image as a developer. If it was conceived as a prototype, it has yet to be replicated.

In conclusion, the knowledge vacuum in the residential sector in the early days of market economy reform, which could not be filled by foreign or Chinese architects in any substantial manner, has led to Chinese developers' rise as the design experts in their own field. As such, their capacity to undertake design and research has fragmented and at times circumvented the architect's involvement in the design and delivery of projects altogether. Consequently, the role of the architect has been eroded in the residential sector, where the value and purpose of the architect have been weakened and distorted. This in turn has left architects, both foreign

and domestic, disillusioned about residential sector, exacerbating their lack of expertise in the field.

5.2.2 Construction quality gap

Another major issue faced by foreign architects concerns reconciling their western technical expertise with the reality of construction on the ground in China.

China's construction labour force is largely composed of rural migrant workers. Construction workers made up almost 20% of the total number of rural migrant workers in 2016[111], and as much as 80%[112] of the construction labour force are rural migrant workers. Only 26.4% of this rural migrant worker force have an education beyond the age of 16.[113] According to a joint study commissioned by a construction workers' charity based in Beijing[114], undertaken by several major universities in 2013, 42.8% of the rural migrant work force in the construction industry has less than 5 years of working experience in the industry. Most of these migrant workers would have had little formal prior training in the construction trade they end up in, often on an ad-hoc basis, where they are paid as labourers on day rates, 82.2% of them are paid less than £17 a day. This lack of formal education, trade specific training, and site experience in the rural migrant workforce that makes up the majority of the construction work force, means that there is inevitably a shortage of the required skills, which in turn affects quality of construction.

The migrant work force are generally perceived by Chinese society to be hard working, ambitious, upwardly mobile, and willing to make enormous sacrifices for a better life. This does not however, solve the problem of the incompatibility between contemporary construction technologies developed in the West, and this Chinese construction labour force whose skill sets might lie elsewhere, for example in traditional construction methods.

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[111] *2016 Rural Migrant Worker Monitor Report*, China National Bureau of Statistics (2016)

[112] Last available data from 2011, China National Bureau of Statistics

[113] *2016 Rural Migrant Worker Monitor Report*, China National Bureau of Statistics (2016)

[114] 京、渝、沪、深四城市建筑工人生存状况调查报告 (北京行在人间文化发展中心, 2011) / *The living conditions of construction workers in Beijing, Chongqing, Shanghai, and Shenzhen* (Beijing Zairenjian Development Centre, 2011)

The issue is exacerbated further by a shortage of high-quality construction management professionals in China. The general perception within the architectural profession by both foreign and Chinese architects is that construction managers are often a poor conduit between the client, the architect and the contractors on site, lacking transparency in their decision-making and coordination, and prioritising cost saving over construction quality, in order to extract a bigger profit margin for the client and themselves.

Other gaps compounding the problem include inadequate mechanisation and industrialisation in the contracting sector beyond high profile, high-tech, and high rise projects in first tier cities, as well as the slow pace at which BIM is being adopted by designers and contractors to coordinate projects.

According to Qiu Wenzhe, design director at real estate developer company Fosun:

> The construction quality in China in general has some shortcomings, the design stage often lacks a sense of foresight into the reality of construction. To some extent this is also down to the architect's lack of experience. Unlike the West, the construction industry in China lacks a higher level of industrialisation, and BIM is quite new here too, led by developers.[115]

The composite result is a discrepancy between the architects design intent, and the as built reality on site. It exposes the difficulties foreign knowledge systems face as they are applied in practice and in context of the particular local conditions in China. This is particularly true in second and third tier cities. A curtain wall system that can be kept clean by constant rainfall in a coastal southern city may not be appropriate in a northern city prone to long spells of dry weather and smog.

There is ample evidence of this incompatibility between local execution and a knowledge system that is too often thought to be universal and globally applicable.

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[115] Interviewed for this thesis on 10th May 2015, at Fosun offices, Chengdu

Figure 53:
(Far left)
Poor construction detail and finish at Zaha Hadid's Galaxy Soho, in Beijing (photographed by the author)

Figure 54:
(Left)
Poor construction detail and finish on Steven Holl's Linked Hybrid, in Beijing (photographed by the author)

A closer examination of the facade of Zaha Hadid's Galaxy Soho complex in Beijing reveals that the white powder-coated aluminium panels are crudely bonded onto the substrate, with an untidy junction strip between panels, where any future maintenance and/or replacement is likely to be very problematic and where panels will be impossible to pry off without damaging the surrounding materials (See Figure 53 above).

Steven Holl's much celebrated Linked Hybrid housing project in Beijing suffers from similar detailing problems, where the steel facade panels are painted and riveted onto the substrate. In Beijing's polluted air, the rivet points are where dirt gathers after rainfall. The heat has also de-coloured some panels, which through their fixing method, also inadvertently cause the internal spaces become overheated very easily (See Figure 54 above).

In Maximiliano Fuksas' Shenzhen Baoan airport, the futuristic perforated facade applied internally and externally, has led to several well documented cases of major water ingress during the typhoon season.

AEDAS Director Max Connop observes:

> I cannot believe the naivety of the "imported" architects, who come with such incredible naivety or mature arrogance, …to

> provide an architecture that requires such precision level of detailing and then lament the fact that there's a disconnect that's inherently there, that they [the contractors] can't deliver their architectural vision. … There is this brittleness that comes from the West, towards an uncompromising vision for architecture. … Look at the Guangzhou Opera House [Zaha Hadid] with its outrageously bad detailing, had she read the situation wrong? You should adapt the way you provide you product; you should be designing something that's challenging, but not losing over the ability to realise it…I think architects have a huge amount of blame.[116]

It seems clear then, based on the above, that foreign architects often find themselves at a particularly disadvantaged position, in which their knowledge of the skill base in China is not sufficient to reconcile their technical knowledge with local material cultures.

5.3 Relationship within the profession

The preceding chapter has provided an overview of the post-Mao profession, broadly dividing the profession into foreign architects, LDIs, and private Chinese practices.

However, after an unprecedented period of post-Mao evolution, these categories have become far more complex than in previous cycles of western-Chinese professional co-existence in architecture.

Over the last two decades, for example, foreign architects have taken on increasingly more Chinese staff at senior level, and are constantly seeking to become, as Max Connop of AEDAS calls it, more 'locally embedded'[117]. Many private Chinese practices have emerged from the LDI system, such as Atelier Deshaus, where both directors Liu Yichun and Chen Yifeng emerged from Tongji LDI in Shanghai. In addition some private Chinese practices, such as MAD, have taken on practitioners from oversea and become much more international in their work, outlook and reputation.

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[116] Interviewed on 21st May 2014 at AEDAS Headquarters, Hong Kong

[117] ibid.

By far the biggest transformation, however, has taken place within the LDI system itself. LDIs, once strictly state organs, have evolved into various forms of State Owned Enterprises(SOE), where the affiliated state institution, or the affiliated higher education institution, as well as the employees may all be shareholders, some LDIs such as Huadong have even been floated on the stock market. The post-Mao era has also seen entirely private foreign and Chinese practices with no prior state affiliation become LDIs themselves.

While this blurred the boundaries between three supposedly distinct types of practice, a more fluid profession does not necessarily means a more open profession, or a more level playing field. Indeed, many of the changes all three types of practice have undergone are precisely manoeuvres to counter what they perceive as structural challenges to the profession. Chief among these challenges is the problematic relationship between LDIs and foreign architects. To understand this, one must understand the dominance of LDIs within the profession, the reasons behind this dominance, and the impact this has on other forms of practices.

5.3.1 The dominance of LDIs and its causes

The earlier years of reform in China saw LDIs suffering from the stagnation of the Mao era. They were organisationally, technologically, and creatively ill-equipped to meet the design needs of a new breed of clients commissioning new types of buildings in a growing economy. As the preceding section 5.2.1 documented, the inadequacy of LDIs, and the inadequate responses from foreign architects led directly to the erosion of the architect's role in the earlier years of the reform.

However, over the past decade, the LDIs have re-emerged as dominant players in the process of designing and delivering the built environment in China, whose output still dwarfs those of both foreign architects and private Chinese practices. Based on income data from 2012[118] and extrapolating from the market share of foreign architects in 2010[119] as well

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[118] 2012年中国建筑业统计年鉴 (国家统计局) / *China Construction Yearbook 2012*, (National Bureau of Statistics of China, 2013)

[119] 李克强, 浅析中国勘察设计行业资质管理及对策 [J].建筑经济 (2010)4 / Li Keqiang, A Brief Analysis of License Management Strategies in the Chinese Survey and Design Industry, *Construction Economy of China*, (2010) 4

as data from 2007[120], LDIs may have accounted for as much as 80%-85% of the market share in terms of output and income annually in the past decade.

The LDIs have maintained this dominance despite a more diversifying professional field and greater market competitive pressures through the following legacies of their state affiliated past.

i. LDIs' regulatory advantages

While China's economy has moved rapidly into a market-oriented one and been a member of the World Trade Organisation since 2001, the design and delivery of any construction project in China is still heavily regulated by central government, under legislation set out by the Ministry of Housing and Urban-Rural Development.

Under this legislation, which trace their roots back to a centrally planned economy and bureaucracy, construction projects are divided into four different categories[121], based on their size, height, budget, technical complexity, as well as their historical, cultural and political significance. To undertake a particular category (named 1, 2, 3, and Special) of construction project to completion, a design organisation (be it foreign, Chinese, state-owned or private) must carry the appropriate level of state sanctioned accreditation. These state sanctioned accreditations, or 'zizhi'(资质) in Chinese, are effectively licenses. The accreditation system itself is further divided into three classes, from A to C[122]. For a design organisation to hold any one of the accreditation classes, it must meet a set of minimum professional requirements. These include the number of years in practice, the type and number of projects already completed, registered capital assets, scope of services provided, in house quality assurance and management standards, and most critically, the number of registered architects under employment.[123] Unsurprisingly, the registration of these architects are also controlled by the central government.

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[120] 2007 年全国建筑设计企业年报 / *2007 Annual National Report of Architectural Design Enterprises*

[121] 关于开展换发建筑工程设计资质证书工作的通知，建设［1999］9号，附件一，中华人民共和国住房和城乡建设部 / *Notice on replacement of architecture engineering design accreditation certificates,* Ministry of Construction (1999, Notice 9, Appendix 1)

[122] ibid.

[123] ibid.

Since the relevant legislation was first established in 1995[124], the examination and registration of state registered architects have been jointly administered since 1999[125] by the Ministry of Housing and Urban-Rural Development and the Ministry of Human Resources and Social Security. Within this system, registered architects are further separated into two classes, corresponding to the minimum requirement on their education qualification, and time in practice. Based on the archaic system inherited from the Soviet era, an individual seeking registration as a Class 1 registered architect is expected to have worked for 3 years in practice, with at least 5600 recorded hours of practical experience. The examinations to become a registered architect in China are notoriously difficult and candidates are tested on their knowledges of all stages of architectural design, structural engineering, building services design, material and construction, project cost management and construction management. They are also given a series of mock hypothetical design projects to do, relating to site planning, strategic concepts, and technical development.

Uniquely for China, and as a consequence of its Soviet legacy, the registered architects and the system of organisational accreditation are tied to each other. The registration of individual architects are only recognised as such if they practice their architecture through employment in a design organisation accredited to carry out work corresponding to what their registration allows. A design organisation cannot be accredited if it does not contain a minimum number of registered architects. Registered architects cannot use their title to practice architecture outside of the accredited design organisation they belong to. Conversely, accredited design organisations cannot provide a complete design service on a construction project for if they do not employ the required number of registered architects to maintain their accreditation.

For example, the requirement for a Class A design organisation, which can undertake the design of any categories of construction projects, consists a minimum of 6 years of experience in the profession, having independently completed the design of 5 Special Category or Category 1 projects without

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[124] 中华人民共和国注册建筑师条例（1995年）/ *People's Republic of China Registered Architect Regulation* (1995)

[125] 姜涌, 建筑师职能体系与建造实践 (清华大学出版社, 2005) / Jiang Yong, *Architect's Professional Practice* (Tsinghua University Press) p.139

incidents, a registered capital asset of at least 1 million RMB (approximately £116,000), a minimum of 8 architectural design and structural engineering professionals respectively, of which at least 3 must be Class 1 state registered architects and 3 state registered engineers.

In this scenario, a design organisation will not be able to take say a Class 1 project without the minimum number of Class 1 Registered Architects. Similarly, these Class 1 Registered Architects cannot take on the Class 1 project without being employees at a Class A design organisation. This restrictive system may have made sense in the Mao era, when LDIs were the only type of 'design organisations' referred to in the legislation, and architects, as well as other building design professionals, did not practice outside LDIs.

The LDIs' near monopoly during the Mao era certainly gave them an advantage in the post-Mao era. They had large numbers of employees who were state registered architects, as well as a wider range of design services than typical foreign architecture practices, including structural engineering, building services engineering, fire engineering etc. They also carried track records of significant numbers of completed projects, and were therefore best placed to obtain and/or retain both state registered architects and their state sanctioned accreditations.

While the emergence of both foreign and private Chinese practices outside the LDI system have resulted in a more diverse profession, and legislation has become increasingly looser since China joined the WTO, LDIs' historic advantages nonetheless increased over time, ensuring their continuation as a dominant actor in production of the built environment.

This is further exacerbated by a protectionist legislative attitude to foreign architectural practices and design firms in China.

The document[126] most often referred to in the regulation of accreditation of architecture design organisations contains in its appendix clause the following text: (translated from Chinese)

[126] 建设工程勘察和设计单位资质管理规定, 中华人民共和国建设部令第60号 / *Construction Survey Design Organisation Accreditation Management Regulations*, Ministry of Construction Ruling No.60. (23rd December 1997)

> Where design organisations operated jointly with foreign, Hong Kong, Macau, or Taiwan partners wish to undertake survey and design work, the management of their accreditation will be set out in separate legislations by the State Department.[127]

Two years later, in 1999, a new law stipulated that:

> Foreign surveying and design organisation and their China based subsidiaries cannot unilaterally undertake surveying and designing work on construction projects in China. To do so, they must undertake the work jointly in conjunction with a Chinese design organisation, or create a joint venture organisation, obtain the relevant accreditation and undertake the work under the relevant Chinese legislations.[128]

Subsequent updates of this legislation dropped any reference to about the accreditation of foreign design practices. In 2004, a specific legislation, albeit provisional, was finally issued, to set out the terms under which foreign architectural design organisations could participate in the Chinese market. In it, clause 4 stipulates that:

> To undertake construction design work within China, foreign companies must collaborate with a Chinese design organisation which holds the accreditation sanctioned by the Ministry of Construction, and carry out design work only allowed by their accreditation.[129]

Clause 11 subsection 6 goes on to say:

> Initial design documents and construction detail design documents must be reviewed and signed off by architects

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[127] 建设工程勘察和设计单位资质管理规定，中华人民共和国建设部令第60号 / *Construction Survey Design Organisation Accreditation Management Regulations*, Ministry of Construction Ruling No.60. (23rd December 1997), Clause 34

[128] 建设工程勘察设计市场管理规定，中华人民共和国建设部令第65号 / *Construction survey and design market management regulations*, Ministry of Construction Ruling No.65. (21st January 1999)

[129] 《关于外国企业在中华人民共和国境内从事建设工程设计活动管理暂行规定（征求意见稿）》建设部建筑市场管理司 2004年3月24号 / *Interim regulations on the design activities of foreign enterprises undertaking architectural design work within China*, Ministry of Construction Department of Market Management, (24th April 2004)

Figure 55: Tongji Architectural Design Group head office in Shanghai (photographed by the author)

registered in China, along with the official seal of the accredited Chinese design organisation.[130]

This legislation means that foreign architects are required to work with local accredited design organisations, which as discussed above, are almost always LDIs, thus preserving the LDIs' hegemony and preventing them from collapsing overnight from the pressures of a competitive market economy. While many leading LDIs such as Tongji Architectural Design Group in Shanghai (see Figure 55 above), have voluntarily and successfully undergone significant structural reform since the mid-1990s, progressively transforming themselves from archaic institutions into market-oriented practices. There remain large numbers of LDIs, particularly in second and third tier cities, which have been and still are, surviving on their local monopoly of the production of construction drawings.

With the advantage afforded them by the above legislation, LDIs were able to take on both self-procured work and joint projects with foreign partners.

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130 《关于外国企业在中华人民共和国境内从事建设工程设计活动管理暂行规定（征求意见稿）》建设部建筑市场管理司 2004年3月24号 / *Interim regulations on the design activities of foreign enterprises undertaking architectural design work within China*, Ministry of Construction Department of Market Management, (24th April 2004)

In so doing, they have progressively increased their market share and have further consolidated their market dominance.

ii. LDIs' advantage on services and knowledge

Because of their Mao era heritage, most LDIs have retained a multi-disciplinary team structure from the Mao era. For risk-averse clients, this present a very appealing alternative to the design team model that foreign architects work with, consisting of separately appointed consultants with whom relationship can become adversarial. This is particularly the case on larger and more complex projects, where coordination between the different design disciplines becomes critical, and someone needs to have the last word.

Chen Jianqiu, a director at Tongji Architectural Design Group, a Shanghai based LDI affiliated to the College of Architecture and Urban Planning at Tongji University, observed:

> The weaknesses of foreign architects are increasingly being exposed when it comes to solving technical design issues. Foreign architects are used to having a separate specialist consultant in dealing with specialist disciplines, but bringing along this many sub-consultants with them on Chinese projects is very difficult. A lift consultant, a car parking consultant, a fire consultant: the cost of hiring these different consultants and coordinating between them is sky high, and a shock for clients in China. On this front, local LDIs can compete with them, with our multi-disciplinary teams and our increasingly talented design teams of overseas educated Chinese architects. On large government projects, there are often requirements for a single consultant that covers multiple disciplines, with a lot of responsibilities. That's when foreign architects dare not take on the project. It's the same with complex mixed use and infrastructural projects, where lots of different disciplines are involved. In this case having separate sub-consultants makes the coordination of project difficult and leads to a lot of waste. We have very strong combined capability, from working on many large complex projects in the past.[131]

[131] *Interviewed on 23rd May 2014 at Tongji Architectural Design Group Headquarters, Shanghai*

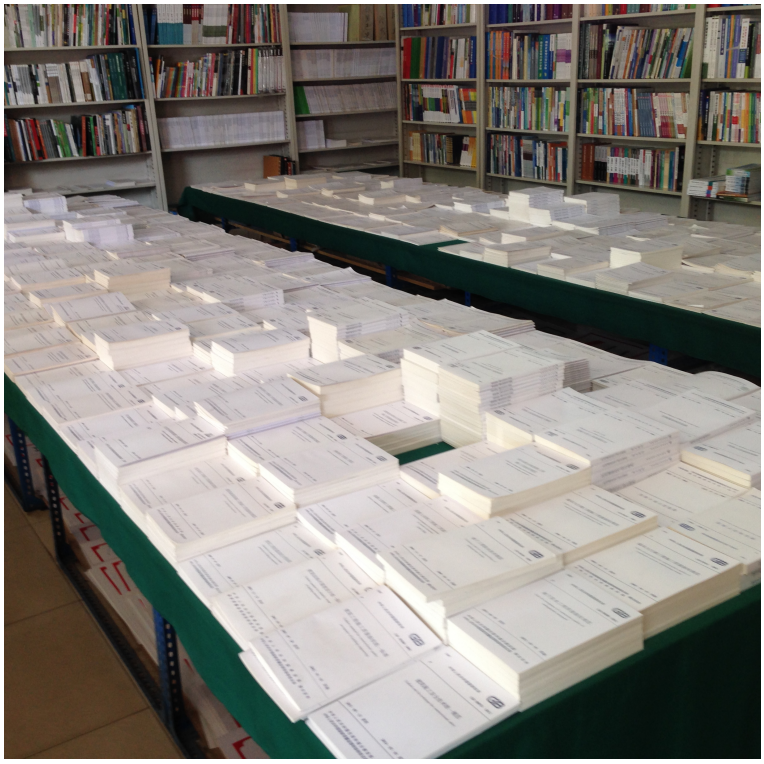

Figure 56: Photograph of printed copies of various building codes in Chinese on display at an architectural bookshop in Beijing (photographed by the author)

The LDIs' wider scope of services includes an in depth knowledge of local specific building regulations and standards. Despite decades of engagement in China since the 1980s, foreign architects still wrestle with China's archaic, complex and numerous building standards. The LDIs remain the de-facto experts on this vast body of codes that present a significant barrier to entry for foreign architects (see Figure 56 above).

Some codes, such as those on sustainability, are under constant revision, and difficult for foreign architects to stay up to date with. Others, such as those concerning structures are so archaic and conservative, they hark back to a construction technology common during the Mao era, decipherable and negotiable only to those who understand its heritage. LDIs are able to offer a design approach that anticipates the shifting constraints of the codes from the outset. This offers consistency in the development of the project to the client, compared to the frequent design changes that foreign architects are often forced to make in order to keep up with the relevant building codes, which they fail to anticipate through their lack of knowledge.

iii. LDIs' Guangxi as an advantage

LDIs also possess another advantage: the informal relationship, or '*Guanxi*'(关系), they have with local governments and planning authorities.

With their past firmly rooted in the machinations of the state apparatus, LDIs were once simply another branch of state bureaucracy, and local governments relied regularly on a handful of familiar local LDIs for most of their construction projects. This familiarity and the informal and personal relationships cultivated between government and their local LDIs continued into the post-Mao era and continue to benefit the LDIs, particularly in second and third tier cities where there is less political and market transparency.

Government tendered projects tend to favour local LDIs in the selection process, if not as the architect, then at least as the delivery partner to foreign practices. In the private sector, clients wishing to gain planning consent for their projects are naturally inclined to hire local LDIs, whose informal relationship with the local authority means that their designs are more likely to be approved.

Thus, local knowledge and local relationships give an advantage to these otherwise less capable LDIs over their foreign competitors, who must rely on collaboration with these LDIs to unlock local markets.

Kirk Ellis, a director in AEDAS Shanghai admitted:

> Whatever intentions there were at the master planning stage, personal input and relationship always change the situation on an ad-hoc basis…a lot of times they [LDIs] are appointed on the relationships they've cultivated with the local government. They alone deal with the local authority, we never get to meet the local planning authorities.[132]

5.3.2 Impact of LDI dominance

The LDIs' dominance of the market presents the architectural profession as a whole and foreign architects in particular with three specific challenges.

i. Fragmented design process

[132] Interviewed on 26th September 2013, at AEDAS Shanghai offices

As state registered architects and state accredited LDIs are always required to sign off on design documents, particularly construction documentations, the natural tendency, from the client's point of view, is to ask LDIs to take over the later design and the delivery process from foreign architects, to avoid paying for both set of architects doing the same work. This point of handover does differ from project to project, client to client, and architect to architect. However, in general, the scope of the foreign architects' services is generally limited to the early stages of the design process, handing over to LDIs after Schematic Design, sometimes Detailed Design, and very rarely Construction Documents.[133]

This means that foreign architects will typically analyse the site conditions, formulate their principle concepts, and develop them into a schematic set of drawings and documents. At this point, foreign architects must relinquish a significant amount of control, as this work is handed over to their LDI partners (see *Appendix 5: Typical Project Flow Chart*).

The LDIs will then take those schematic drawings, and develop them into a more detailed set. Here the relationship between the foreign architects and LDIs become crucial. As the LDIs take over the foreign architects schematic design, there will be areas of misinterpretation, miscommunication and misunderstanding, in which their design intentions and priorities will differ and even conflict with each other. This loss of control is further compounded by the LDIs' evaluation of foreign architects' designs against the local building regulations' technical constraints, which inevitably almost always result in the further alteration of the design. There are very few contractual mechanisms available to resolve disagreements without referring to the client, who must then make a value judgement. In the case of many Chinese developer clients, this is often based on concerns on cost and time rather than design quality.

On this issue of how built quality is affected by this fragmented design process, Chiang Yu-Chieh, an executive director at AEDAS Shanghai, explained:

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[133] These design stages are based on the American system of project progression, which, according to the American Institute of Architects, are typically divided into Pre-Design, Site Analysis, Schematic Design (SD), Detailed Design (DD), Construction Documents (CD), Bidding, and Contract Administration, Post Construction Services.

> We work with LDIs to get to various stages, from concept, to design, to construction. We often stop at concept and design drawings at 1:200, without going into further design, the LDIs then take over to develop super design at 1:5. Negotiations with local authorities are also undertaken by LDIs. So the design is hugely affected by the LDIs, their willingness to engage and their skills at execution. The primary concept design is not influenced by the LDI, but the execution is.[134]

'Starchitects' working on high profile project may suffer less of this problem, but as the poor construction details of Zaha Hadid's Guangzhou Opera House attests, they are certainly not free from a loss of control.

From this point forward in the design and delivery process, the foreign architect will always be at least one removed from their design. Alterations to the design, be it client changes, or value engineering, are then typically carried out by LDIs in consultation with the foreign architects, rather than being led by foreign architects.

The position of foreign architects is weakened further as preliminary costing of the project is typically carried out just before the construction information developed by the LDIs is tendered to bidding contractors. This means that foreign architects do not receive any cost advice until well after the design has been handed over to the LDIs. As such, if the costing is beyond the client's budget, the foreign architects who developed the original design will no longer be in the driving seat to lead any design changes to meet cost constraints.

Following this, as the construction information is tendered, contrary to western norms, neither the foreign architects nor the LDIs are typically invited to be part of the tender selection process or any subsequent cost negotiations with the contractors, which is led by the developer client and their construction management consultants. This means that foreign architects are twice removed from any contractor-led cost driven alterations to the design in the final contract negotiations.

Taiyuan-based LDI architect Xu Min explains:

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[134] Interviewed on 12th September 2013, at AEDAS offices, Shanghai

> Even the LDIs are not automatically eligible to attend contractor interviews. When architects are invited to join the contractor interviews, they're normally just there to listen. They have very little power or sway over the client making the decision. They [clients] won't listen to you. They [clients] do not trust the architects or the LDIs to make multi-billion Yuan decisions on their behalf.[135]

Once contractors are selected, Chinese clients typically will hire a separate construction contract management person or organisation to manage the build. They will liaise between the contractor, the client, and the LDI. Once construction starts, as the legal issuant of construction documents, the LDIs are the only relevant party responsible for signing off the compliance of site works in accordance with their construction drawings.

One might ask how this narrative is different to the architects in say, the UK, who also often rely on delivery partners, as well as a more curtailed role after tender.

The critical difference lies in the fact that, irrespective of their power to influence design after tender, the architect in the UK typically has a contractually formalised relationship, be it with their clients or the contractor, or both. UK architects post-tender can be as involved as being the contract administrators, dealing with both client and contractor; or an employer's agent, monitoring the later stages, reporting and making recommendations to the client or a novated architect working for the contractor post-tender.

Such formal and contractural roles for the foreign architect in China post-handover to LDI and post-tender are very rare. The reality in China is that foreign architects often have a very poor line of communication with the construction manager and the contractor post-tender. Site changes and queries are dealt with by the LDIs, and only in informal consultation with the foreign architect.

The impact of such procedures on quality is further compounded by foreign architects' propensity to neglect the reality of labour skills when developing the construction and material vocabularies of their design

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[135] Interviewed from London via telephone on 5th June 2017.

proposals, as discussed in a preceding section, resulting in the frequently encountered disparity between the project's design intention and built reality.

The composite result of these aforementioned issues is a fragmented design process where conflicting priorities and interests between foreign architects, clients and the LDIs often leads to the erosion of the original design intent, to the detriment of the quality of the built project. 'The problem for foreign architects,' says Keith Griffith, the Chairman of architecture firm AEDAS, 'is when design is rarely realised'[136]. Without an established and widely adopted formal mechanism for foreign architects to monitor how their concept design might be implemented during construction, it becomes difficult to maintain consistency in the quality of the final outcome, where a project's quality rest on the relationship between foreign architects, their clients, the LDIs, and the contractor, on a case by case basis.

ii. Stereotyping of roles

This fragmentation of the line of responsibility for a design has in turn reinforced stereotypes of the roles of both foreign architects and LDIs, with clients increasingly accustomed to employing foreign architects exclusively for concept and early stage design work and LDIs for the later stages. Clients see foreign architects' attempts at safeguarding their design intention during the construction phase as a source of delay and extra cost burden.

