

# READING THE CULTURAL SPECIFICITIES OF THE IRAQI MARSH ARABS FROM THEIR LANDSCAPE

**AL-TAMEEMI, RASHA**

College of Design, Architecture, Art, and Planning, University of Cincinnati, [altamers@mail.uc.edu](mailto:altamers@mail.uc.edu)

## **1 ABSTRACT**

*Iraqi marshlands are irregular clusters of small islands constructed by alternating layers of reed mats and layers of mud that dredged from the marsh bottom to constitute one of the most fascinating regions of the world. Marshlands in Iraq are intriguing environments for scholars because of their long history dating back to the Sumerian civilization. My goal in this paper is to examine how the socio-organization and the landscapes of the marshlands fashioned certain cultural specific knowledge of the Marsh Arabs in a sustainable manner. The objective is to contribute to a better understanding of the built environment of Iraqi marshlands and its relationship to the space in creating a place for Marsh Arabs. It also provides a comprehensive image about the society of the marshlands which sustains its continuity and adapts to its habitat to establish awareness about the cultural landscape of Iraqi Marshes. Until 1992, Iraqi marshes remained relatively unknown to the general public but widely known to archeologists and scholars of Mesopotamia. The Iraqi marshlands have captured the attention of the international community from their depletion by the dictator Saddam Hussein in 1991 as retribution to the inhabitants who opposed his government. The draining of the swamps led to severe environmental, social, and economic consequences for local residents which drained away their organizational way of life that is organically inseparable from the environment. The marshland is a woven society in reeds, a place where people and nature are closely bound together in symbiotic sustainable relationships.*

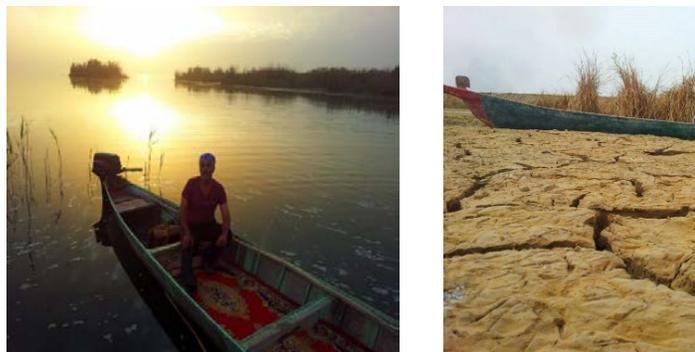
## **1.1 Keywords**

Iraqi marshlands, Marsh Arabs, landscape settlements, cultural specificity.

## 2 INTRODUCTION

The Iraqi marshlands are irregular clusters of small islands constructed by alternating layers of reed mats and layers of mud that dredged from the marsh bottom to constitute one of the most strange and fascinating regions of the world. Marshlands in Iraq are one of the most intriguing environments for scholars because of their long history dating back to the Sumerian civilization<sup>1</sup>. Until 1992, Iraqi marshes remained relatively unknown to the general public but widely known to archeologists and scholars of Mesopotamia. The marshlands are one of the most ancient centers of dwelling in Iraqi's history, and scholars like Sam Kubba and Abbas Jamali suggest they are the cradle of Sumerian civilization (Kubba & Jamali, 2011, p. 2). However ancient history is not what brought the region to public discourses involving the environment in recent years. Iraqi marshlands have captured the attention of the international community from their depletion by the dictator Saddam Hussein in 1992 as retribution to the inhabitants who he thought opposed his government. The draining of the swamps led to severe environmental, social, and economic consequences for local residents. According to a UN report, from 4 December 1991 to 18 January 1992, the Iraqi military attacked the Marsh Arabs, killing hundreds of them. In addition, an enormous number of animals, birds and buffalo were killed. (Figure 1). Indubitably, we cannot forget the marsh water, which filled with toxic chemicals as a result of the oppressive campaign (Nicholson & Clark, 2002, p. 74). Sam Kubba and Abbas Jamali (2011) wrote:

Most ecological scientists agree that the destruction of the marshes was a catastrophe of global significance and certainly one of the most grievous ecological crimes of the twentieth century. Saddam Hussein deliberately and methodically managed to drain, reportedly poison with herbicides and desiccate the lush wetlands that were home to over 450,000 Marsh Arabs, as well as a crucial stopover for birds migrating from Europe to Africa. The marshlands also served a critical function to the entire Arabian Gulf filtering out toxins while contributing organic matters to fish breeding in the region. (p.15)



Left: Before the draining by Saddam in 1992. Right: After the draining.

