Graduation Plan

Master of Science Architecture, Urbanism & Building Sciences

Graduation Plan: All tracks

Personal information	
Name	**Jingyi Chen**
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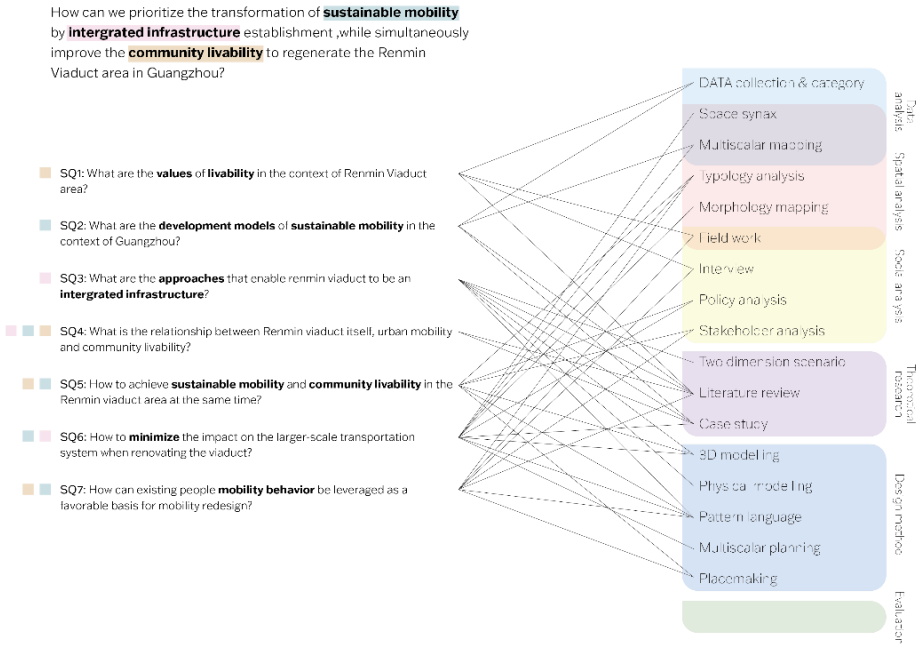
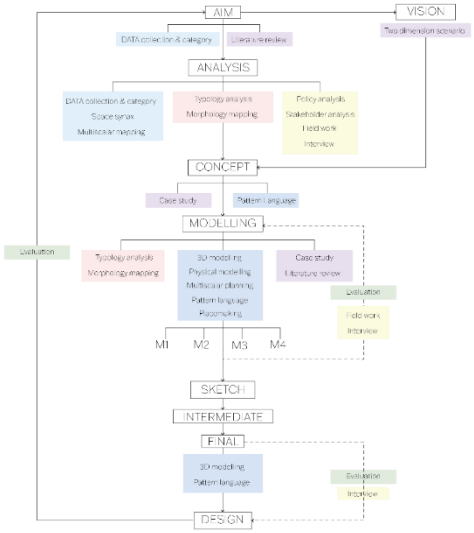
Studio		
Name / Theme	Design of the urban fabric	
Main mentor	Ir. M. (Marco) Lub	Urban Design
Second mentor	Dr. T. (Thomas) Verbeek	Urban Studies
Argumentation of choice of the studio	For my graduation project, I first want to focus on a particular typological and physical theme, like rooftops or spaces under viaducts. Also I usually concentrate in street-scale research because I think that from this perspective I can see the actual interactions between people and surrounding environment. And this studio's working methodology is what I really want to learn. Start with perceiving the site and use design as the first step of research to utilize design to understand the city.	

Graduation project	
Title of the graduation project	Shaping the future of infrastructure
Goal	
Location:	Guangzhou, China
The posed problem,	The commplex transportation arising from the viaduct, coupled with environmental pollution, is inflicting great damage on the living quality of nearby residents, and indirectly contributing to business and cultural decline here.
research questions and	How can we prioritize the transformation of sustainable mobility by intergrated infrastructure establishment , while simultaneously improve the community livability to regenerate the Renmin Viaduct area in Guangzhou?
design assignment in which these result.	1. A study about Guangzhou 's viaduct infrastructure as a part of urban mobility and how it influence the livability surrounding. 2. A re-design of Renmin viaduct functionally and spatially as a catalyst to regenerate the neighborhood's livability. 3. A multi-scale mobility planning to fit in with the regeneration of Renmin viaduct and improve the livability here.

Process

Method description





My methodology considers the project as a circular design process. From the beginning of the project, clear design goals and directions are defined. Through data collection, spatial analysis, and social analysis, preliminary conclusions are drawn to further advance the generation of design concepts. During the design phase, various possibilities are explored through qualitative and quantitative analysis, as well as the construction of physical models. Continuous refinement of the design is achieved through evaluation and testing, progressing from sketches to the final design output. Subsequently, the design is scrutinized using evaluation methods to assess its alignment with the initial objectives. If substantial discrepancies are identified, the design process is reiterated. This process underscores continuous optimization principles, allowing the design to evolve and improve in response to real-world conditions and evaluation feedback.

Literature and general practical references

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Reflection

1. The Design of the Urban Fabric studio deals with the dynamics and interplay between the physical urban environment and the psychological, socio-cultural, ecological, managerial and economic processes to foster sustainable and liveable places. The redesign of viaduct is interconnected with the design of urban fabric , as it involves considerations that span from the immediate physical surroundings to broader urban planning principles, including considerations for pedestrian pathways, landscaping, public spaces, and architectural details. And also because of the urgency of shaping the future of infrastructure, the exploration extends to evaluating the urban impact of emerging technologies and developments, offering valuable feedback and insights into future challenges and possibilities.
2. From a professional perspective, this project provides an opportunity for testing new materials, construction methods, and sustainable mobility technologies.

Integrating new technologies into the infrastructure regeneration with scientific advancements, showcasing how technology can enhance urban infrastructure, improve connectivity, and contribute to smart city initiatives. Consideration of the viaduct's impact on local ecosystems and biodiversity demonstrates a commitment to scientific principles of ecological sustainability. Well-designed urban spaces, including viaduct areas, have the potential to increase nearby property values, contributing to economic development. The construction and maintenance of the redesigned viaduct can create job opportunities, stimulating economic activity in the region. The viaduct has historical or cultural significance, its redesign can incorporate preservation elements, respecting the cultural heritage of the area. Integrating local cultural elements into the viaduct's redesign fosters a sense of place and identity within the community. In conclusion, the redesign of a viaduct transcends its physical transformation; it serves as a multifaceted undertaking with implications for societal well-being, professional advancement, scientific exploration, environmental sustainability, economic development, and cultural preservation.