John van de Water observed:

> If you're really involved from the beginning to the end[of a project],…the chances are very big that you're gonna lose this project in the end, because during the whole design process they're going to get other people involved. They don't always know what's gonna happen: the project might be sold. These projects are about earning money.[137]
>
> …We worked on a design on Nanjing Lu in Shanghai, where the project had already been passed around 15 different

[136] Interviewed on 20th May 2014 at AEDAS Hong Kong Headquarter Offices, Hong Kong

[137] Interviewed on 19th September 2014 at NEXT Architect offices, Beijing

> architects before us, some foreign. We came up with several schemes in a week, one of these schemes really got the attention, not only from the developer, but also from the district government, so in one week we got through and started working on the project. What happened after was that we worked on the project for another 2-3 months, and then we were kicked off the process. Then they [clients] were like, "Thanks, your work is done and we're going finish it now". The concept design was enough, which was quite difficult for us to accept. We discovered later that in the 8 months since our concept design, another 12 architects had been working on the project based on our concept design.[138]

There is also an assumption by many clients that the LDIs' mandatory presence during the latter phases of construction projects makes them by default experts in the development of other architects' designs. LDIs have thus become unwitting victims of the nature of their own dominance, seen as specialists in producing construction drawings and issuing site sign-offs, and so missing opportunities to prove and improve their conceptual design capabilities.

This fragmentation and limitation of roles are reinforced further by the fee structure (see *Appendix 5: Typical Project flow Chart*). Typically, the design work leading up to the production of construction drawings represents half of the total fees paid to the architects, and the production of construction drawings form the remaining half. When foreign architects are involved, this reduced scope does not necessarily means less fees. First, a premium is typically placed on foreign architects due to their perceived superiority in design and their added prestige to the project. Second, foreign architects typically will seek to establish a higher fee scale more consistent with the level of their income in the West. Finally, aware of their reduced power post-handover to the LDIs, foreign architects tend to build in a little more fees upfront to pay for the maintenance of some 'pro-bono' design presence in the latter stages.

The result of this tipping of the fee balance to the front end of the project when foreign architects are involved is that the LDIs tasked with detailed

[138] Interviewed on 19th September 2014 at NEXT Architect offices, Beijing

design and construction drawings end up doing more for less in terms of their fees. During these latter stages, it is not uncommon for fees to be agreed with the LDIs on a Yuans per drawing basis, particularly for construction drawings, a system unimaginable in the West.

Consequently, and inevitably, the LDIs, who are often large and bureaucratic, with wage hungry employers, must take on more projects at lower fee than foreign architects, in order to maintain a healthy fee income. This negative feedback loop reinforces the LDIs' perceived role as delivery partners to foreign architects. While this may not be the case for a few elite first tier city LDIs, it is certainly a prevalent condition in the majority of typical ex-state LDIs in China.

As the partners at Atelier Deshaus, Liu Yichun and Chen Yifeng, both ex-LDI architects put it:

> There is no doubt over the ability of big LDIs such as Tongji to compete, but their primary priority is in the volume of production; their primary target is the monetary value of their output, so they're always overloaded with work.[139]

On the evolution of the LDIs from the Mao era to its present condition, Keith Griffiths of AEDAS observed, 'the LDI was a job, and now it's a business.'[140]

iii. Loss of Knowledge superiority

There have been some benefits to LDIs in their present relationship with foreign architects, however. The coming together of foreign practices and LDIs has provided an opportunity for the LDIs to modernise themselves by learning from their foreign collaborators, gradually acquiring new skills and technological know-hows. This has been accelerated by the regulatory framework which requires the involvement of LDIs on projects for which foreign architects are appointed. The fast pace of development and the vast volume of construction projects in China also expedited the LDIs' learning process. As Ken Wai, global board director at AEDAS said, 'In our business,

[139] Interviewed on 10th September 2014, at Atelier Deshaus offices, Shanghai

[140] Interviewed on 20th May 2014 at AEDAS Hong Kong Headquarter Offices, Hong Kong

he who builds becomes the expert. LDIs have being building some of the biggest projects in the world.'[141]

This accelerated transfer of knowledge means that it is inevitable that the advantages held by foreign architects in terms of design and technical expertise have dwindled as LDIs become more competent in terms of design, capable of winning large and high profile projects for singularly without the need to collaborate with foreign architects, adding to their portfolio of staple projects.

Chen Jianqiu of Tongji LDI confirmed this,

> There is now more direct competition between LDIs and foreign architects, and conflict between them may increase. Previously foreign architects thought LDIs had more authority over matters of delivery and construction stages, construction drawings. This has forced LDIs to reach for parts of the design and delivery process they're weaker on, particularly the concept stage. At the moment on this front, LDIs are still at somewhat of a disadvantage, but the overall trend is more competition and more even and level playing fields. Developer clients are also becoming more rational. Why go for foreign architects if LDIs can provide the same service at lower costs and offer a wider service.[142]

Such opinions are reflected amongst foreign architecture firms. AEDAS Director Stephen Cheng:

> The work that they [LDIs] produce is still not as good as foreign architects, but this is rapidly changing, … In a few years, LDIs will have the same design talent as international architects.[143]

Keith Griffith, AEDAS Chairman, added:

> We very rarely lose to LDIs, more often than not their work is derivative, but some LDIs are doing some rather good work, we

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[141] Interviewed on the 26th September 2013, at AEDAS Headquarters, Hong Kong

[142] Interviewed on 23rd May 2014 at Tongji Architectural Design Group Headquarters, Shanghai

[143] Interviewed on 9th September 2013 at AEDAS Offices, Hong Kong.

do see them coming up against us in competitions, and think, 'That's rather original'.[144]

iv. LDI and the supply of design talent

As discussed in the previous section, the Reform and Opening Up policy has enabled a shift from a teaching structure based on a Soviet model to one more akin to the Anglo-American system that many of contemporary Chinese educators have had.

The adoption of studio teaching, in which a design agenda and theme are set by the studio masters independently, as well as the inclusion of foreign architects and academics on the teaching staff at Chinese universities are all indicative of the effect the West has had on architectural pedagogy in China. This has led to a more exploratory approach, one that encourages creativity, independent thinking, and attention to sociological narratives.

However, despite these changes, there remains an authoritarian Beaux Arts 'essence' in the educational system, as the state remains firmly in control of education, despite liberalisation in other aspects of cultural and knowledge production in China.

As discussed in an earlier chapter, Chinese pedagogy has always been part of the apparatus of the state, as a tool to mould thinking and enshrine order. This was the case with Confucian pedagogy and for the Soviet/ Beaux Arts models of education in architecture during the Mao era.

The post-Mao era is no different. The Tiananmen Square Protests and its aftermath served as a reminder of the singular hold on power the government still exercises on academia and education. In a speech in 1990 in response to the events of 1989, the then Chinese president, Jiang Zemin argued that 'the Party organisation at every level must hold true to our principles and oppose capitalist liberal education, and ensure that our ideological work is done properly…'[145]

Since the 1990s the state has maintained its control over academia through a tightening of political and ideological supervision of the universities. At university level, political classes that champion Marxist doctrines and

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[144] Interviewed on 20th May 2014 at AEDAS Hong Kong Headquarter Offices, Hong Kong

[145] *Transcript of Jiang Zemin's speech at the Beijing Youth 'Five Four' Remembrance Report Meeting, People's Daily* 4th May 1999.

'Socialism with Chinese Characteristics' are mandatory courses for undergraduate students. As a political apparatus, the education institutions in China in general remain bureaucratic and hierarchical.

Despite the increasing involvement of western trained architects in the teaching of architecture in higher education, the aforementioned historic and political baggages mean that architecture education in China has stubbornly retained a 'Beaux-Arts' essence, with a pedagogy that is still somewhat instructive, and hierarchical. Such a learning environment affects the creative output and innovative thinking of the students. This in turn has an impact on the quality of the students from whom both foreign and Chinese architectural firms will draw their talent.

Kirk Ellis, one of AEDAS's Shanghai Directors said the following of the Chinese graduates who work for him:

> Even in the top school in the country, the prevailing model is very much following the teacher. That's why the LDIs are full of people who are following what the bosses do. This pedagogy is quite entrenched… There is a bureaucratic sense that if the system is correct, then the outcome must be correct. That's the same, I think, in universities in terms of pedagogy… When you interview the students for jobs, they're very limited. I do ask people in interviews for examples, 'Tell me what you did?' and it is sometimes very hard for someone to tell me exactly what their contributions have been. Very few of them say I did this. This was my idea. I think this has something to do with the idea of cultural continuity in China, to not create conflict. This is definitely part of the culture. That's why people strain to be creative.[146]

This problem is compounded by the affiliation of educational institutions with LDIs.

A legacy of the Soviet model where education fed directly into practice, the unique affiliation of LDIs and schools of architecture has persisted despite dramatic transformations in the structure of the LDIs themselves over the last two decades. Some of the largest and most prominent LDIs are still

[146] Interviewed on 26th September 2013, at AEDAS offices, Shanghai.

affiliated with some of the most renowned Chinese architecture schools, such as Tongji LDI and Tongji University, and Tsinghua LDI and Tsinghua University.

In these LDIs, design directors and project architects are also lecturers, studio tutors, and masters supervisors at their affiliated universities. Students are exposed to the model of the LDI as state bureaucracy, business enterprise, and architecture practice.

In such a system, the commercial priorities of the LDIs inevitably compete with the educational priorities. This is quite different to the western model where studio tutors in architecture schools are also practitioners outside the school. As agents independent of and separate from the school, the remits of western architects' practice and teaching duties are clearly demarcated and largely without conflicts of interest. In Chinese architecture schools, with affiliated LDIs, the educator is also a practitioner under the same institutional umbrella, the management structure of education and practice overlapping. LDI architects are expected to be income generators for the practice to prosper, while simultaneously contributing to teaching hours within the school. This puts design fees against teaching salaries, and project programmes against teaching agendas. Such conflicting priorities distort the method and purpose of architectural education, allowing the shortcomings of the LDI system to filter into the education system, and producing graduates trained as apprentices, rather than innovative designers.

This is evident in the nature of many Masters degrees in Chinese architecture schools, where the students spend a significant amount of their time working for their Masters supervisors on live commercial projects as interns. Students serve as a low cost workforce to assist with the commercial projects the university LDIs are undertaking, while for the students, working for their tutors in the university LDI offers practical experience and opens up the potential for gaining employment after graduation.

Students of Tongji University in Shanghai, who had already completed their four years of undergraduate studies, said they would like to continue in Tongji as Masters students, with the view to working on real projects for their course supervisors. Some have expressed interest in joining design-

led, non-commercial private Chinese practices such as Atelier Deshaus, but none wanted to work in foreign firms. One student who looked cautiously round for any teachers before speaking, and asked not to be named, said:

> If I stay on the Masters course, I will get to do design work for my supervisor, who will either be working on a Tongji LDI project or a personal private commission. If I cultivate this relationship well, I'll have a better chance of staying in Tongji LDI after I graduate. It's a more secure job.[147]

This partially explains the large number of graduates who choose LDIs as their employment destination (see *Appendix 5: Typical Project flow Chart*) and poses a problem for foreign practices with offices in China, as opposed to those jetting in and out for a one-off commission.

There is a perception among graduating Chinese architecture students that career progression in foreign practices is limited. The fact remains that positions of design leadership in foreign architecture firms operating in China rely heavily on expats from the West, with Chinese employees in mostly junior positions within the design team and the company. There are of course, exceptions, with foreign firms appointing Chinese design directors to positions of power. However, in many cases, these are expat/ overseas Chinese architects or Chinese architects from Hong Kong or Taiwan. It would be unfair to suggest that there is any systemic prejudices at play here on the part of the foreign architects, but the fact remains that there is no critical mass of native Chinese architects in senior positions in foreign firms.

Chen Jianqiu of Tongji LDI confirms this view:

> Nowadays, students applying for jobs are well informed. Many don't believe they have great potential for career progression in foreign practices. There's no chance to do design. But in LDIs, there's more exposure of students to industry. Working on private projects for tutors during their time in academia, then there's more chance to participate in fuller scope of services in LDI.[148]

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[147] Interviewed on 23rd May 2014 at Tongji Architectural Design Group Headquarters, Shanghai

[148] ibid.

Also in competition with foreign practices are developer clients with in-house design teams, and smaller design-led private Chinese practices, which are also attracting increasing numbers of graduates.

When recruiting local Chinese graduates therefore, foreign architects are faced with a two problems, one relating to the quality of students, and another relating to the quantity of students who wish to join them. The result is a smaller pool of talent available to foreign architects as they compete against other kinds of Chinese practices.

5.4 Conclusion

The presence and practice of foreign architects in post-Mao China fit into a similar patter to that before the Reform. They have again played a critical role in transferring new knowledge and expertise, establishing new forms of practice, disseminating new pedagogical approaches, instigating debates on style and expression, and perpetuating the socio-economic and political narratives of the state. However, the uninterrupted period of engagement between foreign architects and their Chinese peers, against a backdrop of unprecedented growth and development, has led to the emergence of a series of existential challenges to the position of foreign architects in China.

The perception of foreign architects has been distorted by the pursuit of 'starchitecture' in the recent decade or so. The remit of foreign architects has been eroded by the growth of developer clients' in-house design expertise. There exist a quality gap between the design intentions of the foreign architect and the constructed reality, a result of the incompatibility between western construction technologies and a local labour force whose skills lie in a very different material culture. The design responsibilities of foreign architects have been fragmented and curtailed by a regulatory system that benefits the dominance of LDIs, both in the structure of the profession, and the training of professionals.

At this juncture, foreign architects' expertise, methods of practice, stylistic inclinations, and relationship with the state are all being brought into question.

Are foreign architects still relevant to the architectural development of China? Zhu Jianfei's 'Moment of Symmetry'[149] identified a point in time, which Zhu put around the late 2000s, when the influential position of foreign architects as a legacy of post-colonial relationships begins to diminish, and the flow of influence from West to East begins to reverse, pointing to a shift in the balance of power between foreign and Chinese architects.

[149] Jianfei Zhu, *Architecture of Modern China - A Historical Critique* (Oxford: Rutledge, 2009), p.244

6.0 THE FUTURE - Emergent conditions in the age of 'New Normal'

It is not the aim of this chapter to make sweeping general predictions about the future. The volatility of emergent political, economic, cultural and professional conditions in China and the world make such endeavours foolhardy. Rather, in this chapter, the aim is to map how this volatility pertain to the existing challenges facing foreign architects and what are the immediate consequences for the architectural profession.

The challenges faced by architects within the professional status quo in China, as discussed in the preceding chapters, inevitably bring into question the long term sustainability of the prevailing professional system, as well as the future relevance of foreign architects in China.

Critically, these challenges are a reflection of wider systemic issues facing the country as a whole, where over two decades of unfettered economic growth have brought with it pressures on social cohesion, citizens' wellbeing, and the quality of both the built and natural environments. The reluctance to confront these problems in a meaningful manner have persisted as long as the prevalent model of growth continued to yield the GDP figures which made China the envy of the world.

The global financial crisis of 2008 and the consequent global recession had a significant impact on the Chinese economy. The immediate consequences were falling demands for Chinese exports and decline in inward foreign investments. To combat these, China introduced a huge economic stimulus programme in 2008-09 to increase domestic consumption. While the package averted a dramatic drop in the GDP growth rate in the short-term, the GDP growth rate in China had in fact been declining anyway from as early as 2007, when it peaked at 14.2%[150]. The growth of China's GDP stood at 7.4% in 2015, the slowest in 25 years[151], and the Chinese government's own target for GDP growth in 2017 is only 6.5%. There is no doubt therefore that the Chinese economy is at last slowing down.

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[150] 2007 中国统计年鉴, 国家统计局 / *China Statistical Yearbook 2007*, China National Bureau of Statistics of China (2008)

[151] 'You're Still Welcome', *The Economist* (January 24th 2015)

In short, the Chinese economy has entered what president Xi Jinping has coined, a 'New Normal'[152]. These new and challenging circumstances, along with the negative consequences of over two decades of accelerated growth, have finally forced the country to confront with its problems, making change an inevitability.

The 2008-09 stimulus package also compounded the structural problems in the Chinese economy, which had already been accumulating debt over the last three decades. According to the Institute of International Finance, the level of debt in the economy has increased substantially to over 300% of GDP, driven by borrowing from local government authorities and State Owned Enterprises. The stimulus package also led to overproduction, overcapacity, and oversupply in the manufacturing sectors. Critically, the real estate sector bears the hallmarks of a housing bubble, with an oversupply of homes coupled with inflated prices, which led to central government to introduce monetary measures to curb lending on real estate from as early as 2010[153].

For the architectural profession as a whole, the combined effect of these challenging economic conditions has been a slow down in output. The market has shrunk and competition has become fiercer. The growth in the total output value of the construction industry shrank from 21% in 2010-11 to 16% in 2012-13. The growth in the total amount of real estate floorspace under construction also dropped from 20% to 14% over the same period. Floor space completed saw an even sharper slow down, growing at 2% in the year 2012-13, compared to 17% just two years earlier.[154] In 2014, new contracts signed between design institutions and their clients in China declined by 67.68%.[155] These are troubling signs for the profession, particularly for large foreign practices and LDIs, which rely on the buoyancy of the economy and government spending to maintain their volume of turnover and their market positions. AEDAS, one of the world's largest practices and the biggest China-based international firm, laid off 100

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[152] Keynote Speech by Xi Jinping at APEC Summit on 9th November 2014

[153] 国务院关于坚决遏制部分城市房价过快上涨的通知，国发［2010］10号 / *State Council notice on effort to control rising urban property prices*, State Council 2010 Notice No.10

[154] 2014 中国统计年鉴, 国家统计局 / *China Statistical Yearbook 2014*, China National Bureau of Statistics of China

[155] Li Wuying, 'Industry Shifts and the Future of Architectural Practice', *Time Architecture* (2017 Issue 1)

people in July 2015 in response to slowing infrastructure investment, with 40% of its employees taking a 3%-20% pay cut[156] [157].

As a result, there are discernible signs that the political, economic, regulatory and cultural contexts surrounding the architectural profession are beginning to shift.

New and volatile conditions are emerging, from the strategic realignment of economic and political policy priorities, to imminent changes in specific regulations, from shifting market trends and client preferences to new voices within the architecture profession.

Some of these new conditions have emerged as specific responses to the challenges identified in the preceding chapter. Other tendencies, however, have emerged as part of the economic, political and cultural consequences of the 'New Normal'. Whilst these emerging circumstances do not neatly address all of the challenges identified in the preceding chapter, they nevertheless will reshape the nature of these challenges, and offer new opportunities to confront them.

How foreign architects respond to these emergent conditions will determine their continuing relevance and roles in China in the coming decade.

While they differ in scale and in nature, there are nevertheless three thematic categories of emergent changes: changes to state policies, changes to market demands, and changes to the architecture profession itself, although as is always the case in China there is always a blurred line between state and client, and state and architecture profession.

6.1 The government's 'New Normal'

In responding to the slowing growth and the inherent structural problems, the Chinese government are seeking to implement a new model of economic development under a new policy framework and a new set of

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[156] Architecture Firms in China Dial Back, Wall Street Journal <*https://blogs.wsj.com/chinarealtime/2015/08/11/architecture-firms-in-china-dial-back/*>[2015]

[157] Aedas cuts jobs, pay as China infrastructure investment slows <*http://www.ejinsight.com/20150630-aedas-cuts-jobs-pay-as-china-infrastructure-investment-slows/*>[2015]

priorities. This was first set out in a speech given by president Xi Jinping in 2014[158], on the government's vision for an economic 'New Normal'.

In simple terms, the government's plan entails a shift to a slower but more sustainable rate of economic growth, a change in the drivers of future growth from manufacturing to services and tertiary sectors, supply side reforms that move the economy to rely less on export and investment and more on domestic consumption and innovation, and finally, a more open and transparent regulatory environment.

These policy shifts have huge implications for the economy as a whole. With regard to the impact of the 'New Normal' on the architectural profession, two particular changes are likely to take root in the coming decade and affect the practices of both foreign and Chinese architects.

6.1.1 Renewal vs expansion

In recent years, a consensus has emerged from both academic circles and within the official planning community in China: instead of token iconic civic buildings and entirely new cities, planning authorities ought to begin to focus their attention on the renewal of poor quality existing city fabric, and existing transport and cultural infrastructures, and the reinvigoration of de-industrialised urban areas, not just in first tier global metropolises, but also in second tier provincial capitals.

As noted in the preceding chapter, over the last three decades, at a strategic and urban scale, urban spatial planning has been used chiefly as a tool to accommodate and prioritise growth in the immediate term, based on a model in which the leasing of land by local authorities to developers, and the consequent expansion of the urban realm, boost GDP figures in the short term.

However, official reflection on the approaches during the preceding boom years have led to a growing acknowledgement that the planning policies of the past have had a detrimental impact on the quality of the built environment. From urban villages trapped within the expanding urban sprawls, to the condition of ex-industrial sites and the neighbourhoods around them, there is an accumulation of architectural and environmental

[158] Keynote Speech by Xi Jinping at APEC Summit on 9th November 2014

shortcomings within the existing city fabric. If these are left unchecked, they will exacerbate underlying social conflicts, something the government, looking to protect their political legitimacy, are keen to avoid.

A casual survey of what the Chinese government defines as 'mass incidents' in China will reveal the extent to which outbursts of citizen grievances and violence are linked to the built environment. Amongst these are the frequent clashes between local government and real estate developers on the one hand, and residents of the so-called urban villages, and other similar areas of poorly built, poorly serviced, and informal settlements on the other, where these neighbourhoods face demolition in order to make way for new real estate developments. Elsewhere, heavy industries and factories in city centres across China, a legacy of Mao era, face many challenges, from growing citizen awareness of their environmental impacts to declining productivity. Three decades on from the onset of the economic reform, many parts of the existing urban fabric in many Chinese cities have started to show signs of fatigue, with physical deterioration, lack of integration with infrastructure, and outdated performance.

These problems have long been recognised by the provincial governments from the early 2000s, particularly in more progressive and developed coastal first tier cities at the forefront of reform. By 2009, Guangzhou's provincial government had already recognised that planning must deal with the Three Olds[159]: old cities, old factories, and old villages (urban villages[160]). Similarly, Shenzhen's city government issued *Shenzhen Urban Renewal Policy*[161], also in 2009, and became the first local authority in China to use the phrase 'urban renewal' in an official document.

There were several key pieces of central government legislation that provide further and conclusive evidence of an official shift in attitude. At the heart of these official policies is the *New Urbanisation Plan (2014-2020)*[162],

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[159] 《关于推进"三旧"改造促进节约集约用地的若干意见》/ Advice on the Reform of the 'Three Olds' and the More Centralised and Economic Use of Land. Guangzhou Provincial Government, 2009.

[160] By Chinese official definition urban villages are settlements where residents previously registered as rural population have been enveloped by the urban sprawl of the city.

[161] 深圳市人民政府令（第211号）深圳市城市更新办法文 2009年11月22号 / *Methods for urban renewal*, Shenzhen city government, 22nd November 2009

[162] 国务院国家新型城镇化规划 (2014-2020) / *New Urbanisation Plan* (2014-2020) (China State Council, 2014)

published in 2015, and its guidance document published in 2016[163]. Subsequently the State Council has also published *Guidance Advice on Furthering Development of Inefficient Urban Land*[164]. These texts make clear and explicit references to urban renewal as a new nationwide policy priority. Chapter 15 of the *New Urbanisation Plan*, entitled *Optimising Urban Spatial Management Structure,* clearly states:

> In accordance with the need for conversion, renewal, and preservation, strength en the mechanism for the transformation of old cities; optimise and improve the function of old cities. Speed up the relocation and transformation of old industries in urban areas; make advances on the transformation of shantytowns and informal dwellings; steadily implement the transformation of urban villages; make orderly progress on the transformation of dilapidated, incomplete, and at-risk housing; thereby comprehensively improve living environments.[165] [Author's translation]

The passage above officially acknowledges the need to address existing parts of Chinese cities. It recognises the need for areas of poor built quality to be reconsidered as a priority of urban spatial planning in the coming years. However, it must be noted that the word 'urban renewal' is not necessarily a virtue in itself. While the intention to address the dire conditions of many informal settlements, at its worst, these policies have been translated at local level as the demolition of shantytowns and the eviction of tenants who are some of the most economically vulnerable in Chinese society.

In Chapter 15, Section 2 of the same document the government also plan to:

> Tighten the prerequisite conditions for the establishment of new city districts, and prevent the disorderly sprawl of urban boundaries. Where new urban districts are to be established to

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[163] 国务院关于深入推进新型城镇化建设的若干意见 国发〔2016〕8号 2016年02月06日 / *State Council's advice on deepening new urbanisation*, State Council Notice 8, 6th Feb. 2016

[164] 关于深入推进城镇低效用地再开发的指导意见(试行) 2016年11月11日 国土资发〔2016〕147 号 / *Guidance Advice on Furthering Development of Inefficient Urban Land,* State Ministry of Resources Development, Notice 147, 11th November 2016

[165] 国务院国家新型城镇化规划 (2014-2020) 第十五章第一节 / *New Urbanisation Plan* (2014-2020) (China State Council, 2014) Chapter 15, Section 1

> alleviate functional overlap, population pressures, or avert natural disasters, a plan must be developed scientifically, based on density requirements, productivity output intensity, bearing capacity of the site, and in coherence to administrative plans. Tightly control the scale of land usage, and prevent over-capacity. … Strengthen the functions of existing developed parts of the city; push for the diversification of urban functions, to promote urban densification and the development of the service economy.[166][Author's translation]

The above passage is significant for its official recognition of the ills of uncontrolled *tabula rasa* urban sprawl and instant cities. The passage relays an official ambition to rein in such practices and shift the focus to the existing fabric of Chinese cities.

Dialogue with Li Jisheng, Chief Planner of Shanxi Province[167]

Further substantiation of this shift in planning priorities come from members of the planning community itself, such as Li Jingsheng, the Chief Planner of Shanxi Province, who was interviewed for this thesis. Li oversees the development and implementation of strategic planning policy for the entire province, which has a population of just over 32 million, about half the size of UK. The province contains a second tier city, the provincial capital Taiyuan, and eight cities that are fourth tier. In addition to his official position, he is also an executive director at both the China Association of City Planning and Urban Planning Society of China, as well as being a post-doctoral supervisor at Wuhan University.

Li Jinsheng argues that the post Mao era has seen planning used as a tool to address the 'planning debt' that had accumulated during the preceding stagnant decades of under-development and under-investment. According to Li,

> In the past 30 years, to be honest, planning was there mainly to accommodate the rapid expansion of cities and provide room for the economy to grow. These new pieces of city that we

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[166] 国务院国家新型城镇化规划 (2014-2020) 第十五章第二节 / *New Urbanisation Plan (2014-2020)* (China State Council, 2014) Chapter 15, Section 2

[167] Interviewed on 2nd November 2015, at Shanxi Planning Ministry, Taiyuan, Shanxi

> make, some of them do have issues relating to how quickly they were made. But this was unavoidable as we're under tremendous pressure to accommodate the growing size of urban populations, and the economic growth that comes with them. So the last 30 years of urban planning were appropriate to the model of economic development in China over the same period. [Author's translation]

However, Li, along with many of his peers, now acknowledges the fact that this period came with problems and excesses, and is likely to be coming to an end.

According to Li, for cities such as Taiyuan, with a population above 2 million will continue to grow to 2030, the speed of this expansion will slow, from 5km^2 to around 1km^2 a year. For third tier and fourth tier cities of a few hundred thousand people, growth will be slowed even further. For provinces like Shanxi, which has relied heavily on natural resources and heavy industries as the main economic drivers, development must follow a different economic model.

Li claims that planning authorities up and down the country are now working under a very different set of priorities to the expansionism of the last 30 years, with a shift of focus on the quality of living environments and the protection of nature and ecology. These new priorities are focused enhancing and renewing the existing capacity of the city, rather than expanding the physical size of the city. When asked what form will urban renewal in China take, Li relayed that the priority will be to produce new buildings and better quality buildings that will address 'urban villages' (enclaves of rural community trapped in the expansion of the city fringe) and ex-industrial sites within the city.