**Figure 1. Shows the Iraqi marshes before and after draining, one of many of Saddam Hussein's crimes that has led to an ecological, cultural, and humanitarian disaster in one of the oldest natural environments in the world. Photo by Ahmed Neema.**

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<sup>1</sup> According to Ochsenschlager's *Iraq's Marsh Arabs in the Garden of Eden*, the archaeological record shows that by the middle of the 4<sup>th</sup> millennium BC, Sumerians occupied this area and built the oldest cities in the world. By the end of 3<sup>rd</sup> millennium BC, this land knew the first empire in history, the Akkadians. Then, in chronological order, in the following two thousand years the empires of Babylonians, Assyrians, Persians, Greeks, and Parthians controlled this region. Many scholars made geographical attempts to discover the location of the "Garden of Eden," or the earthly paradise where Adam and Eve are thought to have lived, and those scholars have a tendency to consider the site of Sumer civilization as Eden. That's because the word "Eden" is derived from the Sumerian word "edinu" which referred to field, plain, or depression.

From the observations of Kubba and Jamali, it is not an over-statement to suggest that Saddam Hussein drained away the organizational way of life for the inhabitants of the marshlands that is organically inseparable from the environment. The marshland is a woven society in reeds, a place where people and nature are closely bound together. The houses and crafts of the inhabitants of the Marshlands are evidence of how the people and their environment maintain symbiotic sustainable relationships the architectural tectonics of the people as “woven societies in reeds”.

My goal in this paper is to examine how the socio-organization and the landscapes of the marshlands fashioned certain cultural specific knowledge of the Marsh Arabs in a sustainable manner. To that effect I explore three related questions which are as follows:

1. The Context/Setting and the People: How is the concept of landscape used in this essay to explain the cultural specificity(ies) of the inhabitants of the Iraqi Marshlands?
2. Landscape, Settlement Patterns, and Dwellings: How did the landscape influence the settlement patterns and the dwellings of the Marsh Arabs?
3. Landscape, Economic Activities, and Social Organization: How does landscape support sustainable economic activities and social organizations of the Marsh Arabs?

It is understood that these questions have cultural, social, economic, political and environmental implications. The complexity of the questions requires fleshing out the diverse related meanings of landscape and how it is used in this context.

### **3 COMPREHENSIVENESS OF THE RESEARCH FIELD**

Depending on the interdisciplinary approach to analyze and determine the cultural landscape of Iraqi Marshland and its context/setting, the settlement pattern and dwelling, the socio- organization of the Marsh Arabs, the interrelationship between the built environment of Iraqi marshes and people activities (especially economic activity) which has led to this sustainable ecosystems. It is important to identify the cultural elements (tangible and intangible) that have attached to the Iraqi marshlands which have spiritual and symbolic value to the inhabitants. Many ancient cultures have symbiotic relationship with the environment and socio-cultural traditions. So, their traditional settlements have not only designed according to the technique and material aspects, but also determined by the social kinship and cultural experience of specific community (Tyrrell, 2003, p. 87). Alexandru Calcatine, in his book *The Need for A Cultural Landscape Theory: An Architect's Approach*, refers to professor Alexandru Sandu's writing about cultural specificity in architecture and urbanism saying that “national specificity is revealed by its own nature first of all, by something particular to the human community making the nation and its response to the environment in a given situation. Nevertheless the author considers that it [national specificity] is an outcome of social and historic conditions” (Calcatine, 2012, p. 61).

### **4 RATIONAL AND SIGNIFICANCE**

There are two reasons why I am interested in investigating the Iraqi marshlands and their Marsh Arab inhabitants through the perspective of landscape: 1) The draining of the Iraqi marshes by the dictator Saddam Hussein in the 1991 which also shattered the organizational way of life of the Marsh Arabs which can be best understood metaphorically through a careful study of the marshlands' architectural and spatial underpinnings of a woven society in reeds, and in which, man and nature were closely bound together. 2) It is more important than ever to learn about the Iraqi marshes and life of the Marsh Arabs since being listed as a UNESCO World Heritage site, the site is ripe for a rapid transformation due to possible economic revival in the near future that would potentially affect the unique Iraqi heritage and socio-cultural way of life of the inhabitants and by implication their built environment.

