

Graduation Plan

Master of Science Architecture, Urbanism & Building Sciences



Graduation Plan: All tracks

Submit your Graduation Plan to the Board of Examiners (Examencommissie-BK@tudelft.nl), Mentors and Delegate of the Board of Examiners one week before P2 at the latest.

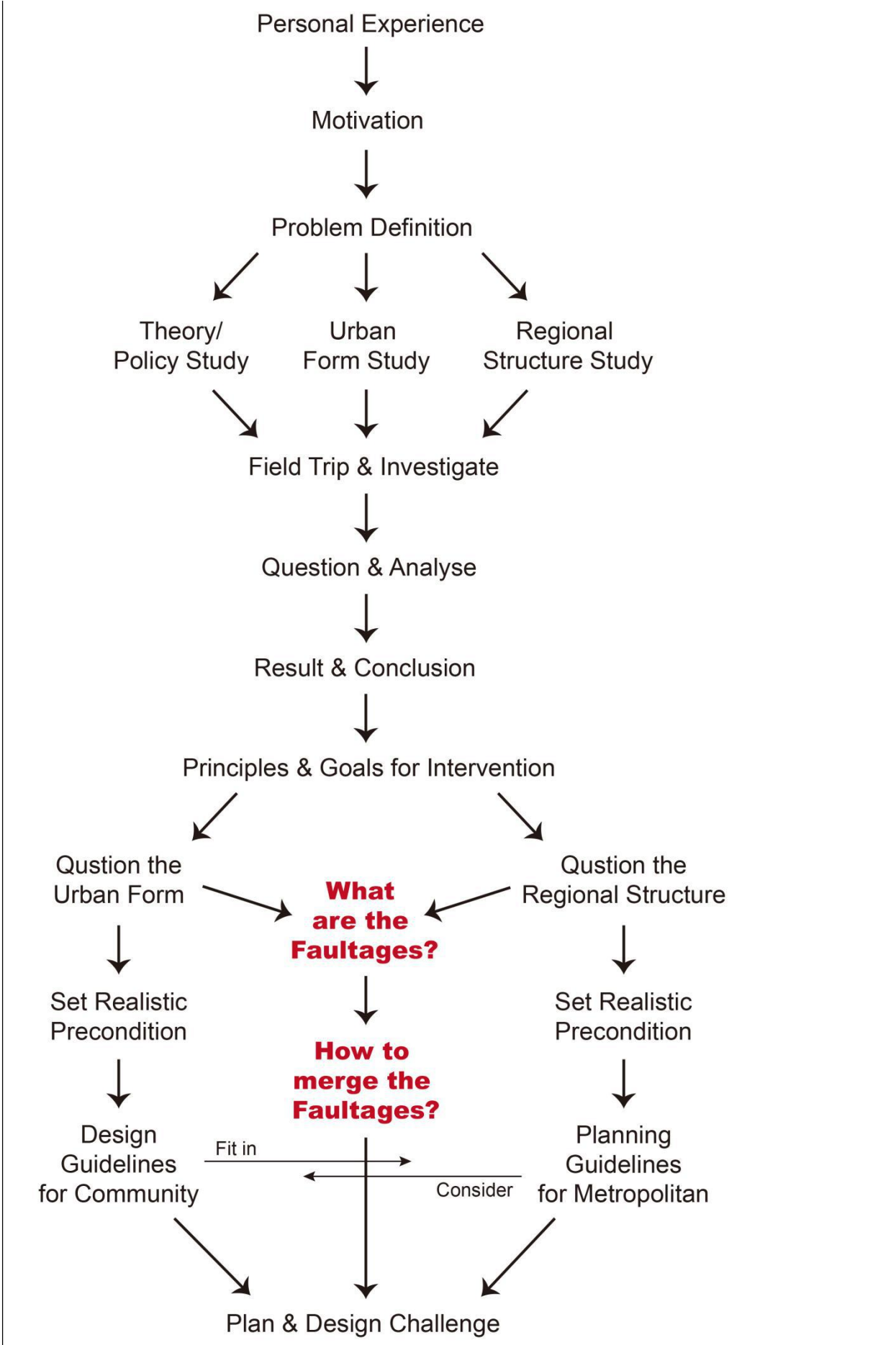
The graduation plan consists of at least the following data/segments:

