

# **Basra's Future: Rise or Dive?**

**Exploring community needs in the face of environmental challenges and urban developments**



Figure 1: Golden cracks in Al-Faw (Kamel Abd, 2023)

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**Graduation Studio: City of the Future**

# 1 Introduction

Iraq has entered a phase where it has been working on certain projects to rebuild the country, and come back stronger after facing decades of war. One of the regions that has been impacted the most by the conflicts, is the southern port city of Basra. It is also the capital of the eponymous Basra gouvernante. It is the second largest city in Iraq, behind Baghdad (Zwijnenburg, 2020).

The past few years, a new major project has been on display, the 'Grand Faw Port'. This port is being built in the most southern city of Iraq of Al-Faw along the Persian Gulf, in the Basra gouvernante. It is supposed to become the biggest port in the world, strengthening Iraq's geopolitical position in the Middle East. Furthermore, this port will function as a 'terminal' for goods coming from Asia by ships, to further transport them. This is supposed to be done by the 'Iraq Development Road', a modern high-speed railway network reaching from southern Iraq up to the northern border with Turkey. New roadways are also included in this plan.

But what are the current conditions of the landscape serving this huge port? A lot has, and is happening in the region. This has resulted in many environmental problems. These occur in many scales. What about the people living there? The communities living in and around Al-Faw have been leaving the area, looking for better living conditions elsewhere. They typically go to the city of Basra or much further away, to Baghdad (Hadeel et al., 2010).

## 2 Problem Statement

The Grand Faw Port is an Iraqi port in the Al-Faw Peninsula, at the southern tip of the Basra gouvernante. This port is under construction and aimed to become the largest port in the world. The new 'Iraqi Silk Road' is supposed to create a connection between Asia and Europe by establishing a network of railways (Joe, 2021). However, the region has been facing major environmental catastrophes for the last decades, resulting in people leaving the area (Jabbar & Zhou, 2013). This is potentially leading to the loss of certain skills, culture, identity and place attachment. Based on this problem statement, a main research question and sub-questions are formulated.

*Research question:*

**To what extent can the needs of the rural community of Basra be made visible and elevated through architecture, regarding the environmental and urban challenges of the region?**

*Sub-questions:*

### **1. What are the consequences of the environmental issues of the region?**

This chapter will provide insight into the primary environmental issues that are impacting the region of the Basra Gouvernante. The issues that will be addressed are the ones that affect both the daily lives of the citizens, as well as the general health of all living organisms, including humans, animals and nature. In this region, the understanding of the health of the community

goes beyond humans. This is due to the fact that a large part of the economy, especially in the most southern city of Al-Faw, relies on its fishing and farming industry (Jabbar & Zhou, 2013).

## **2. Which impact will the development of The Grand Faw Port along with the Iraq Development Road have on the urban landscape of Basra?**

This chapter will provide background information of the major projects that are currently being planned and realised in Iraq's port city. It is crucial to have a better understanding of these projects and their historical background. This goes further than understanding what they are, but more importantly, what they are supposed to offer. What do the parties involved aim to achieve? What are the urban and environmental risks?

## **3. What are the current concerns and needs of Basra's community in relation to architecture?**

This sub-question serves the purpose of highlighting the concerns of the local people. In this way, there will also be more understanding for their needs. Does the architectural needs of the community align with the wishes of the government and the local authorities? How is the dynamic between them, is there any communication? Which tools can be used to make the community voices heard? It is important to note that the outcome of this question will not, and should not, only impact humans. The problems in the region affect vulnerable organisms too (Al Jazeera, 2018). It is relevant to keep this in mind while discussing architectural interventions that benefit human needs, but could potentially have downsides for others.

## **4. How could architectural and urban interventions help to balance the environmental concerns and the potential economic opportunities brought by The Grand Faw Port?**

This chapter will provide a number of possible architectural and urban interventions on a larger scale. The goal is to create a sustainable proposal of how the port's development could be aligned with the long-term well-being of Basra's community. In order to get a broader perspective of (successful) interventions made elsewhere, a case study of a different city will be conducted.

## **3 Relevance**

This research is relevant because it involves the intersection of three elements that are crucial to me when choosing an interdisciplinary approach, as shown in figure 2. The environmental conditions of the region and its impact will be studied. The social element is covered in looking at communal dynamics, whilst also acknowledging the geopolitical situation and the power dynamics involved. The most important takeaway for me is that the well-being of communities and the well-being of the planet are intertwined.

