



UNIVERSITI PUTRA MALAYSIA

***IDENTIFICATION OF CULTURAL PROPERTIES OF ARAB
DISTRICT, ERBIL, IRAQ***

OMAR KHASRO AKRAM

FRSB 2017 4



**IDENTIFICATION OF CULTURAL PROPERTIES OF ARAB
DISTRICT, ERBIL, IRAQ**

By

OMAR KHASRO AKRAM

**Thesis Submitted to the School of Graduate Studies, Universiti
Putra Malaysia, in Fulfilment of the Requirements for the Degree of
Master of Science**

May 2017

All material contained within the thesis, including without limitation text, logos, icons, photographs and all other artwork, is copyright material of Universiti Putra Malaysia unless otherwise stated. Use may be made of any material contained within the thesis for non-commercial purposes from the copyright holder. Commercial use of material may only be made with the express, prior, written permission of Universiti Putra Malaysia.

Copyright © Universiti Putra Malaysia



**Abstract of thesis presented to the Senate of Universiti Putra Malaysia in
fulfilment of the requirement for the degree of Master of Science**

**IDENTIFICATION OF CULTURAL PROPERTIES OF ARAB DISTRICT,
ERBIL, IRAQ**

By

OMAR KHASRO AKRAM

May 2017

**Chair: Sumarni binti Ismail, PhD
Faculty: Design and Architecture**

This research aims to identify cultural properties of the Arab District, located in Erbil City, Iraq. Being one of the oldest constantly inhabited cities, Erbil City has great heritage and cultural values, including its Citadel, which is in UNESCO's World Heritage List since 2014. This district was the first inhabited area outside the citadel and, similarly to it, has highly influenced the urban fabric growth of the city and implemented the same kind of buildings, houses, construction materials and ancient techniques as the ones present inside the Citadel. However, there is no reliable information about the district neither available documents for visitors, researchers or planners to consult. In order to address this issue this thesis aims to identify the criteria based on UNESCO requirement operational guidelines 2015 and analyse the cultural properties present in Arab District, proposing a documentation framework that should be archived for the need of future conservation works.

Using Arab District as a case study, the research adopts a qualitative method in order to collect and analyse relevant information, including municipality documents, observations, photographs and interviews with authorities and specialists to confirm the authenticity of the data collected. In order to better understand the cultural properties of the area, factors like historical background, urban fabric, buildings and house typologies, are deeply analysed.

As main findings it is important to highlight the two types of house typologies, composed by one or two floors, the three different types of courtyards, where they are classified according to their rooms' location and the simplicity of the house facades built with bricks covered with shinny straw. It is also important to mention the uniqueness of the types of facades elements, where it is possible to find unique decorative elements, original voids, carpentry of doors and

windows, exterior finishing and even internal facades. Focusing on urban, the main findings focus on the urban form of Arab District, which was kept until nowadays and represents almost a triangular shape. Narrow streets with high spatial enclosure, promotes a higher social interaction. The results must be stored in a database and turned available to the public, organized in accordance to their nature and type, in an easy way to retrieve, understand and consult.

Keywords: Urban Fabric, Cultural Properties, Arab District, Erbil City, Iraq, Identification, Documentation, Protection.



**Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia
sebagai memenuhi keperluan untuk ijazah Master Sains**

**MENGENALPASTI WARISAN KEBUDAYAAN DI DAERAH ARAB, ERBIL,
IRAQ**

Oleh

OMAR KHASRO AKRAM

Mei 2017

**Pengerusi: Sumarni binti Ismail, PhD
Fakulti: Rekabentuk dan Senibina**

Kajian ini menyasarkan untuk mendokumentasi warisan kebudayaan di Daerah Arab yang terletak di Bandar Erbil, Iraq. Sebagai sebuah bandar yang sudah lama didiami orang, Bandar Erbil mempunyai pelbagai warisan dan budaya, termasuklah kubu yang mana tersenarai dalam Senarai Warisan Dunia UNESCO semenjak 2014. Daerah ini merupakan kawasan pertama yang didiami manusia diluar kota dan, telah mempengaruhi perkembangan susunatur di Bandar tersebut dan telah melaksanakan ciri-ciri yang sama dalam bangunan-bangunan, rumah-rumah, bahan-bahan binaan dan teknik-teknik purba seperti yang terdapat didalam kota. Bagaimanapun, maklumat sah sah tidak dapat diperoleh mengenai daerah ini samada maklumat untuk pelawat, pengkaji atau perancang untuk dirujuk. Bagi menyuarakan pendapat mengenai masalah ini, tesis ini bertujuan untuk mengenalpasti warisan kebudayaan yang terdapat di Daerah Arab dan menyimpan maklumat untuk keperluan kerja-kerja pemeliharaan pada masa hadapan. Dengan pemilihan Daerah Arab sebagai ahankajian, para pengkaji menggunakan kaedah kualitatif bagi mengumpul dan menganalisis maklumat yang sewajarnya, termasuk dokumen perbandaran, pemerhatian, imej dan temubual dengan pihak berkuasa serta pakar bagi memastikan maklumat yang telah dikumpulkan adalah tulen. Bagi memahami warisan budaya di kawasan tersebut dengan lebih mendalam, faktor-faktor seperti latarbelakang sejarah, susunatur, jenis-jenis bangunan dan rumah dianalisis dengan lebih teliti. Hasil daripada kajian mestilah disimpan dalam sebuah pengkalan data dan disebarkan kepada orang awam, dengan menyusunnya mengikut jenis, dalam bentuk yang mudah untuk diperoleh, difahami dan dirujuk.

**Karakunci: Susunatur, Warisansejarah, Warisan Kebudayaan, Daerah Arab,
Bandar Erbil, Iraq, Pengenalan, Dokumentasi, Perlindungan**

ACKNOWLEDGEMENTS

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ
{قُلْ هَلْ يَسْتَوِي الَّذِينَ يَعْلَمُونَ وَالَّذِينَ لَا يَعْلَمُونَ إِنَّمَا يَتَذَكَّرُ أُولُو الْأَلْبَابِ}
صدق الله العظيم

[الزمر : 9]

In the name of God, The Most Gracious, The Most Merciful

{ Say: Are those equal, those who know and those who do not know? It is those who are endowed with understanding that receive admonition.}

God Almighty has spoken the truth
[Az-Zumar: 9]

First and foremost I would like to thank God, who have given me the power to believe in myself and pursue my dreams, I could never have done this project without My God support.

I take immense pleasure to express my sincere and deep sense of gratitude to my supervising guide and mentor, Dr. Sumarni, who has been an excellent source of support to me and to other students, as well as to thank Ms. Andr ia Gra a for their encouragement, help, friendship and support.

The most touching thing that I will always remember was Mrs. Surah Fawzi Al Khafaji, Dr. Nadeen Nidhal Ameen, Dr. Mohammed Sabah Al-Shabander, Dr. Mohd Shahrudin Abd Manan, Mrs. Noranita Mansor and Prof. Dr. Jos  Caeiro for their directions in this field and I extend special thanks for Mr. Waleed Saeed Denno. I would also to thank the Municipality of Alc cer do Sal, Portugal, specially the Mr. President Dr. Vitor Proen a, Dr. Ana Mendes, Dr. Filipa Gon alves and Dr. Ant nio Carvalho, by their support and kindness.

