

Introduction

1. Introduction

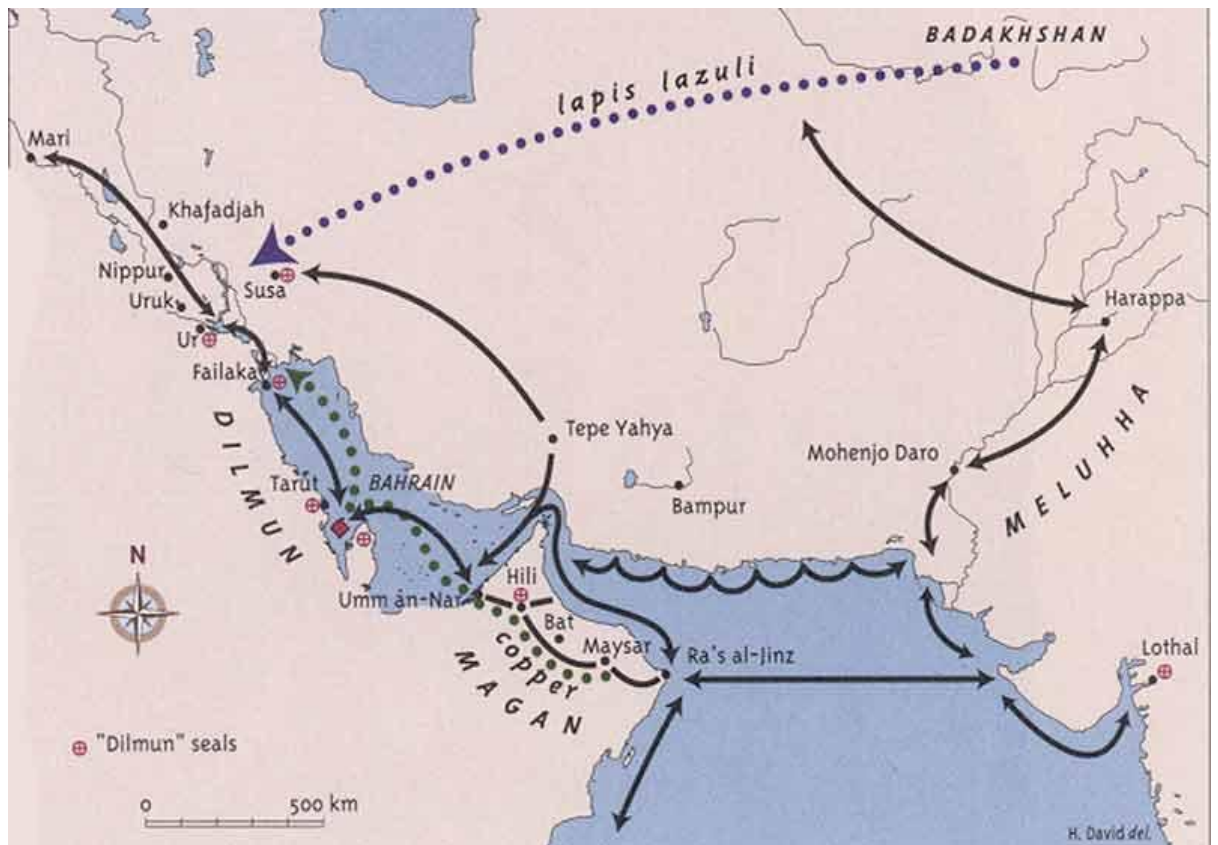
The town of Muharraq has over 2000 years of history, in terms of culture, economic development, and urbanization. Until the late nineteenth century it had been the capital of Bahrain. It has been a major pearling harbour and an important port in the ancient trade route between east and west during the Tylos, centre of pearling, era. In the late eighteenth century it evolved into an Islamic town from an earlier Christian domination and remained so until the discovery of oil in 1930. This change in the basis of the economy began transforming the ancient characteristics of this town dramatically and it began losing its centuries of traditions, culture and urban development methodologies to modernization.

Interest in this research stems from the fact that Muharraq still inherits significant cultural and architectural heritage, characteristics which are now lost in most of the Islamic towns in the Middle East. The remnants of traditional lifestyles, historic architecture and urban morphological elements are still perceptible in the form of traditional buildings, urban fabric, traditions and customs, such as during marriages and religious festivals. This study aims at reviving this forgotten heritage, educating the local and global population about its unique values and recommending appropriate measures to conserve the heritage in line with sustainable development with major emphasis on reviving its cultural values. These conservation measures are being supported by the United Nations as it has setup an Arab Regional Centre for World Heritage in Bahrain for effective implementation of World Heritage Convention recommendations for conservation and preservation of natural and cultural heritage values in the Middle East region (WHC, 2011).