### **5 OBJECTIVE OF THE STUDY**

The objective of this study is to examine the relationship between the landscape of the Iraqi marshlands and the society of Marsh Arabs who have inhabited this area for generations. In this context, the study would be through: 1) the natural environment; 2) the construction practices of villages and houses; 3) the built environment and its relationship to the social organization of space. This research would therefore establish a base knowledge about the habitat of the Iraqi marshlands through the prism of

the people of Marsh Arabs, built environment of urban settlements, and architecture. It is important to focus on investing a cultural landscape to address the issue of housing in terms of its features, modes of construction and adaptation to the natural environment and local materials.

## 6 METHODOLOGY

In this study of the Iraqi marshland and its inhabitants of Marsh Arabs, the landscape of the region would be the target according to the practices of its community and the sustainable way of life that they have adopted. The research seeks to analyze and diagnose:

1. The physical context and setting of the built environment of the Iraqi marshes including natural environment, urban pattern and settlements, and woven reed architecture.
2. The social organization of the Marsh Arab people including their names, rituals, hierarchy and kinship of the clan; in addition to address the relation between space and society
3. The economic activities in the marshlands including crop and animal productions, local industries, people's skills and handcrafts.

In this sense, the environmental, socio-cultural, and economic fields in the Iraqi marshlands are strongly linked to the landscape. In this research, I will follow Amos Rapoport's approach about Environment-Behavior Studies (EBS) which focuses on the meaning and built environment that Rapoport describes it as the unself-conscious translations of culture's values, attitudes, needs and traditions into physical form which result in a rich and varied environment. This approach elucidates the socio-cultural forces that build forms convey meanings, where these meanings personalize the environment by the inhabitant. Thus, multifaceted and multidisciplinary approaches have been adopted to construct the research and structure the topic of Iraqi Marshlands. The interdisciplinary nature of the research is fundamental to analyze the Iraqi marshes and clarify the interactions between people and their landscape through exposition of texts, photos, and written analyses documentations before and after the drainage to build the comprehensive image.

## 7 THE CONTEXT/ SETTING AND THE PEOPLE

How is the concept of landscape used in this essay to explore the cultural specificity(ies) of the inhabitants of the Iraqi marshlands? There are three related parts to the first question. It inquires about the setting/landscape, the people, and the cultural specific ways by which we know the inhabitants of the area. It is difficult to write about the landscape without considering the people, and likewise we cannot write about the people without considering the landscape where they dwell. I will begin with the setting that is often identified in history as Mesopotamia.

The Mesopotamian Marshland, which is located in south of Iraq, is one of the largest wetlands in the world. It is where the cradle of Sumerian civilization began more than 5,000 years ago, and it is known as "The Garden of Eden" (Kubba & Jamali, 2011, Foreword). The Iraqi Marshlands have many areas such as Al-Chibayish Marsh which is part of Central Marshes, Al-Hammar Marsh, and Al-Huawiyza Marsh. Al-Chibayish Marsh is considered one of the biggest marshlands in the south of Iraq and it has an area of about 2,600 square kilometers. The word *chibayish* refers to the heap of reeds. The reed houses that are built on *chibayish* are known as *sarifa*. All these formulate the remains of civilization that floats on water (Ibrahim, 2009).

If we want to understand the people and their settlements in the Iraqi Marshes, certain words that are frequently used to describe them and their lands should be explained. We will begin with the most commonly used term, Marsh. The word *Marsh* generally refers to a type of low-lying land that receives frequent or continuous flooding. The word *wetlands* can refer to both marshes and swamps. But there are subtle differences between marshes and swamps. Marshes tend to be shallower, have less open water, and have herbaceous plants, especially grasses, reeds and sedges. Swamps, on the other hand, tend to be deeper, have greater areas of open water, trees and shrubs are the dominant vegetation (Al-Mawrid Dictionary, 2010, p. 561). While the word *Hawr* is the Arabic term for marsh, which is commonly used in Iraq to refer to a wide shallow lake that has abundant reeds, rushes and vegetation (Susa, 1983, pp. 405-407). The term *hawr* (singular of *ahwaar*) is not modern; it has been traced to the Sumerian times when it was mentioned in the ancient stories of the Flood (Ryan & Pitman, 1998, p. 240). Because of this, *hawr* is thought to predate the use of Arabic in the area. Moreover, Arabic dictionaries give more than one definition of the term, including flooding and receding lake of reedy waters and thickets (Thuainy, 2004).