Words cannot describe how grateful I am for the generous and encouragement of my parents, Dr. Khasro Akram Othman and Nada Fadhel MohammedJamil, as well as my brothers Hassan and Daniel and in memory of my brother Zaid. There are so many others whom I may have inadvertently left out and I sincerely thank all of them for their help.

I certify that a Thesis Examination Committee has met on 9 May 2017 to conduct the final examination of Omar Khasro Akram on his thesis entitled "Identification of Cultural Properties of Arab District, Erbil, Iraq" in accordance with the Universities and University Colleges Act 1971 and the Constitution of the Universiti Putra Malaysia [P.U.(A) 106] 15 March 1998. The Committee recommends that the student be awarded the Master of Science.

Members of the Thesis Examination Committee were as follows:

Norsidah binti Ujang, PhD

Associate Professor
Faculty of Design and Architecture
Universiti Putra Malaysia
(Chairman)

Nangkula Utaberta, PhD

Associate Professor Ir.
Faculty of Design and Architecture
Universiti Putra Malaysia
(Internal Examiner)

Adi Irfan bin Che Ani, PhD

Associate Professor Sr.
Universiti Kebangsaan Malaysia
Malaysia
(External Examiner)



NOR AINI AB. SHUKOR, PhD

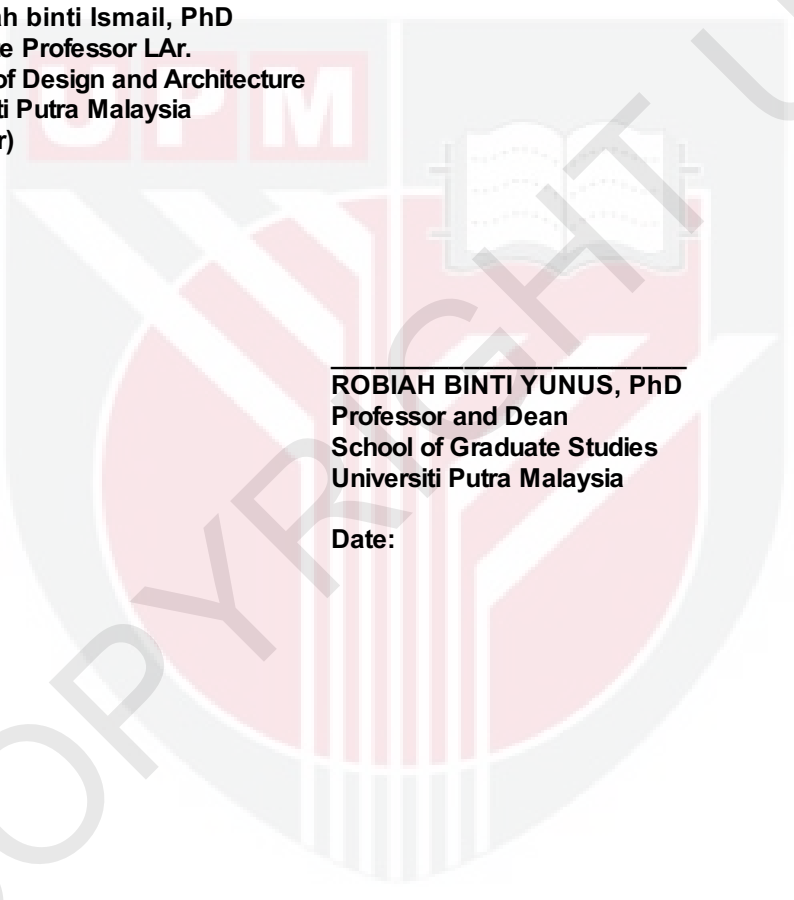
Professor and Deputy Dean
School of Graduate Studies
Universiti Putra Malaysia

Date: 6 July 2017

This thesis was submitted to the Senate of Universiti Putra Malaysia and has been accepted as fulfilment of the requirement for the degree of Master of Science. The members of the Supervisory Committee were as follows:

**Sumarni binti Ismail, PhD
Lecturer
Faculty of Design and Architecture
Universiti Putra Malaysia
(Chairman)**

**Nor Atiah binti Ismail, PhD
Associate Professor LAr.
Faculty of Design and Architecture
Universiti Putra Malaysia
(Member)**



**ROBIAH BINTI YUNUS, PhD
Professor and Dean
School of Graduate Studies
Universiti Putra Malaysia**

Date:

Declaration by graduate student

I hereby confirm that:

- this thesis is my original work ☐
- quotations, illustrations and citations have been duly referenced ☐
- this thesis has not been submitted previously or concurrently for any other degree at any other institutions ☐
- intellectual property from the thesis and copyright of thesis are fully-owned by Universiti Putra Malaysia, as according to the Universiti Putra Malaysia (Research) Rules 2012 ☐
- written permission must be obtained from supervisor and the office of Deputy Vice-Chancellor (Research and Innovation) before thesis is published (in the form of written, printed or in electronic form) including books, journals, modules, proceedings, popular writings, seminar papers, manuscripts, posters, reports, lecture notes, learning modules or any other materials as stated in the Universiti Putra Malaysia (Research) Rules 2012 ☐
- there is no plagiarism or data falsification/fabrication in the thesis, and scholarly integrity is upheld as according to the Universiti Putra Malaysia (Graduate Studies) Rules 2003 (Revision 2012-2013) and the Universiti Putra Malaysia (Research) Rules 2012. The thesis has undergone plagiarism detection software.

Signature: _____ Date: _____

Name and Matric No.: Omar Khasro Akram, GS44989

Declaration by Members of Supervisory Committee

This is to confirm that:

- the research conducted and the writing of this thesis was under our supervision ☐
- supervision responsibilities as stated in the Universiti Putra Malaysia (Graduate Studies) Rules 2003 (Revision 2012-2013) are adhered to.

Signature: _____

**Name of Chairman
of Supervisory
Committee:** _____

Signature: _____

**Name of Member of
Supervisory
Committee:** _____

TABLE OF CONTENTS

	Page
ABSTRACT	i
ABSTRAK	iii
ACKNOWLEDGEMENTS	iv
APPROVAL	v
DECLARATION	vii
LIST OF FIGURES	xi
LIST OF TABLES	xiii
LIST OF GRAPHS	xiv
 CHAPTER	
1 INTRODUCTION	1
1.1 Research Background	1
1.2 Problem Statement	4
1.3 Research Questions and Objectives	5
1.4 Research Methodology	6
1.5 Scope and Limitation of Research	7
1.6 Structure of the Thesis	8
 2 LITERATURE REVIEW	10
2.1 Introduction	10
2.2 Identifying Cultural Properties	10
2.3 Cultural Heritage	11
2.4 Cultural Properties	12
2.4.1 Urban Fabric	17
2.4.2 Buildings	18
2.5 Arab District	20
2.5.1 Historical Background	20
2.5.2 Urban Fabric and Buildings	23
2.6 Research Proposition	29
2.7 Research Process	29
2.7.1 Phase One	29
2.7.2 Phase Two	29
2.7.3 Phase Three	29
2.7.4 Phase Four	30
2.8 Summary	30
 3 RESEARCH METHODOLOGY	31
3.1 Introduction	31
3.2 Key Concepts and Formulation of Research Model	31
3.3 Research Methods	32
3.3.1 Qualitative Method	32
3.3.2 Exploratory Case Study Method	33
3.4 Data Collection	35

