Introduction

Shanghai – China's largest city – is strategically situated along the banks of the Yangtze River. Once serving as a major Treaty Port, Shanghai represents China's colonial legacy as well as the point of origin for the country’s recent phenomenal economic growth. Its relatively short urban history sprang to life in the late 19th century when the arrival of European and American investors created an influx of capital and expertise. After 1949, Shanghai was transformed into a centrally-planned industrial powerhouse. It was not until 1978's Open Door Policy that Shanghai's potential as a gateway to wealth and modernity started to emerge. Today, this topographically flat city accommodates some 15 million people (which continues to float) within an area of two thousand square miles. Shanghai’s gross domestic income is higher than that of Beijing, and its growth rate is higher than China’s national average. The Pudong New Development Zone, where the Lujiazui CBD is located, opened for business in 1992. This area serves as a portrait of a modern China for the rest of the world, appearing in mainstream media, most notably in 2006’s Mission Impossible 3. As a city with unabashed global ambitions, Shanghai has been among the fastest growing cities in the world, especially during the last decade of the 20th century. Although Shanghai’s population growth has slowed considerably since 2000, the city is still expanding, chasing Bangkok as the consumer-driven cosmopolis of Asia.

Shanghai’s rapid population growth, driven primarily by immigration from other (more rural) parts of China and made possible by a relaxation of the hukou system has had unforeseen consequences on urbanism and urban form. In addition to Deng’s Open Door modernisation the progressive politics of Shanghai’s local government enabled the rise of these consequences. The unique sensibility of the Chinese, nurtured by the pragmatism of its integration of socialist market principles along the lines of national characteristics, further enabled change to take place. Yet, Shanghai’s Pudong area ultimately owes its existence to the soft cultural infrastructure of Shanghai’s cosmopolitanism and its facilitation of the city's heterogeneous nature. It seems like architecture and urban form are, and will continue to be, utilised as tangible representations of the city’s expected growth – the physical articulations of the perceptions of global progress. This paper aims to present a series of observations identifying its rationale, pointing out the conditions that not only underlay the making of this urban complexity, but also characterise the reality of the city.

It is first useful to understand the goals of the city as underpinning the specific ‘cause’ that transforms its physicality. Can Shanghai really be the global metropolis for the 21st century? The answer to this question lies in how ‘global metropolis’ is defined and what is to be expected from it. According to Saskia Sassen, a global city is ‘an urban space with new economic and political potentialities, which formulates the transnational identity and communicates … connecting sites that are not geographically prox-
imate yet are intensely connected to each other'.

By this measure, even without advanced technologies, Shanghai has always been a global city. The definition of a ‘global 21st-century’ city, however, is ambiguous, although it can be thought of as a future of free-market competition. In this sense the extensive Chinese workforce can also be added to the equation. In order to achieve the goal in a theoretical sense, the development of Shanghai’s urbanism corresponds to the parameters of a compact urban place that provides the soft cultural infrastructure, the organisational structure that allows diverse architectural cultures to represent different cultural norms while still maintaining their representational integrity by means of architectural and urban orderings. The integrity of ‘form’, or urban identity, is required to establish a tangible perception to which everyone can relate. The result of this process is the making of a cosmopolitan city that can compete in a globalised economic context.

**Urbanism and urban form**

An aerial view of Puxi, which faces Pudong across the river to the west, reveals a series of high-rise commercial towers and highways that are superimposed on the old fabric of lilong, low-rise row houses adapted from the Western tradition to accommodate the families of Chinese workers. The stark contrast between low-rise lilong houses and corporate high-rises is primarily a result of lax (and/or absent) zoning practices and height restrictions at the beginning of Deng’s economic reform.

As polar opposites of urban form – old low-rise fabric and the new high-rise buildings – the current fabric creates a problematic discourse between old forms of inhabitation and the new corporate culture. Whereas the gridiron structure and the fabric of existing lilong houses could have been used by contemporary developers as cultural elements upon which to expand, they were instead considered as obsolete and, as such, prime targets for demolition.