With regard to the role of foreign architects in this process of transformation in urban priorities, Li holds mixed opinions. On the one hand, he believes that the output from foreign architects in the last two decades have not always represented value for money. According to Li,

> In the last ten years, foreign architects and urban planners have all being experimenting in China. The fact is these foreign urban planners have never worked on any projects in their

> native country that are remotely similar to the scale and size of their Chinese projects. Therefore, foreign urban designers have not had much success in China, particular city-scale projects. [Author's translation]

On the other hand, however, Li still believe that international experience is nevertheless much needed on the topic of urban renewal. Examples such as the regeneration of the Ruhr industrial region in Germany are successful precedents for regions such as Shanxi, in developing an ecologically and culturally driven future. According to Li,

> We need precedents that will change our understanding of the issue. Our planning policies thus far have advocated an attitude of demolishing the old, and making anew. Western experience and precedents are needed to demonstrate that it is necessary for diverse elements of the city to coexist and prosper together. We see the city as a machine that produces economic growth, but have overlooked the continuity of our cultural heritage through the continuity of the city. There is a lack in the cultural aspirations of our city, but we're still searching. This is where input from foreign architects would be very useful in the debate. Foreign architects need to integrate their international experience on urban renewal with a clear understanding of the specific Chinese conditions and context, and respond to Chinese culture. We are yearning for foreign architects who can respect native culture, and respond to the specific regional and local contexts. [Author's translation]

It is important to note that the shift in planning priority from *tabula rasa* expansionism to the renewal of the existing city fabric is more than just an official government position, as evident in the comments of the planner Li Jinsheng. The architectural profession and academia have also been very vocal in their critique of the prevalent model of spatial production.

Dialogue with Han Tao, prominent Chinese academic and architect[168]

The interview with Han Tao, an architect, researcher, and teacher, provides insight into the critical attitudes within both professional and academic

[168] Interviewed 13th October 2015, at Central Academy of Fine Arts, Beijing

discourse. Most importantly, it expands the conversation beyond the cautious responses of a planning official, and begins to speculate more freely and radically on the drivers of urban renewal and the challenges that Chinese cities will face in the future.

Han Tao is a senior lecturer at the Central Academy of Fine Arts, founder of his personal atelier ThanLab, and co-founder of STA'anD, another design practice set up with fellow architect Zhou Zishu. Most recently he has been undertaking consultative research for the Beijing government for a masterplan for Tongzhou, a new metropolitan centre to the east of Beijing. His research and practice is informed by his interest in the relationship between architecture autonomy and underlying political agency, as well as urban development parallels between contemporary China and Europe in the 1960s and 70s.

For Han Tao, conversations coming out of the planning community since 2014 have changed noticeably from the preceding decade, particularly in cities such as Shanghai and Shenzhen. Han sees this as a moment of breaking with the past. According to Han Tao,

> In the last ten years, the country has seen the prevalent model of spatial production deliver rapid economic growth. But with the economic slow down, shrinking cities are no longer a western urban phenomenon, it is also now happening in China, at least in the major metropolises. At the same time, the government has also realised that the negative socio-economic effects of this method of development have also been accumulating, and must be mitigated, or they will pose a threat to the government's right to rule. So questions are finally being asked, for which answers are not yet fully formulated.

Han Tao echoes the opinion of Li Jinsheng, that the government is now looking to address the issues within existing urban fabrics, in order to lessening the social conflicts these issues exacerbate, and restore some levels of social justice through spatial means.

According to Han, the government's focus on urban renewal is echoed by developers in the private sector. The previously dominant model of speculative real estate driven spatial production (to use Lefebvre's term) is

being reconsidered by developers, who, in a slower and more competitive market increasingly focused on locations within the existing urban fabric, have had to examine the contextual responses of their offers, as well as the post-sale and post-occupancy longevity of their projects. Herein lies a fundamental conflict for developers, and where architects and particularly foreign architects has a role to play. In Han Tao's words,

> This is where the conflict lies for them [developers], because capital always prefers efficiency and standardisation, whereas urban renewal through its highly contextual specificity is explicitly non-standard. This means greater uncertainty and more risk for any developers wishing to restructure their investment model to pursue urban renewal. What China is experiencing now has similarities with what the US and Europe had to contend with in the 1970s, 80s, and even the 90s. Many of China's current problems were faced by European architects in previous decades. They have been through this; they have the precedents to call on, whereas Chinese urban planners and architects are unsure of what to do. Foreign architecture practices who are accustomed to working within the old paradigm of spatial production must get used to this shift of focus to urban renewal projects. And research oriented foreign architects with experience and expertise should be able to recover their positions in the market. [Author's translation]

It is clear from interviews with Li Jinsheng and Han Tao, that the strategic shift in China's urban planning agenda and the cognition of the perceived failure of foreign architects to understand fully the Chinese context have series implications for foreign architects.

As discussed in the preceding chapter, the urban expansion facilitated by local governments and executed by real estate developers resulted in the erosion of the architect's traditional remit, and the distortion of the architect's perceived value. In particular, being able to provide instant if rootless identity, and instant prestige in the production of 'starchitecture', had become the perceived expertise of foreign architects.

However, the new focus on urban renewal now demands a different kind of expertise, which plays to the strengths of a different kind of foreign architects, or at least a different kind of engagement by foreign architects.

As Han Tao rightly pointed out, the architectural challenges relating to the issue of urban renew has being the staple of many architects in the West. The cultural, social, physical and infrastructural impacts of deindustrialisation and suburbanisation on the city has occupied the attention of western planners and architects since the late 1970s.

As such, a wealth of knowledge and expertise have been accumulated from successful and failed attempts of urban renewal, well before the issue first presented itself in China. More recent precedents such as HafenCity in Hamburg, and London's King's Cross Central have demonstrated how design thinking on urban renewal has matured since the redevelopment of London's Docklands in the 1980s, addressing environmental sustainability and cultural heritage respectively.

As such, foreign architects are once again in a unique position to offer their expertise in the field of urban regeneration. In fact there are precedents for this already, such as Testbed II in Chongqing (see Figure 57 above).

Case Study 6: Testbed II, Chongqing

Testbed II is an ongoing project to regenerate an ex-industrial site in the city of Chongqing, a large first tier city that makes up one of only four directly administered cities in China, the other three being Beijing, Tianjin and Shanghai.

The site is located in the Eling area of Chongqing, which sits on a hilltop with commanding views of both the Yangtze River and the Jialin River. A printing factory was established there when the city was under nationalist rule, and it responsible for the printing of the currency. It became known as Factory No.2 after 1949, responsible for the entire city's reprographic needs between the 1950s and 70s. In the decades since the 1980s, declining business activity at the site eventually led to the closure of the printing factory in 2012, part of a wider neglect of building stock in the Yuzhong area of Chongqing (see Figure 57 overleaf).

Figure 57:
The condition of the existing ex-industrial buildings in Eling that formed the Testbed II site (photographed by the author)

Looking to more advanced and developed cities such as Guangzhou and Shenzhen, the Chongqing government has been addressing the renewal of the Yuzhong, particularly since 2016[169]. The overall strategic vision emphasises the need to develop cultural industries through the provision of public spaces, facilities, and services, and protect and renew heritage sites, and places important to the cultural identity of the Eling district.

Accordingly, a client group for Testbed II was formed, made up of five main investor-shareholders, run by Zhou Yaxin, a marketing executive with an art background. An unconventional client group, all of the main shareholders come from the creative industries, and brought with them capital as well as expertise.

Accordingly to Chen Yizhong, a design director and assistant to the CEO at Testbed II:

> There's a saturation of residential and mixed use commercial development even here in Chongqing. So we wanted to do something different, by integrating creative industries, bespoke

[169] 重庆市主城区城市更新专项规划，重庆市规划局 / *Chongqing Central Urban Area Renewal Plan* Chongqing Planning Department, 2016

> retail, and art. But we are different to 798[170] in Beijing, which was organically grown, without a long term vision, so now over-commercialisation of the site has become damaging. We want to hold on to cultural, creative, and design content as our core values. We intend to duplicate this development model in other cities in China. There is a lot of attention on the redevelopment and regeneration of old or ex-industrial sites in China. There are a lot of second tier cities with disused or abandoned industrial sites. There are a lot of investors who have these types of assets but don't know what to do with them. So we used this project as the starting point for a whole package of services that integrate branding, marketing, design, construction, fit out, and post-completion operation. We can offer the entire chain of services to transform clients' assets. We want to be the only development team that can offer this service in China.[171]

A 10 million Yuan budget and an international invited competition which included MVRDV eventually saw the appointment of British architect Will Alsop and his firm aLL Design, whose Testbed 1[172] project in London was critical to their selection by the client. Alsop also holds the exclusive rights to the Testbed brand in China. There was no doubt from the client's perspective that foreign architects have expertise in projects of this nature. 'We need someone who can have the overall vision, so going for Chinese architects didn't come into our minds' said Chen.

Based on the design ethos of his Testbed I project, Will Alsop, in his usual flamboyant style produced an overall masterplan in 2015 for the conversion of, and additions to, the site's group of industrial buildings to suit the programmatic agendas of the client (see Figure 58 overleaf). The incremental conversion of the site is ongoing, with occupants moving in as each phase of the site is released for possession. At the time of my visit for this case study in 2015, partial demolition and buildings works had already begun, and there were about a dozen different tenants, ranging from art

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[170] 798 is a factory district in Beijing which has been slowly converted into a cultural, art, and creative industry district since the 1990s. Artists initially took over the abandoned factory floors as studios, which was followed by galleries and then cultural retail moving in to capitalise on the cultural identity of the location.

[171] Interviewed on 17th April 2015 at Testbed II site, Chongqing

[172] Testbed 1 is the conversion of an ex-industrial building in Bermondsey, London into a creative event space, designed by Will Alsop.

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for copyright reasons

Figure 58: Concept visualisations of the additions to existing site buildings by Will Alsop (Courtesy of Chen Yizhong at Testbed II)

Figure 59: Examples of conversion of the ex-industrial spaces at Testbed II as of 2011 (photographed by the author)

cafes to creative industry start-ups, to bespoke design boutiques (see Figure 59 above). As of September 2017, seventy tenants have moved in and there is a lively mixture of onsite programmes, from weekend markets, restaurants and cooking classes to start-up incubators, co-working offices, exhibition spaces and a theatre studio. The bulk of Will Alsop's additional structures has yet to be started, which will offer more new physical connection between existing buildings, additional retail spaces and a boutique hotel. Will Alsop's practice, aLL Design, has a field office in Chongqing, located within the Testbed 2 site, which continues to be involved in the detailed development of the proposal, providing an onsite presence to maintain the collaborative relationship that has been created as a result of this project.

Will Alsop's conceptual and formal approach has its advocates and detractors in equal measures. There is a client-driven understanding that the Chongqing project is to be explicitly an extension of the UK Testbed precedent in programme, design approach, and even brand. Accordingly to Chen, Will Alsop expanded his original design thinking around the Testbed 1 project and proposed many elements for Chongqing that he had originally wanted to implement in London. This draws criticism from some

quarters that such an approach is dangerously akin to a copying a western precedent despite a very different context, and at the hands of the same architect. However, Alsop's design for the site, based on tried and tested success in the UK, represents an expertise that is in short supply amongst Chinese architects.

It must be noted that the emergence of projects such as Testbed 2 does not necessarily mean that urban renewal will be the only type of development in the future.

Indeed, examples of expansionist urban planning approaches are still evident in China at a variety of scales. Xiong An New District, south of Beijing, is slated to grow from three provincial counties into a new metropolitan area of 100km^2, accommodating between 2 to 2.5 million people. However, Xiong An is only the third new district to be commissioned by the central government since Shenzhen and Pudong New District in Shanghai. It was intended to release the long standing pressure on Beijing and Tianjin, which through poor post-war planning, have become increasingly congested, and overburdened with demand for jobs, homes, and public services. In this regard, Xiong An cannot be considered in the same light as the urban sprawl of the past decade, driven by realistic strategic and logistical concerns rather than real estate speculations.

So whilst foreign architects may still find currency in continue to pursue *tabula rasa* urban planning projects, the case of Testbed 2 clearly illustrates the potentials for a renewed need for foreign expertise as development priorities shift in Chinese cities to focus on the renewal of urban sites, for a variety of political, social economic, and cultural reasons.

Compared to the old development model in which a *tabula rasa* approach could mask a foreign architect's lack of contextual and local knowledge, these new urban renewal projects are by their very definition contextual. A knowledge of local geography, topography, climate, culture, material heritage, and even local politics does not and will not come from remote desktop studies, or emerge from generic and formulaic design approaches. Local Chinese architects and LDIs will have the advantage of proximity and local knowledge at their disposal to make up for any shortcomings in experience and expertise based on past projects from elsewhere in the world.

Therefore, it is important for foreign architects to recognise and adjust to these new expectations, and do so quickly, if they are to remain relevant in China in the coming decade.

6.1.2 Rural vs Urban

As the state's attention has shifted towards the renewal of existing urban fabrics, there is a simultaneous change in the government's vision for the future of the Chinese countryside. For the last three decades, the rural population was a major driver of economic growth in China, and the migration of the rural population into cities in search of employment opportunities and better services led the sprawl that the government now seeks to control.

However, the global financial crisis led to a dramatic decline in the manufacturing and construction industries, where rural migrants made up the majority of the workforce. As a result, the last five to six years has seen a decline in the rate of rural to urban migration, and an increase of migrant workers who have decided to return to the countryside.

In 2016, 57.35% of the population were considered urban by the China Bureau of Statistics, which is an increase of 1.25% compared to 2015. However, the rate of increase is declining, down from 2.04% in 2014.[173] While the overall numbers of migrant workers in China has increased since 2011, the rate of increase, too, has declined from 3.4% in 2011 to 0.3% in 2016[174]. Of the total number of rural migrant workers, those who seek employment in urban areas has actually declined in 2016 by 1.57 million people, a decrease of 1.1%.[175] There is every indication that when rural workers do look for jobs, they are now more likely to seek local rural employment. Accordingly to Anbound, a leading business consultancy firm in China, there is likely to be a net decrease in the rural migrant work forces in 2016-2017.

Furthermore, statistics also show that increasing number of returning rural migrant workers have started their own enterprises. A total of 4.5 million

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[173] 2016年统计公报, 国家统计局 / *2016 Statistical Communique* (China National Bureau of Statistics)

[174] 2016年农民工监测调查报告，国家统计局 / *2016 Rural Migrant Workers Monitoring Report* (China National Bureau of Statistics)

[175] ibid.

returning rural migrant workers have set up their own business in the place of abode or their local towns[176]. According to the Ministry of Human Resources and Social Security, the first quarter of 2017, 10% of all returning rural migrant workers have started their own business in their rural place of abode.

In addition to economic motives for this return to the countryside are social ones. The parents of today's rural migrant workers are rapidly ageing and in need of care, and a generation of workers' children have either been left behind in the countryside with their grandparents or live in the cities with their parents, where they are marginalised by the registration system (Hukou) and do not receive the same welfare and education as their city dwelling peers. All this whilst the rural migrant worker as a demographic group are themselves ageing, with the average of 39[177].

The conditions of the built environment in the countryside has a new importance, and has become the focus of official attention. In the decades since the implementation of Reform, the desertion of the adult working population from the countryside has left Chinese villages under-resourced and inhabited by only the very young and the very old. This has led to the decline of the fabrics of historic villages as the relocation of essential social services and housing to municipal townships took place, leaving behind 'ghost villages' (see Figure 60 overleaf). Now, with the return of migrant worker population, the government is having to reconsider its position on the future of the countryside pertaining to its preservation and renewal.

The New Urbanisation Plan 2014-2020 notes the failures of the past:

> Some rural areas have pursued mass demolition and mass new build, copying the gated residential complex model of development seen in the city, simply using urban housing designs to replace traditional housing and landscape, leading to the loss of local character and folk culture.[178]

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[176] 图解：农民工返乡创业人数累计已超过450万 / Infographics: Number of rural migrant works returning to start enterprises reaches 4.5 million <*http://www.gov.cn/shuju/2016-06/24/content_5084901.htm*>*[2016]*

[177] 2016年农民工监测调查报告，国家统计局 / *2016 Rural Migrant Workers Monitoring Report* (China National Bureau of Statistics)

[178] 国务院国家新型城镇化规划 (2014-2020) 第二章 / *New Urbanisation Plan (2014-2020)* (China State Council, 2014) Chapter 2

Figure 60: Village of cave dwellings in Xi County, Shanxi, where the traditional houses are being abandoned for municipal townships (photographed by the author)

The Plan goes on the say that the government intend to 'increase the vibrancy of rural development and incrementally decrease the difference in living standards between cities and countryside'[179]. Critically, the Plan states that the government will,

> [a]djust to the new conditions of rural migration and change, scientifically plan towns, townships, and villages, construct a beautiful countryside. […] Building on a basis of preserving the functions of historic villages, maintain rural character, folk culture and local culture, protect traditional villages and minority settlements of historic, artistic and scientific value.[180]

This official position at national level is reflected in practice at local level. Provincial and municipal governments, particularly in more affluent provinces along coastal regions or near 1st tier cities, have been exploring new rural development identities, such as the redevelopment of Dongxinguan and Wencun, two villages in the Fuyang area on the outskirts

[179] 国务院国家新型城镇化规划 (2014-2020) 第六章 / *New Urbanisation Plan (2014-2020)* (China State Council, 2014) Chapter 6

[180] 国务院国家新型城镇化规划 (2014-2020) 第二十二章 第一节 / *New Urbanisation Plan (2014-2020)* (China State Council, 2014) Chapter 22, Section 1

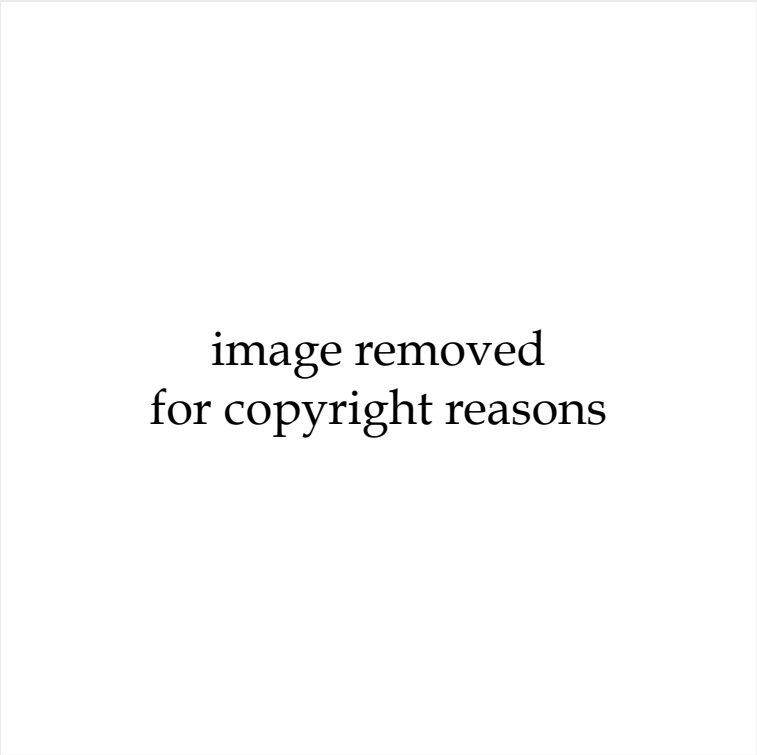

Figure 61:
Streets in Wencun Village with new buildings and landscaping by Wang Shu and Lu Wenyu
(Source: Iwan Baan)

of the city of Hangzhou, an affluent 1st tier city close to the East coast and Shanghai. In pursuit of the central government's edict for a 'beautiful countryside', the Hangzhou government has designated Dongxinguang and Wencun as 'model villages', where new approaches to housing and the refurbishment of existing housing will be tested, with the aim of developing a distinct regional architectural language that responds to the local architectural heritage, while providing all the functionalities of modern housing, a 'beautiful and liveable village'[181]. With this in mind, renowned Pritzker Award winning Chinese architect, Wang Shu, was appointed by the local government to develop designs for Wencun, where his Amateur Architecture Studio completed a series of new homes and village infrastructure between 2013 and 2016 (see Figure 61 above). The new buildings use a material language typical of Wang Shu's approach, drawing inspiration from local tradition, and using rammed earth, dry stone walls, timber and bamboo structures, and tiled roofs. The spatial and facade composition, while appearing simple and modernist, have been

[181] 美丽宜居村庄建设省级综合试点项目 / Provincial trial projects for beautiful villages <*http://www.fuyang.gov.cn/dqzzdxm11/283580.jhtml*>[2017]

developed to preserve and recover traditional spatial hierarchies and usage.

Wang Shu's interest in the countryside and his lament for its decline have always been a critical part of his architectural thinking. His design approach aspires to a relationship to nature that has been historically defined by architecture in a rural setting:

> We are facing a very serious fact, our cities are beyond recognition and beyond saving. The degree to which the countryside has been destroyed is also severe. Nationally, less than 10% of villages have been preserved completely. There is no foothold for Chinese traditional culture in the city. Only in the countryside do we have our own architecture, and a beautiful and simple life. So from the perspective of Chinese architectural design, the countryside must teach the city; the countryside is the last hope for traditional culture.[…] I hope there will be a decree to stop demolition. There's not much demolition left to do in the cities. If we continue, in ten years, we will not have the face to say we live in China. If the countryside is also demolished, we can only learn about Chinese things in museums; there will be no traditional culture in real life. If that happens, Chinese culture will have no alternative path to imitation and copying. China will become a country of replication.[182][Author's translation]

For Wang Shu, his Wencun buildings are a prototype, setting out a new visual, spatial, construction and material language, which he hopes both the local government planners and the construction industry will adopt. For the local authorities, Wencun presents a development model which they hope will be economically viable, so that it can be duplicated in other villages in need of renewal.

Since its completion, Wencun has received nationwide coverage and praise from both government and the architectural community. However, some criticism has also been levelled at the project. The comfort, convenience, cost and reproducibility of some of the residential typologies have been

[182] 王澍访谈, 环球人物 2012年第8期 / Interview with Wang Shu, *Global People Magazine* (2012 Issue 8)

questioned. Many critics wonder if this is a 'starchitecture' vanity project by another name[183]. Indeed, since the completion of the Wencun project, a local developer has expressed interest in building on Wang Shu brand to attract tourism, raising the possibility of further superficial imitation in real estate development, rather than further dialogue with traditional Chinese culture.

Nevertheless, Wencun remains a critical example of a government shift in focus to the rural condition, with the architectural profession following after. Wang Shu certainly isn't the only Chinese architect who has moved their practice to focus on the rural context.

Elsewhere, architects such as Li Xiaodong and Hua Li have received critical attention for their Liyuan Library and Gaoligong Paper Museum respectively, buildings which address the cultural needs of rurality. More recently, an organic farm complex in Tangshan by Arch Studio, a Beijing-based Chinese architectural practice, provides another example where architects are actively engaged with the changing conditions of agricultural production, and the programmatic and typological demands they present to practitioners.

Certainly Hangzhou is not the only local government looking to the countryside. Dongjingyu, a village in Yuyang township, on the outskirts of Tianjin, conducted an open international competition in 2016, seeking ideas for its regeneration and 'rebirth', after decades of slow depopulation and abandonment. The local government, in consultation with China Building Centre, and Tianjin Urban Planning and Design Institute, envisions a future for Dongjingyu where the village will be preserved, protected, and revitalised as a destination for archaeological art and exhibitions.

As with the government's focus on urban renewal, the pursuit of rural renewal has the potential to unlock a new area of opportunity for foreign architects, where they may be able to offer some level of expertise to local and municipal authorities in China.

Taking once again the example of Dongjingyu, the local government's vision led to an international competition in 2016, with a jury panel chaired by Jurgen Weidinger, a German landscape architect and a professor at TU

[183] Dong, Yiping, 'Will Wang Shu's village be nothing but an imagined form of rural life for urbanites?' *Architectural Review* (17 November, 2015)

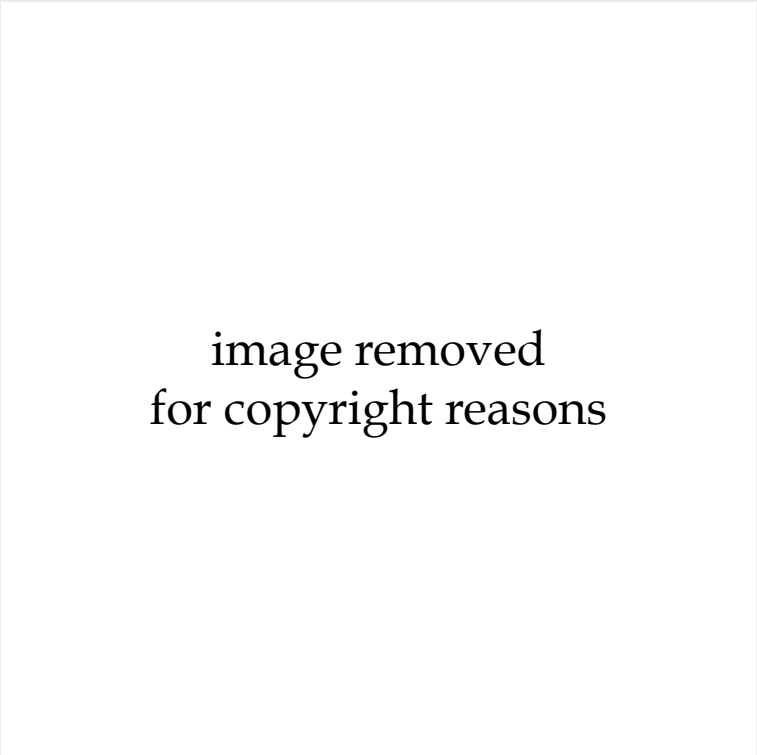

Figure 62: International architects visiting Dongjingyu village as part of the competition (Source: UED)

Berlin. Among the winning entries are architects from Chinese practices, Chinese LDIs, as well as international practices, such as James Corner Field Operations. The initiative at Dongjingyu (see Figure 62 above) is one of an increasing number of international minded competitions run by rural authorities to develop new strategies for the future of Chinese villages, such as the MOLEWA competition Jiangxi province, won by a group of French, Spanish, Mexican, and Chinese architects, as well as the Yilong New Town competition in Guizhou, open to the profession internationally and chaired by Peter G. Rowe, the former head of Harvard Graduate School of Design.

This clearly shows that there is a demand for foreign expertise in the field of rural renewal. In fact, the shift in focus to the development of the countryside in China coincided with a revival in the interest in the conditions of rurality in international architecture discourse. Since 2014, Rem Koolhaas and OMA's research arm AMO have been increasingly vocal in their preoccupation with the countryside, in particular how the rural condition in the developed West has been transformed by the same capitalist market forces that have altered the urban environments. From the simultaneous de-population and physical expansion of villages, to the

infiltration of programmes of consumption into the rural physical space, Koolhaas laments the lack of research and knowledge in this arena. In an interview with Icon, Koolhaas says,

> The countryside is now the frontline of transformation. A world formerly dictated by the seasons and the organisation of agriculture is now a toxic mix of genetic experiment, science, industrial nostalgia, seasonal immigration, territorial buying sprees, massive subsidies, incidental inhabitation, tax incentives, investment, political turmoil, in other words more volatile than the most accelerated city.
>
> The countryside is an amalgamation of tendencies that are outside our overview and outside our awareness. Our current obsession with only the city is highly irresponsible because you cannot understand the city without understanding the countryside.[184]

These observations are equally pertinent for China, as it too, begins the transformation that many developed European countries have undergone decades ago, towards a post-agrarian future.

Compared with urban renewal projects however, rural ones can be even more unforgiving for architects unfamiliar with local conditions. An almost anthropological understanding of local communities, their lifestyle, cultural practices, and construction heritages is critical in the development of any design response. In this regard, even Chinese LDIs are at a disadvantage compared to the more research driven, design-led independent, small practices with the intellectual and organisational flexibility to pursue projects of this type. Wang Shu's Wencun project took ten years of research in the lead up to the completion of the building programme, a timescale and investment economically impossible for many other forms of practice to emulate.

Nevertheless, foreign architects should not be dissuaded from entering this arena of growing importance. Take the example of Rural Urban Framework (RUF), set up by British architect Joshua Bolchover and Taiwanese architect John Lin in Hong Kong in 2005. RUF have been working in the Chinese

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[184] Koolhaas, Rem - 'Countryside Architecture', *Icon,* (September 2014)

countryside for over a decade, providing design services to charities and NGOs, designing community centres, schools, housing, and even masterplans, all of which respond to the changing conditions of rurality in China. Their work has been widely recognised internationally, and forms the basis of their ongoing research and teaching on the conditions of Chinese rurality at the University of Hong Kong. While RUF's founders maybe foreign, their long term engagement with, and meaningful output in, the Chinese countryside mean that the question of whether they are foreign or local becomes irrelevant.

RUF serve as an example of how, rather than shying away, foreign architects can make a positive contribution to the development of rurality in China, which must be predicated on greater local knowledge in the long run.

6.2 The Client's New Normal

Developers, those who commissions the vast majority of buildings in China, have also had to respond to the 'New Normal'.

These reactions from the developers go beyond the immediate and explicit responses to the government's urban renewal agenda, such as the example of TestBed 2 in Chongqing, where the developer's vision is a direct response to the government's agenda for the renewal of ex-industrial sites, and is supported by the local authority and its policies.