3.4.1	Data Collection Timing	38
3.5	Data Analysis	38
3.5.1	Content Analysis	40
3.5.2	Validity	42
3.6	Summary	43
4	RESULTS AND ANALYSIS	44
4.1	Introduction	44
4.2	Case Study: Arab District	44
4.2.1	Importing Files to NVivo and its Coding Process	44
4.3	Archival Analysis and Observations	47
4.3.1	Findings – Archival and Observations	50
4.4	Semi-Structured Interviews	65
4.5	Structured Interviews	71
4.6	Summary	78
5	DISCUSSION AND CONCLUSION	80
5.1	Introduction	80
5.2	Discussion	80
5.3	Key Findings	81
5.4	Contribution to Existing Knowledge	82
5.5	Recommendations	82
5.6	Suggestion for Future Work	83
	REFERENCES	84
	APPENDICES	91
	BIODATA OF STUDENT	101
	LIST OF PUBLICATIONS	102

LIST OF FIGURES

Figure	Page
1.1	1
1.2	2
1.3	3
1.4	4
1.5	4
1.6	7
1.7	9
2.1	12
2.2	16
2.3	19
2.4	21
2.5	21
2.6	22
2.7	24
2.8	25
2.9	25
2.10	26
2.11	27
2.12	27
2.13	27
3.1	41
4.1	45
4.2	45
4.3	46
4.4	46
4.5	47
4.6	48
4.7	48
4.8	49
4.9	50
4.10	51
4.11	52
4.12	53
4.13	54
4.14	54
4.15	56

4.16	House Façade, Featuring Different Designs of Windows	56
4.17	Different Types of Used Materials in Main Doors and Different Styles on their Upper Part	57
4.18	Decorative Elements Surrounding the Main Door	57
4.19	On the Left Side it Shows Architectural Heritage that Should be Preserved (Materials and Decoration on Upper Part of Houses). On the Right Side, New Windows or Doors Should Only be Permitted if there is Any Evidence that an Opening was Located on the Intended Position	58
4.20	Different Decoration on the Side of Houses, Using Paintings (Left) and Arcs (Right)	59
4.21	Different Decoration on the Outside of Houses, Using Bricks and Paintings Featuring Nature Elements	59
4.22	Buffer Zone of Arab District	61
4.23	Sultan Muthafer Street	62
4.24	Outside of Kotri Salaam	62
4.25	Sheikh Choly Street	63
4.26	Ancient Façade Style (Ottoman) of the Bazari Qeyseri (Citadel Bazaar)	63
4.27	Inside of Bazari Qeyseri (Citadel Bazaar)	64
4.28	Qalat (Citadel) Street	64
4.29	View Toward the Bazaar and Bata Street	65
4.30	NVivo – Semi-Structured Interviews Analysis	66
B.1	Website Homepage	93
C.1	Letter to Erbil Governorate	98
C.2	Letter to Ministry of Planning – KRG	99
C.3	Letter to Ministry of Tourism – KRG	100

LIST OF TABLES

Table	Page
2.1 Cultural Properties Inscribed to UNESCO's World Heritage List in 2016	14
2.2 Middle East's Cultural Properties Inscribed to UNESCO's World Heritage List from 2010 to 2016	14
2.3 Iraqi Cultural Properties Inscribed and Submitted to UNESCO's World Heritage List	15
2.4 Census of Arab District	22
3.1 Characteristics of the Qualitative Method	32
3.2 Situations for Different Research Strategies	34
3.3 Data Collection Process	36
3.4 Data Collection Timing	38
3.5 Linking Data to Proposition	39
4.1 Structured Interview – Urban Fabric Results	71
4.2 Structured Interview – Built Cultural Properties Results	73
A.1 Authorities and Specialists	91

LIST OF GRAPHS

Graph	Page
4.1 Semi-Structured Interviews – Authorities and Specialists Ages	66
4.2 Semi-Structured Interviews – Authorities and Specialists Professional Activities	67
4.3 Semi-Structured Interviews – Authorities and Specialists Years of Experience	67
4.4 Structured Interviews – Need of Protection of Arab District's Urban Fabric and Architectural Integrity and Authenticity	76
4.5 Structured Interviews – Influence of Religions to the Buildings and Urban Form of Arab District	76
4.6 Structured Interviews – Presence of Important Elements of Design, Details and Materials, Representing Significant Heritage	77
4.7 Structured Interviews – Need of Identification and Documentation of Cultural Properties of Arab District	78
4.8 Structured Interviews – Confirmation on the Authenticity of the Collected Data	78

CHAPTER 1

INTRODUCTION

1.1 Research Background

Making heritage a bridge between past and present, launched toward the future and the development of the future, focusing on the important role of information and documentation, because the documentation and information, which are our heritage, should keep proving that our civilization, our identity and our memories are authentic. The most important inspiration factors is to create continuity and link between the architectural heritage and our urban contemporary (be through inspiration from architecture elements or a particular method or use solutions to climate problems, rather than replacing them with modern technology and in charge of energy that negatively affect the natural environment), with emphasis on materials traditional construction and upgraded to conform to the technical requirements of the age (Abdul Razaq, 2000□Akram et al., 2015□Akram, Franco, □Ismail, 2016a□Akram, Franco, Ismail, Muhammed, □Graça, 2016c□B. H. Ali, 1990□S. Ali, 1987□Ashour, 2002).

Focusing on Arab District, it is located near the Citadel of Erbil City, Iraq (Figure 1.1) and is considered one of the main important districts of Erbil. The district was the first inhabited area outside the citadel and, similarly to it, has highly influenced the urban fabric of the city and has the same kind of buildings, houses and traditional materials as the ones found inside the citadel (Akram, Ismail, □Franco, 2016a).

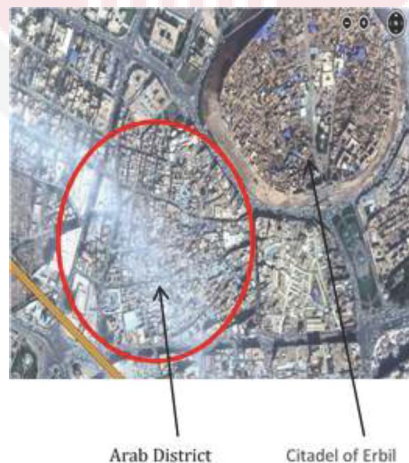


Figure 1.1: Location of Arab District in the City of Erbil – Source: Google Earth

There are important strength points of Arab District that must be highlighted, like the rich cultural heritage and architecture that exists in almost every building (Figures 1.2 and 1.3). The principles of ancient architecture can be kept and, therefore, there's no isolation among the history of the society and its past and current values. It is also possible to create a state of balance among the rational developments of the global architecture, the technological world and the environmental development process, fitting the local conditions in social and economic conditions. The successful experiences done by our ancestors are major benefits that can be taken from the district and show the way to balance the development with modern models. Some other good points of the area are the good location near to parks, panoramic views and shopping areas (Akram, Ameen, □ Khalaf, 2014 □ Akram, Ismail, □ Franco, 2016b).



