

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	
Name	Dana Awad
Student number	5720230

Studio		
Name / Theme	Explore Lab	
Main mentor	Aleksandar Staničić	Methods of Analysis and Imagination (Architecture)
Second mentor	Erik Hehenkamp	Architectural Engineering, Extreme studio
Argumentation of choice of the studio	<p>Explore Lab Studio provides us, students, with a unique opportunity to delve into our passions within the field of architecture. Throughout my academic journey, I have consistently aspired to combine my designs and projects with a broader perspective, addressing global issues that are of utmost significance in our world—issues often not discussed by other studios.</p> <p>As a student of Explore Lab, my primary focus is to explore the connection between architecture and disasters. In this final academic year, I am committed to immersing myself in the study of this crucial topic, leveraging the expertise of my mentors who possess an extensive and profound knowledge in this field.</p> <p>The dynamic nature of Explore Lab allows me to embrace the complexity of real-world problems, preparing me for a future where architects play a crucial role in addressing and mitigating the impact of disasters on communities.</p>	

Graduation project	
Title of the graduation project	Post – war Reconstruction of Damascus
Goal	
Location:	Jobar, Damascus , Syria

<p>The posed problem,</p>	<p>The city of Damascus has struggled with a longstanding housing shortage, a problem exacerbated by the influx of Syrian citizens from rural areas over centuries, leading to an expansion beyond the historical boundaries of Old Damascus. Despite this expansion, the government's inability to provide housing to the new arrivals prompted many Syrians to construct their own homes, giving rise to the emergence of informal settlements.</p> <p>While post-war reconstruction in Syria was anticipated to address the persistent housing issue, the current plans for the reconstruction of Damascus have raised concerns. Contrary to expectations, there is a growing apprehension that the reconstruction efforts may worsen the existing housing problem rather than improve it.</p> <p>The ongoing conflict in Syria has inflicted extensive damage on the population, infrastructure, and the built environment, resulting in the displacement of millions and leaving many with only memories of their former homes, streets, and neighborhoods. Despite the uncertain future of the war, the pressing need for reconstruction has become imperative. After 12 years of conflict, it is crucial for the people of Syria to regain a sense of security and gradually reconstruct their lives. In light of this urgency, the research aims to initiate a rapid rebuilding process, focusing on restoring essential facilities, educational institutions, and services. However, the scope of reconstruction extends beyond the construction of individual buildings; it aspires to breathe life back into the country, emphasizing the community's pivotal role in the reconstruction process.</p>
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research questions and	<p>Given the current housing issues and the uncertain future of Damascus, the purpose of this research is to determine: <i>What type of post-war neighborhood meets the needs of the Syrian community and the future of the city of Damascus?</i></p> <p>This research will explore how post-war reconstruction in Syria will unfold, with a particular focus on Damascus, the world's oldest habitable capital. It will explore the potential way(s) in which Damascus can be rebuilt to bring back life to the city. In order to provide a comprehensive response to this issue, a series of sub-questions will be addressed, including:</p> <ul style="list-style-type: none"> - <i>What are the needs and wants of the Syrian community?</i> - <i>What are the design principles of informal settlements in Syria?</i> - <i>What are the characteristics of urban resilient neighborhoods?</i> - <i>How can the design of a house evoke a sense of home for Syrians?</i>
design assignment in which these result.	<p>The design assignment focuses on the critical role of architecture in the post-war reconstruction of Damascus, specifically in the region known as Jobar. The goal is to leverage design as a means to positively impact how societies recover from the devastating effects of war, ultimately enhancing the quality of life in communities. The research conducted will serve as the foundation for design intervention, intending to establish a framework with specific criteria to guide the design process.</p> <p>The design will be concentrated on Jobar, a region heavily affected by extensive destruction from bombing and missile attacks. Jobar is identified as an area where complete destruction has</p>

	<p>occurred, leaving only its infrastructure pattern visible.</p> <p>The reconstruction of Jobar aims to establish a new neighborhood, particularly in Jobar Al Gharbi (West Jobar), with a focus on overcoming previous challenges. The design process will focus on an area within Jobar Al Gharbi to provide housing for 100 inhabitants, which is approximately 20 dwellings.</p> <p>The design outcome will operate at three scales: zoning, which consist of the type of facilities, greenery and housing required in this area; cluster, incorporating both public and semi-public spaces; and individual dwelling design catering to various target groups. A key aspect of the design is to create an adaptable, resilient neighborhood capable of adjusting to changing socio-economic circumstances over time.</p> <p>The objective of the design project is to address the design question: <i>How can Damascus's post-war urban reconstruction effectively meet the needs of the local population and contribute to the city's future development?</i></p>
Process	
Method description	
<p>The methodology employed for the post-war reconstruction plan of Damascus involves a comprehensive approach, recognizing the multifaceted nature of urban reconstruction. Two types of data, theoretical and practical, will be utilized to inform the reconstruction process. Theoretical data, encompassing literature and drawings, will delve into the development of urban planning and housing in Damascus, examining the characteristics of the city and informal settlements.</p> <p>To further enrich the understanding of post-war urban reconstruction, insights from architects and urban planners, as well as a case study on urban resilient neighborhoods, will be incorporated. This case study, illustrating both post-war</p>	

reconstruction and informal settlements, serves as a valuable example for guiding the research.

Formal analysis will play a pivotal role, utilizing drawings, maps, sections, elevations, photos, and paintings to comprehend the morphological structure of informal neighborhoods in Syria. These visual representations provide an understanding of informal settlements before and after the war.