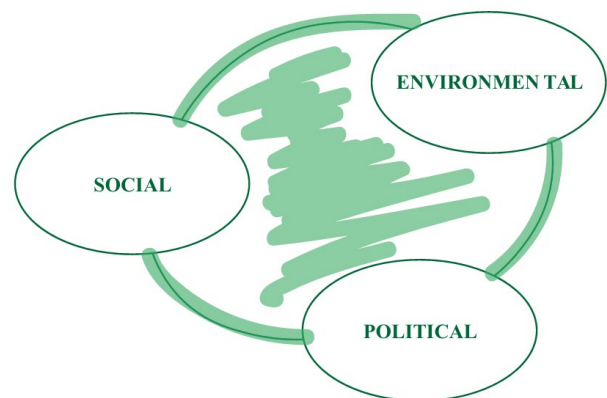


Figure 2: The research covers the space between the three elements (own work)

## 4 Theoretical Framework

This chapter outlines a theoretical framework for three components that are relevant to this paper, which are: oil pollution, desertification and geopolitical position. The reason for this is because each component is a reflection on one of the three elements mentioned in the previous chapter. In addition, the theories in this framework each form a bridge between the components because they touch upon both of them, making them work together, see figure 3.

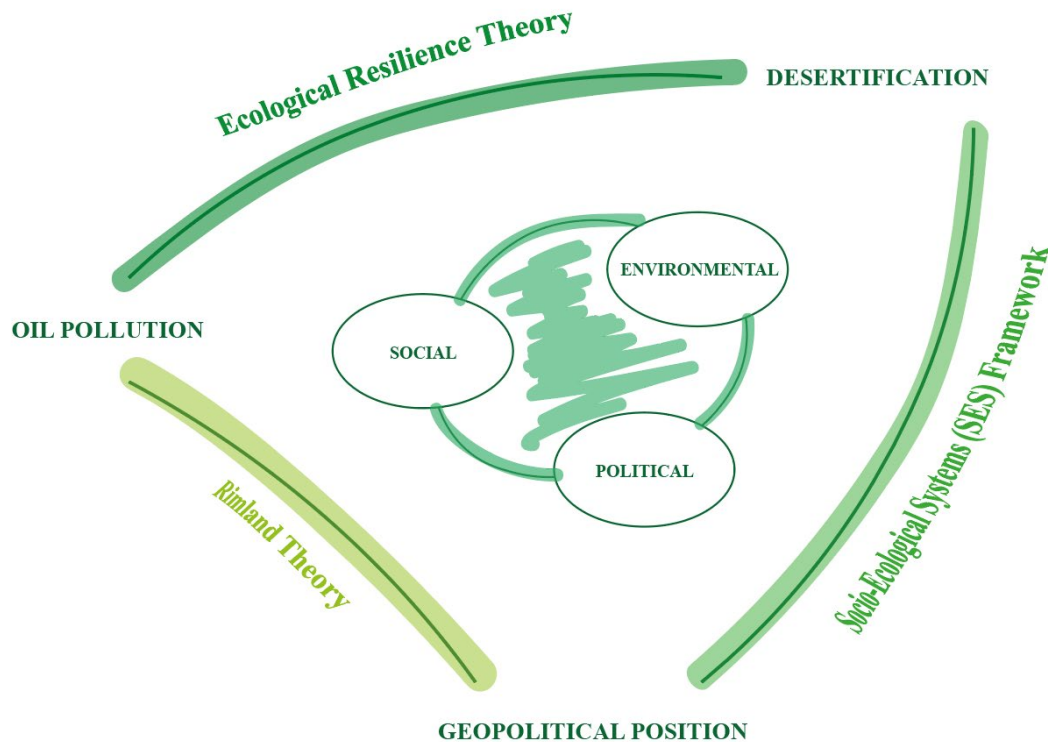


Figure 3: The theories and their relation to the three elements and the three components (own work)

### *Oil pollution*

‘Ecological Resilience Theory’ describes how ecosystems respond to disturbances such as oil pollution. It also describes how they can recover from it. The focus lies in the ability of an ecosystem to absorb damage, reorganize, and maintain essential functions after being disturbed. If the damage is too severe, ecosystems may reach a critical point. This could then lead to an everlasting shift into a degraded state. The understanding of resilience in this theory covers the speed of recovery, which is also called the engineering resilience on the one hand. On the other hand, it covers the capacity to adapt to changes while still functioning, which is called the ecological resilience. In the case of oil pollution, resilient ecosystems are able to recover and maintain key functions. However, severe or repeated pollution can push them beyond recovery thresholds (Clarke & Mayer, 2016).