Figure 1.2: Example of a Traditional House in Arab District – Source: author

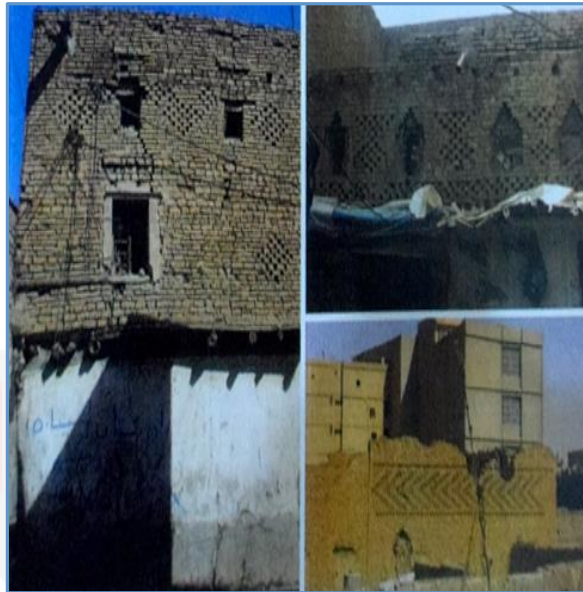


Figure 1.3: Example of Different Architectural Designs in Traditional Houses of Arab District
– Source: author

However, there are also some important issues and threats related to the district and that are putting it at a serious risk of loss. The historical buildings and areas are being exposed to really long periods of negligence, where no attention is paid, resulting in the possible loss of important values and heritage characteristics. Some of the buildings present a high level of destruction and irreversible stages, causing, once more, the loss of important features that cannot be rebuilt. Due to its location, near the city central and main shopping zones, the area is constantly crowded, resulting in high levels of pollution that, due to the lack of cleaning activities, is putting the place at risk. Also the urban renewal activities, sometimes inconsistent, are not performed with attention to the historical architecture of the place, existing many modern important governmental buildings on the area. The dominance of high-rise buildings over the low buildings of the area, led to a lost of integrity in the urban fabric. All of these threats are mainly related to the low-income families that have no structure to preserve the area, leaving it obsolete and in a demolishing state (Figures 1.4 and 1.5), as well as the lack of awareness and educated community to preserve not just the buildings but the urban fabric itself (Akram et al., 2014).



Figure 1.4: Abandoned House in Arab District – Source: author

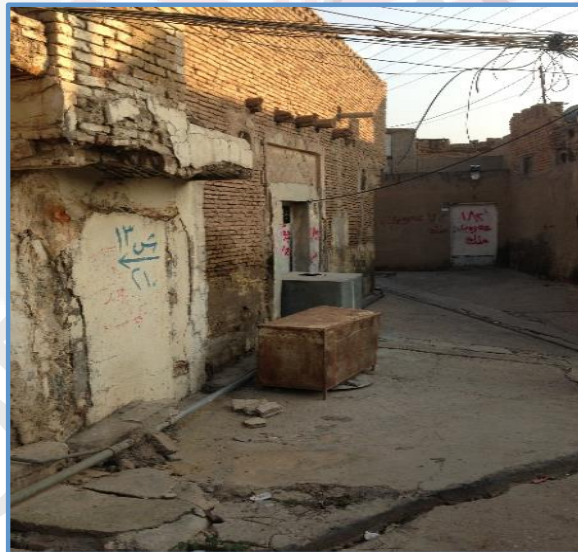


Figure 1.5: Example of the Bad Conditions of the Streets in Arab District – Source: author

1.2 Problem Statement

It is widely known that nowadays Iraq is living severe security issues. ISIS (Islamic State of Iraq and Syria) is constantly attacking new cities and gaining control over them. Heritage sites and buildings are also under the attack of ISIS and other terrorist groups. TV News and Newspapers are constantly showing new information of those sad events (BBC News, 2016 □ CNN, 2015 □ NBC

News, 2016). Such attacks are putting at risk a large number of heritage values that cannot be replaced. Once they are lost, they are gone forever.

Selecting the city of Erbil that is located near the city of Mosul, a city presently controlled by ISIS, it has a large number of heritage that are at risk to be lost forever if an ISIS attack happens. Erbil Citadel was recognised as an UNESCO World Heritage Site since 2014 and is now under rehabilitation process (UNESCO World Heritage Centre, 2014). Focusing on Arab District, which was the first inhabited area outside the citadel, it is also possible to find a large number of historical buildings and historical urban fabric with important historical characteristics, such as traditional materials, narrow streets and house typologies. Apart from possible terrorist attacks, pictures and local visits to Arab District also show a large number of ruining buildings and damage areas as the result of the poor attention to the area and low economical power of the local population (United States Government Accountability Office, 2016).

UNESCO took a step, writing a letter to the area representatives, highlighting this issue and the urgent need of action. In that letter, UNESCO declares that itself cannot protect all the cultural heritage of the Iraqi Kurdistan Region, focusing their mission on helping to strength the capabilities of the local authorities in order for them to properly act (Yigit & Ciziri, n.d.).

There is no proper documentation of cultural properties of Arab District of Erbil city, Iraq. Therefore, there is a need to identify and document its cultural properties to help on their identification, protection and interpretation, as well as to have reliable documentation for future generations, in case an unexpected attack damages the district's cultural properties.

1.3 Research Questions and Objectives

This study focuses on the cultural properties of the Arab District, located in the city of Erbil, Iraq and assumes the following main research question (Main-RQ):

- What are the cultural properties of Arab District, Erbil City, Iraq to be identified?

Nowadays, the current high speed of development of the city is responsible for the big change occurring to the urban fabric and land use. Some of the central areas for the city of Erbil, such as the Arab District, are usually left abandoned due to people relocation to modern areas, resulting in deterioration and destruction of valuable cultural properties.

The goal of this research is to achieve an answer to the following objectives:

1. To Identify the Criteria Based on UNESCO – Requirement Operational Guidelines 2015

Due to a huge lack of information regarding the Arab District located in the city of Erbil – Iraqi Kurdistan Region – there is a need to identify its cultural properties, where most of them are not known, or not identified and at risk to be demolished or damaged. To address this objective it is necessary to deeply study the UNESCO's Operational Guidelines 2015 and select the best criteria to be applied in Arab District.

2. To Analyse the Main Characteristics and Uniqueness of the Identified Cultural Properties of Arab District

According to the identified criteria, from objective one, this second objective aims to analyse Arab District in order to identify its cultural properties and their main characteristics and uniqueness, such as urban fabric and traditional houses. To correctly address this objective, it is necessary to provide answers to the following research questions:

- a) How are the characteristics of the urban fabric of Arab District? (Sub-RQ1)□
- b) What are the built cultural properties of Arab District? (Sub-RQ2).

