

What is the relation between your graduation project topic, your master track Architecture and your master program MSc Architecture Urbanism Building Sciences?

My graduation project examines the impact of the rugged mountain landscape, characterized by its challenging topography for construction and navigation, on the urban conditions of Chongqing, China. The research concludes with a design proposal that integrates and enhances existing urban strategies that have emerged in response to this steep terrain.

The design combines several solutions, such as horizontal and vertical infrastructural connections for pedestrians, which are essential in navigating the city's extreme elevation. It also incorporates informal social, economic, and cultural spaces. A key aspect of the design is preserving Chongqing's natural character, rather than contributing to over-densification.

The project operates on multiple scales: at the urban level, it improves connectivity and infrastructure in response to complex vertical conditions; at the architectural level, it adds value to existing buildings and introduces much-needed social and cultural programs for the community. The intervention positions itself carefully between nature and the built fabric.

On the building technology level, the project emphasizes the use of regional materials and construction methods—particularly oak wood and dry wooden joinery inspired by traditional Chinese craftsmanship. This technique is not only appropriate for Chongqing's humid climate but also references the region's historical use of timber structures without nails, aligning with local traditions of adaptability and layered construction. The joinery becomes a cultural and structural response to the site: parts of it are expressed as benches or subtle guides within the circulation, encouraging informal use while reinforcing the city's layered, user-adapted character. The structure also uses passive strategies for climate control, supporting a sustainable and context-sensitive approach.

My graduation project topic and design relates directly with the goals of Architecture master track and MSc Architecture, Urbanism, and Building Sciences program, as it addresses site-specific challenges in urban planning, architectural intervention, and sustainable construction in a meaningful and grounded way.

How did your research influence your design/recommendations and how did the design/recommendations influence your research?

Based on my research into the effects of the mountainous landscape on the urban fabric, infrastructure, and built environment of the city, I identified several key urban elements that enhance spatial and social quality. These include color-coded navigation systems, vertical circulation between buildings, with stairs as main system to navigate the heights in the city and through buildings, social pockets for interaction, informal economic and cultural spaces, vertically layered programs, soft transitions between buildings and the urban fabric, and clear distinctions between pedestrian and car routes.

These findings, derived from existing moments in the city that improve urban life, were then applied to a new intervention located on a site with similar urban condition to the ones analyzed. However, the key difference is that these "lessons learned" had not yet been implemented on this specific site. Through the design, I intervened in the existing context by introducing a structure that provides improved infrastructure, supports informal activities, and facilitates navigation through the rugged terrain and complex urban layout.

A central aspect of the intervention was improving the transition between the existing building, a school with parking beneath, the landscape, and the urban fabric. This was achieved through a parasitic wooden structure that extends from the existing building into the disconnected parts of the site. Applying my

research conclusions in this new context served as a test to evaluate whether the solutions used in the city center could also be applied in peripheral areas with similar topographical challenges.

However, the openness and steepness of the new site meant not all solutions could be translated directly. This led to a need for adapted strategies to achieve the same level of spatial quality observed in my research. For example, the existing building on the site is a parking garage, which lacks the spatial qualities needed for programs like teahouses, open social areas, or informal markets. The dimensions and ceiling heights of parking structures differ significantly from those required for these uses.

Furthermore, the scale of the proposed site is larger, more open, and less dense than the researched sites. This required a different design approach. In this way, the design influenced the research by highlighting the limitations and adaptations needed when applying previously studied strategies to a new, though similar, context. The feedback loop between research and design helped refine both the understanding of the urban condition and the specific architectural responses appropriate to this site.

How do you assess the value of your way of working (your approach, your way methods, used methodology)?

I assess the value of my way of working, my approach, methods, and applied methodology, by how effectively it helps me understand and respond to complex urban conditions, particularly in challenging environments like Chongqing. The scale of the city and its rugged mountainous landscape made it essential for me to visit the site with a clear research question: *How has the topography influenced the city's urban condition and built environment?*

My first research method was direct observation, identifying notable urban conditions and moments within the city. I documented these through photographs, sketches, and especially 3D diagrams and maps. Because Chongqing is not a flat city, but a three-dimensional one with extreme height variations, 3D mapping became essential for understanding its spatial structure. These diagrams helped reveal overarching relationships between the landscape, infrastructure, public spaces, pedestrian and car routes, and the proportions of the built environment.

On the proposed site, I used sectional analysis as a key tool to explore the relationship between the city, the terrain, and the existing buildings. This method enabled me to translate research findings into specific design interventions that respond to the site's verticality and disconnection.

In addition, I tested wood joinery techniques as part of my building design. Because these joints were custom-developed for this project, intended to express a specific type of dry connection to achieve a desired architectural language, it was important to test them at a 1:5 scale. Making physical models that could be assembled and disassembled gave me insight into their structural behavior and material feasibility, especially when using wood.

How do you assess the academic and societal value, scope and implication of your graduation project, including ethical aspects?

The proposed design and project primarily aim to enhance the infrastructural quality of the chosen site and surrounding neighborhood. On the urban scale, the intervention connects bordering neighborhoods and improves pedestrian infrastructure. Along the proposed route, social interaction is encouraged through the introduction of programs in strategically placed social pockets, such as a tea house, an informal park and market, and a city balcony.