Muharraq shows typical Islamic characteristics even though Islam arrived very recently, prior to which Christianity prevailed from fifth century AD until the late seventeenth century AD, traces of which are present in the form of names of places and churches. Al Khalifa established the town based on Islamic laws and principles in the late seventeenth century AD and ruled from there over Bahrain. Following the discovery of oil the ruling family migrated to Manama on the main island of Bahrain. This commenced the decline of the town both economically and culturally causing dramatic loss of tangible and intangible heritage.

Bahrain, which was known as the Land of Immortality during the Dilmun era, developed as a centre for trade and commerce during the Bronze Age (3200-1300 BC). The pearl trade was so lucrative that during the historic period it was the only means of sustaining Bahrain's economy, supporting the whole society, and shaping a social structure based on a hierarchy of different professions and occupations connected to pearling. Muharraq was the main port for the pearl trade and a gateway to Bahrain.

Sumerian, Babylonian and Assyrian sources suggest that Bahrain played a major role in the trade route between the East and the West during the Dilmun period (Potts 1990). The Dilmun seals influence extended from Bahrain along the entire Eastern Arabian coast - from Kuwait to the United Arab Emirates (Map 1). And Bahrain's strategic importance in the Gulf trade networks attracted several Arab tribes and their dynasties, such as Abd al-Qays, Khawarij, Qarmathians, and Uyunid to Bahrain (Al Hadi, 2009). For centuries these tribes played an important role in the growth and development of Bahrain.



Map 1 The strategic location of Bahrain on the ancient trade routes between Far East, Middle East and the West (Casson, 1989).

In the 15th century the islands of Bahrain were ruled by Al-Jabar family who had links with the Kingdom of Hormuz (in Iran) under Portuguese rule. In the 18th century Bahrain was governed by al-Maduhkar family from Oman. In 1783, the Utub tribe from the Arabian Peninsula occupied the island and brought Iranian rule to an end. Subsequently, in the 19th century the al-Khalifa rule under the Utub confederation ushered Bahrain into a system of modern statehood (Fuccaro, 2000). From the Sasanian period in the early centuries AD onwards, Bahrain extended political control over a vast territory, which included areas of eastern Saudi Arabia (Kennet 2007). However, this predominance of Bahrain was lost in the late historic period, and modern political boundaries enforced during the 19th century constricted the Kingdom of Bahrain to only 33 islands.

The Al-Khalifas moved to Bahrain from Qatar in 1797 where they had lived in a prosperous town called Zubarah on the west coast of Qatar. They abandoned Zubarah and migrated to the town of Jaw on the east coast of the main Bahrain island in 1797 after their first war with Wahabi tribes. Subsequently they moved to Muharraq in 1800 and set up their first political capital there. Even though Manama was more populous and a trading hub of Bahrain at that time, the al Khalifas and their supporters preferred Muharraq, which had a better climate and was less vulnerable to outside invasions, as it was well protected with forts and a protective wall (Onley, 2004a).

This trade dominance of Muharraq reached its climax in the 19th century, before it collapsed due to the discovery of oil in the region and increased demand for cultured pearls triggered by the Great Depression in the 1930s. Despite its long history and local and regional significance, the old town of Muharraq is grappling to maintain its historical identity as a consequence of modernization and changes in cultural and traditional lifestyles. Both lifestyles and practices changed significantly with the emergence of a new urban landscape created by large-scale land reclamation and the rapid transformation of old buildings into more modern housing units. For over two centuries, the town of Muharraq was an aristocratic residential and trading centre, which was mostly comprised of one to two storey houses made up of lime sand brick with inner courtyards. But the last 50 years show a steep decline of traditional styles of living as its wealthier residents moved to new suburban developments in areas with easier vehicular access, better infrastructure and 'modern' planning approaches. In the 1970s a new master plan brought major roads into the historic areas of the old town, causing irreparable damage to the old fabric; most notably, the destruction and abandonment of historical buildings, the isolation of entire neighbourhoods, and the erection of unsympathetic multi-storey buildings. This process of deterioration was accelerated by a lack of investment in the old city and its infrastructure.