3. To Propose Documentation Framework and Validate the Findings of Cultural Properties of Arab District

This objective aims to produce and validate detailed documentation about the cultural properties of Arab District. It is also aimed to publish the validated documentation and turn it available to students and researchers, as well as to international and local organisations, inspiring them to care about the cultural properties of their neighbourhoods. In a way to achieve this objective, it is necessary to answer the following question:

- a) Who will confirm the authenticity of the collected data? (Sub-RQ3)

1.4 Research Methodology

This research uses Arab District as an exploratory case study, deeply explained in chapter three, adopting a qualitative method, in order to collect and analyse relevant information, including not just municipality documents (archival), such as historical background and local people demography, but also observations, photographs and interviews with authorities and specialists to confirm the authenticity of data collected. In order to better understand the cultural properties of Arab District, factors like urban fabric, buildings and house typologies are deeply analysed. Once collected and analysed all information, the validation process takes place, where structured interviews

(questionnaires) are applied to authorities and specialists, in order to confirm the authenticity of the collected data and the need of its documentation. The results must be stored in an online database and turned available to the public in an easy way to access and understand (Figure 1.6).

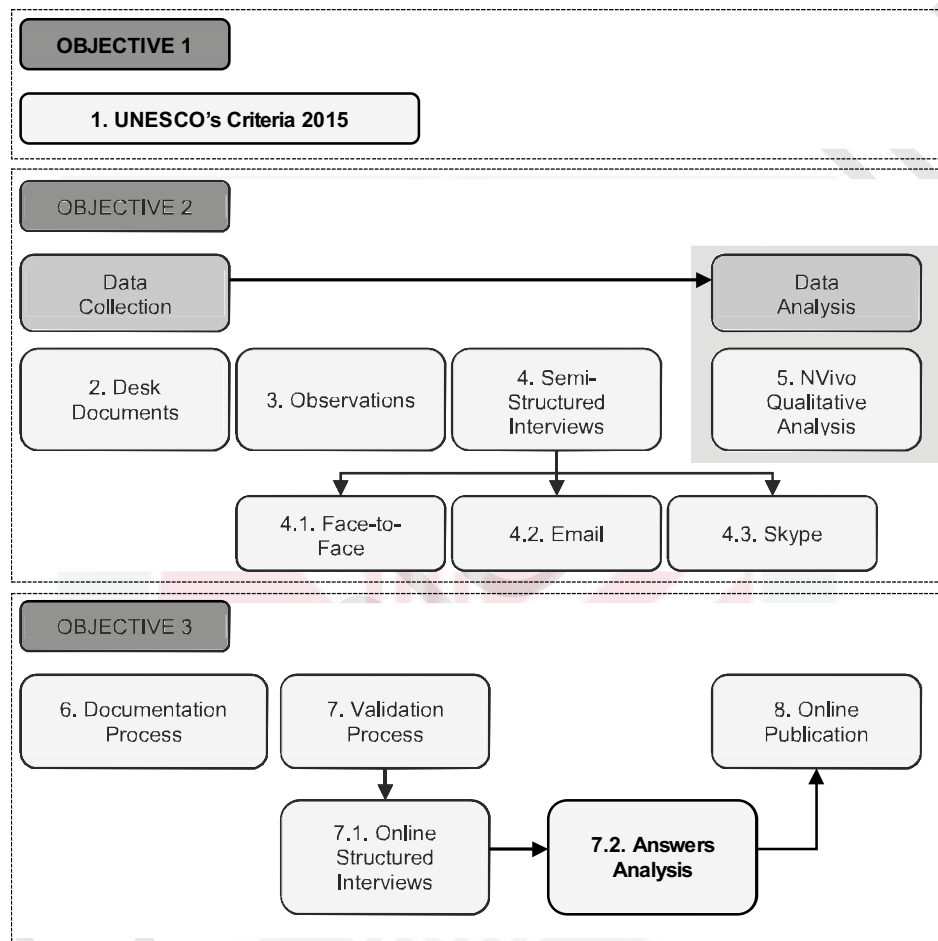


Figure 1.6: Diagram of Objectives

1.5 Scope and Limitation of Research

This research has some limitations and difficulties during the data collection procedures, mainly due to the lack of documentation about the district and the security issues that are occurring nowadays in the city of Erbil, that led people going to different areas. Apart for being the oldest constantly inhabited district in Erbil City, and the first human settlement outside the citadel, there were not enough reliable information about its cultural proprieties, being desk documents (archival), local visits and interviews the main data source of this research. The authorities and specialists also played an important role on validating the

documentation about the area. Due to this limitation, this research was divided in two main topics, the outside, or buffer zone, and, more deeply, the inside of the Arab District (Case Study). On the buffer zone topic, it is highlighted the main streets surrounding the district, while on the inside area it is focused the Arab District features, traditional and courtyard houses, including house typology, facades and traditional materials.

1.6 Structure of the Thesis

This study is organized into five chapters as follows (Figure 1.7):

The chapter one works as introduction, where are described some general concepts about the study, focusing the background study, the problem statement, objectives, research methodology and limitations of the study. It is also described some conclusions and ending with a brief description of the structure of this thesis and content of each chapter.

The chapter two focuses on the literature review and its divided in five main topics. Starting with a brief approach about the documenting process and cultural heritage, followed by the cultural properties, where it's featured urban and buildings. The chapter also focus on Arab District and its historical background, describes the research proposition and, at the end, a brief summary to close the chapter.

The chapter three focuses the adopted methodology for this research, describing its patterns as well as justification for their use. Used methods, such as qualitative and exploratory case study are described and adjusted to work on this thesis, in order to address the research problem and the identified research questions and objectives. It also highlights the research framework and its different phases, as well as the processes of data collection and data analysis. The chapter will end with a brief summary.

The chapter four focuses on the interviews, observation and documentation about Arab District and its divided in two main topics, the inside of Arab District, which is deeply approached, and the outside, or buffer zone. On the buffer zone topic, it is highlighted the main streets surrounding the district, while on the inside area it is focused the Arab district characteristics, traditional and courtyard houses, including house typology, facades and materials. At the end of this chapter is also presented a brief summary about the described topics.

The chapter five aims to present the discussion about all work and achieved results, as well as to present the answers to the initial research objectives and questions. In this chapter the questions are treated one by one, providing all relevant results that were achieved and how they influence on Arab District

protection. Furthermore, it will be described the contributions of this thesis, as well as the future research work that may be done, based on it.

