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An exploration of the impact of museum architecture on the visitor experience and understanding of national identity

"A case study of the Saudi National Museum (SNM) in Saudi Arabia"

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Abstract

Minimal published research exists to date on the nature of Saudi Arabian national identity and its relationship with architecture. To address this, the present thesis focuses on the themes of nation-building and cultural heritage as lenses through which to study the concept of national identity as manifested in the architecture of Saudi Arabia. The central case-study involves a visitor-focused analysis of The Saudi National Museum (SNM), which was established in 1999 as part of the King Abdul-Aziz Historical Centre in the Saudi capital city, Riyadh.

This study is motivated by two related research questions: (1), What do we mean by 'national identity', and to what extent does the Islamic religion inform this identity, in the case of Saudi Arabia? And (2) How does the architecture of the SNM express this identity, and how effectively does it contribute to strengthening it through the specific configuration of the visitor journey?

The research begins with a review of prior literature examining the theoretical dimensions of the three key areas of study: identity, architecture, and museums. Related issues specific to the study of museums – such as narratives, exhibitions, and visitor behaviour, are also explored in depth in order to clarify their role in the construction of a sense of national identity in the context of Saudi Arabia. The review is limited to the period from the late 1930s to the present day, during which time Saudi Arabia underwent a major process of urbanisation, alongside additional significant social and political changes.

The study focuses on the SNM, the architectural characteristics (including space, environment and exhibitions) which were evaluated through a combination of qualitative and quantitative methods. The application of the 'scales of narrativity' model, and two-communication denotative and connotative meanings were used as theoretical tools to afford insights into museum environments, as these are seen as effective vehicles for promoting identity, and emphasising the impact of architecture on the process of constructing meaning. The views of architects,

designers and museum directors were also studied, and visitor experience surveys issued, in order to understand the relationship between the significant individual elements of the museum exhibition environment and the overarching narrative of the visitor journey. The visitor experience comprises influential, cognitive and behavioural aspects, which were analysed through a combination of self-reported responses to open-ended questions and observed visitor behaviour.

Subsequently, the study revealed the impact of museum architecture on the expression of national identity to be more complex than previously assumed. Considering the matter of identity through empirical evidence from architects' and museum directors' views, provided a way of investigating the various paradigms of identity, showing how the participants translated and expressed overlapping and sometimes conflicting definitions. By comparing national identity and Islamic identity, alongside regional and local identity, a comprehensive finding of the thesis suggests the significance of religion in constituting and consolidating the performance of Saudi national identity.

By evaluating the museum visitors' experiences, the thesis also identifies how the architecture of the SNM building contributes significantly to the experience and understanding of the overall exhibition narrative. A strong correlation between the effectiveness of the architectural design and the exhibition design emerged throughout the SNM's eight main exhibition spaces (in addition to the specific configuration of the overall visitor journey), strengthening the sense of Saudi national identity. This finding offers significant insights into the efficiency of museums in general as instrumental in the expression of national identity via exhibitions, architecture, and the narrative structure of the visitor journey.

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Presentations

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Chapter 1. Introduction

1.1. Summary

In recent decades, the role of museums in representing cultural and societal shifts, and in promoting a nation's cultural heritage, has become increasingly important. The architecture of museums and the exhibits they contain have a strong influence that can strengthen national identity. The focus of this thesis is on how architecture, exhibition design and the visitor experience inside a museum can influence and strengthen perceived national identity. In particular, it adds to the existing somewhat limited research on the evaluation of the visitor experience and museum architecture in Saudi Arabia to demonstrate how architectural and exhibition design can improve the visitor experience.

In the realm of visitor experience, this research will highlight the role of museum architecture in emphasising identity by analysing key data obtained in the field study. The study was conducted at the Saudi National Museum (SNM) and as part of the data collection process the views of various categories of visitors to the site were sought.

This chapter will initially set out an overview of current research in the field, and outline the reasons for conducting this study in the context of this particular domain of architecture. It will then explain the thesis structure, present the context of the research, its

relevance, the research aims and objectives, and list the research questions developed.

1.2. General Overview of Research

Historically, many disciplines have discussed the concept of identity. Nations manifest their cultural identity through unique architectural features, including urban development, layouts, and interior and exterior design features. According to Torabi and Brahman (2013, p.107), "the identity of a space is a collection of signs distinguishing a space in cultural and functional terms."

This field of study not only establishes a link and the relationship between social narratives and architecture, but also serves to underpin the process of expressing, shaping and constructing identity simultaneously. Saudi Arabia is one of the main countries in the Arabian Gulf to have demonstrated rapid and significant urban development in recent decades. Thus, in this era, it is crucial to comprehend how the people of Saudi Arabia perceive the concept of identity. According to Al-Naim (2008), many authors have identified a lack of architecture that could be classified modern in Saudi Arabia (Konash, 1980; Boon, 1982; Mofti, 1989; Abu-Ghazze, 1997).

This directs us to question: What do we mean by 'national identity'; and to what extent does the Islamic religion influence this identity, in the case of Saudi Arabia? Also, how does the architecture of the SNM express this identity, and how effectively does it contribute to strengthening it through the specific configuration of the visitor journey?

The aim herein is to comprehend why the search for national identity presents a significant social and intellectual concern in Saudi Arabia. Within the framework of society's cultural core, identity can change and re-form over time. Therefore, when conducting an overall evaluation, Saudi national identity can be considered experientially as fluid. In terms of architecture, then, we perceive of national identity as a relatively complex concept.

Understanding of signs and the use of language was adopted from Stuart Hall's encoding/decoding model (1973/1992), which explores the process of meaning-making in museum communication at both the denotative and connotative levels. It was explored from two vital angles: firstly, the encoder that planned to produce and guide the message to deliver it to architects, designers, and curators. Secondly, the decoder that receives and responds to the message as with museum visitors. Consequently, this exploration was studied via architecture, exhibition and the SNM Journey to understand the relationship between significant individual elements of the museum exhibition environment and the overarching narrative of the visitor journey. The visitor experience was taken to involve behavioural aspects that were analysed through a combination of self-reported responses to open-ended questions and observable visitor behaviour (see Figure 1.1).

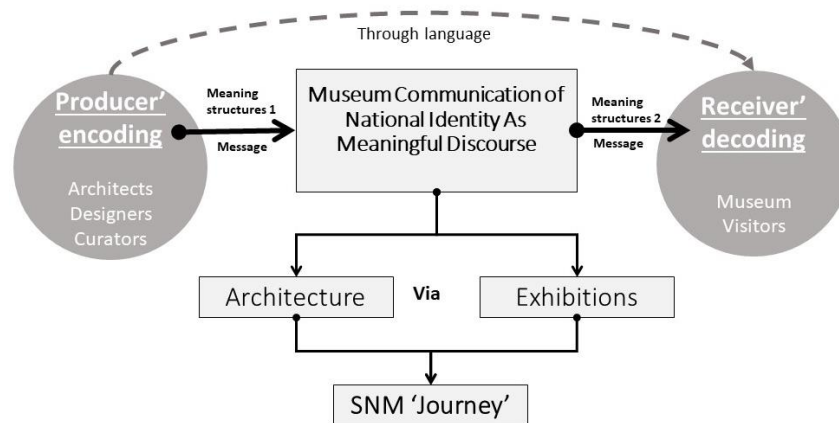


Figure 1-1. The proposed approach adopted from (Hall, 1973/1992) for exploring museum communication and national identity. Source: by the researcher.

Since the late 1930s, Saudi Arabia has undergone extreme urban change; therefore, this review is limited to this era specifically (Al-Naim, 2008). The researcher evaluates different architects and expressions of designers that contributed to the shaping of identity for urban change over this time period. However, it is unfortunate that there is minimal literature about the identity of Saudi Arabian architecture. Consequently, the researcher had to refer to the King Abdul Aziz Historical Centre (KAHC) to carry out the study process and complete this project (as fully introduced in part three of Literature Review Chapter). The KAHC is one of the most important cultural sites in the capital city of Saudi Arabia, Riyadh. However, use was also made of different conceptual and architectural approaches for some parts of the project. The reason for choosing them here is that they address tradition and modernity simultaneously. Some of the design dynamics of KAHC also played an important role in revealing similarities, distinctions and conflicts between different architects.

This study focuses on the SNM; one of the main new buildings in the KAHC complex. It will trace some of the physical aspects of the communication techniques architects and designers used to encode meaning when designing, commissioning and managing the SNM. It will then examine the decoding of meaning that occurs as part of the visitor experience, by investigating visitors' interpretations of the museum in terms of their behaviour and feelings relative to how the SNM evokes, reinforces or contradicts their personal and national identities.

1.3. Identity and Nation-Building

In this research, the SNM is the chief focus. This case study represents a broad range of characteristics and phenomena common to modernising nations, which have been analysed by prior researchers. For example, in a study by Clara Irazábal (2004, p.144) she uses the term "theming vernacular settings" to describe the same concept and representation of invented identities. She identified how the explicit search for architectural identity falls firmly within the modernising project of nation-building. Moreover, she pointed out relevant concerns, such as queries associated with authenticity, the search for identity, and the pervasive distinction between modernity and tradition.

The concept of tradition was viewed in negative terms for much of the colonial period, as it was frequently equated to pre-industrial, pre-modern traditions. However, the emergence of new nation-states starting in the late 19th century altered the definition, and consequently, the notion of tradition arose as "as a source of identity

and continuity". Henceforth, the revisiting of traditions was confined to those who relied on reinvention, their *raison d'être* now being associated with the formation of a nationalist past. According to Nezar AlSayyad (2004, p.6-7) "the tangible products of tradition are those processes by which identities are defined and refined," which clarified why the reinvention of traditions is associated with nationalist interests. Nationalism aims to build nations in an "authentic" spirit that observes identity of ancient religious and ethnic groups.

In order to meet modern cultural, economic, and strategic standards, these older notions must be transformed. According to Anthony Smith (2004, p.133), the reinterpretation and selection of earlier traditions, codes, myths, symbols, and memories are involved in this; nevertheless, the process should always be carried out within the boundaries and parameters set by existing communities and cultures. For example, Anaya Roy (2004, p.63-86) pointed out that nostalgia comprises a critical aspect involved in the authentication of invented tradition. In particular, this is true considering the political meanings attributable to utopian perceptions, whereby "a future is demonstrated after a cleansed and mythicised past." The cleansing process is carried out first through an intrinsic aspect of nostalgia which is mourning what has been lost, through narrating the loss and then celebrating the overcoming of what has been lost. As Roy referred that, "nostalgia makes probable a dwelling in modernity," and new cultural claims can achieve legitimacy through the reinforcement of tradition as heritage. The views expressed by Roy (2004, p.74-97) are reflected in the argument made by Alan Colquhoun (1996), which states that "as an emblem of 'pastness', modern historical recovery actually resists too accurate a memory of

past styles; it is only in this way that it can become an item of cultural consumption.” This statement by Colquhoun encompasses an intentional effort “to instil (*sic*) a forgetfulness of history” (1996, p.202). Similarly, Juhani Pallasmaa (2007, p.133) agrees with such practices, stating that a decrease in selective borrowing from the past can appear in culture as “an object of deliberate fabrication”. Nan Ellin Irazábal (1996, p.145) also iterates this point, mentioning that this process “idealizes and highlight parts of the past, while erasing others.” Through this process, political benefit can also be obtained to shape the nation-state as a whole.

1.4. Scope of the Research

The matter of national identity is one in which no clear boundary exists; it fluctuates dependent upon time. In Saudi Arabia, people consider the traditions that they observe to be a representation of their roots, but at the same time they are not a representation of their own identity. In present-day Saudi architecture, identity is something that should be capable of representing the modern morals and values of Saudi society. The key objective here is to be able to understand themselves and respect those factors that move society in a new direction. It is better for us to understand ourselves, rather than assuming that ready-made forms of identity are valid and must be adhered to. Considering the above statements, it is better that we understand our own individuality as well in terms of identity by studying the world that surround us, as well as the aspects we encounter in our everyday lives. Architecture is imbued with life when people interact with it, and it becomes associated with meeting certain social requirements. However, such requirements are

inevitably malleable, causing the meaning of the physical forms of architecture to also change over time.

1.5. Research Aim and Objectives

The chief aim of this research is to establish how architecture plays a role in informing understanding of identity; how it generates a memorable experience by narrating a story; and how it creates an identity within gallery spaces by defining those design factors that play an important role. Specifically, the research examines the extent to which the SNM reflects, creates, and promotes national identity. Finally, it evaluates how such an identity can be influenced by a narrative approach that is delivered through museum perceptions.

The specific research objectives are:

- To evaluate the efficacy of museum architecture and exhibition design to promote understanding of national identity;
- to improve the expression of national identity within the museum;
- to identify and evaluate the perceptions of visitors as a way to characterise exhibition environments from visitors' perspectives;
- to describe the relationship between aspects of architectural design and the process of meaning-making along the museum journey.

In parallel, the research questions considered were as follows:

- What do we mean by 'national identity'? and to what extent does the Islamic faith influence this identity in the case of Saudi Arabia?
- How does the architecture of the SNM manifest an expression of this identity, and how effectively does it contribute to strengthening it, through the specific configuration of the visitor journey?

1.6. Thesis Structure

This thesis is composed of eight chapters, which take the reader through museum architecture from identity conception to visitors' investigation, through to analysis and reflection, concluding with additional research required that relate to architectural discourse in Saudi Arabia.

Following this introduction, chapter two begins by laying out the theoretical dimensions of the research in the form of a literature review divided into three sections. The first part focuses on historical background, addressing museum, architecture and identity and looking at the intention to develop identity, studying the link between architecture and the formation of culture. Additionally, the terms of nationalism and archaeology are covered while discussing problems associated with the usefulness of this theory and the nation's links to national symbols. Also, the cultural aspects of the GCC countries, including significant and recent changes, as well as growth in the field of architecture and new museums have been discussed. The second part of the Literature review chapter explores theoretical tools, frameworks and theories, such as 'linguistic theory' and the Axis of

Narrativity theory that can be applied to address narrative issues, the exhibition and its visitors as linked to issues of understanding museum environments and promoting identity. After this, the case study part provides an overview of the Arabian Peninsula, and the evolutionary process of settlement before considering prior conflicts on the subject of modernism in Saudi Arabia. To date, there has been limited discussion about the SNM. Explanations of the adoption of SNM in the context of the KAHC have been undertaken, determining architectural and conceptual approaches that inform the project brief.

Chapter Three outlines and synthesises a clear description of the PhD research process, and the reasons for selecting specific methods. The case study and adoption of a mixed methods design is also explained. The three main phases of methodology selected are also fully introduced. In addition, a description is given of how the research questions were answered by employing mixed methodologies.

Chapter Four establishes details of the key themes in the empirical analysis. It discusses the transcription, coding and evaluation process, and analysis approaches used to guide the focus of interest. Further analysis is directed towards findings that address the characteristics of museum buildings, explored spaces, design materials, special moments, architectural symbols and other internal aspects that emerged when expressing identity.

Chapter Five focuses on analysing survey data. As part of the research, a quantitative instrument, known as the perceived Environment tool was piloted and refined. The chief aim in this case was to explore the relationship between how visitors perceive

different museum exhibition environments and how this links to the overall visitor experience. The visitor experience comprises influential, cognitive, and behavioural aspects measured by open-ended questions that examine a combination of visitors' responses and behaviours. Considering this, a visitor experience survey of the SNM presents the results of a survey conducted across eight of the museum's exhibition spaces.

Chapter Six integrates empirical and numerical findings that explore the role of museum architecture in the mode of communication of national identity between Speaker and Listener perspectives. Further implications include discussing the complexity of identity in terms of the extent to which Saudi national identity has been influenced by the Islamic religion. Additionally, consideration will be given to exhibition design and its effects on the eight exhibition spaces, how visitors express their views on the process that emphasise national identity, and how the SNM journey has been implemented.

Chapter Seven is the concluding chapter of the thesis, and sums up its main findings. In addition, it provides a further theoretical discussion of the applicability of the topic, as well as relating to the overall research limitations.

Chapter 2. Literature Review

2.1. Part One of the Literature Review. Historical Background: Museums, Architecture, and Identity

This part of the literature review explores the development of national identity, and specifically the link between architecture and the promotion of national culture. The attitude of nationalism within the concept of national identity is assumed when discussing the problems regarding the usefulness of this term in a nation's individual links to national indicators. This chapter presents an overview of national museums and their role in the formation of national identity, in order to consider the current views regarding the enhancement of the role of museums to reflect the culture of a nation. The main focus of this thesis, namely the key concepts of museum architecture, are then discussed. This is followed by a review of the cultural aspects of the Gulf Co-operation Council (GCC) countries and their significant and recent changes, as well as developments in the field of architecture and the growth in new museums.

2.1.1. The Attitude of Nationalism in National Identity

When undertaking research concerning the formation of national museums and their associated archaeological materials and structures, it is imperative to consider the relevant social and political context, in order to comprehend the cultural practices of the time, as

well as their function as institutions. In particular, it is important to consider the conditions in which archaeology can be deemed to be nationalistic and incorporated in the official framework of a state or nation.

Care must be taken when conducting archaeological research to convey to the present generation the history of their ancestors in an appropriate manner; such research involves specific ideologies, perceptions, interests, and research queries regarding defined areas with distinctive boundaries and specific political influences. This kind of archaeological research aims to uncover the clues that reflect the practices of humans in the historical time concerned, in order to comprehend and develop an understanding of those times. The history of a nation is reflected through its material culture; the historical material and places can perform symbolic roles to allow a modern audience to envisage national identities.

It is often argued that the links between archaeological emergence and nationalism are based on a nation's ideological construct, since political nationalism can be defined as a nation that is a natural human grouping with the right to representation through a political group. The mere presence of nations indicates the existence of such nationalistic history that should be identified and transmitted for its own sake, as well as for that of the individuals belonging to that nation. At the end of the eighteenth century, the rise of political nationalism transformed the interpretation of the past into a patriotic responsibility. State institutions were formed to establish and educate those who supported state life, because of their affiliation with a particular country. The story created by these institutions' staff

claimed to map each stage of their creation to the origins and production of the individual characteristics of the specific country, as well as its unique spirit. The nation subsequently became the focus of research (Diaz-Andreu and Champion, 1996).

2.1.2. Critiquing Museums' Role in Creating National Identity

The role that museums play in the improvement of society, or in reflecting and shaping a culture, is debatable. A considerable amount of the previous literature in the field was discussed by Hooper-Greenhill in her study, *Museums and the Interpretation of Visual Culture* (2000), which explored the message conveyed by museums through the organisation of its artefacts, the creation of knowledge and the development of individual views, and how these are integrated with social perspectives. According to Hooper-Greenhill (2000), there is a question to be addressed regarding how a museum establishes new values and changes old ones.

Modernity and growth of nations and political divisions are associated with the introduction and development of museums as socio-cultural centres, since the special trait of museums is their ability to give objects a cultural significance and to materialise concrete objects; their representation of a culture to the world facilitates the formation of a perspective and understanding (Macdonald, 1996). According to Bennett (1995), "the past, as it is physically personified in museums ... is linked to the present that allows it to be displayed", and he argued that the knowledge conveyed is dependent upon the current principles, cultures, and political views, and is gathered with the

involvement of the whole society. Hence, museums not only display artefacts, as their information labels also serve to convey history.

Numerous previous studies were aided by the historical data provided by museums. Indeed, museums are the medium best able to convey information regarding other cultures' norms, and often play a significant role in representing a nation's politics and individual characteristics to the wider world (Macdonald, 1996). However, when understanding the role of museums, it is important to consider how they interpret and convey information, as well as comprehending their reasons for using certain models and values, and to explore their socio-political role in terms of bias, in addition to understanding their sources of finance. These matters, among others, highlight the importance of the museums in the current era (Macdonald, 1996).

2.1.3. National Museums in the Formation of National Identity

A number of recent critical works in the fields of museology, heritage, critical theory, and cultural studies addressed the cultural aspects of national museums, and their role in the formation of national or other identities. According to Anderson (1996, p. 4), "nationality and nationalism are cultural artefacts of a particular kind". The term 'imagined community' indicates a nation as "an imagined political community ... imagined as both inherently limited and sovereign"; it is 'imagined' because "the members of even the smallest nation will never know most of their fellow members, or meet them, yet in the minds of each lives the image of their communion" (Anderson, 2006).

Employing Anderson's (2006) criteria of nationalism, Sarsembayev (1999) defined Kazak nationalism in the context of a cultural artefact serving the purpose of imagining the Kazak nation. Eleven, using the following 11 elements to consider to how Anderson's (2006) theory was relevant to the formation of the Kazak nation after the fall of the Soviet Union. First, nationalism was considered to be a cultural artefact, and the history, meaning, and emotional legitimacy of nationalism were perceived to be central to the understanding of its nature. Second, the logic of print capitalism ensured the rise and spread of the vernacular languages, as opposed to the sacred languages of religion; the combination of capitalism, the technology of communication (print), and the fatality of human linguistic diversity made the new communities concerned imaginable. Third, the result of this historical process was unified fields of exchange (territories), the fixity of languages (language standards), and the emergence of languages-of-power (official languages). As Said (1978, p.136) noted, an outcome is "an internal field created and accomplished by language users themselves". Fourth, language-related professionals have a special role as producers of the print-market. Fifth, a problem lay in the relationship between the rural and urban masses, regarding the extent to which they shared in the vernacularly imagined communities. Simultaneously, a question concerned the connection between these two masses on one hand, and the missionaries of nationalism on the other. Sixth, in many cases, the 'bureaucratic middle classes' and the 'new middle-class intelligentsia' assumed certain roles in the rise of nationalism, especially in colonial domains. Seventh, languages-of-state and official nationalism, such as Germanification, Russification, and Japanification, had their own role in this process. Eighth, schools and

universities might be used as the means for progressing nation-building and nationalism. Ninth, colonial school systems determined the educational and administrative journeys that indicated the territorial base of a new nation. Tenth, the census, the map, the museum, and patriotism as an idea of the ultimate sacrifice were important, if not crucial, for nation building (Sarsembayev, 1999, p.321-322). Finally, the solution to the problem of creating a new 'imagined community' lay in inventing a historical narrative of 'identity'. It was deemed that there was the need for such a narrative, since

nations have no clear identifiable births, and their deaths, if they ever happen, are never natural yet the deaths that structure the nation's biography are of a special kind but to serve the narrative purpose, these violent deaths must be remembered/forgotten as our own. (Anderson, 2006, p.204-206).

These representations of a nation help to construct national collective identities (Evans and Boswell, 1999), and to construct unified and homogeneous collective identities that help to consolidate the image of an "imagined community" (Anderson, 1991, p. 5)

Historically, institutions such as national museums have been enlisted to turn the 'imagined' (Anderson 2006) political and cultural nation into a tangible structure, since "Envisioning nation requires particular and carefully selected style that ... accomplishes physical and symbolic form in the customs, museums, memorial structures and events behind its development". Hence, it can be debated that

the social and cultural foundations of a nation include these demonstration practices (Evans and Boswell, 1999). Museums convey two main messages: first, an idiosyncratic national trajectory, and second, the nation as the final successful phase of successive progression (Macdonald, 2012). Thus, national museums are situated in a complex cultural setting in which the descriptions, ideas, and experiences of the nation are created, negotiated, and (re)produced according to the prevailing political view and material forms.

The sense of patriotism and of national identity arises from the use of figurative practices that allow the inference of meaning (Evans), and in order to create a sense of nationhood for Australians, Americans, or any other locality, the concrete aspects of the museum play a role, as they keep the nation's history alive and help people to understand their country (Evans and Boswell, 1999).

2.1.4. Global History and Geography of National Museums

The very first 'national' museums were introduced during the eighteenth century; in Europe, the British Museum was established in Britain in 1759, and the Louvre in France in 1793. During the so-called 'Age of Enlightenment', the enthusiasm to comprehend, the discovery of the wider world, trade, and evolving industrialisation all played a role in the evolution of such institutions. In the nineteenth century, a model was introduced that helped to improve national museums, or what became national museums, in countries such as Argentina, Brazil, Canada, South Africa, Egypt, Indonesia, India, and Australia (Alexander et al., 2017). The concept of a 'national' museum was twofold: firstly, they were institutions constructed and

financed by the government, most of which were run by the government's representatives, such as the Ministry of Culture; and secondly, they displayed the historical background, characteristics, patrimony, or heritage of the nation for educational and political motives, including the reinforcement of nationalism.

In the years since, different types of museum continued to be developed, including the introduction of the 'consumable' museum (OP&A) in the middle of the 20th century, which is a museum that exhibits historical artefacts, but those artefacts are not retained by the museum indefinitely. The term itself was inspired by the Greek focus on concrete practices, and most children's folk festivals, and science and technology exhibitions and museums are included in this group. Currently, only a small number of museums follow this approach, including a range of galleries and hands-on displays.

According to Fanizzo (2006), while there are different views regarding what constitutes a 'national' museum, it can be argued that the core criterion should be who is responsible for financing or controlling them. Meanwhile, a typological approach suggested by the British National Museum Directors' Conference (National Museum Directors' Conference, 2002) was used by Wilson (1984) to explore what makes a museum 'national'. Instead of discussing financing or control, he focussed on function and capacity and determined that there are three types of museum: monumental museums, state museums of national culture, and specialist national foundations. Monumental museums are those like the British Museum, the State Hermitage Museum, and the Louvre, namely those that showcase the achievements and understanding of people through collected works.

They are usually built as, or transform into, national museums (Fanizzo, 2006). In contrast, the purpose of a state museum of national culture is to display the history and objectives of a country, and such museums play a significant role in the creation or reconstruction of a national identity, especially for new states. Examples of such institutions include the Hungarian National Museum, the National Museum of Helsinki, and the National Museum of Ireland, which communicate the nation's values at a time of war or political mutiny. In another example, after Franco's death in 1975, the Italian government began supporting the country's museums financially, realising that they played an important part in reinforcing democracy through celebration, instead of suppression, or the creation of ethnic or regional differences.

Museums can therefore be differentiated typologically, and throughout the twentieth century, various governments established a range of museum-like units that were similar to national shrines that are of historic or scientific significance, in order to preserve artefacts that are deemed to be of historical importance.

2.1.5. Intangible Materials in the Middle East

In their research, Blake and Mayer (2015) examined the matter of intangible material culture and the approach to it in the practice of museums in the Middle East. This is a region that is rich in world heritage sites and where there is a complex relationship with the archaeological, ethnographic, and museological practices of the European scientists who originally collected cultural materials, and which served a purpose in the colonial to post-colonial

transformation. Consequently, certain implications of the identification, interpretation, and presentation of the intangible aspects of Middle Eastern heritage must be considered. As Blake and Mayer (2015) noted, a tendency has been identified to design museum spaces geared towards tourists, replacing the needs of colonial powers by those of another international audience and serving the needs of local community. In the case of Tunisia, unlike in other countries in the region, efforts to decolonialise its museum following the country's independence did not result in the de-ethnographisation of material culture; rather, the demands of the newly independent state led to a complete epistemological transformation in the presentation of the old colonial collections of indigenous art. Indeed, the museum, and museology, can be a social agent, and museum institutions should serve as a venue for marginalised groups to be heard and alternative narratives to be explored. This view illuminates the behind-the-scenes considerations of curators, as well as the way in which a novel museum concept might be useful for enabling visitors to construct a new view of history; in the case of Tunisia, by integrating daily artefacts from Tunisian life to create a distinct sense of worth and belonging for their audience. This enables a museum to be a place where postcolonial nationalism, national identity, and mythologies collide (Rey, 2019).

When discussing the approach of the palace of Dar Ben Abdallah in Tunis to "traditional museum exhibitionary practices," Rey (2019) described it as "far more intimate and sensory." Indeed, this approach was reflected in the way the article in question was structured around an interview with Sonia Hamzawi, the palace's curator, employing an anecdotal approach to lend the piece a sense

of immediacy and intimacy. However, when asked about the potential of constructing an 'open air' museum where artisans labour in recreated conditions, Hamzawi dismissed the idea as an overly objectifying and a fairly futile exercise, citing the need to hire actors to "re-enact their own traditions" as an example. Rather, she and her team intended to hold seminars and activities in conjunction with the exhibition, not only for tourists, but also, and most significantly, for locals, believing that by doing so the palace museum and its collection would become more significant and meaningful to an audience whose own heritage, most of it intangible, was the subject of the exhibition.

As mentioned, it was meaningful to consider all these implications for the interpretation of intangible aspects of heritage in the Middle East. They imply that museology and the concept of the museum represent social factors and that museum institutions should be places of investigation where visitors can explore alternative narratives in multiple categories. Ultimately, this enables museums to be places where national identity and other elements meet.

2.1.6. Expression of Identity in Museum Architecture

Several previous studies of museum design considered exhibition making and architectural forms (MacLeod, 2007; MacLeod et al., 2012), exploring the relationship between architecture and identity in museum studies, and in particular the way in which physical materials can be used to generate narrative and tell stories in the museum space.

For instance, MacLeod (2012) discussed the politics of museum making and offered interesting insights into the discussion of the need for cultural spaces that enable memory, imagination, and anticipation as routes to identity formation. Primarily, most developing countries consider museum design, including architectural characteristics, as a tool for promoting an identity and for enhancing the visitor experience, and a number of extant studies addressed the matter of reinforcing national identity via architecture, with many describing the role of the museum as a cultural centre that allows the visitor to comprehend more about the particular nation or state. While Alraouf (2014) criticised the concept of using museums as catalyst for the branding a city, it should be noted that architecture has been used in cities as a strategic communication tool to improve a city's image throughout history. As Çetinkaya and Geçit (2012, p.8) argued,

[C]ontemporary art museums [as] contemporary architecture structures are great investments for the economic development of the city. The main target for the museum buildings is to make them a symbol for city with different architecture within this scope and will be a landmark. In this respect, we see the definition of 'museum as an image' circulating in the media for the sake of brand value of the city and global cultural capital.

This approach is evident in certain Gulf region cities, such as Dubai, Doha, and Riyadh, although the boom in constructing museums in Gulf capitals has exposed a number of controversial points. As Alraouf (2014) noted, since the beginning of this century, the use of museums as a form through which to create national identity has

flourished in the Gulf States, a fact echoed by Erskine (2012), who explained that museum creation and building has grown extensively in the Arab peninsula, particularly in the United Arab Emirates (UAE) and Qatar. The museums concerned were perceived not only as a symbol of modernity, but also as a manifestation of the transformation of these Gulf cities into global destinations. This shift in using architecture as a tool to emphasise local identity is currently evident in several Gulf cities. In the case of Saudi Arabia, the change in the architectural language used for building museums is significant, and worthy of a more in-depth analysis.

An understanding of museums is an important element in analysing the architecture of museums. Most previous studies considered the museum building to be a monument, and the SNM was analysed in this way by a number of scholars, including Cassola (2016) in his article 'The Saudi Arabian National Museum: Unexpected Collections and Narratives', in the book *'Representing the Nation'*, edited by Erskine-Loftus, Al-Mulla and Hightower (2016), which focused on the display of specific objects and the presence of copies within a museum, as well as how their use is understood in the context of a national museum. However, a number of questions regarding how national identity is constructed and experienced through the museum design and visitor experience of the SNM remain to be addressed. Due to the emergence of the new museums in the Gulf region, it is important to understand the role of their architecture in expressing a national identity that will attract local, regional, and international visitors. Specifically, it is necessary to investigate the role of the architecture of these museums in reshaping the national identity. While Gulf cities do not currently attract high numbers of museum

visitors, a focus on their museums as a source of satisfactory visitor experience, and in creating a sense of identity and belonging for Saudi nationals will aid in promoting better community integration with the museum displays, spaces, and buildings.

2.1.7. Overview of Gulf Region National Museums

While the modern era has witnessed a spread of museums globally, and the maintenance of their role in the cultural context in both Europe and North America, the context of Gulf and Arab countries is rather different. The local understanding of the term 'museum' differs from Western interpretations, and they are seen as an entity for the elite. This means that museums are viewed as institutions that do not speak to the whole community (Alraouf, 2014). Nevertheless, in the last 20 years various developments in the museum world have been accredited to Gulf countries, despite their late involvement in the world of museums. Almost a thousand years of the history of Arabs is now remembered by the new museums around the Middle East, and these museums have highly valued artefacts that are carefully curated (see Figure 2.1).

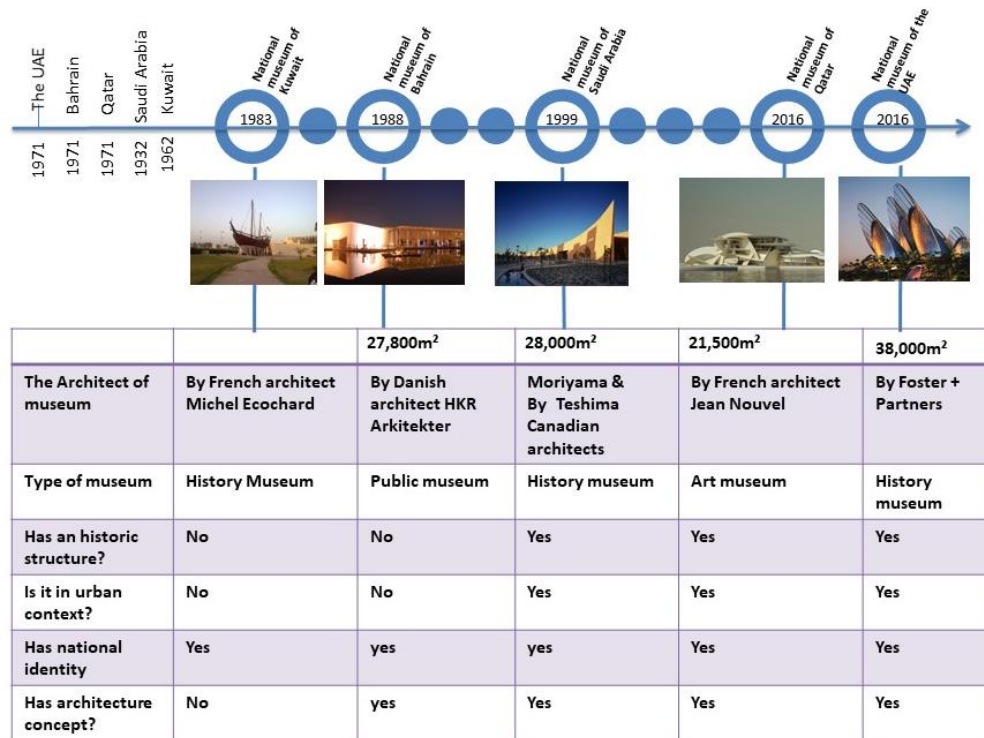


Figure 2-1. Timeline of museum establishment in GCC countries.

