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**A Social Semiotic Analysis of Qatar FIFA World Cup 2022
Stadiums' Architecture.**

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In Partial Fulfillment of the Requirements for the Degree of Master in Language Sciences

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Abstract

Semiotics and social semiotics are major fields of study that treat sign systems within the socio-cultural context. Architecture, as a sign system, is a representation of the cultural beliefs and attitudes of a given society due to its semantic loading created by the innovative designability of architects. Due to the cultural significance of the topic, it requires also the adoption of Barthes's semiotic model of orders of signification known as Denotation and Connotation in order to explore the cultural meanings of the represented Qatari cultural aspects in the stadiums. From a social semiotics angle, the study explores the used semiotic resources in the creation of the FIFA World Cup stadiums (five are selected) that are basically a representation of selected cultural aspects from the Qatari culture. This representation is analyzed and interpreted within Kress's (1997) Representation theory. The findings, from a semiotic perspective, managed to find the denotative and connotative meanings based on the represented cultural aspects that elaborate the investigation to have a semiotic access to the cultural meanings of Qatari culture. As for social semiotics perspective, the findings show that a multiple semiotic resources are used by the architects in order to materialize and represent the cultural aspect in the stadiums. As a recommendation, the study paves the way to future studies to approach more architectural works and explore the loaded meanings represented within its socio-cultural context.

Keywords: Kress's representation theory, Barthes's orders of signification, social semiotics, semiotics, architecture, culture

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Dedication

In the name of Allah, the Compassionate, the Merciful

I dedicate this humbled work

To my parents and their invaluable support.

To the members of family, brothers and sisters.

To my friends.

To the members of the Academic field.

To the teachers who enabled the achievement of the work.

Endless thanks to you all.

Ali Chebaiki

Dedication

I dedicate this work

*To those who will spend their valuable time to read it and try to understand it for the sake of
pursuing knowledge.*

To the family, my brothers, sisters,

And most importantly my parents.

To the whole Academic family, teachers, classmates, and friends.

Mostafa Gouasmia

List of Abbreviations

FIFA: Fédération Internationale de Football Association

F. de Saussure: Ferdinand de Saussure.

C.S. Peirce: Charles Sanders Peirce.

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General Introduction

1. Background of the Study

In everyday life, communication is one of the main constituents of the social behaviour that links the society with each other. This communication is carried out through verbal to nonverbal mediums that facilitate the transmission and transcendence of meaning and ideas between interlocutors and generations. Whether it is a piece of art or a musical composition, the meanings that the producer intends to utter are the vital point in the communicative act. Architecture, as a non-verbal mean of communication, might be conceived of as a unique medium of communication due to the role it plays in society throughout the architectural work lifetime.

Indeed, architecture, as a socio-historical matter, is not only regarded as a mirror of the community in which it was produced, but also continues to link the past, the present and the future through the shared meanings attached, residing and transcended in the architectural work. According to Emmons et al. (2012), the architectural work seeks to manifest a cultural realization in the community where the meanings are transmitted according to the cultural realm. Particularly, this work is characterized by its durability and stability for future benefits and advantages. Thus, the ongoing contributive role of the architecture guarantees the transmission of the cultural beliefs, values, and the shared historical background of the society to contemporary generations. Alternatively, it leads to realizing the cultural dimension of a sustainable development as a long-term objective.

Architecture, from its form as a tangible culture, can express and represent the culture of a given society. To fulfill this purpose, the designability (forms, shapes, choice of colors, representations) of an architectural work is subject to the purpose of the designer to embody and communicate the intended meanings through the work. In this regard, the designed work

is definitely affected by the cultural dimensions reflecting the society in a particular historical era in order to transmit the intended meanings. According to Moustafa (1988), the functionality of architecture is depicted as a denotative level, which is a first level of signification. However, the embedded connotative cultural meaning, which is a second level of signification, is only understood by the members of the society in which the architecture was built (p. 03). As an example, the Martyr's monument, as a model of architecture, denotatively functions as being an inanimate object located in a specific area in Algiers. As a second level of signification, it symbolizes the cultural meaning of freedom and liberty, which is a shared connotation in the Algerian social and cultural context.

Semiotics, as a field of study, is established via the European teachings of F. de Saussure since the field was adopted by many proponents in their investigation of language system. According to Terzoglou (2018), semiotics is concentrated on the generation of meanings, which is a process of signification. In this regard, Barthes (1964/1967) as a leading figure elaborated the Saussurean semiology and Hjelmslev's work into a more comprehensive model known as Denotation and Connotation, which was proposed in his book of "Elements of Semiology". The main purpose is to describe the signification process from a structural point of view. Alternatively, how the denotative meaning or the associative total of the signifier and signified is developed to create a second order signification in a particular socio-cultural context. Since architecture is loaded with meanings within its socio-cultural context, it can be a vital case to be studied semiotically through the use Barthes model.

From a contemporary point of view, as the designer of the architectural work is a social entity intervening to create new meanings, social semiotic perspective essentially focuses on meaning-making and meaning-maker operating in a particular socio-cultural setting (Kress, 2010). The orientation of this approach is to investigate different modes of

communication that communicate messages to the readers. These modes such as speech, writing, visuals, definitely have an established cultural background in order to be interpreted by society. No less importance, architecture equally has an advantageous contribution, as a mode, in the meaning-making process in which the architects embody and represent meanings and ideas to the viewers.

In line with this, social semiotics, as a sub-branch of semiotics, deals with the semiotic productions and representations of meanings through various semiotic resources and modes of communication within its socio-cultural background; thus, Kress (1997), in a book called “Before Writing: Rethinking the Paths to Literacy”, coined a theory of representation to approach different semiotic productions of human being. In this regard, the representation theory, which is the focus of this study, concentrates on the process of sign-making and meaning-making. Depending on the interest of the sign-maker, according to the established theory, (Kress, 1997) said that the created signs are motivated in which the forms (signifiers) or the chosen semiotic resources are appropriately selected and recognized as convenient in order to express the intended corresponding meanings (signifieds) to accomplish the process of sign-making.

2. Statement of the problem

From the surrounding world, it is known that humans creatively adapt a conceptual abstract idea into concrete forms. According to Ghom (2017), from a modular object in reality as a source of inspiration, the construction of an architectural work can be effectively reached in a concrete form based on the inspiring object (p. 119). Depending on previous experiences, an architectural work can be manifested in an innovative and a well-constructed manner referring to the cultural identity of a particular society. According to Koirala (2016), the physical characteristics of a building like size, exterior decorations and structure are subject to the socio-cultural context that govern its appearance. As an example of that, Borj

Al Arab in Dubai is one of the iconic buildings that reflect a cultural background in the area. Specifically, it was built and inspired from a traditional Dhow used for fishing. In a modernized construction, the architecture remained as a link between tradition and modernity, particularly for culture preservation purposes (Garrison & Thompson, 2021). In the light of that, culture can be manifested and represented by a state-of-art architectural work.

This phenomenon, interestingly, is noticed in the Qatari context. During the preparations of the worldwide event of FIFA World Cup 2022, the government opportunized the abilities to construct multiple modernized stadiums in different areas in Qatar. The construction of these stadiums, as a point in case, is inspired and based on diversified Qatari cultural aspects. The beauty of the stadiums have many unique characteristics that attract the viewers, either local or tourists, to discover its surrounding aesthetics and more importantly their cultural significance. Accordingly, the architectonics of these stadiums are worth studying to investigate how the architects represented the cultural aspects based on the imitated resources from which the designers conceptualized the designed exterior forms of the stadiums. In addition, the investigation is oriented to reveal the cultural meanings of these stadiums in the socio-cultural settings of the Qatari culture.

3. Aims of the study

Following a social semiotic analysis to approach the sample, this study aims at revealing the way in which the architects as sign-makers represented the cultural aspects and materialized them in an architectural mode which is in this case the stadiums. This aim is achieved through the use of Kress's representation theory in order to investigate the architects' choices of the semiotic resources to accomplish the construction of the stadiums. The second aim is extracting the meanings of the stadiums based on the represented cultural

aspects. This aim is achieved through the use of Barthes's Denotation and Connotation model.

4. Research questions

1. How the designers make use of the available and chosen semiotic resources to build the stadiums based on the represented cultural aspects?
2. What are the Denotative and Connotative meanings of the stadiums?

5. Research methodology

Under the nature of the chosen sample, the research follows a qualitative method to fulfill the objectives of the analysis. Under this method, a social semiotic perspective is convenient since the produced signs (stadiums) are socially and culturally related and created in the Qatari context. For that reason, using Kress's (1997) theory of representation to analyze the used semiotic resources in the creation of the stadiums based on the cultural resources. The next point is analyzing the stadiums following Barthes' model of Denotation and Connotation to discover the cultural meanings.

6. The significance of the study

Throughout the investigation of the researchers, the significance of the study lies in enriching the knowledge in the field of semiotics and social semiotics, particularly in the Algerian context. Accordingly, the study encourages upcoming researchers to investigate architectural works and their depiction of culture. In addition, promoting and highlighting the importance of the semiotic studies to reveal and investigate newly introduced and undiscovered phenomena at the socio-cultural spheres of the Algerian society in particular. The last point is the importance of the study in the Algerian academic community to be used in the future as way of depicting other phenomena or elaborating the methodological part for the sake of knowledge-sharing.

7. Structure of the Dissertation

This study is divided into two main chapters. The first chapter focuses theoretically on a comprehensive literature review. The second chapter is concerned with the practical part of the study. Concerning the first chapter, two sections are devoted to cover the main concepts needed and required throughout the whole investigation. Accordingly, the first section concentrates on the nature of architecture, culture, with regard to the relation that connects both concepts; at this level, we provided a broad range of knowledge concerning definitions of both architecture and culture, the main perspectives, styles, and mainly in the interconnectedness of both concepts. As for the second section, the coverage was about the major theories and the foundations of the semiotic and social semiotic fields of study. The beginning of the section focused on the main definitions of semiotics, definition of sign, main theories of semiotics, and concentrating on Barthes's contribution in the semiotic field. Then, we moved to tackle the social semiotics perspective through focusing on the main definitions, introducing Kress's theory of representation, and highlighting some basic concepts related to the study.

The second chapter, which is dedicated to the analysis of the stadiums, is divided into two main sections. The first section concentrates on the followed methodology that was viewed as most apt and appropriately enables the fulfillment of the research. More precisely, the section constitutes the study design, the unit of analysis, the description of Qatar FIFA World Cup 2022 stadiums (their background and representations), data collection, and analysis procedures. As for the second section, it is about data analysis and discussion; besides, the encountered limitations and some recommendations for future studies.

1. Chapter One: Literature Review

Introduction

Throughout history, architecture remained one of the human beings proof of existence and the currency that represents the actual value of each civilization. The needs and struggles of mankind that faced him led to the creation of shelters and homes as the basic daily life utilitarian product to facilitate the way of living. In this sense, architecture at each point in time faced many regularities and developments depending on the actual needs of society and constantly changed which led to the appearance of many architectural movements that shaped the essence of architectural work. These changes are linked to the technological developments and architectural knowledge which further boosted the diversified techniques and methods of planning and urbanization which in fact mirrors the country's actual economic state as well as the cultural facet. According to Koirala (2016), both architecture and culture are inseparable and both co-exist within each other. In addition, Tram (2008) regarded architectural works as cultural symbols and artworks that maintain the historical achievements of mankind. Accordingly, the cultural perspective is always embodied in architecture and recursively influencing the appearance of the designed works; thus, it makes each culture distinct from the other cultures.

Henceforth, in this chapter, as a first section, we introduced the fields of semiotics and social semiotics. At the beginning, we started with semiotics through giving some definitions about the field and its main concern which is the sign, influential models, and importantly an overview about Barthes's semiotics since the topic is culturally oriented to be investigated using Barthes's contribution. Secondly, we moved to cover the field of social semiotics and briefly introducing some definitions, introducing Kress's theory of representation since the topic is oriented to cover cultural representation within the socio-cultural context of Qatari country, and some key terms.

Regarding the second section, architecture and culture, introduces the nature of both concepts in terms of their definitions and nature. In addition, a compiled literature covers the architecture in terms of its identity, its influential contemporary movements, as well as its importance. Concerning culture, we have introduced its perspectives, types, as well as its importance. Moreover, we covered some information about culture representation; at the end, we made a link between both concepts of architecture and culture.

1.1 Section One: Major Theories of Semiotics and Social Semiotics

In this section, we have introduced the fields of semiotics and social semiotics since they constitute the focus of this study. At first, the theoretical part gives a thorough literature about the field of semiotics, its models, and an overview about Barthes's semiotics since it has a methodological role in the investigation. Secondly, the theoretical part focused as well on the introduction of social semiotics, specifically Kress's representation theory which is one of the major theories needed in this study.

1.1.1 Semiotics

The field of semiotics is considered as a focal study area due to its applicable methodologies in examining and investigating sign systems. Among these systems, language was the starting point of the semiological nourishment developed by the Saussurean school of linguistic structuralism in Europe. De Saussure, as the principal founder of semiology, established the basics of the field's current state and continued to be adopted and adapted as the leading teachings in many other influential works. Henceforth, many linguists from other schools such as Hjelmslev from the Copenhagen school who worked on Glossematics and Barthes from the Paris school who worked on Mythologies and other releases greatly influenced the discovery of the semiotic field to be practically used as a methodological way of investigating the language system. In this regard, providing definitions of the field is inevitably required to explore the nature of the semiological field from ancient times to the

European and the American contributions. In addition, exploring the semiotic models of leading figures such as F. de Saussure and C.S. Peirce. Besides, introducing the works of Barthes who developed the semiological orders of signification, which is the framework of the current study.

1.1.1.1 Definitions of Semiotics. Before the structural development of the semiotic field, it dates back to some ancient eras of well-known scientists and philosophers. In a broader term, according to Sebeok (2001), semiotics is considered as “both a **science**, with its own corpus of findings and its theories, and a **technique** for studying anything that produces signs” (p. 5). This definition highlighted two major things. First, semiotics is a scientific field and a contributing realm that is independent by its own theoretical perspectives and fundamental principles. In addition, semiotics is also concerned with the technical part from which the signs can be treated and examined based on the reason of their production. In the light of that, Sebeok’s definition was based on investigating the roots of the field, mentioned that it was coined by Hippocrates (460-377 B.C.) as *semeiotics* which was under the field of medicine. It was considered as a science of studying symptoms (or symptomatology) of diseases and human behaviour during experiencing some kind of sickness. For instance, coughing as a sign of having cold; a change in skin colour was a sign of fever. In general, the signs were treated as symptoms to figure out what kind of issue the human is experiencing; thus, Hippocrates recorded a list of symptoms to ease the process of treating people. Next, Sebeok (2001) added that the field was identified in another era out of the field of medicine. Specifically, the philosopher Aristotle (384-322 B.C.) dealt with the treatment of signs and their components. He recognized the three dimensional entities which are the physical part (sounds that build the word e.g. /buk/), the referent which means the sense made from that sign (a covered bunch of paper), and the meaning which is the socio-psychological interpretation of the referent. Other traces are found such as the stoics, Augustin and other

scientists, but mentioning two examples from previous works definitely proves the existence of the field as a science of signs treatment.

From ancient history to the modern time, de Saussure, who is a social psychologist, attempted at initiating the principles of the semiotic field, as he called it semiology. Drawn from a linguistic perspective, semiology was coined in the structural school of thought which is defined by Saussure as “a science that studies the life of signs within society is conceivable” (Saussure, 1916/2011, p.16). This definition highlights the possibility of establishing a semiological field, which is definitely the current case of nowadays, that mainly focuses on the linguistic signs in relation to society. De Saussure took the advantage of studying the natural languages, which is the everyday language system of the human being, taking into account the social context from which the language emerges. In this regard, de Saussure regarded language as a system of signs that constructs the reality of a giving community. Moreover, De Saussure (1916/2011) emphasized the subordination of linguistics under the semiological field; thus, it makes the role of the semiologist much extended in investigating the deep structures that underlie the language system.