What epitomises this perspective is Charpentier’s Century Avenue, Lujiazui’s main spine. The false premise of the avenue begins with the determination of its width to be exactly ‘one metre wider than the Champs Élysées’ in order to denote the triumph of the making of this physically significant urban element. Its penetration through the diagonal super block of parallel housing in Pudong creates irregular plot shapes. The programming and anticipated use of the space in Pudong has never been made clear. Although the Municipal Planning Bureau has developed comprehensive zoning regulations and infrastructure plans, the District Authority Control’s process of refining those plans with respect to the particular district’s details, i.e. Floor Area Ratio and coverage, results in a changing of urban form. Moreover, when the plan comes down to the Controlled Detailed Planning Section, whose job it is to execute decisions, grant permission for buildings, and regulate the formal quality of each plot, a series of performative rules and regulations redefine the final form of the physical design without taking into consideration any of the original planning attempts. In other words, there is no central organisation that gives a comprehensive overview of planning for the three planning units, working independently from above.

So, if we compare the proposed Avenue to its built reality, the continuous platform of buildings along its length is absent. Charpentier designed Century Boulevard to be the primary component that gives an appropriate scale to the streets in order to facilitate interaction at the base of the buildings before getting into the super high-rise buildings. If the plan had been faithfully executed, it could have created a reasonably strong urban characteristic. In Lujiazui, however, not only is the ground that mediates the perpendicular change missing, but the arbitrary execution of its open space is also disruptive to any sense of coherence, conjuring instead a monotonous experience in urban space [figs.1 and 2].
Fig. 1: Century Avenue, as originally designed by Arte, Jean Marie Charpentier et Associés. Image: Shanghai Planning Museum, Shanghai, P.R.China
Fig. 2: Century Avenue in reality. Photograph by Peter G. Rowe.
of a lack of development at the pedestrian scale, which might have something to do with the attempt to make Lujiazui into another Manhattan. Yet, while downtown Manhattan’s dense skyscrapers are absorbed within the grid, and its lively street life directed by the hyper-dense environment of a financial-scape, Pudong’s skyscrapers stand out as scattered markers of individual buildings. The substantial distances between the buildings, between the building and the open space, and between the building and the pavement creates a lifeless street scene, almost depriving the city of its exuberant life. While these actions have served to order the amalgamation of the city’s urban form, in practice they have overlooked a more important concern about the social stratification of a newly developed urban place – the issue of politics in the making of a civic reality.

Urbanism and building imagery

Confronted by a jungle of glittering high-rises reminiscent of a science-fiction movie, visitors to Shanghai might easily come to the conclusion that it is a very rich city. Yet these buildings are far from being fully occupied, and thus from this perspective, the tall buildings in Lujiazui become purely symbolic. The decision to position a handful of iconic skyscrapers side by side as a means of visual competition with other dense cities in the West is telling. The original master plan called for some skyscrapers to be grouped together in the heart of the CBD, while other high-rise buildings were to be scattered randomly on both the eastern and western sides of Century Boulevard. Such a distribution would have accentuated the role of the towers as signifiers explicitly reinforcing an instant identity. These skyscrapers do for Shanghai what the Eiffel Tower does for Paris. As Roland Barthes puts it, not only does built form generate meanings that constitute the conception of the city, but the impact of the materialisation of ideas also prompts the creation of a new civic realm. The idea of making a great cityscape consisting of high-rise buildings and monumental elements is essential in the making of Lujiazui. Yet, this district’s tall buildings were not built to satisfy the need for vertical expansion due to any lack of horizontal space, rather they were built for the purpose of generating monumental symbolic value. The monumentality of these urban elements are the unsubtle evidence of the actions taken by municipal government, and fulfilled by the developer and designer, in the making of the particular ‘form’ that recalls the patriotic past of China. It is not surprising that their pragmatism would lead to the easiest way of establishing a level economic playing field, if not a superior economic playing field, by building the highest skyscrapers: the players being Shanghai’s competitors seeking global-city status.

This is evident from the attempt by Shanghai’s authority, and its development partner, to make the Jin Mao Tower and the World Financial Centre the tallest buildings in the world, and to be located in the Lujiazui master plan. Both designs come from elite American architectural firms, and are programmed to be mixed-use developments, consisting of office space, hotel rooms, conference halls, observation decks, with shopping complexes on their ground floors. For the Jin Mao Tower, the upper part of its trunk is simply an ultra-high atrium surrounded by the corridors of hotel rooms, wrapped by a curtain-wall skin. The elevation of the building to that extreme height is an obvious manifestation of monumentality. Considering that labour in China is inexpensive, the construction of both these buildings does not require as much financial investment as would have been the case if they were to be erected in America or Europe.