### *Desertification*

The ‘Socio-Ecological Systems (SES) Framework’ is a theory that describes the interaction that human activities have with natural processes, that end up leading to the degradation of land. Therefore, it is showing how unsustainable land use is. In the context of this paper, an example

could be poor irrigation, along with socio-economic changes such as conflicts, and how these interact with ecological factors. These could be climate change, extreme heat and drought. These interactions often create situations where desertification makes poor socio-economic conditions even worse. This then leads to more environmental degradation. This theoretical framework accentuates the relevance of resilience and adaptation through sustainable land management in order to mitigate the effects of desertification (Pricope et al., 2022).

#### *Geopolitical position*

The ‘Rimland Theory’ is developed by Nicholas Spykman. He emphasizes how important the geopolitical position is of coastal regions surrounding the Asian and European continents (Eurasia). This stretches all the way from western Europe, through the Middle East to East Asia. He also calls these coastal regions the ‘rimlands’, creating the Rimland theory. He argues that having control over these areas is crucial for global dominance. He is of the opinion that the coastal perimeters serve as a buffer zone between land and sea powers. In other words, being dominant in these strategic rimlands provides the gateway to control trade routes, resources, whilst also having political influence. These are all facets to be a global power (Zheng-Yu, 2006).

## **5 Methodological Framework**

In this paper, research will be conducted through multiple research methods. The diagram (figure 4) shows an overview of the methods that will be used, the theories and the design agenda. I call it the ‘de-search diagram’, a composition and a merge of the words ‘design’ and ‘research’. During the process of this project, this horizontally oriented tree symbolises both the thinking process, as well as the outcome of the project. During the sketching process of my diagram, I noticed that the shape of a tree was being created by the positioning of both the words and the arrows. That is why I want to use a tree as a metaphor for my de-search diagram. Since a vertical tree implies some sort of hierarchy – by having the research at the bottom (the beginning) and the design at the top (the end) – I chose to develop a horizontal tree, because there should not be a hierarchy between the research and the design, they are both equal.

The roots of the tree (on the left side) consist of different components of the problems in the region. As already mentioned, these problems affect all living organisms, just like how a weak tree affects all living organisms. The deeply rooted problems are feeding the trunk of the tree. When these components come together in the base point of the tree they merge, becoming one. This unity creates a primary research question. Through the stem axis, secondary questions are born. These will form the theoretical themes, like the fruits of a the tree. Each elevation represents the next phase of growth, the next phase of the process. Every branch is connected to its supporting branches on the other side. Just like an equation, there needs to be balance between the top and the bottom. The theories cannot exist without the methods, the top branches need the bottom branches to stand strong and grow. At the most right, at the end of the process, the design will be the outcome.

Since a design process is an iterative process, and I will be researching and designing at the same time, the design will somehow be a reflection of the research, and vice versa. So the design ideas can be seen as rainwater falling down on the de-search tree, and feeding the branches

from within, creating this ongoing cycle. Moreover, the diagram includes a rough overview of the time schedule of the project.