From one hand, the appearance of the first attempt at the European tradition was linguistically oriented; on the other hand, the American contribution was oriented to the semiotic field from a philosophical perspective. Charles Sanders Peirce had the chance to employ a logical, pragmatic, and philosophical point of view in treatment of signs. C.S. Peirce (1938) defined the field as “formal doctrine of sign” (as cited in Chandler, 2022). This definition gives an insight about the logical-based treatment of signs. Since logic is concerned with the mental capability of the human being and cognitive abilities, the signs are mainly interpreted at the level of the mind in order to understand its meanings.

Besides, some contributors to the field of semiotics such as Fiske and Hartley (2003) said that the semiotics is interested in the process of meaning-making which is semiosis or unlimited signification. The purpose is to trace how society achieves its aim in a contextualized setting to understand the meanings behind the signs. In addition to Fiske and Hartley's view, Chandler (2022) said that semiotics is concerned with the representation of reality and its manifestation through the use of signs.

1.1.1.2 Definitions of Sign. The whole world is filled with signs and sign systems. The latter ranges from natural languages, music, art, and other available mediums that constitutes a system of signs. In a broader term, according to Eco (1976), the sign encompasses anything that can be considered as meaningfully replacing or representing something else. From this definition, we grasp that the role of the sign is the presence of an entity that does the representation. In addition to Eco's definition, it is pivotal to introduce the main ideas that contributed to the development of the semiotic field. The definitions are regarded from differing perspectives. The followings are the definitions introduced by F. de Saussure and C.S. Peirce.

1.1.1.2.1 Ferdinand de Saussure's Definition. The Genevan structural linguist studied the natural language system in which he highlighted that the language system is mainly a form not a substance (1916/2011). The form is the psychological existence of the language in the mind of the linguistic community; however, the substance was regarded as the actual realization of the language. For example, speaking as the actual concrete substance that manifests language. In this regard, the focus of de Saussure was the form of the language system. This starting point permitted the Saussurean conception in regarding the conventional linguistic sign as being a psychological form composed of a Signifier and Signified (1916/2011). This view of point will be discussed thoroughly in F. de Saussure's model.

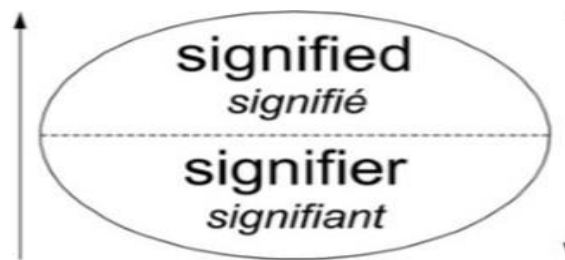
1.1.1.2.2 Charles Sanders Peirce's Definition. The American philosopher delved into the exploration of the sign and its components. C.S. Peirce defined sign as “something which stands to somebody for something in some respect or capacity” (As cited in Sebeok, 2001, p.33). His pragmatic view regarded the presence of three main interrelated entities that make up a “genuine sign”. This genuine sign is particularly characterized by the possibility of being interpreted (Peirce, 1938). Thus, he divided the sign into representamen (firstness), object (secondness), and interpretant (thirdness). Merrell (2005) elaborated Peirce's view saying that “As possibilities, firstness inheres; as actualities, secondness emerges, and as potentialities for future signs becoming signs, thirdness comes into the picture” (p.32). This understanding is thoroughly elaborated in C.S. Peirce's Model.

1.1.1.3 Models of signs. Regarding the field of semiotics, two major contributors served in the flourishing of the field and continued to be influential models in the semiotic realm and for further developments and adaptations. The following highlighted models are introduced by the European structural linguist Ferdinand de Saussure (signifier, signified, sign) and the American philosopher Charles Sanders Peirce (representamen, object, interpretant).

1.1.1.3.1 Ferdinand de Saussure's Model. From a structural point of view, the Saussurean tradition highlighted the dyadic nature of the linguistic signs. The suggested claim, from his previous collected works published posthumously in "Course in general linguistics", pointed at the bipartite composition of two elements which are the signifier and the signified. Thus, they are unified to make the so called sign. In addition, the relational interdependency of the components is the process of signification (Saussure, 1916/2011).

Figure 1

F. de Saussure's Model of Sign



Note. From “Semiotics: the Basics”, by D. Chandler, 2022, Routledge.

Saussure (1916/2011) further explained the nature of the linguistic sign; the signifier was described as being an acoustic-image or a sound-image and the signified as being the concept or the mental representation. Saussure added that the relation between the two entities is arbitrary and conventionally bounded, a general agreement within a linguistic community, though having some exceptions like onomatopoeias which are few in the linguistic realm. Here, the Genevan linguist meant that there is no logical or intrinsic relationship between the two entities or a reason that justifies choosing a particular signifier to signify a given concept.

Most importantly, the process of signification was described as being psychological. Although the signifier, as it seems, is more materialistic, it was regarded by Saussure as being psychological. This psychological nature was explained by Saussure, in his words, as "the psychological imprint of the sound, the impression that it makes in our senses" (Saussure, 1916/2011, p. 66). The clarification of Saussure's psychologism was raised through introducing the intrapersonal communication phenomenon of the human being where the psychological impression of the signifier can be experienced while speaking with ourselves or, as an example, while reading a book. This makes the signifier a sound-image which is acoustically imprinted in the mind in a particular linguistic community (Saussure,

1916/2011). Less focusing on the mental representation, the signified, which is characterized by having an abstract nature, the sign can be simply defined as a bipartite psychological entity that is governed by the principle of arbitrariness in a particular linguistic community.

In addition, Saussure (1916/2011) added a significant point in which the linguistic signs gain their value only by difference in the paradigm of the language system. In other words, the signs are meaningfully recognizable due to their difference, which makes them have distinct values. For example, the word “*pen*” is different from the word “*ten*” which makes both of them have distinct values due to the difference of the first letter or, phonetically speaking, the first phoneme.

1.1.1.3.2 Charles Sanders Peirce’s Model. From the European dyadic conception to the American triadicity of the co-founder of the semiotic field. C.S. Peirce introduced a logical, philosophical, and pragmatic conception about the nature of signs as he named it Semeiotics, currently Semiotics. According to Peirce (1897), the sign is “something which stands to somebody for something in some respect or capacity” (As cited in Sebeok, 2001, p.33). Accordingly, the Peircean conception introduced an interrelated and an interdependent triadic division of entities that make the so called sign. According to Peirce (1998), in his view about the trichotomies of the sign, said that “A *Sign*, or *Representamen*, is a First which stands in such a genuine triadic relation to a Second, called its *Object*, as to be capable of determining a Third, called its *Interpretant*” (p. 272).

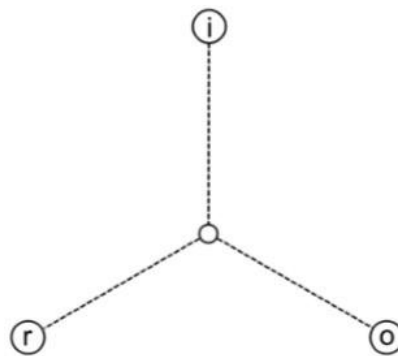
The terminologies of the Peircean tripartite model were highlighted as the Representamen (sign), Object, and most importantly the Interpretant (the effect of the sign on the interpreter). These entities interact in a process called “semiosis”, as referred by Peirce, which is the process of meaning-making. As Daniel (2008), in his words, explained the relationship between the trichotomies saying that:

The sign [representamen] as the conveyer of meaning mediates between the object and the interpretant; the [interpretant] mediates between the sign and the object to interpret the meaning; the [object] mediates between the interpretant and the sign to ground the meaning. (As cited in Chandler, 2022, p.33)

Under this view, Chandler (2022) added, the properties of being interpreted and perceived are the fundamental aspects of the sign.

Figure 2

C.S. Peirce's Model



Note. From “Semiotics: the Basics”, by D. Chandler, 2022, Routledge.

Eco (1976) added that the outcome of the interpreted sign or interpretant can be a representamen that generates another interpretant; this idea was highlighted as “unlimited semiosis”.

The commentators of Peirce’s work on semiotics introduced and modelled his trichotomies to show the interrelation of the three parts. One of the famous models is the tripod that perfectly show the interrelation between the parts of the sign. In addition, we find the previous explanation of Daniel adequately present in this tripod. In this respect, Peirce (1931), moreover, identified three types of sign relationships; it means the relation between the representamen, which is the sign, and its object (as cited in Smith et al., 2005). These types are iconic, indexical, and symbolic signs. Hereafter, they are explained as follows.

- **Iconic sign:** the relation between the representamen and its object is through resemblance or mimesis. For example, a photography that portrays a person.
- **Indexical sign:** the relation between the representamen and its object is through indication of existence. For example, footsteps as an indicator of a person's walk by in the beach.
- **Symbolic sign:** the relation between the representamen and its object is through conventional contract in which it stands for something within cultural context. For example, November 1st is the date of Algerian war of independence.

1.1.1.4 An Overview of Roland Barthes's Semiotic Theory of Orders of Signification. As a leading figure in the structuralist school of thought, Barthes was mainly a literary theorist, structuralist, and particularly a semiotician. Though having different orientations led him to feature many outstanding releases in many fields, such as photography, literature, and music, his semiological contribution was invaluable. In the works of Barthes under the semiological studies, he wanted to decipher the hidden meanings of the Bourgeoisie ideology that dominated French society—mainly focusing on popular culture productions such as wrestling, clothing, and food. These social behaviours were dominantly shaped by the ideological attempts of the bourgeoisie ideology in order to spread their beliefs as a dominant group. From this analysis, he theorized a particular framework of Language and Myth in his book of Mythologies. The second semiological attempt was when he reinterpreted the Hjelmslevian theory of Denotative Semiotic and Connotative Semiotic through modeling them based on the work of Mythologies to be currently known as orders of significations (Denotation and Connotation).

Chronologically speaking, the notions of Denotation and Connotation were not originally based on the work of Mythologies (1957/1972), and the used terms in the book were specifically oriented to the cultural analysis of Mythologies (ideologies) that dominated

the French culture. Because of the simple language used by Barthes, the attempt at synthesizing the model was flexible, and it is as follows. Barthes introduced a metaphorical schematization (figure 1) about the two semiological systems; one is built upon the other. Adopting the terms of signifier, signified, and sign from the Saussurean tradition, Barthes explained how Myth is generated from a previously built semiological system. At first, the model was stratified into two-part semiological systems: Language and Myth. In this regard, the first semiological system which he called Language, also called Language-Object. This term is specifically used to refer to any verbal or non-verbal mode of representation from which the second system depends on it to be constructed. The second semiological system is referred to as Myth, also called Metalanguage. This term was used to refer to the second language that is used in order to speak about the precedent used one.

Figure 3

Language and Myth



Note. From “Mythologies”, by R. Barthes, 1957/1972, The Noonday Press.

Barthes further added some terminologies to differentiate between some terms inside each plane. According to Barthes (1957/1972), in the Language plane, there is a signifier and a signified in which both ultimately create a sign. The latter is the ordinary caught message or simply the description of the created sign. In the mythical plane, the created sign by the first semiological system becomes a signifier. Here, Barthes referred to this signifier, which is a sign, in the plane of language as *meaning*. In the same manner, referred to it as *form*, also called it an empty signifier, in the plane of Myth. In the second semiological system, the

empty signifier is associated with a mythical signified, also called a concept. In this regard, a new sign is created via this association; thus, a mythical meaning is presented in the second-order system. In this created chain, Barthes referred to this created sign in the plane of Myth as *signification* to make a difference between the sign of the language plane and the one of the mythical plane.

Following the creation of these semiological systems, Barthes gave more details about the signifier that is found between the first and the second semiological systems. According to Barthes (1957/1972), in the plane of language, the signifier, as a sign, was once rich in meaning, history and information carrier which is characterized by its richness and filled with meaning. Hence, By the force of the mythical meaning, the information carried in the signifier in the previous language plane gets distorted, suppressed, and backgrounded through the force of the new mythical meaning. Barthes, in his words, explained this process "the meaning loses its value, but keeps its life, from which the form of the myth will draw its nourishment" (p. 117). In this regard, the signified in the mythical plane transforms the fullness and richness of the signifier into an empty signifier that requires another meaning to contain that emptiness to create a mythical meaning; thus, a second semiological system is created.

Following the chronological order of Barthes's published books, in his book "*Elements of Semiology*" (1964/1967), he introduced the semiotic model of orders of signification. In this work, the terms of Denotation and Connotation were introduced with reference to Hjelmslev's work of *Glossematics* in his book of *Prolegomena* published in 1961. In this regard, the originality of the terms were coined by Hjelmslev and Barthes reintroduced them in a model to distinguish between the two systems and clarify how the semiotic chain is created.

Terminologically, the two systems were mentioned by Hjelmslev as Denotative semiotic and Connotative semiotic. This idea was drawn from a structural linguistic point of view. To exemplify this process in this statement, "The boy is running", from the denotative perspective, denotes "a boy who is running", but from the connotative perspective, it suggests an example. It means the statement extends its signifying process from a denotative level to create a semiotic chain that conjuncts with another content which is "example"; therefore, a connotative system is created.

In this regard, Barthes simplified and explained this idea as follows. According to Barthes (1964/1967), the sign is divided into two planes which are "Expression Plane" and "Content Plane". Both planes are conjunct to create a first-order signification layer, namely a denotative level. The relation of the previous planes becomes an expression plane in the second-order signification when it conjuncts with another content plane, creating a connotative level. This idea was accordingly stated by Hjelmslev (1961) in which the connotative semiotic is "one whose expression plane is provided by the content plane and expression plane of a denotative semiotic". In the light of Hjelmslevean view, Barthes said, "connotation, that is, the development of a system of second-order meanings, which are so to speak parasitic on the language proper."

Linking this idea to the previous work of *Mythologies*, this idea is likewise similar to the previous introduced model of Language and Myth in the process of making a semiological chain in which the mythical meaning distorts and empties the previous semiotic system so that the connotative meaning establishes its connection to the signifier. In this regard, some commentators on the work of *Mythologies* regarded Metalanguage (Myth) as the connotation of Hjelmslev. This idea was highlighted by Leak (1994) saying that "Barthes later corrected 'metalanguage' to 'connotation', in line with the definitions of these terms provided by the Danish linguist Hjelmslev" (p. 18). From Leak's perspective, the work of

Denotation and connotation was influenced by the understanding of Barthes in his work of *Mythologies* while reinterpreting Hjelmslev's work of Denotative semiotic and Connotative semiotic into a semiological model in his book of "Elements of Semiology". In this sense, the core idea of connotation was introduced by both figures, but the difference is only terminological. As Barthes developed Hjelmslev's model, he abandoned the terminology of Hjelmslev of Expression and Content and replaced them with the Saussurean ones (signifier, signified, and sign). In light of Leak's claim, another commentator who shared the same idea, Monticelli (2016) showed the similarity between the models (Figure 4).

Figure 4

Language and Myth / Denotation and Connotation

<i>signifier</i>		<i>signified</i>		connotation	(myth)
<i>signifier</i>	<i>signified</i>			denotation	(langue)

Note. From "Critique of ideology or/and analysis of culture? Barthes and Lotman on secondary semiotic systems", by D. Monticelli, 2016, *Sign Systems Studies*, 44(3), 432–451.

1.1.1.5 The Orders of Signification (Denotation and Connotation). From Barthes's described works in semiology, the orders of signification were a chief methodological way to approach any semiotic study to discover and describe the development of meanings and their attribution to signs in any socio-cultural setting. In this regard, many researchers have followed the path of Barthes to reinforce the methodological application in the semiotic field. Plus, they gave more details to distinguish between each order of signification. In this manner, the orders are re-explained to capture their nature.