I would like to now examine who the people living in the Iraqi marshlands are. It is believed that the civilization of the Marsh can be traced to the period of Gilgamesh who mentioned the Marshlands in his Epic during his search for the secret herb that can extend life to eternity. Sumerians, followed by the Akkadians, Babylonians, Persians, Nabataeans, Romans and Arabs, have settled in the same area (Kubba & Jamali, 2011, p. 8). There is a diversity of religions and ethnicities in Iraq in general and in the marshlands in particular from the past until the present time. The main religious groups are Muslims, Sabians and Jews. The existence of many shrines from diverse religions is the evidence that the Marsh Arabs community lived in harmony with different ethnicities and religions in this area. From the 90s till now, the number of Jews and Sabians has dwindled as a result of the political and social situation in Iraq generally, and in the marshlands in particular (Al-Khayoun, 2003, pp. 36, 104; Kubba, 2011, pp. 34-35).

However, the predominant race in the marshes has been the Arabs. Some of the Arab tribes came to the region prior to the Islamic conquest, and some during and after it. In the 1950s, anthropologists who studying in al-Chubayish, one of the Iraqi marshes, identified two main racial and cultural influences among the marsh dwellers: The Eastern Group and the Western Group (Salim, 1962, p. 8). The Eastern Group includes the Ma'dan, Abu Muhammad and other tribes in the Tigris marshes; they had links with their eastern neighbors, the inhabitants of Iran, through migration and intermarriage. The Western Group comprises the non-Ma'dan Euphrates Marsh Arabs, and they had links with the Bedouin tribes of the Arabian Peninsula in the way of immigration and intermarriage (Al-Jubouri, 2011). In general, there are three names used in describing the inhabitants of Iraqi marshlands: *Ma'dan*, *Marsh Arabs*, and *marsh dwellers*.

The word *Ma'dan* has conflicting meanings. The Marsh Arabs believe that the word '*Ma'dan*' is derived from "Ma'aidi" which means opponent (opposition), and another opinion suggests that it derives from "Mou'adat" which is the Arabic word for hostility and antagonism. Those who support the latter theory believe that British forces promoted the use of this word to demean the marshlands people who fiercely opposed them when they arrived to occupy Iraq in the early twentieth century (Salim, 1962, p. 9). The other interpretation of the term *Ma'dan* describes people of the marshes who depend on breeding water buffalo and selling its products in their livelihoods. The *Ma'dan's* women sell the animal products in the markets and they enjoy almost freedom of movement, in contrast to other Arab tribes that prohibit their women from going out to sell or buy things in the market. This is one of the great distinctions between the *Ma'dan* and other groups. Also, *Ma'dan* never settled in one place; they moved constantly within the boundaries of their tribes and the artificial islands (Mustafa, 2008, pp. 18-20).

*Marsh Arabs* defines the people who live in the marshland. Their natural surroundings influence their social, cultural and economic activities like Desert Arabs due to the migration from the Arabian Peninsula to the marshlands. Their customs, traditions, and values differentiate them from other societies and shape their way of life. Their economic activities are based on cutting and processing reed, fishing, and bird hunting. Moreover, the term 'Marsh Arabs' is used specifically to describe tribes that do not breed buffalo and do not give their women the freedom of movement, in contrast to the *Ma'dan* who do that (Mustafa, 2008, pp. 18-20).

*Marsh Dwellers* refers to the population who live in the marshlands; they have their own social values, habits, and traditions. This term is used interchangeably with the term *Marsh Arabs*, but it has more geographical and environmental connotations to indicate the natural, social and cultural impact on the inhabitants of marshes (Mustafa, 2008, p. 20).

## **8 THE LANDSCAPE, SETTLEMENT PATTERNS, AND DWELLING OF MARSH AREAS**

One of the questions this article addresses is how does the landscape influence the settlement patterns and the social organization of the society of the Marsh Arabs? There are different types of settlements in the Iraqi Marshlands depending on the nature of the marshes such as the surface, weather conditions, types of vegetation and water quality. In addition, some sections flood and ebb seasonally, creating another variable to habitation. The first type is **Settlements on the Edges of the Marshes**. They are built on areas of high ground at the edges of the marshes and called *salaf* or villages, while they are called *nazi* in the Euphrates marshes. (Figure 2). Each village consists of between 100 and 300 small huts, depending on the location and the density of population. Villages are found close to the banks of rivers. Each village has one or more guest houses (*mudhif*) from which the clan's affairs are run. The settlements on the edges of the marshes tend to be larger in size than other types of settlement in the marshes. In

these settings, the homes are almost made of mud and brick, due to their proximity to urban areas (Salim, 1962, pp. 23-24).