Source: by the researcher

The demand for the establishment of new, modern museums in the Gulf countries is currently increasing, and there is a requirement to showcase both the previous culture and the modern culture of the region. The countries of Qatar and the UAE are forerunners in meeting this demand, linking the nation and museums, in order to attract Western commissions and to recruit prominent architects, such as Jean Nouvel and Foster and Partners, to design their museums. A concerted political drive has the potential to assist in developing more such institutions that will help in the creation of modern cultural attractions, as the practice of presenting an honourable image of Gulf heritage and history to foreign audiences and citizens through national museums has gained immense popularity. The design of existing museums was undertaken by well-known architects; for instance, the Qatari National Museum was

designed by the French architect Jean Nouvel, and the UAE's Zayed National Museum was designed by Fosters and Partners, who won the Pritzker-Prize. The goal of these architects was to reflect both the country's aspirations and recent rapid evolution, and to convey an image of the country's culture. Although most Gulf governments currently encourage the development of prestigious museums designed by the most prestigious architects, this may be influenced by the prevalent political conditions.

In the context of the visibility and the legacy of the national museums in the Gulf region, a number of aspects must be considered. First, it is important that they promote a sense of satisfaction and pride among the country's citizens, as well as a sense of identity and belonging. In addition, it should be remembered that most schools in the Gulf states have a policy of taking their students on tours of museums, accompanied by a guide. On such tours, the students are able to use the technology available to facilitate their understanding regarding the artefacts displayed. The national museums of the Gulf states also play a pivotal role in enhancing the understanding of millions of international and national visitors of the country in which they are located. Alongside the materials displayed, the architectural form and design of the museum reflects the rich Middle Eastern heritage, and attracts millions of tourists from all around the world (Alqassim, 2016).

2.1.7.1. The Development of Museums in the Arab Gulf States

Numerous previous studies documented multiple research museums in the Gulf states. In many of the Arabian Gulf states, the 21st century has witnessed an observable growth in the museum market. For

example, Wakefield (2013) reported the ways in which these countries have taken advantage of their large mineral and petroleum resources to participate in growth and modernisation, including the conversion of minor urban areas into large business cities. This shift can be observed in cities such as Abu-Dhabi, Kuwait, and Doha, which mimic the urban centres of cities such as Los Angeles, Hong Kong, and New York. In addition, Wakefield (2013) explained that while these contemporary museums are historically modest organisations that concentrate on national pride and rely on models and frameworks inherited from foreign museums, the extant museums in all the Arab nations are currently witnessing immense success. Moreover, as was evident in the overview of the latest changes in the museum market in the Gulf states, all of their museums were firmly connected with the respective country's historical environment (Wakefield,2013). According to Bounchenaki (2011), In a *New York Times* article on 29 November 2010, Ouroussoff observed that many of the objects exhibited in these museums were identified, examined, and introduced by Western specialists. As a symbol of their pride in their Arabic-Islamic heritage, and also of their desire to engage in the global marketplace, these museums sought to provide value for both local and foreign audiences. This fact was supported by Dr Ulrika Al Khamis, the counsellor to the Museum of Sharjah, in an article by (Bouchenaki, 2011), which nevertheless argued that a more thorough examination of the impact of the museums of the Gulf region at the regional, local, and foreign level is required, and claimed that the principle behind the benefits for these stakeholders forms part of a broader initiative that plays a vital role in the culture concerned.

2.1.7.2. Museum Development in the Gulf: Narrative and Architecture.

How can Representations of the Past Influence Tomorrow's Culture?

A recent study titled 'An outline of the shape and role of modern museums in Bahrain, Qatar, the UAE and Saudi Arabia' provided an overview by Sarina Wakefield (2015), an expert in heritage and museum creation in the Middle East, which demonstrated that such organisations currently focus on locally important and unique cultures and traditional objects for a foreign audience, in order to establish their distinctive identity.

As discussed previously, museums throughout the Gulf have heeded the need to employ popular architects on the world stage to design their new iconic landmarks. However, many of these have been criticised for attempting to turn the museums into Western-style structures that are detrimental to the local cultural heritage and culture. By studying the architectural type and function of the modern museums in the Gulf region in general, Wakefield (2015) argued that it is essential to understand how various elements of history are being utilised to build distinctive identities to target a worldwide audience, utilising locally inspired concepts.

2.1.7.3. Negotiation of Identity Reflection in the Gulf Museums

The recently developed museums in the Gulf region demonstrated the current desire to showcase national, regional, and international identities, and to ensure that the buildings are globally recognised and admired. Examples of such institutions are discussed below.

- The National Museum of Saudi Arabia: An Islamic Centre

Museums in the Islamic countries are currently being developed and are growing in significance in this region. The use of global architecture for museum buildings was initially intended to enhance their artistic value, but ultimately resulted in a reflection of foreign values as well as local cultural and regional architectural features. For example, one local feature is the dominant design concept of the National Museum of Saudi Arabia, as manifest in its curved wall directed towards Mecca (Figure 2-2).



Figure 2-2. The National Museum of Saudi Arabia (Source: <https://mtarch.com/projects/saudi-arabia-national-museum/>).

- Qatar Museums: Nation and Identity

The architecture and collections of Qatar Museum seek to convey the country's rich cultural heritage, presenting the history of the region

and its Islamic roots as the most important features of the country's current identity. One example of the design by architect Jean Nouvel was inspired by the desert rose used to denote Qatar's history by evoking the desert's eternal nature and fluidity (see Figure 2-3).



Figure 2-3. National Museum of Qatar (Source: <https://architizer.com/blog/practice/details/national-museum-of-qatar/>).

- Bahrain: Architecture and the Pre-Islamic Past

In order to express the historical significance of Bahrain, aspects of the pre-existing national museum were intentionally incorporated in the new museum. As Wakefield (2015, p.25) explained, "by drawing influence from local vernacular form and the country's archaeological past, Bahrain's museums are used to position the kingdom as a powerful centre in the region and to reinforce the importance of its continued role as a contemporary trading hub" (Figure 2-4).



Figure 2-4. The Bahrain National Museum (Source: Wakefield, 2015, p.24).

- Abu Dhabi: Architecture and Global Imagining

The multi-national museum architecture and collections of the museums in Abu Dhabi promoted a diverse identity, as Sadyat Island was developed into a tourist destination that includes the Louvre Abu Dhabi, the Guggenheim Abu Dhabi, the Zayed National Museum, and the Performing Arts Centre, thereby creating an icon that reflects the UAE identity through international and global brands and architects, such as Foster and Partners and Frank Gehry (Wakefield 2015).

Lastly, it is very clear that museum development in the Gulf—in terms of narrative, architecture, and the negotiation of how museums reflect identity—represents a turning point, reflecting an understanding of the term *museum* in the Gulf countries that differs from Western interpretations. The recruiting of prominent architects promoted a sense of satisfaction and pride among the countries' citizens as well as a sense of identity and belonging.

2.1.8. Transition of Gulf Societies

Recently, certain steps have been taken by the Gulf states to enable their citizens to feel a sense of belonging to their nation by promoting national identity and by encouraging a stronger sense of affiliation with their nation. Subsequently, there has been a significant change in the behaviour of the citizens of Gulf society that was initially politically determined, due to religious or cultural discrimination, with people only able to advance if they were of Islamic and Arab identity. The reinforcement of national identity in the Gulf States, and its effect on Gulf society, is evident in the work of researchers affiliated with the GCC (Diwan 2016). Moreover, ways to promote new behaviours have been explored enthusiastically by all of the Arab Gulf States, seeking to forge a connection between their citizens and their nations.

Although there has been much debate on the subject of promoting national identity among Gulf citizens, it is clear that all the Arab Gulf states have enthusiastically explored new actions in seeking to forge connections between citizens and their nations.

2.1.9. Gulf Nationalism

In recent years, the UAE has struggled with two challenges that must be addressed to strengthen the national identity, and to develop the notion of national belonging. The first challenge is a demographic threat, due to the percentage of refugees and workers entering the UAE from other countries, while the second is the security threat that has arisen as the result of the strengthening of multinational identities with a narrow focus that challenges the identity of the

nation. In order to combat these challenges, certain private institutions have developed a national identity programme, known as 'Watani', which means 'my nation'. The programme seeks to reinforce the national sense of belonging, and to create an identity that is relevant to all the country's citizens by reconceptualising national identity through common values, instead of common language, race, religion, or dress. The development of such national identity programmes was encouraged by the country's emphasis on economic, political, and geopolitical factors (Diwan, 2016).

In her exploration of nationalism, Koch (2015,p.536) explained

how the discourses and practices surrounding falconry actively buttress several uneven 'power-geometries' between people of varying political statuses. The heritage discourse that links falconry to primordial Arab traditions produces the image of an ethnically-imbued national homeland, strategically affirming and naturalising Gulf nationals' 'deep rootedness', while quietly writing non-citizen residents with long histories in the region, as well as women, out of the landscape. Seemingly banal, the tropes and practices surrounding falconry play an important role in legitimating prevailing structural inequalities in the Gulf, but also farther afield in South and Central Asia, as well as Northern Africa.

This is relevant to the case of the UAE, as the country's elite is currently actively mobilising the heritage discourse to craft a particular image of the state for international consumption, one that is strategically designed to connect the illicit hunting and patronage

practices that presently link Gulf Arab leaders and various regimes abroad. The ethno-nationalist, masculinist, and elitist practices surrounding modern Gulf falconry suggest that it is not an historical pastime, rather one that is firmly embedded in contemporary power structures. By coding falconry as a 'heritage sport', nationalist narratives not only elide the recentness of its invention, as is frequently the case (Hobsbawm, 1983), they also blur and sanitise the highly political questions of socio-political inequalities, and erase them from the landscape. When approached through the lens of political geography, the practice of falconry thus emerges not as a mere 'heritage sport' to be hailed and revered, but as a form of geo-power, operationalising, institutionalising, and constituting territorial regimes of power.

The UAE represents a comprehensive case of a nation that is actively using heritage discourse to create a specific image of the state for international consumption. Despite the multiplicity of programmes contributing to the development of the concept of national belonging in the UAE, the challenges described above contributed to reformulating that concept through common values. When viewed through the lens of political geography, the practice of falconry thus emerges not as a mere "heritage sport" to be hailed and revered but as a form of geo-power that operationalises, institutionalises, and constitutes territorial regimes of power.

2.1.10. Mechanisms for Constructing National Identity

A sense of national identity is developing gradually in the Gulf States as a result of the efforts of social and cultural institutions, and is being purposely shaped by the state. This section discusses this evolution using three particular examples: urban expansion in the UAE, museums in Qatar, and the King Abdullah Centre for the National Dialogue in Saudi Arabia (Qassemi 2016).

The government of the UAE sought to promote the national identity of the region via top-down projects as developed by Sheikh Zayed-al-Nahyan, the founder of Abu Dhabi who gathered the many different strands of tribal legacy under a single national character. Over time, many aspects of the country's culture changed: celebrations and parades became more interactive, and were made accessible to all members of society, regardless of individual differences. Official national celebrations, national days, and heritage villages that were once strictly regulated and controlled became more interactive for everyone. The UAE National Day parades that in the 1970s were solely military in nature became joyful events for all citizens, who participate by decorating their cars with pictures of the sheikh, national flags, and occasionally flags of different countries. While previously these heritage festivals were intended for foreigners, and sought to present an image of life before the country's oil boom, they subsequently became more widely participatory (Diwan 2016).

National identity can be defined according to the degree of importance the institutions of a state assign to their national

museums. In the case of the National Museum of Qatar, it is striking that it includes the narratives of both the Hadhars and the Bedouins, the two settled populations resident in Qatar that have become merged. The Qatar nation recognises the blended identity of these two populations, namely the initial nomadic people known as the Hadhars, and the Arabs or the Bedouins. It is often assumed that it is the wealth of the Gulf States that has enabled the focus of power to be on the social and political aims of leadership (Diwan 2016).

A third and final example of a mechanism employed in the construction of national identity highlights the importance of considering a specific social environment when a state programme seeks to develop a sense of nationalism. In the case of Saudi Arabia, this environment was the Al-Jenadriyah traditional and cultural festivals that include camel and horse races, sword dancing, poetry, music, and crafts such as carpet weaving, pottery, local costumes, and different kinds of food. The Al-Jenadriyah village lies near Riyadh, and it is divided into two sections in accordance with provinces of Saudi Arabia; each pavilion or area exhibits the specific culture, architecture, food, dances, traditional dress, and crafts of that area, and also includes youth sport clubs, literature and culture clubs, art corners, historical sites, and national museums (Diwan 2016).

2.1.10.1. Falconry as a Living Human Heritage in the case of the UAE

In the UAE, the practice of falconry has a value that exceeds it as merely a sport, as it is considered to be characteristic of the country's cultural heritage. In modern UAE society, falconry has been redefined and has been elevated from a necessity in life to a cultural sport that plays an important role in various contexts. As well as constituting

part of the UAE's national history, and an important element of the Zayed National Museum in Abu Dhabi, it has been named a living human heritage by United Nations Educational, Scientific and Cultural Organisation (UNESCO). The contributions of falconry to the development of various heritage identities in the country is explored in this section (Wakefield 2012).

In order to understand the evolution of the practice of falconry, its role as a leisure sport, and its significance for the local community in the present-day UAE, it is necessary to consider the wider context, as well as the way in which it will be represented in the national story reflected in the planned Zayed National Museum in Abu Dhabi, along with the multinational role of falconry. These various aspects of falconry highlight the development of the local, national, and multinational identities of the country in the context of the global vision of the UAE for its heritage (Wakefield 2012).

The significance of falconry for the present-day culture of the UAE is underscored by its inclusion in Abu Dhabi's Zayed National Museum. It is commonly accepted that heritage is one of the most important core tools for creating and developing a national identity (Meskell 2010). Hence, the visual illustration of aspects of culture is important for symbolising the communal bonds of the nation, as it encourages the forging of new political and social links that shape a particular representation of the history of the national identity concerned. Nations are thereby transformed into imaginary concepts that can be explained and preserved (Anderson, 2006) in the form of flags, anthems, rituals, and traditions that have symbolic meaning within themselves. This practice can be seen as a significant part of

heritage, and can become more than a simple concept when certain aspects are transformed into a national symbol, or the symbol of a nation's people. National museums are central to achieving the goal of representing the history of a nation by showcasing its culture and history in a way that the present generation can relate to.

The Tourism Development Investment Corporation (TDIC), in collaboration with Fosters and Partners, is currently developing the Zayed National Museum in Abu-Dhabi, within the Saadiyat Island project in the UAE. This museum will incorporate Frank Gehry's Guggenheim, Jean Nouvel's Louvre, Zaha Hadid's Performing Arts Centre, and Tadao Ando's Maritime Museum (ATCA), and as a \$27 billion project funded by the government will be one of the largest focused institutions of culture in the world. The Zayed National Museum is intended to be one of the most significant developments in the history of the UAE, and was developed with professional assistance from the British Museum in the UK. It is intended to honour the life and legacy of the five pillars that represent the life of H.H Sheikh Zayed Bin Sultan Al Nayhan, the first ruler of Abu Dhabi, with five galleries representing the five stages of his life: education, conservation, protection of the environment, preservation of heritage, and celebration of success (see Figure 2-5).



Figure 2-5. Zayed National Museum of Arab United Emirates
(Source: <https://www.fosterandpartners.com/projects/zayed-national-museum/>).

One of the most important themes of the museum is falconry, which is represented symbolically in the architecture that was designed by Norman Foster, a Pritzker Prize-winning architect, whose building design was inspired by the wings of the falcon, used as the symbol of the culture and heritage of UAE (2007). The five towers of the museum, constructed from a lightweight steel, form the shape of falcon wings rising from an artificial hill that covers the public lobby. In the most important part of the museum, falconry as the favourite hobby of the late ruler will be highlighted, and there will be an opportunity for visitors to engage in aspects of falconry, including trapping, training, and hunting, with films of falconry shown in the conservation centre. Falconry will thereby constitute an informational purpose that will help to nurture a sense of nationhood for both local and international audiences (Wakefield, 2012).

In the modern fast-moving and increasingly global world, the study of how heritage is formed and utilised must evolve, and it has been suggested that the customs of industry and tradition should be included, given their role in worldwide interconnected systems (Robins, 1991). The significance of international heritage was acknowledged by the Abu Dhabi Authority for Culture and Heritage (ADACH), who explained

This institute plays a role in spreading information and awareness and depicting a true picture of our culture and heritage. The activities of this institute are recognised on both local and international levels as we tend to appreciate the cultures we are associated with.

Through its recognition as a living human heritage in UNESCO's listing of the Intangible Cultural Heritage of Humanity, the UAE's falconry heritage has gained international fame. The dissemination of knowledge regarding multinational heritage can be undertaken in various ways, including the lending of items, travelling exhibitions visiting a range of heritage groups, and the recognition of heritage sites themselves. As an organisation, UNESCO oversees the recognition of heritage at a multinational level, and its approach was embraced by the UAE in its design of the global Falconry File. Their commitment was expressed in a public report released by the UAE, which stated by (Wakefield, 2012, p.287) that, "the efforts made by the leadership have contributed to the protection of this human heritage and have encouraged cooperation between different peoples and civilisations". The Abu Dhabi government thereby adopted UNESCO's multicultural discourse, deliberately using trans-national

language to frame the nation's national heritage within an international framework. According to UNESCO, the purpose of supporting the growth of multicultural projects is to minimise the disruptive consequences of 'globalisation', as 'world heritage', in forms such as world fairs and museums, which is important to the entire world for both economic and image reasons (Kirshenblatt-Gimblett, 2006). Therefore, UNESCO's role in world heritage is key for the development and dissemination of international culture via its promotion of the significance of world heritage in the modern world (Wakefield, 2012).

As this section demonstrated, for the UAE falconry is far more than simply an activity or a hobby; it is central to the cultural heritage of the region. As with all aspects of heritage, sporting heritage recognises several influences, such as society, literature, experience, and custom, in order to cater to the needs of the moment. In the UAE, the practice of falconry has been reconceptualised as a social activity, as well as a cultural product of modern society, as it is no longer a practice that is essential for the maintenance of life, due to the easy accessibility of food in the modern world. While it can be claimed that falconry is not intrinsically beneficial, as it once was, the fact that it has become a cultural mechanism operating at a regional, national, and multinational level lends it value in modern times. Contemporary cultural heritage advancements in the UAE relate as much to the maintenance and portrayal of tradition as they do to the integration of the UAE in global heritage, via the cultural tool of falconry as a heritage sport (Wakefield, 2012).

2.1.10.2. Modernity as a Living Human Heritage in the Case of Qatar

It is often remarked, particularly by Western experts, that 'There is no heritage in Qatar'. However, the focus of these individuals may be the notion of 'cultural heritage', and the assumption that this is lacking in terms of 'Qatari heritage'. Nevertheless, the discourse on modern heritage includes a number of interesting strands concerning the conceptual and analytical methods for researching the cultural heritage of Qatar, and raises the question of to whom the understanding of cultural heritage is important, and how it should be perceived. This underlines the value of studying the development of heritage as a framework at community level, and of the organisations that maintain the unique aspects of cultural heritage under their authority. Indeed, Qatar's population growth and arrival on the world stage was an indication of a dynamic framework for the development of cultural heritage (Etherington, 2010).

Part of the analysis of modern Qatari culture and identity includes its heritage at a national level, and the recognition of nationally-created Qatari heritage theories and principles. The discussion recognises the problems that lie in understanding the development, maintenance, and function of heritage in the country, and involve the positioning of the heritage discussion within a wider context that considers the importance of heritage discussions focusing on the Middle East, the development and retrogression of the inflexible 'Gulf' or 'Arab' heritage ideologies, and the cultural mechanisms currently occurring in the Arabian Peninsula.

The interpretation of Qatar's heritage tends to be traditional in nature, focussing on archaeology and museums and their

organisation, but also encompassing the less-discussed heritage frameworks that represent the complexities of the state's individuality, such as the engagement of an indigenous language in the function of new and old individuality. Moreover, of particular interest is the consideration of the conceptual and methodological barriers in the analysis of cultural history under specific circumstances, as a preliminary step towards more advanced studies in this field. This is because, in general, studies of cultural activities in the Gulf are currently limited, therefore it is important to identify the problems, summarise the discussion, and suggest methods for further study (Rico, 2013).

In 1971, after ruling Qatar as part of its territories since 1916, the British departed, leaving Qatar to be a separate, self-governing nation. The country subsequently announced its sovereignty from the union of seven emirates, which now include the UAE. As a result of the country's natural gas and oil sales, economic growth has been on-going, generating a trend for an industrially-based culture that has culminated in a huge increase in the number of migrant employees at every level to work in Qatar's oil, gas, and other commercial businesses, as well as the construction industry. This caused an almost immediate desire to promote a style of living and ethnic identity and ideology within the rapidly evolving situation. In the 1970s, these accelerated changes resulted in the rise of the notion of defining and restoring the country's former ethnic identity as a 'heritage'. In Qatar and the neighbouring Gulf states, early phase heritage activities adopted a familiar form, with the development of the countries' national museums showcasing the national archaeology and ethnography (Rico, 2013).

In 1975, Qatar's national museum was opened in the Old Royal Palace, displaying archaeological artefacts, different ethnic materials, and objects related to the pearl industry and dhows, as well as aquaria from different countries. Various materials were gathered from the museum of Bahrain (1971) and Saudi Arabia (1974) that had been collected by different international archaeologists working since the 1950s (Rice and Gibbons, 1994), and these were merged to form a combined national museum. According to Exell and Rico (2013), this museum was created for two purposes: to showcase the cultures of past, and to implement them in the present. The museum's creation was considered to be important because at the time, the countries concerned were undertaking new development whilst forgetting their historic past. The museum of Qatar was therefore chosen to retain artefacts from the culture and traditions of the Gulf states, and remained an icon of identity for almost 40 years (Rico, 2013). It was awarded the Agha Khan award for showcasing the most ancient Islamic architecture (Alraouf, 2010), including many key cultural examples, such as those from heritage buildings in Doha, and buildings that were constructed in late 1900s and early 2000s, such as the pearl merchant houses. As rapid urban development threatened the development of Qatar, Llewelyn Davies and William Pereira reshaped the city into the form of a crescent cornice that connected the museum of Islamic art and the new businesses and residential areas of West Bay. Currently, the building remains in use for both domestic and international travellers, and plays a role in developing new modern architectural styles using original materials.

Following the 1995 coronation of Sheikh Hammad Bin Khalifa as Emir of Qatar, cultural development began to be recognised, and reforms

were introduced to both the Islamic culture and the tourism sector. In 1998, the Council of Art and Heritage was formed, which led to the formation of the Qatar Tourist Authority in 2000. In 2005, the Qatar Muslim Authority was established, and in 2008, in a building designed by the architect I M Pei, the Museum of Islamic Art was established. A new National Museum was constructed in 2016, designed by Jean Nouvel, which was recognised internationally as highlighting both Arab and Islamic culture; the old museum preserved the art of the nation's historic cultures, and the new museum curated objects from the modern world (2015), recognising that historical cultures can also be seen in a modern light, and also highlighting the value of the past (Raban [1979] 1987, 83). (Rico 2013).

A consideration of this evolution as demonstrated in three key examples—urban expansion in the UAE, museums in Qatar, and the King Abdulaziz Centre for National Dialogue in Saudi Arabia—certainly illustrates the developing sense of nationalism that is purposely being shaped by the Gulf countries through efforts promoting the social environments and characteristics of the countries' cultural heritage, such as falconry in the UAE.



Figure 2-6. Qatar National Museum (Source: <https://architizer.com/blog/practice/details/national-museum-of-qatar/>).

2.1.11. Summary

This chapter constituted the first part of the literature review, and commenced by surveying the extant views of the museum's role in improving society and reflecting a culture of nation. It then discussed the role of museum architecture in shaping the concept of national identity. Several previous studies highlighted the significance of visitor experience and its impact on a museum's design and exhibition spaces, exploring the ways in which national museums have been used as a cultural and tourism destination in the context of Gulf countries. This review of the extant literature in the field informed the present study's investigation of the museum space and experience in the SNM.

The next part of the literature review explores how the museum as an institution can articulate frameworks or theories in museum design, space, and exhibition, as well as addressing the subject of linguistics and its application within architectural design and interpretation. to evaluate the link and contradictions between these frameworks and the real experience of narrative museum design, space, and display the concept of encoding and decoding was presented to handle this relationship by considering the sign conflict in the SNM between these two producer encodings. For instance, the relationship between elements such as architects, designers, or curators and the receiver's decoding by museum visitors in terms of their feelings, perceptions, and experiences through various paradigms of identity expression and design principles that enhance the meaning's value.

2.2. Part Two of the Literature Review. Theoretical Tools: Narrative, Exhibition, and Visitors

This part of the literature review explores various frameworks, tools, and theories of narrative as effective vehicles for understanding museum environments in the context of the promotion of identity. According to Barthes (1975, p.237), a narrative is “present at all times, in all places, in all societies.” This chapter’s theoretical exploration of the narrative discourse seeks to build on the existing literature, and to emphasise the role of architecture in the process of constructing meaning. In addition, this section explores the sociological studies concerning physical and material engagement that enable the emergence of new perspectives that can be further explored in these fields.

2.2.1. Linguistic Theory

In the twentieth century, the field of linguistics was expanded significantly by the work of the Swiss linguist, Ferdinand de Saussure (1857-1913), who posited that the language operates in two systems: the language and the parole. The parole is the act of speech for which the language serves as a medium. Speech is significant in both social and individual contexts for the purpose of sound making and hearing, however language is not only used for speaking, it is also used as a source of transferring the significant agreements developed by the individual to allow other individuals to act accordingly. According to Saussure (1916), language serves as an independent source as well as a principle of classification. The study of Language is improved by the use linguistics, and Saussure (1916) made significant contributions to the field of linguistics by developing the concept of structuralism, which describes a free-will process of experiencing various behaviours from different perspectives, which contends that language consists of signs and their signification, whose interpretation is possible only in relation to one another within the system of language' This concept was broadly embraced in France in the early 1960s, and Roland Barthes (1916–1980)—a French literary theorist, philosopher, and critic who was influenced by Saussure—subsequently studied the implementation of language in structuralism, publishing *Elements of Semiology* in 1977 as a reference manual for the linguistics of the twentieth century.

2.2.1.1. Denotation and Connotation

As a major theorist in the field of semiotics, the study of signs, when differentiating between the signified and signifier, Barthes (1968)

explained that the signified is not just any object, rather it is the representation of the sign that differs from the physical appearance of the sign or a sense impression. Thus, the signified is the sound image, or the mental concept, that appears in a human brain, whereas the signifier is the presentation of the signified in a material form like a sound, word, or image. In his theory, Barthes primarily employed the de Saussure analysis, which states that excluding the structure of an individual sign, the signs structure is formed in two planes: the syntagmatic plane (including a combination of signs), and the systematic plane (the plane associated with sign combination), explaining that de Saussure's theory was practically applicable to food menus, furniture, garments, and architecture systems. According to the concept, a building's presentation of levels, such as its floors, is an example of an architecture syntagmatic plane, whereas its windows, floors, and railings are an example of the systematic plane (Barthes, 1977).

Previously, semioticians examining architecture and the material fabric of different nations have understood the constructed external landscape to integrate a process of communication associated with the representative power of signs. The distinction between denotation and connotation is the guiding idea behind Roland Barthes' (1977) semiotic theory. He claims that by reading signs and sign-complexes, we are able to distinguish between different kinds of messages. Denotation is the "literal or obvious meaning" or the "first-order signifying system". For example, the denotative meaning of an image contains its literal, descriptive meaning. Connotation refers to "second-order signifying systems", which are additional cultural meanings we can locate within an image or text. Barthes (1977)

associated connotation with the operation of ideology (which he also refers to as "myth"). According to Barthes, "ideology or "myth" consists of deploying signifiers for the purpose of expressing and justifying the dominant values of a given society, class, or historical period (the signs express not just "themselves", but also the value systems that surround them). As myths, signs tend to appear "natural" and self-evident (although they are basically always artificial, and coded), hiding the operation of ideology.

2.2.1.2. Encoding and Decoding

Encoding and decoding models were suggested by (Hall, 1973/1992, p.18) who described messages as reproductions in a constant circuit of "determinate moment" of producers' encoding and receivers' decoding. Specifically, this thesis addresses the tension between the perspectives of encoding and decoding by uncovering how the museum communicates and expresses a specific national identity. As Hall (1973/1992, p.18) argued that the encoding and decoding through "all the complex rules by which language signifies" is a necessary precondition, not simply for any mediated communication, but also for all "intelligible discourse". These encoding and decoding practices are components of language processes that signify meaning and ideological value in a discourse (Hallgren, 2018).

Meanwhile, Chandler (1994, p.38) made a complex distinction between the content and form, explaining that

The linguist Louis Hjelmslev acknowledged that 'there can be no content without an expression, or expressionless content; neither can there be an expression without a content, or

content-less expression' (Hjelmslev, 1961, 49). However, he offered a framework which facilitated analytical distinctions (ibid., 47ff). Whilst he referred to 'planes' of expression and content (Saussure's signifier and signified), he enriched this model (ibid., 60). His contribution was to suggest that both expression and content have substance and form. Thus, there are four categories: substance of expression, form of expression, substance of content, form of content. Various theorists such as Christian Metz have built upon this theoretical distinction and they differ somewhat in what they assign to the four categories (see Tudor, 1974, p.110; Baggaley and Duck, 1976, p.149; Metz, 1981).

The sign, signified, and signifier were also described by Barthes (1977) through the use of planes, known as the Plane of Expression, represented as (E), or the Plane of Content, represented as (C), and the relationship between the two (R) to determine a statement's meaning. As (Allen, 2003) explained the need for moving the relation (R) between (E) and (C), and thus to a second order meaning (connotation) to make any sense of the statement. There is clearly another meaning implied in this statement and this meaning exists at the level of connotation. To move from the plane of denotation to connotation involves the same processes we have already seen in the reading of myth: we move from a first- order meaning (denotation) to a second order meaning (connotation). As Barthes adds the first system is then the plane of denotation and the second system (wider than the first) the plane of connotation. We shall therefore say that a connoted system is a system whose plane of expression is itself constituted by a signifying system (ESe, 149).

In Barthes(1977) view, every system of signification contains a plane of expression (signifier E) and a plane of content (signified C), and the relationship between these two planes is the signification (R). In Figure 2-7, the left rectangle represents signifier E, the right rectangle represents signified C, and the mark in the middle is the significance R. Thus, a sign is expressed in the system of ERC.



Figure 2-7. A sign expressed in the system of ERC.

Therefore, in different representations there are alterations of signs known as the denotation plane and connotation plane. In the first case, the illustration of a sign is considered to be the denotation plane of another sign's expression plane; in the second scenario, the sign's meaning is represented as the denotation plane of the other sign's content plane. For example, consider an architectural column where decoration and supporting is a representation of the functional meaning of column: the column is for the purpose of decoration purpose, or for the purpose of support, and both purposes can be used as a denotation of the architectural column's expression plane. However, if the columns are constructed of different substances, such as marble or steel, then the column would be considered a denotation of the architecture's content plane.

The terms 'denotation' and 'connotation' established by Barthes (1977), regarding how signs represent different cultures and ideologies can be illustrated in the following discussion.

The example discussed above shows that in the first scenario, the system represents the functional interpretation of the standing column, or this example can be elaborated upon in the use of the decorated column as the column's signifying system. Barthes' theory explains the system of meta-language, which refers to the fact that its plane of content is developed by the signifying system itself. Thus meta-language can be understood as the development of language, not because of a change of meaning, but because of human efforts. Irrespective of the functional point of view of a column's material and style, it highlights the meaning of material through its origin, and not the other innovations. Thus, in terms of signs, the interpretation of every material in architecture is developed on the basis of a connotations system through which every element of architecture is constructed and given meaning. According to Barthes (1977), the process of architecture can only occur through the creation of denoted elements.

In terms of the narrative, it illustrates that through the textual explanation, the interpretation of the semiotic model's limit can be described. Moreover, in order to introduce a specifically designed gallery for a national museum, the matter could be addressed through the descriptive meaning of the concept, illustrating that architecture can be considered a linguistic sign.

2.2.2. Narrative Theory

In daily life, the use of narrative is very common, and most people would recognise it as the conveyance of the meaning of a story. Meanwhile, communication scholars enhanced the understanding of the terminology of narrative that delivers messages in different areas and cultures. Narrative holds a very important position in human communication, ethnicity, and culture on daily basis, and this prompts the question of the source of the concept of narrative, and the nature of the elements it includes.

The retired professor of the English Department at the University of California, H. Porter Abbott (2005), defined narrative as the arrangement of mind, describing it as the constitution of story and how it is presented to others, wherein a story relates an incident or series of incidents, and the disclosure of a narrative concerns the presentation of these events. Based on these definitions, scholars subsequently developed two different views of narrative. Some, such as Prince (2008), who taught Modern French Literature at Pennsylvania University, believed that narrative is an important medium of verbal communication that involves revealing events through their linguistic presentation, which highlights the fact that for narration, there is a need for narrator. However, according to others, there is no requirement for a narrator in all cases, as there are many indicators that operate in that role (Prince, 2008).

2.2.2.1. Scales of Narrativity

In order to comprehend the narrative as part of the architectural experience of a museum, the theory known as the Axis of Narrativity

is commonly applied in the field of exhibition design and architectural practice through the narrative environment. This enhances the narrative scale approach and acknowledges that all environments are narrative in nature, to some degree, which aids in creating a coherent approach from low to high levels. The study by Austin (2012) provided insights into the means of categorising the perceived differences among the relationships between the narrative, and the physical or virtual spaces that tell stories through exhibitions (see Figure 2.8).