At almost the same time other towns in the Middle East; such as in Kuwait, Saudi Arabia, Qatar and the United Arab Emirates have lost their entire old heritage to modernisation, however Muharraq has managed to retain a strong alignment to the principles of the Islamic town. Zubarah was eventually destroyed and only the imprint of the town remains in its ruins, along with the fort (Map 2). The ruins of Zubarah are distinctly visible on old aerial photographs, which reveal the intricate urban fabric typical of an Islamic town with a double walled fortification. The same pattern is observed in the initial settlements in Muharraq.

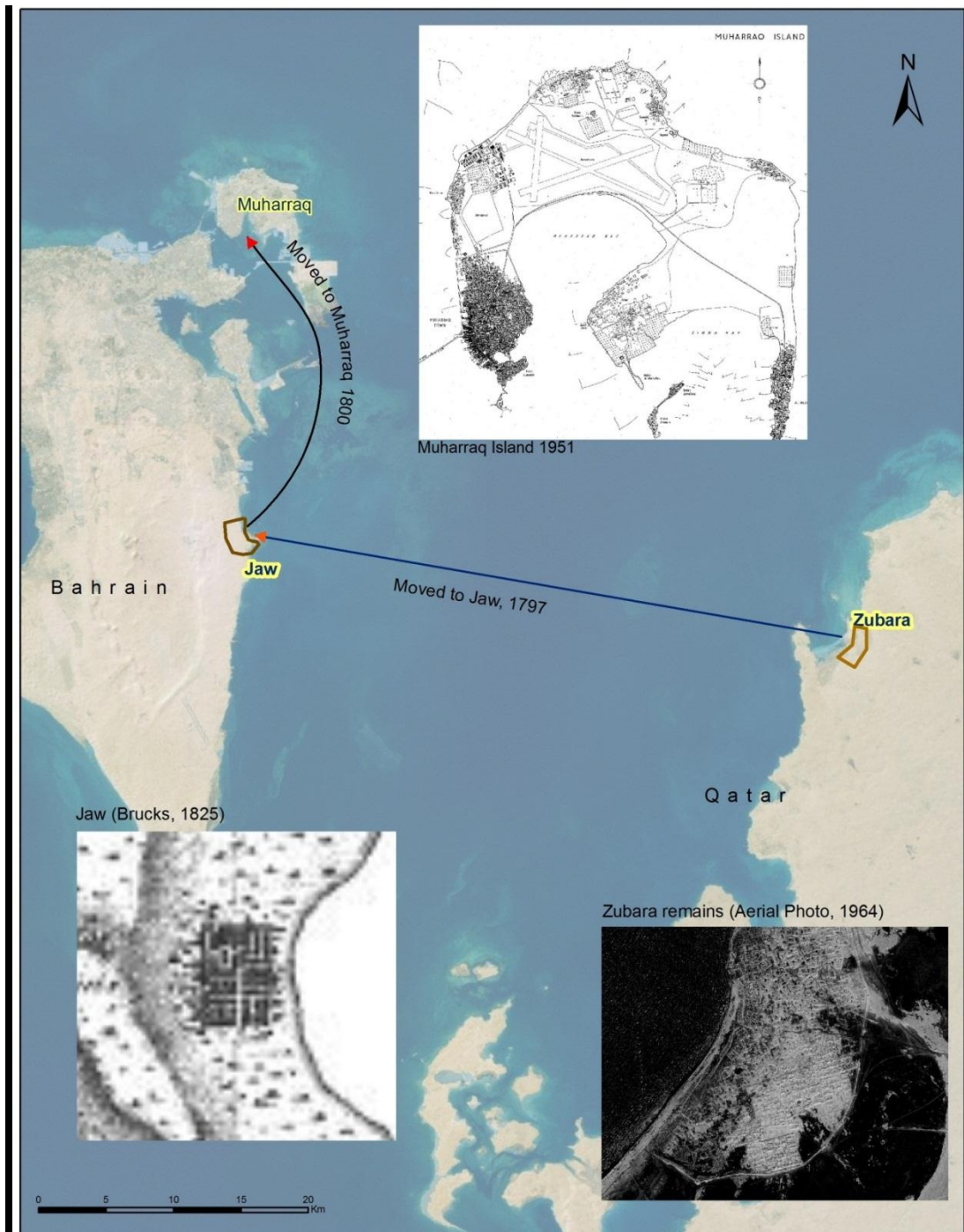
Even though a number of attempts were made in the past to protect various historical elements, owing to a lack of sufficient knowledge, understanding of conservation and preservation methodologies and the materials used, the deterioration has taken a heavy toll leading to massive loss of heritage. Some of the major losses include – the destruction of Bu Maher fort and many houses of the early rulers, as well as old mosques, which have been rebuilt, losing their original architectural characteristics. Finally and most importantly, the inhabitants who built the town gradually moved out due to deterioration of living conditions in the old quarters and occupation of old buildings by bachelor emigrants. This has impacted on the urban fabric as will be seen in later chapters.