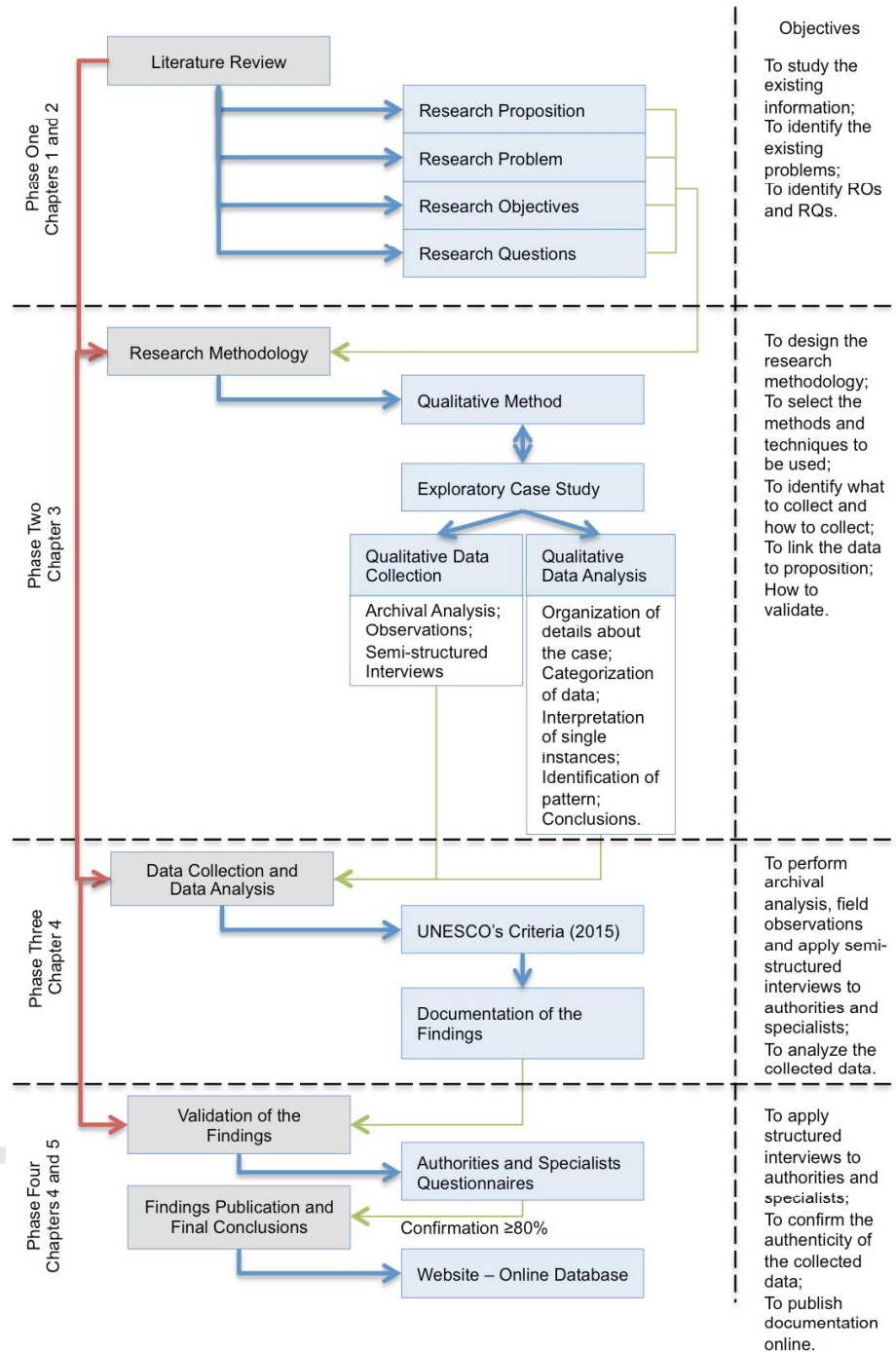


Figure 1.7: Research Process Diagram

REFERENCES

- Abdul Ghani, A. A. (2017). *Research Methods in Computer Science - SSK5090*. Kuala Lumpur: Universiti Putra Malaysia.
- Abdul Razaq, J. A. W. (2000). *Dialectic Iraqi Communication Architecture, A Study Extrapolation Architecture for Connecting the Valley of Mesopotamia-Style Architecture in the History of Iraq*. Baghdad.
- Ahmad, K. R. (1996). *World-Class And Its Impact On Modern Architecture In Iraq*. Baghdad.
- Akram, O. K., Ameen, N. N., □ Khalaf, O. A. (2014). Adaptive Resuse of Arab District (Building Rehabilitation). Erbil.
- Akram, O. K., Franco, D. J., □ Ismail, S. (2016a). Development Phases from Heritage Buildings to Smart Buildings. *International Journal of Engineering Technology, Management and Applied Sciences*, 4(4), 6–13. Retrieved from <https://drlatiffah.academia.edu/omarakram>
- Akram, O. K., Franco, D. J., □ Ismail, S. (2016b). The Cultural Significant of Erbil City: Case of Traditional Kurdistan Houses. *International Journal of Engineering Technology, Management and Applied Sciences*, 4(2), 102–106. Retrieved from <https://drlatiffah.academia.edu/omarakram>
- Akram, O. K., Franco, D. J., Ismail, S., Muhammed, A., □ Graça, A. (2016c). Promoting Heritage Management in New Smart Cities: □vora City, Portugal as a Case Study. *International Journal of Engineering Technology, Management and Applied Sciences*, 4(9), 148–155. Retrieved from <https://drlatiffah.academia.edu/omarakram>
- Akram, O. K., Ismail, S., □ Franco, D. (2016a). Urban and Tourism Development Projects for Cities Citadels (Aleppo and Erbil). *International Journal of Engineering Technology, Management and Applied Sciences*, 4(3), 60–68. Retrieved from <https://drlatiffah.academia.edu/omarakram>
- Akram, O. K., Ismail, S., □ Franco, D. J. (2016b). The Heritage Values of Arab District, Erbil City, Iraq. *International Journal of Engineering Technology, Management and Applied Sciences*, 4(2), 129–135. Retrieved from <https://drlatiffah.academia.edu/omarakram>
- Akram, O. K., Ismail, S., □ Franco, D. J. (2016c). The Significant of Islamic Architecture Heritage at Baghdad City, Iraq – Case Studies of Shrine of Lady Zumurrud Khatun. *International Journal of Engineering Technology, Management and Applied Sciences*, 4(4), 133–138. Retrieved from <https://drlatiffah.academia.edu/omarakram>
- Akram, O. K., Ismail, S., □ Franco, D. J. (2016d). The Significant of Tourism Heritage of Najaf City in Iraq. *International Journal of Engineering Technology, Management and Applied Sciences*, 4(4), 14–19. Retrieved from <https://drlatiffah.academia.edu/omarakram>

- Akram, O. K., Ismail, S., □ Franco, D. J. (2016e). The Significant of Urban Form of Erbil City, Iraq. *International Journal of Engineering Technology, Management and Applied Sciences*, 4(2), 96–101. Retrieved from <https://drlatiffah.academia.edu/omarakram>
- Akram, O. K., Ismail, S., Utaberta, N., Mohd Yunos, M. Y., Ismail, N. A., □ Arifin, N. F. (2015). The Important Values of Architectural Baghdadi Heritage. *Advances in Environment Biology*, 9(24), 46–52. Retrieved from <https://drlatiffah.academia.edu/omarakram>
- Al-Din, O. G. M. (2015). Interview with Elected Domicile Of Arab District. Erbil.
- Al-hagla, K. S. (2010). Sustainable Urban Development in Historical Areas Using the Tourist Trail Approach: A Case Study of the Cultural Heritage and Urban Development (CHUD) Project in Saida, Lebanon. *Elsevier Cities*, 27(4), 234–248. Retrieved from <http://www.sciencedirect.com/science/article/pii/S0264275110000272>
- Al-hashimi, F. W. (2015). The Persistent Element in the Old Urban Fabric , Erbil Bazar Area. *Journal of Strategic Innovation and Sustainability*, 10(2), 48–57. Retrieved from http://www.na-businesspress.com/JSIS/AlHashimiFW_Web10_2_.pdf
- Al-Jaf, A., □ Abdulrahman, V. (2015). Internal Report. Erbil.
- Al-Shwani, S. Y. B. (2011). Influence of Modernity Versus Continuity of Architectural identity on House Facade in Erbil City , Iraq. *Universiti Sains Malaysia*. Retrieved from https://www.academia.edu/1234883/INFLUENCE_OF_MODERNITY_VER_SUS_CONTINUITY_OF_ARCHITECTURAL_IDENTITY_ON_HOUSE_FA_CADE_IN_ERBIL_CITY_IRAQ
- Al-Sultani, K. (2000a). The Reality of Contemporary Architecture In Iraq: A Study In Architecture 60s and 70s Two Decades. Beirut , Lebanon: The visions of architectural Institute for Public Studies and Publishing.
- Al-Sultani, K. (2000b). Visions Architectural. Beirut , Lebanon: The Arab Foundation For Studies And Publishing.
- Al-Yahmady, H. H., □ Al-Abri, S. S. (2013). Using NVivo for Data Analysis in Qualitative Research. *International Interdisciplinary Journal of Education*, 2(2), 1–6. Retrieved from http://www.ijoe.org/v2/IJJOE_06_02_02_2013.pdf
- Ali, B. H. (1990). Building Postmodernism, Study its Impact and its Application in Architecture Regionalism. Baghdad.
- Ali, S. (1987). Foreign Building In Baghdad. Baghdad.
- Ashour, A. S. (2002). The Iraqi Contemporary Architecture. Baghdad.