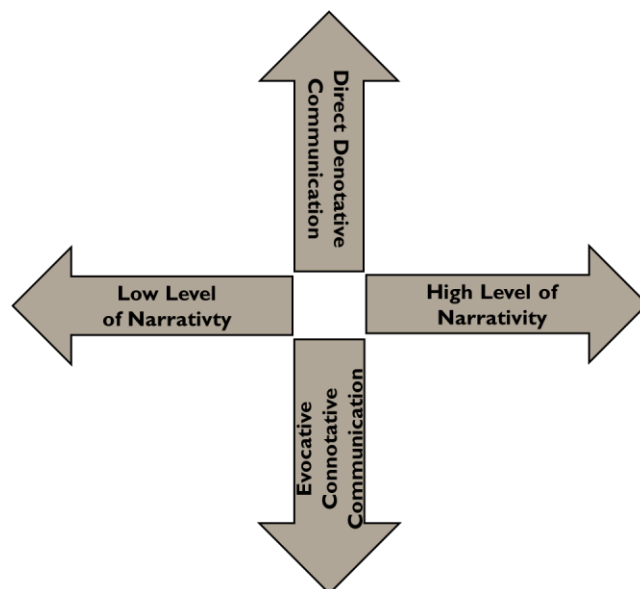


Figure 2-8. Axis of Narrativity (Source: adapted from Austin, 2012, p.113).

According to the horizontal model of the Axis of Narrativity proposed by Austin (2012), for the low level, knowledge of a place and knowledge of the history enables the interpretation of the routes in the form of a story. Meanwhile, a high level of narrativity can be exemplified by an immersive museum experience, in which an

exhibition engages the visitor by facilitating the physical through the use of image, videos, sounds, and interactive installations that lead the visitor through an evocative space that conveys the associative meanings of the materials concerned. These can include both documents and artefacts that are relevant to the narrative through the physical environment in which they are situated.

Consideration of this approach enables the identification of both a range of ideas and studies, and also the identification of the current gaps in research knowledge.

2.2.2.2. Narrative Representation

As Barthes (1977) explained, the need for narrative can be seen in every medium used for describing events, whether a painting, story, mime, drama, tragedy, fable, legend, history, news channel, cinema, or leaded window, as well as in communication. The media through which narrative portrays events differ from physical to verbal; in written presentations, such as story books and novels; and in the optical presentation of event, such as pictures, painting, or sculpture. Therefore, instead of a narrator, events can be represented through silent materials. Similarly, the medium through which events can be conveyed can differ. All representation modes of stories are media-based presentations of the events, whether the mode used for the narrative is written or visual. Moreover, it is assumed that the medium of air is used for the verbal presentation of storytelling. In written story-telling, words are used on any visible material, including board, fabric, or paper, on which words can be used to describe any event. In terms of the visual mode, symbolic or figurative elements

are used in physical objects, created from material such as marble, wherein a statue or image is used for the representation of an event.

In reality, the world is full of such elements. Storytelling conveys the experience of a person during the moment an incident occurred, and later the experience is portrayed through any physical medium. In this cognitive task of the presentation of events, by experiencing the incidents and later selecting the appropriate physical material to illustrate it, the person is not an observer of the circumstances; rather they are the contributor to what surround us in the world. According to Abbott (2005), humans lack data regarding themselves, other than in the form of narrative data, which indicates the importance of storytelling. Indeed, Brooks (1998) believed that as humans, our description of ourselves relies on stories, through which we communicate regarding the events in our life and in the world. In addition, humans imagine events while sleeping, when daydreaming, or in fantasies.

2.2.2.3. Text Interpretation

The text model developed by Ricoeur (2008), underlined the importance of the presentation and two concepts related to human science and natural science. Prior to this point, the meaning of the word 'text' was twofold: the first meaning explained text as anything presented in written form, and the second, described as 'text explanation', was also known as the 'interpretation model'. Moreover, the word 'disclosure' is used for both writing and speaking, and in linguistic terms, the sign is considered to be a basic unit, while for disclosure, the fundamental unit is the sentence.

As Ricoeur (2008) explained, there are four attributes to text presentation and sign presentation when explaining text in written form. First, disclosure is considered to be temporary and spontaneous, and the language system is virtual and independent of time. Second, in the presentation of a group of sentences, or any single sentence, it is important to incorporate grammatical elements, such as verbs and pronouns. However, sign's system does not have any such indications, thus the presentation is self-assured. The third key attribute is that any sign can only have an impact on another sign if they are in same system. Hence, the sign system is free, does not rely on any factor, and can survive on its own. In contrast, discourse is linked to the world it seeks to define, to present, or to express. In discourse, the illustrative function associated with language is recognised. According to de Saussure's (2011) analysis, the purpose of language is to convey ideas, although ideas are conveyed through discourse instead of a sign's system. The fourth attribute highlights the fact that the sign's system is used only to provide the communication code, whereas the discourse presents the interlocutors around the world and those to whom it is communicated.

Therefore, because understanding the terminology of narrative enables one to deliver messages in diverse areas and cultures, a consideration of the scales-of-narrativity approach, of all the representation modes of stories (whether the narrative mode is written or visual), and of the attributes of text and sign presentation when explaining text in written form enables one to identify both a range of ideas and studies and the current gaps in research knowledge.

2.2.3. Approaches to Narrative

2.2.3.1. Living Stories

Oral traditions and living stories can be used to review narrative; these include grand narratives that encompass the whole world, while defining the intimate details and peculiarities of the local situation. While the best approach to understanding living stories lies in experiencing them, rather than reviewing them from literature, there are two great texts that can be reviewed which form a basis for analysis. Meanwhile, intrinsic storytelling focuses on dialogue and conversations amongst indigenous people, and conforms to the oral traditions that are used in their daily life.

The essence of storytelling lies in humour, gossip, and creativity, and such stories often depict aspects of war and revenge. The theme of such stories portrays the culture concerned, and those stories, which are imbued with the qualities of a renowned individual, can be employed to ignite a sense of shared history and understanding (Smith, 1990). The study by Royal, (2007) considered Maori knowledge relating to New Zealanders, who sought connections between professional practices and Maori knowledge, and argued that there was almost no difference between the knowledge, language, treasures, and stories concerned. When Europeans arrived in New Zealand the eighteenth, nineteenth and twentieth centuries, there was an initial period of growth and change that caused many changes that endangered the Maori language and resulted in the loss of various aspects of it; however, the indigenous peoples' encounter with Europeans also engendered the creation of new knowledge and the creation of a new nation called 'New Zealand'. Important

elements of the Maori language survived, and have enabled the language to enter a creative period in Maori history and culture (Royal, 2007).

The concept of stories as fictional constructs is popular in the West, whereas indigenous people regard living stories as essential for conveying their view of the world. As Jeanette Armstrong, an Okanagan storyteller, explained, "The words spoken in my language tell me that I am the addressee rather than the speaker, the language tells me stories of the land and the Okanagan people, and when I speak, I am just retelling those stories, but in different patterns" (King, 2003). When traditional stories are incorporated in complex polyphonic structures, an issue of identity and representation arises, since these stories reflect the identity of the narrator. Indeed, it can be argued that the truth of stories is that they are our true reflection.

2.2.3.2. Structuralism Narratology

The Swiss linguist de Saussure's (2011) theory of language was the basis for the structuralist approach to narrative. In this theory of language, narratives are signified as signs that portray an underlying and important event. When the sign system was introduced, and the focus shifted from narrative reality dialect, the debate between factionalists and realists was automatically suppressed. Narrative is considered to be a formal systemic structure by narratologists, rather than a representation of life or reality; this view differentiates narratologists from traditional critics of narrative and narrative techniques (structuralism). The focus of narratologists is the study and investigation of how narratives function, and also the identification of the tropes and codes that govern all narratives, or at

least hold true for most narratives (Childers and Hentzi, 1995). Narratologist view narrative as a signifier that signifies the underlying set of events, while linguists study the relationship between the signifier (the meaningful sound or text) and the socially constructed concept that it evokes. Various terminologies exist for defining narratives. For instance, Bal (2009) described a 'fabula' as material or content that can be combined to make a story, explaining that a fabula consists of the events, actors, time, and location that make a story. Moreover, she considered a fabula to be a tool used in writing or understanding the inference of a narrative, and for understanding the possibilities and potentials of narratives. The essence of a story places the elements, such as the location, time, actors, and events, in a defined order or pattern that may not necessarily be in a chronological order. The story and a fabula are similar in some aspects, namely the amount of time the elements represented in a story, which are similar to the fabula, and there is therefore a relationship between the events, actors, time, and location of a story that corresponds with the fabula, although in other ways they are dissimilar. In stories, the actors are individualised by creating traits and converting them into characters. This also involves choosing a perspective from among various perspectives for the presentation of these elements. This chosen perspective is referred to as the 'focalisation', and is the association between the perceiver and the perceived. This focalisation provides subjectivity to the story (Bal, 2009). In Bal's (2009) view, story is the narrative signifier of the relevant fabula.

2.2.3.3. Contextualised Narratology

The signifying relationship proposed by early structuralists was explained by the contextualised model. The relationship claimed by language was arbitrary at best, whereas the contextualised model explained it as a relationship chosen among the people who shared the story. This was described by Herman (2003, p.7) as “situational achievement negotiated by participants”. Moreover, narratives can be viewed as a transaction between two or more people, rather than the author seeking the correct form in a narrative. Instead of creating a timeless inventory of abstract laws and categories, as suggested by Todorov (1968), contextualist narratology redefines and shapes its context of historical, cultural, and pragmatic parameters, and goes to considerable lengths to achieve this. Due to situatedness, particular sets of essential qualities are not able to define the texts and genres concerned, and there is currently no specific trait required for text to qualify as literature or history, and there may be varying implications of a sentence in poetry (Culler cited by Jahn, 1999). Other than literature, the contextualised model of narrative has affinities with a number of disciplines, and this fact has the potential to introduce a new understanding of narrative exhibitions for the museologist. Such narrative exhibitions involve the audience of the museologists themselves.

In short, it can be concluded that all the diverse approaches to narrative support the argument that the truth of living stories differs depending on how they reflect our perspectives. Various terminologies exist for defining narratives in which the story is the narrative signifier of the relevant fabula, and the terminology employed in the contextualised model of narrative has affinities with

a number of disciplines, a fact that has the potential to introduce a new understanding of narrative exhibitions to the museologist, one in which narrative exhibitions involve the audience of the museologists themselves.

2.2.4. Studying the Design Practices that Influence Museum Architecture

Studying museum visitors has been a rapidly evolving topic within the museum research community (Hooper-Greenhill, 2005). In today's economically centred world, many museums are becoming increasingly consumer oriented, focusing more and more on visitors' experiences and needs, to attract more visitors to the museum, and expanding the museum activities. There has been a shift away from treating visitors as an undifferentiated mass towards accepting them as individual and active interpreters. This requires museums to do policy-related work and perform visitor studies designed to understand and explain what visitors' experience and do, so that museums are better placed to manage and improve the utilisation of their resources. Understanding visitor motivations, experience and behaviour is vital in order to help museum practitioners improve their exhibits, and deliver better interpretations, and clearer understanding of the way the audience experiences the exhibits and content provided to them (Bollo and Dal Pozzolo, 2005).

The importance of exhibition design, and its role in museums, was addressed in a range of recent visitor studies. As Falk et al (2006) cited by Macdonald (2007, p.153) explained

Interconnecting is concerned with 'ways of relating', such as media, sociality and space which nicely incorporates attention to ways in which visitors 'assemble' impressions and ideas, and considering how these interconnect with the exhibition design and other aspects of their lives. This characterisation also has potential to recognise that the experience of an exhibition is not necessarily temporally confined to the time that a visitor is actually in an exhibition but extends beyond this, especially into its relating afterwards.

2.2.5. Modes of Exhibition Apprehension

The level of a visitor's knowledge and the meaning they ascribe to their experience determines how they perceive the objects in an exhibition, and their historical meaning, both of which are core factors in determining the success of an exhibition. There are many ways to explore museum exhibitions, and visitors achieve understanding in four specific ways, as follows (Lord, 2001):

- Contemplation

This is the mode of apprehension employed by art galleries, as well as science and history museums, that uses an aesthetic experience to attract the visitor. The way in which individual art, images, artefacts, and specimens are displayed differentiate them from the others in a way that is appealing for visitors. The museum's descriptive labels tend to provide as little information as possible, perhaps including only the title, artist, dates, medium, and donor of an object, thereby encouraging the visitor to focus on the object

itself. Modern museums often include open-ended commentaries on their gallery walls, along with audio tours designed to help visitors contemplate the objects displayed in their own way. Museum displays sometimes compare and contrast between different objects, allowing them to be appreciated both individually and in comparison with others. When contemplating an object, visitors are physically inactive but intellectually active and engaged, appreciating the meaning and qualities embodied by the objects concerned.

- Comprehension.

History and natural science museums often display thematic or contextual exhibitions that include specimens, artefacts, or other objects, between which there are often an association. These are sometimes placed in a diorama or in a room setting, or can be grouped in a contextual or thematic relationship within a display case. The graphics accompanying the objects can include different layers that involve both words and images to assist comprehension. This is intended to encourage the visitor to discover the objects' meaning by discovering the relationship between one or more objects, or between an object and theme of the display. This engages visitors in the connection-making process, in reading the labels and the graphics, and relating or comparing the objects to one other.

- Discovery

The aspect of discovery involved in viewing the objects on display in a museum is part of their transformative experience for the visitor, both in their own context, and in relation to the theme of the

exhibition concerned. There is often a wide range of artefacts for visitors to explore and appreciate. Discovery is central to the exhibition model traditionally employed in natural history museums in their means of displaying their specimens, and is also evident in other museums that have adapted this model by sharing objects that are in storage, but which are made visible and accessible to visitors in drawers or glazed cases.

- Interaction

Contemporary museums consider interaction to be a crucial factor in how their collections are shared with visitors. This is especially the case for young audiences and science centres, as children may not comprehend the objects displayed by merely viewing them, and instead require assistance from staff and volunteers, or technical assistance, such as audio or visual guides, to explain the objects concerned and thereby to enhance their understanding and experience.

The next section introduces the case study of Saudi Arabia as a part of literature review that provides background information of the case of Saudi Arabia that being investigated, specifically in terms of the evolutionary process of the country's settlement, and the early conflict regarding the subject of modernism in Saudi Arabia. The chapter then explores the development of the SNM in the context of the KAHC, including an evaluation of the architectural and conceptual approaches to the project brief.

2.3. Part Three of Literature Review. Introduction of the Case Study of Saudi Arabia

This part provides an overview of the Arabian Peninsula and the evolutionary process of settlement within it, before discussing the early conflicts regarding the changes engendered by modernism in Saudi Arabia. To date, there has been little discussion of the SNM, the museum selected as a case study for the present research. This chapter therefore explores the development of the SNM in the context of the KAHC, outlining the architectural and conceptual approaches to the project brief. Of particular interest to the current research was the manner in which tradition and modernity were approached to create symbols of national pride. The similarities, differences, and conflicts of the designers, architects, and visitors' views reveal some of the design dynamics involved in the SNM's exhibitions.

The SNM was selected as a case study for this project for three reasons. First, the SNM is a comprehensive institution that includes science, history, and culture exhibition halls. Second, the museum was established as a cultural and civilisation centre, highlighting the prominent aspects of the history of the Arabian Peninsula and its historical role in the dissemination of Islam. The museum seeks to introduce the history of the Kingdom of Saudi Arabia and its historical role, as well as playing a part in encouraging tourists to visit the Kingdom. Third, the SNM is a large institution, spread over two floors, and covering 28,000m².

2.4. Overview

The Arabian Peninsula is divided geographically into five different regions (Figure 2-9). The Najd plateau lies at the heart of the peninsula, and the Hejaz is a lowland area between the Najd Plateau and the Red Sea, while the Al-Hasa is a lowland area that lies between the Al-Dahna sand dunes and the Arabian Gulf, in the east of Najd plateau. Meanwhile, Asir lies in the highlands in the south-western part of the Arabian Peninsula, and Tihamah is a strip situated parallel to the Red Sea and the highland mountains. Each of these areas has its own distinctive cultures and forms of architecture influenced by the nature of the region and their individual history and development. The architectural development and history of urbanisation exhibit the cultural values, social events, and codification of moral principles that show the meaning ascribed to life by the inhabitants. The character of the settlement of each region developed within a distinct social environment, in response to the need to form protective and cooperative groups to secure acceptable working conditions and to provide stability for the residents (Saleh, 1998).

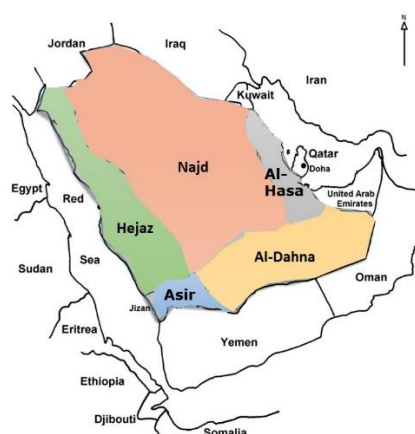


Figure 2-9 The five regions of the Arabian Peninsula (Source: adapted from Abu-Amero et al, 2008, p.3).

2.5. Evolutionary Process of Settlement

Unlike other countries, the history of the settlement of Saudi Arabia has been sporadic. The Arabian Peninsula is known for its pre-Islamic and Islamic culture, and has experienced both progressive and regressive historical events, only a fraction of which are reflected in the present form and structure of the country's urban areas. Little information is available regarding the pattern of settlement during the pre-national unification period, which can only be understood using early travellers' writings and the finds of anthropologists and archaeologists. In contrast, record-keeping has been far better in modern times, since the national unification of the country (Al-Hathloul and Edadan, 1993).

The settlement of the Saudi Arabia is categorised under the four periods shown in Figure 2-10, which are also used to categorise the modern history of the country.

1. Pre-national unification period (before 1900).
2. Period of national unification (1900-1940).
3. Period of discovery of oil and commercial production (1940-1970).
4. Period of planned national development (after 1970).



Figure 2-10. Historical timeline of settlement in Saudi Arabia
(Source: adapted from Al-Hathloul and Edadan, 1993, p.33).

2.6. The Use of Structures for Cultural Continuity in Saudi Arabia

The vernacular architecture of the Arabian Peninsula has a history of tower building, with these structures used as road markers, minarets, symbols, and defence structures. Historically, various urban settlements developed with distinct political affiliations that caused frequent and violent political conflicts in the region, and most of the towers built for defensive purposes and as road markers became obsolete over time, due to the subsequent economic and social revolution, although many of the latter positioned along caravan routes remain as renowned symbols of the historical achievement of the early trade routes. For example, the Darb Zubayda, a road of almost a thousand miles in length, was made by the early Abbasids to connect the holy places of the Makkah and Madinah to Syria and Iraq. More than 70 stations were built along its length, between the Kufa in Iraq and Makkah, at intervals of less than 40 km, for use by pilgrimage caravans.

The character of these settlements evolved partly in response to the need to form protective and cooperative groups to secure reasonable stability and good working conditions for the inhabitants. Since both the urban and rural populace required protection for their property and decent living standards, many relied on the strategic nature of their location for the purpose of defence, bolstering it through artificial means. These man-made defensive structures normally included walls that were protected with gates and towers that controlled access in times of conflict, and at night. Most of the walled settlements added a murgab, a high tower either inside or outside

the urban fabric, through which the surrounding landscape could be surveyed for defensive reasons. Many of these walls survived prolonged and concentrated military assault, and provided protection from bands of nomadic thieves, acting as a barrier between the urban community and the dangers of the outside world, as well as contributing significantly to the nature of the pre-state settlement by providing a sense of community to their citizens.

There were variations of the life and the settlements of rural and urban inhabitants, including the fact that some people lived within walls and others did not. While many of the towers and other structures have not survived, their symbolic importance remains part of Saudi culture, and much effort has been made to preserve the surviving structures as monuments to the original culture of the country, and as inspiration for the designers of the future. The preservation of such structures helps to promote cultural continuity, and they stand as reminders of historical permanency (Saleh, 1998) (see Figure 2-11).

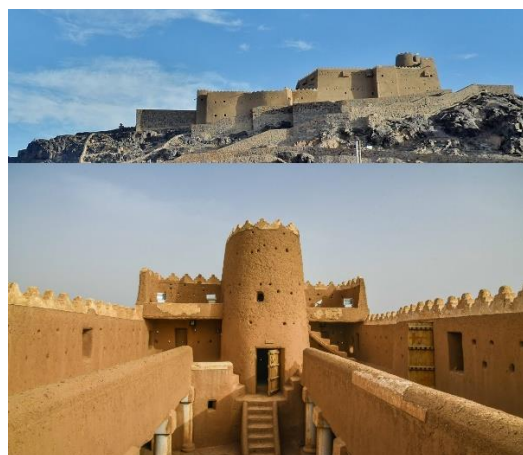


Figure 2-11. A fortress that once lay at one corner of a northern city of Saudi Arabia (Source: <https://www.saudiarabiatourismguide.com/aarif-fort/>)

As Saleh (1998) explained the place identity and visual image in a settlements that are linked firstly to social and cultural influences and secondly to spatial organisation. Attention here focuses on how place identity is enhanced by symbols and images of towers developed and used by different individuals and groups in different contexts. These symbols and images have communicative significance, and are inevitably of partial entities, whose existence and character depend on their relationship to both local and wider social, economic, political, and historical processes.

Many of the towers and structures associated with the distinct lives and settlements of rural and urban inhabitants have not survived, yet their symbolic importance remains a part of Saudi culture, providing inspiration to the designers of the future, which will confirm how place identity is enhanced by symbols and images of the towers developed by diverse individuals and groups.

2.7. Early Urban Conflicts of Change in Saudi Arabia

As a result of numerous factors, Saudi Arabia underwent a transitional period from 1950-1960. The foremost factor was the country's economic revival following the discovery of oil in the early 1940s. During this period, the government allocated the national budget to different purposes: some was allocated to modernise cities such as Riyadh, and some was reserved to accommodate the increase in the shift of the inhabitants of the local regions to a modern lifestyle. In the early 1970s, the government approved new planning policies,

and new building regulations were adopted that supported the use of new building materials and technologies. Consequently, Saudi Arabia's urban morphology altered extensively (Alhathloul, 2002). Between 1970 and 1980, there was an incredible boom in construction in Riyadh as a result of increased oil prices in 1970s, and the city was described as "the biggest construction site in human history" by *Newsweek Magazine* at that time (see Figure 2-13), with the years between 1977 and 1986 witnessing the highest number of permits issued for the purpose of construction, totalling almost 11,500 permits per year.

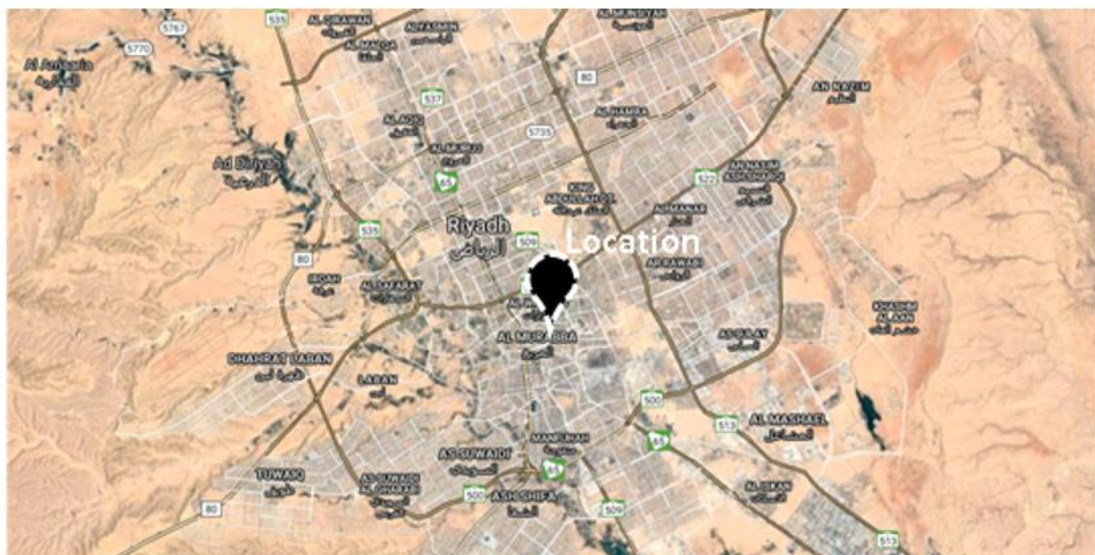


Figure 2-13. The location of Riyadh city (Source: <https://www.google.com/maps/>).

The construction of multi-storey buildings intended to preserve the historical building of the KAHC, a project known as the 'Al-Murabba Development Project' is currently considered to be the pioneer project for influencing the evolution of architecture in Riyadh. This historical centre extends over an area of 37 hectares, and the development

includes both conservation work and the construction of new buildings. While (Al-Hathloul, 2002) noted that the Ar-Riyadh Development Authority sought to save as much as possible of the historical area within the development, he also raised an issue that is often faced by the development authority in Riyadh in the preservation of historic buildings, namely that traditional buildings are generally constructed of mud, and were not built to last. Nevertheless, the al-Murabba' Palace was preserved by the Beeah Group consultants, who were responsible for the conservation work. This palace served as the residence of King Saud, and later housed the king's offices. The developers also successfully refurbished and remodelled other old buildings in the area, and faithful replicas were created of those that could not be preserved, with some completely rebuilt (see Figure 2-14).

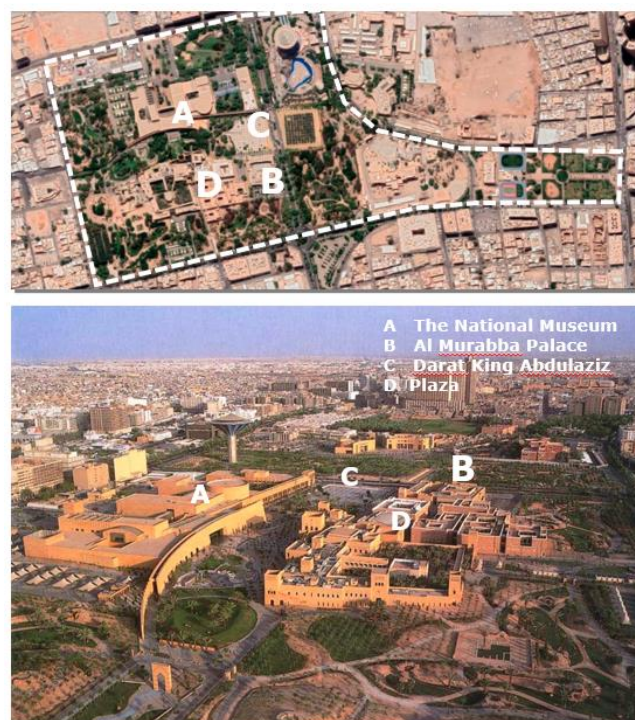


Figure 2-14. A sitemap of the KAHC (Source: <https://mtarch.com/projects/saudi-arabia-national-museum/>)

The new constructions in the area of the al-Murabba' were designed by the architects Ali Shuaibi and Rasem Badran, who worked in collaboration with the staff of the Ar-Riyadh Development Authority, focusing primarily on the urban design of the area. The project was completed in the relatively short timeframe of approximately 13 months, as it was intended that the construction work would be finished by 22nd January 1999, the centenary of King Abdul-Aziz retaking Riyadh city. The new buildings concerned were the Saudi Arabian National Museum, created by the Canadian firm Moriyama and Teshima Architects, along with Büro Happold Engineers; the exhibition design and the museology services for the project were provided by the Canadian firm LORD Cultural Resources Planning and Management, and the Royal Ontario Museum. The 30,000m² project consisted of curatorial spaces, galleries, an auditorium, and landscaped outdoor areas.

Another important feature of the KAHC was the Darat al-Malik Abdul-Aziz (King Abdul-Aziz Foundation for Research and Archives), which was partially incorporated into the newly reconditioned al-Murabba' Palace, and partially housed in newly-built buildings located near the al-Murabba'. Overseeing this aspect of the project were Omrana and Associates and Rasem Badran. Finally, the King Abdul-Aziz Library and Auditorium was designed by Omrana and Associates, and included considerable areas of landscaping designed by the landscape architects Boyer, Bodeker, and Wagenfeld, with the 100-Palm-Tree Square its dominant feature.

All in all, there is no doubt that Saudi Arabia's urban morphology altered extensively as a result of various factors, such as the

country's economic revival following the discovery of oil. The multi-storey KAHC building was intended to be a pioneering project to influence the evolution of architecture in Riyadh.

2.8. The Context of the KAHC

The completion of the KAHC was celebrated at the centenary of the retaking of Riyadh, and the city became a hub for the advancement of Saudi Arabia. To mark the achievement, a spiritual building was constructed for the benefit of future generations, namely the National Museum that is currently in development. According to Facey (1992, p.314), "Although in a dilapidated condition, [the structures of the old palace] have been recognised as of major historic significance, and it is planned to retain as many of them as possible in the new National Museum which is planned for the site." The Centennial Celebration Committee commissioned the ADA to conduct the work, and they produced design ideas for the entire area that included several parks, the Department of Antiquities and Monuments, the renovation of old red-brick houses, and the re-utilisation of the old diwan (administrative offices) of the king at al Murabba' as a museum. In order to cut costs, the ADA employed a competition to develop the metropolitan and structural layout together on one platform, recruiting three groups of architects, and rather than offering a reward at the completion, each were paid the same amount up-front. At the end of the competition, the judge determined that each of the three submissions was overly concentrated on architecture to the detriment of the city planning aspects. As the project deadline approached, the architects Ali al-Shuaibi and Rasem Badran, who were also among the judges, decided to design the city

planning elements, and the final contest designs for the National Museum building were then assessed and the winner selected by the Moriyama and Teshima firms, who made their decision on the grounds that the winning design would fit within the city planning project, and also that the design would serve on a traditional and aesthetic stage.

As shown in Figures 2-15 and 2-16, the proposed KAHC site was roughly 360,000m² in size. It was surrounded by streets, with the Hamra Palace lying adjacent to the south. An east-west road split the core of the site in two. Many of the existing KAHC structures were intended to blend with the National Museum, and responsibility for their design and construction was shared by a range of designers: Badran was tasked with building the Darat al-Malik Abdul-Aziz, refurbishing the current Al-Murabba Diwan, and refurbishing and encompassing the present King Abdul-Aziz Mosque to accommodate the remaining area; and Al-Shuaibi was responsible for the renovation of the red-brick structures, and the National Museum and the Department of Museums and Antiquities was the remit of Moriyama and Teshima. Meanwhile, the King Abdul-Aziz Library and the atrium were designed by Omrania and Associates. Every one of these structures had to be built within the vast parks planned by Richard Bodeker of BW&P, a landscape architect firm with considerable experience in urban development. All aspects of the construction were governed by an extremely strict timetable.

Since the centennial celebration was to be held on 22 January 1999, this gave the construction just 26 months to be completed. Along with the buildings listed above, other elements were also included,

such as a central plaza; an orchard of one hundred palm trees, denoting the centennial; a restored ancient well utilised in caring for the gardens; the Riyadh Water Tower, completed in 1971 as part of the wider KAHC development; and the renovated portion of the ancient wall with a tower.

The design and establishment of the KAHC, then, took place under the contextual requirement to reflect the history of the Arabian Peninsula and to ensure that the facilities were compatible with the architectural and urban aspects of the surrounding area.

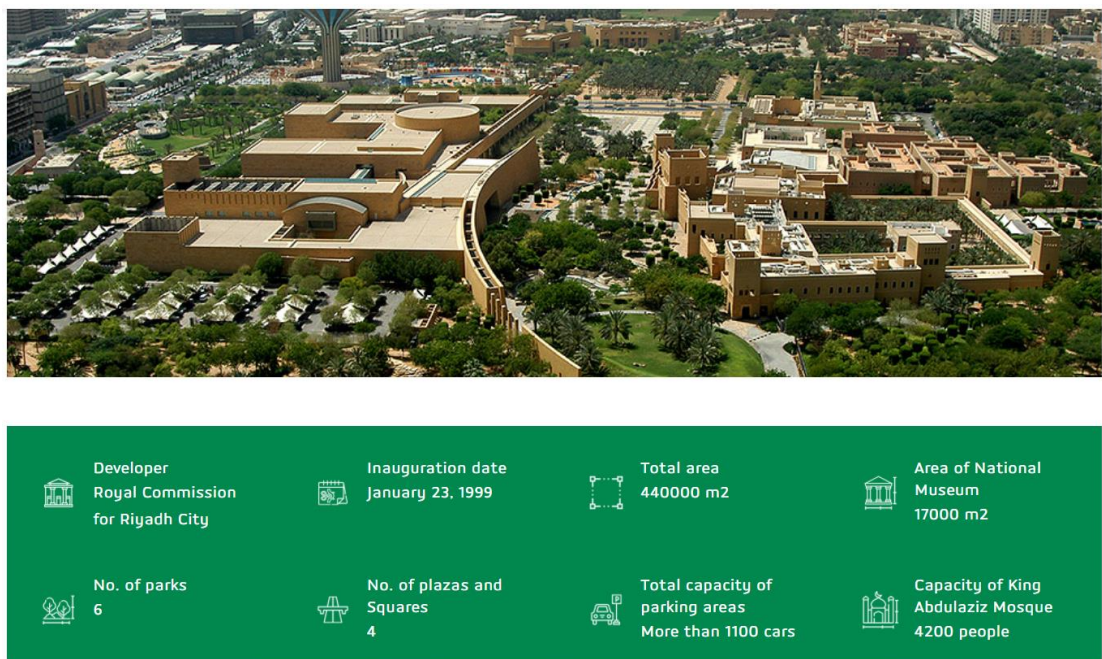


Figure 2-15. The KAHC (Source: <https://www.rcrc.gov.sa/en/projects/kahc>).



Figure 2-16. The context of the KAHC (Source: <https://www.rcrc.gov.sa/en/projects/kahc>).

The next section presents the key situational analysis of the SNM, including the design brief regarding the architectural and philosophical methodology employed, specifically in terms of the context in which the customs and civilisation of Saudi Arabia would be viewed by the SNM, in order to establish icons of national pride. The commonalities and discrepancies between the designers and architects involved in the creation of the SNM, and audience visiting it are explored, along with some of the complexities of the architecture of the museum.