Notwithstanding these changes in economic infrastructure, lifestyle and rapid urbanization, Muharraq has tried to hold onto its various tangible and intangible heritage values. This is evident in its urban fabric, even though it lost its original context and connection to the sea. Muharraq also preserves numerous examples of tangible heritage, such as houses of well-known people and businessmen, forts and mosques. The most important heritage element that Muharraq maintains is the traditional cultural values amongst some of its residents, such as centuries old traditions and customs during marriage and religious ceremonies and the music practiced by the pearl divers and people of the community.

Lately, the government of Bahrain has realized the importance of Muharraq and the heritage value it holds, and has decided to exploit these for social and economic development. In the 1980s, for the first time, the government started working towards finding ways to preserve this heritage alongside programmes of development and modernization. Consequently, earlier plans for the destruction of large areas and many old buildings were abandoned and a new, stricter set of regulations were developed to curtail the demolition of any traditional buildings and elements of heritage. In 2008, the government bestowed the task of conservation and preservation on the Ministry of Culture and Information to implement stricter action to protect heritage with the cooperation and consultation of the public in the governmental planning processes.

The relevance of this thesis stems from a lack of research on the towns and cities of Bahrain despite the historical significance of the region. In realisation of the urgent need to conserve Muharraq's heritage, this study has been undertaken to leverage the latest technological tools to analyze the historical data and subsequently to suggest possible strategies and priorities for conservation with due consideration for sustainable development.

The term "heritage" used in this study applies not just to antique landmark structures, but instead encompasses other urban elements which are often less obvious. Muharraq has a number of significant heritage landmarks, such as the Sheikh Isa House, Arad and Bu Maher fort and many others. However, there are elements which are more important as heritage and which form the basis of the town such as cultures and traditions, 'urban fabric' which include the neighbourhoods, building architecture, and organization which conformed to Islamic traditions established by generations of Bahraini people. These are yet to be recognised as culturally valuable and worthy of recognition as cultural heritage in its own right.



Map 2 Sequence of movement of Al Khalifa prior to first settlement in Muharraq in 1800.

2. Aims

This study aims to contribute towards the planning and strategic decision-making processes for the regeneration and restoration of the old town and the creation of a vibrant and 'living' city; protecting the old city of Muharraq from future development, and delineating the boundaries of the heritage town. In order to achieve this, the most essential element is to recreate the urban environment so as to attract the original inhabitants back to their neighbourhoods and thus to salvage the cultural heritage which is currently being lost.

The study also aims to suggest regulations to preserve the aesthetic and historical value of houses in the context of their aesthetics or association with famous people or events in history. To this end, this study will provide a better understanding of the evolution of the town of Muharraq from the time of its first establishment, determine core areas of the town and examine its pattern of its growth. The historical significance of Muharraq will also be assessed.

Finally the study aims to analyse the challenges to conservation and preservation policies. The conservation and preservation policies developed mostly in western countries were adopted almost in their totality in the Arab region. However these policies are too broad in extent and not suited for this region owing to their cultural differences.

The overall aim of this study therefore is to provide a comprehensive urban history of Muharraq in order to facilitate the following:

- i. An understanding of the evolution of Muharraq
- ii. Delineation of the historic city fabric and heritage sites,
- iii. The impact of various factors on the growth and development of the city,
- iv. Assessment of the impact of demographic changes on the heritage,
- v. Development of heritage protection recommendations for the heritage town
- vi. Determination of the advantages of geospatial analysis in conservation processes.

Specific Research Objectives

The specific objective of this work is to determine the problems faced in protection and conservation of the heritage of Muharraq; to find solutions that reactivate the historical environment while integrating it with the new environment and transferring it to the next generations for historical continuity.

3. Study Area

Muharraq is the smaller of Bahrain's two main islands (see Map 3). The name 'Muharraq' is of comparatively recent origin and was not applied to the present day Island of Muharraq until after Sheikh Abdullah Bin Ahmed Al Khalifa founded the city in the year 1225 HI or 1810 A.D. Just as Awal was the former name for the largest of the Bahrain islands, Arad was the name given to the island known today as Muharraq (Lorimer, 1915).