In fact, market driven developers are very sensitive and responsive than government officials to subtle shifts in the patterns of demand that arise from economic, social and demographic changes. Therefore, they have been far more exploratory and proactive in their pursuit of new models of growth under the 'New Normal'.

Developers responses fall into three categories: overseas expansion, pursuing quality over quantity, and exploring new typologies in response to socio-economic and demographic changes.

6.2.1 Expanding overseas

As an immediate response to the slowing growth in the domestic real estate sector matured Chinese developers have made a distinctive effort to expand the portfolio of their development project overseas.

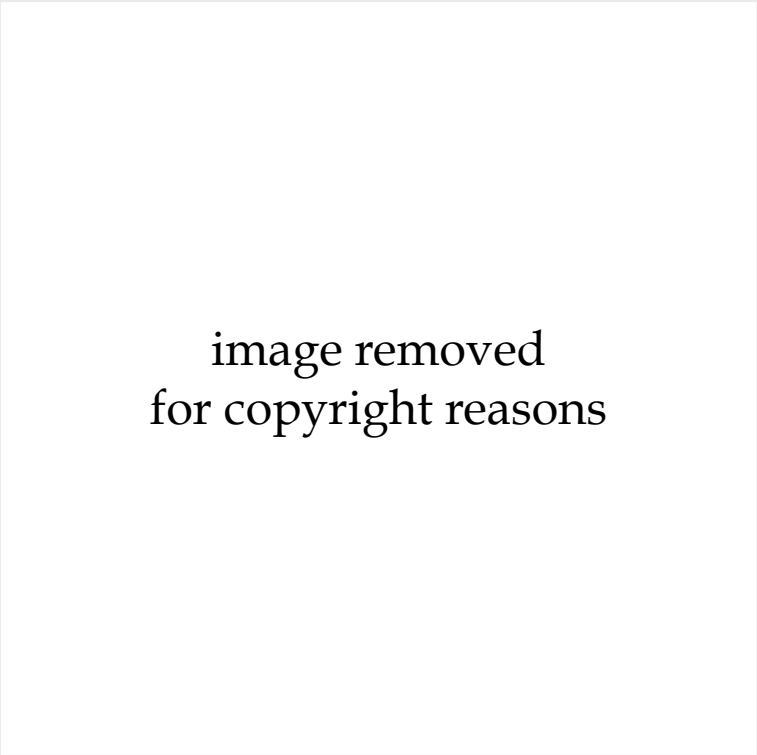

Figure 63:
Royal Albert Docks development by Chinese developer ABP (Source: ABP)

My survey of the top ten real estate developers in China by sales volume shows that five have already expanded abroad. For example, Wanda has started construction work on its first project in the UK, One Nine Elms, a mixed use development of prime residential, retail and hospitality. ABP, another Chinese commercial real estate developer, will start on site at the Royal Albert Docks in East London to build a 430,000m^2 business district in the shadow of London's City Airport (see Figure 63 overleaf). Vanke, China's largest residential real estate developer, are delivering residential towers in San Francisco and New York with an American partner. Meanwhile, Greenland, the largest state owned real estate developer in China has expanded its portfolio into Australia.

Simultaneously, the Chinese State is also behaving like a developer, embarking on a huge programme of investments overseas, particularly in other developing countries, especially in Africa, where China has been involved in the financing of infrastructural and civic building programmes. The African Union Headquarters, for example, is financed by the Chinese government, designed by Chinese LDIs, and constructed by Chinese state-owned enterprises.

While this expansion overseas will mitigate some of the stagnation faced by developers domestically, and open up new markets, it also carries challenges of its own. As such, it is rarely a like-for-like transposition of established native practices applied directly to a new foreign environment. Unaccustomed to the planning constraints and the slower pace of delivery abroad, Chinese developers can no longer depend on their in-house expertise, based on the specific conditions of the Chinese domestic market. For example, it has taken ABP five years to go from original tender to start of construction on their Royal Albert Dock site in London. Plagued by bad press and allegations of unethical practices[185], the project is not set to complete until 2023[186]. The reality of working abroad means that Chinese developers have had to reassess their reliance on in-house design teams. This presents a unique opportunity for foreign architects, who become the 'local architects' as Chinese developers move into places like Europe, the U.S., and Australia, where their local knowledge and expertise becomes critical to the success of Chinese developers looking to expand their positions abroad. Both Wanda and ABP have hired UK based architects to undertake the design of their London projects. In the case of ABP and the Royal Docks for example, it is precisely Terry Farrell's expertise in masterplanning in London and his track record of large projects in China, that have led to his appointment.

However, as Chinese developers are looking abroad for developmental opportunities, Chinese architects are also becoming globally minded, seeking out work abroad and not necessarily from Chinese clients abroad either. The Chinese practice MAD Architects, headed by the charismatic Ma Yansong, completed the Absolute Towers in Missisauga, Canada in 2012, for Canadian developer Fernbrook Homes (see Figure 64 overleaf). Since then MAD have been involved in several projects abroad, including the new George Lucas Museum in Los Angeles. Similarly, Shanghai-based Chinese practice Neri&Hu have an office set up in the UK, working on a hotel in Bow, London, for a UK client, their first project outside China (see Figure 65 overleaf). Of these world class Chinese architects there will be further discussion in later sections of this thesis, but it is clear that

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[185] Big questions for Boris over billion dollar property deal <*http://www.channel4.com/news/boris-johnson-london-propery-deal-china-albert-dock*>*[2015]*

[186] Chinese developer signs £1bn deal for east London business park <*http://www.theguardian.com/uk/2013/may/29/chinese-developer-deal-london-business-park*>*[2013]*

Figure 64:
(Above)
Absolute Towers, Mississauga, Canada (2012) by MAD Architects (Source: Iwan Baan)

Figure 65:
(Below)
Model of Bow Street Hotel by Neri&Hu (Source: Neri&Hu)

successful Chinese practices are now starting to compete against foreign architects on their 'home turf'.

Therefore, against increased competition from Chinese practices in China, and the rising profile of Chinese practices abroad, foreign architects must exploit their local knowledge and expertise in order to maximise their advantage and remain relevant as they follow their Chinese clients back on to more familiar ground.

6.2.2 Quality not quantity

Expansion overseas is not a miracle cure for Chinese developers, as their largest market is still in China. The market for residential, commercial and mixed-use real estate development has shifted, however. If they wish to continue to grow in these sectors, developers have to address the issue of quality.

It is important to note first that there certainly is not an absence of quality in architectural output in China. There are ample examples of buildings from both foreign and Chinese architects whose programme, design, and execution are of the highest quality. However, quantitatively, they are not representative of the vast majority of buildings produced in China.

The real estate sector has seen a sustained period of growth over the last two decades driven by a local authority land lease-based development model, accompanied by generous lending to developers from government-backed banks, as well as demand from the buying public, who view their purchases as not just homes, but a monetary investment and an income generator.

By the 2010s, these driving factors led to an oversupply of residential and commercial real estate inventories. In a 2014 report[187] the IMF noted:

> Many smaller cities have experienced oversupply as local governments promoted large-scale development to boost growth and used land sales to finance local government spending. Supply seems to have outpaced demand in many areas as evidenced by muted price increases and rising inventories. The commercial real estate market appears to be in oversupply in both smaller and bigger cities.

Clearly, the 'build it and they will come' model of development is no longer viable, nor are superficial attempts to imbue development with instant identities.

This is where the quality of development projects are increasingly seen by developer clients as critical to the success of projects, where standardisation will no longer produce immediate economies of scale, and instant icons do not necessarily generate instant appeal.

As a result, developers are finally turning to other tactics to provide added value to their projects, particularly higher quality of design and construction: from the conceptual, cultural, and material responses of an architectural proposal to its context, programme, and users; from material, detailing, and workmanship during construction to the envisioned lifespan and longevity of the proposal, and the sustainability of its post-construction habitation and operation.

Some, albeit very few, Chinese developer clients have come to regard architectural quality as an integral part of their brand value and identity, opting to work with talented architects in the delivery of their products, be

[187] *IMF Country Report No. 14/235: China*, International Monetary Fund *(2014)*

they foreign or Chinese. An example of this quality driven approach is the Rockbund development by Sinolink in Shanghai.

Case Study 7: Rockbund Development, Shanghai

The Bund District, or Waitan in Chinese, is a significant part of Shanghai's architectural heritage. With the arrival of the colonial powers in the mid to late 19th Century, the area, which had sat outside of the historic city centre, grew into an International Settlement zone between the 1840s and 1930s, where places of commerce and trade, colonial administration and residences were constructed by colonial powers such as Britain, the United States, and France. These were grand buildings created in a variety of European styles, from Beaux Art classicism to late Victorian eclecticism, to early Art Nouveau and Art Deco styles, and even some early modernist buildings.

The site currently occupied by the Rockbund development is 17,122.8m^2 in footprint and historically sat on the edge of the dense collection of colonial era buildings that formed the International Settlement bounded by the Suzhou River. The site, linearly oriented north to south, contains a series of grand colonial buildings of a variety of functions, fronting onto Yuanmingyuan Road to the east, and Huqiu Road to the west. The collection includes offices, residences, a theatre, a museum, a Christian Missions and a YWCA. Amongst these buildings were works of prominent colonial era foreign architects such as Laszlo Hudec and Lee Gum Poy, who designed the Christian Literature Society Building, and the YWCA building respectively.

When the colonial powers left after WWII, and the People's Republic was established, the colonial buildings fell into disrepair and mis-use, with subsequent informal and poor quality residential blocks filling the gaps between them.

In 2001, the Shanghai government began to consider the regeneration and redevelopment of the Rockbund site and its surrounding area, collectively known as Waitanyuan or 'source of the Bund', under a new masterplan, developed by the Italian architect Vittorio Gregotti.

Gregotti's overall strategic masterplan was developed further by several architecture practices before American architect Ben Wood, who was

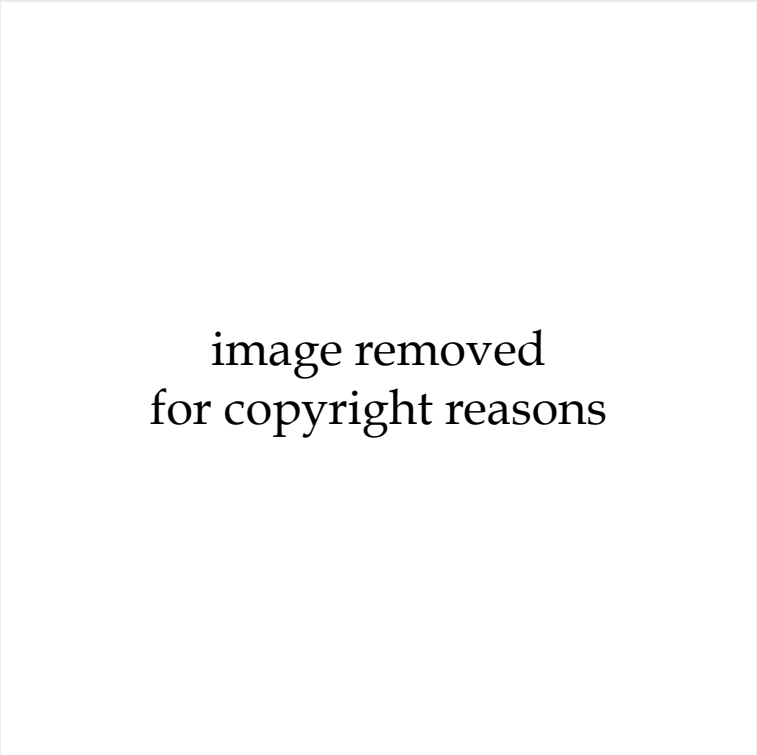

Figure 66: Aerial diagram of Rockbund masterplan (Source: Courtesy of Rockbund)

responsible for the regeneration of Xintiandi[188] in Shanghai, took over the masterplanning of the Rockbund site. At this stage, Ben Wood worked closely with Chinese architect and scholar Wu Jiang, who was a member of the Shanghai Urban Planning Expert Committee, the Vice Dean of Tongji University, and an authority on Shanghai's historic architectural heritage.

Ambitiously, Ben Wood's masterplan (see Figure 66 above) set the vision for the complete preservation of all colonial era historic buildings on the Rockbund site, with new residential buildings to fill in only where poor quality post-war construction was to be demolished. Critically, the masterplan sought to create a relationship between the restored existing buildings and new ones, through their facade language, material compatibility and shared streetscape.

[188] Xintiandi is an area of Shanghai where the traditional architectural fabric has been preserved, refurbished and in some instances recreated as part of a commercially driven regeneration project to create a new cultural, retail, and tourism destination. The first such project of its kind in China, it has drawn both praise for its preservation of historic buildings on the one hand, and criticism for its sanitisation, commercialisation, and gentrification of the neighbourhood which turns away old residents and tenants in favour of cafes, boutique shops and restaurants and bars. Nevertheless, it remains a milestone in the evolution of development models for existing and historic urban fabrics in China, and the Xintiandi brand has been repeated and introduced in other historic cities such as Wuhan and Foshan.

After some tender and negotiations with the local government, the redevelopment of the Rockbund site became viable in 2005 with the coming together of 3 developers, the American company Rockefeller Group, and Chinese developers Sinolink and New Huangpu Group. In reality, Sinolink was the main source of the funding that drove the redevelopment project.

Sinolink is a relatively small real estate developer, established in 1992 by Ou Yaping, a former teacher whose first business was in the export industry. His first real estate development project, Sinolink Gardens in Shenzhen, was completed around 1994, and was the first project in Shenzhen to test the raised podium typology to a residential scheme.

Of Sinolink's ethos, Francis Deng, its Chairman, said in an interview:

> A lot of what we do is not purely for profit. We're not like a factory or a cookie cutter, just doing this for money. We don't have the financial pressure to do that. Mr Ou has quite high requirements in this sense, spending more on quality for an even higher return. He's prepared to carry the risk and pressure of this way of doing things, so as a company we are interested in products of quality, not necessarily of luxury, but with unique qualities, whether it is to do with comfort, aesthetics, or historical and cultural responses, creating something that will truly attract people for the right reasons…. We don't have a high level of leverage, not a lot of borrowing, so we don't have to rush, and can focus on quality, and that's our approach, philosophy, and business model.[189]

This echoed by Ou's wife Zhang Laiping, who is part of Ou's inner circle at Sinolink:

> Our ethos is to always do something that's different to others, and different to our last project. It is easy to copy, like Vanke, who are now in a process of standardisation. They're not our competition. For me, it is quite scary for different cities to all have identical looking apartments every where. I'm not sure if the world would still be a beautiful place then. If your project is

[189] Interviewed on 22nd May 2014, at Sinolink offices, Hong Kong

> aimed at the middle-class, like us, then you need to do something different.[190]

With the project at Rockbund, Sinolink continued this focus on bespoke quality. With the existing buildings being originally designed by colonial western architects in a range of western styles, it was a natural decision to seek the help of foreign architects on this project. According to Ms Zhang, the team at Sinolink, including her and Ou Yaping had made numerous visits to the UK, France, and Italy to look at buildings from a similar period.

This attitude towards the appointment of foreign architects is echoed by Zou Song, the project manager put in charge of the Rockbund project by Sinolink, who is himself a trained architect. 'The mind-set of European designers is very different from the mind-set of Chinese designers. For instance, if there is a wall where most of the bricks are okay, Europeans will restore the original bricks. Chinese would build an entirely new wall, which is much easier.' says Zou, in a magazine interview[191] on the Rockbund project.

For the architectural design of the five new residential and office buildings, the American firm Arquitectonica was selected. However, the critical appointment that defined the quality and identity of the project was that of British practice, David Chipperfield Architects, whose remit was to restore and convert all 11 colonial buildings, as well as undertake the design of a new building which in part preserves the facade of its predecessor.

The decision to engage with David Chipperfield Architects was heavily influenced by the work of the practice on the Neues Museum in Berlin, where meticulous restoration of the existing classical building's fabric became the defining identity of the project. Of Chipperfield's appointment, Zhang said, 'My husband had a great feeling about David Chipperfield. They got on really well, and became really good friends…We were happy to hear what the architect wanted, and reach compromises when it conflicted with cost issues'.

Phase 1, which started in 2007 (see Figure 67 overleaf), was completed by 2011, included the full restoration and conversion of almost all of the

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[190] Interviewed on 19th May 2014, at Sinolink offices, Hong Kong

[191] Ana Galán Rodellar, Waitanyuan: 'A luxurious restoration of history', *The LINK Magazine*, CEIBS, (Volume 1, 2014)

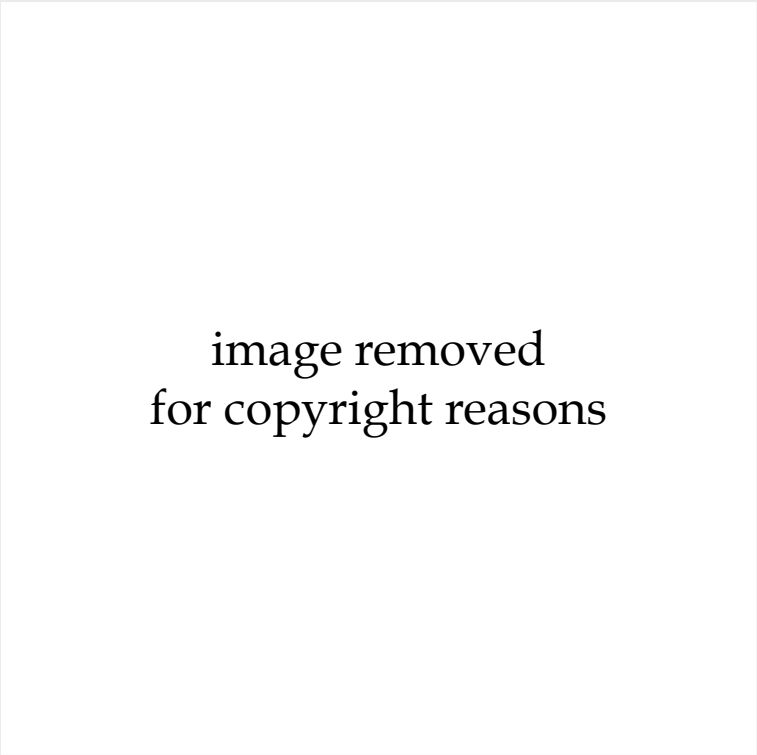

Figure 67:
Aerial photos of the site in 2007 (above) and during construction/ restoration in 2009 (below)
(Source: Courtesy of Rockbund)

historic buildings, undertaken by David Chipperfield working together with local restoration architect Zhang Ming. Phase 2, which is in progress, entails the construction of the six new buildings, including Chipperfield's Andrews and George Building and Arquitectonica's high-rise residential blocks, delivered in partnership with China Construction Design International.

As of 2017, the eleven historic buildings along have all been fully restored, and converted to suit their commercial and retail programme. Along Huqiu Road, the former Royal Asiatic Society building has been successfully converted by David Chipperfield to the Rockbund Art Museum (see Figure 68 overleaf), which was opened in 2010, and has since become an important venue in the contemporary art scene in Shanghai. The Capital Theatre Building and the National Industrial Bank Building are still being restored, and Phase 2 is now in progress.

There was also significant commitment from David Chipperfield Architects, who until the Rockbund project, did not have an office in China, despite working on two other Chinese projects since 2003 and 2004. Alessandro Milani, an architect from David Chipperfield Architect's office in Shanghai:

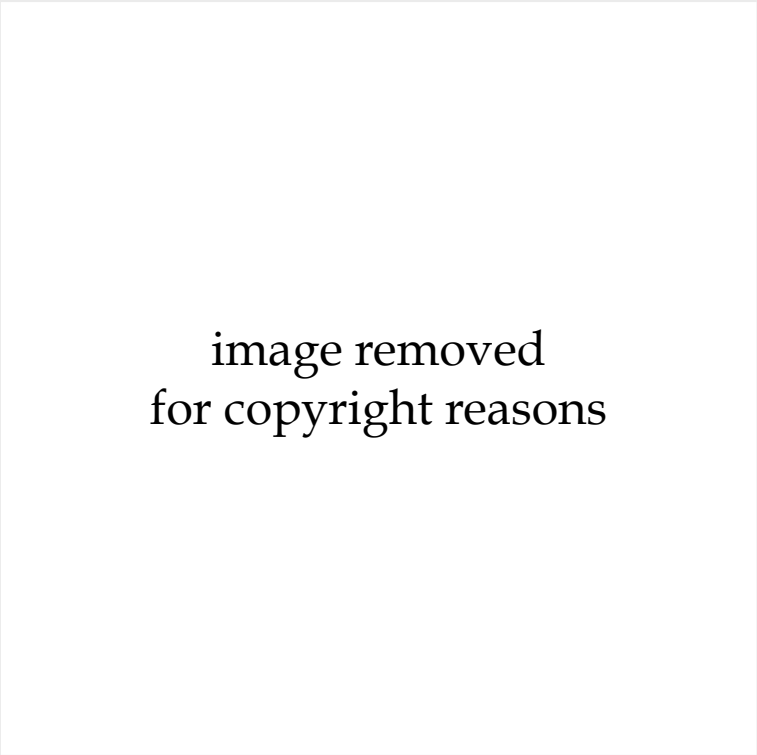

Figure 68: The Rockbund Art Museum by David Chipperfield (Source: Simon Menges)

> The [Shanghai] office was set up in 2005, as a site office for the Rockbund project. Berlin was looking after the design, but then after DD [Detail Design], the project was moved to the small Shanghai office, where most of the people are Chinese with international background, most of them had studied in Germany, they can speak German with the design team in Germany, so actually they were not foreigners.[192]

This transition from remote design to entrusting their foreign trained Chinese employees to take over the delivery of the project allow project to benefit from the best of both worlds, the Germany staff's experience of the Neues Museum, and the Chinese staff's knowledge of the local conditions, contexts, and regulations.

The result of the project's focus on quality, which comes as a collaboration of the architect's ability and the client's ambition, is clear to see in the completed works on site.

Take the Ampire & Co. Building and the Yuanmingyuan Apartments for example, the encrustation of render and cement on the original Queen

[192] Interviewed on 24th May 2014, at a street side cafe, Shanghai

Figure 69:
(Far left)
The restored Yuanmingyuan Apartments (photographed by the author)

Figure 70:
(Left)
The restored YWCA (photographed by the author)

Figure 71:
(Below)
The details of restored Ionic capital with beam and panelling in Chinese red. (photographed by the author)

Anne's style facade has been completed removed (see Figure 69 above), the original red brickwork has been revealed, restored and repaired. According to Vito Yang, one of Sinolink's project managers, where pieces of the facade had been missing, one-off batches of new match bricks were made by specialists to suit the tonality of the existing brickwork. Where elements had been damaged in a non-structural manner, David Chipperfield Architects and their Chinese restoration partners Zhang Bing Architecture Design Firm discussed these items on a case by case basis to decide whether the damage should be left as it is with minimal restoration, to preserve the history of the building, or if any replacement is needed.

Elsewhere, in Lee Gum Poy's YWCA (see Figure 70 above), the original juxtaposition of Ionic capitals (see Figure 71 above)and Chinese timber coffered ceilings have been revealed, where the neo-classical stonework has been brushed clean, and the timber ceiling have been painted red as the original design had intended. The same sensitivity is also visible in Laszlo Hudec's Christian Literature Society Building (see Figure 9 on page 61), where the thin black steel windows have been fully restored.

It has taken over ten years for the project to reach its current status, with building works still not yet complete (see Figure 72 overleaf). This is

Figure 72: Ongoing construction work to deliver Phase 2 of the masterplan (photographed by the author)

virtually unheard of in the world of Chinese real estate development. This 'Slow Architecture', has ensured, albeit at great cost, that Rockbund has become a benchmark of quality when it comes to high end residential and commercial mixed used development in a sensitive historic setting.

Of course, there are important caveats to this case study as a precedent of more widespread and systemic changes in the attitude to quality in the coming years. The unique setting of the project meant that the government itself emphasised quality, breaking from their typical approach to land development. Secondly, this is not a typical real estate development model. While the Rockbund Art Museum is a positive contribution to the cultural life of the wider public, the fact is that quality is achieved by targeting the super rich and the upper middle-class. As Zhang Laiping put it:'Our development will be very expensive to buy, but that's the very reason we've invested so much into it'[193]. Thirdly, Sinolink is not a typical developer. They are not a large volume house builder nor a high public profile client. They have not embarked on any new real estate projects since 2009, and Rockbund is their only ongoing construction project. In fact, Ou Yaping and the financial resources behind Sinolink have since been focused

[193] Interviewed on 19th May 2014, at Sinolink offices, Hong Kong

on a shift away from real estate altogether, towards an internet start-up business. By all measures, Ou Yaping appears to have accepted substantial delays in order to achieve the desired design and built quality. One can only assume that compared to the original programme completion date of 2013, for the building works to be still ongoing in 2017 constitute a significant reduction to the profit margin of the project, a delay and a loss which would not have been accepted by a more typical Chinese developers.

Despite this, however, the Rockbund project remains a critical example for three reasons. With oversupply and standardisation the dominant features of the real estate market, developers must refine their offer in order to remain competitive. This means more contextualised architectural responses, more targeted programmes and user groups, and more bespoke construction and materials. This is clearly evident in the unique offer of the Rockbund development, though at too high a premium to be a national model.

Second, in the pursuit of quality, developers, clients, and implicitly, local governments, will all have to get used to a slower pace of development at a higher cost. The length of time it has taken for the Rockbund to achieve its quality is a testament to this new narrative.

Finally, in achieving these qualitative improvements, Chinese clients will have to re-assess their relationship and attitude to architects, both foreign and Chinese. Relying on in-house design expertise, particularly in the residential, commercial and retail sector, will have to be reconsidered if projects become increasingly quality oriented and contextual. Clients will become more reliant on the critical input of the more capable architects to achieve these aims. Reputation and the branding power of the foreign architect will still be important in the decision-making process, but equally important will be the ability of the foreign practice to meet the specific technical and contextual needs of the project in order to deliver quality. The separate appointments of Arquitectonica and David Chipperfield on the Rockbund project to undertake the new and restoration works respectively are evidence of a more mature commissioning process.

As Francis Deng says in the interview for this thesis, 'there will be more companies like us, not everyone will want to be and can be Vanke, there will be more and more developers with a sense of specific focus and style.'

This is not to say that foreign architects familiar with the existing ways of doing things in China will see their workload disappear overnight. There are still plenty of office towers and residential complexes being designed where, in the words of John van de Water, 'the ordering of space and functions as subordinate to image and meaning'[194], and the input of foreign architects are continued to be sought to embellish these buildings with instant identities.

However, the trajectory of the macro-economic contexts has made the shift from quantity of development to quality of development all but an inevitable prerequisite of continued growth for developers in the commercial, residential and mixed-use sectors.

The competition in these sectors will only increase as Chinese architects capable of providing quality become more in demand.

The work of private Chinese practice Neri and Hu once again exemplifies this reality. Their work in the retail, hospitality and cultural sectors are informed by an attention to construction detail, a poetic consideration of materials, and built quality. This can be seen in their Waterhouse boutique hotel in Shanghai (see Figure 73 overleaf), which, comparable to Chipperfield's work at Rockbund, sensitively re-interprets the industrial and colonial heritage of an old watermill house while adding carefully considered new elements to the massing.

Meanwhile, LDIs have also been demonstrating their ability to deliver quality in recent years. Some of these work is in conjunction with foreign architects, such as Hongkou Soho, a commercial development delivered by Tongji LDI with concept design by Japanese architect Kengo Kuma. Through projects like this, LDIs have becoming increasingly skilled at delivering built quality to meet the clients' and collaborating foreign architects' aspirations. Consequently, they have been able to deliver this quality independent of foreign architects, which can be seen in a plethora of projects undertaken exclusively by Chinese LDIs, albeit with less publicity

[194] John van de Water, *You Can't Change China, China Changes You (*010 Publishers, 2012)

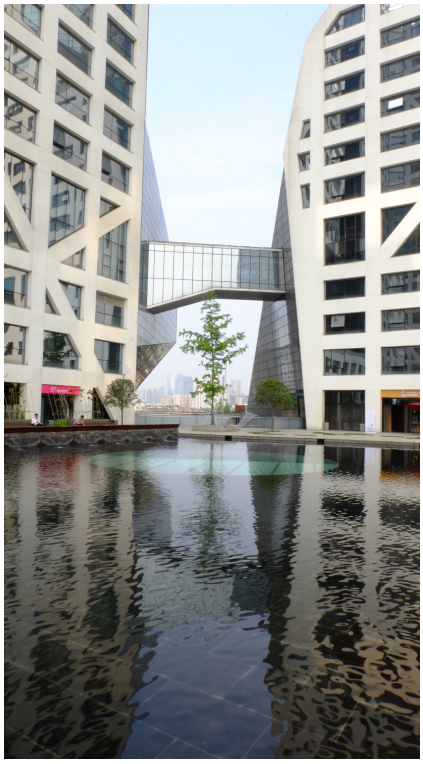

Figure 73:
(Far left top)
The Waterhouse Hotel by Neri & Hu, Shanghai (photographed by

Figure 74:
(Far left bottom)
Night time profile of Zaha Hadid's Wangjing Soho (photographed by the author)

Figure 75:
(Left)
Linking bridge at Raffles City by Steven Holl continues the architect's experiment with high level connections (photographed by the author)

than foreign collaborations. The conversion of Shanghai's old shoe-making factory to a creative start-up office space by Tongji LDI is a testament of the ability of LDIs to deliver design and built quality.