2.9. The SNM

The SNM was designed by the Canadian company Moriyama and Teshima. The most recognisable characteristic of the museum, namely its curving wall, was influenced by the shape of sand dunes, and the rest of the building was partially influenced by classical Najdi design (see Figure 2-17).



Figure 2-17. The SNM (Source: <https://mtarch.com/projects/saudi-arabia-national-museum/>).

Both Moriyama and Teshima and the other designers of the KAHC were inspired by traditional architecture, such as that of the Najd period, reinterpreting it to create a contemporary architecture language in the design of the SNM, as well as in other buildings in the development. As Albini (1998, p.8) explained

The building material used throughout Najd was unfired mud brick, reinforced when necessary with wooden beams. The walls thus constructed were covered with mud-plaster, which was smoothed by a broad, toothed scraper made of wood. This technique of building was used to create shallow parallel lines

of patterns by a sweeping motion over the surfaces of the walls. It was also common to use limestone as a base for the walls or the columns. For larger, roofed spaces, the columns were used for support, which were usually made with beams of tamarisk; for example, the mosques' roofs were rest on columns which are usually made of stone 'drums' resting one upon the other and smoothed with plaster.

This is shown in Figure 2-18. In addition, as shown in Figure 2-19

in Riyadh, like all Najdi towns, the walls were thick with featureless facades, except where they were perforated on upper levels by patterns of openings in the form of triangles and lancets to provide the circulation of air and to allow the sunlight in. (Al-Khalifa, 2017, p.2)

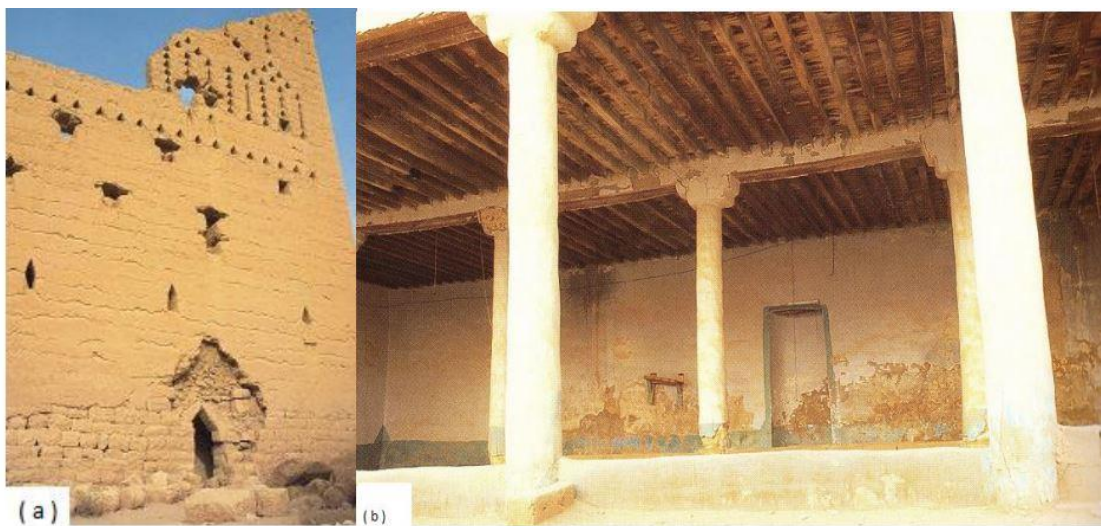


Figure 2-18. An example of the pattern of parallel lines, roof, and columns that created in Turayf mosque (Source: Facey, 1997, p.91 and 94).

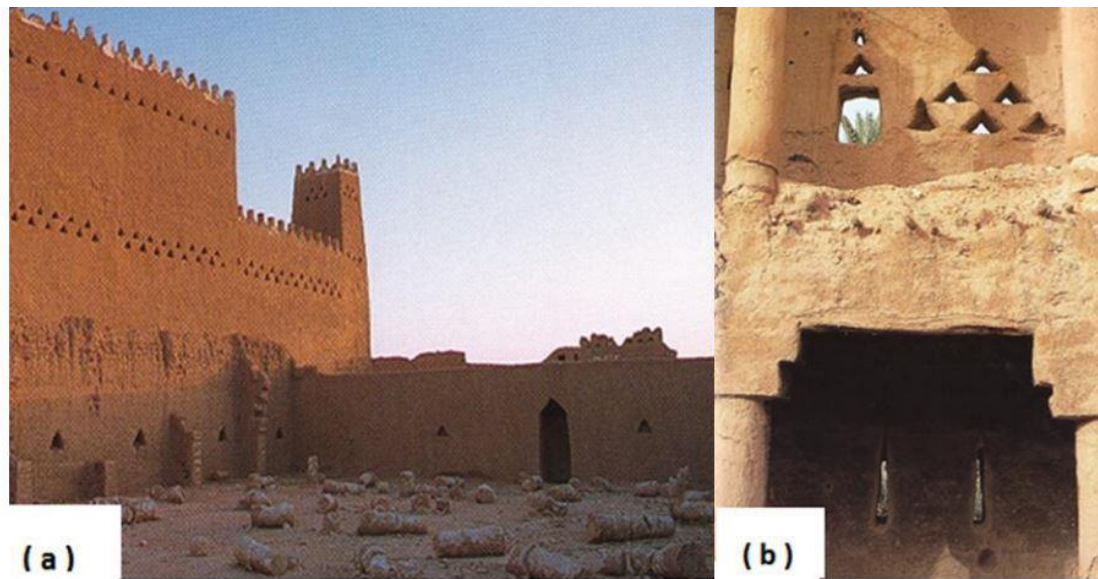


Figure 2-19. Details of walls, columns, lancets, and ventilation triangles in Dir'yyah (Source: Facey, 1997, p.95 and 104).

The SNM building employed wide arcades and courtyards to lighten its interior, had modest floor detailing and small external entry points, and included huge walls that referenced traditional red-brick buildings, all structural characteristics once evident in Riyadh. The museum was no more than a highly serviced two-story box allowing maximum flexibility within, and had a maintenance pipeline passing through its entire circumference (see Figure 2-20).



Figure 2-20 SNM layouts

The eight exhibition halls in the SNM were arranged in chronological sequence from the earliest time to the current era, and included, in order, Man and the Universe; the Arabian Kingdoms; the Jahiliyyah; the Prophet's Mission, Islam; and the Arabian Peninsula; the First and Second Saudi States; the Unification of the Kingdom; and lastly the Hajj (see Figure 2-21).



Figure 2-21 3D section plan of SNM floors

2.9.1. Proposition of Theoretical Frameworks

The analysis of the SNM in Riyadh involved an exploration of the country's history through the medium of the museum's multiple displays regarding the different stages of human civilisation in the country. The first exhibition hall, Man and the Universe, describes the geological changes to the planet Earth and the creation of the universe by almighty God, shown through video presentations and

models, such as those of extinct animals from ancient times. This exhibition hall is followed by seven others in chronological sequence that include a range of acoustic and visual media conveying the pre- and post-Islamic periods and outlining the past of the Arabian Peninsula, culminating in the Saudi Unification Exhibition, presenting the many shifts the kingdom has undergone in its history. The final exhibition presents the role of the two Holy mosques in the emergence of the Islamic roads and cities, and shows the development of the two Holy mosques over time, with the history of the kingdom conveyed using models of old urban buildings and depictions of a number of archaeological discoveries in the kingdom. These interventions of the SNM's architecture functioned as guides for the present research's empirical study and exploration of the museum's design, and the physical architecture (as a non-human actor) employed by the architects and other professionals (as a human actor). As Jones and MacLeod (2016,p.214) explained, "one way to study architecture is to follow architects and the other professional actors who make a series of design interventions to affect certain outcomes that shape the museum literally and metaphorically".

While the authorities responsible for the museum are currently seeking to update the SNM's displays, it should be noted that the designers, Moriyama and Teshima, considered the SNM to be a civilised façade that highlights and embodies the country's culture. Moreover, the museum's objective is to stimulate cultural tourism, and to educate through its programmes, events, and workshops. All these initiatives have increased the number of visitors to the museum, and engendered a cultural shift in Saudi society's view of

heritage, promoting local awareness of its value, as well as exercising an international influence. One of these initiatives was an exhibition organised by the Saudi Commission of Tourism and National Heritage in 2018, titled, 'Our Museums, Our Identity' that was held in a public mall in Riyadh. This exhibition was designed to highlight and enhance the educational, cultural, and social role of museums, and displayed some of the important artefacts held by the SNM (see Figure 2-22).

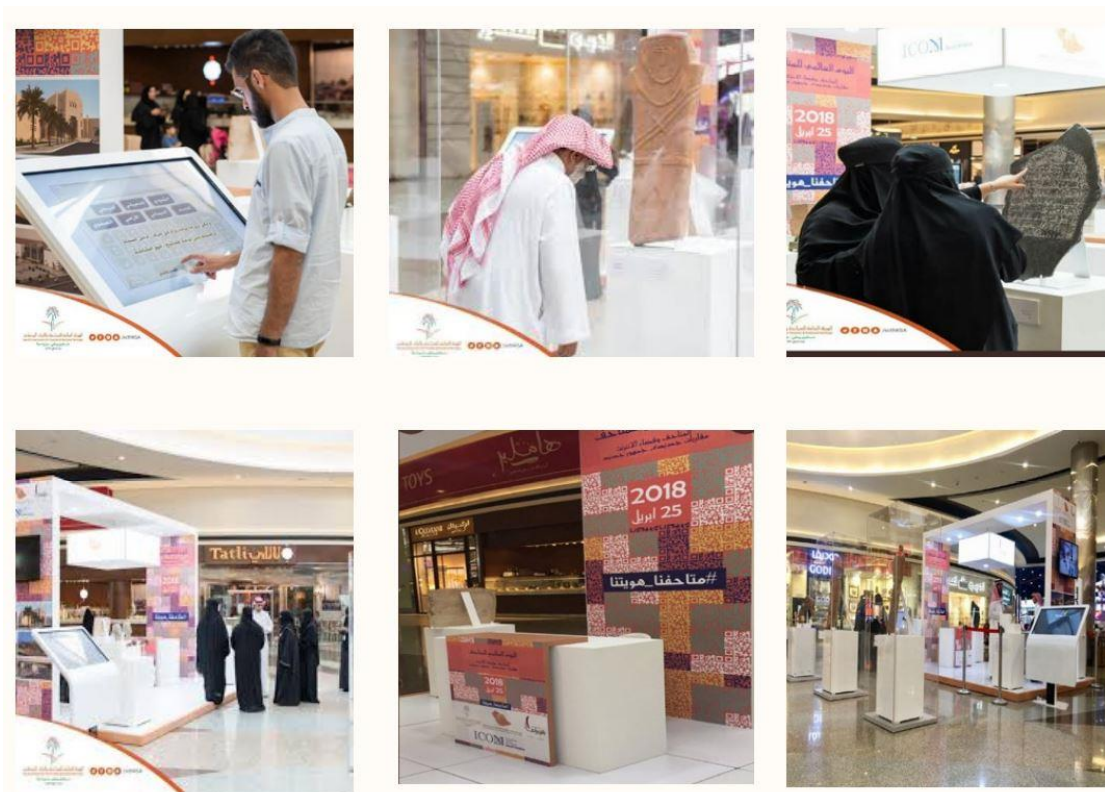


Figure 2-22 The Exhibition 'Our Museums, Our Identity,' (Source: <https://mt.gov.sa/ebooks/Documents/p18/MuseumsDay2018EN/MuseumsDay2018EN.pdf>).

Exhibitions can be seen as a production of meaning in a three-dimensional space that can be theorised using linguistics and semiotic principles (Anyfandi, Kouladis, and Dimopoulos, 2010; Austin, 2012;

Stenglin, 2004, 2009). For instance, the Axis of Narrativity proposed by Austin (2012) applied the term of narrativity to exhibition design, architectural practice, and urban and landscape design. In addition, semiotic tools can be employed to achieve both connotation and denotation via implicit materials of spatial environment to explicit materials, such as sound, film, or image. Based on these concepts, a tripartite network model of narrative environment was developed by Austin (2020) as a practical model for the design of narrative environments that interweaves the three components of People, Narrative, and Environment (see Figure 2-23).

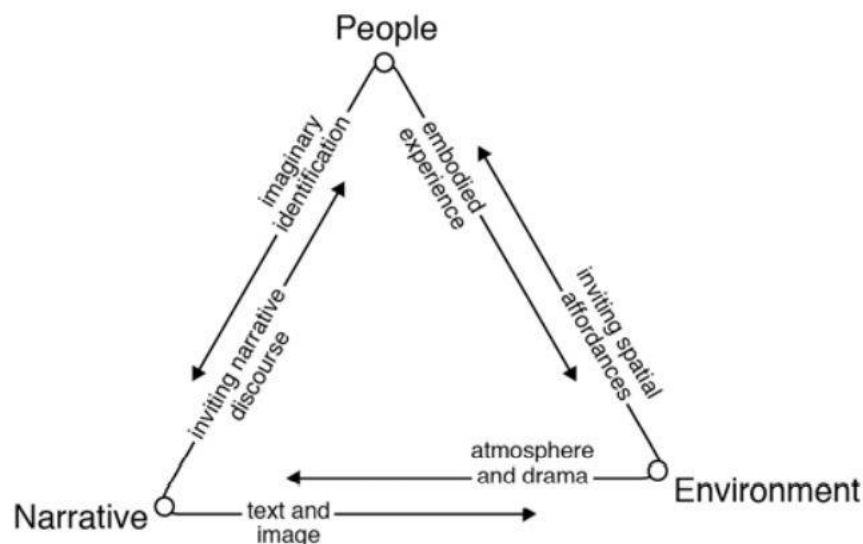


Figure 2-23 Tripartite model of narrative environment (Source: Austin cited by Zhou, 2020, p.27).

Similarly, all three components work together to simultaneously create the narrative environment. According to this view, there is a contradiction between every individual's subjective reality and their complicated relationships with the conceptual space.

In order to compare the design intensions of the SNM with the visitor experience (decoder and encoder), implicit and explicit terms were required for the purpose of the current study, in order to analyse the physical architectural elements and the exhibits of the museum that communicate certain aspects of the stories of national identity. In his model, Greimas (1983) used sender versus receiver, subject versus object, and helper versus opponent as the three contraries that expanded the narrative structure theory to the dynamics of stories (Austin, 2020). He also argued that different types of relationships can served as narrative axes, including knowledge, desire, and power; knowledge is the communication between the sender and the receiver, desire for the object is felt by the subject, and power is manifested via the subject's fight to obtain the object of want (Greimas, 1983). Using the dynamics of knowledge, desire, and power, this framework is useful for constructing engaging story settings, as it enables the examination of the narrative environment by merging the digital and physical aspects, while also comprehending the narrative's emotions.

Based on these frameworks, the most important aspect of the SNM, besides being a SNM, is that it locates the narrative spaces and architectural elements of the state within the broader structure of Islam, thereby inseparably relating the idea of the country to its faith. It represents the impact of Islam in establishing Saudi Arabia as a legislative entity, and the dominant aspects of Islam in Saudi culture. The design and incorporation of Saudi heritage in a definitive framework of Islam as a story, instead of simply stressing the significance of faith to the country, was a valuable design decision, as it promotes the image of Saudi heritage, using traditional patterns,

as a logical consequence of the country's Islamic history, as being integral in upholding the rightful and secure role of the empire as protector of the religion.

As well as integrating the various aspects of the country and constituting a national symbol, mapping implicit and explicit narratives in the SNM spaces can be interpreted as possessing the unique ability to compare how both aspects are used, and their effect on the overall museum visitor experience. An aesthetic example from the Najd buildings in the space can be justified implicitly as a situational reaction to the surrounding ancient structures. However, there is also a direct indication of the historical supremacy of the Najdi culture. As such, the systematic usage of Najdi design by the museum's designers detracts from the well-defined 'Islamic' structure of the museum's exhibits. Statistical data that tracks and times visitors' circulation around the museum's exhibits would be valuable in identifying the aspects of the SNM displays that effect the conveyance of this message through the museum's environment and atmosphere, as discussed further in Chapter 6.

2.10. Summary

This section presented the historical development of the Arabian Peninsula, in terms of its architecture, as well as presenting background information regarding the case study of the SNM, in order to contextualise and highlight the importance of this study's investigation of the entity, architecture, exhibitions, and journey of the SNM.

The part addressed the method employed to analyse the SNM building, together with the research design used to interpret the two perspectives of encoding and decoding, specifically the way in which the national identity was constructed by the designers of the SNM, and expressed by the museum's visitors, in order to produce generalisable research findings. This study employed a single case study to extrapolate the study's key themes that aided in determining further theories, frameworks, trends, and issues that can be applied in practice. Theoretical models, such as the linguistic frameworks and Axis of Narrativity, were deemed valuable for use in the case of the SNM, and when providing further insights into how visitors perceive and respond to the exhibition space.

This study was designed as a comparative investigation to explore the overlap and relationship between the subjects of identity in the narrative space and exhibitions. This relationship was found to be an effective tool for evaluating the range of visitor experiences that produced a variety of designer and architect views concerning the concept of identity in architectural discourse.

2.11. Summary of the Literature Review

The first part of literature review discussed the ways in which museums communicate, in order to explore the role of museum architecture in expressing identity, a key aspect of the museum experience in terms of the building's design and that of the exhibition spaces. Meanwhile, the second part of the review discussed relevant theories, such as linguistics frameworks of (denotation and connotation) and the Axis of Narrativity, that incorporate elements of

linguistics, in order to assess the relationship and conflicts between these frameworks and the actual experience of narrative museum design, space, and exhibition. To address this relationship, the model of encoding and decoding was proposed to consider the tension of sign in the SNM between these two producer encodings. For example, that between elements such as architects, designers, or curators and the receiver's decoding by the museum's visitors, in terms of their feelings, perceptions, and experiences via different paradigms of identity expression and design principles that enhance the meaning's value. In order to contextualize and highlight the importance of this study's investigation of the entity, architecture, exhibitions, and journey of the SNM, the third part of literature review presented historical development of the Arabian Peninsula in terms of architecture, as well as background information regarding the case study of the SNM.

The next chapter discusses the research design and methods employed by this research study.

Chapter 3. Methodology

3.1. Overview

This methodology chapter provides a clear description of the PhD research procedure, outlining the reasons for choosing the specific methods employed. The first section introduces the case study and the adoption of a mixed methods research. After this, the three main phases of the selected methodology are introduced fully. Then the details of each method are provided, including how the pilot study was performed to assist in developing the field trip methodology, and when performing data collection and integrating grounded theory as part of the analysis and coding process. Finally, a description is given of how the research questions were answered, and the methods by which the methodology was executed.

3.2. Case study approach

Typically, the case study approach is most appropriate for research that attempts to investigate an object as a whole in a complex context. A case study is also suitable for studies interested in “information specific to the particular study object and context rather than information easily generalisable to a large population” (Zeisel, 2006, p. 98).

Consequently, a case study affords the most appropriate approach to take to address the SNM as a cultural space; this is common when

investigating museum buildings and exhibition spaces. The case study approach is used extensively in various disciplines, and is appropriate when exploring phenomena such as national identity by gathering a variety of qualitative and quantitative data sources, from which to generate new patterns or ideas. Yin (2014) stated that the process of conducting mixed methods research to answer a research problem involves collecting both qualitative and quantitative data. The application of a combination of qualitative and quantitative methods works very well when following a case study approach.

For the purpose of this research, an on-site survey was conducted to measure objective aspects such as observation, interviews and tracking the visitor experience throughout the SNM journey. Interviews and observation methods were also used to capture different perspectives relating to the characteristics of the museum building, architectural symbols and other features of the design that emerged as ways to express and enhance identity. In the literature review we considered four key types of mixed methods designs, all of which are presented in the literature: The Triangulation Design, the Embedded Design, the Explanatory Design, and the Exploratory Design (Creswell, 2009). The researcher adopted a triangulated design strategy, to consolidate the qualitative and quantitative findings simultaneously. The reason for using this design is “to obtain different but complementary data on the same topic” (Morse, 1991, p.122), as a way to develop a rich understanding and interpretation of the correlation between the exhibition’s design and its effects on the eight exhibition spaces. Additional information was collected to explain how visitors viewed those processes that emphasise identity,

and how the SNM journey has been implemented. Figure 4.1 below details the procedures for each of these designs.

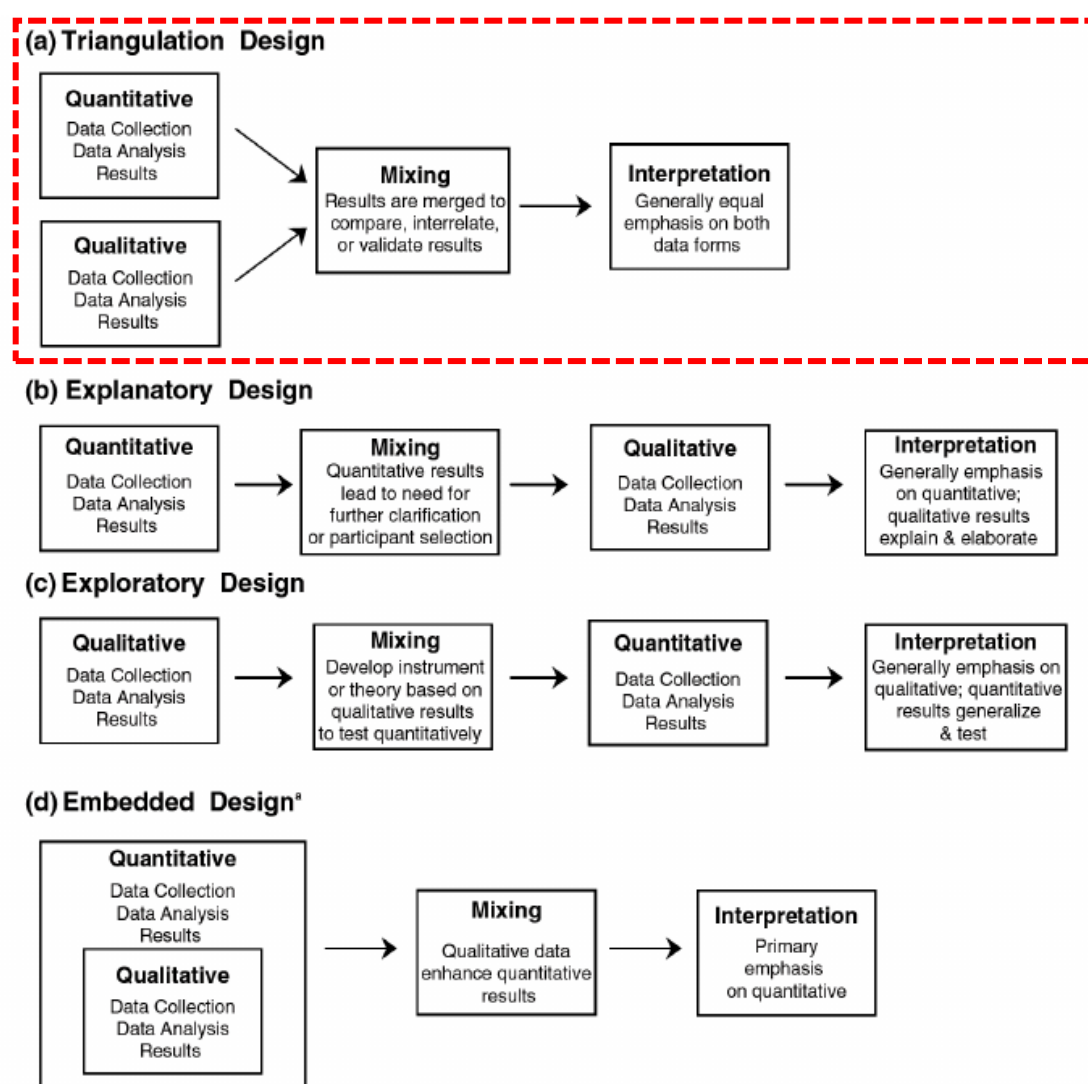


Figure 3-1 The four major types of mixed methods designs adopted from (Creswell, 2014)

A triangulated study design permits the researcher to develop a rich understanding of identity related phenomena, that more accurately defines the interplay between themes, variables and factors, such as exhibitions and the SNM Journey, as a way to implement the study framework. This design method was deemed useful, as the researcher wished to directly compare and contrast the mixed

methods findings, and then develop a research framework to assist the reader with understanding the design challenges that emerged (Creswell and Plano Clark, 2011).

3.3. The development of a framework into a methodology

Before commencing an in-depth exploration of the research methods, a literature review was performed to clarify the key arguments and theories presented in the research. After this, the justifications for selecting the research areas were provided by identifying the gap, as explained in Chapter 2. All these steps serve to develop the theoretical framework and set out the methodological choices in terms of testing interviews or surveys. Specifically, a broader literature review of studies carried out at other national museums was performed, considering how identity matters could be applied in this study, and how the use of museum architecture and design may contribute to developing a sense of identity and belonging. In addition, the pivotal role of visitor studies research emerged, explaining the enhanced understanding of millions of international and national visitors to various sites.

Prior to commencing the research, the researcher completed the ethics committee's form. This was approved by two reviewers and is enclosed in Appendix A. The literature demonstrated that the quality of design, including architectural design, is difficult to quantify. As Ganna (2003) indicated:

*[I]nterest in the quality of building design has been heightened
– especially in the public sector – with the need for a better*

understanding of the use of buildings, growing concerns over environmental impact and a new enthusiasm for delivering best value.

Three sequential mixed methods were used in this study to fulfil the research aims and objectives (see Figure 3.2):

- 1) Qualitative exploration of how identity is expressed in Saudi Arabia, and the role of museum architecture, which is considered as a way to enhance identity as a part of the study through pilot testing and semi-structured interviews.
- 2) Development of a quantitative instrument (survey) to measure exhibition spaces in an exhibition setting through the visitor journey survey.
- 3) Study and observation of the relationship between exhibition spaces and visitor experience, using both tracking and tracing of the nature of the visitor experience, as linked to the construction of identity.

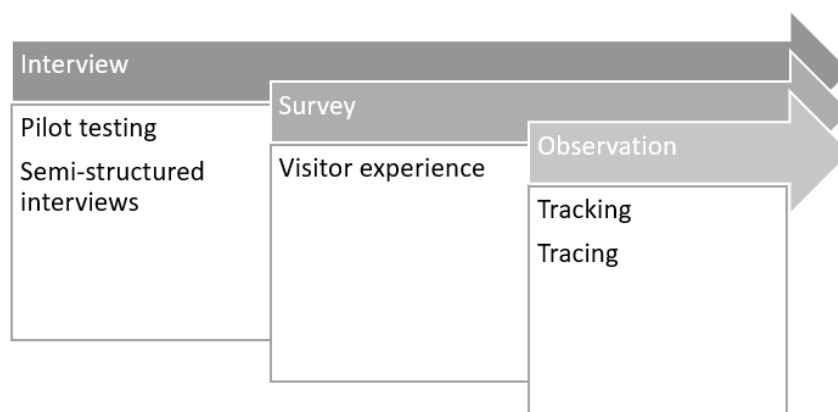


Figure 3-2 The sequence of data collection methods. Source: the Researcher

Qualitative and quantitative analyses have been interpreted to explore the viewpoints of architects, museum directors, curators and visitors. This allowed for the identification and development of the story that emerged from the data, and supported making a connection between the results and existing research and theory. The following chart details the codes for each theme and sub-theme, as well as the interpretive factors and items that involved analyses to measure and explore the research process from both interviews and survey data, as the approach taken in both analyses was introduced separately in chapters 5 and 6 (see Figures 3.3 and 3.4).

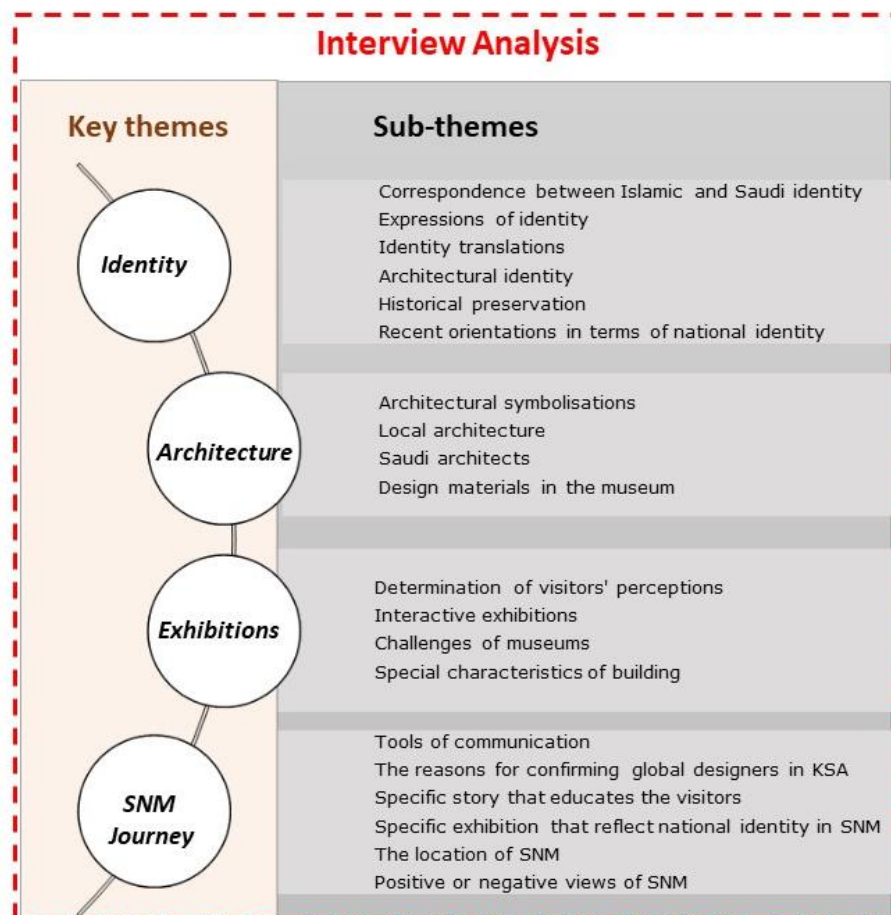


Figure 3-3 Interview Analysis. Source: the Researcher

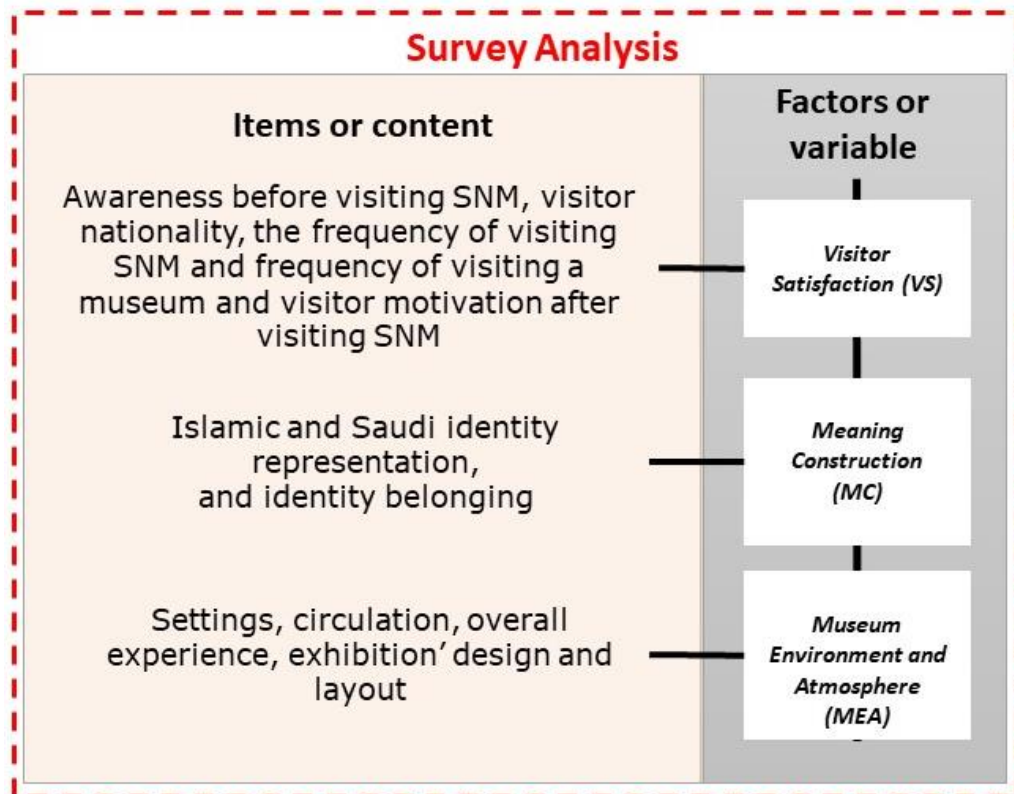


Figure 3-4 Survey Analysis. Source: the Researcher

The interpretations of the key findings were drawn together thematically to communicate the main patterns that informed the role of SNM architecture in the visitor experience and their understanding of national identity. The survey analysis diagram identifies the survey factors and items according to the visitors' opinions regarding the SNM design as it emphasised identity and the overall journey, and measured three factors: Visitor Satisfaction (VS), Meaning Construction (MC), and Museum Environment and Atmosphere (MEA). In addition, the interview analysis diagram explores key themes that captured architects, museum directors and curators' views in relation to the four research themes of, Identity, Architecture, Exhibitions and SNM Journey. The researcher

considered the contributions of architectural design and the role of the architect in enhancing identity, as well as expressions about the links between Saudi national identity and Islamic identity. The utilisation of interpretive SV, MC and MEA factors in SNM exhibitions were also considered through a visitors' experience survey. This led to an analysis of those design features that influence experience and emphasise national identity, as well as providing an interpretation of the same perspective in the context of semi-structured interviews. This allowed the researcher to incorporate the conversational aspects associated with four themes: Identity, Architecture, Exhibitions and SNM Journey. This generated a fascinating discussion, including two distinct perspectives, as mentioned at the conclusion to chapter 7.