**Figure 2. Settlement on the edge of the marshes (2015). Photo by the author.**

The second category is **Settlements on Natural Islands** where marshes become a number of islands in water areas. The people who live on natural islands tend to breed water buffalo, and marsh Arabs call these islands *ishan*. These islands sit about 3m above the water level, and they are apparent during dry season, while some of them are flooded during the wet season. (Figure 3). The small islands consist of 30-40 huts made of reed or rushes, while larger islands could reach 500 huts (Jadran, 2010, pp. 36-37).



**Figure 3. Settlements on Natural Islands (2014). Photo by Ahmed Neema**

A third distinction, **Settlements on Permanent Artificial Islands**, consists of small man-made islands which float on the surface of the water and on which marsh dwellers build their homes. They are created because of the lack of dry land especially during the wet season, and due to the flooding of natural islands. Artificial islands are called *Chibasha* and consist of several layers of reeds and rushes, interspersed with layers of mud. Then, the islands are compressed together and stabilized with stakes. This process is

continued until an adequate height is reached and the artificial island becomes solid. Homes on *Chibasha* are made from reeds and rushes, and each *Chibasha* has between 15 and 25 houses (Jadran, 2010, pp. 36-37). (Figure 4).



**Figure 4. Settlement on permanent artificial Island (2015). Photo by the author.**

**Mobile Artificial Island Settlements** which are called *dibin* or *dubun*. They consist of a base of reeds, rushes, and soil that form floating platforms like rafts. Each one of them holds one hut and several water buffalo. They are used by water buffalo breeders as temporary homes which can be pushed from one place to another (Jadran, 2010, p. 37).

The varieties of dwellings types in the marshes differ according to the construction material, location of the houses, and their purpose. In general, most dwellings are made of reed. Types of marsh dwellings include:

1. Sarifa

It is considered to be one of the oldest and most common types of dwelling and is constructed from reeds and rushes. Each *Sarifa* has the same structure and appearance: a rectangular shape with a curved roof, covering an area of about 25 m<sup>2</sup> (Al-Safi,n.d.).

2. Hut

It is similar to the sara'if, but its walls are made of mud rather than reed. It is considered to be one of the simplest types of dwelling in the marshes, and it has a rectangular or square shape with a curved roof. Huts are not built in the marsh. They are found on riverbanks and at the edges of the marshes where flooding is less common (Al-Safi,n.d.).

3. Sitra

It is the third type which is used to describe a house that is made of reeds and mud to keep animals. It is generally found next to family's house, and sometimes there is no separating wall between the two (Al-Safi,n.d.). (Figure 5).



**Figure 5.** Varieties of dwellings types in the marshes (2015). Photos by the author.

#### 4. Al-mudhif

The most famous and important type is the guesthouse, or Al-mudhif. It is one of the major cultural and social phenomena of the marshes. It cannot be considered just a house; rather it is a place used to receive guests and hold meetings. Al-mudhif belongs to the tribe's leader, who is known (sheikh), and the whole village is responsible for the building process (Abu Suhair, 2013). The sheikh's guest house (mudhif) in the marshland is an arched building made of reeds, built higher and more detailed than the other dwellings in the area to display the architectural creativity and building skills that go back more than six thousand years (Alwan, 2005, pp. 107-111). (Figure 6).



The exterior of al-mudhif



The interior of al-mudhif

**Figure 6.** Exterior and interior of al-mudhif (2014), Photo by Ahmed Neema.

All the preceding discussions on the settlements and dwellings of the Marsh Arabs are related to what Rapoport mentions about the physical arrangement of setting which guides, facilitates, and modifies social interaction. Also it is related to Rapoport's explanation that physical elements in the landscape can be indicators of social characteristics and behavior (Rapoport, 1982, p. 98).

Carl Sauer, founder of the Berkeley School of Geography, declared that landscape is the cultural expression that includes the cultural changes and development of each society as an exposition of human experiences. Included in his statements is the merger of culture and time in landscape results in various forms of population, housing structures, land usage, and ways of communication (Thurston, 2001, p. 29). According to Tina Thurston that there are scholars who describe landscape as the physical interpretation of human needs to use and defend lands; others saw landscape as the symbolic interpretation of construction of cultural specificity. Correspondingly, landscape expresses cultural specificity of both people and their built environment (Thurston, 2001, p. 40). From this point of view, the dialectic relationship between human and landscape (people and places) is not just physical, but it is spatial, social, and political characteristics of people's life that gives power to their place and built environment. People and places shape a continuous collaborative relationship (Thurston, 2001, p. 31).