1.1.1.5.1 The Denotative Level. This level is described by Barthes (1964/1967) as a first-order signification. In this regard, both the signifier and the signified are unified resulting in the creation of a layer of denotative meaning. This level is particularly characterized by its directness and explicitness in meaning. According to Smith et al. (2005), the meaning generated in the first level of denotation is simply the common sense, the literal, and the typical meaning that anyone grasps from the first exposure to a given sign. From this idea, it is clearly understood from the denotative level that signs can be identified in all their substances (linguistically, visually, auditory, and other forms of expression).

1.1.1.5.2 The Connotative Level. This level is described by Barthes (1964/1967) as a second-order signification. In this regard, the previous unified sign becomes a signifier in the second level of signification attached to the new added signified. According to Smith et al. (2005), in the connotative layer, the attached meaning is a subjective association. This association is only culturally deciphered by the members who share the same idea about a particular sign. Additionally, Josephson et al. (2020) further explained that the denotative level can lead to a multiplicity of connotations. Regarding this idea, Fiske (1990) said that the connotative system could be recognized through the interpretation of the meanings. These meanings are the emotional and cultural values within a socio-cultural context that dictates the interpretative attempt of the society to grasp these meanings attributed to the signs. Besides, Smith et al. (2005) said about this semiotics, “connotation reflects cultural meanings, mythologies, and ideologies” (p. 231). Respectfully, based on these claims, it can be inferred that the same sign, depending on each culture, has differing connotative meanings shared and governed by the cultural context. Furthermore, the relation between the concept of the connotative plane and the signifier is much more motivated, or there is a reason that justifies this association; while in the denotative plane, it is much more unmotivated or arbitrary, like the Saussurean linguistic sign.

1.1.2 Social Semiotics

As a branch of semiotics, social semiotics is in fact a newly introduced field of investigation which is particularly rich in models, theories, and, frameworks. These attempts are vitally increasing and gaining widely supported researches that seek to understand how meaning is created via social entities. Besides, the investigation is dedicated to search for the multiple modes of meaning-making and the semiotic resources governed by the sign-maker.

1.1.2.1. From Semiotics to Social Semiotics. As is seen from the field's name that it is a branch established from its source which is semiotics, but its orientation is much more different and have established its grounds to be separately oriented to social productions of meanings. The distinction between both fields is highlighted, according to Hodge and Kress (1988), in the following quote:

Traditional semiotics likes to assume that the relevant meanings are frozen and fixed in the text itself, to be extracted and decoded by the analyst by reference to a coding system that is impersonal and neutral, and universal for users of the code. Social semiotics cannot assume that texts produce exactly the meanings and effects that their authors hope for: it is precisely the struggles and their uncertain outcomes that must be studied at the level of social action, and their effects in the production of meaning (p.12).

In this view, the meaning is flexible and dynamically expressed according to social semiotics. However, according to semiotics, meaning is fixed and static.

1.1.2.2 Definitions. In the field of social semiotics, the work of Michael Halliday was the prominent figure in initiating what is coined as "Language as social semiotic". This statement, according to Halliday (1978), focuses on the semiotic systems that govern the

social reality or the culture which is loaded by meanings. In other words, Halliday meant that there are different ways to make the meanings conveyable and transmitted to the interlocutor. Among of these systems, language is regarded as part of the constituting semiotic systems from which people can establish their roles in the society and transmit the meaning by the use of language. The interpretative basis of the conveyed meaning is bounded to the socio-cultural context from which the interpretation takes place. Halliday (1978) said that language is a symbolic system used by individuals within a social group to create and exchange meaning. It is a set of resources that allows people to represent and interpret the world around them, convey their thoughts and feelings, and interact with others. The most interesting and influential part in Halliday's work in social semiotics is introducing the Systemic Functional Linguistics in which he emphasized the functional aspects, also called metafunctions, of language and analyzed how language is used to create meaning in social contexts (Halliday, 1978). The three metafunctions are briefly explained as follows.

- **The ideational function:** relates to representing and expressing experiences and meanings.
- **The interpersonal function:** focuses on expressing and negotiating social relationships and identities.
- **The textual function:** concerns the organization and structure of language in texts.

Hodge and Kress (1988) added that social semiotics is interested in the human being's meanings in its social context through the used various semiotic forms. In addition, the focus is oriented to study other different semiotic systems used within its social context.

The emergence of the field, as a branch from semiotics, face many contributions to study the social production of meaning in various modes of communication and meaning-making processes. Thus, the works varied from one scholar to another, even peer

contributions releases in a multiplicity of books tried to construct theories and frameworks to approach different phenomena sociosemiotically. Nevertheless, the works of Kress, as a prominent contributor in the field, developed many works such as *Reading Images* (Kress & Van Leeuwen, 2006), *Multimodality* (Kress, 2010), and most importantly the theory of Representation developed in his book of *Before Writing: Rethinking the paths to literacy* (Kress, 1997) which is the most needed theory in this study.

1.1.2.3 Kress's Social Semiotic Theory of Representation. Based on the theory developed by Kress in 1997, the notion of the sign under the perspective of social semiotics is totally different from the structuralist point of view. In the Saussurean tradition, signs are regarded as conventional and arbitrary. Referring to The pre-existing conjunction of the sign elements (signifier/signified), the form and meaning are both arbitrary connected in which the cultural context emphasizes this relationship. However, from the social semiotic perspective, the sign is regarded as motivated. To elaborate, this motivated sign is a process in which both the signifier and the signified are distinctly separated until they are unified by the sign-maker forming a new sign. In this regard, signs are not arbitrary, rather they are motivated based on the interest of the sign-maker to select what to represent and through what it is represented.

The process of sign-making starts from the interest on meaning-making in which the sign-maker chooses the most apt and plausible form, which is the semiotic resource, that refers to the intended meaning. The chosen form is based on specific criterial aspect(s) that the sign-maker regards as most representative of the whole object being represented. In other words, the sign-maker selects the most interesting parts in the object from which the new sign is going to be built upon. After the selection of the criterial aspect(s), the form is represented by different semiotic modes such as drawing, speech, writing, etc. From the selected semiotic mode, the sign-maker selects the available semiotic resources that are most apt and plausible in representing the meanings, and thus creating a new motivated signs. Under this theory, it

can be said that the meanings are dynamically represented through different available or created semiotic resources that are appropriate in expressing the intention of the sign-maker.

Figure 5

Representation of Car by a Child



Note. From “Before Writing: Rethinking the Paths of Literacy”, by G. Kress, 1997, Routledge.

From an example provided by Kress, the latter noticed a phenomenon, particularly done by a child, in the process of sign-making. The idea was based on the representation of the concept Car by 3-years-old child’s drawing. In this drawing, the making of sign was based on the criterial feature of Wheels. This criterial feature was represented through circles from which the child made an analogy between the shape of the wheels and their representation on the drawing. Thus, the represented Wheels through the drawn Circles for the child are the criterial feature to signify the concept of Car. For the child’s interest in representing the concept of Car was mainly focused on the criterial feature of “*Wheelness*”. In particular, the “*Wheelness*” is represented by the “*Circles*”. Thus, the sign-maker created the motivated sign of “*Car*” through being signified by the “*Circles*”. Under the interest of the sign-maker, the criterial aspects are a matter of choice depending on the object being represented. Additionally, the creation of signs depends on the sign-maker to use the appropriate mode through which the sign can be represented like (drawing, speech, writing

... etc.). To express the meaning which is the signified can be expressed through the most apt and plausible from which is the signifier via different semiotic mode(s).

Figure 6

Representation of Car by a Child



Note. From “Before Writing: Rethinking the Paths of Literacy”, by G. Kress, 1997, Routledge.

Not only drawing as a common mode, even visual/spatial modes were found in the process of sign-making. The ability is based on making complex signs in which the child is responsible for collecting specific objects. These objects are the main representative for specific meanings the child wants to compile in one complex sign. In the provided figure, the interest is to make a “Car”. The making is based on some objects that represents different parts related to the concept of “Car”. The child gathered, as described by Kress’s words, “wire-mesh drawers, a pillow, a red toolbox, and an assortment of other bits and bobs, passengers included” in which “the toolbox serves as a bonnet, the two flanking drawers are the car doors, the central pillow is the/are the car’s seats” (Kress, 1997). Thus, the ordinary people may find it ambiguous, but this ability to imagine and construct new signs is related to

the culture, or what Kress called as “what is to hand”. In other words, the availability of a particular and limited signs does not restrict the sign-maker to cancel the process of sign-making, but adapt his own choices of what is best apt of expressing and making the meaning conveyable.

From the previously tackled figures, the notion of representation was dependent on the sign-maker’s choices of particular available semiotic resources that make up the mode. Both realizes what is interested in the moment of representation which is the “Car”, but using deferent ways and modes to materialize the intended concept which is the meaning, of “Car”.

In the theory generated by Kress 1997 is mainly a leading one which proves the creative use of human beings the available semiotic resources in their materialization of their meanings. The ability to adapt certain signs as a representative is not an easy process, but relies on the creativity of the sign-maker. Thus, this theory can be applied in other fields not only in what is observed by children behaviour, but also in different arts and other social production in which the sign-maker expresses his own meanings through different modes like music, painting, and even architectural works.

1.1.3.4 Fundamental Concepts in Social Semiotics. Terminologically, each creation and foundation of every new field requires the creators to organize a conceptual frameworks, models, and terms in order to distinguish one field from the other. The development of social semiotics, as it dates back to the Hallidayan contribution, encountered many works that seek to enrich the basis of the field; thus, new terms are defined to serve a particular purpose in the field, particularly in Kress’s social semiotics theory of representation.

1.1.3.4.1 Interest. This term suggests that the process of sign-making is based on the sign-maker’s concerns to represent the criterial features of the intended signs. The criteriality is what draws the attention of the sign-maker to convey the meanings throughout the best

available and chosen appropriate forms or specifically the best semiotic resources. The interest is raised, as Kress identified its nature, through “physiological, psychological, emotional, cultural and social origins” (Kress, 1997). In addition, Kress (1997) said that interest is the composition of the sign maker’s experience in the world in which the representation that takes place in the current time is a reflection due to that experience.

1.1.3.4.2 *Motivated Signs.* This concept suggests that the creation of signs needs two crucial entities which are the forms and meanings. By means, the signifiers and the signifieds. In this regard, social semiotics regards the signs as motivated in which the sign-maker is responsible to unify the appropriate forms or the semiotic resources with the intended meanings in order to create the needed signs (Kress, 1997). In this regard, Kress (1997) said that the signs should appropriately represent the intended meaning in order to be understood by the receiver of this created signs. Henceforth, the sign makers have to make adjustments in the process of meaning-making and regard the other part to decipher the meaning of the compiled sign (Kress, 1977).

1.1.3.4.3 *What is to Hand.* It suggests the available material resources that draws the attention of the sign-maker to be used as the appropriate forms in the creation of signs (Kress, 1997). He added that the materiality of the represented meaning is linked tightly to the material form that makes the representation. This form is the meaning-carrier alongside other forms that expresses other meanings of a particular complex sign (Kress, 1997).

1.1.3.4.4 *Imagination, Cognition, and Affect.* According to Kress (1997), imagination has a crucial role in the process of making signs. It is due to the internal characteristics of a specific sign that draws the sign maker interest to imagine a representational mode of this chosen sign. Kress (1997) identified this imaginative role of sign making through the innovative linguistic performance of children and their creation of utterances that represent

different meanings. Another idea introduced notion which is Cognition; Kress (1997) highlighted that there are some boundaries and conventions that control the sign-maker's way of representations. He explained it in this quote "Cognition works with, and depends on, sign-making by using established kinds of units and their relations, respecting what can be generally referred to as the established boundaries" (p. 104). At last, Affect, according to Kress (1997), is the preferable mode selected by the sign-maker in which he freely expresses the meanings depending on his interests.

1.1.3.4.5 Semiotic Resources. This concept is the central one in this theory. In the previously mentioned term of "What is to hand" is the same as what semiotic resources concept is about. The concept refers to the use of material objects or anything that can be used in accordance with the intended meaning. In this regard, the semiotic resource in itself is the same as the term "sign" when it is conjuncted with the intended signified. By means, a unity of a signifier and a signified that make the meaning depending on the available resources in that moment of choice (Kress, 1997). Under this view, according to Kress (2010), the selection of materials, which are important in the meaning-making, is up to the social entities in a specific selected mode of communication. These materials, for instance, are sounds, clay, movements of the body, wood, and stone. All of them shape the meanings intended by the sign-maker. As an example, in architecture as a mode, semiotic resources like stone is shaped by the architect to create a meaningful building carrying the intended message understood by a specific society.

1.1.3.4.6 Mode. In the process of sign-making, mode is regarded as a set of socially and culturally organized semiotic resources. The latter are under the control of the sign-maker's choice to gather and mix what is available in that time of making the meaning under the appropriate selected mode (Jewitt et al., 2016). In addition to this idea, according to Kress (2010), there are multiple modes such as image, architecture, speech, and gesture that can be

used by the social entity to deliver certain messages to the receiver in a particular social and cultural context.

1.1.3.4.7 Design. According to Kress (2000), “Design is thus both about the best, the most apt representation of my interest; and about the best means of deploying available resources in a complex ensemble” (p. 158). Thus, design in this sense regards changes the concept of language from being a bounded system of conventionalize signs to be a motivated system which is governed by the interest of the sign-maker, as Kress (2000) said “motivating force of representation” (p. 157).

1.2 Section Two: Architecture and Culture

In this study, the theoretical chapter requires an in-depth literature about architecture and culture since both of them are the center of this investigation. In light of that, this section concentrates, firstly, on the field of architecture with a deep discovering of its nature. Secondly, the section introduces the concept of culture, which is thoroughly explored. At last, the section highlights the interconnectedness between the field of architecture and the concept of culture in order to have an understanding about the relation of both concepts.

1.2.1 The Concept of Architecture

In the current developed world, the manipulation of architecture is absolutely an easy process due to the development of technologies and architectural investigations that facilitate the work of the architect. But this field witnessed its nourishment and flourishing from the beginning ancient ages until the current state. In this regard, introducing the concept of architecture, its identity, contemporary styles, and its importance are as follows.

1.2.1.1 Definitions. Architecture can be defined from a broader sense based on some well-known dictionaries. According to the electronic version of Merriam-Webster dictionary, architecture is considered as an art or the science of building. In particular, constructing

structures and designing them to be later on habitable by the human being. This definition basically introduces the purpose of the built environment that is most of the time oriented to the human's needs like constructing homes and shelters. Adding to that, according to Brown (1993), in the new shorter Oxford English dictionary, architecture is defined as being the style of building; mode, manner, or style of construction or organization.

From another perspective, some architects explained the meaning of architecture in their field of knowledge as follows. According to Rondelet (1817), who is an architectural theorist from the Enlightenment era, believed that the core essence of an architectural work does not reside in the beauty and the aesthetics that are governed by the imaginative abilities of the architect, but most importantly, architecture is regarded as the scientific study of how the different parts, in a particular work, are all united in a beautiful and a well-formed block, each part should serve its purpose in the composition of the architectural work (as cited in Trubiano, 2023). However, according to Jeanneret (n.d), known as Le Corbusier, architecture is the correct use of the combination of masses that generate an aesthetically and well-finished block. In addition, focusing on its effect, due to the emotionality and aesthetics of the work, it can be experienced by the viewer through its emotional influence (as cited in Conway & Roenisch, 2005).