3.4. Stage one: Piloting and Participants' Selection

In order to understand the process of refining the interview guide, selecting participants and obtaining a general feel for how interviews may be processed, pilot testing was completed in December 2017 prior to the six key interviews being carried out. The main criterion for selecting the participants involved identifying key research issues centred around the whole case. The six participants were carefully selected from 'insider' and 'outsider' departments of the SNM as follows: two general directors, one from the SNM department and one general manager (an architect) from the general directorate for projects at the Saudi commission of National Heritage and Tourism; two supervisors from the SNM department addressing the management of relations, activities and programmes, and two curators, of the First and Second States and Unification exhibitions. The main element of this pilot study involved talking to the director

from the Saudi Commission for Tourism and National Heritage, who served as a gatekeeper to recruit participants who were architects, and other knowledgeable and familiar participants with research topics in the main interviews who had worked on national projects in Saudi Arabia. However, one of the limitations that arose when selecting the interview participants, came from the necessity to involve the main directors to communicate with the architects involved in national projects as administrated by the government. (The participant sample is introduced in the following table.)

Table 1. The participant's positions

PARTICIPANT	POSITION AND SUBJECT KNOWLEDGE
ALSHAABI	An architect and founder of Beeah, which provides consulting services in planning, design, engineering and construction management on master projects in Saudi Arabia.
ALNAAIM	An architect and professor of architectural criticism at King Faisal University. He is an advisor to the president at the Saudi Commission of Tourism and National Heritage SCTH and an author of critical studies concerning architecture and Arabic culture.
ALFHAID	An architect and manager of general projects and the architectural affairs of regional museums for the Commission of Tourism and National Heritage SCTH
ALHATHLOUL	An architect, professor and critic in the field of architecture, working in the faculty of architecture and planning at King Saud University.
ALSABBAGH	Partner/general manager/ and architect at Dar Al-Omran. He carried out the project of develop and expand the SNM. His contributions to Architecture relate to local heritage in different regions. He is also interested in Saudi identity and supervising the KAHC project.
ISLAM	A senior architect at Tariq Ali, interested in most projects related to regional museums and display scenarios.
ALQAHTANI	A museum director at the women's department of the SNM

The other director at the SNM assisted the researcher by providing all the available architectural drawings and facilitating understanding of the museum spaces and context. Further objectives involved looking at visitors' perspectives through curators' eyes, and gathering the most up to date statistics about museum visitors. Interviews were conducted with the Director of the Saudi Commission for Tourism and National Heritage, who holds key responsibility for general projects and architectural affairs, the Director at the SNM, and three curators who were responsible for the First and Second Saudi State exhibitions, the Unification exhibition and Haj exhibition. Discussions took place concerning a number of different spaces, identifying architectural reference points and particular elements located throughout the exhibitions, to test the study method, before analysing the whole building in depth (see Appendix B of pilot study transcripts).

The selection of the participants was considered according to the process by which each participant differs from the other according to particular areas of study and key research questions. The criteria for the participants' selection sought to distinguish between architects, designers and curators' responses when presenting the intended meaning of the findings based on the following:

- Three experts were classified as key Saudi architects (Alshaabi, Alnaaim and Alhathloul) with long term experience working as consultants on national and governmental projects (Alshaabi), and academics (Alnaaim and Alhathloul) with many publications in the field of architecture and critics on topics expressing identity in architecture and designing buildings.

- Other architects who specialised in urban design and interiors for museum design collaborated in designing the urban context of King Abdullah Historical Center (KAHC) in Riyadh (Alsabbagh), as well as looking at the perspectives of museum exhibitions and their circulation, visitors and display scenarios (Alfhaid and Islam).
- The SNM director was a participant in the pilot study.

These criteria relied on selecting participants who express both viewpoints; i.e. firstly architects that provide insights into the role of architecture and its impact on shaping identity in Saudi Arabia, and secondly those that gain insights into the implications of integrating frameworks that help to develop and designing exhibits and displays and their effect on the visitor experience.

Several questions arose from these findings regarding the projection and reflection of national identity. This would enable further understanding of the ways in which the curation of these exhibitions seek to reflect national identity.

3.5. Semi-structured interviews

There are a number of qualitative methodologies made available to researchers. The semi-structured interview is one of the most commonly implemented methods, allowing for a greater and more in-depth examination of views than structured interviews, as described by Tayler and Bogdan (1984, p.88) who referred to it as less formal and more “flexible and dynamic”. This method was selected to attain an understanding of identity and the scope of the discussion as it

related to Islamic identity and the construction of national identity in a cultural and design context from the perspective of architects and directors.

In terms of interview analysis procedures, a variety of possible approaches can be taken to analyse data. Creswell (2003) summarises data analysis as a detailed description of the setting and individuals, followed by analysis of the data for themes or issues. An example of an immersive approach was proposed in the literature, clarifying the initial stages of a qualitative analysis. It recommends reading interview transcripts, notes, observations and listening to interviews several times, as well as actively engaging throughout these processes. The design of the interview questions, the adoption of grounded theory, and the coding process are introduced in detail in the following section.

3.5.1. The Designing of Interview Questions

It is challenging to design appropriate interview questions that are clear and effectively worded. Open-ended questions were adopted to obtain qualitative data, additional stories and feelings, and detailed and descriptive answers.

Creswell (2007) discusses the importance of acquiring participants willing to share information or “their story” openly and honestly. In addition, pilot testing is seen as a vital tool to develop and refine the interview process and where necessary update the research questions. The interview structure was based around three sections:

introductory questions, transition questions and key questions as detailed below:

□ Introductory questions were asked to provide an overview of the context of the SNM in terms of preserving history, enhancing identity, and the general view held concerning architectural designs. This involved taking a simple step towards moving on to complex questions.

- Transitional questions were considered to explore particular themes further, and an overlap occurred between identity and architecture in terms of examining the perceived meaning of buildings, exhibitions and spaces. The contributions of design aspects were explored to generate an immediate experience. This meant that the architects potentially developed different attitudes towards Saudi architecture.
- Key questions examined the importance of architecture to national identity and discussed general impressions of identity and the role museum institutions play, whether from a design perspective or a governmental point of view.

3.5.2. Grounded Theory Adoption

According to Charmaz (2003), grounded theory provides a set of systematic inductive methods for conducting qualitative research directed towards theory development. Two types of grounded theory have been developed. It is crucial here to delineate the philosophical assumptions of, firstly, classic grounded theory (the objectivist/positivist) as created by Glaser and Strauss in 1967, which

allows the researcher to determine a structure based on a particular process or core category; and, secondly, constructivist grounded theory (the relativist/ constructivist) as developed by Charmaz in 2014. This is a qualitative research methodology designed to understand and explore a social process in which no adequate prior theory exists, and which uses an inductive approach to generate a new theory from the data gathered through participant interviews or focus groups. Importantly, as grounded theory is not a singular perspective method and is flexible, the researcher was able to adopt appropriate types of grounded theory for this project. A constructivist approach was selected to learn more about identity and architecture from an insider perspective, drawing on the knowledge of Saudi experts including architects, museum directors and curators.

Charmaz' constructivist theorisation was applied at the data analysis stage to determine appropriate coding and the formulation of themes from the identified codes. Following this approach, codes are initially grouped and reviewed against the transcripts before undertaking more focused coding. Focused coding involves the use of initial codes to sort and categorise data, and undertake further coding of these initial codes (Charmaz, 2014). This is an inductive approach, which enables a broad picture of the data to emerge concerning the key themes of the study, Identity, Architecture, Exhibitions and the SNM Journey. All the analysis procedures for interview were based on the thematic coding technique. Firstly, the discussion was transcribed and translated into a Microsoft Word document (see Appendix C). Then the raw material was inputted and reorganised in NVivo software. Secondly, the researcher read through the document to attain key ideas and concepts from the interview. Thirdly, similar

ideas and expressions were coded, based on the thematic techniques employed. Finally, the researcher interpreted the results and presented them.

3.5.3. The Coding Process

A review of textual data, re-reading and making notes were initially undertaken. It allowed for a familiarisation process including looking for key words, potential trends and themes prior to any analysis (Braun and Clarke, 2006). Interview transcripts were coded and categorised where segments were given a code to summarise each part of the data, facilitating analytic descriptions; a pre-coding process is essential to embark on a more systematic focused coding process (Charmaz, 2014).

Following the initial stages, the researcher used computer software (NVivo) to conduct line-by-line coding of the data. These codes were then labelled, grouped and reviewed against the transcripts before proceeding with more focused coding. Focused coding involved utilising initial codes to sort and categorise data, and finally theoretical coding to describe the main categories synthesised to provide coherence to emerging outcomes (Charmaz, 2014). The systematic coding process was inductive, and the emergence and refinement of themes evolved with each review of the data.

Finally, the outcome of coding the data set was a series of categories and sub-categories and a list of emergent themes. This process was followed by axial coding, whereby categories and sub-categories were synthesised to lend coherence to the emerging outcomes (Charmaz,

2014). The relationships between categories and subcategories were investigated, looking for links and connections between key themes and concepts (Strauss, 1987, Charmaz, 2014). Figure 3.5 which follows summarises the coding process.

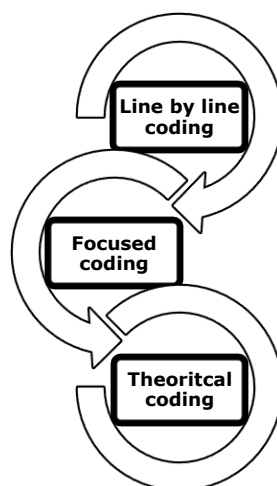


Figure 3-5 The coding process. Adopted from (Charmaz,2014)

Accordingly, by studying the data, and comparing it in tentative and analytic categories, major key codes that appropriately fitted the data were identified as core study codes. One of the coding processes, Matrix coding queries, was utilised in this study when a range of questions about a specific theme were asked and access was gained to content revealing the themes, making it possible to compare what different architects and museum directors and curators said about their experience, attitude and other issues associated with the four major themes and other coding processes (see Figure 3.6). Details are enclosed in the Appendix. All these processes assist in paving the way to determine the theoretical direction of the research (Charmaz, 2014).

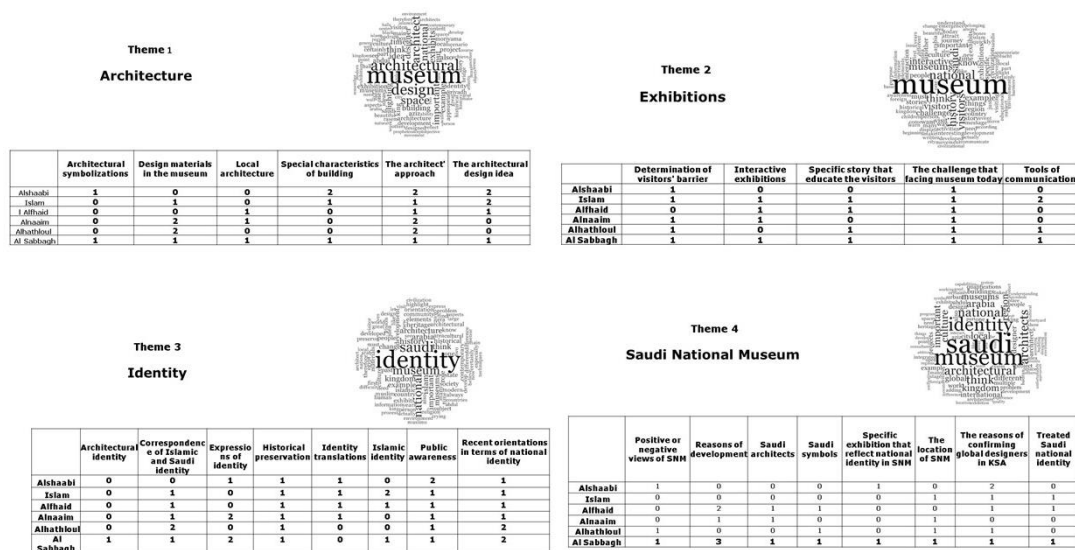


Figure 3-6 Matrix of coding queries for the key themes. Source: The researcher

The first phase explored how Saudi national identity has been represented in the past; whether by governments, religious organisations, societies or communities, and specifically the role of museum architecture, design materials and other internal aspects that emerged in expressing identity. To advance to the second phase of this study, further details of the museum experience were provided in terms of the exhibition atmosphere and design that needed to be provided through the SNM Journey Survey in the following section. In this regard, Charmaz, 2014 emphasised that the initial core codes are not only grounded in the data, but are also provisional. They are provisional because they open the door for other analytic possibilities that should follow up on these codes to fill the gap identified in the research (Charmaz, 2014).

3.6. Stage Two: Survey

The survey offers a comprehensive method providing individual information and views about various topics and research interests. In order to understand museum visitors' expectations and perceptions, the SNM Journey Survey was conducted as a possible research approach and as a useful tool to establish which exhibitions were the most popular during the journey, and what effect they had on visitors.

There is a considerable body of literature emphasising how visitor satisfaction and motivation influence visitors' expectations of, and satisfaction with, particular components (or all) of the range of products, services, activities, places and infrastructure that combine to deliver the visitor experience. Fowler (2013, p.2) confirms that with regard to the use of survey techniques "numerous facts about the behaviours and situations of people that can be obtained only by asking a sample of people about themselves".

In light of this, the visitor experience survey of the SNM includes all aspects of the visitor journey, from the materials that engage people with displays or artefacts, to the support services provided. In the majority of recent studies, survey results have been measured variously, as well as through commonly implemented evaluation methods. Additionally, surveys can collect information about people's knowledge, awareness, satisfaction, expectations, behaviour, preferences and beliefs, as well as demographic data (e.g. respondents' age, ethnicity, gender). Survey responses provided both quantitative data (e.g. responses to factual questions) and

qualitative data (e.g. responses to open questions) to generate useful statistics and information.

3.6.1. Survey Result Structure and Analysis

The SNM Journey Survey was designed in two sections: (i) open-ended questions (the first section of the survey), examining visitors' motivations and the exhibition atmosphere and environment, in terms of design and sense of identity; and (ii) the closed-ended questions (the second section of the survey) requiring visitors to tick, order and explain their responses with regard to the most impactful exhibition or (exhibitions), and identify positive or negative aspects of their overall journey. In this context, visitor satisfaction and the overall journey were viewed as the significant elements of the study; constructed to determine personal behaviour, feeling and motivation in the design field (see Figure 3.7).

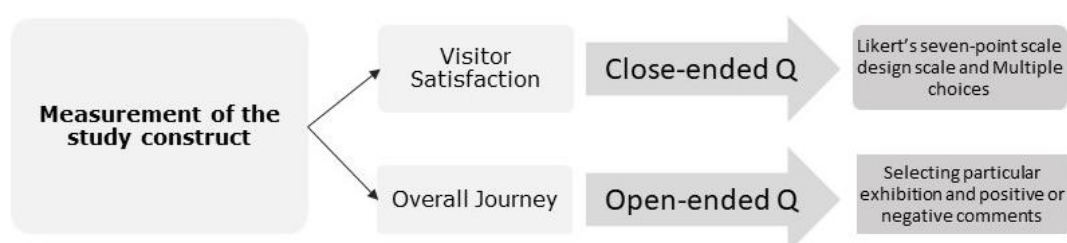


Figure 3-7 Measurements of the study construct. Source: The researcher

The SNM in Riyadh, Saudi Arabia, was selected as the research site for the present study. In total, 240 surveys were collected by gathering relevant information from both residents and tourists. It is important to acknowledge that there were limitations here in terms

of designing specific questions related to visitor identification. The categorisations of National visitor (from Gulf countries), Regional visitor (from Saudi Arabia), Local visitor (from Riyadh city) and Overseas visitor were helpful for extracting more significant and meaningful relationships from the data.

Following quantitative analysis, analysis of the survey involved three steps to assist the researcher to synthesise the important aspects of visitors' responses. Firstly, the cross-tabulating method was used via Microsoft Excel to present and filter basic data tables. This step enabled the researcher to examine and analyse the correlation between multiple variables and how this relationship changed between variables (Hellevik, 1988). The second step undertaken when analysing the survey data used a factor analysis, specifically involving identifying the relationships between variables (data summarisation) and creating a new group of variables. The processes involved in this step, as carried out in this factor analytical study were selected to establish the to-be-analysed variables, and to test the validity and reliability of the variables using Bartlett's test of sphericity and MSA measurements. This step involved using SPSS software as a data processing tool. Finally, open-ended questions were analysed, and conclusions drawn based on all the interpretations performed.

The main measurements for this survey were examined according to three factors, as explained in full in Chapter 6. Responses were indicated on a Likert seven-point design scale, and according to a multiple choice survey using Museum Environment and Meanings Construction factors, which tested visitor satisfaction in the first

section of the survey. The second section was created to measure the overall SNM journey, and to assess visitors' feelings and choices regarding their strong sense of Saudi national identity or Islamic identity, and whether their overall experience was positive or negative. Each response was read to determine the reasons why a visitor chose to view a particular exhibition, and to establish the positive or negative overall SNM experiences of each visitor.

3.6.2. Observation (Tracking Visitor Behaviour)

In the social science studies domain, observation of people's behaviour is deemed relevant to obtaining data about activities and the relationships needed to sustain them; as well as expected uses, new uses and misuses of place, and considerations of behavioural opportunities and the constraints that environments provide (Zeisel, 2006, p. 191). Consequently, visitors' choice of routes is recorded here to identify any correlation between visitor experience and the role of design in constructing a memorable experience. Behavioural observations were carried out using security cameras to track visitors and trace their routes on SNM drawings, as well as to examine the effects on visitors of different types of space within exhibitions.

This methodology was based on two stages: the first stage involved specifically tracking the first exhibition of the SNM Man and the Universe with four different types of visitors, and the second stage involved tracking the overall journey across eight exhibitions with 12 visitors. Both stages measured key variables, such as the average time spent at each exhibition, the number of stops at specific exhibitions and the total duration of the visitor journey.

In terms of the tracking analysis, investigating various variables proved very useful as a means to report tracking data. This is particularly important when investigating different types of visitors; such as tour guides, families and adults. Manual and coloured tracking approaches were used to observe each individual's behaviour inside the exhibitions. It is worth discussing the data revealed by the results when estimating the time spent visiting particular exhibits and exhibitions, and the total time spent in the SNM as a whole. Using tables and graphs to report on the data became an effective way to identify points that attracted and encouraged visitors to engage with and interact inside the museum.

3.7. Overall Methodological Approach

Both qualitative and quantitative methods were selected for this research, and the data they provided was strongly correlated. The most striking findings to emerge from the data concerned the identity phenomenon as explored by architects and designers. A statistical approach was found to be helpful to complement the qualitative data, and to evaluate the visitors' perceptions and motivation. The sequence of the data collection methods, analysis, procedures and products are illustrated in figure 3.8 below.

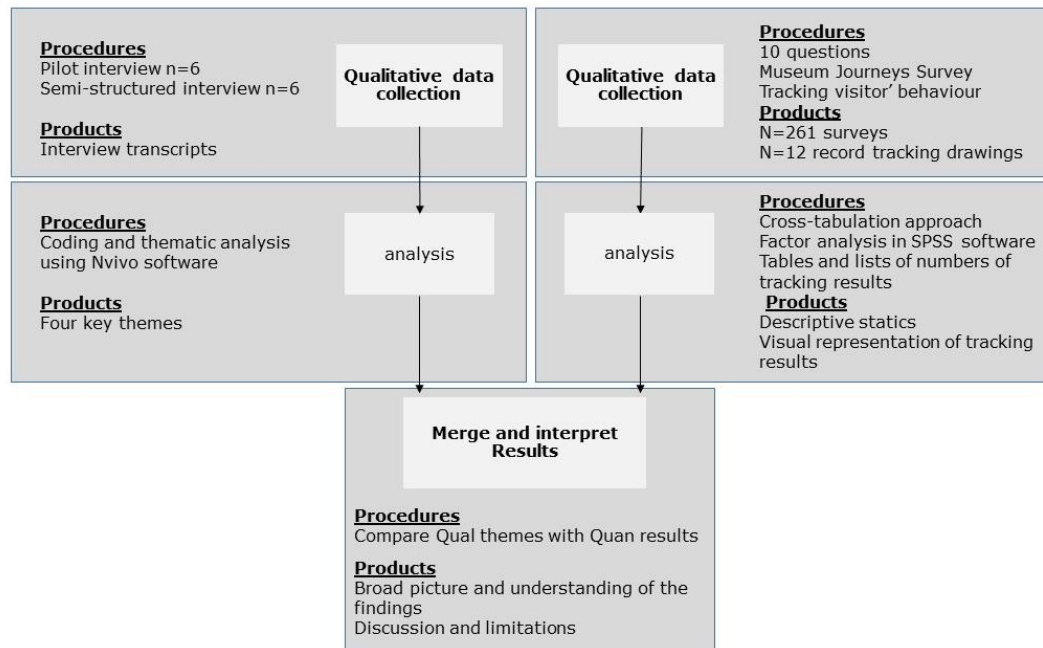


Figure 3-8 The sequence of data collection design, analysis, procedures, and products. (Source: The researcher)

Summary

This chapter described the research design approach, beginning by explaining the adoption of a mixed method approach for analysis and interpretation. The methods conducted were informed by a semiotic framework, and a desire to examine the intentions behind museum communications as they manifest as a sign system between the encoder (architect, designer or curator) and the decoder (museum visitors), thereby affecting the meaning of the message. Semiotics was used as a tool to study the SNM, in particular the conflict between museum communication and national identity, as mediated by different heterogeneous forms of producer encoding and receiver decoding.

The next chapter will present the major findings from the interview analysis, and consider the four key themes, and the sub-themes that link them together.

Chapter 4. An empirical exploration of expressions of national identity

4.1. Introduction

This chapter details the key findings from the interview analysis portion of the research. The interview recordings were transcribed by the researcher, and then analysed using a theoretical thematic analysis. This approach is pursued when there is a theoretical interest in a particular aspect of the data, which guides the focus of the analysis. The areas of interest discussed included descriptions of Saudi national identity and their representation within the museum. The findings were reported in this section and then the characteristics of the museum building, explored spaces, design materials, special moments, architectural symbols and other internal aspects that emerged when expressing national identity were also analysed further. This chapter identifies and analyses how key constituent identities are encoded by architects, designers, or curators. It also explores the effectiveness of museum architecture as a tool for expressing identity in reference the building of SNM and its eight exhibition spaces. Interviews with experts in these fields took place according to specific criteria (illustrated in chapter 4), which involved selecting and categorising participants according to distinct study areas. This occurred because gaining heterogeneous data that presents findings affected the intended meaning associated with insights into the role of architecture and its impact on shaping identity in Saudi Arabia, as well as the implications of integrated frameworks

that help develop the design of exhibitions, displays and their effect on the visitor experience.

The grounded theory approach was applied to the data analysis stage to determine appropriate coding, and the formation of themes from codes. As a part of the analysis procedure, quotations selected from participant transcripts were grouped under four main themes, which focused on examining meaning within the data:

- 1) Identity
- 2) Architecture
- 3) Exhibitions
- 4) SNM visitor journey

As all the initial themes were highlighted before testing the software for analysis, this step was carefully adapted to generate major research thoughts, ideas and outcomes within each theme. Within each of these broad themes, several sub-themes emerged. Table 2 presents these themes and sub-themes, as illustrated by the participant quotations selected.

Table 2 Selection of themes and sub-themes

Identity	Architecture	Exhibitions	SNM visitor journey
Correspondence between Islamic and Saudi identity	Architectural symbols	Determination of visitors' perceptions	Tools of communication
Expressions of identity	Local architecture	Interactive exhibitions	Reasons for confirming global designers in KSA
Identity translations	Saudi architects	Challenges of museums	Specific story that educates visitors
Architectural identity	Design materials in the museum	Special characteristics of building	
Historical preservation			Specific exhibition that reflect national identity in SNM
Recent orientations in terms of national identity			The location of SNM
			Positive or negative views of SNM

Note: All the themes and sub-themes were generated from thematic analysis and from interview transcriptions, and as such are linked with each other, as well as having a cross connection between the sub-themes to develop a thematic framework.

4.2. The relationship between themes and sub-themes

NVivo software was used to conduct line by line coding of the data, and the numerical data was collated to illustrate the scale of the

participants' views as they cover the majority of the issues that emerged during the interviews. The charts for each theme were presented to consider the number of coding references and coded items that help to interpret the data (the number of the coding references and coded items that mention the main themes are in Appendix D.1). The total number of references is calculated based on coding that relates to all the participants. For example, if two participants have been coded at the same under the sub-theme, the coded content is combined and counted as two references. Under the theme of identity, various aspects emerged. It is evident that the number of references and coded items that the sub-theme of identity referred to most related to the correspondence of Islamic and Saudi national identity, and was reported significantly more than other sub-themes, such as architectural identity.

The architecture theme chart compares the number of references as linked to the main characteristics of the architecture. It is apparent from this chart that there were a few similar results regarding comments about architecture symbols, local architecture and Saudi architects as the majority of responses indicate the role of architects and design materials when expressing the meaning of identity.

Charts detailing SNM themes present the results obtained detailing the relationship between exhibitions and the SNM journey. Data regarding the challenges of museums, and determining visitors' perceptions in the chart of exhibition themes can be compared with data provided by global designers, tools of communication and the specific story that educates visitors along the museum journey.

Another technique used in this study is matrix coding, which is used to display data in a structured way allowing the researcher to compare what different participants have said about each theme and sub-theme. It was apparent that all themes have similar numbers discussing each sub-theme, resulting in the whole study covering views about the main themes and sub-themes equally. (Matrix coding query of all themes are in Appendix D.2).

As the emphasis from the interview analysis and discussion chapter was on quality rather than quantity, the majority of participants were architects and museum directors, as well as others interested in that sector. A description of each participant's position has been included in Appendix 3.

4.3. Theme one: Identity

4.3.1. Views of Saudi national identity and Islamic identity

The relationship between the state and Islam has long been an issue informing contemporary Islamic identity. Some questions regarding the identity of Islam as a religion within the community have become prevalent in the political, religious and cultural literature (Al-Hathloul and Mughal, 1999). Subsequently, it has become clearer that comprehensive understanding is required to establish how communities, such as those in Saudi Arabia, are constructing their identity currently. Widely contrasting views have been expressed to establish the relationship between these identities. It seems that a lot of the evidence shows Islamic identity as a broader concept; one that exists geographically and globally compared with other identities

attached to Islamic states such as Saudi national identity. For this reason, it could be argued that the relationship between Islamic identity and Saudi national identity could be represented and explored across different paradigms to distinguish between them.

4.3.2. Islamic references

Islamic identity is characterised by observing the Muslim faith, which inform both religious practice and personality. The characteristics associated with this faith are based on morality, which is a part of being a Muslim. Muslims comprise just one of the many religious communities in the world today, including Christian groups, Jewish and non-religious groups. It is noteworthy here that there are some facts about the observance of Islam in Arab countries that are separate to, but likely to inform opinions and commentary about the SNM. These need to be defined to ensure the open exploration of Islamic identity before in-depth analysis of SNM and to distinguish correlations between Muslims and the importance of Islamic identity, which distinguishes Muslims from non-Muslims.

Arabs now live under unclear and inconclusive identities; they even disagree on national identity itself and pluralism within the same society. However, the issue of religious identity is emerging as a substitute for national identities. It is possible to consider Islamic identity as an alternative to Arab identity, as Islam (interview, 2018) highlighted:

“Islamic identity is an identity that has no relationship with any country, whether Egypt or Iraq, or any other. It is assumed that the Islamic identity is a constant identity for all Muslims and cannot be changed by changing the place ... While

the national identity may reflect a particular country with some customs and traditions, it is not necessary to inform your religion in its true sense, and cannot impose on you a certain way of speaking, eating or wearing clothing.”

A further view concerns key perspectives regarding Islamic identity boundaries, suggesting there is no difference between Islamic identity (the common denominator of the Arab world) and Saudi identity. Islamic identity unites the identities of Egypt, Saudi Arabia, Iraq and Jordan as one Arab identity. The Arab countries were divided by colonialism geographically, replicating the division of Europe by mountains and valleys. In the case of Arab countries, unfortunately, colonialism came to establish separate states along certain lines, whereas Islam always kept them together (Alsabbagh’s interview, 2018).

In contrast, Alhathloul’s interview, 2018 expressed the following:

“I think we are originally Muslims. We are all Muslims and I do not find any difference between us in terms of my feelings – so Islam is not an identity, because my identity is Saudi. I am automatically Muslim. I have no doubt about this and I cannot distinguish or differentiate between the identity of Islam or Saudi identity; this is exactly the problem with the Muslim Brotherhood, they do not represent themselves as Saudis, Egyptians or Turks; they are only Muslims and they want an Islamic state and therefore, they do not belong to any country or nation.”

He supported his point by referencing the Muslim Brotherhood, who are a terrorist organisation, that works for Islam collectively, not representing a particular nation. They simply want an Islamic state, similar to that from the time of the Ottomans, from the Atlantic Ocean

to Central China and from Central Europe to Central Africa. He continues, thus:

“The idea of 2030 visions of Saudi Arabia has an essential idea that yes, we are Muslims, but we are also Saudis and we have a nation. I can never be a Muslim and destroy my identity and nation.”

This is an important finding in terms of furthering the understanding of the important overlap between Saudi national identity and Islamic identity. Alfheid’s interview (2018), expressed his belief regarding this relationship:

“There is an important link between these two identities, and the most important elements of our social foundations are all based on religious foundations. So, our national Saudi identity is based on the foundation of religion.”

Comparisons revealed the focus on another aspect related to these issues: the use of religion to consolidate a Saudi national identity, which in turn will constitute an additional attribute for the performance of Saudi national identity. Alnaaim (2018) stated:

“I see that the history of Saudi Arabia is an extension of the Islamic history in the Arabian Peninsula, so it is not separate from it and the extension of the history of Makkah and Medina. Saudi Arabia is the servant of the two holy mosques ... Saudi Arabia always represents the contemporary side of the history of Islam in the Arabian Peninsula”.

In addition, Islam (2018) emphasised that:

“Saudi national identity is really rich and there are a lot of different styles to the regions, customs and traditions that differ from the north to the south of the Kingdom; so it is a diverse identity, but lacking in my view the unity that would

bring it a different sense. So, we are not twins, but brothers; and that problem actually exists in all Arab countries.”

However, previous research by Nevo (1998) focused on discussing the role of religion as a source of legitimacy for the Saudi regime, arguing that the promotion of national identity has been an official as well as a practical policy, reflecting the regime's endeavour to enhance its position and legitimacy.

The contribution of various issues to shaping this identity varies from country to country, and from one community to another, owing to differences in social and religious structure and to the nature of respective regimes, as well as to the course of various indigenous histories. Moreover, while the perceptions of Islam and Arabism share many common denominators throughout the Middle East, the concept of nationalism is not subject to consensus, and may consist of particular attributes in certain countries and societies due to the above differences.

These results build on existing evidence that Islam and its references perform a role in identity formation. An important question posed here is: how can a global religion such as Islam, which is practised by a billion and half Muslims, not inform the identity of people who believe in and practise this religion? There are considerable discussions among researchers choosing to answer this question, which refer to the definition of identity, and are the sum of inherent characteristics which are different and distinct from other people's. In general, it appears that it is a definition that can be reduced to the

statement that identity (when it comes to peoples, nations, and states, not individuals or ethnic groups) means distinctiveness.

Architectural expression can refer to the design, as it relates to answering the above questions. Many countries and societies have started to re-investigate traditions as a way to enhance their nation's value. One of the chief characteristics of this process involves developing cultural identity through architecture. According to Mahgoub (2007), a three-dimensional matrix is used that explains the four design strategies that express cultural identity in architecture. These were, pragmatic, iconic, analogical and canonic, as well as symbolic and metaphoric design strategies that were also added to the four strategies above proposed by (Broadbent, 1973).

Mahgoub (2007,p.178-179) represented the six design strategies that illustrate the relationship between sources of identity and building types and scales according to these strategies:

Pragmatic design strategy utilises the inherited features of traditional architecture and strives to reproduce them as they were in the past. It applies direct copy and paste practices to use complete examples or elements from traditional architecture. Secondly, Iconic design strategy strives to reproduce the image of traditional architecture by using its elements and vocabularies to produce new building types and functions. Thirdly, Analogic design strategy aims to produce architecture that resembles traditional architecture without direct copying and pasting of its elements. Fourthly, Canonic design strategy endeavours to form cultural identity by applying

the principles of traditional architecture without copying its elements and shapes. Fifthly, Symbolic design strategy focuses on reinterpreting the principles and elements of traditional architecture and avoids any copying and pasting of elements and shapes. And finally, Metaphoric design strategy attempts intentionally to depart from being associated with traditional architecture and to create dramatic experiences of contemporary cultural identity.

These studies would provide an ideal guide for practitioners, such as architects to understand the current practices in contemporary architecture around expressing cultural identity.

4.3.3. Creating identity within a community

National, regional or ethnic identities significantly impact the various aspects of community identity. Residents have certain aspirations, which are reflected in the built environment of their communities. Aspirations vary from society to society and country to country but are significant factors informing behaviour everywhere. Even within a single country there are regional variations. Although impressions of communities are frequently linked to their physical characteristics many communities come into being to perform certain functions. The identity being sought may be national, ethnic, regional or a combination of two or all of these. There can be many reasons explaining the desire to strive for community identity. Chadirji (1984, p.108) identified the social phenomena associated with this desire as:

1. political and ideological motives;
2. the need for a sense of belonging;
3. a reaction against change as inimical to continuity;
4. a need for cultural variety in a world whose culture is increasingly homogeneous;
5. pride in national, racial, ethnic, or other social communities.

Any discussion about identity has to be considered in light of the relevant cultural and historic background. This view is supported by Thornton (1989, p.26) who argues that the cultural resources available to people constitute the main basis for outlining their perceptions about identity. Alshaabi (2018) argued in the interview that:

“Usually nations choose from their past and this choice leads us always to return to it, strengthened by a modern vision. We can change our orientation and vision as a nation and go back to our past, highlighting or omitting elements.”