As such, foreign architects must face up to this emerging new reality, for their advantage in the future, if any, will lie in their expertise to provide their clients with high quality designs which are carefully crafted, during and sustainable.

Some foreign architects have already begun to address this reality in the most recent works. This can be seen in projects such as Steven Holl's Raffles Complex in Chengdu, which was built following Holl's Beijing Linked Hybrid project, in a similar tectonic language. The Chengdu project represent a notable improvement in the built quality and workmanship compared to the Beijing predecessor, indicating that lessons were learnt from the first project (see Figures 74 above). In addition the overall performance of the building has also being considered, which attained a LEED Gold sustainability rating[195]. Similarly, when looking at Zaha Hadid's Wangjing Soho (see Figure 75 above), completed several years after

[195] Raffles City LEED Rating <*https://www.usgbc.org/projects/raffles-city-chengdu*>*[2017]*

Galaxy Soho, it is clear that lessons were learnt by both client and architects from the failures of Galaxy Soho. The facade construction method was reconsidered, and is generally put together in a much better detail than its predecessor. Critically, the visual impact of the mass and bulk of the buildings are more considered and refined, with careful consideration of how it might appear at night too (see Figure 75 above). The consideration of the public space and the retail offer are also much more successful here. This process of self improvement by foreign architects in response to their existing work in China ought to be encouraged, for their advantage in the future, if any, will lie in their expertise to provide their clients with high quality designs which are carefully crafted, enduring, and sustainable.

6.2.3 Responding to demographic changes

The increasing emphasis on quality over quantity by some developers, within the sectors they are already dominate, is the most immediate feature to the economic realities of the 'New Normal'. At the same time, developers have been exploring new models of growth in sectors previously deemed unprofitable or too risk-laden, informed by three key emerging demographic trends: the rise of the Ant Tribe, an ageing population, and the emergence of the Chinese middle class.

i. Designing for the 'Ant Tribe'

The term 'Ant Tribe' was first coined by Peking University social scientist Lian Si in his 2009 study[196] of young Chinese urban dwellers who are university educated, upwardly mobile, but income poor. This demographic group has emerged as a result of a rise in population of people aged 20 to 25, the expansion of university admission numbers from 1999 onwards, and the contraction of labour markets and wages as a result of the global financial crisis, leading to an oversupply of overqualified graduates by the early 2010s.

These individuals tend to come to or stay in large cities in search of new opportunities after graduation, often facing strong competition in the job market, and frequently taking low paid positions within the service

[196] 廉思(编制), 蚁族：大学毕业生聚居村实录 (广西师范大学出版社, 2009) / Lian Si (ed.), *Ant Tribe: University Graduates Collective Living Documentation* (Guangxi Normal University Press, 2009)

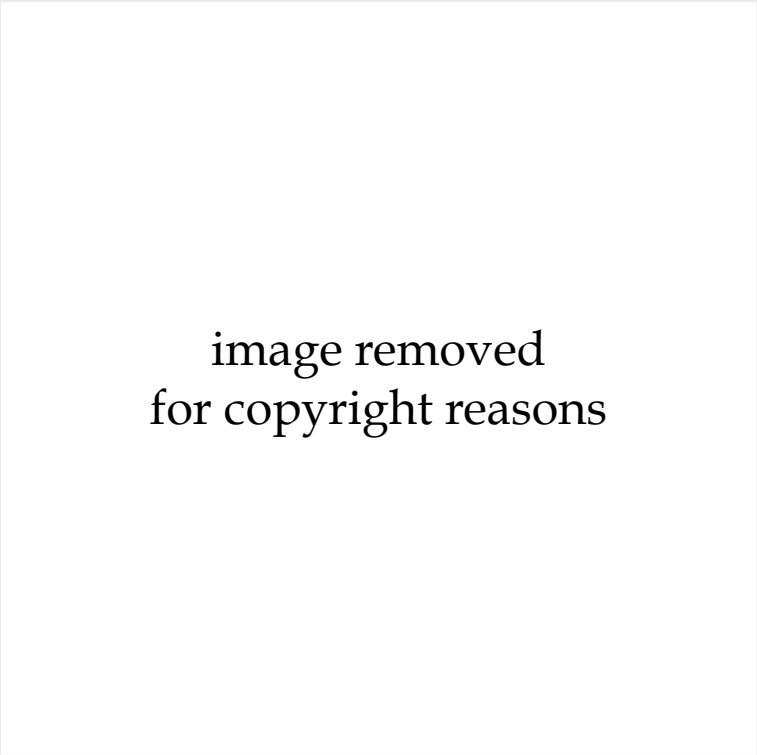

Figure 76: Ground floor shared working space at the You+ International Youth Community apartments, Beijing (Source: Qilai Shen)

sector.[197] Between 2003 and 2009, the income of the Ant Tribe has stagnated, while blue collar wages for rural migrant workers has grown significantly over the same period as the shortage for skilled labour have lifted their value.

For the government, who are relying on the upward mobility of the educated young to create a ground-up, consumption-led service economy of start-ups and entrepreneurs, the current plight of the Ant Tribe is a source of concern and potential social instability.

In cities such as Beijing, where the cost of living is high, these highly educated but poorly paid individuals are often forced to live in substandard accommodation, located in badly serviced urban locations or on the city fringe with a lack of infrastructure connections. According to Lain Si's follow-up report in 2010[198], there were over 100,000 such Ant Tribe citizens in Beijing alone.

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[197] 廉思(编制), 蚁族：大学毕业生聚居村实录 (广西师范大学出版社, 2009) / Lian Si (ed.), *Ant Tribe: University Graduates Collective Living Documentation* (Guangxi Normal University Press, 2009)

[198] 廉思, 蚁族 II - 谁的时代 (中信出版社出版, 2010) / Lian Si, *Ant Tribe: Whose Time* (Citic Publishing, 2010)

At the same time, the optimism and upward mobility which characterise the Ant Tribe have also drawn the attention of more adventurous developers, who see the potential for growth in catering to the spatial and programmatic needs of this new user group.

Vanke, China's largest housing developer, has already completed several projects in Shenzhen and Guangzhou under their Vanke Yi Youth Community brand, where apartments no bigger than 30m^2 are designed specifically for young, single urban workers on medium to low incomes, at around £300 a month, with the provision of some communal services and shared spaces. You+ International Youth Community, another chain of rental apartments complex in Beijing (see Figure 76 overleaf), offer individual apartments of around 20m^2 with generous shared working, dining, and social spaces at the ground level. In terms of the provision of work spaces, instead of conventional offices, models such as Xiaomi's Incubator and Soho's Q3 provide serviced, flexible, shared, and low cost office spaces to rent for young start-ups companies and individuals.

The economic realities and social habits of the Ant Tribes demands the development of innovative typologies for both living and working. For them, their lives are built around the low rent and convenience of infrastructures and services to be found in high density existing urban centres, rather than the speculative 'instant city' enclaves outside of the existing city centre. Such undertaking pushes the limits of the in-house knowledge of established developers such as Vanke, whilst new developers entering the sector such as Xiaomi have no previous property development experience. This is where the value of the innovative architect becomes apparent.

Han Tao, prominent Chinese academic and architect based at Central Academy of Fine Arts in Beijing, observed:

> The key demographic that urban renewal can have a profound impact on are what has been called the Ant Tribe, the educated young. They are who premiere Li Keqiang refers to when he says the whole population should be entrepreneurs. These people are upwardly mobile, with the resources of a whole family behind them, but they are not yet middle class. This new type of immigrants coming to the city will replace the poorly

> educated rural migrants who drove the last 3 decades of growth. They will come and fill up the service industry jobs that will be generated as the economy moves from manufacturing-based to services-based. Their collective need for the integration of urban infrastructure, social infrastructure, and transport infrastructure, will be driving the specific nature of urban renewal in Chinese cities in the future. Take Vanke's Youth Apartments, or Xiaomi incubators, or Soho Q3.[199]

This is where architects and their research will be sought after. These precedents are essentially hybrid programme prototypes that need to be carefully designed so they can be adaptable to suit small, discrete, and specific site locations, whilst retaining an overall conceptual, formal, and stylistic consistency, with a baseline of standardisation and efficiency.

The research that is necessary for the generation of these new design prototypes demands serious input from architects and architecture academics, and will be taken out of the hands of marketing companies who are used to 'designing' superficial identities for the generic developments of real estate clients.'

Projects such as Zhou Zishu's self instigated refurbishment of a Beijing air raid shelter basement for its existing Ant Tribe residents (See Figure 77 overleaf), are indicative of the attention that Chinese architects are already paying to the plight of this demographic group. Similarly, Chinese architectural practice Urbanus under the commission of the developer Vanke, completed the Tulou Collective Housing project, breaking new ground in 2008. The practice took an experimental approach to collective housing for the young by re-interpreting the Hakka Tulou tribal village housing typologies of Fujian to create a walled complex of housing and communal services for its inhabitants.

ii. Ageing population

Another significant demographic trend with built environment implications is the ageing population in China, due to lowering mortality rates and the One Child policy. According to the Chinese State Information

[199] Interviewed 13th October 2015, at Central Academy of Fine Arts, Beijing

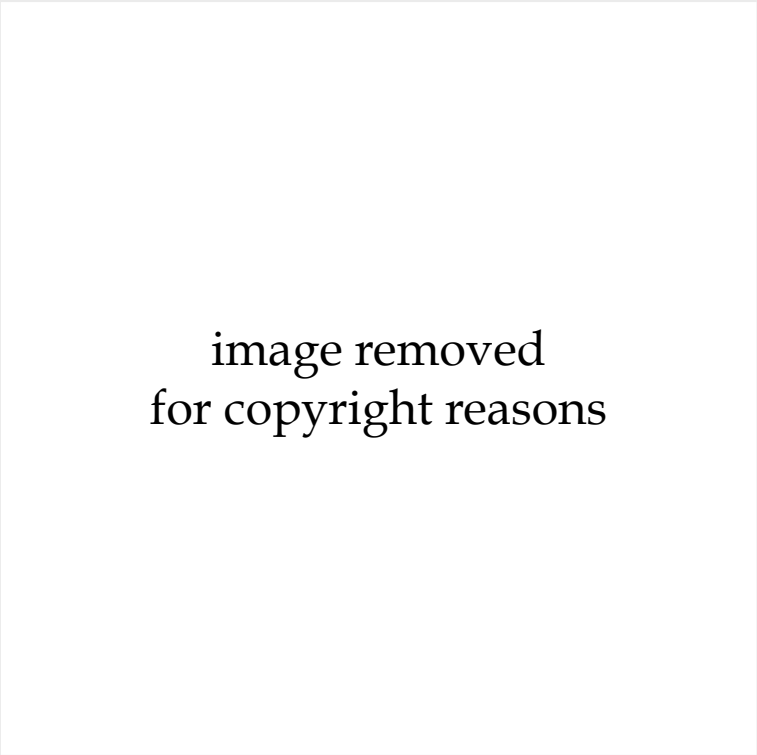

Figure 77: Self instigated basement improvement by Zhou Zishu for the 'Ant Tribe'. (Source: Southern Weekend)

Centre, 10% of the Chinese population are over 65[200]. According to the 2013 United Nations Human Development Report, by 2030, those over the age of 65 will compose 18.2% of the total population in China.

The increase in China's elderly populations taken place during a period of dramatic urbanisation and industrialisation, which have made the traditional approaches to caring for the elderly based around the extended family increasingly difficult.

At the same time, the state's provision of institutional care remains grossly underfunded and underdeveloped. Despite the rising availability of public funds, only 2% of the elderly population receive care in institutions, located mostly in urban areas[201]. Compounding this issue is the continuing cultural taboo that institutions are still viewed as a last resort when the family network has failed the elderly.

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[200] 我国人口老龄化趋势及其影响 / National trend of demographic ageing and its impact <*http://www.sic.gov.cn/News/455/5900.htm*>[2016]

[201] Gu Danan, Matthew E. Dupre, and Liu Guangya, 'Characteristics of the Institutionalized and Community-Residing Oldest-Old in China', *Social Science and Medicine 64,* no. 4 (2007) 871-83

Consequently, senior living, and senior care are now attracting the attention of developers looking for new areas of growth, though they are programmatically more specific and technically more demanding than conventional property development. As such senior living and senior care projects cannot be judged simply on their construction and profitable sale, but in their successful post-completion occupation, operation and maintenance. Consequently, commissions of these emerging typologies often come from new clients. For example, the health insurance company Taikang has become a real estate developer, and builds its own retirement villages.

Qiu Wenzhe, design director at developers Bosun observed:

> The future success of the real estate market in China will be more and more focused on developing a successful business model.
>
> What we see as an internationally successful model of development involves the construction, operation, and capitalisation of the project, but in the past decades Chinese developers have only been focused on pursuing construction. Now, objectively speaking, conventional real estate developments are in oversupply, so it's forcing the industry to look for new ways of seeking to profit from the operation and capitalisation aspects of development.
>
> Take the example of senior care. Someone like Taikang[202] has created a successful path. Taikang comes from the finance and insurance market and became a real estate developer. Their senior living projects make virtually no profit, the return on investment comes at least 10 years later, from its operation. For conventional developers, it is inconceivable to entertain such a timespan for the return on their investment. So senior living is not a life vest, continuing to sell real estate under the name of senior living is not going to work. Taikang does not sell senior living apartments as leasehold properties, but rather, they sell a service that is being accommodated in their property.[203]

[202] A Chinese health insurance conglomerate who have turned their hand to property development.

[203] Interviewed 10th May 2015 at Fosun offices, Chengdu

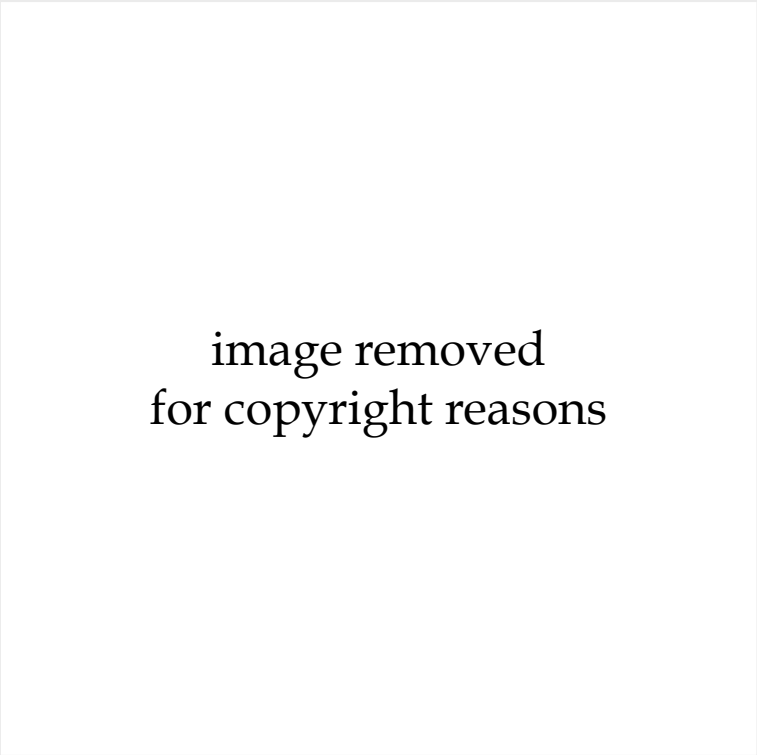

Figure 78: Taikang Wuyuan Retirement Resort in Suzhou by Taking Life Insurance (Source:Taikang)

Taikang represents a different kind of developer client, which is interested in the quality and longevity of the buildings they construct, as they ultimately will be the involved in the occupation and use of the buildings they commission. Taikang has now completed eight large senior living and senior care projects across China, such as the one in Suzhou designed with influence of local traditional architectural culture (see Figure 78 above). Within the field of senior living and senior care, other developers similar to Taikang, who are new to the real estate industry, have also emerged, such as Hongtai Senior Hometown, which has completed four senior living and senior care projects in China. Despite earlier failures, more established developers have not abandoned this emerging sector, and have continued to pursue competitive models of development in this field. Vanke, for example, has now established their Suiyanjiashu Dignified Life brand, with its first senior living residential complex completed in Hangzhou in 2014. Vanke has since entered a contract with local authorities in Shenzhen to take over the running and eventual redevelopment of a live/work senior living complex.

As conventional developers move into this new sector, they will carry many of the bad practices of their residential and commercial real estate

development model, such as an over-dependency on standardisation of design, as well as a reliance on pastiche and superficial decorative motifs to imbue projects with instant identity. In addition, they will need design expertise that they will not be able to provide in-house.

Specifically, currently many of these new senior living projects are still located outside of cities, where most of the elderly population currently reside. Moving them away from the neighbourhood and social networks they have become accustomed to, is both difficult and potentially damaging to their wellbeing. As such, it is inevitable that developers will eventually need to consider how better senior living provisions can be created within the city. To do so they will need to understand and work with existing building environments. This is where the input of architects is critical, particularly on how any senior living designs must respond to its social, cultural, physical and infrastructural contexts within the city.

In this regard, once again, Chinese architects are already surging ahead of foreign architects. Chinese practices such as GN Qixi, run by foreign educated Chinese architects, have become specialists in providing senior living design services and consultancy to both developers and local authorities. However, foreign architects should hold some advantage in terms of senior living design expertise, and Chinese senior living developers still look towards foreign precedents for direction, particularly senior living projects in Japan and the United States.

iii. The rising middle class:

Along with the rise of the Ant Tribe and the elderly population, the expansion in the size of the middle class in China is also playing an important role in shaping demand in the built environment, and Chinese developers are now responding to its needs.

The middle class in China can be hard to define. As the data regarding the Ant Tribe shows, having a university education is no longer a valid attribute. By measures of income only, a Credit Suisse Research Institute report in 2015 puts the number of the Chinese population meeting that criteria at approximately 10.7% of the entire population, which means that the Chinese middle class has become the world's largest[204]. According to

[204] *Global Wealth Report 2015*, Credit Suisse Research Institute (2015)

the global consultancy firm McKinsey[205], by 2022, more than 75%of China's urban consumers will earn 60,000 to 229,000 renminbi ($9,000 to $34,000) a year, indicating the further expansion of the middle class as a proportion of the overall population of China.

With increasing disposable income comes increased consumption in the hospitality, leisure, and tourism sectors, which in turn drives construction in these sectors. The revenue from tourism in China has increased from 894 billion Yuan in 2006 to 3939 billion Yuan in 2016[206]. The tourism industry has been growing at an average rate of 8.7% over 2007-2016[207], and is now the second largest in the world. It accounts for 2.5% of total GDP and is projected to grow to 3.1% by 2027, with a projected growth rate of 7.1% per annum[208]. Further, in 2016, over 82% of the total money spent on tourism was for domestic tourism[209].

As a consequence, developers are beginning to commission new architecture to capitalise on China's cultural and natural capitals. This typically involves the renovation, regeneration and renewal of the built environment in areas of natural beauty or historical and cultural significance. Take Urbanus's restoration of the Five Dragon Temple in Ruicheng, Shanxi province, the project was initiated by the developer Vanke, along with government funding via the local archaeology bureau. The architects sensitively restored the historical fabric of the Tang Dynasty temple complex, and created an outdoor exhibition space which serves both as a complement to the touristic offer of the temple, but also as a public space for the local village community.

Furthermore, developers have also sought to create brand new attractions to draw in tourists. This can be seen in the flourishing of theme park building in China. The opening of the Disney Resort in Shanghai in 2016, now the world's biggest, is representative of this sector. China also now hosts the biggest theme park in the world by area, the 20km^2 Chimelong

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[205] Mapping China's middle class <*https://www.mckinsey.com/industries/retail/our-insights/mapping-chinas-middle-class*>*[2016]*

[206] 2016 中国统计年鉴, 国家统计局 / *China Statistical Yearbook 2016*, China National Bureau of Statistics of China

[207] *Travel & Tourism Economic Impact 2017*, World Travel and Tourism Council

[208] ibid.

[209] ibid.

Ocean Kingdom in Zhuhai, designed by American specialist PGAV. Even established commercial and retail mixed used developers such as Wanda are trying their hand in this growing sector. In 2014, they completed the Han Show Theatre in Wuhan, a performance venue designed by British practice Stiffish for a multimedia and multi-sensory water show.

With the growth of the touristic sector, comes increased demand in the hospitality sector. Consequently, accordingly to Logan McWatt, head of interior design at AEDAS, while economic conditions have led to a slow-down in traditional residential and commercial real estate projects, the hotel and hospitality industry has remained surprisingly robust, as developers seek to upgrade existing stocks and expand their coverage across China in response to a growth in demand.

Other types of tourism and hospitality typologies, such as holiday villas, rural retreats, resorts and spa residences have become increasingly popular with developers seeking new areas of growth. For these projects, where the design and construction quality are intimately linked to the programmatic success of the buildings, developers are increasingly seeking the help of architects to deliver a unique offer. This can be gleaned in projects such as the Yun House Boutique Eco-Resort (see Figure 79 overleaf) by Ares Partners and Atelier Liu Yuyang, a partnership of two Chinese architecture firms.

The rising spending power of the Chinese middle class has also led to the growth of two other sectors: the creative industries and the education industry.

As discussed earlier, projects such as Testbed II are not only exemplars of how ex-industrial sites are being renewed by developers, they also illustrate how developers are incorporating creative industry programmes into their development models to attract new types of commercial tenants and foster new user experiences.

The iBox project in Chengdu (see Figure 80 overleaf), developed by NIMI China, and designed by UK firm Hawkins Brown, is yet another example of how creative start-up studios, performance spaces, workshops, and experience led boutique markets, are being incorporated into a financially viable development model, in this case actively encouraged by local

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for copyright reasons

Figure 79: (Above) Yun House Boutique Hotel in Yangshuo by Ares + Partners with Atelier Liu Yuyang (Source: Su Shengliang)

Figure 80: (Below) Hotel iBox complex by Hawkins Brown, Chengdu (photographed by the author)

government in their pursuit of central government's vision of an innovative economy. In this case, Hawkins Brown were appointed through personal connection of one of its Chinese employees, who became the project director in Chengdu, working on the delivery of the project on site and embedded in the city.

Projects such as iBox do two things. On the one hand they meet the needs of a growing creative industry hungry for start-up and incubator spaces. On the other, these projects become places where the Chinese middle class can consume the cultural and physical output of the creative industry.

This growing spending power is also driving the growth of the education sector in China, where white collar employees are seeking betterment through further education, and middle class parents spare no expense on the education of their children. In response, developers have also begun to invest in educational institutions.

NIMI, the developer behind the iBox project in Chengdu represents a new kind of developer; one which seeks to exploit combinations of conventional residential and commercial developments with creative industry and education sector programmes and typologies, with a view to creating a

unique market offer, as well as enhancing the overall financial viability of the scheme. The iBox project is a side adventure of the overall NIMI strategic master plan known as the Nordic City of Knowledge in Chengdu. The development includes the Nordic International Management Institute, a nursery and a school run on Danish models, a series of conference and exhibition venues, as well as a range of residential and commercial real estate. The CEO behind the entire venture, Per Jenster, is not a traditional developer, but rather, an academic with a particular developmental vision. He was one of the first business and management academic experts to arrive in China in the early years of the reform and was involved in education exchange and teaching business leaders in China for a long time before turning his hand to development.

According to Xi Ayong, NIMI's coordinator at the iBox site,

> A lot of conventional developers will not be involved in projects like this where it is a long term vision and the short term financial gains are little. When we devised our vision for the future of development in China, we favoured three particular sectors. One is creative industries. The second is education. Challenging government policies may make formal colleges and business schools difficult, but institutions for exchange and training are certainly possible; schools and nurseries are definitely achievable. The third sector is senior care. We don't want to get involved in other sectors, such as pure residential or mixed-use. As a developer with expertise in international experience, we can use the experiences of Europe to project the future growth sectors in China, to have that foresight.[210]

For developers in the creative and education sectors, the post-completion operation and occupancy of their development is critical to the success of their entire investment model. As Xi Ayong goes on to explain:

> In choosing the right architects for these types of projects, we as developers always talk to the intended occupants and operators of our schemes to make that decisions jointly, as they will

[210] Interviewed 16th April 2015, at iBox, Chengdu

ultimately be the users of these education and creative industry facilities.[211]

Looking across these emergent typologies of growth, they clearly represent areas where foreign architects still possess a certain level of expertise, albeit increasingly marginal. In areas such as theme parks and hospitality, their advantage is recognisable. However, in cultural and location specific typologies such as tourism their superiority is less obvious.

6.3 The architectural profession's 'New Normal'

The preceding sections have discussed how the government is responding to the shifting economic and social conditions with a new set of strategic development agendas in the urban and the rural realms, and how developers are seeking to maintain growth by exploring new territories, new typologies, and focusing on quality over quantity. These new agendas have had an impact on the practice of architecture, and changed the relationship between foreign and Chinese architects.

While these external stimuli have affected on the practice of architecture in China, it is from within the profession itself that the most substantial and deep reaching changes are being felt.

6.3.1 Structural reforms

Recent and proposed changes to the regulatory environment are likely to significantly change the adopted relationship between foreign architects, LDIs, and private Chinese practices.

In the preceding chapter problems concerning the way the architectural profession is regulated were discussed, in particular the prevailing regulatory constraints on the registration of architects and accreditation of practices. There are essentially two critical regulatory barriers.

Currently the right to carry design to completion lies not with individual qualified architects, but with LDIs, which must demonstrate that they hold the relevant credentials. One of these depends on the number of qualified architects they employ. This is a barrier to entry for smaller studios,

[211] Interviewed 16th April 2015, at iBox, Chengdu

individual practitioners and many foreign architects, who do not employ the requisite numbers. This leads to the fragmentation of the design process and the dominance of the LDIs and the practice of 'Guakao' (挂靠), in which LDIs lend their credentials to smaller firms for a price, and qualified architects could be 'employed' and paid by multiple firms to maintain their accreditations without actually contributing to design output.

This also means that in China, design liabilities are attributed to LDIs rather than individual qualified architects. Individual registered architects in China do not enjoy the protection of any professional indemnity insurance as their western counterparts do. This in turn makes the client more reluctant to appoint foreign architects, or smaller studios, as they do not hold the legally recognised credentials as the LDIs.

In his book *You Can't Change China, China Changes you,* Dutch architect John van de Water, principal of NEXT, talks of a 'differentiated architecture' that both accepts and anticipate the fragmentary nature of the design process in China.

Chen Yifeng of Atelier Deshaus elaborated:

> The key to the regulatory problems in China is the issue of liability. In the West, the architect as a registered and qualified professional, carries the risks of the project, and so the liability rest with the individual. In China, due to both the Soviet model of the Mao era, and the initial shortage of technical knowledge and expertise in the early days of the reform, there's a presumption that individuals are less trustworthy to carry the enormous risks carried with construction projects. The legislative attitude is always formed by looking at the lowest common denominator, in preparation for the worst that an architect as an individual can be. So it is more reassuring to place the risk on the collective, the work unit, the LDIs.[212]

Chen did not see much chance of changing this attitude:

> I'm not optimistic about a comprehensive reform of the LDI system. It's impossible. We've tried to reform the system since

[212] Interviewed on 10th September 2014, at Atelier Deshaus offices, Shanghai

> the 1990s, but we're still in a conundrum. The system wants to learn from the West, but it also wants to protect its vested interests. This means that experimentation in the early 1990s with specialised individual consultants based on a western model eventually failed.[213]

This view was echoed by prominent Chinese architect Chang Yung Ho:

> We say in Chinese "tizhi" [体制, the system], and 'tizhi' is going to be around for a long, long time… only slightly weakened by the independent practitioners. So I'm not terribly optimistic. I think we're probably going to wait for a while. There's this fight and struggle between the system and who's in and who's out, … but it doesn't mean it's never going to change, so maybe there is one critical point where 'tizhi' is going to fall apart, but probably not very soon.[214]

However, based on reviews of recent legislations, there are signs that the government is starting to take more notice of the lack of separation of liability between the individual and the LDIs. Several key events are worthy of particular notice.

