

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	Iman Mustafa	
Student number	5259193	

Studio		
Name / Theme	AR3CS100 - Graduation Studio Cross Domain City of the Future	
Main mentor	Roberto Cavallo	Project Design
Second mentor	Craig Martin	Technical Building Design
Third mentor	John Hanna	Research mentor
Argumentation of choice of the studio	I chose the studio of The City of the Future because it is a unique studio. Each student has the freedom to choose their own topic. I see this as an once in a lifetime opportunity to develop my own research and explore my style. Whilst it is a student-driven (research) studio, we are guided by our mentors from the beginning, which is really helpful and crucial in developing and defining the graduation project.	

Graduation project	
Title of the graduation project	Urban gardens of the future
Goal	
Location:	Az Zubayr, Basra Governorate, Iraq
The posed problem,	Iraq is in an era in which the country has been going through a transformation after decades of conflict. This transformation involves the design, planning and implementation of ambitious infrastructure projects (UNDP, 2023). These transformations take place on multiple scales throughout the country, one of the regions being the most southern gouvernante of Basra (CNN-News18, 2023). This region is highly impacted by conflict and environmental degradation since the 1980s. This is potentially leading to the loss of

	<p>certain skills, culture, identity and place attachment (Zwijnenburg, 2020).</p> <p>The Grand Faw Port's arrival is reshaping the region's urban and environmental dynamics. This is particularly the case in relation to two other sites, the cities of Umm Qasr and Az Zubayr. Umm Qasr was Iraq's only deepwater port. It is located a few kilometres away from the border with Kuwait. The city has been facing many problems related to severe air pollution, bad health care facilities and economic stagnation. The air pollution is caused by the oil fields of Kuwait, a few kilometres away from Umm Qasr (AlMirbad Media, 2022).</p> <p>Furthermore, in the past decade, border demarcation between Iraq and Kuwait has been an ongoing and sensitive issue. This is due to the border delineation established by the United Nations after the Gulf War of 1991, mandating certain territorial concessions by both countries. It has been leading to clashes and affecting the residents of Umm Qasr. It has even led to the demolition of houses and the displacement of people from Umm Qasr in 2013, which led to protests from the affected Iraqi families (Fares, 2023).</p> <p>The shifting dynamics between Umm Qasr (site of old port), Al-Faw (site of new port), and Az Zubayr (site of urban growth) highlight the interconnected challenges and opportunities within the Basra Gouvernante since they represent the past, present and future of the region.</p> <p>(From my research paper)</p>
research questions and	<p>The main research question is: In which way could we imagine the urban gardening community of the future in Az Zubayr, from an equitable perspective?</p> <p>The sub questions: 1. What are the historical and urban backgrounds of the three interconnected sites, through the lens of infrastructure?</p>

	<p>2. Through which interventions can urban gardening and communing translate spatially in a way that enhances social bonds within the addressed community, through an equitable perspective?</p>
design assignment in which these result.	<p>The goal of the research is to develop interventions for a site in the city of Az Zubayr in Iraq to create a program in which we can imagine a future otherwise through an equitable perspective. This applies for both the displaced families that migrated from other parts of the Basra region into Zubayr, as well as the Zubayries themselves. This will be done by setting up a program that plays into the needs of these communities.</p> <p>Since the displaced families often have a background in farming, urban gardening facilities is one of four main parts of the program. The site is chosen accordingly, where the unique ecosystem of wetlands, existing even within the urban fabric of the city, is considered as one of key elements of this program. These wetlands on the site area will be integrated and protected within the design in a sustainable way. The integration will be in the form of recreation, in order to attract and educate people about this unique environment.</p> <p>The third part consists of a small scale livestock, all aiming to reflect the expertise of the displaced communities whilst playing into the needs of the city as well. The third part of this program includes housing, so providing accommodation for the displaced families. These families are usually extended families – meaning that they consist of multiple households within a larger house – which will be taken into account in the design.</p> <p>Lastly the part that ties all the elements together, is the design of a community centre. This community centre will consist of educational, social and recreational functions. It will be the beating heart of the site where interaction and community engagement will be facilitated. Main principles to create these this sustainable</p>

	urban development are respecting the locality, meaning the urban fabric and tradition, the community, the climate and the implementation of existing and new elements.
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Process

Method description

This research recognizes that the major infrastructure projects cannot be stopped in this design project, and adopts a critical design approach to these challenges. The focus of this paper is to find ways to mitigate their negative impacts and to push for equitable development, namely considering all stakeholders. This means taking into account the displaced communities, so the newcomers to the city, but also the long-term residents. The research and design take a reactive position to the infrastructural violence, where the aim is to find ways to show how we can imagine a future otherwise. This needs to be done by being as sensitive as possible to all vulnerable stakeholders, so through an equitable approach. This is because an equity model takes a needs-based approach and pays attention to difference.