He supported this view with the example of Egypt in the era of Nasser (President of Egypt in 1954), when Arabism was the most important orientation for people in Egypt. Their main focus was on the introduction of Islam and beyond. They did not recognise the Pharaohs or ancient Egypt, even though it was the greatest civilization in Egypt. The focus on Arabism was a consequence of prevailing political orientations under Nasser, as the revolutionaries sought to lead the Arab world in this direction. Then came the era of Sadat (President of Egypt in 1980), during which the main orientation and official emphasis was on Pharaonic Egypt. Thus, it is evident that nations choose from the past to strengthen their orientation in the present, and so choose the orientation they most wish to highlight. Referring to the SNM as an example that he supported, the narrative is about Islam first and then the Saudi state; although 1,200 years elapsed between the emergence of Islam and the creation of the

Saudi state. This point confirms that nations typically choose elements from their history as components of their national identity.

Consequently, throughout much of the colonial era, the notion of tradition was perceived negatively, often being equated to pre-modern, pre-industrial, and even primitive practices. However, with the proliferation of new nation-states beginning in the late nineteenth century, this changed, and tradition emerged “as a source of continuity and identity” (Crysler, 2003). The re-evaluation of traditions, however, was for the most part reliant on their reinvention; their *raison d’être* now being related to the creation of a nationalist past. As Nezar AlSayyad (2004,p.6-7) pointed out, “the tangible products of tradition are those processes by which identities are defined and refined,” and this connection explains why the re-invention of traditions became useful for nationalist interests (Al-Solaiman, 2016).

Alshaabi’s interview (2018) outlined that in the case of Saudi Arabia:

“Identity is a product and not a goal. If all the members of a society and its institutions are working to face their local issues properly, this will preserve its identity and its continuation for future generations. Anyone who comes to Saudi Arabia knows it is different, but we are inside the box and do not have this feeling until we go outside the box of Saudi Arabia. Of course, we have some disagreements in the form of basic buildings and activities, but in general we have an existing identity. It is a Muslim country and the members of this society are the ones who preserve this identity that comes from religion and social relationships.”

Every city in Saudi Arabia contains mosques, and this reflects one of the key elements of identity in society; i.e. the preservation of Islamic values. As Alsabbagh’s interview (2018) claims:

"Identity has several trajectories, but always comes from the culture – whether clothing, behaviour or teachings - so the Islamic religion calls for the good handling of people through community and relationships. All of us need to express our identity through our Islamic religion and our relationship with space."

Alshaabi's interview (2018) stated:

"In our heritage, we divide tangible and intangible material. Clothing, the individual and every part of human life can represent identity; eating, poetry and belonging to other traditions can add something, acceptable or unacceptable. Heritage is symbolised by some values, for example architecture, and we have architectural patterns in every region of Saudi Arabia, where diverse characteristics are commensurate with the local materials and the climate. Social relations are recognised in the same society, but this can be discussed separately, together with how to deal with the development and enhancement of identity, modern materials for architecture are linked to heritage and urban planning across different environments and standards found in traditional society."

Therefore, arguably, the development of the concept of identity is not easy. However, it needs conscious consideration, open minds and a broad view to find balance between past, community-constructed identity and the extent to which we are at risk of losing it now. The important link which needs to be addressed here is how to combine these two elements: the modern building techniques that offer the most beautiful form while at the same time preserving heritage, and attempting to produce new designs which will be appreciated by the people and offer a sense of belonging.

Identity must be seen as dynamic: it does not stand as rigid, or it would risk becoming dissolved into other identities. Instead, it must be seen to change over time. As Alnaaim's interview (2018) argued:

"Identity is constantly variable over time, so it is a consequence and not a goal that sees the result of different interactions. It is certainly possible to direct and prepare the community to reflect its identity positively."

It is interesting to note that national identity is constantly evolving, adopting new messages, principles and values that play an important role in re-shaping it, and in being able to create identity in the minds of future generations. An important, related question here concerns the identity component; in particular, if are we able to create identity or if we have to open up other avenues to let it form?

Alnaaim (2009) has attempted to draw distinctions between Normative Identity and Relativistic Identity. Both concepts contribute to the composition of identity in different ways. The first is normative identity, which freezes and defines identity, seeking only to achieve. This concept represents a danger to culture, because it renders all institutions inert, limiting creativity. The other concept of identity is relativistic identity, which supports transformation in terms of the meaning of national identity. It also seeks to record achievements and build on them without underestimating them. However, if national identity at the moment of the formation of modern Saudi society is an essential component of national identity, it may be that the identity component must be continuously open to transformation and the construction of new images.

These distinctions support the notion that the adoption of the idea of relative national identity is a matter of concern, such that children should not be taught about national identity, as it is a form of indoctrination. However, in interview, Alnaaim (2018) argued that forming the values and principles of national identity indirectly rather

than spontaneously is at the heart of the question here. Overall, the debate centres around a dynamic philosophical conception of national identity, and the possibility of creating it remains a concern for all those interested in this issue. It is difficult to imagine creating an identity directly, although all societies are based on a common concept of identity.

4.4. Theme two: Architecture

4.4.1. The role of architecture in defining an identity

There are many examples given in the literature of connections between the symbolic function of architecture and the formation of personal and social identities. The accumulation of these analogies has reached a stage whereby the idea of architecture as an identity has become similar to architecture as a space. The idea of architecture as a language is one of the figurative and intellectual principles of architecture (Abel, 1997).

Alshaabi's interview (2018) introduced the definition of identity and the important elements that shape it as follows:

"We should first define the identity itself, how to link the historical identity to the modern era and how to balance the two modern eras in which technology and materials relate to them. So, constituting an identity is essentially an interaction between current society and historical legacy."

Another general point was made by Alnaaim (2018), who spoke about the role of architecture and its elements in shaping national identity:

“On the one hand, the role of architecture in national identity is undoubtedly important with its multiple elements starting from the ethics, values, behaviour and personal character of Saudi citizens, and ending with simple material elements, such as cuisine and clothing. There are other elements of national identity, for this very large framework is difficult to limit to a specific field.”

There are differing views, but no agreement, in the Kingdom of Saudi Arabia regarding its architectural identity and how to preserve it. There are, however, some attempts to define it regionally. Modern contributions to preserving the artistic and aesthetic nature of the area with a change of techniques and materials have played an important role. Alshaabi supports this view by taking as an example Al-Kindi Plaza, which involved the creation of an urban design for the central area in the embassy district in Riyadh. He was one of a group consultants who worked to develop regulations to facilitate architectural designs to enhance the identity of an area and develop the historical buildings, by creating a physical structure similar to the historical structure. The reasons changes were made to the physical structure were technical, and consistently related to climate (see Figure 4.1).



Figure 4-1 Al-Kindi plaza. Source: (Cardenas, 2016).

However, a strict design policy could have led to monotony. Therefore, giving flexibility to the architect was a key strategy here, allowing him to encapsulate the cultural identity of the city by realistically and imaginatively interpreting the natural and spatial organisation of this hot and arid region.

Alsabbagh's interview (2018) also emphasised the architects' role in designing buildings, including museums, establishing to what extent any design reflects the cultural identity of a city:

"The leaders, including King Salman, were keen on establishing cultural identity. They were trying to highlight the cultural identity of the city in the royal palace (The Murabba Palace), located in the King Abdul-Aziz Historical Centre, as the huge walls and internal and external ceilings are built with tamarisk and palm tree fronds; stones were used in the foundations and columns, and wood was used for doors and windows. Thus the architect, Rasem Badran, was able to create his own architectural ideas with a specific identity that does not repeat the past but extracts vocabulary from it and puts it in a contemporary context. The objective

was to enhance its relationship with the environment and with citizens, within the context of linking to cultural identity, at the same time giving the visitor an opportunity to relax in an environmental space away from home.” (see Figure 4.2).



Figure 4-2 The royal palace at KAHC. Source: <https://www.visitsaudi.com/en/see/highlights/Al-Murabba-Palace>

Alsabbagh’s interview (2018) suggested that one of the main local architecture styles in Saudi Arabia (the Najd architecture) could be used when designing a museum. He believed that it was a prominent historical landmark, using the metaphor of the muds of the Najd in the arena, and that through these effects the visitor would, having seen the exterior, understand the interior. This would form an attractive element to encourage visitors to the museum.

Another important point regarding the role of the architect is mentioned in Alhathloul's interview (2018):

"Architects are producers of culture, heritage, and nations, but some produce architectural products without any objective; they simply take them from magazines or through their tourism in China or Manhattan, and copy it without any thought of the impact on society. So, Islamic architecture can be defined in different ways, but can still deliver a product that enhances the identity and local environment."

However, he pointed out that one of the skills of a professional architect is being aware of the technical elements involved in designing a museum, and working with local consultants to put into practice and modify his ideas appropriately. That is, the most important steps are to ensure the translation of a local identity.

Alsabbagh's interview (2018) added that:

"Certainly understanding identity from a local viewpoint is important, and the Commission for the Development of Riyadh city was conscious of this point and was therefore constantly discussing and interacting with the designer to highlight and enhance this point."

To facilitate this process in the case of the SNM, Alfheid suggested an architectural pattern for developing the museum introduced by the Arabic architect Rasem Badran, and inspired by local architectural vocabulary known as 'Tarma'.

Consequently, the design proposed when developing SNM was inspired by the vocabulary of Tarma, the local architecture used in Najid's buildings. In Tarma, historically the window overlooks the entrance to the building, and so the design nucleus was centred upon the main entrance of the museum with a glass ceiling and three spaces designed across underground floors. The design concept of Tarma was reinterpreted to arouse visitors' curiosity to visit the museum through introductory exhibitions, alongside cafes and restaurants. It was anticipated that this approach would increase interest and attract more visitors to the SNM.

Moreover, adding halls to the museum representing the Kingdom of Saudi Arabia as the destination for Muslims, and Saudi Arabia's nest hall would explore the cultural, environmental and social differences intended to enhance our understanding of national identity. In addition, building a hotel and restaurant to complete the development was judged vital, as it was important to blend the presentation of scenarios in the museum and services. Many museums worldwide are built around a site offering multiple activities, with movement around it based on an understanding of the behaviour of the intended users (see Figures 4.3 and 4.4).



Figure 4-3 An architectural pattern (Tarma). Source: <https://www.ootlah.com/ar/attractions-sarpruh-oth830-discover-the-historical-murabba-palace.html>



Figure 4-4 Proposed design for SNM development. Source: <https://www.eyeofriyadh.com/news/newsdetail.php?newsid=94985>

Alnaaim's interview (2018), on the other hand, made the point that local architecture, and visitors' understanding of it, is to be distinguished from the ideas that helped create an architectural national identity. He believes that the historical aspects should not be integrated as end products, but should be understood as products that must be taken apart to access their underlying elements, for later reconstruction in a contemporary style.

As Alhathloul (1999) commented:

"Community identity is a reflection of national, regional, ethnic and cultural identities; preservation of traditional communities is one way of continuing with cultural identity but it has to be combined with the technological innovations for better living and functional survival. Therefore, it would be great to achieve architecture that respects the human, and at the same time preserves original identity, because the most beautiful thing a person can have is a proud identity."

A similar pattern of results was reflected in Alnaaim's interview (2018), which examined the role of architecture in national identity. He argued that Saudi architecture does not contribute to the expression of national identity, as the country does not have a classifiable Saudi contemporary architecture that expresses the identity and character of the Kingdom of Saudi Arabia. He argues that as every area of the Kingdom has its own style the museum could never effectively reflect the variety of regional Saudi architectural styles.

In other countries, the situation is different. For example, contemporary Mexican architecture is led by Luis Barragan and his students (among them Lokarita), who sought to discover the characteristics that distinguish Mexican culture and represent these as an architectural product that can be entrenched in people minds as a visual, cultural and multiple identity. These architectural initiatives contribute to the expression of Mexican national identity. On viewing these buildings, an onlooker can directly say that they are Mexican. It can thus be argued that Saudi architecture needs effective intellectual contributions and opportunities to build a contemporary architectural style that goes much deeper than that currently being offered.

These results need to be taken into account when considering the characteristics that play an influential role in creating architectural identities. Torabi and Brahman (2013) confirmed that,

Like human identity, architectural identity has had both fixed and dynamic aspects in each historical era. There have been changes in each period. Humans make sense of their architecture based on their own inner motivations and via making changes in environmental functions or in the physical environment. What people perceive are first actions and events the form and pattern of physical environment provide. Then, characteristics of shape, levels and forms take attention and get perceived. (Motalebi, 2006, p.25)

In contrast, community identity clearly creates architectural identity, because it includes a comprehensive cultural act in terms of all its details, engaging with the different levels produced by the community to express its multiple identities. As Alshaabi's interview (2018) confirmed:

"The growth of identity requires a certain freedom between the present and future, and between experiences and dreams. However, architectural identity is what all these mechanisms produce; it can be assumed that every environment and space must be dominated by the values, traditions and experiences constituting a tool of evaluation and pushing them towards the appropriate choice."

Some communities, such as the Saudi community need to expend great effort to structure public opinion and emphasise identity. Islam's interview (2018) considered this point:

"Recently, there are new local museums in all regions of the Kingdom which explain the history of the local area and the most important elements that characterise the role of this region, whether in the unification of the Kingdom or the Saudi state. They give explanations for the climate and environment. So, all these projects can definitely facilitate the consolidation of national identity."

Many participants expressed their opinions regarding the process that emphasises identity in Saudi Arabia and mentioned the Saudi Vision 2030. Alhathloul's interview (2018), for example, argued that the core of Vision 2030 is concerned with constructing national identity. It seems to be an economic restructuring vision but is actually based around community composition restructuring and belonging. In addition, Alsabbagh's interview (2018) emphasised that:

“There are many directions, not only in tourism but in many aspects of the 2030 vision and its orientation in highlighting our architectural, cultural and national identity, and these must be followed up everywhere, because I believe that a human without identity will be lacking something important.”

A similar argument was made regarding Vision 2030 in Alshaabi's interview (2018):

“I think our problem is who hangs the bell and we do not have the cadres that can make concrete the vision for 2030, which has two parallel strands that appear to be contradictory. The first line is to preserve identity and promote the national heritage and the other line is entertainment and modernisation, so I hope to find a balance between these, to highlight the role of public and society in these aspects.”

Another point emphasised by Alhathloul (2018) is that supporting the role of the community is the main mission, but it must be understood that the country is in a transitional stage. It is not possible for society to change until they cooperate with these trends. This presupposes the responsibility of the citizen to understand and realise Vision 2030; so the progress of change is difficult, with the most difficult thing being to lead nations, encourage discussion, and encourage them to accept this viewpoint.

Additionally, Islam's interview (2018) identified the fact that a museum can be instrumental in altering the views of the community, because the notion of communicating a message or changing the mentality of some people can guide them through the museum. Once you know about your past, a message will be put in the mind of the receiver about how the future will be. This is the main objective of the museum: to change ideas after a visit. And of course, original

roles may have changed in the case of Saudi Arabia in terms of highlighting national identity, such as the implementation of modern technology to compensate for certain the elements of the museum and modern presentation methods in the delivery of subjects, allowing for information to be accessible to all. Also important are changes have taken place in the departments of museums some international companies have assisted in the management of museums as complete institutional processes.

Alsabbagh's interview (2018) contrasted this point by stating that:

"The narration of Islam in the museum does not construct society; it is actually an integrated system of science, customs and traditions. Although Islam combines all these things, the museum gives you a brief and quick picture of the value of this civilization. But it does not construct the community, so it is not limited to a building like a museum."

Visiting a museum is considered in Alnaaim's interview (2018), where he makes the point that there is no cultural benefit from visiting a museum in Saudi Arabia, rather visits need to be linked to educational programmes. He states that the purpose of going to museums is not only to visit but also to learn about other civilisations and peoples, and have an enjoyable experience. He emphasised:

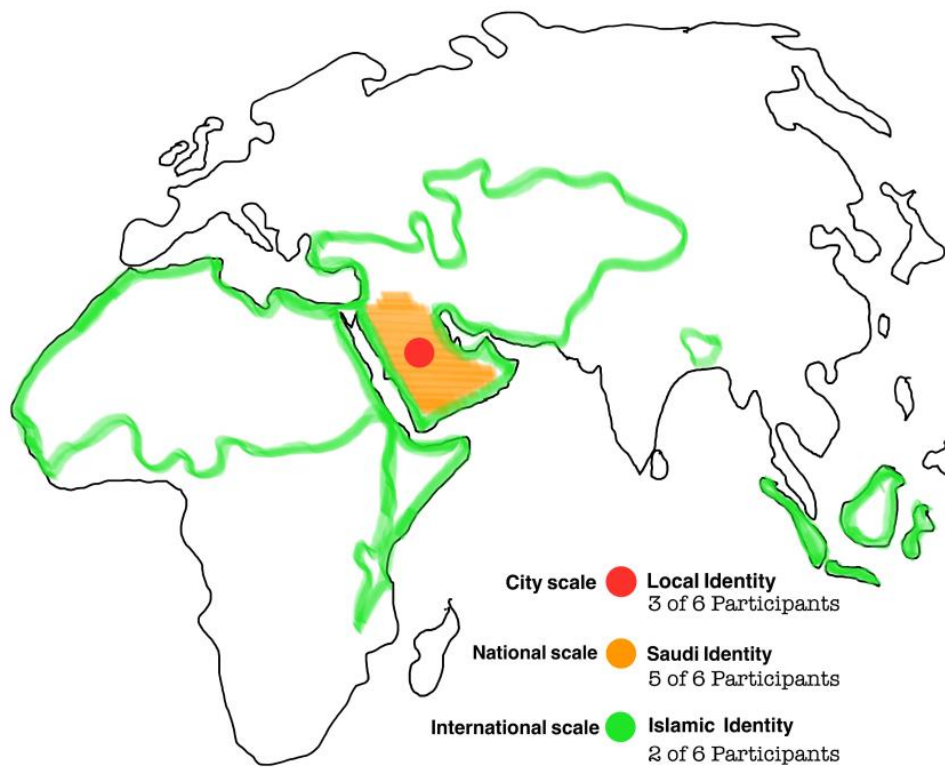
"That's why only small numbers of Saudi people visit a museum, not because they do not want to visit a museum but because they are not used to visiting and learning from a museum. I believe that educational initiatives and programmes should make some cultural contributions to the community."

Saudi Vision 2030 included developing an efficient plan to ensure museum developments in Saudi Arabia are in line with similar initiatives around the world, able to promote the nation's identity and culture. Change is always difficult, but it is achievable; and society must understand the plans for change do not preclude the preservation of basic religious principles. Arguably, Islamic rules can apply to legislation in any time and place, and as such is not limited to a particular environment, so it is the individual that has to change to develop and interact with different civilisations.

This section has discussed the themes of identity and architecture, investigated the various paradigms of identity, and considered how participants have translated and expressed their own identities. It compared national identity, Islamic identity and also how local identities can be represented at the district level, also relating overlap and conflict between these identities. The majority of the participants believed in the extreme expression of Saudi national identity, as evident in the use of religion to consolidate and constitute the performance of the Saudi national identity. Moreover, the participants highlighted how identity is constantly mutable, being a product rather than a goal. All members of society collaborate to preserve the identity that originates from their religious and social relations.

Several of the participants elaborated on their feelings about Islamic identity, as the two quotations from Alsabbagh and Islam show. They argued that there is no contradiction between Islamic identity and nationality. They observed that, if your nationality is Egyptian or Iraqi, then Iraq or Egypt is your home, and so you follow the rule of the land. There is no contradiction here because the rule of the land

does not force you to commit sins, cheat, lie, or charge interest. Thus, it does not obstruct your rights to carry out your religious obligations, nor prevent you from being a good Muslim. They acquire identity through citizenship, and paper identifications. Islamic identity does not require paper based forms of identification, but sets requirements regarding how to act. Two participants defined local identity as an important aspect, highlighting the cultural identity of the city, specifically, the role of architects in enhancing the relationship and interaction between the environment and citizens, as well as helping to inform culture, nation and heritage. However, using key elements of local architecture styles, such as Najd architecture, could be an important step when designing public institutions, including museums (see Figure 4.5).



Comparative set of Identities

Figure 4-5. Participant responses regarding identities. Source: The researcher

What remains to be answered in the next section is how museum design is characterised in terms of museum building; particularly in terms of explored spaces, design materials, special moments and other internal aspects that have emerged from expressing identity. This section will also consider additional key themes in other exhibitions and the SNM visitor journey.

4.5. Theme three: Exhibitions

Within each of these key themes (Exhibition and SNM visitor journey), several sub-themes emerged from the coding process. The following sections will expand upon these themes and sub-themes, illustrating them with participant quotations. Design is considered here as a key interpretive strategy determining how the museum implements architectural ideas, and providing a physical experience to provoke emotional engagement from its visitors.

4.6. Design process of SNM

SNM exhibitions are intended to generate emotional, sensory and critical responses. The initial image of the exterior of the building, i.e. its architecture, urban design scale, and the area, inform visitors' responses, underlining the importance of collaboration between the architect and the exhibition designer. The story the building contributes to the challenging and highly affective experience of moving through its interior design spaces and exhibitions. The context of KAHC is highlighted here as a historical site, and the serious urban design that attempts to bridge the present and the past provides communication between experts (architects, designers, landscape and urban designers), as represented through existed vernacular forms (see Figure 4-6). Within the KAHC, the buildings and spaces convey different meanings and images in terms of their form, age and size, and in relation to surrounding areas such as Al-Murabba palace, the SNM designed by Moriyama, the King Abdulaziz library Darah designed by Rasem Badran and Omrana, and the King

Abdulaziz Mosque designed by Arriyadh Development Authority. The landscaping at the site was designed by Bodeker.



Figure 4-6. A site plan of KAHC showing the different urban elements. (Source: Saleh, 2003, p.6).

(Saleh, 2003, p.5) adds that "the relationship between architecture and urban context is manifested by two broad initiatives. The first gives priority to cultural continuity with the existing locality and its history. It is achieved through a process, which links urban identity

and local memory. The second is concerned with morphological continuity of an existing locality and its historical stratification. It is an urban system which seeks links with physical features, geographic site, topographic characteristics and existing physical and morphological patterns, in other words, with the form and structure of the locality” (see Figure 4-7).



Figure 4-7 (KAHC) context. (Source: https://twitter.com/dar_al_omran/status/1214927047652454402)

Alshaabi’s interview (2018) confirmed that using the walls of old Riyadh and the traditional mud houses as an architectural element of the SNM was the idea of the Canadian architect, who was inspired by the Arabic architect Rasem Badran, who designed the mosque and library located in the same quarter. Thus, it is intended that all these characteristics harmonise with the urban design of the entire area (the KAHC).

One way in which architects and designers approach the idea of reaching out into the world in order to make sense of it is through the concept of narrative. MacLeod et al. (2015) argued that narrative is a useful way of conceptualising museum and exhibition making, and has a long history of being used in this way. Curatorial teams often refer to exhibition narratives, pointing to the stories or ideas created and laid over an exhibition space. Similarly, exhibition designers draw on techniques from film-making and storytelling, creating exhibitions as three-part dramas with a beginning, middle and end. Here, narrative is acknowledged as having a spatial character, and space is recognised as having narrative potential. Narrative can structure our sense of space, and spaces can 'hold' or 'carry' narratives. Moreover, physical space – as a medium – can convey, as a result of our movement through it, a sense of time and an unfolding of experience that a purely verbal or textual medium cannot. As (MacLeod et al., 2012, p.14) revealed, "the depth of meanings, such as the long-term impact of spatial feelings of "layout" and "structure" as an inherent dimension of understandings, beyond simplistic success indicators such as the attracting and holding power of exhibits. These unique visitor insights should help both museum theorists and practitioners to reflect on the meanings of their respective positions and actions".

Clearly, these notions were considered in the process of designing the SNM, which involved a dialogue between exhibition designers, communicating ideas related to how to show exhibits that fit within the architectural space, and architects, who can then make modifications to achieve their goals within the appropriate spaces. In this way, the architect creates the stage for the story, while the

exhibition designer creates the actions. As can be seen in following figures 4.8 and 4.9, the SNM displays Saudi history from the creation of the universe through prehistoric, pre-Islamic and early Islamic times – eras when Arabia was not Saudi – to oil discovery and the custody of the two holy mosques (Mecca and Medina). Therefore, the museum is dedicated to telling “the story of Islam as understood by Muslims, as well as the history of Saudi Arabia”. It encourages pride in both Arab history and reverence to Islam.

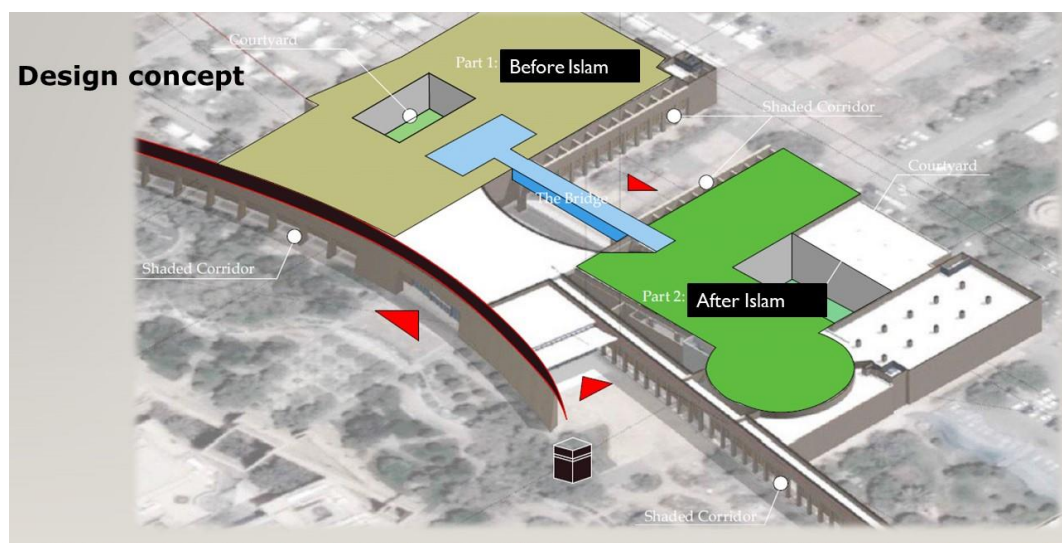


Figure 4-8 The design concept of SNM. Source: by the Researcher

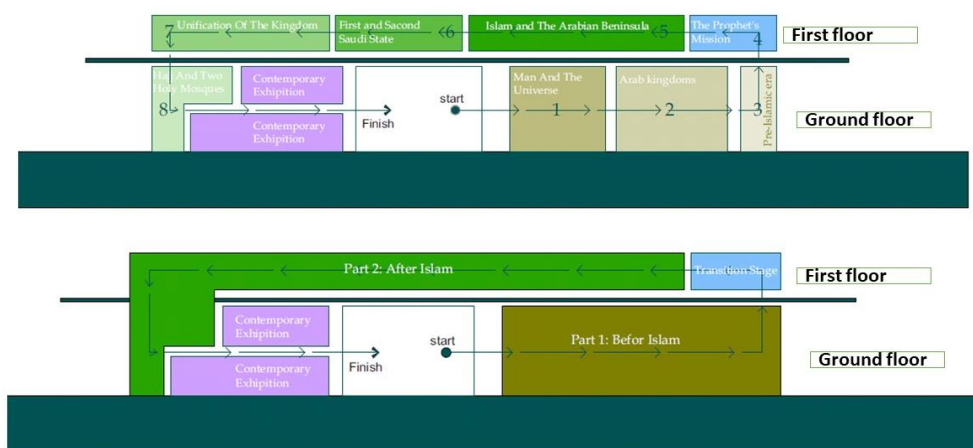


Figure 4-9 The scenario of SNM floors.

The SNM floor plan includes two wings leading from the main lobby. The two wings, which aim to deliver an epochal sweep of Arabian history, are devoted to a chronological narration of the history of Saudi Arabia, citing the Revelation of Islam to the Prophet Muhammed as a turning point. The first wing is dedicated to Arabian territory, from the creation of the universe to the time of Revelation (Man and the Universe, Arabian Kingdoms, Jahiliyyah and The Prophet Mission exhibitions). The second wing is dedicated to the history of Arabia, covering early Islam to Saudi Arabia's role as custodian of the Two Holy Mosques (Islam and the Arabia Peninsula, The First and Second Saudi State, Unification and Hajj and the Two Holy Mosques exhibitions). The two wings are connected by a 40-metre bridge, designed to symbolise the migrations of Muhammed from Mecca and Medina. Finally, at almost every gallery entrance a special symbolic banner appears, together with a square inscribed with Qur'anic verses relating to the narratives presented in each gallery. This museo-graphic concept is valuable, and rapidly conveys the notion that Islam is not only pivotal to museum narratives, but also serves as the thread that runs through the entire museum experience.

The function of the structure, relying on the utilisation of ordinary tools where feasible, contributed substantially to fulfilling the strict time-table for the SNM's construction. The deadline required that the structure and its exhibitions should ideally be planned concurrently. Key choices had to be made in advance, and the limited development choices that took place at future dates, led to a simple central architectural assertion. The shape's clarity, in contrast with that of other buildings in the (KAHC) context, tended to generate a dominant

detailed description that proved static, solid and united. Externally, the National Museum provided two diverse architectural features. Its front provided a magnanimous statement masking the key components behind the facade and fascinating tourists; whereas its back consisted chiefly of rectangular shapes, as the courtyard is not visible, when approaching it from the east. The rear was in fact constructed in part as a historical reaction to surrounding structures that were subsequently pulled down. Contributing to the curving frontal wall, the SNM includes the following two characteristics, which proved notable in respect of the interaction between its exterior shape and its internal statement of display. They are a circular vessel representing the union of Saudi Arabia (reminiscent of the walls and pillars of ancient Riyadh) and a floating causeway representing the migration of the Prophet Muhammad (peace be upon him) from Makkah to Medina.

As Alfheid's interview (2018) explained, the most important consideration when designing the museum was that the architect maintain an awareness of the museum exhibit outline. This meant ensuring communication between the architect creating the architectural text and the exhibition designer to achieve the goals to be delivered. Necessarily, the issue here that emerged during the design phase required the museum planners to work as a team, comprised of an architectural designer and exhibition designer, to ensure the provision of elements to support sound and lighting and the additional aspects that affect the visitor's response, interaction and experience.

Alsabbagh's interview (2018) emphasised how the context at the KAHC largely occurs according to different architectural and conceptual approaches:

"The context of KAHC has a number of international (Canadian), national (Arabic) and regional (Saudi) architects who worked together to define the abstracted modern architecture of all KAHC buildings that symbolises the ancient walls of the city of Riyadh. Here was the controversy between the modern architecture (the National Museum) and the traditional architecture but with a contemporary concept (The Darat King Abdul-Aziz)."

It is noteworthy that all the architects are of particular interest here due to the manner in which they dealt with tradition and modernity as they worked to create symbols of national pride. Similarities, differences and conflicts between the buildings also revealed some of the design dynamics present throughout the KAHC as a whole. Alsabbagh's (2018) also stated:

"An architectural idea and its direction can only provide a museum space. However, there is one trend in the world of designing a museum, the building of a 'black box' into which the exhibits can be put, leaving consideration of whether it is appropriate or not till later. That approach is lacking in creativity, leaving the architect to provide only a physical space in which displays can be accommodated."

An important related viewpoint mentioned in Islam's interview (2018) is that the chief role of architectural design and materials resides in expressing the identity of the museum, as the SNM needs to reflect both details of the region and the history of the Kingdom. The architectural design and the urban context must reflect elements of this history and address it at the national level. Additionally, the building has to reflect and highlight the architectural heritage of the

local region. Therefore, identification of the specific region or state is very important point; for example, the Louvre Museum in Abu Dhabi features a large dome, indicating the inclusion of many different objects under one roof. It does not identify particularly with that region of the UAE.

The Canadian architect, Moriyama, who designed the SNM, chose to design a curving wall as the museum's most distinctive feature, inspired by a sand dune. The remainder of the building was partially inspired by traditional Najdi architecture. The structure employs extensive arcades; uses courtyards to maintain cool interiors; has minimal surface decoration and few openings to the outside; and features massive walls reminiscent of local mud-brick architecture. All of these were features present in old Riyadh, thereby increasing the sense of the person that this space is interacting with as between the user and the space that succeeded and enriched it.

Alnaaim's interview (2018) underlined the fact that when visiting the King Abdul-Aziz Historical Centre, it feels as though the national museum is linked to both the city of Riyadh and the Kingdom of Saudi Arabia. Although it is not a historical building, it unites unique characteristics and values, such as the curved wall reflecting the waves of sand dunes, alongside the traditional walls of old Riyadh, which are characterised by simple designs that reflect both light and shade. He confirmed that Moriyama was very well qualified to reflect the contemporary heritage elements of the museum, and observed that foreign designers follow a precise scientific approach, are always neutral and have the ability to identify facts that may be missed by locals, because they view history from a distant perspective. This

can help them to readily identify a variety of details and express them with a skill that local professionals cannot, because they reside 'inside the box' and are only able to see a part of the larger picture and not the whole truth.

Alhathloul's interview (2018) revealed his view concerning the importance of the exhibition designer and the architect working together to confirm the materials that will be used in the structure. The architect should be able to provide spaces that meet the exhibition designer's objectives, to ensure an appropriate space that is functionally appropriate to achieve its primary purpose. Key to this is the ability of the architect to provide features, such as internal elements and lighting which meet the primary objective.

In Alshaabi's interview (2018), the point was made that it was decided during the planning stages, that the SNM should not simply comprise a collection of boxes in which to display pieces, but should also offer a coherent flowing presentation commensurate with the place, environment and theatrical setting, and including a dynamic display with screens in each room offering sufficient explanation to allow for interaction. This is particularly important for school visits, so as to increase the sense that these effects and personalities were the main objective and focus.

In terms of museum objects, he commented that:

"Museums have two types of objects to offer: firstly, fragile objects, and secondly, non-fragile objects. For example, if you have a rock and put in the sun, it will remain the same after 100 years; but if you put dyed clothes in the sun after a

month they will be damaged. So the important role of the architect here is in maintaining an artificial atmosphere where the objects can be viewed in a normal position, and to be aware of the relationship between open spaces and closed spaces through which his messages can be interpreted. So in general, this project has successful interaction with the environment. The architect has demonstrated his skill in providing areas where objects of value can be safely displayed.”