In a supplementary Notice[215] in July 2014, the government's Practice Qualification Registration Centre in the Ministry of Housing and Urban-Rural Development explained its desire to push for registration reform. The document noted that the regulatory advantages enjoyed by LDIs are a result of assigning risk and liabilities to institutes rather than individual qualified architects, which was a protocol the government felt was necessary to ensure competence, safety and stability of the profession as the country transitioned from a planned economy to a market one. However, as the Notice went on to elaborate, this status quo is becoming increasingly problematic.

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[213] Interviewed on 10th September 2014, at Atelier Deshaus offices, Shanghai

[214] Briefly interview at ETH Zurich Open Building Conference, 11th September, 2015, Zurich

[215] 住房和城乡建设部执业资格注册中心简报 2014年 第3期 2014年7月4日 / *Ministry of Construction License Registration Centre Bulletin 3*, (4th July 2014)

Subsequently, in a much debated and controversial directive published by the State Council in November 2014[216], the government abolished the process of state administrative approval for the registration of qualified architects. The new legislation has since led to bureaucratic confusion and the suspension of exams for qualified architects.

In February 2015, the Ministry of Housing and Urban-Rural Development indicated their intention to amend the regulation on the registration of architects, to begin the process of relating design liability to registered individual architects rather than collective practices such as LDIs[217]. Later in October 2015, Shanghai Pudong district government began to trial a system of individual architect liability on six construction projects within its free trade zone[218].

In December 2016, the Ministry of Housing and Urban-Rural Development published a new standard[219] for the accreditation of architecture design practices, which sought to simplify the system. This stipulated[220] that from March 3rd 2017, only one registered architect is needed to create an accredited architectural practice. By May 2017, the examination of registered architects was re-introduced[221].

These new legislative notices culminated in the consideration of a professional registration system more akin to the western model, with risks and liabilities linked to professionally qualified individuals, registered not by the state but by the profession itself. These architects can mitigate the risks they bear through a system of professional liability insurance, an area of the insurance market still in its infancy in China. This would potentially eradicate the practice of 'Guakao' and remove the necessity of institutional

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[216] 国务院关于取消和调整一批行政审批项目等事项的决定—国发〔2014〕50号 / *State Council Notice regarding the cancellation and adjustment to processes requiring state approval,* State Council Notice No.50, 2014

[217] 李武英. 行业变革与未来建筑师的职业状态[J]. 时代建筑，2017 (1) / Li Wuying, Industry Shifts and the Future of Architectural Practice, *Time Architecture,* (2017 Issue 1)

[218] ibid.

[219] 《工程设计资质标准》,建市[2007]86号, 住房城乡建设部 / *Construction Design Accreditation Standards,* Ministry of Construction, Notice 86, 2007

[220] 关于促进建筑工程设计事务所发展有关事项的通知, 建市[2016]261号, 住房城乡建设部 / *Notice on encouragement of the development of construction design practices*, Ministry of Construction, Notice 261, 2016

[221] 关于注册建筑师执业资格有关问题的通知, 人社厅规[2016]1号, 人力资源社会保障部办公厅　住房城乡建设部办公厅 / *A notice on accreditation requirements of licensed architects*, Ministry of Construction & Ministry of Human Resources and Social Security, Notice 1, 2016.

accreditations, which are typically held by LDIs, an Achilles heel for foreign practices and small private Chinese practices.

If such reform were to take hold comprehensively, it is conceivable that foreign architects could obtain accreditation in China more easily and consequently able to undertake project from concept design through to completion without LDIs, or at least be in a more empowered position to decide when and how to collaborate with LDIs, resulting in a less fragmented design process. It would also help foreign architects to engage more extensively in second and third tier cities, as architects will no longer be held to ransom by archaic but well connected regional LDIs in the production of the built environment.

A few architects interviewed for this thesis have even gone as far as speculating whether such reforms could reduce the incentive for LDIs to remain the size they are, which in many cases, is there to simply maintain an LDIs' accreditations. The breaking up of these giants of the profession would foster a more level playing field and a professional environment much more in line with international norms.

However, given the size of the current LDI sector and the number of people employed within it, LDIs will not accede to these potential changes without resistance, as their long term viability currently depend on the status quo. Aware of the possible demise of their regulatory advantages, they have been for some time working to improve perceived areas of weakness, and are no longer content to be just the executor of designs of foreign architects. In anticipation of a more completive and levelled playing field, ambitious LDIs have devised a range of strategies to reclaim some of the professional territory lost to the foreign architects, particularly the concept design stage. Some LDIs have created so called 'Master Ateliers' within their internal structure, whereby influential and well regarded sole practitioners are given organisational and creative freedom as a form of practice within a practice, in order to bolster LDIs' design capability and retain design continuity for themselves. A few LDIs have moved further, by acquiring and merging with external practices with strong design reputation, many of which are foreign.

6.3.2 End of 'starchitecture' and rise of new voices

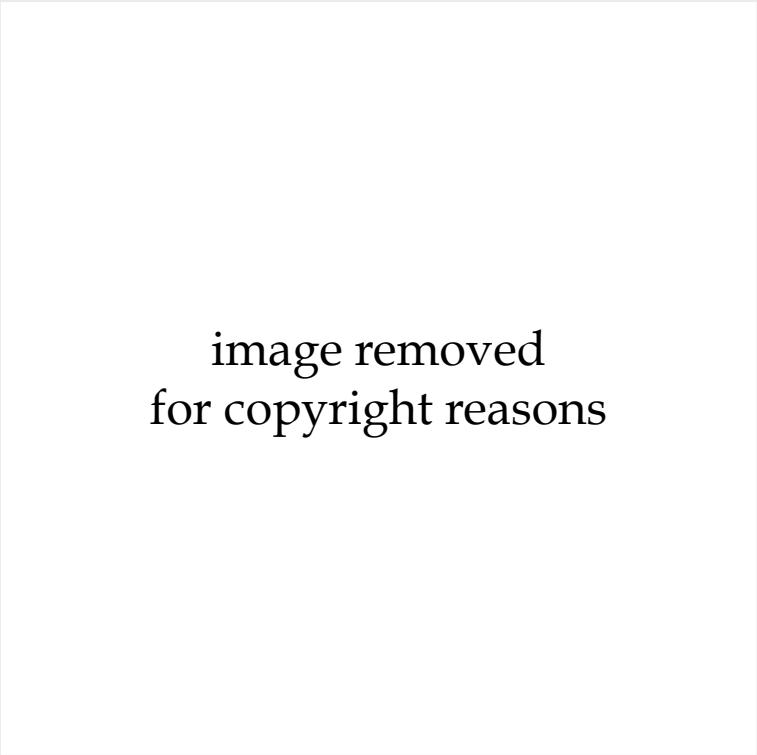

Figure 81:
Xi Jinping at the meeting with arts and literary world representatives 15th October 2015 (Source: Xinhua News)

Notwithstanding the potential changes to the regulatory framework discussed in the preceding section, which will re-shape the dynamic between foreign and Chinese architect to a certain extent, there is a more fundamental shifting of power work.

i. 'No more weird architecture'

The current Chinese administration under President Xi Jinping set out in 2012 the so-called 'Chinese Dream', an ideological agenda for the country that seeks to rejuvenate the nation and restore it to its rightful place in the world. It was devised as Xi's personal contribution to the canon of post-Mao political programmes, which seek to galvanise public support and legitimise Party rule. Xi's 'China Dream' presents a distinctively vision of the future, in which cultural identity and confidence was critical. Xi was particularly concerned that the cultural and creative output within China should reflect, his 'Chinese Dream'. To this end, he attended a forum (see Figure 81 above) of representatives from the literature and art worlds on October 15th, 2014, condemning 'the so called "art for art sake"', while paradoxically also declaring that creative output should not be a 'slave to

the market' and 'stink of money'. A day later the online micro blog account of the People's Daily[222], a party mouthpiece, reported that:

> … it is unlikely that weird architecture like the 'Big Pants' [CCTV Tower] will ever be built in Beijing again. Brother Xi [term of endearment widely used in popular media] has said, no more weird architecture.

This quote, widely reprinted in Chinese and English both domestically and internationally, has since been removed from the original source article[223]. Despite its brief appearance, the message has lingered, coming as it did from the highest seat of power.

In an eerie echo of the 1950s, the formal language of architectural expression has once again taken on a political dimension, where it has become inexplicably linked with the perceived excesses and corruptions in the preceding era of exponential growth, as well as issues to do with national and cultural identity.

Needless to say, this makes particularly uncomfortable reading for foreign architects, who have been responsible for many of the most recognisable buildings of 'spectacle' in China, from Herzog and de Meuron's Bird Nest Stadium, to Paul Andreu's National Opera House. Foreign architects are seen by both their Chinese peers and the public at large as being chiefly responsible for the designs of these iconic pieces of 'starchitecture'.

Having sought after and championed foreign architects previously, official attitudes to both large scale public buildings and the commissioning of foreign architects has suddenly cooled somewhat, where the auspice and patronage foreign architects have enjoyed from the state has become less explicit.

This has been exacerbated by President Xi's anti-corruption and anti-graft campaign, which has targeted amongst other bad practices the misuse of public funds on frivolous building projects. In 2013, the State Council also

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[222] Quote attributed to Xi Jinping from the Literary & Arts Workers Forum, First reported by People's Daily Micro Blog, October 15th, 2014.

[223] 通稿之外习近平在文艺座谈会上还讲了什么 / What else did Xi Jinping say at the culture and arts forum <*http://politics.people.com.cn/n/2014/1016/c1001-25845787.html*>[2017]

issued an order which banned local authorities from commissioning or constructing governmental buildings for five years[224].

This souring view of 'starchitecture' does not come from official sources only. At the China Contemporary Architectural Design International Top Level Forum in 2013[225], the native architectural establishment was already expressing concern over the prevalence of expensive, pastiche and formalist 'starchitecture', at the same time lamenting the dominance of foreign architects in the Chinese market and their perceived preferential treatment. In a survey of 121 attendants, conducted during the forum by *Southern Weekend*[226], 31% believed high profile projects are already dominated by foreign architects, and another 30% worried that this may soon be the case. The prominent Chinese architect Wang Shu in an interview with *Southern Weekend* said:

> Whether this country operates under communism or capitalism, it operates as a western model. It is quite successful in doing so, and it can no longer call itself China. When a nation loses its cultural identity, you lose your feelings and your dignity, which are themselves rooted within culture.[227]

In the West also, commentators have debated the value of iconic foreign experiments in countries such as China and the Middle East. Writing for the *Architecture Review* in 2015, architect and critic Peter Buchanan discussed 'starchitecture' as 'pandering to preposterous concepts in an adolescent search for momentary excitement'. For Buchanan,

> ['starchitecture'] ignores and exacerbates the urgent challenges of our time, such as the environmental crisis and the need to reintegrate ruptured urban fabric. Instead it is a perfect example of what Marshall McLuhan aptly termed a sunset

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[224] 国务院办公厅关于党政机关停止新建楼堂馆所和清理办公用房的通知 2013年7月23日 / *State Council Notice on the halting of building construction by Party administrations*, State Council, 23rd July, 2013

[225] Pan Yunhe, Ye Rutang and etc., *Keynote Speeches at the International Top-Level Forum on Contemporary Chinese Architectural Design 2013*

[226] 百名建筑师眼中的行业乱象 "领导"是最不受欢迎的人, 南方周末 / Political Leaders the least popular in a survey of 100 architects, *Southern Weekend* <http://www.infzm.com/content/97564>[2014]

[227] 他们最不听设计师的, 建筑师王澍的困扰, 南方周末 / Wang Shu's Dilemma, *Southern Weekend* <http://www.infzm.com/content/88126>*[2014]*

> effect, an exaggerated caricature of now obsolete characteristics of a waning era. … [starchitecture] exacerbate rather than solve the main failings of modern architecture, and not only because they are energy-profligate, anti-urban, stand-alone buildings that fail to define urban space and defy relationship with other buildings and humans.[228]

Speaking in 2016 alongside Ai Weiwei on a panel discussion on Chinese architecture hosted by the Asia Society Switzerland[229], Jacque Herzog appeared to support the Chinese government's position to ban, what the government referred to as 'oversized, xenocentric and weird' buildings. According to Herzog, 'China's construction boom has allowed Western architects to use the country as a testing ground for projects that would not otherwise be built.'[230]

Many foreign architects practicing in China are increasingly questioning their own role, not only in the creation of 'starchitecture', but also in the general quality of the built environment they have helped to create. The Chairman of AEDAS, Keith Griffith admitted:

> The importation of western or North American built form into China has got to stop. It's the biggest rape of China I've ever seen, the KPFs, the SOMs, the Callisons, the plonking of woven stone and glass boxes all over China is just so irrelevant to what China wants and needs, and it's a shame that so much [of it] is built, when so much could have been done better. We should have done better. We were entering into a burgeoning market of 1.5 billion people [sic], urbanising at a rate of 20 million people a year. It's a rate I think that's 100 times faster than the 18th and 19th century agricultural and industrial revolution added together. We did not give a very good example of what the West could do.[231]

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[228] 他们最不听设计师的, 建筑师王澍的困扰, 南方周末 / Wang Shu's Dilemma, *Southern Weekend* <*http://www.infzm.com/content/88126*>*[2014]*

[229] Ai Weiwei: Meaningful Architecture Is 'Very Dangerous' To China's Leadership <*http://asiasociety.org/blog/asia/ai-weiwei-meaningful-architecture-very-dangerous-chinas-leadership*>[2017]

[230] ibid.

[231] Interviewed on 20th May 2014 at AEDAS Hong Kong Headquarter Offices, Hong Kong

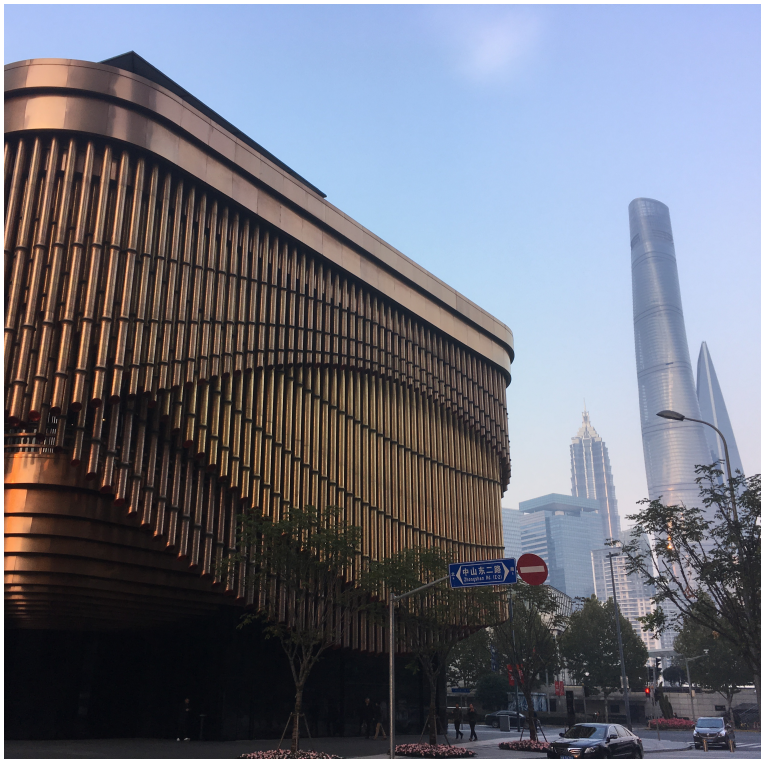

Figure 82: Thomas Heatherwick's Shanghai Finance Centre (photographed by the author)

Griffith's comments are significant, demonstrating a new awareness of negative impact of foreign architects on China over the last two decades or so. For such comments to be made by the chairman of a large foreign architecture practice of the kind that are often associated with the very criticism he has levelled at foreign architects, is both frank and symbolic.

Of course there is unlikely to be an overnight change. Thomas Heatherwick's kinetic facade on Shanghai's Bund Financial Centre (see Figure 82 above), completed in 2017, very much fit the description of yet another piece of 'starchitecture'. The facade frontage at street level is made of black powder coated metal panels that are already warped, offering little to the street. The attention seeking 'kinetic facade' has broken down several times since the building's inauguration and had to be slowed down and moves once every two hours. In the coming years, one is unlikely to avoid the sensationalist headlines of a few more 'starchitects' creating yet another series of 'iconic landmarks'.

There will also continue to be plenty of mediocre international practices that will seek out new markets and design a large proportion of China's yet undeveloped third tier cities. However, Hawkins Brown surprised many by being appointed to carry out two large master-planning projects in Xingdu,

Figure 83:
(From left)
Chang Yung Ho
Ma Qinyun
Liu Jiakun
Wang Shu
Ma Yansong

Figure 84:
(From left)
Li Xiaodong
Wang Hui
Hua Li
Zhang Lei
Dong Gong

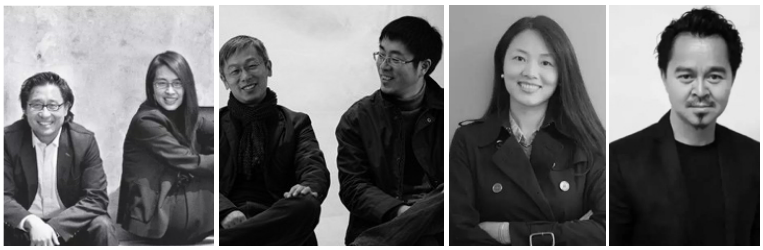

Figure 85:
(From left)
Neri & Hu
Atelier Deshaus
Xu Tiantian
Zhang Ke

part of the Chengdu metropolitan area. The English firm, whose reputation is built on well-considered and sensitive British-based projects in the arts and culture sector, does not fit the profile of a commercial behemoth such as Gensler or KPF. In Hawkins Brown's own words, 'Our aim has been to provide a prototypical transit-oriented development, one that promotes sensible models of development over mere form-driven exercises.'[232] Might one speculate from their appointment and approach that perhaps the taste and criteria of the Chinese client are also changing when it comes to which foreign architects to appoint, from image-making and profit-making, to considerations such as sustainability and legacy?

ii. New voices

This questioning of the role of foreign architects is coupled with the rising profile of a generation of Chinese architects, who have emerged to dominate architecture discourse on matters of theory, procurement, and architectural expression, and gained an international reputation as the new engine of design innovation in China (see Figures 83, 84, and 85 above).

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[232] Sanhe Metro Masterplan <*https://www.hawkinsbrown.com/projects/sanhe-metro-masterplan*>[2017]

Wang Shu's Pritzker Prize win in 2012 represented a pivotal moment of global recognition for design talents from China. More recently the inclusion of Li Xiaodong at the Royal Academy's 'Sensing Architecture' exhibition is yet another sign that there is now a global voice for Chinese architects.

If one were to map more carefully the timeline of this emergence, then Chinese architects such as Wang Shu, Chang Yung Ho, Ma Qingyun, and Liu Jiakun can be said to be the first wave, who studied in the late 1980s and began to produce work from the mid to late 1990s. The second wave includes architects and practices such as MAD, Urbanus, Li Xiaodong, DnA, AZL, TAO, Vector, Atelier Deshaus, ZAO Standard Architecture, OPEN Architecture, and Neri&Hu, which were formed predominantly in the early 2000s.

A few common threads connect these two waves of Chinese architects. First, many have had extensive experiences in both foreign practices and LDIs, which has made them aware of the strengths and weaknesses of both systems. Li Hu of OPEN architecture was Steven Holl's project architect in China, delivering Holl's Linked Hybrid project in Beijing before establishing his own practice. Lydon Neri and Rosanna Hu of Neri&Hu were running Michael Grave's No.3 The Bund project before setting up their own practice in Shanghai. The two principals of Atelier Deshaus had been project architects in Tongji LDI before setting up their own studio.

The second commonality amongst these Chinese architects concerns the shared 'criticality' in their approach. Zhu Jianfei in his *Architecture of Modern China - A Historical Critique* talks of a 'moment of symmetry' during the period between 1996 and 2002, where China was 'absorbing a "criticality" from the West', and the West was 'absorbing a "post-criticality" from China.' By 'criticality'[233] he means Chinese architects' awareness of their practice within the wider historical condition of contemporary China, and a reflectivity on their resistance/negation of the system within which their practice takes place. By 'post-criticality' he means the pragmatism with which western architects have had to accept in order to reconcile their ideological difference with what they face in China, where communist

[233] Jianfei Zhu, 'Criticality in between China and the West', *The Journal of Architecture*, Vol. 10/05 (2005), p.190

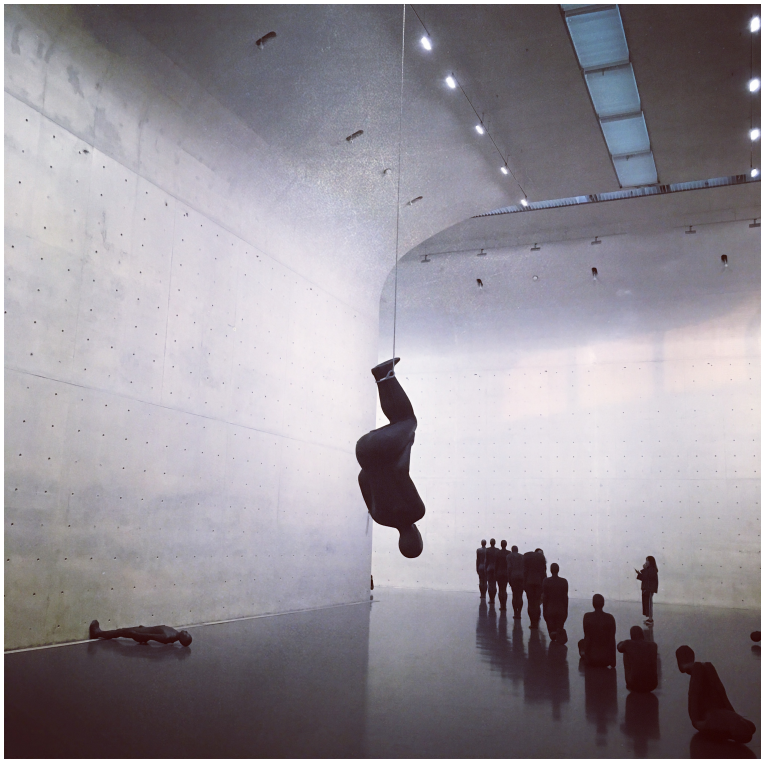

Figure 86:
Long Museum, Shanghai (photographed by the author)

ideology, authoritarian rule and market forces are all present within the same contradiction laden system.

This criticality, which has been passed onto this generation of Chinese architects through their engagement with the western discourse, has propelled them to explore how the specific contemporary relevance of Chinese heritage, culture, identity, and modernity can find meaningful expressions in the visual, spatial and material language of architecture, and in so doing re-engaging with modernism, critical regionalism and even parametricism.

In this sense, one can understand the works of Liu Jiakun and Wang Shu as a form of critical regionalism with Chinese characteristics. The same thing could be said of Atelier Deshaus, although as their much celebrated Long Museum shows (see Figure 86 above), their formal and material vocabulary is modernist and purist when compared to Wang Shu. Meanwhile, Urbanus, as a practice based in Shenzhen, both work and think flexibly in developing innovative solutions to very current problems in the Chinese urban context, and increasingly in the sub-urban and rural context. Even MAD's parametricism can be said to be driven by Ma Yansong's personal obsession with the traditional Chinese picturesque principals of

'*Shanshui*'[234](the tradition conception of mountains and waters an element of artistic veneration). In a recent retrospective exhibition of works of contemporary Chinese architects at the Harvard Graduate School of Design in 2016, entitled 'Towards a Critical Pragmatism', the critic and curator Li Xiangnin used the term 'critical pragmatism' to describe the endeavours of this generation of Chinese architects, to understand the complex and ever-shifting political, economic, social, cultural and physical contexts of China and design in response to their analysis.

However, this critical awareness of the Chinese context is by no means an indication of a concentration on the Chinese visual identity. In fact, another common feature amongst these aforementioned generation of native talents is their international outlook. The Director of Neri&Hu, Rossana Hu observed:

> I think this an international practice in genetics. […] First of all our background is such that culturally and ethnically we are very Chinese. It carries its own baggage and identity; that kind of identity pushes us to first of all try to be very independent, and be critical of what we see here. […] There's a whole pedagogy and vision we have for ourselves, really wanting to explore this notion of Chinese modernism, but also being very mindful of the whole production of modern culture. If you look at art, literature, poetry, modernity is intimately linked with the western discourse, so we can't be isolated, we need a very globalised platform to explore what we want. It can't just be a nationalist approach, and we can't be isolationist. Of course nothing exist in a vacuum, but I find myself shying away from overly stating the question of identity. I just want to be recognised as a good architect. So we want to be recognised as more than just architects just working in Beijing and Shanghai. We want to be recognised as architects working in the world. Half of our employees are foreign. For us it's a larger question than who is Chinese and what is Chinese, we want to be beyond location and beyond passports, and birthplace.[235]

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[234] Ma Yansong, *Shanshui City* (Lars Müller Publishers, 2015)

[235] Interviewed on 10th September 2014, at Neri & Hu offices, Shanghai

Figure 87: An Italian member of Zhang Ke's practice ZAO talking about the studio's work (photographed by the author)

This sentiment is evident in the practice of other Chinese architects from this cohort, who all tend to run internationally oriented offices with employees from across the globe. For example, ZAO Standard Architecture has a staff of just under 30 people, with foreign staff making up two-thirds of the total number of employees (see Figure 87 above). Its principal, Zhang Ke, teaches at Tsinghua University and the Harvard Graduate School of Design.

Finally, these practices are also very particular and selective about the kinds of project they undertake. For example, at ZAO Standard Architecture, the studio is very particular about what projects it takes on and from whom. More commercial projects are taken on to fund their well documented and much celebrated experimental, community driven non-profit projects such as the Micro-Hutong and the Micro-Courtyard in Beijing.

According to Rossana Hu of Neri & Hu:

> In the early days we turned down a lot of work. … We now have some criteria about the kind of project we take on. In China you can get distracted easily, the workplace and the context of working is very distracting to what I would like to

> focus on; there are a lot of 'noises' out there. We like interesting private houses for interesting clients; we like cultural projects that are not too bureaucratic, we would love to do schools. … This is a critical point for us in terms of where we want to be in the future, we want to do more civic buildings and less interiors; we want to do more socially minded projects; the location doesn't matter. We will always hold true the desire to want to work in the world. We hope to produce fewer but better quality projects.[236]

The two founding directors of Atelier Deshaus, Liu Yichun and Chen Yifeng for this thesis, expressed a similar sentiment, where Chen said:

> We are quite selective in the work we do. For example, we shy away from large scale commercial and residential real estate development projects. We mostly work on public projects, for the government, or private clients, such as charities. The architects must be allowed to fully utilise their design capability and value, which the market often does not recognise. I cannot accept scenarios where clients can deny the validity of our work by simply saying the market will not accept it. Our innate quality cannot yield freely to the will of the market. So we don't tend to get involved in project where the building's purpose is simply a speculative income generator to be sold. Also with regard to location, over the years we've also consciously become more restrictive to where we work. In the early 2000s, we tried working in Dongguan, Chongqing, and places like that, but in recent years we're really just focusing on Shanghai and the surrounding provinces. It gives us greater control of the project. In China, if the project is too far away, the construction stage is very difficult to supervise, so you won't recognise what your design become.[237]

Through their provocative and celebrated work, these Chinese architects have generated a different kind of cultural currency for themselves, often radically different to the work of foreign and LDI architects.

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[236] Interviewed on 10th September 2014, at Neri & Hu offices, Shanghai

[237] Interviewed on 10th September 2014, at Atelier Deshaus offices, Shanghai

Foreign architects are now well aware of these new voices, which are becoming increasingly assertive. Keith Griffith, the Chairman of AEDAS, noted:

> We are certainly seeing an emergence of a relevant design approach, designed by people living and working within China. Wang Shu is a very good example of somebody who seeks the spirit of the design and its relevance to where he's constructing it, the place the material the culture. … I think it's a bigger movement than people make it out to be. A little office like Neri&Hu, the work they've done, its good! They're seeking the connectivity to the land and the city each time in a fresh way, whereas the internationals tends to bring their own baggage with them.
>
> So I'm hoping this emerging architecture is going to start us on the right way, hoping that what we do in AEDAS also becomes more relevant, trying to design relevant to each city. It's about not plonking on more projects designed in London, designed in New York, the "it must be right for you because we designed it" kind of buildings. It's got to be about looking at the local people, their life style, the climate, the local materials; its got to be about those things; its what we would do if we were in London. So to be sensitive to where we design, we need to be in that city, or close to the city, we can't do it all from Hong Kong. It's about Chengdu and Chongqing offices, I really want a Kunmin office, and I want to have a lot more mainland Chinese overseas-educated architects working in my office, to drive this culturisation [sic] of design in China.[238]

Griffith's comments, reflect foreign architects' increasing awareness of the Chinese-led re-orientation of architectural discourse and production in China. The best are asking themselves how to respond.