Personal information	
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Studio	
Name / Theme	Complex cities - Urbanism
Teachers / tutors	Diego Andres Sepulveda Carmona, Dominic Stead
Argumentation of choice of the studio	With a bachelor degree majored in urban planning, I would like to continue researching the field. Moreover, the problems of site are closely linked to the flow of urbanization and metropolitan structure of Beijing, which fits the research orientation of this studio.

Graduation project	
Title of the graduation project	An Attempt to Regain Paradise - Urban regeneration of the largest residential community, Paradise Gateway in Beijing, from the URBANISM perspective
Goal	
Location:	The community of Paradise Gateway (Tiantongyuan), Beijing, China
The posed problem,	Paradise Gateway was originally designed as affordable housing to answer the housing shortage during the rapid urbanization. In a larger scale, it is at the north border of Beijing (5th Ring), where it is midway between inner city and Changping new town. Given the fact that the new town failed its destiny of attracting citizens out of inner city, huge amount of people settled down at Paradise Gateway. As a result, Paradise Gateway turned into a mega-mono-functional residential community, which is known as the 'sleeping city'. This process resulted in,

	<ul style="list-style-type: none"> a. Extreme high density and Overcrowding b. Collapsed Mobility c. Lack of Public Service d. Illegal Housing
research questions and	<p>What caused the Faultages between vision of regional structure and community development reality, which originated Paradise Gateway and other Giant Residential Communities, based on the Dualistic perspective of physical and behavioral under the background of Chinese culture?</p> <p>Sub-questions from physical aspect, (1) Why the problems of PG came into being? How is the metropolitan structure influencing PG? (2) What are the faultages between community and metropolitan? How to merge them by interventions?</p> <p>Sub-questions from behavioral aspect, (3) How is the culture embedded in urbanization process? (4) How are urban Planning and Governance influencing inhabitants' behavior, especially when the majority are the Drifters?</p>
design assignment in which these result.	<p>The design assignment is to come up with a set of interventions that help to merge the faultages, including a urban design of community complex with vertical transport, a metropolitan strategy towards improved metropolitan structure, and a new real estate economic chain based on behavior study.</p>
<p>[This should be formulated in such a way that the graduation project can answer these questions. The definition of the problem has to be significant to a clearly defined area of research and design.]</p>	
Process	
Method description	



Literature and general practical preference

- Burger, M., & Meijers, E. (2012). Form follows function? Linking morphological and functional polycentricity. *Urban Studies*, 49(5), 1127-1149.
- Chen, D. (2005). The Ju'er Hutong, Dancing Between Tradition and Modern. *New Material and Decoration*, Vol. 2, 45-48.
- Cheng, Y. (2010). Explore the Architectural Heritage, the Maintenance and Continuation of Contextual Approach. *Journal of Shenyang Jianzhu University*, Vol. 12, No. 1, 43-46.
- Ewing, R., & Handy, S. (2009). Measuring the unmeasurable: Urban design qualities related to walkability. *Journal of Urban design*, 14(1), 65-84.
- Harteveld, M., & Brown, D. S. (2007). On Public Interior Space. *AA files*, (56), 64-73.
- Helleman, G., & Wassenberg, F. (2004). The renewal of what was tomorrow's idealistic city. Amsterdam's Bijlmermeer high-rise. *Cities*, 21(1), 3-17.
- Huang, S., Wu, Q., Cui, W. (2013). Development Features and Types of Urban Complex. *Economic Geography*, Vol.33, No. 4, 1-8.
- Liu, Y. (2006). Urban Design of Central Area of Paradise Gateway. *Archicreation*, 2006(2), 129-131.
- Meijers, E. (2005). Polycentric urban regions and the quest for synergy: is a network of cities more than the sum of the parts?. *Urban studies*, 42(4), 765-781.
- Municipality of Beijing. (2005). The Beijing city master plan (2004-2020). *Beijing Planning Review*, page 5-51.
- Saunders, D. (2011). *Arrival city: The final migration and our next world*. Vintage Books Canada.
- Wu, L. (1999). The Beijing Charter. *Urban Development Research*, 4.
- Yang, J., Zhu, H. (2012). Spatial Effects Of City Complex Development: Hangzhou Case. *Planners*, Vol. 6, No. 28, 90-95.