He also referred to the example of Charles Correa, who designed an exhibition relating to Mahatma Gandhi in the city of Ahmadabad. The building in this case consisted of open, square boxes with no walls or windows. The architect studied the potential location of all of the exhibits and designed the building to allow for shadow and the movement of the sun, ensuring that the sensitive exhibits were protected within the enclosed space (see Figure 4-10).



Figure 4-10 Gandhi Memorial Museum designed by Charles Correa.
Source, (Daga, 2013).

However, when comparing our results to those reported in prior studies, it must be pointed out that to reflect the simplicity of Gandhi's life and the incremental nature of what is a living institution, the architect used modular units of 6x6 metre reinforced concrete to connect spaces, both open and covered, allowing for eventual expansion. Correa's subtle changes in the enclosure allow for variety in the module's lighting, temperature, and visual permeability. The museum employs a simple but delicately detailed post and beam structure. Load bearing brick columns support concrete channels, which also support the wooden roof. The foundation is made of concrete and raised about a foot above the ground (Daga, 2013).

4.7. Internal aspects of spatial design

Internal aspects like lighting and circulation have an impact on museums. The most successful museums in the world deal carefully with space, light, and shade as they seek to express their own particular philosophies. As Alnaaim's interview (2018) confirmed, the design of the SNM is extremely important. Its construction allows for individual exhibitions, and for interaction with visitors that require further information about the pieces on display.

A museum should be active, use natural light where possible, depending on the location of the displays. In France, one of the museums exhibits paintings, and positions them in such a way that it allows for the best and most consistent use of natural light while maximising the protection of the delicate artworks. Museum design needs to consider such technical and scientific aspects, as well as the psychological impact that viewing the pieces will have, making the

visitor a part of the cultural environment that the museum is hoping to promote.

Alfhaid's interview (2018) refers to the gap between the exhibits and their names, as the visitor is not told of the name of the fossil, but only of its archaeology. He considers a suitable choice of simple terminology will result in a better understanding of specific artefacts. Some museums work with replicas for pieces such as spears or swords, which allow visitors to feel the object. This new approach, using up-to-date technology, enriches the visitor experience and moves the museum away from its traditional role as a showcase. Such innovative ideas assist with artefact preservation and allow for creative methods of knowledge and information sharing.

A view confirmed in Aslabagh's interview (2018) was that there is a need for the SNM to update certain aspects of new technologies in order for the centre to be perceived as more attractive by visitors. Increased interaction is key here: simply creating a route map with written information is likely to result in the visitor simply passing by the exhibit without viewing it properly.

4.8. Theme four: SNM visitor journey

4.8.1. The Prophet's journey (the bridge)

Another relevant consideration here is how the museum layout supports visitor journey maps. In previous literature, Packer and Ballantyne (2016,p.133) define visitor journey maps as "an individual's immediate or ongoing, subjective and personal response

to an activity, setting or event outside their usual environment". According to the authors, the visitor experience may take place in multiple phases in time and space and can be influenced by its physical context. These two characteristics of their definition are relevant to the visitor journey methodology, which tracks the experience over a series of steps and may also be able to capture how the physical and environmental contexts influence the experience (Villaespesa, 2019).

Alnaaim's interview (2018) praises the idea of including the bridge in the SNM as representative of the journey from darkness to light, a technique which expresses the story of the Arabian Peninsula shifting from its pre-Islamic state upon the arrival of The Prophet. This transition resulted in changes following the emergence of Islam globally, not only in the Arabian Peninsula.

Hathloul's interview (2018) focused on the narration of the period from pre-Islam to post-Islam and Saudi unification, offering a beginning leading to an ending that the visitor can follow.

"For me, the most impactful moment in the museum is the bridge. It puts you automatically in the role of a Muslim visitor, bringing you back to the story of The Prophet and his arrival in Medina 1400 years ago. In the last three exhibitions on the visitor journey, the focus is on the Saudi state, offering the visitor a perspective that we are firstly Muslims, and then Saudis."

Narrative order and sequence serve as the organising structures for many of the exhibits. Exploring the use of narrative order and sequence in a museum's journey furthers the visitor's understanding of its appeal and meaning. Hooper-Greenhill (1994) describes the

museum as a communication system, dependant on real things and delivering a message to visitors who act as receivers.

A journey experience survey (as discussed in the following section) was used to analyse the museum experience quantitatively. According to Figure 4-11, two questions were posed in this study to acquire more information relating to visitors' views concerning the museum's environmental surroundings (the exhibition space), as well as the strong sense of Saudi national identity felt in a particular exhibition and overall journeying experiences. The survey asked participants to organise their strength of feeling with regard to national identity across the eight exhibitions. This is an important finding that conveys the representation of Saudi national identity in the precise order of the SNM exhibitions. From these survey results, a number of respondents indicated a similar strength of feeling for all the exhibitions. It was also apparent that an equal number of participants preferred the Prophet Mission exhibition containing the transitional point (the bridge) and the Unification exhibition, which is located in the post- Islam part of the museum.

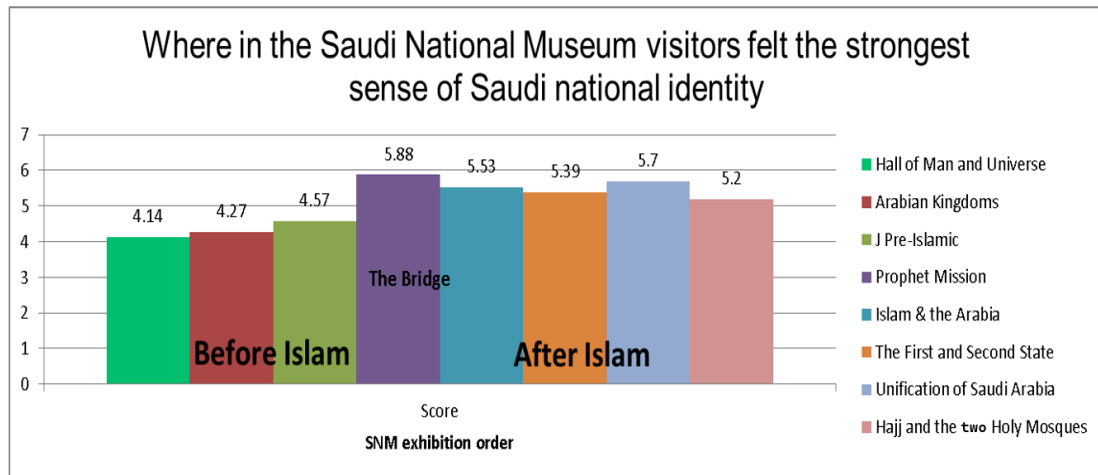


Figure 4-11 Participants' responses regarding which exhibitions convey the strongest sense of national identity. (Source: The researcher)

Generally, the architecture of the SNM building contributes to some degree to the experience and understanding of the exhibition narrative. Exploring the SNM's eight exhibits across centuries of Arabian prehistory, history, culture and the art of the kingdom provides a magical interactive tour for the ages. A sample of four subjects divided by (Saudivisit, 2021) reveals the permanent collections on offer to delve into.

- Origin of life
- Tracing the past
- Journey to Islam
- Birth of a nation

The visitor journey begins with the Man and the Universe exhibition; providing a space dedicated to the earth's history, including different types of animals, with the Tuwaiq mountain and rocks displayed to

given an impression of how ancient humans in the region lived. It then moves from describing the early civilisation of the Arab kingdoms to the pre-Islamic era. Thamudic, Aramaic and Islamic writings were also featured in stone slabs and archaeological finds. Following this, the Prophet's Mission exhibition was designed to take the visitor through displays from his birth in Mecca to his migration to Medina. The Islam and Arabian peninsula hall continues the journey of Islam, exploring the early stages of Islam and the early Arab contributions to science, medicine and astronomy. The remaining exhibitions trace the rise of Saudi Arabia, from the first two Saudi states to its emergence as a unified kingdom in 1932. A treasure trove of scripts, rare books and coins packs these galleries, and it also includes reconstructed houses that can be explored giving a flavour of the era. The later Hajj and the Two Holy Mosques exhibition employs models and multimedia displays to showcase Hajj rituals, ancient routes of pilgrimage and the evolution of Mecca and Medina (Saudivisit, 2021).



Figure 4-12 SNM exhibitions. Source: (SNM Development, Phase 1, 2017, p.26)

The importance of the designed exhibition and its role in museums has been considered in recent visitor studies. As Macdonald 2007 confirmed, exhibition content and design is a relatively complex process. Nevertheless, the challenge is to understand how particular exhibition forms are usually appreciated, and to relate this to other aspects of visitors' practices. Additionally, programmes and public activities play an important role in the SNM, whether in educational institutions, lectures and seminars or workshops. The variety of displays that capture Saudi Arabia's past and present culture form an important element with which to attract different types of visitors.

Significantly, the integrated story approach used by the SNM enables visitors to journey from an exploration of the mysteries of the birth of the universe, through prehistoric times, to the Prophet and Islamic civilisation, and then to the emergence of the Saudi state. This story is a method adopted here to show sequential historical development. The diversity of narrative structures provides evidence to support one of the main aims of this research, which is to identify, describe and explore some of the issues that arose during the two periods and is connected by a bridge (Before Islam and After Islam), and to explore the relationship between different exhibition structures that include narrative order, sequence and journey, which are all intended to inform the museum experience.

A similar pattern of results was obtained, showing that the museum experience typically depends on physical engagements and the choices made by visitors. When perceiving content in a museum, visitors move sequentially through the spaces of the museum environment. As Hale (2012) suggests, movement is one of the

primary modes of engagement and communication with the world. By having a physical experience visitors can determine where and how to move through the exhibition environment. Following the route suggested, visitors physically encounter and react to signs that identify particular objects and images. As Alsabbagh's interview (2018) explained, the moment that affected him most during his SNM experience was the movement from the pre-Islamic era into the era of Islam via the bridge. He followed the migration path of the Prophet's story, and the sound effects made him feel that the Islamic religion is great and something to cherish. He recognised that the Prophet's exhibition influenced his journey the most and markedly increased and enriched his knowledge. These basic findings are consistent with research showing that movement is a necessary aspect of museum planning, as the narrative order and sequence of spaces is as important as other architectural qualities, such as materiality and atmosphere (Duncan, 2018).

A similar pattern of results was obtained from Alshaabi's interview (2018), the content of which reflects on the important role of storytelling in a linear spatial arrangement that determines visitors' routes:

"Certainly the historical sequencing is important as part of the principle of the museum's design, as is the flexibility in moving from one exhibition to another to facilitate visitor movement. The design gives opportunities for visitors to spend a longer or shorter time at each exhibition, according to the time available to them."

He emphasised the role of the SNM in providing historical sequencing, and placing pieces in a theatrical mode in terms of sensory, auditory and other visual effects; particularly the bridge feature, which

explains how Islam moved the inhabitants of the peninsula from one culture to another. Background sounds offer important content as perceived when moving along the bridge. According to Yilmazer and Orhan (2019, p.7) “correct sound usage can be a very effective design tool to make museums fit the purpose of collection, education, and recreation”. Alsabbagh’s interview (2018) affirmed the importance of a museum focusing on a particular historical theme or idea, while at the same time allowing the visitor to relive the past through the eyes of people living in that period.

Alfhaid’s interview (2018) also supported this opinion, noting that the SNM is the only museum in Saudi Arabia that contains the full details of the models of different local patterns and the sequence of events in the eight halls; and that each hall has a name and is connected to the others. Its role in preserving history is important, so the content needs to be developed and updated. However, the topics and themes are very impressive, influential and detailed.

He argued that the architectural elements of the museum are vital, but that directing attention towards content is critical, without neglecting the outline and design of the exhibitions and displays. My personal experience of visiting the Louvre in Paris is one of remembering only the glass pyramid rather than the arrangement of the halls. Conversely, my experience of the SNM means that I can remember the exact order of the exhibitions in a chronological order.

Alnaaim’s interview (2018) reflected on future development:

“We should exhibit also discoveries, especially archaeological discoveries, made during the last 15 years. We have large sites which have been worked on and are re-examining ancient sites on the World Heritage list. The travelling exhibition, Roads Arabia, holds many of the archaeological treasures of the Kingdom which reflect its history, but they have never been displayed.”

Alsabbagh’s interview (2018) expresses similar sentiments:

“We need always to recognise the importance of preserving history, especially physical pieces. The SNM was established over 20 years ago, and the interactive materials all date from then. If we compare it with other world museums, it is clear that we need to update the interactive elements so that the museum journey remains enjoyable and thought-provoking for both adults and children.”

Additional concerns were expressed in Alnaaim’s interview (2018):

“All eight exhibitions reflect Saudi identity. We need another eight exhibitions to reflect the cultural depth of the Kingdom. We cannot express our historical identity through the history in these halls, and it would be impossible to express such an identity in one gallery alone.”

Alfhaid’s interview (2018) suggested that what is lacking here is the attractive embodiment of stories. One of the commitments of the Saudi Vision 2030 was to build a museum to showcase the country’s heritage, a world-class Islamic museum where visitors and citizens can learn about the history of Islam, participate in cultural events, and through modern technology enjoy interactive and immersive experiences. It was also intended to house a library and research centre.

In this section, we looked at how specific narrative constituents (main order of exhibitions, chronology and organisation of events) can be

used to reinforce interpretative and narrative constructs, as well as to emphasise the creative aspects of storytelling. This can be done by linking a museum narrative and its structures to associated themes and settings, as well as to the wider realm of facts and events associated with those structures, and additionally, through the use of appropriate auditory and visual media. More specifically, the chronology and historical sequencing of events in the SNM exhibitions (as the bridge illustrates) represents how design ideas derived from narrative theory can be used to connect narratives to exhibits, and support navigation across narratives in the museum environment.

Accordingly, linking a narrative structure to how a museum articulates understandings and meanings is a challenge. However, storytelling demonstrably not only combines stories and communication strategies, but also serves as a method to develop new internal, as well as external, meaning-making approaches (Nielsen, 2017). If museum communication is considered as a concept and a process, the theoretical definition of everything it encompasses should be connected to practical approaches. In this way, museums can effectively articulate a useful individual understanding of the terms and the practices involved. Nevertheless, museum communication becomes crucial when museums experience difficulties defining their purpose, use and relevance.

4.9. Summary

This chapter has comprised an exploration of the role of architecture and its impact on shaping perceptions of Saudi national identity. It has examined the intended narratives of experts, such as architects,

who are involved in the field of architecture and critique topics to express identity through architecture, designing buildings in two sections. The first sections explored how different paradigms of identity, such as national, Islamic and local identities have been expressed, and identified the use of Islamic religion to consolidate and constitute the performance of national identity in Saudi Arabia. Moreover, it highlighted the cultural identity of the city, specifically, the role of architects in enhancing relationships and interactions between the environment and citizens in this context, while also helping to inform culture, nation and heritage. However, using the elements of the main local architectural style, such as Najd architecture, could represent an important step when designing public institutions, including museums.

The second section explored the architecture of the SNM building, focusing on how the building itself contributes to some degree (from interior and exterior) to the experience and understanding of the exhibition narrative. The design process of the SNM was intended to generate critical responses from designers who specialised in urban design and interiors for museum design and collaborated on designing the urban context of the KAHC in Riyadh, as well as looking at the perspectives of museum exhibitions and their circulation, visitors and display scenarios. This was helpful to define the different design approaches and the role of the architect and exhibition designer as part of the SNM design process. It also reinforced insights regarding the implications of integrating frameworks that help to interpret verbal and visual materials of exhibitions, displays and their influence on the visitor experience. Analysing and evaluating museum visitors' experiences to establish how they perceive different

exhibition environments would be an important step in providing a complementary framework for the visitor experience.

Visitor perception and interpretation of the visitor experience surveys at the SNM will be analysed to determine how architecture contributes to telling a story through a narrative approach and a particular visitor journey. Specifically, presenting quantitative findings and analysis, to assist with understanding visitor statistics in a real situation will represent the actual narrative received. It also describes the applications used to perform the quantitative study.

Chapter 5. Visitor Perceptions and Interpretations

5.1. Introduction

Visitor Studies is the term used generically to encompass the ways in which museums evaluate their operations and activities in light of the needs and experiences of their visitors and users. It is a wide-ranging discipline that involves data collection, the evaluation and analysis of the information collected, and visitor profiling. Museums use this type of analysis to identify and address barriers to participation, assess the effectiveness of their programmes, determine how visitors rate their interactions with the museum, and to identify diverse perceptions and feelings regarding the museum as an organisation from both existing and potential audiences. Thus, in summary, Visitor Studies concerns monitoring the relevance of museums using findings to guide strategic thinking to be fed into key decision making in a timely manner, and to inform business planning and museum management.

This chapter focuses on analysing the survey data. As part of the research, a quantitative instrument known as the perceived Environment Tool was piloted and refined. The chief aim was to explore the relationship between how visitors perceive different museum exhibits' environments and how this is associated with their overall visitor experience. The visitor experience is taken to involve influential, cognitive and behavioural aspects that have been measured by open-ended questions designed to examine a

combination of visitors' responses and behaviour. In light of this, a visitor experience survey was conducted at the SNM, and its findings as presented here relate to eight exhibition spaces in the museum.

One of the principal goals of the study was to quantify how visitors perceive different exhibition environments, so that this information could be related to other aspects of the museum visitor experience. It illuminates aspects of the interpretive interplay between museological space, content and narrative in relation to different factors; e.g., the construction of meaning, visitor satisfaction and museum atmosphere and the environment as perceived by museum visitors. This data was collected to provide an insight into a fundamental component of Visitor Studies, namely visitor satisfaction as a step towards actively engaging in audience research to develop relationships with museum visitors.

The research set out to explore how the narrative of design can influence national identity. Specific research aims were identified as follows: firstly, to explore narrative perceptions of different exhibition environments. Secondly, to analyse how different visitors experience and interpret explicit narrative perceptions of exhibition spaces as a way of characterising exhibition environments in terms of their design features as well as from visitor perspectives.

5.2. Survey methodology

Visitor satisfaction focuses on visitors' expectations of, and satisfaction with, particular components (or all) of the range of products, services, activities, places and infrastructure that

contribute to the visitor experience. In view of this, the visitor experience survey for the SNM includes all aspects of the visitor journey, from considering how it engages people with displays and artefacts, and the support services provided. In most recent studies, survey results have been measured in multiple ways, as well as through one of the commonly used evaluation methods. In addition, surveys can request information about people's knowledge, awareness, satisfaction, expectations, behaviour, preferences and beliefs, as well as collecting demographic data (e.g. respondents' age, ethnicity, gender, etc.). Survey responses provided both quantitative data (e.g. responses to factual questions) and qualitative data (e.g. responses to open questions) to generate useful statistics and information (see Appendix E Museum Journeys Survey).

In total, 240 surveys were collected and completed in August (2018). Information was gathered from both resident and tourist visitors. With respect to the research method, the data in this study was analysed by implementing a factor analysis, specifically identifying the relationships between the variables (data summarisation) and creating a new group of variables.

The processes carried out for this factor analytical study were selected to determine the to-be-analysed variables, assess the validity and reliability of those variables, and test valid and reliable variables using Bartlett's test of sphericity and MSA measurements. This component of the study employed SPSS software analysis as the primary data processing tool.

5.2.1. Visitors' responses

Table 3 Visitors' responses

Characteristic	Measurement	Percentage	Frequency (N = 240)
Awareness of visiting KAHC context	To see particular artefacts that I am interested in	44.71%	114
	To take time out from the stress of daily life	11.76%	30
	A great way to visit the surrounding area	4.31%	11
	To make me smarter by engaging and educating the community	17.65%	45
	Because it is one of the main attractions in Riyadh	16.86%	43
	To spend time with my kids	1.57%	4
	Other	3.14%	8
Age	18-24	21.99%	53
	25-34	66.39%	160
	55-64	10.37%	25
	65+	1.24%	3
Gender	Male	63.67%	156
	Female	36.33%	89
Origin	National visitor	18.33%	44
	Regional visitor	7.50%	18
	Local visitor	38.75%	93
	Overseas visitor	35.42%	85

SNM visit frequency	Have never visited	67.76%	166
Visit frequency of any museum	Have not visited any museum in the last 3 years	46.56%	115
Motivation of SNM visit	Architectural design	63.81%	164
	Exhibits	20.62%	53
	Enjoyable atmosphere	15.81%	39
	Educational environment for different segments	16.73%	43
	Halls arranged in historical succession	21.79%	56
Strongest sense of Saudi national identity in particular exhibition(s)	Hall of Man and Universe	24.80%	31
	Arabian Kingdoms	15.38%	20
	J Pre-Islamic	11.20%	14
	Prophet exhibition	31.51%	46
	Islam and Arabia	16.67%	24
	The First and Second States	15.65%	23
	Unification exhibition	31.36%	53
Overall experience	Hajj and the Two Holy Mosques	13.61%	23
	Positive	89%	102
	Negative	11%	13

Descriptive statistics from the sample reveal that regular visitors to the SNM are principally local residents from Riyadh (38%), followed by overseas visitors (35%), national visitors from Saudi Arabia (18%) and regional visitors from Arabian Peninsula countries (7%). These visitors are mainly male (63%) and 25-34 years old (66%). Both local and overseas visitors chose to visit the KAHC due to their awareness of (or particular interest in) the artefacts. In terms of frequency of visits to the SNM, the survey results indicate that the majority of visitors have never visited the museum before. In answer to the survey question identifying in which particular way visitors were most

affected by the museum, 63% of visitors responded that their motivation to visit the SNM was to assess the architectural design. Moreover, the results in response to the question 'In which museum exhibition did you feel the strongest sense of Saudi national identity?' clearly demonstrate a correlation between the Prophet's Mission exhibition and the Unification exhibition, as 31.51% of visitors selected the Prophet Mission exhibition, and 31.36% the Unification exhibition. Finally, 89% of the participants expressed a positive impression of the museum, while 11% mentioned having negative impressions (Table 1).

5.3. Demographic and background and of participants

Individuals or groups of visitors touring the SNM were approached and invited to participate in a survey. In total, 261 participants were approached across the eight study spaces, and 241 took part in the study, with a mean age of 25-34. Overall, males comprised the greatest number of participants, totalling 156 respondents. Females account for the lowest response rate, with 105 visitors. And since visitors' identity is one of the most important issues raised in this study, the figure below shows the majority of the respondents were local and overseas visitors. In contrast, national and regional visitors comprised a lower proportion of the respondents. However, this combination of respondents made it possible to measure how visitor experiences were perceived across the eight exhibitions and spaces.

5.4. Quantitative Survey Content

Black (2011: 18) argues that it is possible to understand a museum's audience through "market segmentation"; that is a method employed to break audiences down into groups to understand their needs and behaviours. A cross-tabulation method was utilised here to analyse the number or frequency of visitor responses, and to understand the relationship and correlation between groups of variables.

The groups of visitors can be variously classified by age, gender, level of education, class and occupation. This approach can be applied to provide the SNM with an understanding of visitors' backgrounds and an overview of their motivations and level of awareness with regard to the exhibits and content of the museum. The information collected via the questionnaire was used to characterise the participants in terms of their visitor experience (level of awareness, nationality, motivations and other items associated with visitor experience).

Utilising the description of the visitors' characteristics in Table 1, three factors have been presented in the following table, as the principal dimensions of visitor perceptions in the Museum Journey Survey. The identification of visitor segments necessitates an analysis of whether or not variables are sufficient to meet their intended purpose. However, the following table sets out the profiling variables with brief descriptions of each.

Table 4 The key three factors

Factors	Items or content	Measurement
<i>Visitor Satisfaction (VS)</i>	1/ Awareness before visiting the SNM, visitor nationality, the frequency of visits to the SNM and frequency of visiting a museum and visitor motivation after visiting the SNM.	1/ Multiple choice
<i>Meaning Construction (MC)</i>	2/ Islamic identity representation, Saudi identity representation and identity belonging.	2/ Seven-point Likert scale design scale
<i>Museum Environment and Atmosphere (MEA)</i>	3/ Settings, circulation, overall experience, exhibition' design and layout.	3/ Seven-point Likert scale design scale

Note: On the seven-point Likert scale used to measure of Museum Environment and Meanings Construction factors, the order from 1-7 of the options is: Agree Strongly, Agree, Agree Slightly, Neither Agree nor Disagree, Disagree Strongly, Disagree, Disagree Slightly.

5.5. Interpreting Each Factor

It is necessary to draw here on existing theory derived from the process of 'encoding and decoding' to create the theoretical framework for this research. The structure of survey instruments was guided by the three key factors, Visitor Satisfaction, Meaning Construction and Museum Environment and Atmosphere derived from a literature-based theoretical framework model of scales of narrativity referring to semiotic elements to distinguish the communication patterns of denotation from connotation.

Components of narrative framework were employed to refer to denotative and connotative meanings generating the above factors.

The narratives are considered in relation to the Scales of Narrativity, which Austin (2013) confirmed improved approaches embedded within the built historic environment. The Meaning Construction factor identified the literal meaning of denotative elements through specific items and the content of Islamic identity representation, Saudi identity representation and identity belonging as measured on a Seven-point Likert scale.

In terms of how the SNM visitors described their experience, the other factors rated were Visitor Satisfaction and Museum environment and atmosphere. these were mainly interpreted relative to the associative meaning of connotative communication as identified through elements that included awareness of visiting KAHC generally, motivation of visiting SNM specifically and overall visitor agreement with regard to museum setting, circulation, exhibition design and layouts.

5.5.1. Visitor satisfaction (VS)

Visitor Satisfaction (VS) includes items representing visitors' awareness prior visiting the KAHC context, and motivations for visiting the SNM, as well as the nationality of visitors and the frequency of their visits to the SNM and other museums. Participants who are excited to visit the area KAHC express interests in particular artefacts (44%) and/or the architectural design (46%) as the most important motivations for visiting the SNM, followed by a desire to engage with and educate the community (17%), and motivation to visit the SNM's historical arrangement of exhibitions (16%). The appeal of the museum as a place to visit in Riyadh (16%) comes in

third place in relation to the awareness of SNM visitors, followed by motivations pertaining to the exhibits (15%). Additional reasons include wanting to visit the surrounding area, taking time out from daily stresses and spending time with children, and account for below 11% of the reasons for visiting the SNM. Motivations such as the enjoyable atmosphere and educational environment were found to apply to fewer than 12% of visitors (see Figure 6.1 and 6.2).

Participant nationality is also addressed as a VS item. The chart below provides information concerning the participants' nationality as an analysed factor. According to Figure 6.3, the sample frame consists of:

- 1) Local visitors (Riyadh): 39%
- 2) Overseas visitors: 35%
- 3) National visitors (Saudi Arabia): 18%
- 4) Regional visitors (Arabian Peninsula countries): 8%

The frequency of visits to the SNM and museums in general is considered to play a role in the VS factor, with 67.76% of the study sample having never visited the SNM, and 46.56% of participants having never visited any museum. A very low proportion of participants (approximately 10%) have visited the SNM within the last 5 years, while around 20% of participants have visited a museum in general within the past year (see Figure 5-1).

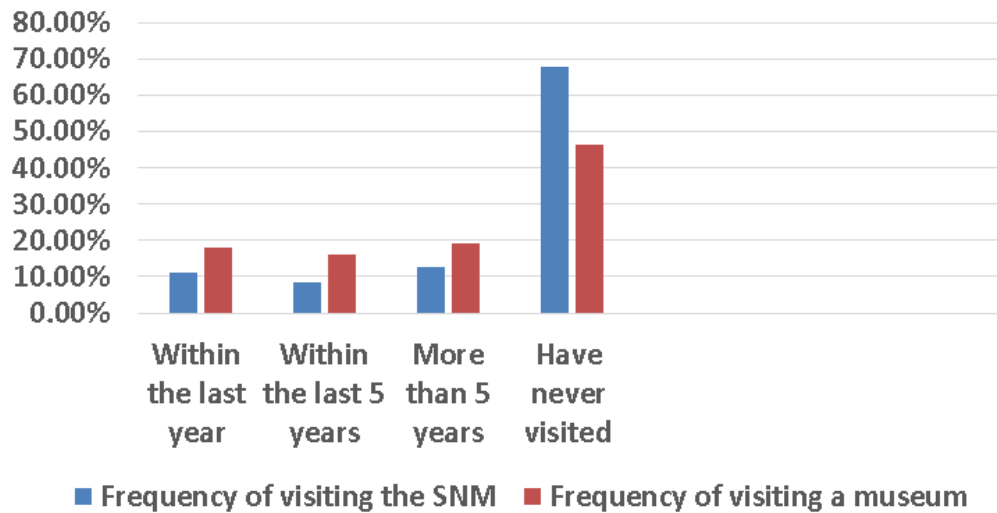


Figure 5-1 Frequency results. (Source: The researcher)

5.5.2. Meaning construction (MC)

The meaning construction (MC) factor was explored by asking six questions to be answered using a seven-point Likert scale. Participants were asked to select their degree of agreement to given statements as: Strongly Agree; Agree; Slightly Agree; Neutral; Strongly Disagree; Disagree; and Slightly Disagree. MC items in this study relate to sensory engagement; the bridge between attention and movement; representations of Islamic and Saudi identity; and recognition of Saudi national identity

The line chart below represents how the data differed according to each of the items in the MC factor. In total, 10% of participants responded to items relating to the bridge, Islamic and Saudi identity representations between neutral and disagree statements, while 55% of participants strongly agreed with the statements about these items (see Figure 5-2). When criticising the educational functions of

constructivist museums that overuse authoritative methods to provide museum visitors with useful information and expert discourse, Silverman (1995) reminds us that personal and subjective ways of meaning-making should play an important role in decentralising museums' professional discourses. Specifically, when striving to educate visitors and develop "museum literate" people who know how to view and appreciate objects according to specific paradigms, museum professionals have reportedly long over-focused on the task of providing visitors with information, and facilitating traditional or "expert" discourses as aspects of visitors' meaning-making processes, such as their ability to see the formal elements in artwork, or providing historical contexts for artefacts from the past. As part of the process, the more personal and subjective ways in which visitors generate meaning (e.g. through life experiences, opinions, imagination, memories and fantasies) are at best ignored and more often invalidated by museum narratives, as they tend to be regarded as naïve and inappropriate.

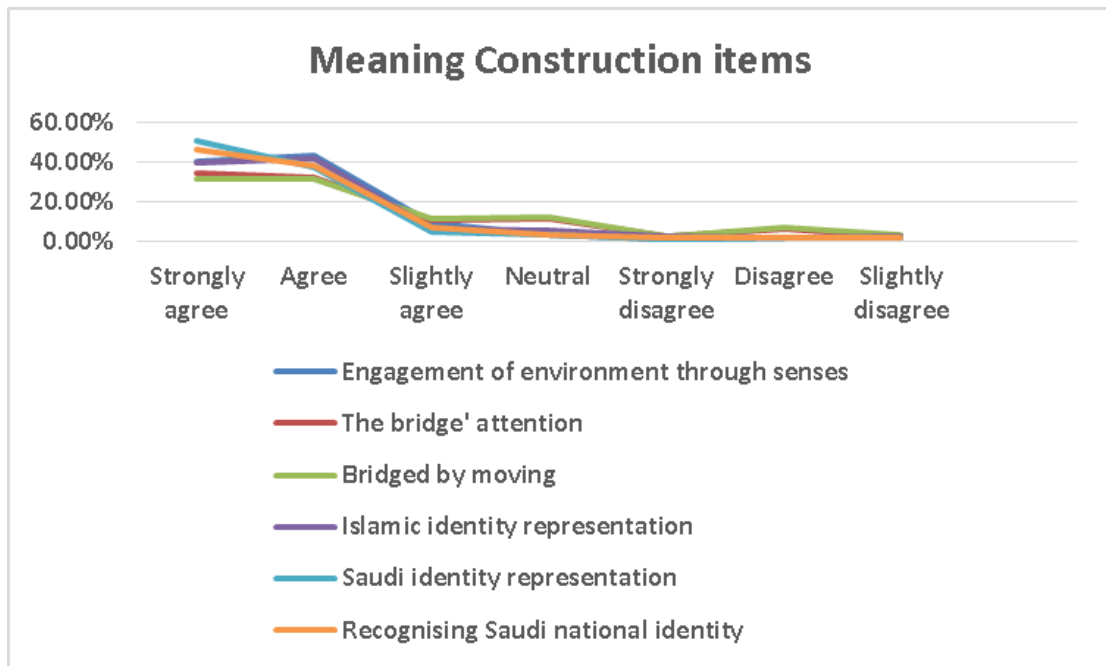


Figure 5-2 MC variable results. (Source: The researcher)

5.5.3. Museum environment or atmosphere (MEA)

The Museum Environment or Atmosphere (MEA) factor was explored through six questions answered on a seven-point Likert scale. The participants chose their degree of agreement as either: Strongly Agree; Agree; Slightly Agree; Neutral; Strongly Disagree; Disagree; and Slightly Disagree. MEA items relate in this study to enjoyable atmosphere, exhibition design effects, difficulty focusing on displays, movement, layout position and worthwhile experience. The line chart below represents how data has changed with different items exposed to the MEA factor. In particular four items (enjoyable environment, exhibition design effects, layout position and worthwhile experience) showed higher levels of Agree and Strongly Agree statements at 50%. On the other hand, the movement and difficulty of focusing on displays items evoked Disagree and Slightly Disagree statements at 30%. A significantly lower percentage of the participants responded

Disagree and Neutral to the previous four items, and 10% responded Strongly Agree to the movement and difficulty of focusing on displays (see Figure 5-3).

When viewing an exhibition as a space composed of various elements such as labels, panels, videos, pictures and audio guidance, Chang (2014) proposes investigating whether the arrangement of these elements in an exhibition provides an ideal text environment for visitors to construct their own meaning. As Furthermore, Chang (2014) discusses how when a visitor enters an exhibition space, s/he has to construct meaning using various elements from the exhibition. The majority of exhibitions are composed of three worlds: the first is the fictitious world of the exhibition itself; the second is the real world which the objects came from; and the third is the fictitious world formed by a recombination of objects (Chang, 2014). Although it is apparent that visitors frequently have difficulties responding to exhibitions, it is imperative to recognise that visitors need to be empowered to give meaning to the arrangement of objects.