- Audit Commission of Hong Kong. (2013). Conservation of Monuments and Historic Buildings. Retrieved from http://www.aud.gov.hk/pdf_e/e60ch01.pdf
- Aziz, Q. (2005). Architectural Transformation of Heritage Buildings Case Study: Folk Art Museum Building Sonargaon, Bangladesh. School of Architecture, Carleton University Ottawa, Ontario. Retrieved from https://curve.carleton.ca/system/files/etd/25638667-0bc6-472d-ba43-e9863c746d30/etd_pdf/a468633b60a98962ff2ab4e8dc7e739d/aziz-architecturaltransformationofheritagebuildings.pdf
- Bakri, A. F., Ibrahim, N., Ahmad, S. S., & Zaman, N. Q. (2015). Valuing Built Cultural Heritage in a Malaysian Urban Context. *Procedia - Social and Behavioral Sciences*, 170, 381–389. <https://doi.org/10.1016/j.sbspro.2015.01.048>
- Bakri, A. F., Ibrahim, N., Sh Ahmad, S., & Qamaruz Zaman, N. (2015). Public Perception on the Cultural Significance of Heritage Buildings in Kuala Lumpur. *Procedia - Social and Behavioral Sciences*, 202, 294–302. <https://doi.org/10.1016/j.sbspro.2015.08.233>
- Baxter, P., & Jack, S. (2008). Qualitative Case Study Methodology: Study Design and Implementation for Novice Researchers. *The Qualitative Report*, 13(4), 544–559. Retrieved from <http://nsuworks.nova.edu/tqr/vol13/iss4/2>
- BBC News. (2016). Nimrud: Photos Show IS Destruction of Ancient Iraqi City. Retrieved from <http://www.bbc.com/news/world-middle-east-37992394>
- Bold, J., Thornes, R., Council of Europe, Getty Information Institute, & Heritage, E. F. for. (1998). *Documenting the Cultural Heritage*. Los Angeles, Calif. : Getty Information Institute, c1998.
- Brandão, C. (2013). P. Bazeley and K. Jackson, *Qualitative Data Analysis with NVivo* (2nd ed.). London: Sage.
- CNN. (2015). Tracking a Trail of Historical Obliteration: ISIS Trumpets Destruction of Nimrud. Retrieved from <http://edition.cnn.com/2015/03/09/world/iraq-isis-heritage/>
- Eisenhardt, K. M. (1989). Building Theories From Case Study Research. *Academy of Management Review*, 14(4), 532–550.
- Failey, M. H., & Yahya, S. M. (2015). Sustainable Tourism and Monumental Heritage Conservation Erbil Citadel as Case Study. In 2 nd International Conference on Ecology, Environment and Energy (pp. 434–446). Retrieved from <http://www.ishik.edu.iq/conf/wp-content/uploads/2015/06/ICEEE-2015.pdf>
- Fitri, I., Ahmad, Y., & Ahmad, F. (2015). Conservation of Tangible Cultural Heritage in Indonesia: A Review Current National Criteria for Assessing

Heritage Value. *Procedia - Social and Behavioral Sciences*, 184, 71–78.
<https://doi.org/10.1016/j.sbspro.2015.05.055>

Galvin, W. F. (2003). Establishing Local Historic Districts. Retrieved from
<https://www.sec.state.ma.us/mhc/mhcpdf/establishinglocalhistoricdistricts.pdf>

Ginting, N., & Rahman, N. V. (2016). Maimoon Palace Heritage District in Medan, Indonesia: What we Preserve and Why we Preserve? *Procedia - Social and Behavioral Sciences*, 222, 332–341.
<https://doi.org/10.1016/j.sbspro.2016.05.177>

Hartley, J. (1994). Case Studies in Organizational Research, Qualitative Methods in Organizational Research, a Practical Guide. (C. Cassell & G. Symon, Eds.). London: Sage.

Hartley, J. (2004). Case Study Research, Essential Guide to Qualitative Methods in Organizational Research. (C. Cassell & G. Symon, Eds.). London: Sage.

Hasbollah, H. R. (2014). A Theoretical Framework for Conserving Cultural Values of Heritage Buildings in Malaysia from the Perspective of Facilities Management. School of Built Environment - College of Science and Technology, University of Salford, UK. Retrieved from
http://usir.salford.ac.uk/31934/2/Final_PhD.pdf

Hasbollah, H. R. (2015). A Conceptual Framework for Conserving Heritage Buildings in Malaysia From the Perspective of Facilities Management. *International Journal of Economics and Financial Issues*, 5(1S), 45–51. Retrieved from
<http://www.econjournals.com/index.php/ijefi/article/view/1341/pdf>

Husein, H. A., & Alqaisi, S. (2015). Enhancing Social Interaction in Residential Communities in Erbil. *IJETMAS*, 3(8), 9–21. Retrieved from
https://www.researchgate.net/publication/280741592_Enhancing_Social_Interaction_in_Residential_Communities_in_Erbil

Ibrahim, R. (2017). Journey of 3-Year PhD Series Achieving Intellectual Maturity. Kuala Lumpur: Universiti Putra Malaysia.

Ibrahim, R., Mushatat, S., & Abdelmonem, M. G. (2014). Authenticity, Identity and Sustainability in Post-War Iraq: Reshaping the Urban Form of Erbil City. *Journal of Islamic Architecture*, 3(2), 58–68. Retrieved from
<http://ejournal.uin-malang.ac.id/index.php/JIA/article/view/2533/4548>

Ismail, S. (2014). Monitoring Strategies and Key Indicators for Sustaining the Heritage Values of Melaka and George World Heritage Cities. Malaya, Malaysia.

Kammouna, H. H. (2008). The Traditional Ecosystem Transformations in the Contemporary Urban Fabric Decisions. Baghdad.