Jeremy Foster refers to Tim Ingold's recognition of landscape as material phenomenon that reflects the impact of practice and activity over time. He also distinguishes between landscape as visual impression and landscape as a form of continuous lived experience through participation and cooperation (Foster, 2008, p. 84). Landscape is the linkage between nation and nature that has figurative and literal meaning and stems from the connection between the character of the culture of particular people and character of particular area that people inhabit (Darby, 2000). Landscaping becomes a marker that indicates special areas of social importance, interaction, and meeting, that physically defines the most important public space in the urban fabric (Rapoport, 1982, p. 121).

John L. Motloch (2001) states in his book *Introduction to Landscape Design*, that "landscapes are experienced through space and time and express the history of ecological and cultural processes that created them" (p. 123). Also Motloch (2001) defines cultural landscapes as "systematically bound through culturally significant, nonverbal communication with a high degree of association meaning to native people. So, they are records of people, who they are and who they aspire to be." (p. 345) Motloch also explained about ten different perspectives of landscape. These perspectives are worthy of examination here because each category defines an aspect of the Marsh Arab environment that was drained: 1) Landscape as nature: This is the first definition provided by Motloch and it advocates preserving human nature without intervention. However this view isolates people from nature, and it is the exact opposite of Saddam's punitive handwork in the Marshlands. Saddam's draining of the region waged war against nature with the express purpose of destroying the habitat that sustained the people. 2) Landscape as habitat: This view explains landscape as a home for people; it is a place where interaction and work on the land increases its productivity and sustains the environment. This view connects people to the environment. 3) Landscape as artifact: This view looks at landscape as man-made-land that comprehensively either enhances or dominates nature. This view has many problems because its implementation can cause conflicts when people claim the landscape. 4) Landscape as system: There is the view that landscape consists of subsystems and elements that express and integrate with the whole system. This view engages humans with the ecological system to promote long term well-being and productivity, this perspective is the contrast of landscape as artifact. 5) Landscape as problem: There is the view point that landscape situations should be corrected due to environmental pollution, crowded urban areas, spreading slums and so on. This view requires functional, infrastructural, and behavioral interventions to solve the problem through effective landscape design. 6) Landscape as wealth studies land as a territory owned by people and has economic value that can be measured by the market. This view represents capitalism which adapts materialistic opinion and exploits the environment. 7) Landscape as ideology interprets landscape as the physical expression of the culture that integrates values, symbols, beliefs, and dreams which people are capable of encoding and decoding its meaning. 8) Landscape as history examines the cumulative historical record of nature and people's activities that signifies the meaning and gestures for many generations in the contexts. It is the spatial temporal mosaic that connects people with land. 9) Landscape as place focuses on the gestalt view rather than on the elements that give the place the association to be remembered over time. This view concentrates on the integration of people and environment to give the multiple expressions and influences. 10) Landscape as aesthetic focuses on the visual aspects of landscape in favor of reflective aspects rather experiential because it looks to landscape as an object isolated from human behavior.

Motloch's ten definitions agree with Rapoport's proposition that "cultural landscapes are the result of many artifacts grouped together in particular relationship, and also the result of individual's decisions, which suggests the presence of shared schemata among particular groups. So, this landscape conveys meaning in term of various forms that can be read" (Rapoport, 1982, p. 137). Correspondingly, landscape

is not only the geographical meaning of the physical surroundings, but also the whole image of social, material, cultural, and symbolic issues.

## **9 Landscape, Economic Activities, and Social Organization**

How does landscape support sustainable economic activities and social organizations of the Marsh Arabs? We took time to explain the ecology of the Marshes in the beginning of this paper. The ecology of the marshlands affects all aspects of activities of Marsh Arabs, especially, economic activities and social organizations. Economic activities include crop production, animal husbandry, bird hunting, and local industries: weaving of reed mats (Ibrahim, 2007). In the agricultural field, Crop Production is the main activity for a high percentage of Marsh Arabs. They plant rice around the Tigris and Euphrates rivers, in addition to other crops like corn, wheat and barley. Also, watermelons, melons and cucumbers, tomatoes are also grown, as are dates (Kubba, 2011, pp. 91-92).