The town of Muharraq was founded by Sheik Abdulla bin Ahmed in 1810 (Al-Khalifa, 1986; Al Nabhani, 1998) when he lived on a small sandy island south of Muharraq island. This arrangement was depicted in a sketch of Muharraq made by Forbes in

1817. Interestingly, he depicts Bu Maher as Muharraq and the mount of Muharraq on the main Muharraq island as empty (Forbes, 1817).

Other references suggest that the modern settlement of Muharraq started in 1796 under the command of Sheik Abdulla bin Ahmed al Khalifa (Wali, 1990). These references indicate that Al Khalifa and other tribes left Zubarah (in Qatar) en route to Bahrain and settled in Jaw, a small village in the southeast of the main Bahrain island in 1799 (Map 4). In 1800, they left Jaw in turn and journeyed to Muharraq (Brucks & Rogers, 1828). However, Abdulla bin Ahmed remained in Manama until 1819, at which time he settled in Muharraq because of its healthier fresh air and pure water as compared to Manama which was perceived to have many disease-causing swamps. Consequently, these salubrious characteristics of Muharraq influenced the Sheikh to use it as the site of his headquarters in 1800 (Map 5).

Major changes once again came to Muharraq when oil was discovered in the early 1930s. This event triggered major economic changes which caused significant upheavals in the geography of the islands. In Muharraq these events led to the expansion of Muharraq Island in order to build an airport and the construction of a causeway linking it to mainland Bahrain. Until then Muharraq occupied less than a quarter of the current Muharraq Island.

This study is confined to the historical, pre-expansion area, which comprises ten administrative blocks of present day Muharraq (Map 5.).



Map 3 Location of Bahrain in the Gulf.



Map 4 Location of Muharraq and Jaw with respect to Qatar and the Middle East.



Map 5 Muharraq island showing the study area marked with block numbers.

4. Methodology

A preliminary investigation of the literature and certain official records revealed a wealth of information relating to the objectives of this study. This literature was compiled by various governmental agencies and individuals and included archives of satellite and aerial imagery taken in the 1950s and 1960s. These archives were able to provide not only an extremely valuable insight into the town's urban and demographic history, but also clues about the growth patterns of the city and the factors adversely impacting on its heritage fabric.

The archived data was mostly in paper format and was recorded at different scales. It was therefore difficult to analyze using traditional techniques, particularly when combined analysis is necessary. This study therefore utilizes a Geographical Information System (GIS) to enable the analysis of the diverse types of data. GIS in conservation planning has significant advantages over non-GIS based approaches as it collates spatial data and non-spatial data to a common reference and facilitates more objective analyses of datasets.

GIS is also useful in that it is able to provide relative scores to every location in the study area based on preselected conservation parameters. These scores can be calculated for each location, resulting in a map of overall conservation value throughout the study area. Areas with the highest total conservation values that are not already protected are considered highest priority for future protection efforts. Therefore, an aim of the study is to generate a comprehensive heritage database of the area. This would allow for:

- The preparation of a thematic map using visual interpretation techniques.
- The generation of a spatial framework for perspective and development plans.
- The analysis of urban land use change
- The analysis of urban sensitivity, based on physical parameters.

Furthermore, GIS helps collect, integrate and analyse data from a range of disparate sources. Using thematic mapping assists in better visualization and enhanced interpretation of separate datasets collectively. Also, three-dimensional rendering and analysis of the terrain reveals topographic undulations and properties hitherto obscured due to extensive urbanization, leading to more effective interpretation.

5. Organization of Thesis

The thesis is organized into six chapters.

- 1- Literature review
- 2- The Town of Muharraq
- 3- Sources and Methods
- 4- Analysis
- 5- Discussion
- 6- Conclusions

The first chapter reviews the literature in context of this work elaborating the complexities and dilemmas of urban preservation and conservation.

The second chapter introduces the city of Muharraq through its history, economic, social and political development, identifying different critical periods in history in the context of urban development and change. It further enunciates the significance of the heritage of the town, its current status and reasons for protecting and conserving it.

Chapter 3 describes various data sources and geospatial data analysis techniques for unravelling the obscured historical urban morphological attributes. It also describes the methodology for collating incongruent data sets in order to facilitate collective interpretation towards assessing relevant parameters.

Chapter 4 performs spatial analysis on the data layers created in the preceding chapter in order to assess morphological, demographic and social characteristics of the town,

and the distribution of heritage components which need to be conserved and some which have been lost and could be restored.

Chapter 5 offers a discussion of this analysis, and Chapter 6 presents a conclusion and recommendations for further work.