The semiotic quality of both buildings is obviously intended in yet another manner: the local expressive references and the deliberate acquisition of visible symbols of progress. It is as if their building is concrete proof of the ability to match Western architecture style in height and grandeur, while simultaneously leaving a unique indelible mark.
The 88-story high Jin Mao Tower was designed to resemble the ancient Kaifang pagoda (the legendary 11th-century Chinese brick pagoda in Henan province) to instil a sense of nationalism in the local population. The design of the 460-metre tall World Financial Centre has been the object of debate over the abstract connotations of the circular void on the top of the building. This, by chance, hit on a sensitive issue between China and Japan. The New York Times journalist Howard French comments:

*The representative of Mr. Minoru Mori [one of Japan’s foremost real estate developers who funded the building of the World Financial Centre] gamely protested that the circle with the sky ride was based on a traditional Chinese symbol – the moon gate – but in the end they quietly backed down, replacing the hole with a squarish slot.*

Also, even after the design had been finalised, some ten to twenty additional floors were added to the building. This is because the clients demanded that the building be not only a World Financial Centre, but also the world’s tallest building. The confidence of modern Chinese capitalism was confirmed in the making of ‘form’ – the envelope that uses the marvel of engineering technology.

What this perspective evokes is not the uniqueness of urban semiotics in Shanghai, but the certain way in which high-rise buildings are pre-conceptualised with a simple inference of power manifestation at work.

**Urbanism and streetscapes**

The skyline iconography makes one wonder how people on the street experience it. Leaving aside the issue of mimicking Manhattan, since we cannot assume the planner of Lujiazui had in mind the necessity of socialisation at the pavement level, one can conclude that the streets in Lujiazui are not efficiently used given their excessive width. Century Boulevard has eight traffic lanes, one traffic island, four bicycle lanes (two each way), and two pavements that are as wide as the traffic lanes, all comprising a total width of more than 330 feet. All the streets that branch off the Boulevard are half this width. The district is not dense, hence the public activity encouraged by urban theorists such as Jane Jacobs does not exist. This problem has been observed by the Shanghai municipality, which has since retrofitted the pavements by embedding them with a series of pocket landscape parks in order to humanise their size.

Despite the fact that Lujiazui is deserted at first glance, what might shed light on the situation is a comparison between the condition of streets in Lujiazui and ‘pre-Lujiazui’ Shanghai. Street life is fostered by human-scale elements (both planned and ad hoc) corresponding to the nature of the dwellers’ norms of inhabitation. This observation takes the methods by which the street was functionally and culturally conceived in pre-Lujiazui Shanghai as a point of reference. Prior to the development of Pudong in the early 1990s, Pudong was basically an undeveloped territory with scatted permanent settlements. To understand the interaction between architecture and the urban form in terms of how its people perceive their city, it is essential also to look at how streets in Puxi have historically formed and performed over time.

In 1930’s Puxi, the main interactions between the building and the street were business transactions. Pavements served as the mediation. Beyond the mediating pavement, however, labour activities, as well as various modes of transport, were taking place. There were always Chinese labourers loading and unloading cargo from ships, pulling rickshaws and, waiting for customers, walking along the street hoping to get itinerant employment. The Bund was usually crowded, but it was never overcrowded, since the major public and commercial spaces were located in the inner parts of the city, in the foreign settlements. One of the most fashion-
able vistas was from the top of a building on the West Bund, looking down to a street that curves to the east. Here, the Custom House and the Bank of China were the monumental landmarks. Five modes of transportation were used on the Bund, according to the status of the passengers: foot, bicycle, rickshaw, tram, and car. In contrast to the streets of the Bund, the streets of Lujiazui are confined to a single narrative. While the Bund embraced energetic street dynamism by its functioning as a reception point and travel corridor, Lujiazui streets are usually empty and deserted, illustrating the complete failure to relate the scale of the building to the scale of the pavement. The size of streets in Pudong is not defined by prevailing modes of transportation or commercial requirements; instead, it is demarcated by a political agenda: to convey monumentality that helps to reinforce a sense of nationalism.¹⁷