- Kerkhoff, L. (2015). Heritage Façade Improvement Guide. Retrieved from <http://www.moosomin.com/pdf/Heritage-Facade-Improvement-Guide.pdf>
- Khasro Akram, O. (2015). Interview to the Director of Planning Department, Ministry of Health. Erbil.
- Khayat, M. A. B., □ Khaznadar, B. M. A. (2016). Erbil City's Traditional and Vernacular Architecture Disastrous Status. ZANCO Journal of Pure and Applied Sciences, 28(2), 429–436. Retrieved from https://www.researchgate.net/publication/306960495_Erbil_city's_traditional_and_vernacular_architecture_disastrous_status_A_perception_survey_using_semantic_differential_scale
- Kohlbacher, F. (2006). The Use of Qualitative Content Analysis in Case Study Research. Forum Qualitative Sozialforschung / Forum: Qualitative Social Research, 7(1). Retrieved from <http://www.qualitative-research.net/index.php/fqs/article/view/75/153>
- KRG Ministry of Planning, □ United Nations Development Programme (UNDP). (2012). Building the Kurdistan Region of Iraq: The Socio-Economic Infrastructure. Retrieved from http://www.mop.gov.krd/resources/MoP_Files/Newsletter/SEINA-FINAL.pdf
- Lempert, R. O. (2008). The Significance of Statistical Significance: Two Authors Restate an Incontrovertible Caution. Why a Book? Law □ Economics Working Papers, 2003–2009, 86.
- Lisa A. Guion□, David C. Diehl□, □ Debra McDonald. (n.d.). Triangulation: Establishing the Validity of Qualitative Studies. Retrieved May 25, 2016, from <https://www.scribd.com/document/317883978/Triangulation-qualitative-study-docx>
- McDonnell, J. A. (2003). Documenting Cultural and Historical Memory: Oral History in the National Park Service. The Oral History Review, 30(2), 99–109. Retrieved from https://www.researchgate.net/publication/270472069_Documenting_Cultural_and_Historical_Memory_Oral_History_in_the_National_Park_Service
- Mitra, S., Grover, A., □ Singh, R. (2013). Handbook of Conservation of Heritage Buildings. Directorate General, Central Public Works Department. Retrieved from <http://cpwd.gov.in/Publication/ConservationHertBuildings.pdf>
- Mohammadi, R. (2014). Moving a Market: Impacts of Heritage Nomination on a Local Community. A Case Study of Delal Khaneh in Iraqi Kurdistan. Retrieved from https://uwspace.uwaterloo.ca/bitstream/handle/10012/8363/Mohammadi_Rojan.pdf?sequence=1

- NBC News. (2016). Iraqis Mourn Destruction of Ancient City of Nimrud: ISIS "Tried to Destroy the Identity of Iraq." Retrieved from <http://www.nbcnews.com/storyline/isis-terror/iraqis-mourn-destruction-ancient-city-nimrud-isis-tried-destroy-identity-n694636>
- Raja, T. (2013). Cultural Heritage □ its Importance. Retrieved November 17, 2015, from <http://www.slideshare.net/Tousifra1/cultural-heritage-26652590>
- Rowley, J. (2002). Using Case Studies in Research. *Management Research News*, 25(1), 16–27.
- Sadha□Sameeu. (2009). Introduction to Cultural Heritage. Retrieved November 15, 2015, from <http://www.slideshare.net/HarisDozz/introduction-to-cultural-heritage>
- Shanchar, A. R. (2012). Urban Conditions for the City of Baghdad.
- Slee, S. M., Bowker, S., Hamilton, A., □ Wilkie, T. (2010). The Hive in The Cliff: An Innovative Case Study for Culturally Led, Crosssector Approaches to Sustainable Urban Regeneration. Retrieved from http://usir.salford.ac.uk/12742/4/RSA_paper_Slee_FINAL_COPYI_May2010.pdf
- Sotoudeh, H., □ Abdullah, W. M. Z. W. (2013). Evaluation of Fitness of Design in Urban Historical Context: From the Perspectives of Residents. *Frontiers of Architectural Research*, 2(1), 85–93. <https://doi.org/10.1016/j.foar.2012.10.007>
- The Getty Conservation Institute Los Angeles. (2002). Assessing the Values of Cultural Heritage. Retrieved from http://www.getty.edu/conservation/publications_resources/pdf_publications/pdf/assessing.pdf
- The House Of Commons. (2004). The Role of Historic Buildings in Urban Regeneration. Retrieved from www.parliament.uk/parliamentary_committees/odpm.cfm.
- U.S. Department of the Interior National Park Service. (1997). National Register Bulletin - How to Apply the National Register Criteria for Evaluation. Retrieved from <https://www.nps.gov/NR/PUBLICATIONS/bulletins/pdfs/nrb15.pdf>
- U.S. Department of the Interior National Park Service. (2014). Documenting Traditional Cultural Properties: General Considerations. Retrieved February 29, 2016, from https://www.nps.gov/nr/publications/bulletins/nrb38/nrb38_page5.htm
- UNESCO. (2011a). A New International Instrument: The Proposed UNESCO Recommendation on the Historic Urban Landscape (HUL). Retrieved from <https://www.scribd.com/document/120830902/Unesco-new-instrument>

- UNESCO. (2011b). Recommendation on the Historic Urban Landscape, Including a Glossary of Definitions. Retrieved January 15, 2016, from http://portal.unesco.org/en/ev.php-URL_ID=48857URL_DO=DO_TOPICURL_SECTION=201.html
- UNESCO. (2015). Operational Guidelines for the Implementation of the World Heritage Convention. Retrieved from <http://whc.unesco.org/en/guidelines/>
- UNESCO. (2016). UNESCO World Heritage Centre - New Inscribed Properties (2016). Retrieved May 19, 2017, from <http://whc.unesco.org/en/newproperties/>
- UNESCO. (2017). States Parties - UNESCO World Heritage Centre. Retrieved May 19, 2017, from <http://whc.unesco.org/en/statesparties/>
- UNESCO, UN DESA, UN-Habitat, & OHCHR. (2015). Urban Cultural and Heritage.
- UNESCO World Heritage Centre. (2014). Erbil Citadel. Retrieved October 13, 2015, from <http://whc.unesco.org/en/list/1437>
- United States Government Accountability Office. (2016). Cultural Property Protection of Iraqi and Syrian Antiquities.
- Yawer, D., & Ramzi, H. (2015). Internal Report. Erbil City.
- Yigit, R., & Ciziri, M. (n.d.). Historic Ruins Destroyed in Iraqi Kurdistan. Retrieved from <http://ekurd.net/mismas/articles/misc2009/10/independentstate3254.htm>
- Yin, R. K. (1984). Case Study Research: Design and Methods. Beverly Hills, Calif: SAGE Publication.
- Yin, R. K. (2003a). Applications of Case Study Research (2nd ed.). Thousand Oaks: Sage.
- Yin, R. K. (2003b). Case Study Research, Design and Methods (3rd ed.). Thousand Oaks: Sage.
- Yin, R. K. (2009). Case Study Research: Design and Methods (4th ed.). Thousand Oaks: Sage.
- Zainal, Z. (2003). An Investigation into the Effects of Discipline-Specific Knowledge, Proficiency and Genre on Reading Comprehension and Strategies of Malaysia ESP Students. Reading, UK.
- Zainal, Z. (2007). Case Study as a Research Method. *Kemanusiaan*, 1–6. <https://doi.org/10.1177/15222302004003007>