Reflection

Relevance

Societal Relevance

Complains about Paradise Gateway is not new to citizens of Beijing. Commuters living here and working in the city center have to spend more than three hours on the road everyday. Apartments are separated into several rooms and rented to different tenants, including apartments without official construction permission. In spite of this, the scale of this community has been increasing and the land price has been rising. The only reason to this phenomenon is that tenants and buyers have few alternative choice. High social stress and fierce competition in the city makes the shortage of housing even serious. It is very important to search for interventions that will improve local living quality, as housing is the basic need for human. Moreover, the problem of Paradise Gateway is not peculiar, but a common problem of large residential communities in Beijing. Through the study of this very case, the universal law of this type of problem may be revealed.

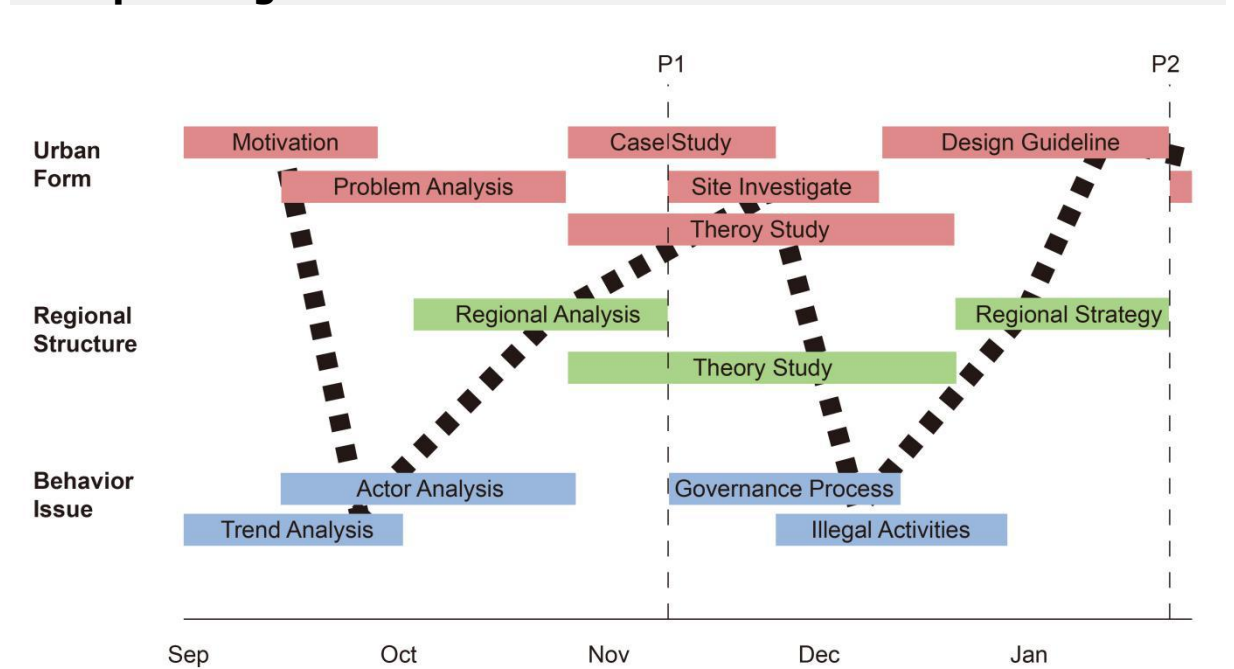
Scientific Relevance

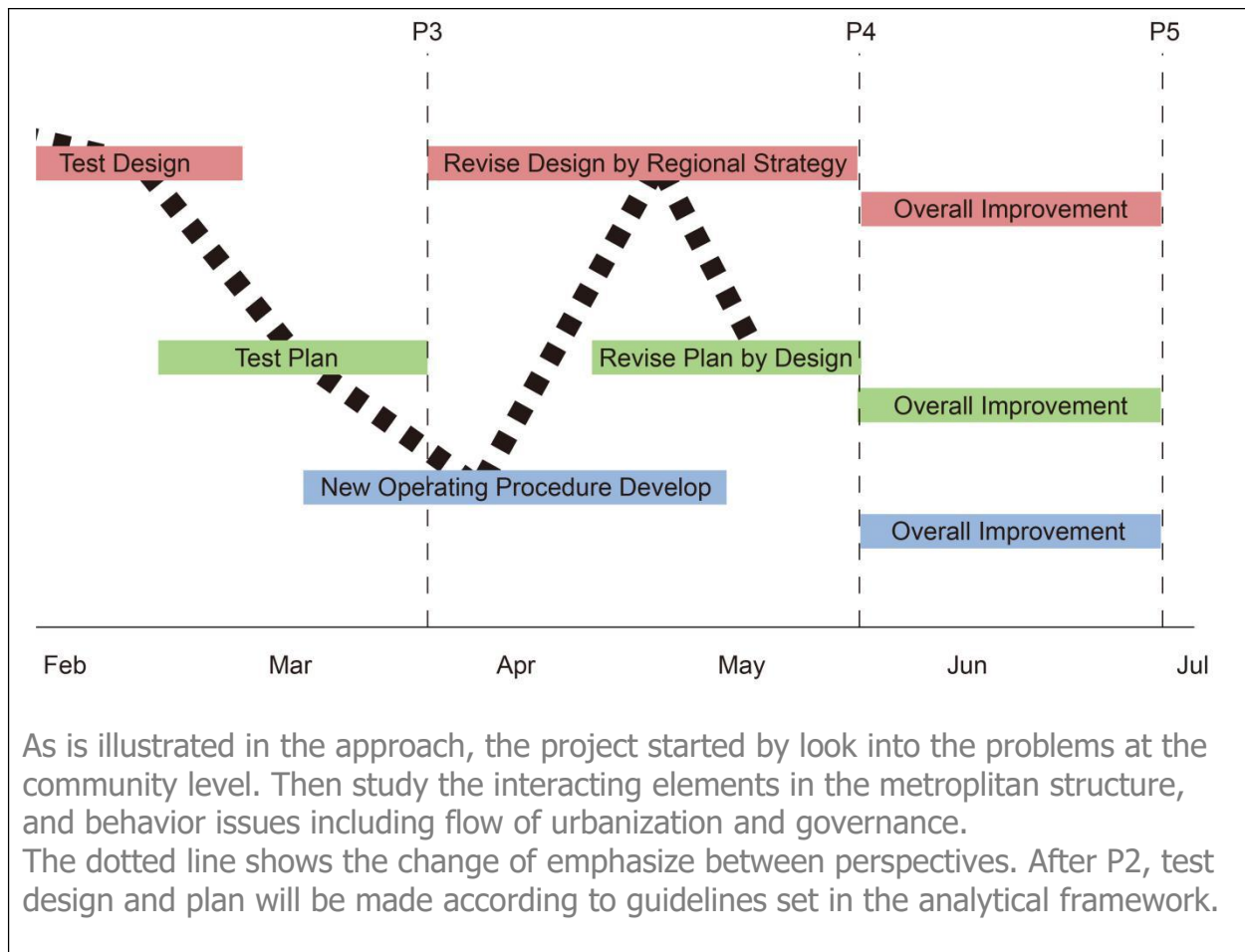
Beijing, compared to most European cities, is a mega-city whose inhabitants reaches 21.7 million. In addition, Chinese economy oriented development mode and its unique national situation (socialism after dramatic capitalist reform) give birth to urban issues that the world has not experienced before. The cause of the quality crisis of Paradise Gateway is the imbalanced urban structure. Beijing's solution, mainly illustrated through 2004 master plan, toward it is applying a polycentric urban system, which is the dominate form of metropolitan areas in Europe. However, the same theory cannot be transplanted into the other side of continent without proper adaptation. This project aims to combine international theories and practices with local situations and trends, of which the outcome can be of vivid Chinese characteristics. The building of a link international and local urban studies is a valuable feature of this project.