This literature review will be done by providing two conceptual frameworks in order to answer the two sub-questions. Firstly the concept of infrastructural violence will be researched to understand what happens when the major projects are introduced on ecosystems. The concept of ecofeminism is proposed as a mechanism to understand the challenges within the research. In this way, it can provide a way forward to imagine a future otherwise: a future that is designed through an equitable perspective. Additionally, it serves as a tool to observe phenomena regarding the matter in the Iraqi society. Furthermore, site analysis and archival research will be conducted. Additionally, references regarding designing in seasonal wetlands, hot climates, local building methods and urban farming and gardening concepts are collected. Particular attention is paid to find as many local or regional sources as possible. The research will be concluded by summarising the design interventions that will contribute to a sustainable urban development for the chosen site in Zubayr, where the focus lies on adopting an equitable design perspective.

Literature and general practical references

Hein et al. (2021) describes how Diesch and Hansen were concerned with relations between port cities. They argue that attention to port cities should not be singular but rather relational. This means that ports obtain their identities and various characteristics due to connections with other ports. This involves interplay of ports with their neighbours, which avoids isolated and competitive planning. This relational identity also includes long-term sustainability and integration plans, which ensures that ports contribute to regional prosperity in a way that does not overwhelm or surpass their counterparts. This approach focuses on synergy between ports, encouraging complementary roles that benefit regional trade networks. The Grand Faw Port and the Umm Qasr Port should strive for a relational identity, and complement each other in their roles within Iraq's maritime infrastructure. Rather than viewing them as isolated entities,

it is important to understand that they are interconnected, just like the other dynamics in this region, one being the environmental conditions.

Infrastructure is a long considered technical equipment to be managed by civil engineers and urban planners. It has received growing interest among social scientists (McFarlane and Rutherford, 2008). Particularly, sociologists, anthropologists and geographers alike are increasingly raising questions about both the cultural and the political assumptions built into the design of infrastructure and the social consequences of its function (Rodgers & O'Neill, 2012).

According to Fethi (1977), massive rural migration into a few main cities has resulted in the decline and abandonment of many villages, and it is assumed that it must have contributed to the fall in the overall agricultural production in the country since the early 1950's. Furthermore, rural migration has not only threatened the very existence of most villages but has also caused very high residential densities in most traditional historic urban cores of Iraq. I quote: "The village is clearly more vulnerable to modern development and technology than other forms of human settlement. Villages everywhere are being rapidly invaded by largely incongruous or insensitively designed modern development. This is causing the destruction of the so-called 'minor architecture' and the disruption of the character of many villages of historic, architectural, or landscape interest."

Ecofeminism is a movement that rose up in the late 20th century. It is a framework that integrates feminism and political ecology. It does so by connecting environmental degradation with systemic oppression. Vandana Shiva (1989) and Karen Warren (1990) are of the opinion that patriarchal and capitalist systems are exploiting nature and marginalised groups, especially women. This form of dual exploitation can be seen in for instance industrial agriculture, extractive industries and deforestation. These practices prioritise profit over ecological and social well-being.

Biehl (1991) is of the opinion that the spiritual foundations of ecofeminism might reinforce essentialist ideas about the connection of women to nature. An example of such an essentialist idea about the connection of women to nature is the belief that women are naturally more nurturing and caring. They are more in tune with the natural world due to biological reasons, such as their ability to give birth. This perspective assumes that all women share these characteristics universally and that they are innate, rather than shaped by cultural, social, or individual factors. So according to Biehl (1991), essentialist ideas risk the reinforcement of traditional gender roles and therefore limit the diversity of women's experiences and identities.

(From my research paper)

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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)?

My research aims to find ways to balance the challenges of urban development within a fragile environment and community, through equitable and sustainable architectural intervention. These topics align with the interdisciplinary approach of my studio, master track and Msc program since they touch upon architecture, urban planning, and landscape design to support displaced and long-term residents. Furthermore, the importance of management strategies is also represented due to the planning aspect of the broader program, which involves farming and communing. My architecture track provides and enables the theoretical and technical basis for realizing the program, especially since I will be designing my buildings close to the seasonal wetlands in a hot climate.

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

I believe my graduation work is highly relevant on a social, professional and scientific level. It addresses issues in a country that has been through many wars and conflicts, which creates many challenges. On a social level, it pays close attention to the impact of major infrastructure projects. This is relevant because it touches upon displaced communities and environmental catastrophes, whilst also trying to tackle social inequality by adopting an equitable perspective throughout the whole graduation project. By taking this position, I aim to highlight the needs of vulnerable stakeholders, without neglecting long-term residents.

On a professional level, the research addresses global urban planning trends, paying attention to sustainable urban development with a focus on community well-being. The project could provide insights for policymakers and designers that are willing to consider ways to mitigate the impact of major infrastructural projects. Particularly in the cases of historical, social, and ecological dynamics of affected regions, especially in post-conflict and environmentally fragile contexts.

On a scientific level, the topic touches upon the fields of urbanism, geography and environmental sciences by delving into specific ecosystems and intermittent wetlands, along with exploring the relational port identities and the interconnected urban dynamics. I believe that I bridge theory and practice by proposing equitable design interventions for a sustainable urban development model in the city of Zubayr, and possibly beyond, to mitigate infrastructural violence. I propose a new way of living for displaced communities and an integration model within an urban environment, whilst protecting their professions and the local ecosystems.