Animal Husbandry constitutes the main source of income for the Marsh Arabs. Animal production can be varied depending on the type of activity practiced: water buffalo breeding is the most common activity in the marshes, and it was one of the principle activities since the Sumerian. And the Marsh Arabs who breed buffalo are called Ma'dan. Water buffalo provide the marsh dwellers with milk and its derivatives, as well as meat. Fishing and Bird Hunting are important contributors to the economic well-being of the Marshlands. The environment protects the birds during their migrating from northern Europe, Central Asia, and the Russian when they are escaping the cold during the winter. So, the reeds and brushes provide good nesting grounds for those birds (Alwan, 2005).

Local Industries in the marshes are based on manual labor that depends on the raw materials found in this environment while some of the industries need mechanical methods at certain stages of production. Local industries can be categorized as: Reed Cutting, Mat Weaving and Boat-Building from reeds known as (*mash-huf*) which is the most important form of transportation in the marshes. *Al-mash-huf* is small canoe that can easily be maneuvered through the reeds. It is made of wood and coated with bitumen on the outside. The boats are multifunctional: they are used for transporting people, goods, and also for hunting and selling products (Kubban, 2001, pp. 54-61).

## **10 Landscape as a Mnemonic: A Cultural Specific Social Organizing Medium in Al-Mudhif**

There are a lot of connections between landscape and cultural specificity due to the concept that all societies shape their landscape and subsequently the people are characterized by their landscape. People and landscape are reflections of each other. All these factors integrate with traditions, beliefs, values and culture that have been expressed in the ways of belonging to that society, community, or tribe (Benson & Maggie, 2000, p. 66).

The mnemonic function of environment is to evoke appropriate behaviors, emotions and interpretations that are constituted by contexts. Thus, environment plays the role of the mnemonic which reminds people of appropriate behavior within space and time. (Figure 7). The information can be encoded by environment, and then needs to be decoded. So, the environment has to be culturally specific to let information be decoded easily (Rapoport, 1982, p. 80). In addition, Rapoport (1982) writes "culture-specific system assumes that there is analogy between kinesic behavior and language. So, nonverbal behavior may be as culture bound as linguistic behavior" (p. 101). Culture specific is similar to emblem which has a precise meaning understood by all members of a group (residents) which is used for messages like the symbolic gestures have specific verbal translations. So, different groups have different culture specificities which are part of individual lexicon (Rapoport, 1982, pp. 103-104).

Al-Mudhif, the most important house type in the Iraqi Marshlands, has social role that should be understood in its cultural specificity. The door of *al-mudhif* is always open, as a symbol of generosity and welcome. There is a spiritual and emotional connection between marsh Arabs and *al-mudhif*. Marsh Arabs are invited to *al-mudhif* through the sound made by the striking of coffee beans in the mortar. This ringing sound alerts the people who are nearby the guesthouse to come and serve them the coffee. It is also an indication that a case needs to be solved or a particular event requires discussion. Inside *al-mudhif*, everyone has to behave politely, use proper words, and be honest, because lies will not be permitted. The men of the marshes go into the guesthouse with their formal costume, which includes the abaya, with the kaffiyah and headband on their head (Abu Suhair, 2013). So, the context influences social interaction, and the social context plays an important role in interpersonal interaction (Rapoport, 1982, p. 100). There is a

clear system of seating inside *al-mudhif* according to the social position of each person. So, people of high status and prestigious people, such as the sheikh, sit in the prime position in the guesthouse, which is distinguished with luxury rugs and pillows. In the winter, this place is located in the middle of *al-mudhif*, in front of the fireplace where the coffee is prepared. In the summer, this place is located near one of the side walls. Because of this system, one can infer the importance and the social position of any man in the clan according to his place inside *al-mudhif* (Abu Suhair, 2013).

According to Rapoport (1982), the setting of the environment has an important role in the process of enculturation, especially the impact of marshlands on their inhabitants (p. 66). He says "The environment imposes an order, a way of classification, the learning of certain systems, behavior, and acceptance of social demands. Then we would expect different enculturation processes and results." (p. 67) So, in the marshlands, people in the communities learn the norms and traditions of tribal laws and obey them. Rapoport describes "the environment as the teaching medium, once learned, it becomes a mnemonic device reminding one of appropriate behavior" (p. 67). So, here the whole landscape plays an effective role to encode meaning in traditional societies in order to represent ethnicity and cultural specificity for a group of people and put them in social space which depends on the cultural context (p. 71). The uniqueness of this particular geography is that it not only 'reminds' one of appropriate behavior, but in some cases it dictates or enforces it.