According to Costanzo (2016), architecture can be defined as being a linking line that connects the technological developments and achievements of the human being in relation to his own culture. Mainly, the usefulness of these developments as a tool that provide the ability to show the culture to which the human being belongs in a particular architectural work. Additionally, this art serves as an embodiment of socially shared beliefs, expressing the unique identity of a particular society, and importantly a way of preserving memories. Besides, Moustafa (1988) highlighted the importance of the built environment which serves as an identity that makes the people in a specific area feel their own. According to Serageldin

(1989), architecture is regarded as the basic ideological manifestation, resemblance of cultural heritage that connects the past and the future, and the making of collective image that shape society's view of itself. In addition, it is regarded as a mirror and representation of the society's own cultural, economic, religious, and political reality. According to Vale (1992), architectural aesthetics should relevantly integrated within the socio-cultural context and the physical environment in order to be meaningful. Kistova and Tamarovskaya (2014) said that the process of creating architecture has to be well-finished work in order to be a masterpiece. The latter has to have an organized structures, decorated facades, and making a readable architectural work by society.

The aforementioned definitions, in general, share the same core idea that any attempt at constructing an architectural work is guided by a scientific procedures. Particularly, managing the different parts cohesively to make the appearance much more related and aesthetically attractive. Besides, the visual role of the architectural work toward an affective influence on the viewer. In addition, the cultural significance of architecture in depicting the beliefs of society.

1.2.1.2 Architectural Identity. In the creation of each new product, it is mainly affected by the culture in which it is produced. Architecture, as the main product of human being, encountered many changes throughout history depending on the available materials, spaces, cognitive abilities to generate new layouts and designs. Thus, in the current time, contemporary architecture can be easily manipulated and formed depending on the architects' abilities which are mainly the factors which shape the production of an effective and identical architecture. According to Nooraddin (2012), the national architectural identity is created by the community's cumulative efforts over time to contain the meanings and way of life that make up the local culture's architectural identity. Besides, it is the responsibility of decision makers to organize and manage the space to develop an architectural identity.

In this regard, according to Torabi and Brahman (2013), there are specific factors recognized in the current time that forges the identity of the built environment that contribute to the creation of identifiable architecture within society which are listed as follows:

- **Spatial Organization.** The most important part in the architectural work is the availability of space. The latter is the container in which the architect manages the land to be practically sufficient in urban development. In this regard, the idea of space organization concentrates on the designability and layout of spaces that generates the appropriate location for each building. Moreover, the architect should create a communicative relation between the buildings' positioning and their sequencing to be rationally organized, not randomly positioned. Therefore, this idea is applicable depending on the society's culture and how they prefer to live in their environment.
- **Time Organization.** This factor was mainly about the constant changes in the built environment. The claim suggests that social structures and the culture of specific society will be changed throughout the successive changing in the appearance of the architecture in a specific period of time. Thus, the architect should adapt the needs and make few regulations that do not endanger the culture and confuse the society with their belongings. In this regard, constantly changed forms and physical appearances should be considered, or even convergence and adoption of irrelevant architectures that do not belong to the social and cultural values will affect the society as a whole.
- **Semantic Organization.** This idea is the interesting factor in forming an architectural identity. Architects should follow a strategic way in their creation of architectures that accompany meaningful attributed ideas. This notion of semantic organization regards the appropriate selection of symbols recognized widely in a particular region from which the architect arranges them in their appropriate use. These symbols are carriers

of these meanings which establish a collective understanding among individuals and relationship to feel a sense of belonging. As an examples, mosques are widely characterized by the employment of the crescent moon and the star in which both carry the ideological perspective of Islam. This factor is interestingly related to the study in which the stadiums were a manifestation of cultural symbols recognized in the Qatari cultural; for instance, Al Kahfiya.

- **General Design Principles.** This factor concentrates on the idea of making ideas. Particularly, the works of architecture tend to be criticized for being repetitive and boring in their designability. In this regard, the claim suggests that the architecture should be innovative, state-of-the-art, and culturally perceived by the members of society. For this reason, the necessity for creative production is related to the creative and generative abilities of the architect using the surrounding environment as a source of inspiration and creativity. Therefore, the architect will be able to manage the available resources to build an architecture that is culturally related in its social context.
- **Form and Shape in the Building.** This idea focuses basically on the physical appearance of the architecture. It is widely shared between mankind to enjoy the works of art either visually or acoustically. From an architectural point of view, the society should be impressed and satisfied about the surrounding environment to feel a cultural relation within society. Thus, creating unpleasant architectures or meaningless ones will affect the perception of the society.
- **Building Materials.** From its name, the factor speaks about the resources from which the architecture is composed. The material are subject to the culture in which the society choose the appropriate materials in building their architectures. Thus, throughout history many significant changes occurred and constant developments in

the field requires the architect to adapt the needs of its current time with the suitable materials.

- **Relationship with Context.** In the architectural identity, the context, as a vital factor, works as the ground to understand the meaning behind the created architecture. The idea of context in relation to the built environment is making connections between what is built and its relation to the surrounding environment. Works that are culturally understood may be ambiguous if they were represented in other culture which makes a disconnection to decipher its meaning or even to identify its function. In this regard, architecture should be actively generated through linking its basis and forms to the space in which it is produced; therefore, society will be able to derive the appropriate interpretation of its existence.

The highlighted factors by Tobirami and Brahman gave an adequate explanation of how architecture gain its identity that is shaped and governed by the architects.

1.2.1.3 Influential Styles in Contemporary Architecture. Architecture, since ages ago, witnessed a radical changes depending on the developments of human being's knowledge about architecture principles. In this sense, many architectural styles appeared and flourished especially in the current case of contemporary architecture. Andrews (1984) declared "anything is better than the boredom of formalistic architecture" (p. 10). From this quote, the development of technologies and diversity of architectural movements led to a radical change in the worldview of architects. As a revolution against the formal principles that formed the modern architecture, contemporary works evolved and favored to produce an architecture that is mainly a work of art. Thus, influential styles emerged taking into account the expressiveness, dynamism, innovation, and enjoyment in their works in order to maintain its presence within the socio-cultural context. Therefore, the notable features of these styles,

particularly postmodernism and deconstructivism, maintained its successive presence toward an effective adoption in the present architectural works.

1.2.1.3.1 Post-modernism. As a critical response to what are known as modernist philosophical assumptions about language, culture, and identity that were developed in the 18th-century Age of Enlightenment, a philosophical movement known as postmodernism evolved between 1960s and 1970s. Postmodernist intellectuals developed concepts like difference, repetition, trace, and hyperreality to counter grand narratives, univocity of being, and epistemic certainty. Postmodern philosophy questions the function of power relations, personalization, and communication in the "construction" of truth and worldviews. It appears that many postmodernists deny the existence of universal moral standards and objective reality (Rorty, 2023). The post-modern style, especially in architecture, was mainly noticed and coined after the appearance of Venturi's works in criticizing the simplicity of the modern movement. According to Kahl (2008), architecture should be symbolically attempting to speak with regional and local inhabitants that makes it readable and relevantly making connections with the wider community. In addition, post-modern movement emphasizes the cultural significance of the building to form meaningful ideas spoken toward the community; therefore, they will be transmitted for future generations in order to have an access to their culture. Besides, the context has an influential role which makes the viewers interact with the architecture. Another point to consider is the variation of architectural designs which are appropriately extracted from the regional tradition which helps in maintaining the region's history. In addition to this point, Anderson (1990) said that postmodernist architecture focused more on the representation of other existing object to create a duplicated image (as cited in Kahl, 2008, p. 58). According to Pelli (1999), "we perceive buildings not only with our eyes but also with our memory" (p. 47). Pelli's quote regarded the interpretative ability of the community as a necessary way in determining the significance of the architecture.

Another idea suggested that post-modern architecture is separated mainly into internal structure (what is inside) and external structure (exterior forms). The exterior part was regarded as an independent entity that carries the symbolic meanings attributed throughout the designability of the architecture (Mankus, 2014). In addition to Mankus view, van Leeuwen (2005) said that postmodern architecture was oriented to a façade-based approach in which all the concentration is oriented to the forms and symbolic meanings of the external part of a given building. Thus, the post-modern revolution against the modern style was mainly focused on a cultural revival and maintenance. In addition, a style that incorporates and celebrates the innovative ideas with a full respect to the cultural side of society.

1.2.1.3.2 Deconstructivism. In the meanwhile, after the post-modern spread within the architectural field, a deconstructivist movement appeared as well to challenge the modern static architecture. It is regarded as another facet of the postmodern movement (Abroeck, 2023). This movement was firstly originated from the philosophical work of Jacques Derrida in literary works. Then, this idea was supported by Bernard Tschumi who called for an architectural innovation with collaboration with Derrida's ideas in order to give a sense of constructivist architecture. The principles of the style were mainly rejecting the limitations and formality forced by modernism view, particularly abandoning the geometrical principles such as harmony, unity, and continuity. This was the road adopted to identify the deconstructivist architecture. The philosophical view of Jacques Derrida was mainly established in literary works in which there is a conflict between the text and meaning. In other words, the text is open to different interpretations (Ghassemi, 2020). As result, this type maintained its position through the works of prominent figures in the field such as Zaha Hadid and other influential figures (Ghassemi, 2020). As a distinctive approach to architecture and seemingly shares some principles with postmodernism, deconstructivism, according to Asim and Shree (2018), applies fragmented structures (a distinct part that

function as a structural element), concentrates on the unique visuality of the exterior structure, dynamism (movement), curvilinearity (non-linear lines), and most importantly organized divided parts (cohesion between structural parts).

1.2.1.4 The Importance of Architecture. Architecture is a multifaceted discipline that encompasses the design, planning, and construction of buildings and spaces. It plays a significant role in shaping our physical environment and has a profound impact on our daily lives. The importance of architecture extends beyond aesthetics and functionality, as it influences various aspects of human existence, including social, cultural, economic, and environmental aspects.

1.2.1.4.1 Historical Significance of Architecture. Architecture has been an essential element of human civilization throughout history. From the ancient pyramids of Egypt to the majestic cathedrals of Europe, architecture has shaped the built environment and reflected the cultural and societal values of different eras. As Vitruvius, a Roman architect, famously stated, architecture should have "firmness, commodity, and delight," which encompass the principles of durability, functionality, and aesthetics. Historical examples of architecture such as the Great Wall of China or the Parthenon in Greece continue to captivate the world with their architectural brilliance, demonstrating the lasting impact and importance of architecture in human history (Gomez, 2016).

1.2.1.4.2 Social Impact of Architecture. Architecture has a significant social impact, influencing how people live, work, and interact with their surroundings. Well-designed buildings and urban spaces can enhance the quality of life, foster community engagement, and promote social cohesion. For instance, walkable neighborhoods with mixed-use developments and green spaces can encourage physical activity, reduce car dependence, and promote social interactions among residents (Jacobs, 1961). On the other hand, poorly

designed and deteriorating buildings and neighborhoods can contribute to social issues such as crime, segregation, and inequality (Madanipour, 1996). Therefore, architecture plays a crucial role in shaping the social fabric of communities and has a direct impact on people's well-being and social interactions.

1.2.1.4.3 Economic Implications of Architecture. Architecture has significant economic implications, influencing various sectors of the economy, including construction, real estate, tourism, and cultural heritage. Well-designed buildings and spaces can enhance property values, stimulate economic development, and contribute to the growth of local economies. For example, iconic landmarks such as the Eiffel Tower in Paris or the Sydney Opera House in Australia have become major tourist attractions, generating substantial economic benefits for their respective regions (Tunbridge, 1996). Additionally, architecture and urban planning can promote sustainable development and create job opportunities in the green building sector, contributing to the transition towards a more sustainable and resilient economy (United Nations, 2019). Therefore, architecture plays a critical role in driving economic growth and promoting sustainable development.

1.2.1.4.4 Environmental Impact of Architecture. Architecture has a significant environmental impact, contributing to energy consumption, resource depletion, and climate change. Buildings are responsible for a significant portion of global greenhouse gas emissions, mainly from energy use for heating, cooling, and lighting (Gissen, 2010). However, architecture also has the potential to address environmental challenges through sustainable design practices, such as green building techniques, passive design strategies, and the use of renewable energy sources. Green buildings, for example, can reduce energy consumption, minimize waste, and promote environmentally responsible construction materials (U.S. Green Building Council, 2019). Furthermore, architecture can play a crucial role in creating resilient and adaptive buildings and cities that are capable of mitigating and

adapting to the impacts of climate change (IPCC, 2014). Therefore, architecture has a vital role to play in addressing environmental challenges and promoting sustainable design practices.

In general, architecture is a multidimensional discipline with far-reaching implications that extend beyond aesthetics and functionality. It influences various aspects of human existence, including social, cultural, economic, and environmental aspects.

1.2.2 The Concept of Culture

The concept of culture has sparked extensive controversy among scholars and researchers from numerous fields, with differing perspectives on its existence, origin, and role. Some said that culture is an innate feature of human nature, while others claimed that it is the result of social interaction and learning. Some saw culture as a static and unchanging thing, while others saw it as a dynamic and evolving phenomenon that adjusts to changing conditions. Despite these divergences, most researchers agreed that culture is important in defining people's identities, values, beliefs, and actions, as well as the social structures and institutions that govern human communities. Understanding the complexities of culture is critical for explaining social phenomena and devising successful solutions for dealing with social concerns and challenges. Culture is inextricably related to society, and each individual within a cultural group must follow the same set of rules in order to be called a member of that cultural group. In this regard, the next sections introduce the concept of culture, its views, types, cultural representation, and the significance of culture.

1.2.2.1 Definition of Culture. Culture is a diverse and complicated notion that spans a wide range of social phenomena. Culture is defined as the common beliefs, values, customs, practices, and artifacts that are taught and passed down among members of a group. This concept is backed by Schein (2010), who defined culture as a set of shared basic beliefs that a

group has learnt, influencing behavior, attitudes, and social interactions. Similarly, Hofstede (1980) defined culture as "collective mental programming that distinguishes one group or category of people from another." Culture, according to Triandis (1994), is a common system of beliefs, values, attitudes, and behaviors that characterizes a group or community, impacting how people perceive and interpret their surroundings.

Culture influences people's perceptions and interpretations of the world around them, as well as their expectations and responses to social events. Understanding the influence of culture in affecting behavior is critical for effective communication and collaboration in multicultural situations, both within and outside of businesses. This is especially significant in light of the expanding globalization of business and the increasing diversity of cultures. As a result, culture has been the focus of extensive investigation and theoretical development in a variety of fields, including psychology, anthropology, sociology, and management.

1.2.2.2 Perspectives of Culture. Numerous studies from different disciplines such as anthropology, sociology, psychology, and communication studies have investigated and debated the topic of culture. The section that follows provides an in-depth examination of the five major cultural perspectives: functionalist, interpretive, critical, postmodern, and symbolic interactionist.

1.2.2.2.1 The Functionalist Perspective. Culture, according to the functionalist viewpoint, is a system of shared values and ideas that give societal order and stability. According to Schein (2010), "culture is a pattern of shared basic assumptions learned by a group as it solved its problems of external adaptation and internal integration" (p. 18). Culture, in this view, serves as a means of coordinating and regulating social activity. Hofstede (1980) also stressed the role of culture in affecting individual and group behavior, arguing that "culture is

more often a source of conflict than of synergy." Cultural differences are at best inconvenient, and at worst, disastrous" (p. 19).

1.2.2.2 The Interpretive Perspective. The interpretive viewpoint, on the other hand, considers culture to be the result of human interpretation and meaning-making. According to Triandis (1994), "culture is the collective programming of the mind that distinguishes members of one group or category of people from those of another" (p. 11). According to this viewpoint, culture is a complex web of meanings and symbols that are constantly negotiated and built by individuals and communities, rather than a collection of common beliefs and ideals.

1.2.2.3 The Critical Perspective. The critical perspective views culture more critically, highlighting its role in reinforcing power and injustice. "Culture is not just a reflection of society," writes Krippendorff (2004), "but an active process that helps to create and maintain social reality" (p. 29). According to this viewpoint, culture is a tool employed by dominant groups to preserve power and control over inferior groups.