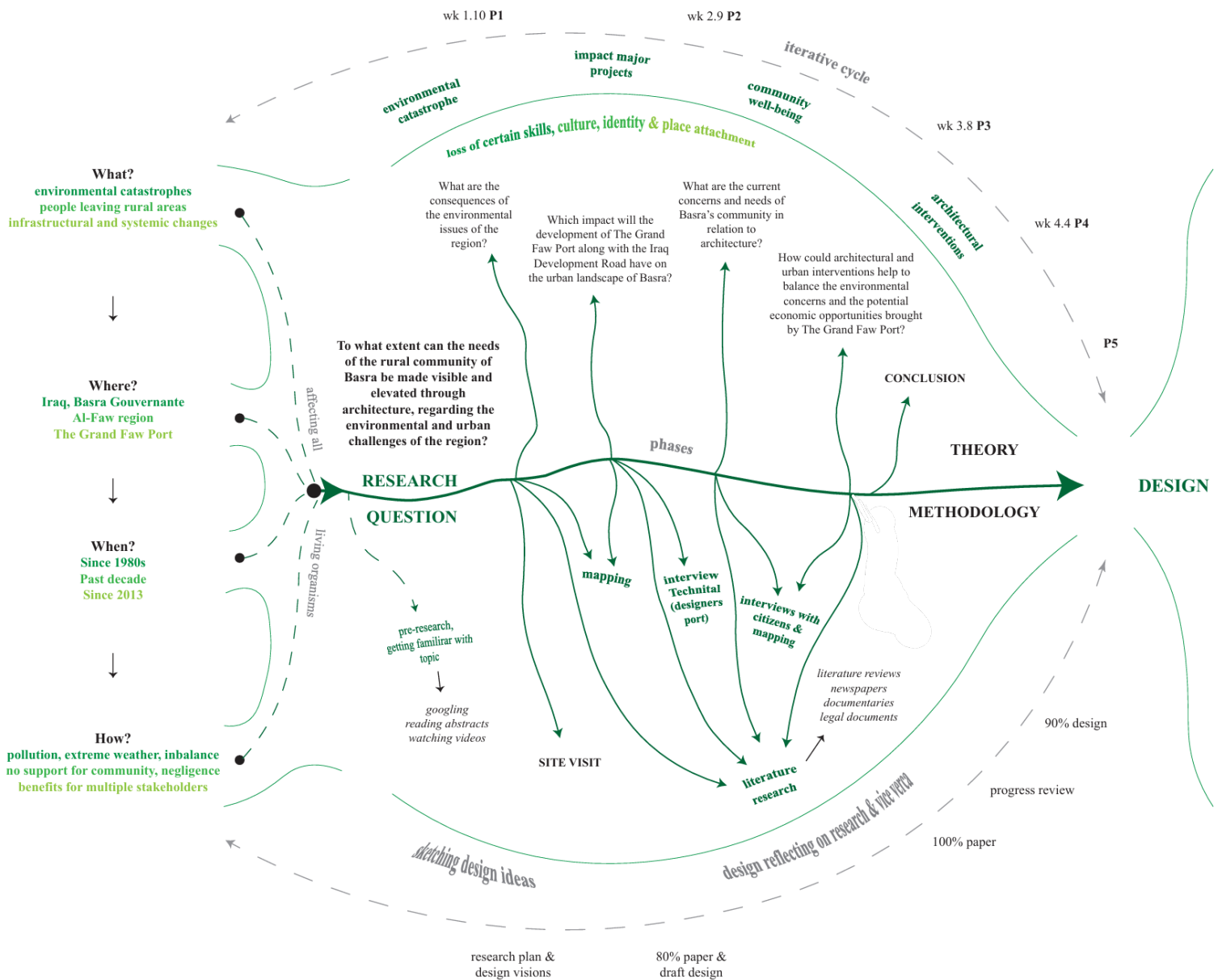


Figure 4: The de-search diagram illustrating the methodological framework (own work)

The research question will be answered through literature research. The sources of existing literature will consist of books and scientific papers, including critical reflections on the used material throughout the research. In addition, I would like to look into poems written about the region, which will be helpful in understanding the history of the city. Furthermore, I will also use newspapers, videos and social media narratives. Videos, especially in the form of documentaries, are powerful tools to use. This is due to the combination of both visual and verbal explanation in a simultaneous way. This is especially the case in the context of this paper where certain components and dynamics can seem complicated. As mentioned, other sources that are useful in this particular case, are social media platforms. Since my research focuses on community well-being, it is fruitful to look at the narratives of citizens. On the one hand, it is

very common in this day and age to share for example environmentally related experiences and findings. At the same time, for some people it is the only way to share their experiences because they might not have a different platform to make their voices heard (Hoekstra et al., 2022).

Thus, the first chapter will be covering the first sub-question. The knowledge provided regarding the environmental catastrophe in the region, will be based on both literature research and mapping. I will be mapping based on tools like Google Earth, and my own documentation during my site visit. The second chapter will cover an overview of the major urban and infrastructural projects supported by literature research and an interview with Technital, an Italian engineering firm that is involved in many of the projects related to the new port city.

The third chapter covers the current concerns and needs of Basra's rural community in relation to architecture, so interviews with people that work in agriculture will provide better insight into this. I will be doing this either on site, or online through connections made on social media. These results could then potentially be mapped or drawn to increase their readability and usability.

In the last chapter I will focus on bringing forward a number of, if possible, suggestions for architectural interventions on a larger scale in Basra. The base for these recommendations will lie in the earlier conducted results, which are: the literature research, mapping, interviews with Technital and some citizens, and my own designer's perspective. Then, a conclusion will follow, where the research question will be answered. Finally, a discussion will be provided where I reflect back on the research and the results.

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