Ethical Relevance

Chinese national strategy since 1978 is stimulating economy by encouraging the gap between rich and poor. The Major group of Paradise Gateway is drifters, who are immigrants fighting to survive in Beijing. Life quality of these people is not concerned by the municipality as most of them are not officially registered. Social equity is violated in this case, as each citizen should share equal right. The ethical issue draws more attention, especially as the Drifters are one of the main contributors to the city. This project aims at providing alternative interventions to relieve the inequality, at the same time, complying with Beijing's goal of economic development and regional collaboration.

Time planning





Graduation Orientation - Reflection

I failed to locate any workshop that is related to the topic of my thesis, nor did I had the ability to hold my own workshop. As a result, I would like to dig deeper into the reasons behind the problems of Beijing in this reflection.

With modern technology, cities are allowed to grow larger than ever, thanks to vertical development and advanced transportation. Even living in the 21st century, the mass of these giant cities still amaze me.

City	Population	Metropolitan Area (km ²)	Density (p/km ²)
Tokyo	37,800,000	13,572	2,785
Shanghai	24,152,700	6,341	3,808
Beijing	21,700,000	16,411	1,322
São Paulo	21,242,939	7,946	2,673
London	13,879,757	8,382	1,655
Paris	12,405,426	17,174	722
New York	8,550,405	34,490	247

Information from wikipedia

As is shown above, Beijing is only one of the many giant cities in the world. However, it has its uniqueness. The first written document that proved the existence of Beijing can be traced back to before 1000 B.C. But unlike most European and American cities, the major boost of its urbanization started around 1960, almost 3000 years later. The urbanization process was so intense that the current urbanized area is 10 times that of the 1960s. Meanwhile, the population size now is almost 8 times that of the 1960s. What happened in the 50 years was a boom of economy. The problem is that no planner or decision maker can precisely foresee a change of this scale.

According to the context of my thesis, the concurrence of the city's hierarchical metropolitan structure and the intense migrant flow caused the appearance of a batch of mega-residential communities in the late 1990s, including Paradise Gateway. In other words, mega-residential community was the method to meet the large demand of migrant's residence. However, these centralized settlements are facing threats caused by overcrowding. The transport capacity cannot meet the demand for commute and services are in extreme shortage.

At the beginning, I attempt to come up with a urban design project that aims to provide vivid public space and enhanced mobility capacity in the community, as an approach of urban regeneration. Then an old saying from traditional Chinese medicine stroke me up, "Not to cure the symptoms, but cure the disease." In the case of Paradise Gateway, the mobility and service problems are merely symptoms caused by a disbalanced demographic structure. Frankly, current bad mobility condition and shortage of service have been serving as a tool to control the population size. It is predictable that with enhanced mobility and service, the population of the community will keep increasing. Then it is only a matter of time that these problems will happen again.

Reflection: the essence of Paradise Gateway is overcrowding, a disbalanced demographic structure. In a monocentric metropolitan area, rent decreases with distance from the city. According to Alonso's Urban Land Market Theory, the further a household lives from the city center, the more it will have to spend on commuting and less it will be able to spend on housing. For Beijing, the affordable zone is the Paradise Gateway and other mega residential communities along the 5th ring. If the centripetal structure by monocentricity remains, problematic mega communities are bond to appear. In conclusion, the key to solve all problems in Paradise Gateway lies in the modification of metropolitan structure. That raises a series of questions in the futrue research and planning, why the new towns put forward in Beijing's 04 master plan have not functioned as hoped; what are the opportunities and threats in the modification of metropolitan structure; and how will Paradise Gateway exist in the new structure.