1.2.2.4 The Postmodern Perspective. Culture, according to the postmodern viewpoint, is a fragmented and continually evolving construct. According to Hall (1997), "culture is not a fixed and bounded entity, but a fluid and constantly contested terrain" (p. 5). According to this viewpoint, culture is a site of conflict and negotiation, where various groups and people contest the meanings and values connected with various cultural practices.

1.2.2.5 The Symbolic Interactionist Perspective. The symbolic interactionist viewpoint emphasized the significance of symbols and meanings in creating cultural practices and behaviors. According to Geertz (1973), "culture is a system of symbols that human beings use to make sense of their world" (p. 89). According to this viewpoint, culture is a shared system of meanings and symbols that impact social behavior and interactions.

To summarize, the functionalist approach stresses culture's role in maintaining societal order and stability, whereas the interpretive perspective emphasizes culture's role in molding human interpretation and meaning-making. The critical perspective approaches culture with greater skepticism, highlighting its role in the reproduction of power and inequality, whereas the postmodern perspective rejects the notion of culture as a stable and coherent entity. Specifically, the postmodern perspective can be regarded as the adequate one to the investigation since architecture is one of the cultural practices produced by society.

1.2.2.3 Types of Culture. There are different definitions and arguments around the concept of culture. These typologies can help us grasp the diversity and complexity of cultural phenomena, as well as their interconnection and connections. Big “C” culture and small “c” culture, material and non-material culture, high-context and low-context culture, individualistic and collectivistic culture, and so on are some of the most frequent types of culture that have been recognized. While these categories may not encompass the full range of cultural variation and dynamics, they can provide insights into many aspects of culture and how they influence social behavior, communication, and identity. In this dissertation, we will concentrate on the cultural kinds that are significant to the research of the Qatar FIFA World Cup 2022 stadiums, notably big “C” culture and small “c” culture.

1.2.2.3.1 Big C Culture. The dominant cultural values and beliefs of a civilization, such as religion, language, customs, and traditions, are referred to as big “C” culture. These cultural traits are frequently shared by a large group of individuals and can be considered important to a society's identity. According to Schein (2010), big “C” culture is frequently mirrored in a society's symbols, rituals, and artifacts. Triandis (1994) saw that big “C” culture can influence individual behavior and attitudes because people internalize their society's values and conventions.

Big C culture is also frequently related with national or regional identities, and it can influence political and economic institutions. Hall (1976) observed that big “C” culture might influence communication techniques and social conventions, resulting in misunderstandings or conflicts between people from various cultural origins.

1.2.2.3.2 Small c Culture. The precise patterns of behavior, attitudes, and values that are unique to a given group or community are referred to as small “c” culture. This culture can vary greatly within a broader community or national culture, and it is frequently associated with subcultures or local cultures. Small town culture is frequently conveyed by common traditions, practices, and symbols, which can include food, dress, music, and language.

Triandis (1994) defined small “c” culture as "a set of shared assumptions, values, and beliefs learned through membership in a specific social group or community." Similarly, Schein (2010) described small “c” culture as "the pattern of shared assumptions, beliefs, and values that have developed over time and are transmitted through various modes of communication within a given group". This form of culture is frequently linked to specific circumstances and situations, and it can evolve and alter over time as a group or community experiences demographic, social, or historical shifts.

Hofstede (1980) contributed to the concept of small “c” culture by emphasizing the importance of recognizing and respecting the distinct cultural identities of numerous subgroups within a broader community. While there may be some degree of uniformity in values and beliefs across a national culture, he indicated that there can also be major disparities in attitudes and behaviors among different areas, ethnic groups, or social classes.

Small “c” culture, in addition to being an essential component of social identity, can have significant practical ramifications for organizations and businesses working in a variety of situations. Understanding different subgroups' cultural norms and expectations within a

larger society can assist organizations in tailoring their products, services, and communication strategies to better resonate with local audiences and build stronger relationships with customers and stakeholders (Hofstede, 1980).

To summarize, whereas big C culture provides a broad framework for comprehending a society's wider values and belief systems, small “c” culture is crucial in defining the individual behaviors, traditions, and customs of diverse groups and communities within that society.

1.2.2.4 Culture Representation. In the realm of culture, representation is one of the practiced ways by the members of society to express their shared ideas, feelings, and thoughts. In this sense, culture representation unifies the linguistic community under one shared system of language that constitutes the meanings that circulate in their cultural map. According to Hall (1997), language is involved to reproduce the meaning to be exchanged between the members of the same culture. In addition, Hall (1997) argued that language is not only the written or spoken practice but it is extended to any representational system that can be used in the moment of producing meanings. He mentioned that photography can express a meaning through the combination of many visual images; an exhibition can communicate through the use of a set of objects and sculptures; music is used through musical notes which refer to a specific feelings. These systems are the mediums between the intended meanings and the cultural group who can understand and decipher the represented cultural aspects. Hall (1997), in his words, added that “Representation connects meaning and language to culture” (p. 15); this idea is proven through the cultural expression found in many cultural groups through many practices like painting, dancing, visual representations, architecture, and other available practices that can be regarded and implemented as mediums of representation.

1.2.2.5 The Importance of Culture. Culture plays an essential role in shaping individuals' beliefs, behaviors, and perceptions. As Schein (2010) stated, "culture is a powerful force because it operates outside of our conscious awareness" (p. 18). In other words, culture can influence individuals' attitudes and actions without them realizing it. Therefore, understanding and valuing different cultures can help individuals work more effectively with people from diverse backgrounds, reduce misunderstandings, and improve communication. As Hofstede (1980) mentioned, "culture is more often a source of conflict than of synergy. Cultural differences are a nuisance at best and often a disaster" (p. 3). In contrast, when individuals respect and appreciate different cultures, they can leverage their differences and create a more inclusive and harmonious environment. This highlights the importance of culture in the workplace, where diversity and inclusivity are essential for success. By embracing cultural differences and leveraging them to create a more diverse and inclusive work environment, organizations can improve their performance and achieve their goals more effectively.

In "The Culture Code: The Secrets of Highly Successful Groups", Coyle argued that culture plays a fundamental role in shaping the behavior of individuals and groups within an organization. He highlighted the importance of culture in establishing norms and values that guide decision-making and behavior, stating that "culture is a powerful force because it shapes our behavior without us even realizing it" (Coyle, 2018, p. 23). Coyle also stressed that culture is essential in creating a sense of identity and belonging among individuals within a group, which can lead to greater motivation, engagement, and commitment to the group's goals. He stated that "culture is not something you are; it is something you do. It is a set of practices you participate in every day" (Coyle, 2018, p. 29). Therefore, he emphasized the need for leaders to intentionally cultivate a positive culture that fosters collaboration, trust,

and a shared sense of purpose, as it can significantly impact the success of the group or organization.

1.2.3 The Relationship Between Architecture and Culture

After dealing with architecture and culture, in this part, we have introduced the relation between both of them. Since culture is reflected in diversified mediums, architecture is equally the most affected productions across history. This idea can be exemplified through the cultural heritage left from ancient times that speaks about the previous civilizations that maintained their position until nowadays. In this regard, the most significance point is introducing the cultural manifestation in architecture.

According to Harras (1958), the architecture is capable of transmitting the ideas and beliefs of a given society. Thus, the nation is responsible in producing architecturally built environment that seek in representing these ideas to the whole population. He further added that one of the main purposes devoted in this production is to consolidate the members of society with each other that make the members of society uniquely and culturally identified (as cited in Vincent, 2012). Bemanian et al. (2010), the manifestation of culture in architecture is mainly inseparable in which the architecture is considered as a reflection of the cultural values found in a particular society (as cited in Sayo et al., 2017). Thus, it contributes to the continuity of the previous beliefs and transmit them to the future generations.

Parvizi (2009) added that architecture is used as a technique in order to portray and promote the culture of the nation that continuously affect the society (as cited in Sayo et al., 2017). In this regard, the role of architecture is invaluable in terms of protecting the standards of the nation which will be received by the next generations and learn from their past. According to Hendrix (2012), he mentioned that before the creation of the print devices, architecture is comparably seen as the communicative channel in which the beliefs and ideas

are transmitted the same as the print later achieved this purpose. In addition, Stern (1983) added that architecture should aim at representing and retaining the public values that constitute the culture of society and serve the world outside it, not only a discipline that seek to accomplish the objective of construction and building (As cited in Lillyman et al., 1994). Therefore, architecture is a manifestation of culture in which the relationship between both concepts is extremely linked.

1.2.4 Qatar Ideological Project

Under the Qatari 2030 vision, the infrastructures prepared to host the FIFA World Cup 2022 have to be built based on sustainability. The latter is about building green architectures that are nature-friendly and provide less consumption of natural resources used in the construction. The new infrastructures included many futuristic buildings especially the last introduced five stadiums to host the event. These stadiums not only served as an economic source to attract billions of tourists, but also were regarded as an embodiment of many Qatari cultural aspects. These cultural aspects were highlighted and chosen by the Supreme Committee for Delivery and Legacy in order to be used as a source of inspiration. In this regard, the stadiums' architectural design was highly influenced by the Qatari culture. In this sense, the Supreme Committee for Delivery and Legacy hired many local and foreign construction companies and architects who are regarded as being qualified to take the responsibility of designing, choosing the appropriate resources of construction, and planning the 3D modeling and prototypes of the stadiums (qatar2022.qa, 2022).

The procedures of deciding the stadiums' architectonics was emphasized by the supreme committee of Legacy and Projects to be a reflection of Qatar cultural heritage in order to be foregrounded to the whole Qatari nation. In this regard, the stadiums were built depending on each region's rich cultural background. These stadiums are Al Thumama stadiums, Bayt Al Sha'ar stadium, Al Janoub stadium, Lusail stadium, and Ahmed Bin Ali

stadium. Each one of these mentioned stadiums was context-dependent and significantly speak the culture of particular region in Qatar. For instance, Al Janoub stadium was designed by Zaha Hadid Company to reflect the culture of Al Wakrah city; therefore, the cultural dimension was embodied in the stadium through adopting the Oysters and the Dhow boat which are the main cultural aspects found in Al Wakrah region (qatar2022.qa, 2022).

From this project, the Qatari ideology is manifested through the architectures of the stadiums that are built depending on sustainable development criteria that makes the stadiums durable and long-lasting. In addition, this sustainability encompasses the manifestation, preserving, and maintaining the Qatari culture through the appropriate use of materials that are quality-based.

Conclusion

In this chapter, we covered the both fields of semiotics and social semiotics in the second section due to the needs of the investigation and its cultural significance. In addition, we have covered the concepts architecture, culture, and their relationship as a first section in which the concepts are interrelated and interconnected due.

2. Chapter Two: Research Methodology and Data Analysis

Introduction

The second chapter provides an overall representation of the adopted research methodology, data analysis, discussion, results, the encountered limitations, and recommended ideas for upcoming researchers. The second chapter is mainly divided into two sections. The first section introduces the research methodology followed in the study. The second section is about the analysis of data, discussion, limitations and recommendations.

2.1 Section One: Research Methodology

This section describes the followed research methodology that was appropriately selected to analyze the stadiums. As a first step, the section highlights the research design that fits the nature of the study following two major theories in the field of semiotics (Barthes's Denotation and Connotation) and social semiotics (Kress's theory of representation 1997). The next step is providing the selected unit of analysis, which is in this case the FIFA World Cup 2022 Qatari stadiums (five are selected), as the focus of the study. The last step is about describing the selected stadiums and their sources of representation and highlighting the followed procedures of data collection and analysis.

2.1.1 Study Design

This research is a descriptive research that focuses on the analysis of the newly built Qatari stadiums for the event of FIFA World Cup 2022 in terms of how the architects used the available semiotic resources to represent the cultural aspects of Qatar in the exterior design of the stadiums. In addition, the analysis is extended to cover the denotative and connotative meanings of these stadiums. In this regard, adopting a qualitative method is appropriately fulfilling the objective of the research to deeply analyze the selected sample from both the perspectives of semiotics and social semiotics fields of study. Accordingly, the concern of the

qualitative research is to seek explanations of the observed social phenomena (Hancock et al., 2009). Thus, the research requires a descriptive qualitative analysis to the observed phenomena found in the Qatari FIFA World Cup 2022 event.

2.1.2 Unit of Analysis

In the current study, the chosen sample is purposefully selected due to its cultural significance. The sample is the five stadiums built in different regions in Qatar country. The stadiums are Al Thumama stadium, Bayt Al Sha'ar stadium, Al Janoub stadium, Lusail stadium, and Ahmed Bin Ali stadium. Each one of these stadiums are characterized by a unique architectural design that was adopted from different Qatari cultural aspects.

2.1.3 Description of the Qatari Stadiums

2.1.3.1 Background. One of the up-to-date worldwide events that governs people from different nationalities is the FIFA World Cup. The worldwide event was rewarded by the Qatari government in 2010 to be later hosted in 2022. In this respect, the government took the chance to prepare and build the needed infrastructures required for the hosting. In this manner, five state-of-the-art stadiums were built in the Qatari nation alongside with other already built ones. These stadiums are Al Thumama stadium, Bayt Al Sha'ar stadium, Al Janoub stadium, Lusail stadium, and Ahmed Bin Ali stadium. The most interesting and noticed part is the designability that was adopted creatively from the rich Qatari culture and depicted in the exterior structures of each stadium. In the following, we have covered the description of each stated stadium.

2.1.3.1.1 Al Thumama Stadium. Al Thumama stadium is located in the southern part of Doha city. It has a capacity, as the previous stadiums, of 40,000 seats. The Qatari region proposed a contest which was devoted mainly to represent its cultural aspects. Ibrahim Jaidah, as one of the prominent architects in the gulf region, won the contest as the best created model

to be adopted by the construction company. Thus, the interesting part is that the idea of the architect was to evoke a traditional hat worn by everyone in all the Islamic countries, which is called Al Kahfiya in the Qatari region. This is why the stadium look like a giant hat standing in the middle of the desert.

2.1.3.1.2 Al Bayt Stadium. Al Bayt stadium, particularly, is one of the iconic stadiums which is nearly located in Al Khor city, mainly in the desert. The Aspire Zone Foundation proposed to the Qatari government to initiate the construction using multiple recycled material resources; for instance, fabric as the main resource to cover the facade from different directions. The large capacity of the stadium makes it reaches 60,000 seats sufficiently available to receive many viewers; therefore, the successfulness of the opening match. The interesting point is the unique architecture proposed by the construction company that characterizes the façade of the stadium. Specifically, the construction was purposefully oriented to the cultural heritage of the Qatari nation in which the exterior forms were devoted to realize the traditional tent of Bayt Al Sha'ar in an aesthetic way. Historically speaking, this traditional house was used by Bedouin tribes that frequently travel across the desert seeking life resources, such as water and food, for their own families and sheeps.

2.1.3.1.3 Al Janoub Stadium. Al Janoub stadium is mainly considered as the most attractive stadium due to its designability. The proposed architecture was designed by the most famous architect Zaha Hadid, who was known for many other contemporary architectures. The stadium is located in Al Wakrah city and owned by Al Wakrah Sport Club. The iconic architecture was mentioned to resemble two cultural things in the exterior forms. The first idea is recalling the rich amount of Oysters found in the gulf region, mainly in the Qatari coastline. As for the second idea is to resemble the traditional boat that the fishermen have used previously before in order to collect Oysters from the sea.










2.1.3.1.4 Lusail Stadium. Lusail stadium, as an iconic piece of art, unlike the other stadiums, features a capacity of 80,000 seats. It is located in Lusail city found in the northern part of Doha city. It was proposed that the stadium will host the final match in 18 December 2022. The stadium was designed under the supervision of the British firm Foster and Partners. The main purpose of the designed architecture is to resemble the discovered traditional bowls found in the Arabic countries and particularly in the Qatari region.