The circulation is both vertically and horizontally integrated, using the existing building and a newly added wooden structure with staircases. This improves not only internal navigation but also connectivity between neighboring areas. Importantly, the design respects the natural landscape, intervening only where necessary and leaving most of the existing nature untouched.

From a sustainability and ethical perspective, the project makes use of Chinese CLT oak wood, regionally manufactured and coated with Tung oil, a natural finish that protects against decay and humidity. The wooden structure is assembled using local joinery techniques, supporting regional craftsmanship and ensuring the construction process can be executed by local professionals. This approach promotes the use of renewable materials and local knowledge, aligning with ethical and sustainable building practices.

The academic value of my project lies in its research, which explores the intersection of topography, urban fabric, built environment and social interaction in the city of Chongqing. The project identifies and analyzes key moments where the mountain landscape shapes urban conditions, offering valuable insights for urban design in similarly challenging terrains.

These insights are then tested through a design proposal, which enhances social quality in the neighborhood by creating accessible and inclusive public spaces along the new circulation route. Elevators and ramps are integrated into the design to ensure accessibility for all users, including those with limited mobility.

How do you assess the value of the transferability of your project results?

The value of the transferability of my project results lies in the way the design strategies respond to complex topographical conditions, specifically, how they address verticality, disconnected neighborhoods, and layered circulation in a mountainous urban context like Chongqing. While the project is site-specific, the methods and design principles I developed, such as vertical and horizontal pedestrian connectivity, activation of underutilized urban spaces, integration of social and cultural programs into circulation routes, and minimal intervention in the natural landscape, are applicable to other cities facing similar spatial and infrastructural challenges.

Moreover, the concept of adding parasitic wooden structures to existing buildings in order to create new connections and functions can serve as a replicable model for retrofitting underused urban fabric, especially in dense cities with limited ground-level space. The integration of local materials and traditional construction techniques further demonstrates how sustainable, culturally rooted approaches can be adapted to different regions using locally available resources and knowledge.

Although the specific solutions in my project are tailored to Chongqing, the core approach, grounded in site research, contextual understanding, and flexible, small-scale interventions, is widely transferable. It offers a valuable framework for improving social, spatial, and infrastructural quality in other cities with comparable geographic or urban complexities.

how can such a design or research stay relevant in 50 years from now?

To remain relevant 50 or even 100 years from now, a design must be adaptable to future societal, environmental, and urban changes. While the physical wooden structure in my project may have a lifespan of 50 to 60 years due to material limitations, the core design principles implemented, context-sensitive connectivity, low-impact interventions, and integration of local craftsmanship, are built to endure.

The project offers more than a static solution; it introduces a framework for thinking, a method grounded in research, observation, and respectful integration with existing urban and natural conditions. These strategies respond to long-term challenges such as topographical disconnection, lack of public space, and fragmented infrastructure, all of which are likely to persist or re-emerge in future urban contexts.

A key aspect of the design is its programmatic flexibility. The social pockets, such as the tea house, informal market, park, and city balcony, are conceived as open, multifunctional spaces that invite the community to shape and reinterpret them over time. These spaces are not strictly defined, allowing residents to take ownership, whether by organizing informal markets, hosting cultural events, or simply using them as gathering places. This adaptability ensures that the project stays socially relevant and can

evolve organically with the changing needs of the neighbourhood. As the needs of the neighborhood evolve over time, these areas can be repurposed to support different activities, ensuring that the intervention stays useful, socially relevant, and inclusive.

Moreover, the use of regionally sourced materials and traditional joinery techniques not only supports sustainable and ethical construction today but also serves as a model for culturally grounded architectural practices in the future. Even if the wooden structure eventually needs to be replaced, the ideas, spatial logic, and methodology behind it can be reinterpreted or replicated in future projects, keeping the essence of the design alive for generations to come.

How do I balance controlling the design and allowing user agency over the program and use of the space, without falling into generic or repetitive design solutions?

In my project, I approached this balance by designing a clear spatial framework that establishes connections, circulation, and structural logic, while leaving the specific use of certain spaces open to interpretation and change over time. I tried to create conditions that invite participation and adaptability, particularly in a context like Chongqing, where informal, community-driven uses often emerge organically.

The circulation paths, both horizontal and vertical, are deliberately designed to guide movement and stitch together disconnected parts of the neighborhood, giving the design a clear structure and purpose. At the same time, the social pockets embedded along these routes are designed as multifunctional open spaces that can be appropriated by the users. These spaces are not over-programmed; instead, they allow for diverse activities like informal markets, gatherings, or quiet rest, depending on the evolving needs of the community.

To avoid falling into generic or repetitive solutions, I grounded each design move in site-specific research, spatial proportions, materiality, and the cultural context. The parasitic wooden structure is not only an infrastructural connector but also draws its formal language from the façade of the existing building it attaches to. This ensures that the intervention is both respectful of and integrated with its context. Additionally, the custom wooden joinery I developed serves a dual purpose: some of the connections extend out of the ground, forming benches or informal resting points. These elements not only enhance usability but also act as subtle spatial cues, guiding users gently through the structure without overt signage or control.

In this way, the balance lies in creating a strong spatial and material identity that supports and suggests possibilities, while still allowing room for user agency and programmatic evolution.