Urbanism and the visualisation of the skylines
Both skylines, facing each other across the river, are important icons of this former Treaty Port city. The similarity between the two is that the images of both are meant to display the expectant future of this urban place. For the Bund, it was the commercial value of individual business on the Treaty Port's shore, which the appearance of a Western environment could reinforce. The making of the Bund skyline comes from an internal need: the need for visual representation using built form was necessitated by the establishment of the various external cultures that existed in Shanghai from the opening of the Treaty Port. In contrast, the visual representation of Pudong is a result of an external push. As the Bund is a linear corridor, the appearance of the building is vividly experienced as a panorama – the height of a building is not as important as the degree to which it can be seen from afar; a building can be clearly perceived no matter where the viewers are. But for Pudong, with a setting that spans the large urban space, the height and size of buildings are essential, which is why the planning of Pudong favours high-rise buildings. Though specifically designed for effect, their effect is weaker than that of the ad hoc Bund.

In Kevin Lynch’s terms, this understanding resonates with the ‘pre-conceived imagery – something to which the observer can relate by virtue of its spatial relations to the observer.’¹⁸ The Bund is a skyline that allows both visual and physical interactions between the city and its people, for the image one sees and the physical interactions with the buildings are firmly reinforced by its inhabitable quality. Pudong’s skyline, however, is relatively abstract. Not only is the composition of the Pudong skyline too complex to be perceived comprehensively (only outlines and gestures are expressed through visuals), but the human scale is also lost in the overwhelmingly vast and pedestrian-unfriendly planning of its public space. For instance, Century Avenue is too wide given the height of the surrounding buildings, and its lack of public functions. Considering the vastness of the space unrelated to Everyman’s sense of scale, it is difficult to imagine how a person would be able to coherently conceive and remember the physical space by its urban characteristics. Yet, Pudong is not without living beings. Coming up from a subway station, visitors encounter the lack of directional indicators; they might not even have any clue that they have arrived in Pudong. Despite the clarity of Pudong’s high-rise buildings when viewed from the Puxi shore, they do not help to orient people because they are placed arbitrarily in the vast concrete landscape of Lujiazui, which does not enable visitors to relate themselves to anything familiar. Then, as they start to walk from the Oriental Pearl Tower, at the north-western end of Century Avenue, to Lujiazui Park, the area’s central park, it takes fifteen minutes. The distance between these vertical and horizontal icons of the city is more than enough for the impression of the monumentality of the vertical to disappear and to be replaced by the flatness of the horizon without a single remnant of the mental image of the city. The size of the Avenue and the location of the buildings do fulfil the intended
political posturing, but the overwhelming scale fragments any visual effect.

The much-celebrated image of Pudong is apparent only when viewed from a distance. Regarding its principal connotation of progress by means of built form, Pudong needs the entire environment. While the Bund does not need a major iconic building to define its symbolic significance, the image of Pudong is dominated by the unorthodox appearance of the ‘Pearl’, the pagoda-shaped skyscraper, and the series of modern reflective-skin buildings. The inevitable emergence of modern and contemporary building typologies disturbs the cultural identity and the way in which people conceive their meanings. Both the Bund and Pudong are case studies of how complicated uses of architecture as visuals in a city construct meaning vis-à-vis global narrative. Notwithstanding the tradition of naively mimicking skylines, because ‘Manhattan has many skyscrapers’, the fact that they are really ‘assembling’ it without a thorough understanding of their own need is critical. This causes new cities to look like one another. A fact re-asserted by The Economist: ‘No wonder that swathes of Seoul look like swathes of Shanghai. Even the most ambitious buildings, many designed by trophy architects who flit from one country to the next, often seem alien to their environs.’

Whether they fail or not, it is certain that they are trying to convey to the world their own messages of monumentality in service to a larger agenda of the identities of power. Observed by Jennie Chen: ‘It [Shanghai] has been torn asunder by colonialism, war, political exhaustion, economic ebbs and flows, and social implosions. Yet look at it now; it is spectacular by all visual standards.’

Conclusion
The selling point of Shanghai’s tourism in the early twentieth century was the elegant image that replicated Western neo-classical styles. The insistent focus on the monumental, iconic representation of Shanghai consistently obscured its human scale, especially the sense of inhabitation of the city. Historically, the Bund was on the tourist map because of its iconographic nature. Its accommodation of many intruding cultures did not succeed in mediating between tradition and modernity, but rather inclined toward abrupt representations of external cultural norms. Also apparent in a microcosmic perspective, the inherent contradiction between local and foreign notions of open space – observed from the street scenes – represented the other notion of a modern Chinese city, particularised by the tension between the leap towards Western modernity and finding a new Chinese identity through a mixture of diversified cultures.