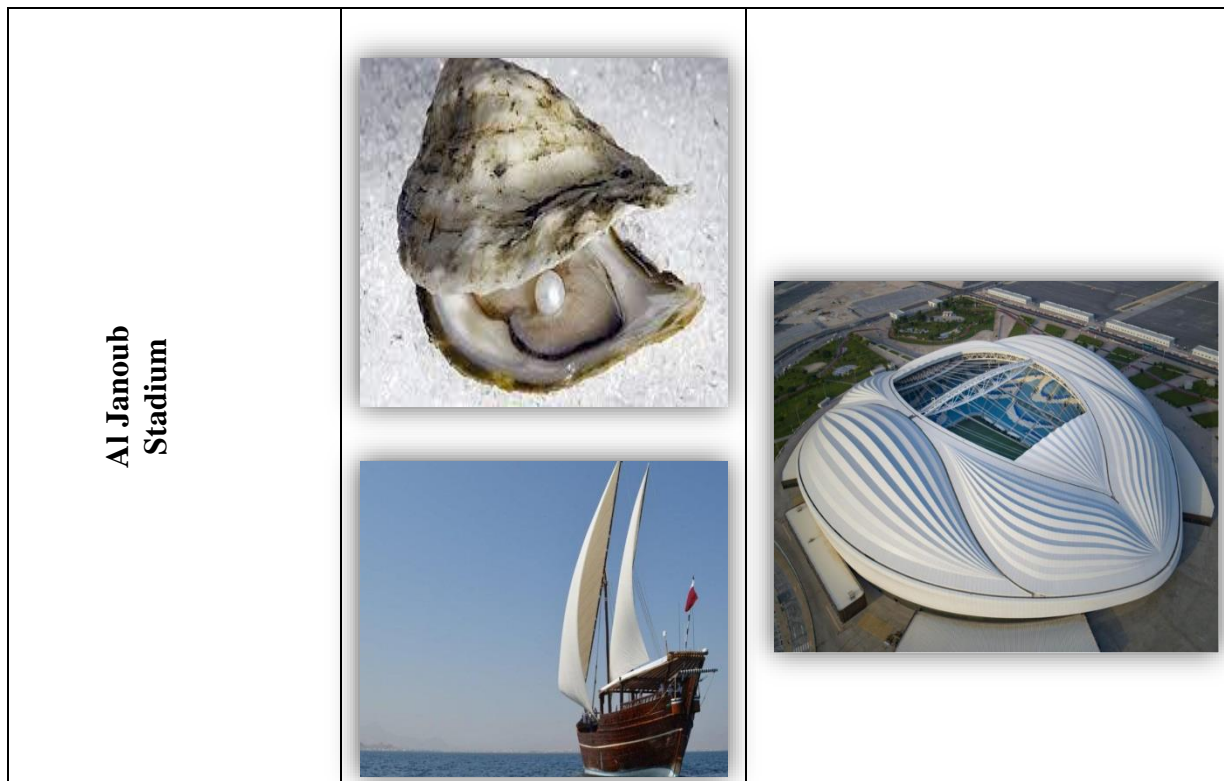
2.1.3.1.5 Ahmad Bin Ali Stadium. Moving to Al Rayyan city, Ahmad Bin Ali stadium is basically built on the stage of previous stadium of Al Rayyan. The latter was previously constructed and owned by the members of Qatar Stars League, Al Rayyan Sports Club. Currently, it was redeveloped to have a new iconic design for the FIFA World Cup. Ahmad Bin Ali stadium features approximately a capacity of 40,000 seats. The stadium was designed by Al Balagh Trading & Contracting and Larsen & Toubro Limited. The stadium was firstly opened in 2020 to host Amir Cup final; in addition, it was built to host the FIFA World Cup event. The interesting point is the exterior architecture that was intended to resemble the desert of Al Rayan city and its ancient houses. The city was historically known for its rich environment, multiplicity of water resources, and many historical events that the people are still speaking about.

2.1.3.2 The Representations. The following table summarizes all the stadiums and their sources of the representation, which are adopted from the Qatari culture.

Table 1

The representations of the cultural signs in the stadiums

The Stadiums	The signs	The representations
Al Thumama Stadium		
Bayt Al Sha'ar Stadium		
Lusail Stadium	 	
Ahmed Bin Al Stadium		



Note. The table is created by the researchers to show the adopted cultural signs and their architectural forms.

2.1.4 Data Collection and Analysis Procedures

Due to the large size of the stadiums, they were collected as images from multiple websites. In addition, they were taken as screenshots from different videos available in YouTube in order to cover them from multiple angles. This choice of images was basically needed to facilitate the description of the stadiums which certainly need specific points to be covered in depth. Besides, the study requires the collection of many images, particularly screenshots that were taken from YouTube videos available in the YouTube channels of “MK timelapse GmbH” and “ShanghaiEye魔都眼”. In this regard, the researchers have watched how the stadiums were built which makes the procedures of the analysis accurately reliable to avoid any subjective interpretation that may affect the analysis. This choice was made to effectively describe the used semiotic resources by the architects in their representation of the

cultural aspects in the stadiums. Thus, the collection of the data was mainly diversified from multiple websites and videos.

In accordance with the qualitative design followed in the current study, the decision of the stadiums went through some steps to finally decide about the possibility of their analysis. The first step was basically co-existed with worldwide event of FIFA World Cup 2022 in Qatar in which the design of the stadiums attracted our attention and its cultural significance. This was the inspiration source from which the stadiums evoked and represented a cultural belonging in the roots of Qatari culture. In this respect, since semiotics and social semiotics are culturally related, we tackled these stadiums as signs that could be studied further from both fields in order to describe how these stadiums were built to attract the attention of the viewer and what cultural meanings they might represent. These motives triggered the research to apply the selected models in order to adequately analyze the sample. Due to the cultural nature and construction of the stadiums, dealing with them as a sign system created by the architects qualifies the theories of Barthes and Kress to be used as models to analyze the stadiums. The first used model is a Barthes's semiotic theory of orders of signification (Denotation and Connotation) that deals with the structural development of meanings. Here, this model is used to extract the cultural meanings (connotations) that are shared in the Qatari society based on the cultural aspects. This model will analyze the cultural signs in order to investigate their cultural meanings; in addition, the model is used in the analysis of the stadiums. In addition, the use of Kress 1997 model to analyze the used semiotic resources. For example, the architect who designed Al Thumama stadium, which is a representation of the cultural sign Al Kahfiya, used some semiotic resources to make the representation more explicit and apparent to the viewer to be identified as Al Kahfiya.

2.2 Section Two: Data Analysis and Discussion

2.2.1 Data Analysis

2.2.1.1 Analysis of the Cultural Signs Using Barthes's Semiotics of Orders of Signification (Denotation and Connotation).

2.2.1.1.1 *Al Kahfiya*.

- **Denotative level:** in the first level of signification, Al-Kahfiya is a traditional dress that is worn by all males ranging from different age groups. The features of this dress is characterized by its simplicity in its form, rounded, generally unicoloured -most of the time with white colour- and used to protect the head from heat. This type of dress is culturally tied and linked to the Qatari culture and the Arabic world in general. It is mainly an identification medium that unifies all the Islamic world and a mere characterization of their religious belonging.
- **Connotative level:** in the second order of signification, Al-Kahfiya, as it is a type of dressing that is culturally linked to the Qatari, it has definitely a connoted meaning which is socially established. When the sign was investigated, it was found in the Qatari beliefs that this sign is believed to be a symbol of “**Manhood child's self-confidence**“. This meaning was mainly attributed to the sign and remained unchanged throughout the course of history. More specifically, in the customs of the Qatari, this type of dress is much more worn by Children who reached the age of puberty as a distinctive period to make the child feel that he is becoming a Man and to be prepared and raised as a responsible person in the Qatari society.

2.2.1.1.2 *Bayt Al Sha'ar*

- **Denotative level:** Bayt Al Sha'ar is a traditional tent used by Bedouin tribes in the Qatari desert. This tent is made from goat fur usually black and white. The top of the tent is made from cotton that adjust temperature during Winter and Summer seasons.

From the inside, there are multiple columns used to hold up the tent and preserve its positioning. In the Qatari customs, Bayt Al Sha'ar is separated into two main chambers. The first chamber is dedicated to welcome wayfarers and guests to serve them food and water. The second chamber is dedicated to be used as a kitchen.

- **Connotative level:** Bayt Al Sha'ar is a cultural symbol and one of the Qatari sacred inherited objects. Thus, in Qatari nation, this tent gained a cultural connotation which is hospitality. This meaning was developed because of the generosity of the Bedouin tribes who are characterized by their hospitality in serving food to wayfarers and help everyone who crosses by.

2.2.1.1.3 Oysters and Dhow Boat

- **Denotative level:** Oysters and dhow boat are considered as one of the cultural signs in Qatari society. Concerning Oysters, they are particularly collected from the Gulf region coastline in order to extract pearl to be sold as jewelries. In addition, oysters are considered as the country's economic incomes before the foundation of oil resources. Concerning the dhow boat, it is mainly a traditional transportation mean used by fishermen to collect oysters. This wooden boat is characterized by having to main sails which are the jib sail and the mainsail connected to the mast, which is a wooden column, trough halyards, which are cables made from nylon, in order to control the direction of the dhow boat.
- **Connotative level:** since the signs are culturally related, the connotative meaning is the history of trading pearl in the Qatari region. These signs, historically speaking, were a symbol of the traditional trading methods used by the Qatari government to expand the economic incomes before the discovery of oil resources.

2.2.1.1.4 Bowl and Lantern

- **Denotative level:** the Qatari region is characterized by the production of hand-made bowls and lanterns in Lusail city. Concerning the bowls, they are made from natural resources such as clay. This clay is molded, shaped, and coloured to have different Islamic ornamentations. Concerning the lantern, it is one of the objects used in daily life of Qatari ancestors to provide light instead of electricity, which was not available at that time. The lantern is traditionally made from steel and iron. These materials are shaped to have different forms.
- **Connotative level:** the cultural signs suggest the meaning of history of craftsmanship in the Qatari region. Since these signs are considered as symbols of Lusail city, they were embedded in the Qatari cultural meanings to resemble the historicity of Lusail city.

2.2.1.1.5 Al Rayyan city's Desert

- **Denotative level:** Al Rayyan city's desert is one of the historical cities in Qatar. It is most famous of its huge dunes and spacious desert. It is mainly characterized by ancient houses that were inhabitant by many tribes. This desert was historically known for being a source of water and a place for raising animals.
- **Connotative level:** The cultural meaning shared in Qatar about Al Rayyan city's desert is its own historicity as a place full of water resources and its ancient wars such the one between Turkey and Qatar.

2.2.1.2 Analysis of The Stadiums Using Barthes's Semiotics of Orders of Signification (Denotation and Connotation).

2.2.1.2.1 *Al Thumama Stadium*. The following is the analysis of the stadium based on the Denotative and Connotative meanings.

- **Denotative Level:** Al Thumama stadium is a newly introduced stadium in the city of Al Thumama. The name was basically derived from the place of the construction that was named after a xerophyte, a plant which is found in the desert. The most interesting point is having an architectural design that represents the Qatari traditional hat, which is Al Kahfiya. The designability of the stadium, specifically the building envelope, reflects an extended version of the dress and its unique characteristics like being rounded, unicoloured, and surrounded by engravings which adds a modernized artistic texture.
- **Connotative Level:** since the stadium is a representation of the meaning of a culturally worn dress, the stadium connotes the meaning attributed to Al Kahfiya which is "Dignity and self-esteem". This connotative meaning was culturally dominant in the ideology of Qatar society in which one of the beliefs of Qatar society is to make their children wear it in order to prepare them as responsible, dignified and self-esteem future generations.

2.2.1.2.2 *Bayt Al Sha'ar Stadium*. The following is the analysis of the stadium based on the Denotative and Connotative meanings.

- **Denotative Level:** the stadium is located in Al Khor city, specifically in the desert which features 40.000 seats available for viewers. It was designed and constructed by the Aspire Zone Foundation Company which was appointed to create a culturally recognizable architecture. As a result of this intention, the name and the design of the stadium was a representation of the Bedouin tent that was used to be the traditional

homes available in accommodating the temperature depending on the environment they live in.

- **Connotative Level:** since the stadium was a representation of the traditional tent, the stadium connotes the meaning of hospitality which is attributed to the traditional tent in the Qatari culture. This connotative meaning was basically an outcome of the hospitality of the Bedouin tribes in which one of their attitudes is to help wayfarers through serving green tea, water, food and being generous.

2.2.1.1.3 Al Janoub Stadium. The following is the analysis of the stadium based on the Denotative and Connotative meanings.

- **Denotative Level:** the stadium is located in coastline city Al Wakrah, known for its trade history of pearl. The stadium was designed and constructed by Zaha Hadid Company. The architecture significantly formed to be a representation of the dhow boats that are found in Al Wakrah city seaport. In addition to that, the stadium was a representation of Oysters that were collected by fishermen from the sea.
- **Connotative Level:** since the stadium was a representation of both the dhow boat and oysters, the suggested connotative meaning of the stadium, depending on the represented signs, is the history of trading and fishing that characterized the Qatari nation. This connotative meaning was dominant in the Qatar society in which oysters constituted the economic incomes for many families before the discovery of Oil resources in Qatar. These oysters were collected by Fishermen through navigating the sea through the dhow boat. Henceforth, the signs are significantly resemble the one of the Qatari cultural beliefs.

2.2.1.1.4 Lusail Stadium. The following is the analysis of the stadium based on the Denotative and Connotative meanings.

- **Denotative Level:** the stadium is located in Lusail city which feature about 80.000 seats. Fosters and Partners Company had the responsibility for designing and constructing the stadium. Taking into account the cultural heritage of Lusail city, the company succeeded to represent both the traditional Arabic bowl and lantern in the exterior forms of the architecture.
- **Connotative Level:** since the stadium was a representation of the traditional Arabic bowl and the lantern, Lusail stadium, in the context of Qatari culture, connotes the meaning of the history of craftsmanship. This connotative meaning resemble the belief of Qatar society about the significance of Lusail city craftsmen's making of bowls and lanterns.

2.2.1.1.5 Ahmad Bin Ali Stadium. The following is the analysis of the stadium based on the Denotative and Connotative meanings.

- **Denotative level:** the stadium is located in Al Rayyan city. It was historically known for its belonging to both Al Rayyan Sports Club and Qatar Stars League. Then, it was reconstructed to be named as Ahmad Bin Ali with a new modernized design. The latter was adopted from the desert and the old building of the Al Rayyan in which Al Balagh Trading & Contracting and Larsen & Toubro Limited company studied carefully the nature of Qatari environment and selected the appropriate resources to create a stadium design that speaks the desert and the ancient buildings.
- **Connotative level:** since the stadium represents Al Rayyan desert and its buildings, it connotes the idea of historicity of Al Rayyan city in which this meaning was attributed to the place due to its historic events that occurred years ago. This

connotative meaning constitute the belief of Qatar society about the historical significance of Al Rayyan city in which it was a place full of water resources and inhabited by old Qatari tribes; in addition it had faced one of the biggest wars between Qatar and Turkey.

2.2.1.3 Analysis of The Stadiums Using Kress's Theory of Representation.

2.2.1.1.1 Al-Thumama Stadium. The stadium of Al-Thumama shown in (figure 7) is what the construction company has represented by having an inspiration from another existing sign in the Qatari culture, which is the traditional hat known as Al-Kahfiya. The construction company wanted to realize and represent the concept of this traditional hat in the exterior form of the stadium throughout the representation of the criterials to identify the exterior form of the stadium as being Al-Kahfiya. These criterial aspects are represented through the use of the following semiotic resources.