Further, there is the added pressure on foreign architects seeking to, as Griffith puts it, 'have a lot more mainland Chinese overseas-educated architects' working in foreign offices. The rising profile of this generation of globally recognised Chinese architects means that Chinese architecture

[238] Interviewed on 20th May 2014 at AEDAS Hong Kong Headquarter Offices, Hong Kong

graduates now have unprecedented access to them, many of whom are involved in teaching in elite universities. These architecture students are increasingly attracted by the prospect of working for these avant-garde designers, instead for large LDI or a foreign practice.

6.4 Conclusion

After more than two decades of explosive growth, and the challenges this has brought to the built environment and the architecture profession, China has begun to develop what president Xi Jinping has coined a 'New Normal'. There are discernible signs that the political, economic, regulatory and professional circumstances surrounding the production of the built environment are beginning to shift, and a set of new and volatile conditions are emerging.

From the perspective of the Chinese state, the drive for growth at almost any cost culturally has been replaced with an awareness of problems produced by this approach in the existing fabrics of both urban and rural environments. As a result, the government is prioritising urban and rural renewal. 'Starchitecture' is now perceived as 'weird architecture' in the eyes of the state, and no longer enjoys official endorsement.

Market forces have also driven developers to break with the existing development models, and look at how growth can be maintained by relocating abroad, by focusing on quality rather than quantity, and by exploring opportunities in new demographic trends.

In many cases, these emerging conditions represent new opportunities for foreign architects as well, as their past experience in western urban contexts provides them with desirable expertise. At the same time, regulatory reforms within the architecture profession now carry the potential to reduce barriers to entry and design continuity, possible fostering a more levelled professional playing field between Chinese and foreign practitioners and LDIs.

While these priorities may afford foreign architects some marginal advantages, their influence over architectural discourse and design in China has significantly weakened, increasingly becoming replaced by the

rising voices of a new generation of Chinese architects. In dealing with the architectural consequences of emergent political, social, demographic and cultural conditions, as well as on matters of architectural theory and language of expression, these western educated, research focused, and internationally minded Chinese architects are increasingly leading the search for new and innovative solutions.

7.0 CONCLUSIONS

As I set out in the introduction, if architecture is to be understood as the physical result of a network of relationships and processes, then the relationship between foreign and Chinese architects have played a critical role in defining the nature of the Chinese built environment.

In this thesis I have sought to assess the historic relationship between foreign and Chinese architects, expose what contemporary challenges this relationship currently faces, and analyse what emerging circumstances will shape the nature of this relationship in the future.

The culmination of these undertakings have resulted in the construction of a 'living biography' of the relationship between foreign and Chinese architects, the undertaking of which has drawn information from both primary sources such as first hand interviews and specific building visits, as well as secondary sources such as literature and legislations.

First hand interviews covered a wide spectrum of topics relating to Chinese architectural production. Initially, I consciously avoided positing any hypothesis with regard to the subject of my investigation, and allow the research to evolve organically and for ideas to coalesce and gravitate to each other iteratively. This has led to a set of insights about the relationship between foreign and Chinese architects.

7.1 A Persistence of Presence

First of all, the thesis challenged the common perception that the nature of engagement between foreign and Chinese architects in the contemporary setting is historically unique. Chapter Four demonstrated that foreign architects during the Nationalist era were not working isolated from Chinese architecture culture, and conversely, Chinese architects were not isolated from foreign influences during the Mao era. The interaction between foreign architects such as Henry Murphy and Chinese architects returning from their studies abroad in the 1920s, and the advisory presence of Soviet experts such as Mukhin, Achepkov and Andreyev in the 1950s, are evidence that despite distinctively different political, economic, cultural, and social conditions, foreign architects have maintained a

persistent presence in China (see *Appendix 7: Conceptual Diagram of Cyclical Relationships between Foreign and Chinese Architects*).

7.2 Cyclical pattern of engagement

Also emerging from the research is clear evidence of a cyclical pattern of interaction between foreign and Chinese architects, in which each cycle begins with China in search of new expertise, new modes of practice and new forms of expression. The arrival of foreign architects, often with official endorsement, who would go on to disseminate new technical expertise, new modes of practice, new models of pedagogy, and new approaches to style and expression. The influence of foreign architects waned as well as waxed (see *Appendix 7: Conceptual Diagram of Cyclical Relationships between Foreign and Chinese Architects*). New externalities would bring about the demands for a different set of expertise than what the preceding cohort of foreign architects are able to offer. For example, colonial architects' association with imperialism and capitalism made their position untenable after the foundation of the Communist republic, and their successors, Soviet architects disappeared after the Sino-Soviet Split.

An understanding of this historic pattern of interactions between foreign and Chinese architects, cyclical or otherwise, is critical in the contextualisation of the current challenges faced by foreign architects in China today. The striking similarities between the 1920s and the post Mao era, in terms of the influx of foreign architects and the impact of their built work, is testament to the importance of historical analysis as a critical method, with which historic content begins to contribute to an understanding of not just historic facts, but the distribution of power within the profession and shift of balance between foreign and Chinese architects. As such, the current and future role of foreign architects in China cannot be discussed in isolation, but must be viewed as part of a historical relationship which continues to this day, and may continue in the future.

7.3 End of another cycles

The commissioning of foreign architects in China in the post-Mao era, and the flourish of their practice since the 2000s can be said to repeat certain patterns of power relations from previous cycles of foreign engagement.

However, whereas the demise of foreign architects' influence were caused by political externalities in previous cycles of engagement, the current challenges and crises in the relationship between foreign and Chinese architects have emerged from within the profession itself, made possible by a sustained and uninterrupted period of interaction.

As Chapter Five showed, the role of foreign architects was distorted, eroded, and fragmented by the pursuit of 'Starchitecture', the growth of developers' in-house design expertise, a quality gap between foreign intensions and a local execution, and a biased regulatory system weighted in favour of local LDIs. As a result foreign architects' expertise, methods of practice, stylistic inclinations, and relationships with the state are all being brought into question. As such, one might argue that we are witnessing the end of another cycle of engagement (see *Appendix 7: Conceptual Diagram of Cyclical Relationships between Foreign and Chinese Architects*). This new point of departure in the relationship between foreign and Chinese architects can be demarcated by the first mention of the 'New Normal' by President Xi Jinping in 2013.

7.4 Breaking with 'boom and bust'

Despite this apparent weakening of the dominance of the current generation of foreign architects in China, which has prevailed over the past two decades, it would be wrong to claim that they are now without a raison d'être in China and will be excluded from the professional practice, as they have been at the end of previous cycles.

As Chapter Six demonstrated, the emergence of new Chinese developmental priorities, demographic trends and market demands, as well as regulatory reforms under the New Normal, have opened up new opportunities for foreign architects.

However, these new areas of growth are by no means an indication that it is business as usual, and that we are entering another cycle of resurgent foreign influence and dominance.

On the contrary, as Chapter Six also made clear, in the coming years, architectural discourse and practice will be driven by the rising voices of a

new generation of often western educated, research-focused, and internationally minded Chinese architects, who are leading the search for innovative solutions to the challenges of the built environment presented by the emergent conditions of the New Normal. This represent a significant break from past patterns, and any new roles for foreign architects will be decided within a more collaborative professional relationship on Chinese terms.

7.5 What can foreign architects offer?

Given the above, the critical question then becomes: what can foreign architects offer in the coming years? In spite of continued volatility, one can perceive three aspects of foreign architects' future presence in China which merit some consideration:

7.5.1 New expertise

Whereas *tabula rasa* urban expansion and standardisation of real estate development have seen the distortion and erosion of the architect's role, new government priorities and shifting patterns of client behaviours have opened up new sectors of growth, and new demand for the input of architects. The site-specific and programme-specific complexities of projects in sectors such as urban renewal, rural development, senior care and creative start-up demand contextualised, creative, and non-standardised solutions beyond the current capabilities of developers' in-house design resources, which have evolved to provide standardised answers.

This offers foreign architects an opportunity as they have been dealing with issues such as urban renewal, rural renewal, senior living, and post-industrial regeneration in their native locales for decades, both in practice and research. As such, many areas of expertise relating to the emergent sectors under the 'New Normal' still reside with foreign architects.

In terms of technology, foreign architects again have accumulated experience in areas such as pre-fabrication and automated construction. For example, the application of pre-fabricated structural cross laminated timber (CLT) in the construction of low-carbon, fast assembling, formally complex and materially rich buildings, is a practice widely adopted by

architects in places like the UK and Germany, but is relatively still in its infancy in China.

Similarly, the adoption of BIM (Building Information Modelling) technologies in the design process is also at a more advanced stage in the West. BIM technology uses advanced digital design softwares to create a virtual shared platform to coordinate between the inputs of various design consultants and contractors over the course of the entire design and construction process. BIM has been deployed in the coordination of building design in the West for at least a decade. In places such as the UK, clients and contractors of large construction projects now insist on the adoption of BIM by the design team in order to better coordinate and monitoring the project. The take-up of BIM is still in its infancy in China, but there is both official and profession appetite for its wider use. Given the fragmented design process foreign architects often had to contend with over the last two decades, it is in their interest to facilitate BIM's wider adoption in China.

Finally, one of the major areas within which foreign architects still have much expertise to offer is the crucial field of sustainable design. While sustainability has been a topical issue within Chinese architectural discourse for sometime, the adoption of advanced technologies and rigorous building performance standards remains sporadic when compared to the total output of construction. The environmental impact of over two decades of unfettered growth have become very visible in China. As such there is now both a public and official impetus to adopt sustainable practices in the design, construction and post-completion occupancy of buildings. In this regard foreign architects still have much expertise and experience to offer, in particular, the ability to integrate these disparate technologies and design approaches in a coherent architectural scheme.

By transferring this knowledge in China, foreign architects could be come indispensable in the collaborative delivery of innovation in design and construction.

However, the likelihood of such a narrative playing out within the profession is by no means a certainty. As Chapter Six points out, successful design input in many of the emergent sectors is dependent on a much better and richer understanding of site-specific context, relating to the

political, cultural, geographical and even climatic conditions of site. The often remote approach of foreign architects, operating within western pre-conceptions in and/or from a select few first tier city office locations, is a disadvantage, when compared to increasingly capable Chinese architects with more comprehensive local knowledge.

Similarly, the adoption of new design and fabrication technologies such as BIM is often dependent on the maturity of clients. This means the most likely adopters of BIM are established developers looking to further consolidate and standardise their delivery, which could further exclude foreign architects, or any external architects. At the same time, wider adoption of pre-fabrication and sustainable technology is still subject to government support and enforcement, as well as an infrastructure of supply chains.

It is therefore critical for foreign architects not only to make their newly desirable expertise available, but to work in partnership with their Chinese peers in applying it to deliver a more innovative, more sustainable, more efficient and better quality built environment.

7.5.2 New Relationships

As Chapter Six pointed out, perhaps the greatest change foreign architects must contend with is the movement of Chinese clients and Chinese architects overseas. This sees them working on unfamiliar ground, under at times radically different political, economic, cultural, regulatory, and construction systems, and has opened up another opportunity for foreign architects.

Being familiar with the approaches of the Chinese clients and Chinese architects, foreign architects practising in China are in a unique position to offer local knowledge of planning procedures and construction contract norms, as well as a deeper understanding of the wider cultural contexts within which any new project must operate. On 'home territory', foreign architects could find themselves working to deliver innovative and appropriate responses which negotiate between the aspirations of Chinese clients and the needs of the local built environment.

More interestingly, in a reversal of roles, foreign architects may well find themselves becoming the vital delivery partners to Chinese architects

working on projects outside of China. This is an opportunity for them to redefine the processes of working in partnership, with a view to avoiding a repeat of the fragmented design process that has plagued the production of built environment in China.

However, this is not a magic cure for foreign architects facing increasing challenges in China. Foreign architects may find that delivering at the same speed, scale and cost-efficiency that their Chinese developers are accustomed to in China are much more difficult to achieve abroad. In addition, many foreign practices have become so globally focused, and international in their approach, that they can no longer rightly claim to be have any 'home advantages' on local knowledge. They could find themselves competing with both local architects in various overseas locations, as well Chinese architects expanding their scope abroad. Critically, although it has become a hinderance to design quality, a fragmented design process is not necessarily a uniquely Chinese phenomenon. Design and Build contracts have long been a staple of western construction delivery, in which architects relinquish some control at some point of the design and delivery process. As such, one must wonder where the difference lies between foreign concept and Chinese delivery in China, versus Chinese concept and foreign delivery abroad. Furthermore, would the relationship between a Chinese concept architect working overseas and their local 'foreign' delivery partners any less adversarial than the reverse in China?

Many of the answers to these questions lie in how the relationship between the two is handled domestically in China. By cultivating a better working relationship in China, foreign and Chinese architects may form more strategic relationships abroad. Some large foreign practices and Chinese LDIs have sought to address this matter by acquiring and merging with each other. The rationale being that this would create a multidisciplinary design team that circumvents regulatory restrictions on foreign architects, and is able to collaborate more continuously throughout the design process, to the benefit of design and construction quality. However, this is a short term fix. A reformed regulatory framework, albeit in its infancy, is a more sustainable way forward, with the potential to foster a more levelled playing field where more flexible forms of partnership would emerge, and

consortia of like minded consultants can come together, not by regulatory necessity, but by shared ambition.

7.5.3 Breaking the foreign/Chinese dichotomy

Such developments suggest a breaking down of the duality of 'foreign' and 'Chinese', of 'East' and 'West', of 'us' and 'them'. I would like to argue that to continue to develop models of professional relationship based on this duality maybe a false proposition. The idea that there has been, and therefore always will be, a clear distinction between foreign and Chinese architects, is potentially counterproductive and increasingly inaccurate.

As Chapter Six showed, a new generation of internationally minded Chinese architects are already working in global professional environments. For example, 60% of the employees at Zhang Ke's award winning ZAO/Standard Architecture studio are foreign, and Ma Yansong's practice, MAD, counts among its partners Italian and Japanese architects. Given this, ought foreign firms practising in China not think more critically about their own constitution and attitude towards Chinese employees? One of the biggest issues raised by Chinese graduates considering their professional future in foreign practices is the limits to their career progression, as there is a perception that both senior positions and decision-making powers still reside predominantly with foreign expatriates in China.

In this regard, foreign architects must reflect on their own operational and organisational practices in terms of their Chinese employees at all levels of practice. Having both a critical mass of Chinese architects as employees and Chinese architects in senior decision-making positions are equally important, if they wish to become more engaged with the 'zeitgeist' that preoccupies their Chinese peers.

Simultaneously, this process of becoming more 'Chinese' can also be considered physically and geographically. With the emergence of projects that increasingly demands more contextual knowledge of the site, it will become increasingly difficult for foreign architects to continue to design by proxy, and operate remotely from the comfort of first tier cities such as Shanghai and Beijing. China is a diverse country where climate, geography, cultural customs, and local politics varies hugely from place to place. As

such, it demands locally specific responses from architects, even when clients and briefs may be standard. Rather than the hierarchical model of head office and first tier locations, foreign practices may find value in the creation of a flexible network of office locations closer to where projects are based, where local Chinese staff can be given autonomy to develop local responses to local challenges. Such organisational changes do not come intuitively to foreign practices. While they may entertain the idea of creating field offices closer to their sites, these are often considered as temporary outposts for delivery, rather than part of a long term vision to engage with a particular region. Critically, the hierarchy and structure of international practices are often very formalised and do not lend themselves easily to accepting local autonomy.

At a more fundamental level, foreign architects need to consider how their presence could be underpinned by involvement with architectural research and teaching in China. Teaching would give them an opportunity to engage with the next generation of young architects in China, and gain access to a pool of talented graduates who can help to bridge the gap between the foreign and the local. Meaningful research into the regulatory framework, the emerging demographic changes, and the meaning of sustainability in the Chinese context are all vital issues that should inform the practice of foreign architects and architects in general. Critically, research and teaching would provide a platform for foreign architects to engage in dialogue with their Chinese counterparts and develop an intellectual context within which their work in China and collaborations with Chinese architects can be understood.

This will not be easy. The leading voices within architectural pedagogy are predominantly Chinese, reinforced by the rising international profiles of a new generation of often western-educated Chinese architects. The bureaucracy and political control of educational institutions, language barriers, and the cost-effectiveness of becoming involved in teaching are additional hinderances.

Despite this, the increasing number of international studios at elite institutions taught in English should be an encouraging sign for foreign architects to become more actively engaged in teaching. At the Central Academy of Fine Arts in Beijing, students from Europe join their Chinese

peers in an international studio taught by Chinese and foreign staff who are engaged in both practice and academia in both China and the UK. Research represents another area where foreign architects can make a significant contribution, either through practice-based research, academic research, or by sponsoring and commissioning research, much as AEDAS has done with this thesis.

Ultimately, by reconsidering their positions on human resources, location of practice, research and teaching, foreign architects ought to question the very nature of dichotomy of foreign vs Chinese as a given condition in their practice, and seek to imagine a professional paradigm where these words do not become the only criteria by which the practice is regarded and judged.

Foreign architects have been part of the Chinese architectural production for nearly a century, and their presence has been instrumental in shaping the built environment, the architecture profession, and the wider architectural discourse in China. Their cyclical involvement in China reveals both the fragility of their presence, and the necessity of their contribution. The future of foreign architects in China does not lie in the recovery of the roles they once enjoyed, but in tailoring their offer to the changing needs of the nation, and in so doing discovering new roles that will contribute to a better relationship with their Chinese peers.

APPENDIX 1: INTERVIEWEE MATRIX

AEDAS ARCHITECTS


Keith Griffith
AEDAS


Max Connop
AEDAS


Ken Wai
AEDAS


Greg Farrell
AEDAS


Logan McWatt
AEDAS


Stephen Cheng
AEDAS


William Wong
AEDAS


Kirk Ellis
AEDAS


Karl Chee
AEDAS


Jiang Ping
AEDAS


Chiang Yu-Chieh
AEDAS


Huo Ning
AEDAS


Yue Feng
AEDAS


Ryan Tao
AEDAS


Hailey Qin
AEDAS

OTHER FOREIGN ARCHITECTS


John Van de Water
NEXT


Alessandro Milani /David Chipperfield


Max Gerthel
IFP


Jonathan Weaver
Atkins


Chung Hey Wang
Ex-AEDAS


Siu Karr Yip
ADO


James Lai
RTKL


Qunicy Song
Benoy

PROMINENT CHINESE ARCHITECTS


Chang Yung Ho
Atelier FCJZ


Rocco Yim
Rocco Design


Ma Yansong
MAD


Rosanna Hu
Neri & Hu


Liu Yichun
Atelier Deshaus


Chen Yifeng
Atelier Deshaus

LOCAL DESIGN INSTITUTE (LDI) ARCHITECTS


Liu Xiaoping
Wang Xiaoxiong
LDI


Chen Jianqiu
Tongji LDI


Zhan Xiang
Tongji LDI


Xu Min
Wang Xiaoxiong
LDI

ACADEMICS / TEACHERS / STUDENTS


Li Liang
CAFA


Han Tao
CAFA


Wang Hui
Tsinghua University


Lei Honggang
Taiyuan Univ. of Tech.