**Figure 7. Shows how meaning of the space is derived from what happens in the space that is according to Rapoport perspective, whenever we are designing an environment, we are organizing, four elements, namely: space, time, communication, and meaning (2014). Photo by Ahmed Neema**

## 11 CONCLUSION

The marshes that once covered up to 20,000 square kilometers in the 1960s shrank to less than 2,000 square kilometers and reduced to one-tenth of their 1960 size after Saddam waged war in. The draining almost took away the lives and livelihoods of people (Yuan, 2013). Maggie H. Roe agrees with Hutton, that the destruction of social cohesion for any society could result in marginalization, deprivation, and exclusion to be exploited by the ruling majority or the government. All that leads to economic, social, and environmental crises (Benson & Maggie, 2000, pp. 52-54).

After the fall of Saddam's regime in 2003, the marshlands have been restored through the efforts of many local and global experts and organizations. Azzam Alwash, an Iraqi-American engineer who has a decade of service to the marshlands and the founder of the nonprofit organization *Nature Iraq*, works with a team of global experts and local marsh dwellers to break Saddam's dykes and canals in order to restore the Marshlands. Roughly, 10,000 of the marsh Arabs, who fled during Saddam's oppressive regime have returned to live in their native marshland. Azzam Alwash writes "Strangely enough, this is one of the few cases where war has resulted in environmental healing. The re-creation of the marshes is literally like the rising of a phoenix from the ashes of destruction. In a sense, it is a symbol of the restoration of Iraq as a whole." (Yuan, 2013).

Landscape is the cultural product of any given society; it embodies their perspective and evokes the way of their life as part of the built environment that synchronizes space and time (Thurston, 2001, pp. 16-17). It is important to study the meanings of environment within cultural systems, and how different environments can communicate to people and how to use or behave in a particular setting. For that reason, Rapoport (1982) states that the setting of environment has important role in the process of enculturation. So lifestyles encode information that is culturally learned to symbolize various meanings and values (p. 66).

In aquatic areas like the marshlands, water is the main component of their built environment and their roads are waterways. So, if they want to go anywhere or even visit their neighbor, the canoe (*mash-huf*) is the only form of transportation. Their children learn how to swim in the same time they learn how to walk; and most of the kids know how to catch the oar as it is one of their hands or feet (Al-Ahmed, 2013).

Maggie H. Roe agrees with Thayer that "it is important to look at sustainable landscape in terms of the nature and the degree of social change they imply" (Benson & Maggie, 2000, pp. 52-54). Thayer explains that we need to be collaborative between social structure and cultural values to support sustainable landscape (Benson & Maggie, 2000, p. 54). Sustainability from a social perspective can be addressed in two ways: one is the social structure that Marsh Arabs have presented through their hierarchical and collaborative way of life. The second is the social learning which Marsh Arabs have passed down from generation to generation in order to adapt to the environment of the marshes and conserve its resources and crafts (Benson & Maggie, 2000, p. 52). James Morris, director of the Baruch Institute for Marine and Coastal Science and the university's expert on Iraqi marsh restoration, says "The culture there, the Marsh Arabs, were an example of the most sustainable society that I know of, in that they were a more or less self-contained community that lived off of the resources they had available and didn't need a lot of external resources; they depended on those needs." (Malek, 2014).

Depending on the interdisciplinary approach in addition to Amos Rapoport's method which focuses on the meaning and built environment, the research examines the socio-organization and the landscapes of the marshlands which fashioned cultural specific knowledge of the Marsh Arabs in a sustainable manner through analyzing the cultural landscape of Iraqi Marshland. So, the research establishes a base knowledge about context/setting of Iraqi marshes, the settlement pattern and dwelling, the socio-organization of the Marsh Arabs, interrelationship between the built environment of the marshes and people activities (especially economic activity) which has led to this sustainable ecosystems where man and nature are bound together. In the built environment of Iraqi marshes, people translate their culture's values, attitudes, needs and traditions into physical forms that convey meanings, where these meanings personalize the environment by the inhabitants.

Meredith Vinez and Sarah Leonard, the authors of *The Iraq Marshlands: the Loss of the Garden of Eden and its People*, state "The preservation of the Ma'dan people's culture should not be abandoned in favor of developing agriculture or drilling for oil. The international community, despite its history of overlooking the marsh people, should be called upon to restore the homeland of the Ma'dan and the historical heritage site that exists in this region." (Vinez & Leonard, 2010, p. 16). So, the development of the Mesopotamian territory needs strong relationships between nature, culture, and human aspects to restore the whole ecosystem by bringing back the water and protect the social space.

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Note: All translations from Arabic are by the author

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