Figure 7

Al Thumama Stadium



Note. From besoccer.com

<https://www.besoccer.com/stadium/al-thumama-stadium-6013>

In the first step, the construction company adopted the cylindrical form of the traditional hat as a first criterial aspect to make the stadium look similar in form as the traditional hat. In this regard, the form of the stadium was built using a concrete-steel structural framework. The created framework shown in (figure 8) works as a semiotic resource in which the meaning of the cylindrical form of Al Kahfiya is materialized in reality. Moreover, the construction company added another layer of steel framework (figure 9) which is basically serving as an aiding material attached to the previous constructed framework in order to link the next used semiotic resource.

Figure 8

Concrete-Steel Framework



Note. From MK timelapse GmbH YouTube channe

<https://www.youtube.com/watch?v=2G6mZVqp82E&t=157s>

The second step in the representation is adopting the criterial of multiple two-dimensional shapes from the traditional hat. These shapes are the Rhombus, which is a flat shape with four equal straight sides. In addition, inside the rhombus, there are two hexagonal shapes, which is a six sides shape, one is inside the other. These shapes all make one distinctive composition. In this regard, these criterial aspects were realized using the semiotic resource of a real-made white fabric (figure 10). The purpose of this fabric, regardless of materializing the shapes, is to be applied to cover the whole cylindrical façade of the stadium. The coverage was

basically made through attaching the fabric to the previous added steel framework. Henceforth, the designed exterior of the stadium resemble the traditional hat. As we can see in (figure 10), how the workers are applying a piece of fabric that constitutes the criteriality of the mentioned shapes

Figure 9

Steel Framework



Note. From MK timelapse GmbH YouTube channe

<https://www.youtube.com/watch?v=2G6mZVqp82E&t=157s>

Figure 10

The Fabric



Note. From MK timelapse GmbH YouTube channe

<https://www.youtube.com/watch?v=2G6mZVqp82E&t=157s>

As it seem in (figure 7), which is the final outcome, the aforementioned composition of shapes found in the fabric is successively repeated horizontally throughout the whole cylindrical façade of the stadium and connected to each other which creates a pattern. As a result of this semiotic production, the chosen combination of the applied semiotic resources by the construction company are interrelated in terms of creating a complex sign which is representing the concept of the Arabic traditional hat “Al Kahfiya”.

2.2.1.1.2 Bayt Al Sha’ar Stadium. The stadium of Bayt Al Sha’ar shown in (figure 11) is what the construction company has represented by having an inspiration from another existing sign in the Qatari culture, which is the traditional tent inhabited by Bedouin tribes. the Aspire Zone Foundation Company was interested in representing the concept of the traditional tent in the exterior form of the stadium.

Figure 11

Bayt Al Sha’ar Stadium



Note. From anglia-translations.co.uk

<https://www.anglia-translations.co.uk/your-guide-to-the-2022-world-cup-in-qatar/>

Figure 12*Concrete-Steel Framework*

Note. From MK timelapse GmbH YouTube channel

<https://www.youtube.com/watch?v=KVNekU-y1fc>

Starting with the first criterial which is basically making the three-dimensional form of the tent. The construction company adopted the rectangular form and represented it through building a concrete-steel structural framework, which is the first semiotic resource that evoke the meaning of the appearance of the tent (figure 12). In addition, the construction company added another layer of steel framework (figure 13) that surrounds the previous concrete-steel framework which is particularly signifies the inside columns that hold up the tent. This framework is characterized by its curvilinearity which is mainly noticed in the façade of traditional tent

Figure 13*Steel Framework*

Note. From MK timelapse GmbH YouTube channel

<https://www.youtube.com/watch?v=KVNekU-y1fc>

Next, after the construction of the basic frameworks, the façade of the stadium was covered by a real-made fabric (figure 14) coloured with black and white lines. This representational resource was attached to the steel columns and signifies the material from which the traditional tent is made; this material was traditionally collected from goat fur which is the most affordable and available material that has different colours such as black and white in the Bedouin tribe to make their tents. The next semiotic resource, likewise as the façade, is the use of fabric that covers the top of the stadium which differently signifies the top of traditional tent that is made from cotton.

Figure 14*The Used Fabric*

Note. From MK timelapse GmbH YouTube channel

<https://www.youtube.com/watch?v=KVNekU-y1fc>

At last, the last semiotic resource is the use of cables made from metal (figure 5). This semiotic resource signifies the cables that are attached to the tent and linked to the ground from all directions to hold the tent not to fall down.

The makeup of the Bayt Al Sha'ar stadium was particularly dividing the traditional tent into pieces and representing them from the available semiotic resources in the field of architecture. Therefore, the construction company succeeded in evoking the meaning of tent from the exterior view of the stadium.

2.2.1.1.3 Al Janoub Stadium. Concerning Al-Janoub stadium, Zaha Hadid company wanted to represent two major concepts, which are culturally shared in the Qatari culture, in this stadium. The interest of the architect is to realize, firstly, the concept of Oysters. The second interest is to realize the concept of the traditional boat known as the dhow (figure 15).

Toward the realization of the concepts, the architect chooses the most apt and plausible forms that are most adequate in the representation of the two concepts.

Figure 15

Al Janoub Stadium



Note. From prestigeonline.com

<https://www.prestigeonline.com/my/lifestyle/qatar-world-cup-stunning-stadiums-fifa-doha/>

Figure 16

Steel Framework



Note. From MK timelapse GmbH YouTube channel

<https://www.youtube.com/watch?v=mqP51ZH3ovY>

In this regard, the first motivated sign, which is the meaning of Oysters, is represented through the adoption of the circular form of in the exterior looking of stadium. Zaha Hadid company has used the circularity as the criterial aspect of the Oysters in order to be represented. This circular form was presented through making a steel framework (Figure 16) by attaching multiple pieces of steel with each other and arranged to be shaped as the oysters.

Following the representation process, the second motivated sign is representing the concept of the traditional boat known as the dhow in the exterior form of the stadium. In this regard, the architect has used three distinctive semiotic resources to represent the different parts found in the boat. Starting with the first semiotic resource which is building a curvy concrete-steel framework (figure 17) that was chosen to signify the movement of the sails while sailing with the boat. This framework was divided into separate pieces in order to be manipulated to easily represent later on the movements of the sails. This framework was attached to a previously built wooden framework, which was particularly used as an aiding material for the concrete-steel framework in order to achieve the purpose of signifying the movements of the sails. In addition to this semiotic resource, the construction company used the fabric (figure 18) that cover the top of the stadium attached to the curvy built framework. This fabric signify two kinds of sails used in the traditional boat which are mainly the mainsail and the jib sail. The fabric have been placed throughout the whole exterior form of the stadium in different positions covering the surface as well as its bottom. As it seems in (Figure 18), the fabric was shaped into height forms and linked to the top of the stadium. To allocate the different positions of each one, the use of directions (right and left, front and rear, middle) will ease the description of the location of each one. There are two big and equal pieces of fabric in both right and left sides of the stadium. Plus, there are four less big pieces of fabric found in the front and rear sides of the stadium, each two pieces of fabric are juxtapositioned. In the middle, from which we can see the terrain, there two opposed small pieces of fabric. In addition, there are hidden

fabrics that are used to close the top of the stadium (figure 19). Next, the architect used interrelated semiotic resources that should be described at the same time. The first one is using cables which signifies the halyards that are used to pull sails upward in the boat and control its direction. Plus, these halyards are linked to the mast of the boat. This mast is signified through making a long piece of iron, which is the last used semiotic resource, located in the top of the stadium and positioned in the middle (figure 19). In this manner, the cables are used to pull the hidden fabrics toward the long piece of metal in order to close the top of the stadium. This creative idea was similarly the same in the dhow boat in which the halyards connected to the mast are used to control the sails direction.

Figure 17

Pieces of concrete-steel framework



Note. From MK timelapse GmbH YouTube channel

<https://www.youtube.com/watch?v=mqP51ZH3ovY>

In Al-Janoub stadium, the Zaha Hadid company fulfilled the representation of two concepts in the form of the stadium. These concepts such as oysters is accurately represented through the use of the semiotic resource of the form applied in the stadium exterior appearance of the stadium. Equally important, representing the concept of the traditional boat through the use of multiple semiotic resources appropriately designed to make the meaning of the sailing boat.

Figure 18

The fabric covers the stadium from the top



Note. From dohanews.com

<https://dohanews.co/global-fans-to-get-taste-of-qatars-ultra-modern-facilities-at-fifa-arab-cup/>



Note. From zaha-hadid.com

<https://www.zaha-hadid.com/architecture/al-wakrah-stadiu>

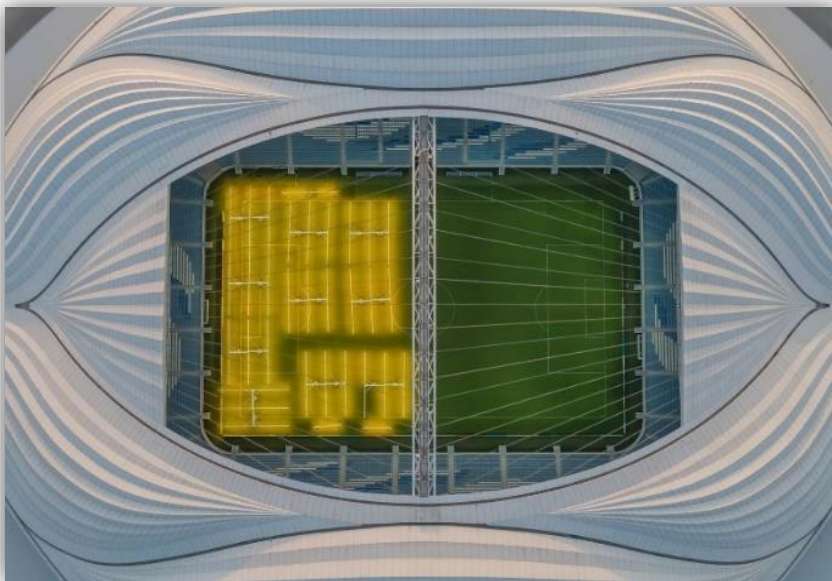
Figure 19

46 Cables linked to the Piece of iron



Note. From zaha-hadid.com

<https://www.zaha-hadid.com/architecture/al-wakrah-stadium/>



Note. From [bdonline.co.uk](https://www.bdonline.co.uk/briefing/world-cup-qatar-2022-al-janoub-stadium-by-zaha-hadid-architects-with-aecom/5120271.article) <https://www.bdonline.co.uk/briefing/world-cup-qatar-2022-al-janoub-stadium-by-zaha-hadid-architects-with-aecom/5120271.article>

2.2.1.1.4 Lusail Stadium. Concerning Lusail stadium, the Foster & Partners wanted to represent two main concepts in the form of the stadium (figure 20). The most interesting part of the stadium is the economicity in the chosen semiotic resources that evoke the intended meanings. The first is concerned with the representation of the traditional Arabic bowl which is originally made of clay. The second is the representation of the concept of lantern. In this regard, the architect chose the most appropriate semiotic resources in the representation of each concept as follows.

Figure 20

Lusail Stadium



Note. From fosterandpartners.com

<https://www.fosterandpartners.com/projects/lusail-stadium>

At first, the Foster & Partners represented the bowl through making the semiotic resource of concrete-steel framework (figure 21). This semiotic resource is based on the criterial aspect of circularity found in the form of the bowl.

Moving to the other representation, the architect signified the meaning of lantern by adopting some ornamentations found in the exterior form of the lantern. The focus here of the architect was only directed to the beauty of the lantern by adopting its ornamentations and making the appropriate semiotic resource which represent a part of the object to speak about the whole. The adopted semiotic resource was making triangular forms made from recycled

materials and colored with a golden color. These forms were attached to the built framework of the stadium to each other until the whole façade is completely covered by these forms (figure 22). The attached triangles were linked to the built framework with a steel framework, which is used to facilitate the process of construction.

Figure 21

Concrete-Steel Framework



Note. From ShanghaiEye魔都眼 YouTube channel

https://www.youtube.com/watch?v=x7F1_kUmUbY

Figure 22

triangles used to cover the built framework



Note. From ShanghaiEye魔都眼 YouTube channel

https://www.youtube.com/watch?v=x7F1_kUmUbY

2.2.1.1.5 Ahmad Bin Ali Stadium. Regarding Ahmad Bin Ali stadium, it was particularly built to evoke and represent the meaning of the desert of Al Rayyan city. Al Balagh Trading & Contracting and Larsen & Toubro Limited adopted many parts and bundle of criterials found in the desert in order to be molded in the exterior forms of the stadium. Thus, there are multiple semiotic resources that are used to represent these parts distinctively in one architecture.

Firstly, the stadium was made of a concrete-steel framework as a semiotic resource, but in this moment, the interest was focusing in designing and representing one huge sand dune (figure 24). In addition, the built structure façade was covered by a huge pieces made from steel and coloured by a golden colour to fully signify the sand of the desert.

Figure 23

Ahmad Bin Ali Stadium



Note. From vomuhabura.com

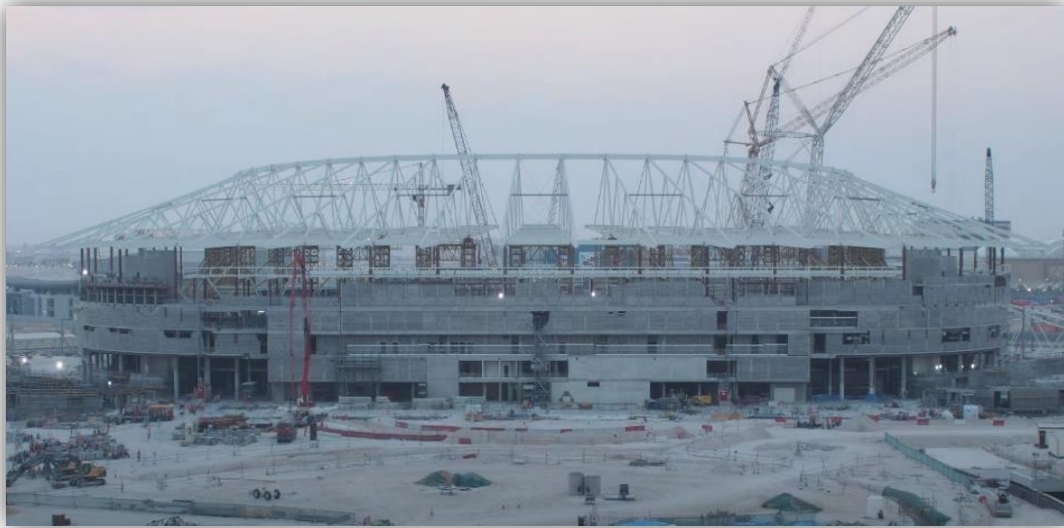
<https://vomuhabura.com/fifa-arab-cup-qatar-2021-tickets-to-go-on-sale/>

Secondly, the architects has concentrated in representing the curvy and the huge space of the desert. This meaning was realized through the use of concrete-steel as the semiotic resource to materialize the meaning. Then, this semiotic resource was applied on the ground and shaped to have a curvy design from all the directions. Plus, after this semiotic resource was

realized, the architect created multiple circular shapes that have different sizes on the aforementioned applied materials which signify a multiplicity of sand dunes (figure 23).

Figure 24

Concrete-Steel framework



Note. From MK timelapse GmbH YouTube channel

<https://www.youtube.com/watch?v=MsoTY8GFuQ8&t=97s>

Thirdly, the architect moved in materializing the meaning of many giant sand dunes. This meaning was signified through making a huge siege, as a semiotic resource, made of steel that was shaped to have a curvy design and surrounds the other built structures from all directions. In addition, the designability of the siege was adapted to represent another concept which is the ancient houses. These houses were signified by making organized ornamentations that were adopted from existing old houses inhabited by Al Rayyan city people . As we can see in (figure 25) how the builders are applying the siege piece-by-piece and attaching it to the ground of the stadium.