Mattew Zhao
HIT Shenzhen


Yang Zhenyuan
Shenzhen University


Jason Tang
HKDI


Carol Leung
HKDI


Students
Tongji University


Students
HKDI


Students
CAFA

DEVELOPER CLIENTS


Francis Deng
Sinolink


Zhang Laiping
Sinolink


Vito Yang
Sinolink


Zhu Jian
Sinolink


Guo Zhen
BRC


Wang Jian
BRC


Qiu Wenzhe
Fosun Property


David Gong
Sino Land


Xi Ayong
iBox Chengdu


Chen Yizhong
Testbed II
Chongqing


Miss Zhang
Vanke Research Centre

STATE PLANNING OFFICIALS

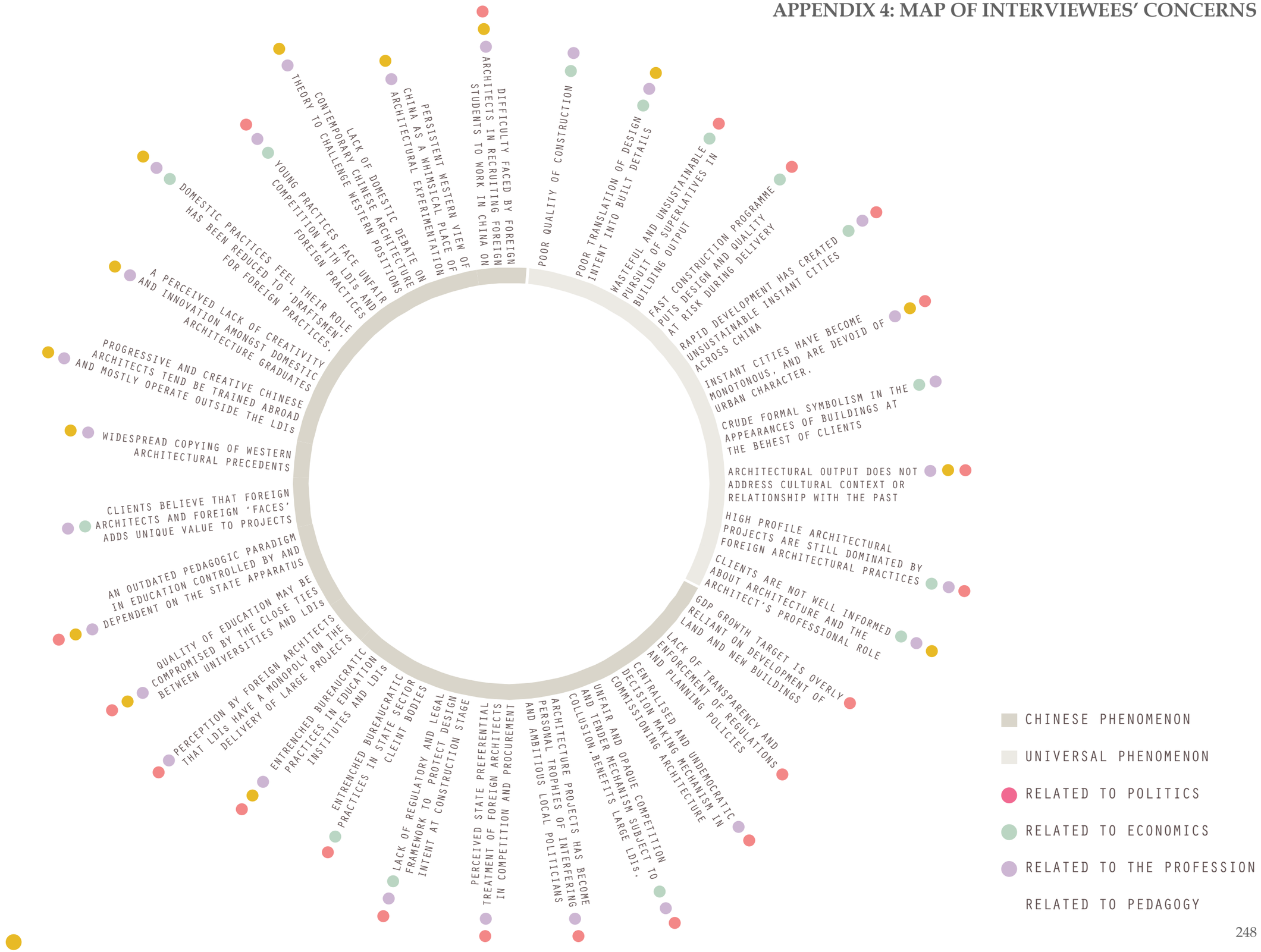

Zhao Youting
Shanxi Dev. & Reform Commission

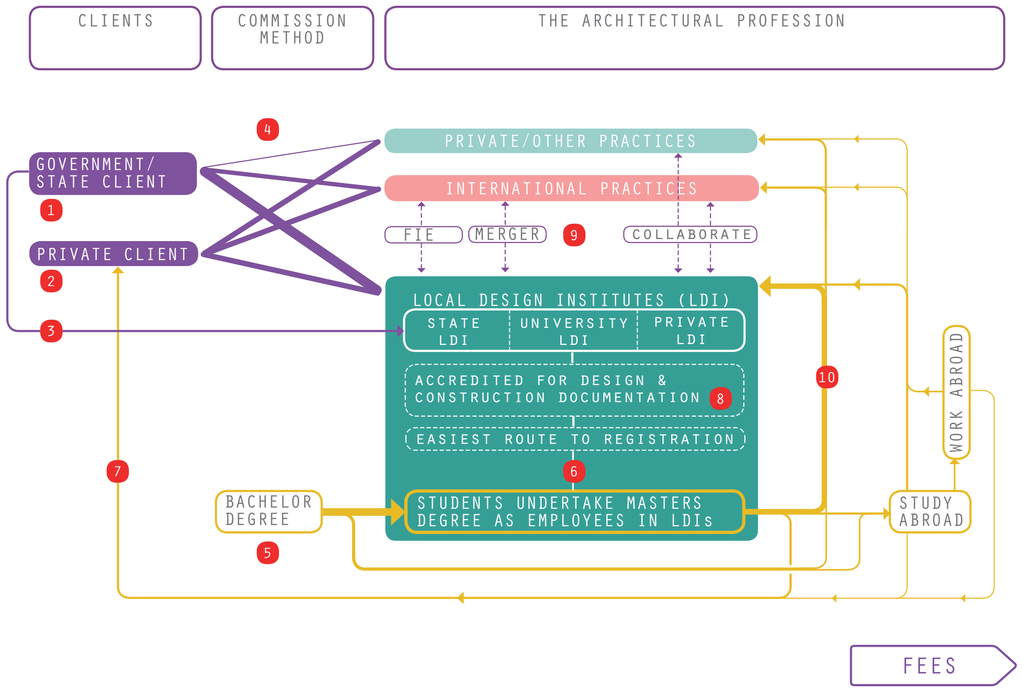

Li Jinsheng
Shanxi Provincial Chief Planner

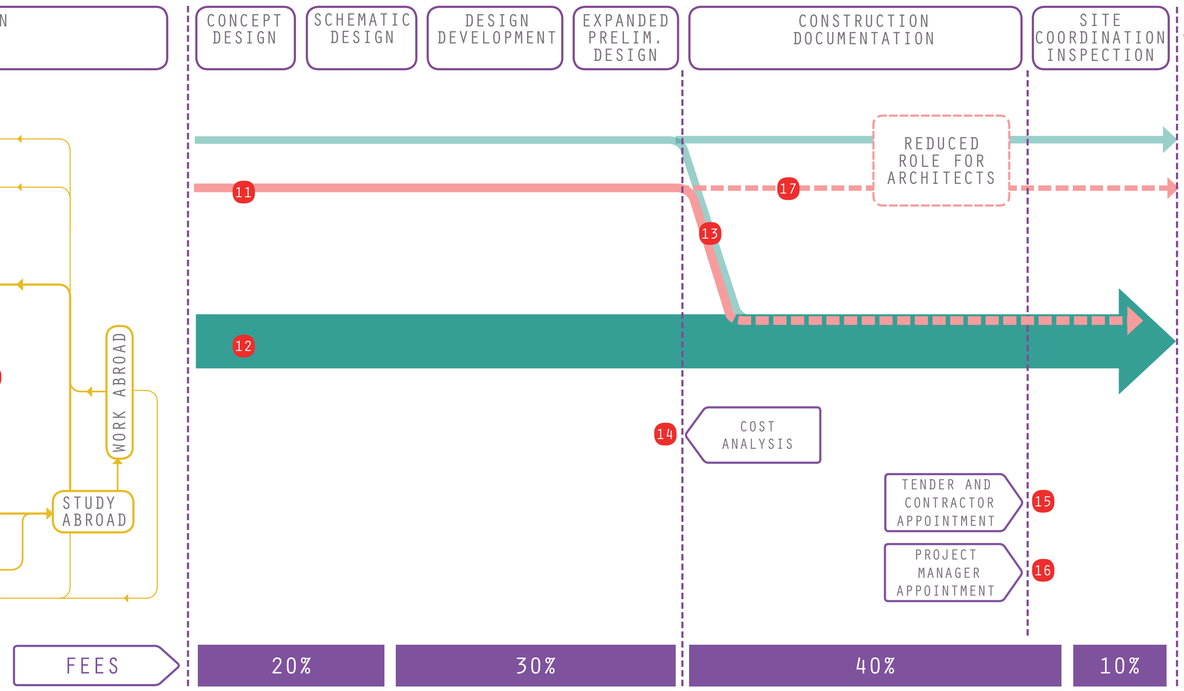
APPENDIX 2: MAP OF FIELD VISITS

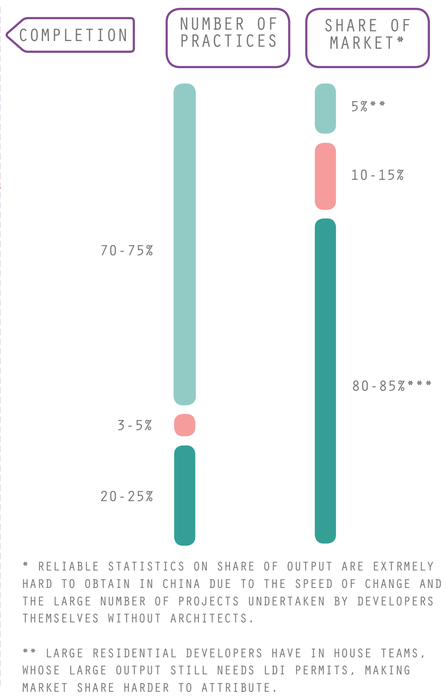
TIMELINE	ECONOMIC SOCIO-POLITICAL CONTEXT	FORMS OF PROFESSIONAL ARCHITECTURAL PRACTICE	CLIENTS	CHINESE ARCHITECTURAL EDUCATION	WESTERN THEORY / WESTERN INFLUENCE	CHINESE ARCHITECTURAL THEORY/STYLE	BUILT PROJECTS
EAST ZHOU 771BC-476BC QIN DYNASTY 246BC-211BC HAN DYNASTY 206BC-220AD TANG DYNASTY 618-907 SONG DYNASTY 960-1279 MING DYNASTY 1368-1644 QING DYNASTY 1644-1912	CONFUCIAN FEUDALISM	MASTER MASON AND APPRENTICES WORKING TO ANCIENT TREATIES	RULERS / NOBILITY RULERS / NOBILITY/ MERCHANTS	*LU BAN JIN* (鲁班经) *KAO GONG JI* (考工记) APPRENTICESHIP SYSTEM & WRITTEN TREATISES *YINGZAO FASHI* (营造法式)	GRECO-ROMAN ANTIQUITY ROMAN ANTIQUITY HAN TOMBS' SIMILAR TO ROMAN TOMBS BYZANTINE ADOPTION OF BUDDHIST PAGODAS ROMANESQUE GOTHIC RENAISSANCE BAROQUE ROCOCO/CHINOISERIE NEO-CLASSICAL YUAN MING YUAN (圆明园)IN THE BAROQUE STYLE	CHINESE CLASSICAL VERNACULAR	PRIMITVE CARPENTRY TOOLS BY LU BAN (鲁班) UH PANG PALACE (阿旁宫) BY THE FIRST EMPEROR (秦始皇) NAN CHAN TEMPLE (南禅寺) JIN CI TEMPLE (晋祠) ZHUOZHENG GARDEN (拙政园) RI SHENG CHANG BANK (日升昌)
WARLORDS ERA 1916-1928 REPUBLIC OF CHINA 1928-1949	SEMI-FEUDAL SEMI-COLONIAL WARLORDISM AND NATIONALISM CAPITALIST NATIONALISM	WESTERN MODEL PROFESSIONAL PRACTICE	WARLORDS/ MERCHANTS GOVERNMENT/ MERCHANTS	BEIYANG UNIVERSITY ARCH. DEPT. 1895 THE BEGINNING OF CHINESE STUDENTS STUDYING ARCHITECTURE ABROAD IN THE BEAUX ART TRADITION NORTHEAST UNIVERSITY ARCH. DEPT. EST.1928 SCHOOLS BASED ON BEAUX ART EST. BY RETURNING ACADEMICS QINGHUA UNIVERSITY ARCH. DEPT. EST.1946 INTEGRATION OF BAUHAUS IDEALS STUDENTS RETURN FROM ABROAD	BEAUX ART/ ART NOUVEAU MODERNISM CONSTRUCTIVISM GOTHIC REVIVAL ART DECO INTERNATIONAL STYLE BUILDING BY COLONIAL POWERS IN WESTERN STYLE	ASSOCIATION MISSION BUILDING 1923 CHINESE NEO-CLASSICAL VERNACULAR SUN YAT SEN MEMORAIL (中山陵)1926-1931 CHINESE ART DECO 1933 SHANGHAI ABBATOIR 1933 SHANGHAI YMCA CHINESE MODERNISM BEIJING UNIVERSITY FEMALE STUDENTS RESIDENCE 1935 CHINESE NEO-CLASSICAL VERNACULAR
PEOPLE'S REPUBLIC OF CHINA 1949- THE GREAT LEAP FORWARD 1958-1960 SINO-SOVIET SPLIT 1960 THE CULTURAL REVOLUTION 1966-1976	COMMUNISM PURGE AGAINST RIGHTIST AND HISTORIC REVISIONISTS 1957	ESTABLISHMENT OF LOCAL DESIGN INSTITUTES (LDIs): PROJECTS ARE CENTRALLY ALLOCATED BY THE STATE, DESIGN ARE FROM AN ESTABLISHED REPERTOIRE OF TEMPLATES, COMPETITION RESTRICTED TO BETWEEN THE LDIs	STATE STATE	REORGANISATION OF HIGHER EDUCATION,ADOPTION OF SOVIET MODEL BASED ON BEAUX ART TRADITION 1952 DISMANTLING OF THE ARTS AND HUMANITIES 1952 FOUNDING OF UNIVERISTY BASED LOCAL DESIGN INSTITUTES (LDIs) DISMANTLING OF THE URBAN DESIGN PROFESSION 1961 CLOSING OF ALL EDUCATION INSTITUTIONS AND PURGE OF INTELLECTUALS STUDENTS STUDYING ABROAD	FOLLOWING SOVIET SOCIALIST REALISM BRUTALISM COMMERCIAL MODERNISM STRUCTURALISM POSTMODERNISM NO EXCHANGE WITH THE WEST	SOVIET NEO-CLASSICISM BEIJING EXHIBITION HALL 1954 CHINESE SOCIALIST 'BIG ROOF' SANLIHE GOVT. COMPLEX 1955 BEIJING TELEGRAPH BUILDING 1956 BEIJING TRAIN STATION 1959 FUNCTIONALISM POLITICAL SYMBOLISM MEMORIAL TOWER TO FEBRUARY 7TH STRIKE IN ZHENGZHOU
ECONOMIC REFORM 1978 CREATION OF COASTAL SPECIAL ECONOMIC ZONES 1984 PRIVATISATION OF LAND 1988 TIANANMEN SQUARE INCIDENT 1989 THE BEGINNING OF LARGE SCALE RURAL TO URBAN MIGRATION 1990S HONG KONG RETURNS TO CHINA 1997 CHINA JOINS WTO 1999 DEVELOPMENT OF WESTERN REGIONS 2000 CHINA WINS OLYMPIC BID 2001 GDP GROWTH RATE RACHES 10% 2003	LDIs STILL DOMINATES THE PROFESSION A FEW FOREIGN FIRMS BEGIN TO WORK IN TO CHINA LDI REFORM PRIVATE PRACTICES BEGIN TO APPEAR MORE FOREIGN FIRMS ENTER THE MARKET	STATE PRIVATE DEVELOPERS STATE STATE OWNED ENTERPRISES PRIVATE DEVELOPERS	RESTORATION OF UNIVERSITY ENTRANCE EXAMS 1977 RESUMPTION OF BEAUX ARTS CURRICULUM RESTART OF STUDENTS STUDYING ABROAD CLIMAX OF ACADEMIC FREEDOM AND CREATIVE OUTPUT IN THE ARTS IN MID 1980S UNIVERSITY DESIGN INSTITUTES JOINS MARKET ECONOMY AND BECOME PROFIT DRIVEN INCREASED INTAKE OF CHINESE STUDENTS IN FOREIGN INSTITUTIONS STUDENTS STUDYING ABROAD	METABOLISTS CRITICAL REGIONALISM HIGH TECH ENVIRONMENTALISM DECONSTRUCTIVISM PARAMETRICISM STEADY RETURN OF OVERSEAS STUDENTS COPYING OF WESTERN ARCHITECTURE PROJECTS DESIGNED BY FOREIGN ARCHITECTS 1982-PRESENT DAY	FRAGRANT HILL HOTEL (香山饭店)1982 CHINESE HISTORICISM BEIJING DA GUANYUAN GARDENS (大观园)1984 HONG KONG HSBC 1985 CHINESE NEO-VERNACULARISM BEIJING LIBRARY SOUTH WING 1987 INTERNATIONAL STYLE SHANGHAI CENTRE 1990 ORIENTAL PEARL BROADCAST TOWER 1994 CHINESE POSTMODERNISM BEIJING WEST RAILWAY TRAIN STATION 1996 JIN MAO TOWER 1999 AI WEIWEI'S HOUSE 1999 LU YE YUAN 2001 CHINESE CRITICAL REGIONALISM VILLA SHIZILIN 2004 XU LI JIANG HOUSE 2005 NINGBO MUSEUM 2008 BIRD NEST STADIUM 2008 CCTV HQ TOWER 2008 FAKE HALSTATT 2012 KITCHE PASTICHE AND IMITATIONS MEIQUAN 22 CENTURY 2013 GALAXY SOHO 2013 CHINESE PARAMETRICISM FAKE HILL HOUSING 2013 CHINESE MODERNISM LONG MUSEUM 2014 MICRO HUTONG 2016
BEIJING OLYMPIC 2008 GLOBAL FINANCIAL CRISIS 2009 SHANGHAI EXPO 2010 XI JINPING BECOMES LEADER XI JINPING PROCLAIMS 'NO MORE WEIRD ARCHITECTURE'2014 ECONOMIC NEW NORMAL 2014 RISE OF 'ANT CLASS' AGEING POPULATION PRESENT	FLOURISH OF FOREIGN PRACTICES LDIS CONSOLIDATE RISING PROFILE OF PRIVATE CHINESE PRACTICES	INFORMED PROFESSIONAL DEVELOPERS EMERGENT MIDDLE CLASS	FOREIGN TRAINED CHINESE ARCHITECTS BEGIN TO TEACH IN CHINA WANG SHU WINS PRITZKER PRIZE IN 2012				

APPENDIX 4: MAP OF INTERVIEWEES' CONCERNS









* RELIABLE STATISTICS ON SHARE OF OUTPUT ARE EXTRMELY HARD TO OBTAIN IN CHINA DUE TO THE SPEED OF CHANGE AND THE LARGE NUMBER OF PROJECTS UNDERTAKEN BY DEVELOPERS THEMSELVES WITHOUT ARCHITECTS.

** LARGE RESIDENTIAL DEVELOPERS HAVE IN HOUSE TEAMS, WHOSE LARGE OUTPUT STILL NEEDS LDI PERMITS, MAKING MARKET SHARE HARDER TO ATTRIBUTE.

*** THE TOP 30 LDIs GENERATED AT LEAST 45% OF THE TOTAL INCOME IN THE PROFESSION IN 2010, CURRENT FIGURE IS BASED ON THIS PROJECTION.

1. DEVELOPMENT PROJECTS AND ARCHITECTURAL DESIGNS ARE SUBJECT TO POLITICAL INFLUENCE BEYOND THE REGULATORY FRAMEWORK, AS BUREAUCRATS AND POLITICIANS USE ARCHITECTURE AS TOOL OF POLITICAL POINT. NEPOTISM,GRAFT AND CORRUPTION ARE ALSO PROBLEMS THAT IMPACT ON THE DESIGN AND DELIVERY OF BUILDINGS.

2. MANY NEW CLIENTS ARE NOT WELL INFORMED ABOUT CONSTRUCTION AND ARCHITECTURAL DESIGN, OR THE PROFESSIONAL ROLE OF THE ARCHITECT

3. THE RELATIONSHIP BETWEEN THE STATE AND LDIs ARE NOT TRANSPARENT, EVEN AFTER PRIVATISATION EFFORTS TO TURN LDIs INTO SHAREHOLDING COMPANIES, CONNECTIONS WITH THE GOVERNMENT MEANS THE LDIs CONTINUE TO RECEIVE PREFERENTIAL TREATMENT

4. STATE SECTION PROJECTS TEND TO FAVOUR LDIs. TENDER AND COMPETITION MECHANISMS ARE NOT TRANSPARENT, SUBJECT TO ABUSE. SOME COMPANIES PRODUCE MULTIPLE BIDS WITHIN THE SAME TENDER PROCESS TO SATISFY COMPETITION PROTOCOLS.

5. STUDENT FEEL THE 5 YEAR UNDERGRADUATE EDUCATION MAY BE TOO LONG AND OFTEN SEES THIS AS IRRELEVANT IN THE FACE OF THEIR EXPOSURE TO THE BUSINESS OF PRACTICE WITHIN THE LDI SYSTEM DURING THEIR EDUCATION

6. MOST POSTGRADUATE MASTERS DEGREES ARE UNDERTAKEN AS WORK PLACEMENTS WITHIN THE LDI AS EMPLOYEES UNDER TUTORS WHO ARE ALSO EMPLOYED AS ARCHITECTS AT THE LDI. SUCH APPRENTICESHIP EDUCATION FORMAT IMPROVES STUDENT'S PRACTICAL AND TECHNICAL KNOWLEDGE, BUT IS GEARED TO TRAINING TECHNICAL LABOUR FORCE AND DISCOURAGES INDEPENDENT THINKING, CREATIVITY, AND ACADEMIC CONTEMPLATION.

7. AN INCREASING NUMBER OF GRADUATES ARE DIRECTLY WORKING FOR DEVELOPER CLIENTS INSTEAD OF JOINING THE PROFESSION,ATTRACTED BY HIGHER SALARIES AND HIGH PROFILE POSITIONS

8. ONLY LDIs HOLDS THE ACCREDIATIONS TO UNDERTAKE CONSTRUCTION DOCUMENTATION AND SUPERVISION. THIS HAS PROVED TO BE SOMEWHAT OF A MONOPOLY OR BOTTLE NECK TO MARKET ACCESSIBILITY BY FOREIGN DESIGN PRACTICES AND EVEN LOCAL PRIVATE PRACTICES. THIS ALSO BREEDS COMPLACENCY AND BUREAUCRACY, AS LDIs AND THEIR REGISTERED ARCHITECTS SOMETIMES RENT OUT THEIR CREDENTIALS FOR MONETARY GAINS.

9. THE WAYS IN WHICH FOREIGN FIRMS INTERACT WITH LDIs ARE CHANGING AND BECOMING MORE DIVERSE. COLLABORATIONS, CONSULTANCY (WFOE), JOINT VENTURES (FIE), AND MORE RECENTLY INTERNATIONAL FIRMS HAVE ACQUIRED LDIs AND VICE VERSA. HOWEVER, THE ABILITY TO CONTROL CONSTRUCTION STAGE DESIGN FORMALLY AND CONTRACTUALLY IS STILL DIFFICULT FOR FOREIGN PRACTICES

10. GRADUATES WHO UNDERTAKE MASTERS WITHIN THE LDI SYSTEM ARE STRONGLY MOTIVATED TO GAIN EMPLOYMENT WITHIN THE LDI SYSTEM, THROUGH THEIR EARLY EXPOSURE, AND THE POTENTIAL FOR JOB SECURITY, SOCIAL STATUS, AND HIGHER SALARIES, ALL OF WHICH ARE OF EQUAL IF NOT MORE IMPORTANCE THAN DESIGN AMBITIONS.

11. FOREIGN PRACTICES WILL HAVE TO BECOME MORE COMPETITIVE AS CHINESE PRACTICES :

1.HAVE BECOME MORE INNOVATIVE AND CREATIVE.

2.HOLDS THE ACCREDITATIONS TO TAKE A PROJECT THROUGH TO COMPLETION,

3.LANGUGANGE AND CULTURAL BARRIER STILL EXIST FOR FOREIGN PRACTICES AND CLIENTS ARE LESS IMPRESSED BY THE NOVELTY OF FOREIGN PRACTICES

12. LDIs ARE STILL UNDER PRESSURE TO MEET THE VOLUME AND SPEED OF DEMAND IN CHINA'S CONSTRUCTION INDUSTRY. THEY ARE ALSO COMPETING WITH FOREIGN PRACTICES IN 2ND, 3RD AND 4TH TIER CITIES.

THEY ARE STILL LARGE,AND BUREAUCRATIC ORGANISATIONS EMPLOYING LARGE NUMBER OF PEOPLE, PROFIT AT TIMES OUTWEIGHS INNOVATION ON THEIR AGENDA. COLLECTIVELY THESE FACTORS HAVE A NEGATIVE IMPACT ON THE QUALITY OF THEIR OUTPUT.

13. FOREIGN PRACTICES MUST HAND OVER CONTROL OF CONSTRUCTION DOCUMENTATION TO LDIs,AFTER THIS POINT THEIR APPOINTMENT WITH THE CLIENT OFTEN ENDS AND AT BEST THEY ARE ONLY ABLE TO PROVIDE LIMITED CONSTRUCTION SERVICES,WITH NO CONTRACTUAL ADMINISTRATION POWERS OVER LDIs,COSTS,AND CONSTRUCTION QUALITY. AS SUCH FOREIGN ARCHITECTS ARE UNABLE TO SAFEGUARD THEIR DESIGN FROM CLIENT, LDI, OR CONTRACTOR INITIATED CHANGES

14. PRELIMINARY COSTING TAKING PLACE POST HANDOVER TO LDIs MEANS THAT THE ARCHITECT'S ROLE IN TENDER NEGOTIATION AND VALUE ENGINEERING IS CURTAILED. THERE IS ALSO A INVOLVEMENT OF PROFESSIONAL QUANTITY SURVEYOR SERVICE AT EARLIER STAGES PRIOR TO HAND OVER TO LDI.

15. CONSTRUCTION COMPANIES IN CHINA STILL HAVE A LARGE NUMBER OF UNSKILLED LABOUR IN THEIR WORKFORCE, LESS INFORMED ABOUT MODERN CONSTRUCTION MATERIALS, PRODUCTS, TECHNOLOGIES AND DETAILS. THIS CONTRIBUTES TO A LACK OF CRAFTSMANSHIP ON SITE.

16. PROJECT MANAGERS ARE OFTEN SEPARATELY APPOINTED PRIOR TO START ON SITE BY THE CLIENT TO SUPERVISE CONSTRUCTION PROGRESS. THEIR PRIORITY IS ON COST AND THEIR CONTRACTUAL RELATIONSHIP WITH THE CLIENT MEANS THEY HAVE NO OBLIGATIONS TO THE ARCHITECT, DECISIONS TO CHANGE THE DESIGN WITHOUT INFORMING THE ARCHITECT,OR EVEN THE CLIENT ARE OFTEN MADE IN THE NAME OF COST AND PROGRAMME.

17. DESIGNS OF FOREIGN ARCHITECTS OFTEN DO NOT ANTICIPATE THE IMPACT OF LOCAL REGULATIONS ON THEIR CONCEPT DESIGN AND THE REALITY OF WHAT'S ACHIEVABLE ON SITE, CONTRIBUTING TO A 'BRITTLENESS' OF DESIGN THAT BECOMES DETRIMENTAL AFTER HANDOVER TO LDIs. THIS IS ALSO ONE OF THE MOST COMMON COMPLAINTS FROM LDIs.

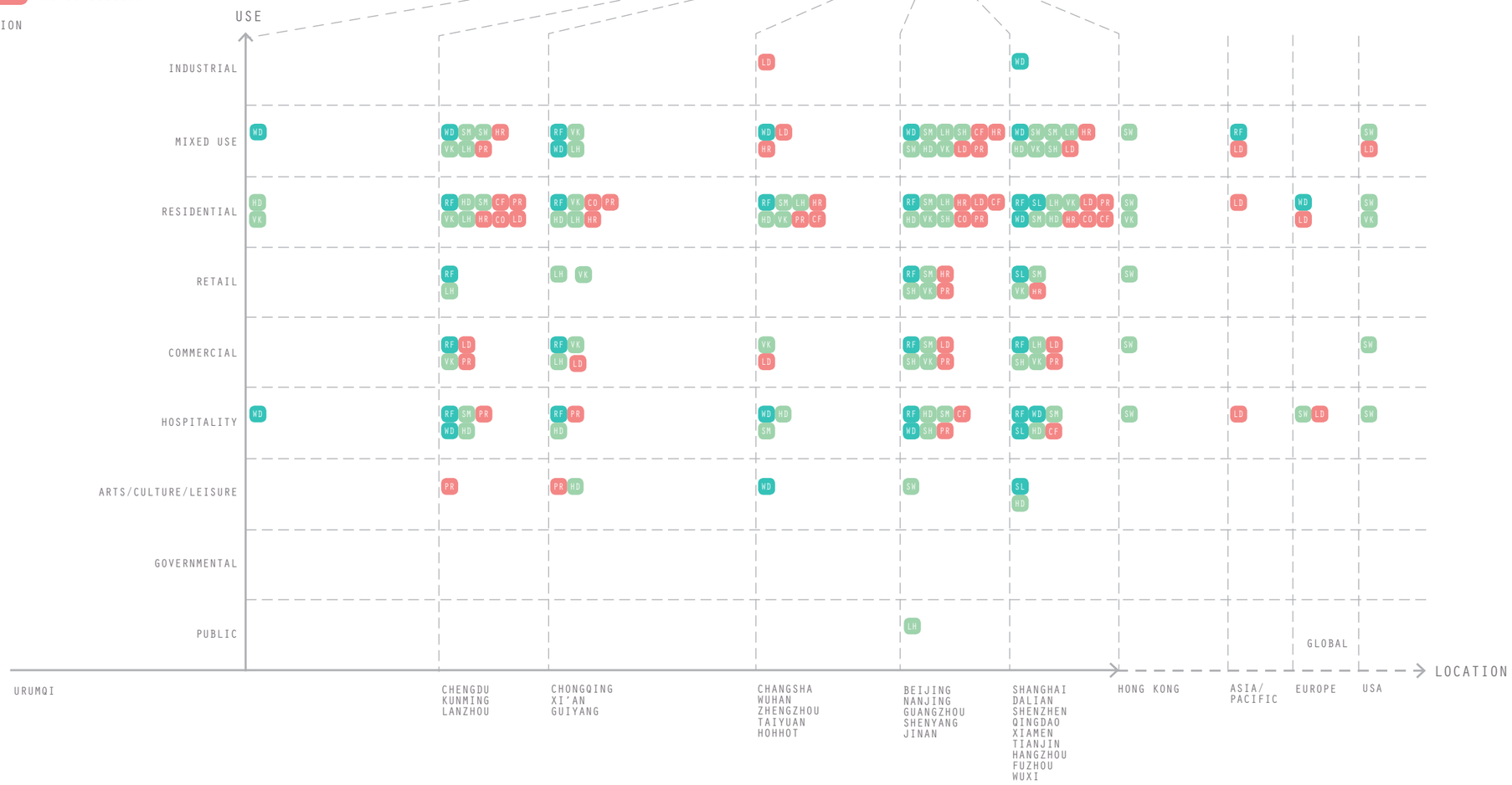
APPENDIX 6: CHINESE DEVELOPERS MATRIX

KEY

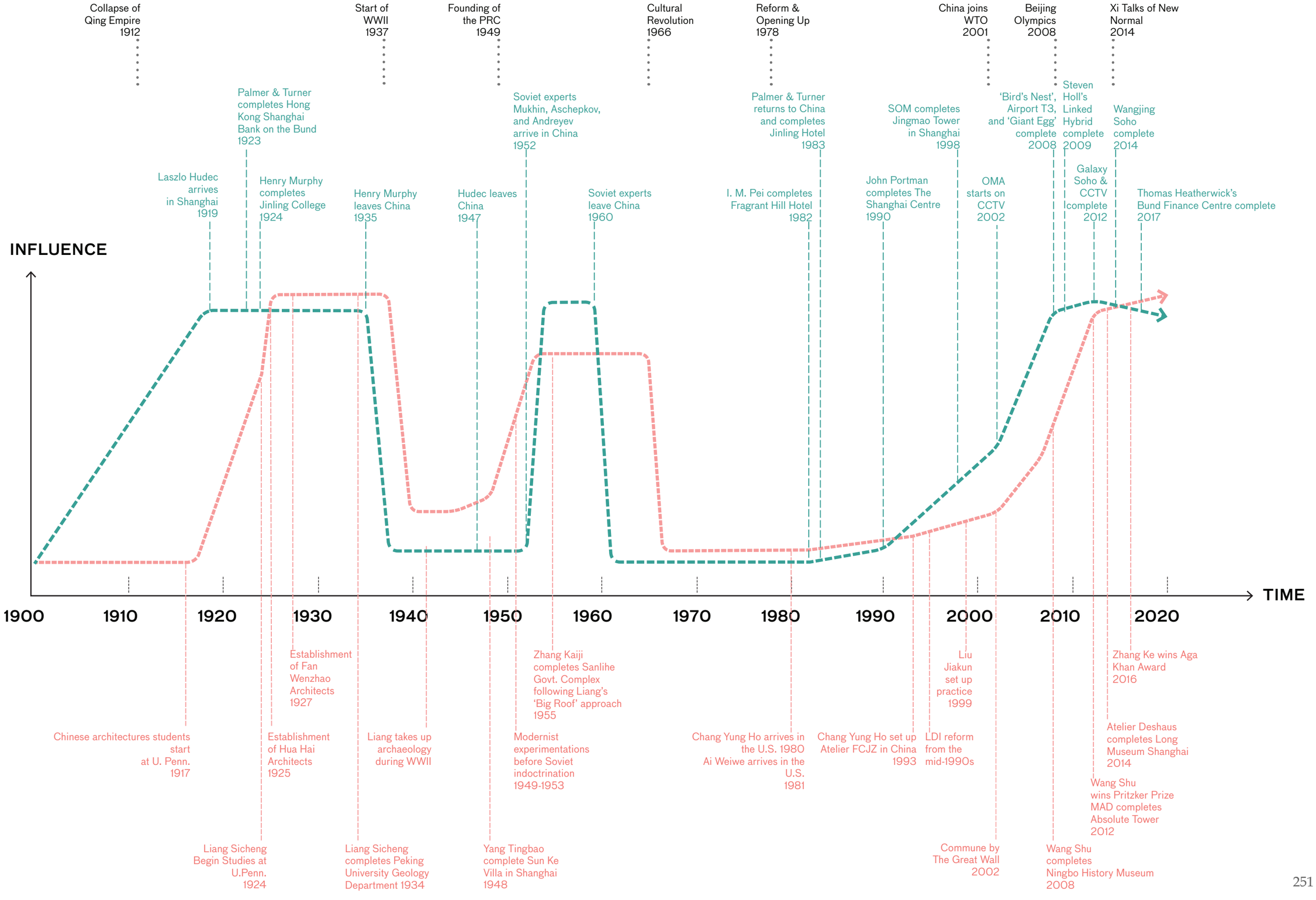
- XX PRIVATE COMPANY
- XX PUBLIC LIMITED COMPANY
- XX STATE ENTERPRISE
- DEVELOPERS WITH IN-HOUSE DESIGN DEPARTMENT

REAL ESTATE DEVELOPERS BY SALES VOLUME IN 2012-2013

- RF R&F 富力 RMB 42 BILLION
- WD WANDA 万达 RMB 126 BILLION
- SL SINOLINK RMB 0.4 BILLION
- SW SWIRE RMB 10 BILLION
- SH SOHO CHINA RMB 23 BILLION
- SM SHIMAO 世茂 RMB 46 BILLION
- LH LONGFOR 龙湖 RMB 40 BILLION
- HD EVERGRANDE 恒大 RMB 92 BILLION
- VK VANKE 万科 RMB 142 BILLION
- HR CHINA RES.LAND 华润 RMB 52 BILLION
- LD GREENLAND 绿地 RMB 105 BILLION
- CO CHINA OVERSEAS 中国海外 RMB 64 BILLION
- PR POLY REAL EASTATES 保利 RMB 98 BILLION
- CF COFCO 中粮地产 RMB 50 BILLION



APPENDIX 7: CONCEPTUAL DIAGRAM OF CYCLICAL RELATIONSHIPS



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