What the observations in this paper suggest is a fourfold conclusion. Firstly, that there was a lack of coordination in the planning process, which resulted in a fragmented urban fabric. Secondly, the overwhelming reliance on the monumentality of urban elements, such as high-rise buildings, without any concern for their utilitarian role in the city, is not conducive to a felicitous distribution of density in Shanghai’s current urban environment. Thirdly, there is an absence of the human scale in the streetscape that diminishes contact, the sense of security, and the pedestrian energy level of the city. And fourthly, the production of the city as an image creates, as suggested by the first conclusion, a fragmented urban form and urban spatial organisation. This is the reality of Lujiazui.

Whether or not pedestrians saw the monumental buildings along the Bund as urban icons of which they should be proud, or as a mimicry of the Western metropolis that eroded their Chinese identity, is important to the holistic understanding of Shanghai, which has to be contextualised and understood from every possible angle. Knowing how and from where we view the history of Shanghai enables us to see beyond the veneer of the magnificent scenery of the
Bund and approach the fuller ‘reality’ of Shanghai.

Notes
1. Shanghai’s populations as of 2007 is just shy of 15 million according to the UN’s World Urbanization Prospects 2007 Revision, accessible online here - http://esa.un.org/unup/index.asp?panel=4

2. According to the UN World Urbanization Prospects 2007 Revision, Shanghai’s population grew about 4.8% annually between 1990 and 2000, however the rate has since slowed to about 1.7%, still roughly 3 times the national growth rate.

3. The hukou system is a registration system that afforded residents access to local government benefits like education, health care, and welfare, but restricted in-country migration as these benefits were only available in the locale where a citizen was registered (e.g. if you were a resident of Beijing, you could not move to Shanghai and receive government benefits nor easily gain employment, and vice versa). As China has modernised and opened its borders per se, the hukou system is fading into obscurity, allowing massive in-country migration, usually to where employment is plentiful.


7. In his research, urban planner Tingwei Zhang refers to these levels in the administrative structure of Shanghai as the municipal government (for the Municipal Planning Bureau), urban district (a district may have more than one million population; the largest district in Shanghai has 1.6 million population; for District Authority Control), and street offices (sub-district government, with a size approximately equal to a company in U.S. cities; for Controlled Detailed Planning Section). See Tingwei Zhang, ‘Urban Development and a Socialist Pro-Growth Coalition in Shanghai’, in Urban Affairs Review 37, 475 (2002), p. 485.


14. Ibid. The core of the article reads: ‘while diplomatic, the explanation strains credibility, especially for anyone who knows the history. The Shanghai building was originally designed to have 94 floors, rising to roughly 1,509 feet, but has quietly grown since then, with more floors added, as well as more height to each floor, resulting in about 105 extra feet.’

15. See detail about the projects, renderings, and criticisms of both buildings in Xing Ruan, New China


17. Rowe, East Asia, pp. 134-7.


Acknowledgements
The author owes considerable gratitude for the forbearance, instruction and special knowledge of scholars who have guided and mentored him throughout this research: Stanford Anderson, Yung Ho Chang, John W. Dower, Shigeru Miyagawa, Dennis Frenchman, and Jan Wampler from Massachusetts Institute of Technology; Dr. Robert Cowherd from Wentworth Institute of Technology; and Peter G. Rowe, Li Hou, and Dr. Shou Lei from Harvard Graduate School of Design. The author’s special thanks go to the wonderful editing of Andrew Gulbrandson, Reilly Rabitaille, and Victor Wong.

Biography
Non Arkaraprasertkul is Visiting Lecturer in Architecture and Urban Design at the Massachusetts Institute of Technology (MIT) in Cambridge, Massachusetts. Trained in History, Theory, Criticism and Urban Design at MIT, Arkaraprasertkul is a Bangkok-based practicing architect, urban designer and Adjunct Lecturer in Architecture and Urbanism at Chulalongkorn University. His interests concern issues of contemporary architecture and urbanism, specifically the effects of cultural construction on built form.