Figure 25*The siege*

Note. From MK timelapse GmbH YouTube channel

<https://www.youtube.com/watch?v=MsoTY8GFuQ8&t=97s>

As a result, the Al Balagh Trading & Contracting and Larsen & Toubro Limited company realized the a huge landscape which is the desert and its ancient houses through one architectural work which is Ahmed Bin Ali Stadium.

2.2.2 Discussion

Under the social semiotic and semiotic investigation of this research, the overall objective is accomplished through following the adopted theories of Representation by Kress (1997) and Barthes's Denotation and Connotation. Regarding these followed methodological perspectives, the road of the analysis covers state-of-the-art Qatari stadiums through the investigation of the represented meanings, as a first step, of diversified cultural aspects in the exterior design of each stadium. As a second step, the analysis was extended to approach the stadiums from a denotative and a connotative angle which further paves the way to discover more about the Qatari culture.

In this manner, the findings of this analysis are open to discussion and; hence, answering the stated research questions. In this regard, we can refer firstly to the process of representation in which the intended meanings are signified through the use of semiotic resources chosen by the sign-makers (Kress, 1997). In this manner, the architects, as sign-makers, implemented the appropriate semiotic resources to materialize the Qatari cultural aspects in the mode of architecture. Regarding the first question, the sign makers used different semiotic resources in order to materialize the intended meanings. At the basic level, the noticed semiotic resource that shaped particular meanings in the stadiums is the recursive use of concrete-steel framework in which the sign makers regulate and shape the designed form depending on the targeted criterial aspect noticed in the represented cultural sign. As an example, the criteriality of Al Thumama stadium was cylindrical form, however, in Bayt Al Sha'ar stadium was rectangular. This derivative ability of this semiotic resource facilitated the appropriate selection of meanings to be materialized and primarily the represented signs as a chief objective. From another representation, the concrete-steel framework was applied differently as a representation of the sails' movements in the dhow boat. However, in Ahmed Bin Ali stadium, only concrete was applied horizontally at a large space with curvilinear design to signify the spacious quality of the desert. Equally important is the use of steel framework which is found in some stadiums. This built framework was implemented differently to signify multiple signifieds. On the one hand, in Bayt Al Sha'ar stadium, the main purpose is to signify the wooden column found in the traditional tent; however, the signifying way found in Al Janoub stadium was to represent a completely cultural sign on the other which was Oysters. In addition to this idea, this steel framework sometimes does not signify anything but only used as an aiding material like in the case of Al Thumama stadium which was just a mediator between the internal and external structures. In the representation process, it was noticed that the sign makers used another semiotic resource which was fabric.

The latter was salient in which its application was creatively and artistically employed to signify different meanings. To exemplify this use, in Al Thumama stadium, the fabric was intended to materialize the ornamentations found in traditional hat, which is Al Kahfiya, whilst its presence in the design of Al Janoub stadium was a materialization of the sails found in the dhow boat. This fabric was not only present at distinct architectures but also within the same building to signify multiple meanings as in the case of Bayt Al Sha'ar stadium in which the material signified the goat fur that make up the traditional tent; besides, it signifies the top of the tent which is originally made of cotton. Another implemented semiotic resource is the presence of a siege made of steel. Having a curvilinear design, the siege purposefully designed to signify multiple sand dunes of Al Rayyan city. In the same semiotic resource, the ornamentations found in the siege were a representation of the Al Rayyan ancient houses. From a different representation in Lusail stadium, triangular forms made of steel were intended to signify the quality of beauty to refer to the lantern. Similarly to steel, an iron piece was formed to represent the mast found in dhow boat. As last noticed semiotic resource, the cables were present in both Al Janoub and Bayt Al Sha'ar stadiums. In the former were a representation of halyards; however, in the latter were a representation of the cables that preserve the positioning of the traditional tent.

After the representation process of the cultural aspects in the stadiums, the meanings invested in the architectures are discovered through answering the second question. Before answering the question, we may refer to Barthes's (1967) orders of signification which are the Denotative level and Connotative level. The former is the literal and obvious meaning; however, the latter is the cultural and ideological meaning (Smith et al., 2005; Josephson et al., 2020). Regarding the denotative and connotative meanings, the stadiums at the denotative level represents the characteristics of each stadium like its location, space, the construction companies responsible for the projects, and most importantly the presence of the meaning of

the represented cultural signs in the exterior design of each stadium. Following the post-modernism and deconstructivist criterion, the building designability from the exterior façade is meaningfully separated to express certain meanings in the cultural context of each society (Mankus, 2014). Applying this claim at each stadium, the expressiveness is noticed due to the creative application of the previous semiotic resources arranged to identify the cultural signs. For example, the exterior design of Lusail stadium denotes the concept of the traditional bowl and the lantern throughout the whole built stadium. Thus, the denotative meaning from the architectural design (facades) of each architecture is applicable and generalized to the rest of the stadiums in which every stadium's design denotes a certain cultural aspect. As it is known from the development of the semiological chain, according to Barthes (1967), that requires a pre-existing semiotics i.e. a denotative plane, the represented signs carry invested connotative meanings that are deciphered in the Qatari cultural context from the represented cultural signs in the stadiums. Following the same aforementioned example, Lusail stadium as a representation of the bowl and the lantern in which both of them have an attributed connotative meaning which is in this case the history of craftsmanship in Lusail city.

As an attempt from the Qatari government to represent and revive the cultural heritage left by the ancestors from ages ago, it is the current objective of the Qatari nation to preserve and maintain its position as a country rich of historical background within the Gulf part and across the Asian continent gaining a respectful world view as a political power. The Qatari government witnessed a radical change in the economic field in which the investments attributed to host the FIFA World Cup 2022 were highly directed to the expression of Qatari culture in architecture. Accordingly, the primary objective of the government was mainly a cultural revival and a maintenance to the Qatari heritage represented through the new five Stadiums' architecture which are Al Thumama stadium (as a representation of Al Kahfiya), Bayt Al Sha'ar (as a representation of the Bedouin tent), Al Janoub stadium (as a

representation of the dhow boat and oysters), Lusail stadium (as a representation of the traditional bowls and Lanterns), and Ahmed Bin Ali stadium (as a representation of the Al Rayyan city's desert and ancient houses). Since architecture is an embodiment of the cultural beliefs and different invested ideas understood by the society, the inferred idea, at the present time, from this contribution of the Qatari government in these representations is to encourage the society to be proud of his identity, cultural belonging, and emphasizing to read the stadiums' foregrounded meanings and their cultural significance. As for the future, it is chiefly inferred that the exhibited architectures will transmit the ideas, beliefs, and attitudes of the previous generations to the upcoming ones (Harras, 1958; Stern, 1983; Serageldin, 18989; Parvizi, 2009; Bemanian et al, 2010). In addition, Moustafa (1988) said that architecture is an identified environment that makes the society feel their belonging. Accordingly, the Qatari government successfully built an environment that is identified by the Qatari citizens in which the stadiums, as a type of architecture, explicitly reproduce multiple meanings depending on the cultural context and background of each place.

Although the invested budget crosses millions of dollars to host the FIFA World Cup 2022, the cultural significance has an invaluable and influential outcome toward the future. From this perspective, a famous quote said by Winston Churchill in which he said that “we shape our buildings; thereafter, they shape us” (as cited in O’Toole, 2007, p.161); these few words in the view of Churchill highlights the utilitarian use of everyday life buildings, ranging from the residential type to the industrial one that shape the human being activities. However, shedding the light to the current case of Qatari stadiums, the stadiums shape the collective memory within the socio-cultural context of Qatari nation as well since the architects successfully foregrounded, exposed, and materialized the culture in its most tangible form which is architecture. Henceforth, according to Hall (1997), culture representation is basically exposing the cultural meanings through different ways that are

grasped by the society according to their cultural map. Under this claim, the stadiums are regarded as one of the culture representation ways that effectively expose the rich Qatari culture. As Tran (2017) defined architecture, in his words, saying, “it is the store-house of memories” (p.233). In this regard, as far as the existence of these stadiums is preserved and protected as landmarks of the nation, the promotion of the Qatari culture will be reinforced from one generation to the next.

2.2.3 Limitations

The limitations that faced the study are as follows:

1. Due to the nature and originality of the topic, searching for resources about architecture was the main obstacle that faced this research; especially for English language students who are more acquainted with linguistic studies.
2. Time constraints that limited the research to search more about available architectural studies.

2.2.4 Recommendations

The recommendations for future studies are as follows:

1. Approaching other architectural works and their representations of culture in other countries.
2. Searching for other available semiotic and social semiotics theories that can reinforce the current study, or investigating the sample from other perspective.
3. Using a quantitative method like questionnaire for students who can have access to Qatar to collect Qatari society’s or tourists’ attitudes about the significance of stadiums.

Conclusion

In this chapter, we presented a thorough explanation of the research design of the study, data analysis, and discussion. In this sense, we extracted the cultural meanings depending on the represented cultural signs using Barthes's orders of signification; besides, through the adoption Kress's theory of representation, we described how the cultural signs are represented in the five selected stadiums. In addition, the chapter provided the main limitations of this research and recommendations for future researches.

General Conclusion

Architecture is considered as an essential contributor to the representation of culture. Due to its flexibility, architects' productive and generative abilities are crucially influential in the designability of meaningful architectural works. Depending on the available materials that dictate the expressiveness of architecture, a radical architectural change was noticed in the Qatari country following contemporary architectural styles. Through adopting postmodernist and deconstructivist styles in the creation of cutting-of-edge stadiums, the outcome of the construction was satisfactorily pleasing in which both the knowledge of architectural principles and Qatari culture were sufficiently able to reproduce cultural aspects in the

exterior structure of FIFA World Cup 2022 stadiums. Ranging from clothes, houses, and reaching sailing boats that are supposed to fulfill only the Qatari society's functional needs, their innovative architectural representation was an extremely creative attempt in Qatar that may address the Arabic world in general to follow the same path in other creative works. This idea inspired this study to approach this phenomenon from a social semiotics and semiotics fields of study to have semiotic access to the meanings residing within this less studied sign system in the semiotic scope.

In the literature review, the first section has covered an overview of semiotics and social semiotics that tackled detailed information about the concept of the field of semiotics, its definitions, influential models, and stressing the Barthesian conception which has a methodological importance to investigate the topic. Extending the section to cover the social semiotic perspective, a provided literature covered the definition of the field, Kress's theory of representation which was the center of the topic as a methodological approach, and explained some concepts related to the nature of social semiotics.

As the research required a comprehensive literature review to approach architecture as a sign system, it has covered, in the second section, an overview about the concept of architecture, its identity, and the main influential contemporary architectural styles in the current time. As it is known from the social role in shaping architecture, the interference of culture will affect its final outcome, so it was necessary to introduce the concept of culture, its perspectives and its major types to have a general view of its nature. At the end of the section, the research combined both concepts to reveal their relationship and connection. Following the literature review

In light of the collected information, approaching the FIFA World Cup 2022 stadiums was possibly investigated. The selected sample was purposefully chosen from which the

application of Kress's representation theory was appropriate to discover the used semiotic resources to materialize the cultural aspects of Qatari culture. In this regard, the semiotic field appropriately dealt with a cultural analysis from the Denotative and the Connotative orders of signification introduced by Barthes in order to highlight the cultural meanings embedded in the created stadiums based on the represented cultural aspects.

As a concluding idea, the research found that the cultural significance of the FIFA World Cup 2022 stadiums promotes the Qatari heritage toward future benefits. As an example of these benefits, the architectural design of the five stadiums is purposefully created to represent particular selected cultural aspects. These selections were not arbitrary; due to their cultural significance in Qatar, they embody the ideology that governs the Qatari in-group understanding of their culture; for example, hospitality is one of the beliefs that maintained itself in the Bedouin tribes and continued to be one of the central symbolism in the Qatari nation. Hence, the benefit is to draw the attention of Qatari society to the rich heritage, sensing the value of the represented aspects, and understanding the cultural meanings that make up the Qatari ideology. In this regard, the second benefit is related to the future generations in which they will have a fully accessible semiotic grasping of the meanings embodied in the designed exteriors of each stadium; as a result, continuity in the shared collective memory within the socio-cultural context will be preserved and maintained. As a general idea, the stadiums, as landmarks of the Qatari nation, have great importance in the manifestation of culture and influentially motivate each Qatari individual to be proud as a member of Qatari society.

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Résumé

La sémiotique et la sémiotique sociale sont des domaines d'étude majeurs qui traitent des systèmes de signes dans le contexte socioculturel. L'architecture, en tant que système de signes, est une représentation des croyances et des attitudes culturelles d'une société qui donne en raison de sa charge sémantique créée par la capacité de conception innovante des architectes. En ce sens, l'étude explore les ressources sémiotiques utilisées dans la création des stades de la Coupe du Monde de la FIFA (cinq sont sélectionnés) qui sont essentiellement une représentation d'aspects culturels sélectionnés de la culture qatarienne. Cette représentation est analysée à travers l'adoption de la théorie des représentations de Kress (1997). En raison de

l'importance culturelle du sujet, il nécessite l'adoption du modèle sémiotique d'ordres de signification de Barthes connu sous le nom de Dénotation et Connotation afin d'explorer les significations culturelles des aspects culturels qatariens représentés dans les stades. Les résultats, du point de vue de la sémiotique sociale, montrent une multiplicité de ressources sémiotiques adoptées par les architectes pour matérialiser et représenter les significations de chaque aspect culturel adopté dans les stades. Quant à la perspective sémiotique, les résultats parviennent à trouver les significations dénotatives et connotatives basées sur les aspects culturels représentés qui élaborent l'enquête pour avoir un accès sémiotique à la culture qatarienne. En tant que recommandation, l'étude ouvre la voie à de futures études pour aborder davantage les œuvres architecturales et explorer les significations chargées représentées dans son contexte socioculturel.

Mots-clés: Théorie de représentation de Kress, ordres de signification de Barthes, sémiotique sociale, sémiotique, architecture, culture

الملخص

السيمائية والسيمائية الاجتماعية هي مجالات الدراسة الرئيسية التي تعالج أنظمة الإشارات في السياق الاجتماعي والثقافي. العمارة، كنظام علامة، هي تمثيل للمعتقدات والمواقف الثقافية للمجتمع بسبب استعابه الدلالي الناتج عن قابلية التصميم المبتكرة للمهندسين المعماريين. بهذا المعنى، تستكشف الدراسة الموارد السيمائية المستخدمة في إنشاء ملاعب كأس العالم لكرة القدم (تم اختيار خمسة) والتي تمثل أساسًا جوانب ثقافية مختارة من الثقافة القطرية. يتم تحليل هذا التمثيل من خلال تبني نظرية التمثيل المقترحة من السيميائي الاجتماعي كريس (1997). نظرًا للأهمية الثقافية للموضوع، فإنه يتطلب اعتماد نموذج بارت السيميائي المعروف الذي يهتم بالمعاني الدلالية والضمنية من أجل استكشاف المعاني الثقافية للجوانب الثقافية القطرية الممثلة في الملاعب. تظهر النتائج، من منظور السيمائية الاجتماعية، تعدد الموارد السيمائية المعتمدة من قبل المهندسين المعماريين من أجل تجسيد وتمثيل المعاني لكل جانب ثقافي تم تبنيه في الملاعب. أما بالنسبة للمنظور السيميائي، فقد تمكنت النتائج من العثور على المعاني الضمنية والدلالية بناءً على الجوانب الثقافية الممثلة التي توسع التحقيق للوصول

إلى الثقافة القطرية. كتوصية ، تمهد الدراسة الطريق للدراسات المستقبلية للتعامل مع المزيد من الأعمال المعمارية واستكشاف المعاني المحملة الممثلة في سياقها الاجتماعي والثقافي.

الكلمات المفتاحية: نظرية تمثيل كريس ، أوامر بارث للدلالة ، السيميائية الاجتماعية ، السيميائية ، الهندسة

المعمارية، الثقافة