Human-centered research is integral to ensuring community involvement in the design process. Surveys, conducted online for accessibility, form the basis for subsequent interviews with a limited group, designed to represent the clients of the project. The surveys will investigate the needs and wants of the Syrian community by questioning the pre-war status of the informal neighbourhood they resided in. The survey is designed to gather information on the facilities, accessibility, greenery and housing nature in these neighbourhoods.

The interviews, conducted both online and in person where feasible, will be conducted throughout the entire design process, conceptualized as workshops with various target audiences. This approach aims to tailor the design to the needs and wants of the Syrian population.

Literature and general practical references

1. Al Dayri, A. (2007). مناطق السكن العشوائي في سورية و ربطها مع خصائص الأسر و السكان.
2. Ali, M., Zarkesh, A., & Yeganeh, M. (2018). Development Of Housing Architecture Identity In Damascus. *European Journal of Research*, 1(4), 16–33. <https://doi.org/10.26739/2521-3253-2018-1-4-3>
3. Beeckmans, L., Gola, A., Singh, A., & Heynen, H. (Eds.). (2022). *Making Home(s) in Displacement*. Leuven University Press. <https://doi.org/10.2307/j.ctv25wxbv>
4. Chambers, K. (2022). Reconstruction Of Aleppo, Syria: A Design Studio At The University Of Notre Dame, USA. *WIT Transactions on the Built Environment*, 211, 165–176. <https://doi.org/10.2495/IHA220131>
5. Clerc, V. (2011). "Mixity" in Urban Policies directed towards Informal Settlement Areas in Damascus, a Concept for Public Decision? <https://www.researchgate.net/publication/281326537>
6. Etienne, L. (2008). Les Mukhalafat de Damas, étude de cas. In *Mediterranean Programme - Ninth Mediterranean Research Meeting - Workshop 4 "Public Policies and Legal Practices Towards Informal Settlements in the Middle East and Egypt*. <https://doi.org/10.13039/501100001665>
7. Hanna, E., & Harastani, N. (2019). *Is Marota City The Type Of Reconstruction Syrians Need?*
8. Jabbour, S. (2002). مناطق السكن العشوائي في مدينة دمشق.
9. Tfaily, M. (2018). *Syria: From Battleground to Fairground*.
10. Twenty Two Architectural Group. (2020). *The Architectural and Urban Identity of Damascus*.
11. Vale, L. J., & Campanella, T. J. (2005). *The resilient city : how modern cities recover from disaster*. <https://api.semanticscholar.org/CorpusID:128913609>

Reflection

1. What is the relation between your graduation (project) topic, the studio topic (if applicable), your master track (A,U,BT,LA,MBE), and your master programme (MSc AUBS)?

As a student pursuing the Master of Science in Architecture, Urbanism, and Building Sciences (MSc AUBS) program with a focus on the Architecture (A) track, my academic journey is centered on the exploration of architectural principles and practices within the broader context of urbanism and building sciences.

The topic of my graduation project aligns with my chosen master track, delving into the intricate realm of post-war reconstruction in Damascus. This exploration within the Architecture track allows me to investigate the design aspects, material considerations, and spatial configurations inherent to the reconstruction process. By focusing on the specific challenges and opportunities presented in the aftermath of conflict, my project seeks to contribute not only to the architectural discourse but also to the broader urban and societal context.

The Architecture track allows me to refine my design skills, understand the socio-cultural implications of architectural interventions, and engage critically with theoretical frameworks that underpin my approach to the graduation project.

The specific focus on Damascus as a case study in my project is particularly relevant within the MSc AUBS program, which encourages students to explore real-world contexts and engage with the complexities of urban environments. The consideration of the city's historical development, the impact of war, and the potential for resilient reconstruction directly reflects the program's emphasis on addressing contemporary challenges in architecture and urbanism.

Moreover, the integration of formal analysis, human-centered research, and a case study on resilient urban areas aligns with the diverse perspectives and methodologies promoted in the MSc AUBS program. This approach ensures a well-rounded exploration of post-war urban reconstruction, in line with the program's commitment to fostering critical thinking and innovative solutions in the field.

This connection between my graduation project, the Explore Lab studio, and my master reinforces the coherence and relevance of my academic pursuits. It highlights the relationship between theoretical exploration, practical application, and the hands-on experience provided by the studio setting, ultimately enriching my understanding and approach. The Explore Lab studio, as a facilitator of exploration and discovery, amplifies the depth and impact of my academic journey within the MSc AUBS program.

2. What is the relevance of your graduation work in the larger social, professional and scientific framework.

From a social perspective, the topic addresses immediate humanitarian concerns by seeking to provide stability, housing, and essential services to communities profoundly affected by conflict. It goes beyond mere infrastructure rebuilding, emphasizing the creation of resilient neighborhoods that empower communities to adapt to evolving socio-economic circumstances, fostering a sense of security and continuity.

Professionally, the topic offers me a unique opportunity for innovation in designing environments that respond to the complex challenges posed by conflict and destruction. The focus on community-led design aligns with contemporary trends in the profession, recognizing the pivotal role of local communities in shaping the planning and decision-making processes.

From a scientific standpoint, the exploration contributes to my understanding of urban planning in post-conflict settings. Its multidisciplinary nature, incorporating elements of architecture, urbanism, and building sciences, reflects an approach that mirrors the reality of post-war reconstruction. This research is not only about rebuilding physical structures but also about fostering sustainable and resilient communities.