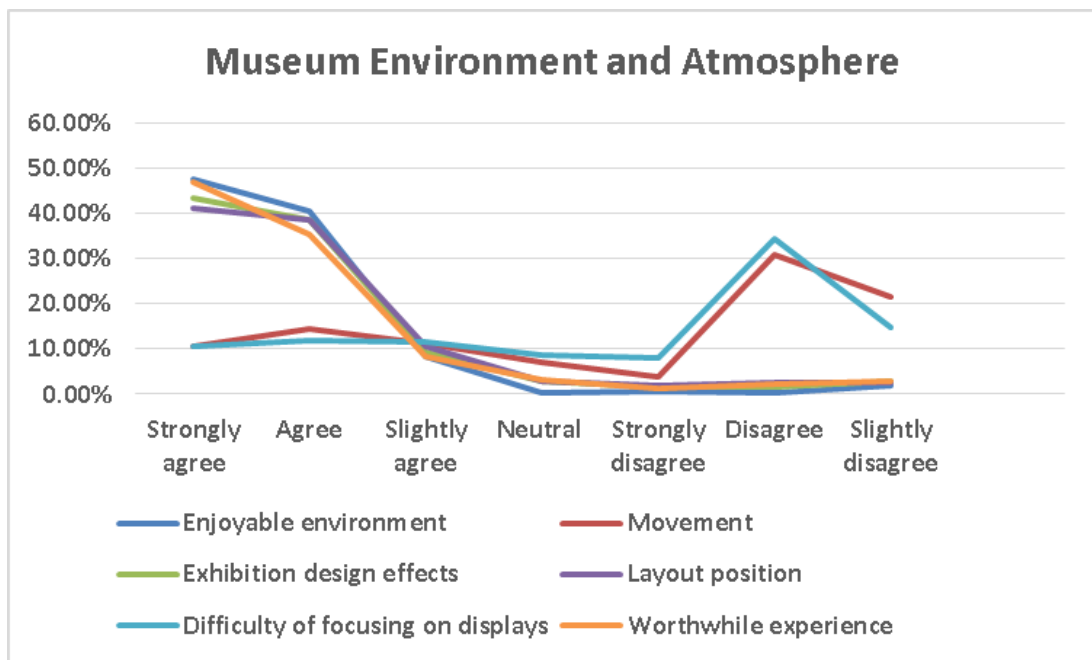


Figure 5-3 MEA variable results. (Source: The researcher)

Three factors were examined in the data pertaining to the Museum Journey Survey, as a principal dimension that characterises visitor engagement and perceptions in terms of actual experience. (VS) Visitor satisfaction data identifies the demographic similarities between local and overseas visitors who are motivated to visit the SNM because of its architectural design. The evidence is sufficient to establish how the SNM has been perceived and generated ideas by both local and overseas visitors.

Comparing the views of different types of visitors allowed the researcher to distinguish the way information is perceived and engaged with across the eight narrative exhibitions. According to Hall (1973/1992), it is possible to address the tension between the perspectives of encoding and decoding by uncovering how the

museum communicates and expresses a specific national identity. This would also identify the importance of the architecture in the spatial configuration of the journey and the museums' environment and atmosphere in terms of reinforcing the underlying SNM narrative of the exhibition, as expressed in its objects, artifacts and supporting texts. Importantly, (VS) Visitor satisfaction, (MC) Meaning Construction and (MEA) Museum Environment and Atmosphere data mainly indicate the most significant perceptions of some degree of denotative communication that consciously apprehended MC findings, relating to the recognition of Saudi national identity and Islamic identity. While VS and MEA findings suggested strong connotative communication that could be processed unconsciously with regard to the bridge's effects, and a valuable percentage of the agreements explicitly state that exhibition environment and atmosphere would be confounded when tracking different visitors, as analysed in the following section. However, the scale of narrativity ranges from low to high and from denotative to connotative (Austin, 2012). Thus, narrative and embodiment have been identified as a significant principle that has influenced the theorising of exhibition and experience design.

5.6. Factor Analysis

Although sample size is critical in factor analysis, there are varying opinions cited in the literature. For example, Hair et al. (1995) has suggested that sample sizes of 100 or greater are needed for an effective factor analysis. The factor analysis performed in this study used SPSS to identify the primary factors that inform journey satisfaction. Eighteen variables coded to Awareness, Nationality,

frequency 1, frequency 2, 13 Likert's seven-point scale (AD1 to AD13) and motivation were taken into account according to three factors: "Visitor Satisfaction", "Meaning Construction" and "Museum Environment and Atmosphere".

5.6.1. Analysis of factors describing the visitor journey experience

Table 5 Descriptive analysis

	Mean	Std. Deviation
Awareness	1.9208	1.29611
Nationality	2.9125	1.07688
frequency_1	3.3542	1.04079
frequency_2	2.9083	1.16788
AD1	1.5500	.60472
AD2	4.5417	2.07957
AD3	1.7125	.79529
AD4	1.7500	.77352
AD5	1.8708	1.04500
AD6	4.4083	1.98528
AD7	1.6833	.83324
AD8	2.3125	1.43122
AD9	2.4083	1.47217
AD10	4.4792	2.08391
AD11	1.7667	.84073
AD12	1.5792	.72174
AD13	1.6458	.75683
Motivation	1.4125	.66017

This table displays the mean and standard deviations of survey data to determine the extent of visitors' perceptions in general. The highest mean was over 4.0 for statement numbers AD2, 6, and 10, relating to the factor pertaining to Museum Environment and Atmosphere, with a standard deviation of 2.0. This indicates that the majority of visitors who disagree with the statement that 'I would look at objects rather than pay attention to the exhibition environment' also disagreed with 'Found it difficult to know where to start or to go next around exhibitions and particular displays'. Local and overseas visitors who often visit a museum brought special meaning and attention throughout their visit to the bridge, resulting in a middle score of mean 2.0 to 3.35 with a standard deviation of 1.0 included in the factors related to Visitor Satisfaction and Museum Environment and Atmosphere.

On the other hand, the factor describing Meaning Construction had the lowest mean score, at 1.57 for Strongly Agree with statement No AD 11, 12 and 13, which revealed that the SNM clearly represented Saudi or Islamic identity. In addition, some variables associated with the factor Museum Environment and Atmosphere, which concern the surroundings of the exhibition's design and overall environment resulted in a low mean score of 1.55 for strongly agree to statements No AD 1, 3, 4, 5 and 7. In addition, some variables for the factor Visitor Satisfaction requested information regarding whether people visited the SNM for the purpose of seeing a particular artefact of interest, and their opinions after visiting the SNM. Those mentioning the architectural design returned a low mean score of 1.41, with a standard deviation of 0.66.

Based on the results of Museum Journey Survey, it can be concluded that the overall experience was positive; this is supported by the high satisfaction score obtained from the respondents related to the Museum Environment and Atmosphere factor. However, a number of engagements represent a form of meaning making and communications for the visitors to utilise some services or tools offered by the SNM. Local and overseas visitors were engaged in historical sequences with the bridge, through the movement from the Pre-Islamic to the Post-Islamic Period. The bridge is one of the main attraction points across all SNM elements; it therefore has the middle score in total survey results which was higher than the results of Meaning Construction factor, regarding the representation of Saudi and Islamic identity in the SNM, which produced the lowest score.

According to Kaiser-Meyer-Olkin (KMO) and Bartlett tests, the correlation of data should be used within the factors as a whole. Table 1 showed that the KMO value was about 0.762 (greater than 0.5) indicating that the samples were sufficient. The significance number was 0 (zero), smaller than 0.5, indicating that each existing variable could be further analysed.

Table 6 KMO and Bartlett test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy	.762
Bartlett's Test of Sphericity	Approx. Chi-Square 2194.907 Df 703 Sig .000

The results of the reliability test revealed that the reliability of all factors turned out to be appropriate (i.e. 40.6), but that of factor 3

was somewhat low (0.56). Both Bartlett's Test of sphericity (10959.597) and the Kaiser-Meyer-Olkin measure of sampling adequacy (0.941) showed that the results of the factor analysis were adequate, as well as more output of factor analysis provided in the appendix (See Appendix F).

Table 7 KMO and Bartlett test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.941
Bartlett's Test of Sphericity	Approx. Chi-Square	10959.597
	Df	153
	Sig.	.000

5.7. In-depth analysis of open-ended questions

Two open-ended questions were asked in the second section of the survey that addresses visitors' feelings concerning a strong sense of Saudi national identity or Islamic identity, and the overall experience in terms of positive or negative experience. Thus, each explanation was read, transcribed and analysed manually to gather additional information regarding the reasons for selecting a particular exhibition, as well as for the positive or negative overall experience of the SNM by each visitor. In total, 48 responses were identified that revealed reasons for preferring the Prophet exhibition or the Unification exhibition. Additionally, 103 positive responses were identified, with only 13 negative responses received regarding the overall SNM experience.

In this step, qualitative rather than quantitative methodology made it possible to compare and categorise responses that corresponded to subsequent data sets. The results in response to the question about in which museum exhibition visitors felt the strongest sense of Saudi national identity clearly demonstrated a correlation between the Prophet's Mission exhibition and the Unification exhibition. When 31.51% of visitors selected the Prophet Mission exhibition, they received a high score of 5.88, and 31.36% of visitors mentioned that they preferred the Unification exhibition (see Figure 5-4). In contrast, the other exhibitions maintained the same level of visitor choice.

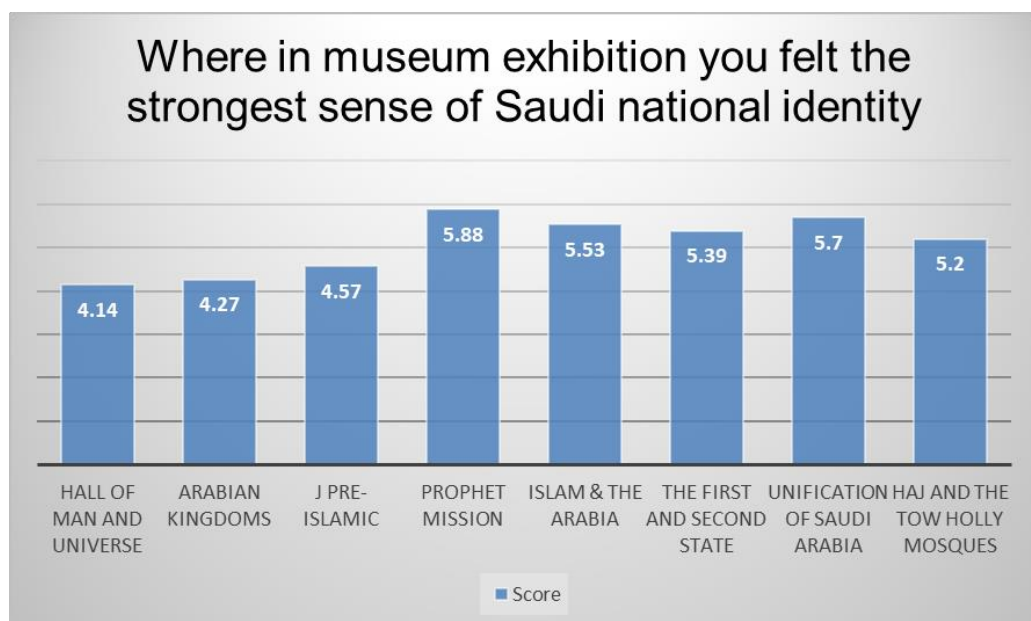


Figure 5-4 Exhibitions comparison results. (Source: The researcher)

5.7.1. Comparison of participants' choices for each exhibition (Q25)

Table 8 Comparison of participants' selections for each exhibition

Participant N=48	Reason of choosing Prophet Mission Exhibition 31.51%	Reason of choosing Unification Exhibition 31.36%
Participant 253	Attract all international visitor	
Participant 240	Because it has a lot of antiquities	Because the cinema show was good
Participant 237	Shows Islam and our pride and enhances feelings of belonging	Because it presents Saudi national identity
Participant 180		Saudi unification reflects Saudi national identity
Participant 221	Nice and interesting feeling	
Participant 215	It is really nice and beautifully presented information and knowledge that everyone should know about it	
Participant 214	Greatness of God	Show the strong personality of King Abdul-Aziz
Participant 210	Because it was very interesting	
Participant 208	Really loved the sound - was very amazing	
Participant 201		Greatness of the creator
Participant 200		The heritage displayed there is amazing
Participant 188		Because it proves the power of King Abdul-Aziz

Participant 187		Loved the information about the beginning of Saudi unification
Participant 182	Identity and religion	
Participant 180		Feeling of Saudi identity
Participant 167		I feel proud to be Saudi
Participant 147	Visible and clear	Special
Participant 144	Because I liked the exact arrangement of all halls	
Participant 114	Consider the Arabic and Islamic impression	
Participant 113	Very nice	Interesting
Participant 111	Excellent	
Participant 105	History	Knowledge
Participant 103	Islamic identity	Pre-Saudi history
Participant 101	It reminded me of my knowledge about the Prophet	It entails understanding of Saudi Arabia
Participant 102	Very nice	
Participant 96		Very good
Participant 94	Represents religion	Represents the state
Participant 92	Because I am a Muslim	
Participant 90		It had stamps iconic, notes and agreements from the King
Participant 83	I am interested in history	
Participant 81		Formation of Saudi
Participant 77	Great sense of religion	Very interesting
Participant 69		I learned about the history of the KSA
Participant 68	I like history	
Participant 51	Because I belong to Islamic the religion	
Participant 49		All items included in it
Participant 44		Before this I did not know about the Saudi state
Participant 40	Good to see	Interesting

Participant 38	Very important	
Participant 29	To understand Islam better	History was told clearly
Participant 22	Great atmosphere	
Participant 17	Learn more about Islamic religion	
Participant 15	It guided me and provided me with more knowledge of our Prophet's mission	
Participant 7	All good	
Participant 5	This was the most fantastic exhibition because there were many things were helpful and how the Prophet was there	
Participant 4	When entering the sound of Tala albadru should be louder	
Participant 3	It helps us to remember our Prophet Mohammed's sacrifices	
Participant 1		Because in that there are old and new states

The table above shows that the Prophet Mission Exhibition and the Unification Exhibition attracted the greatest variety of participants' responses. Further evaluation of the reasons given for the degrees of narrativity appears to make it appropriate to discuss the verbal and visual materials in these exhibitions in terms of both denotative and connotative communication. The variety of reasons for choosing the Prophet Mission Exhibition were its sense of gaining an impression, developing a feeling of belonging, creating pride in the Islamic religion, and its clear layout. Particular mention was made of the soundtrack playing a memorable song from the Prophet, which is

heard on entering the exhibition. The sound was one of the evocative objects stressed by several participants as affecting the impression of the Islamic religion. Bubaris (2014,p.396) confirmed that “paying attention to the experience of sound could inform us that movement is not a meaningless and tiring concomitant of the flow that transports visitors to focal points conceived and designed to induce pause, immobility and silence”.

In addition, some participants mentioned navigation, where the consistency of the linear, spatial arrangements, sequential design and layouts of the exhibition were proven to be very important throughout their journey, which navigated the routes through the exhibition.

The reasons given for selecting the Unification Exhibition as that which communicated national identity the most effectively included the demonstration of the strong personality of King Abdul-Aziz, and the detailed understanding of specific items from the kingdom’s history that reflected Saudi national identity. The use of a cinema screen was also observed by the participants to contribute an important additional connotative element to the depiction of the story of Saudi Arabia’s formation.

These various aspects need to be considered when evaluating the physical experience of exploring the SNM’s internal spaces. One of the chief elements that contributed to the significance of the results was that the verbal and visual SNM materials supported meanings associated with connotative communication to a greater degree than denotative communication in different categories of media, such as

sound, images, cinema video, artefacts and antiquities. The participants highlighted the use of sound for delivering the Prophet's intended message.

The other participants emphasised additional key components that indicated some denotative elements and explicit presentations of narrative content, and physically represented the display of special materials, such as clothing, stamps, iconic notes from the king and information about creating the Saudi state (see Figure 5-5). More interestingly, visitors' emotions and feelings were taken into consideration when evaluating behaviours, such as attracting power and holding power when communicating a meaningful visitor experience. This will be examined against two scales through a tracking analysis detailed in the upcoming section. These categories demonstrated the importance of narrative overall, and the various roles of the connotative objects, such as, sound, architectural elements and layouts in developing a feeling of belonging and creating pride in the Islamic religion, when supporting denotative materials in displays, clothes, iconic notes and stamps from former Saudi states.





Figure 5-5 Snapshots of Unification and 1st and 2nd States exhibitions

5.7.2. Comparison of positive and negative aspects

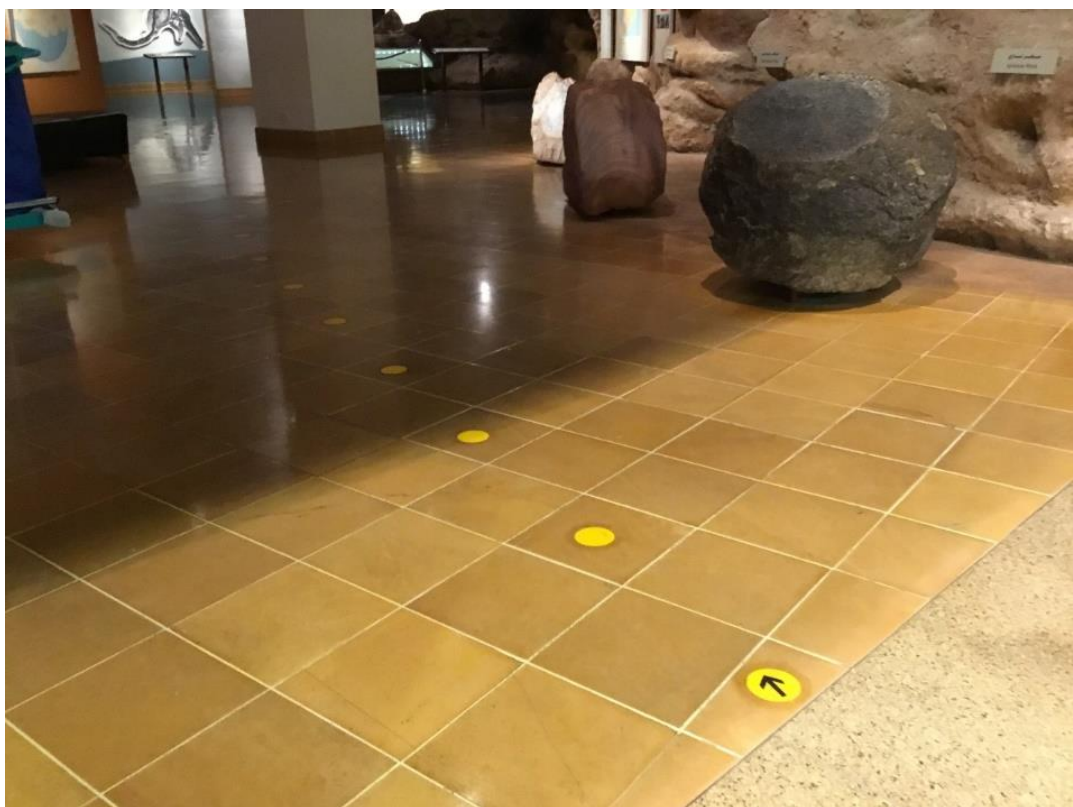
Drawing on the responses to the final question in the survey, the comparison table presents the participants' impressions concerning their personal SNM journey (comparisons of positive and negative responses are all included in Appendix G). Here four exercises were conducted:

- Identifying response categories as either positive or negative;
- Recording individual responses to sub-categories such as visitor experience, Museum staff, visual displays, Museum design and signage under the 'Positive' category';

- Organising categories according to principal themes informing positive or negative responses; and
- Representing data visually by creating a comparison chart to show both positive and negative comments.

Overall, 89% of the most positive comments about the museum related to the following four categories: Beautiful Experience (N=76), Museum staff responses (N=9), Visual displays responses (N=8), Museum design responses (N=7) and Museum signs and responses (N=5). Here, the majority of the participants' views concerned attaining a rounded picture of the SNM experience, including aspects such as the enjoyment from the journey that included a sensible flow across both floors, and very positive interpretations of Islamic and Saudi history. Nine of the responses from those surveyed confirmed that all the SNM staff were very helpful, especially security men. Only eight participants recorded their positive experience with a diversity of audio and visual displays. A small number of the respondents expressed their views regarding the SNM design. These mostly related to the overall design and clear historical narration throughout all the exhibitions. Finally, five respondents pointed out the benefits of helpful SNM signage, such as the yellow dots that were easy to follow (see Figure 5-6).

In terms of negative comments, 11% (N=13) concerned the lack of refreshment facilities. In addition, they added that they would have liked to have received better and more up-to-date information, as well as more cinema screens. As discussed, this may raise concerns about understanding visitors' interests and curiosity. This is addressed further in the following section through a tracking analysis.





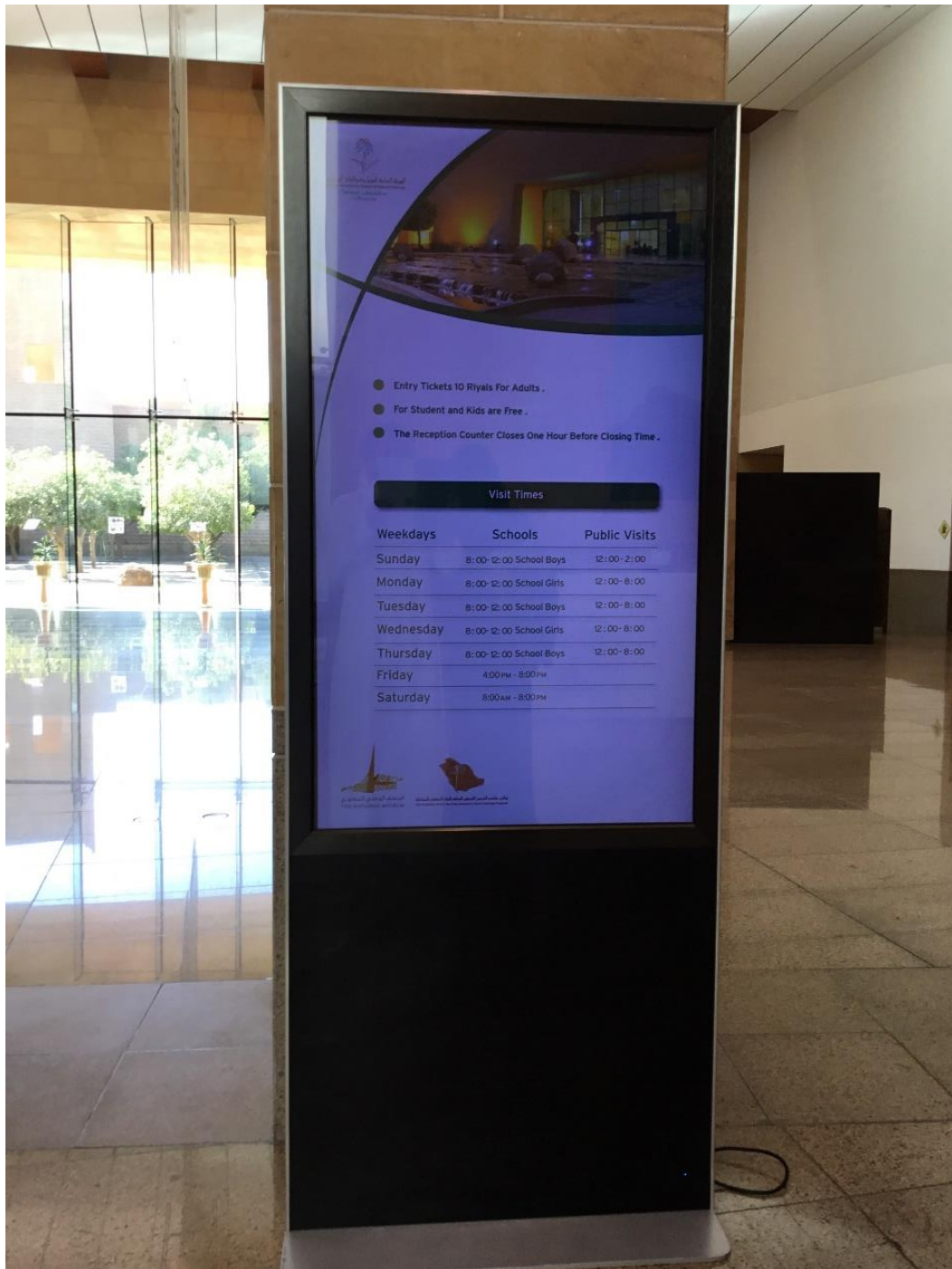


Figure 5-6 Additional positive objects of SNM experience

5.8. Tracking analysis

This section presents a tracking analysis to specifically evaluate visitors' experiences. Evaluations of how museum visitors focus on their experience, highlighting needs, engagement and attraction, are considered vital in today's museum research community (See section 2.2.4)

5.8.1. The Saudi National Museum space analysis based on tracking behaviour

Recent developments promote cultural buildings, the construction of the museum and its role is the subject of day-to-day academic attention. A new and diversified direction regarding the display form of museum exhibition space has recently emerged. Modern exhibition spaces consist of places and behaviour, and design patterns shift toward human patterns of behaviour and perceptions of space. Museums have become a focal point in the field of architecture research, but there is a dearth of studies concerning human activity in exhibition spaces.

Behavioural observations were carried out using security cameras to investigate the effects on visitors of different types of space (see Figure 5.7). The methodology was conducted in two stages: the first stage involved specifically tracking the first exhibition at the SNM: 'Man and the Universe', as a pilot test using four different types of visitors. This stage was conducted with sub-categories of audiences to track and understand group behaviour, that of attendees of guided tours, families and individuals. The second stage involved tracking

the overall journey across eight exhibitions, with 12 visitors individually tracing visitors' routes. Both stages measured variables such as the average time spent at each exhibition, the number of stops at specific exhibits and the total time of the visitor journey.



Figure 5-7 Security cameras at the SNM. Source: The researcher

5.8.1.1. The first stage: Tracking the First Hall (Man and The Universe)

Using The Man and Universe Hall exhibition room as the focus of the pilot for behavioural observation, relevant factors informing space and human behaviour were examined. This is the first exhibition room

at the SNM, and is located on the ground floor. It leads on to other exhibitions and covers a total area of 1,500m² (see Figure 5-8).

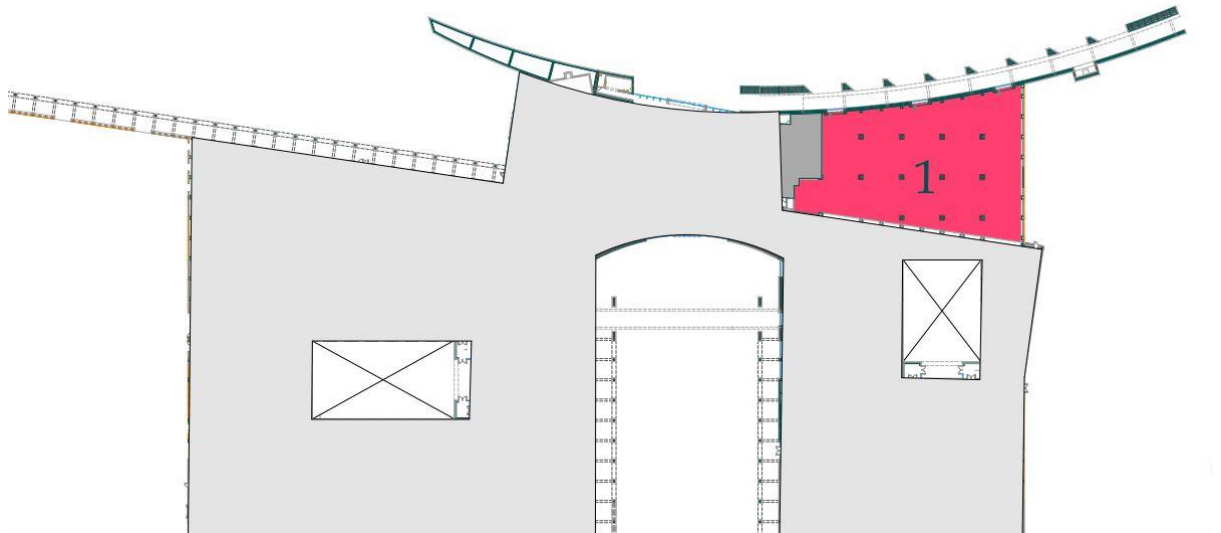


Figure 5-8 The location of the 1st exhibition at the SNM. Source: The researcher

The pilot study was helpful in determining time spent recording to assist with the next stage of tracking behaviours. The exhibition's components were captured in detail as follows:

- changes in the earth's surface and the impact on humans;
- various patterns of life in different geological ages, such as animals and fossilised trees;
- the movement of continents and continental drift;
- minerals, rocks, and fossils that indicate millions of years of geological fluctuations;
- a model of the Tuwaiq Mountain range displayed inside a small cave, featuring different types of metallic and non-metallic minerals and stones;
- different types and forms of petroleum;

- models of extinct animals of different sizes that settled the ancient Arabian Peninsula (e.g. the model of a Mastodon that once roamed the Arabian Peninsula 12 to 17 million years ago; and
- natural soil samples from the Arabian Peninsula.

In addition, there is a section featuring primitive techniques and tools used by prehistoric man, including pottery from one of the oldest civilizations (5,000 BC), the Obaid Civilization, which flourished in the eastern region of the Arabian Peninsula, in southern Mesopotamia, and some of the ancient Near East.

There is also an ancient human handprint carved in a rock found in Najran, in the southern part of the Kingdom. There are additional artefacts, models and rock-drawings from the prehistoric period, reflecting how the first man interacted with the environment, and the various stone tools he manufactured (see Figure 5-9).



Figure 5-9 The 1st exhibition tracking plan. (Source: The researcher)

At this stage, the study investigated a specific exhibition in the SNM. This is crucial when investigating different types of group visitor, such as tour guides, family members and adults, as a way to measure theoretical aspects such as timing. Manual and coloured tracking were used to observe each groups' behaviour inside the exhibition (see Figure 33). The data revealed time spent at particular exhibits and total time visiting the exhibition. The results shown in the table and figure indicated that there was a significant number of stops, with the blue and yellow tracking colour showing 18 stops and an average 18 minutes' total time spent in the exhibition hall by adult visitors. In the case of adults, the initial finding was that everyone visited

different exhibits first, and so this information does not allow us to understand individual groups of visitors' behaviour.

However, it was possible to clarify key visitor behaviour variables, such as where visitors stop, and how they distribute their attention and examine each exhibition element throughout their overall journey in relation to the attribution of meaning based on denotation and connotation (see the next section). In contrast, only one stop was tracked by family members, and no stops were recorded by tour guides, as the total time spent in the entire exhibition was below 12 minutes.

In line with the previous literature, initial observational studies were based on unobtrusive manual observations, tracking the movement and behaviour of visitors around the area of an exhibition, producing maps of tracks showing "hot" and "cold" spots. Contemporary museum researchers use observations to examine various measures such as visitor circulation patterns (Bitgood, 2006), use of signage and labels (McManus, 1989), interaction with exhibits (Yalowitz, 2009) and social interaction (Leinhardt and Knutson, 2004). Using manual tracking and timing of visitors' behaviour by employing unobtrusive observations, museum researchers have measured variables such as: the total time in an area, total number of stops, proportion of visitors stopping at a specific exhibit, visitors' path, and time of non-exhibit-related behaviour as well as level of engagement with the exhibit (Klein, 1993; Yalowitz, Bronnenkant, 2009).

Table 9 Stage one of tracking behaviour

Visitor type	Tracking colour	Entering time	Leaving time	Total time in the hall	Total stops at specific exhibits
Tour guide with 16 visitors	Green	11:26	11:36	10 Minutes	None
3 Adults	Blue	12:43	1:01	18 Minutes	18 stops
Family 4 adults	Red	5:16	5:26	12 Minutes	1 stop
1 Adult	Yellow	2:45	3:03	18 Minutes	7 stops

5.8.1.2. The second stage: Tracking the overall journey across eight exhibitions

This stage ultimately resulted in 12 tracking drawings for behavioural observations detailing SNM journeys, including visitors' entry and exit points. To evaluate the space with regard to the psychology and behaviour of users, spatial characteristics and components were proposed. Visitor routes and the location of activities were mapped carefully across the eight exhibition halls as well as the times for entrance and exit of the SNM. Additionally, spatial characteristics, tracking point data and behavioural observations were combined to analyse the relationship between space and behaviour.

The concluding chapter will provide some suggestions on how to improve the exhibition space. To assist with this, the following table illustrates the average time visitors spent at each exhibition. As the chart explains, for each of the 12 visitors and their average time visiting, the x-axis represents the minutes and the y-axis represents the eight exhibitions including the entrance and the exit. It can be seen that the longest time spent in a single exhibition was by visitor 3 (the grey colour in the chart) at 29 minutes in the second exhibition

which is Arab Kingdoms. The majority of the visitors spent more of their time in the first three exhibitions. Considerably more time was spent at the Prophet Mission Exhibition (see Figure 5-10). This analysis found evidence for higher visitor engagement at the beginning of the journey than at the end (The overall SNM journey tracking sheets are included in Appendix H).

Table 10 Average time spent at each exhibition

Average time spent at each exhibition										
	0	1	2	3	4	5	6	7	8	0
Visitor 1	7	18	24	8	19	20	3	2	3	11
Visitor 2	3	10	10	6	8	15	4	6	7	6
Visitor 3	6	18	29	4	2	12	5	16	2	2
Visitor 4	3	12	9	2	3	7	13	4	6	5
Visitor 5	4	17	26	12	14	16	5	4	6	2
Visitor 6	3	14	12	4	5	15	6	8	5	3
Visitor 7	0	10	11	3	4	8	5	7	3	2
Visitor 8	5	14	18	10	7	16	8	12	4	4
Visitor 9	6	13	14	12	3	7	4	5	3	6
Visitor 10	5	16	19	12	8	12	6	4	6	10
Visitor 11	4	20	22	6	12	11	5	7	5	3
Visitor 12	4	15	16	3	7	12	4	3	2	2

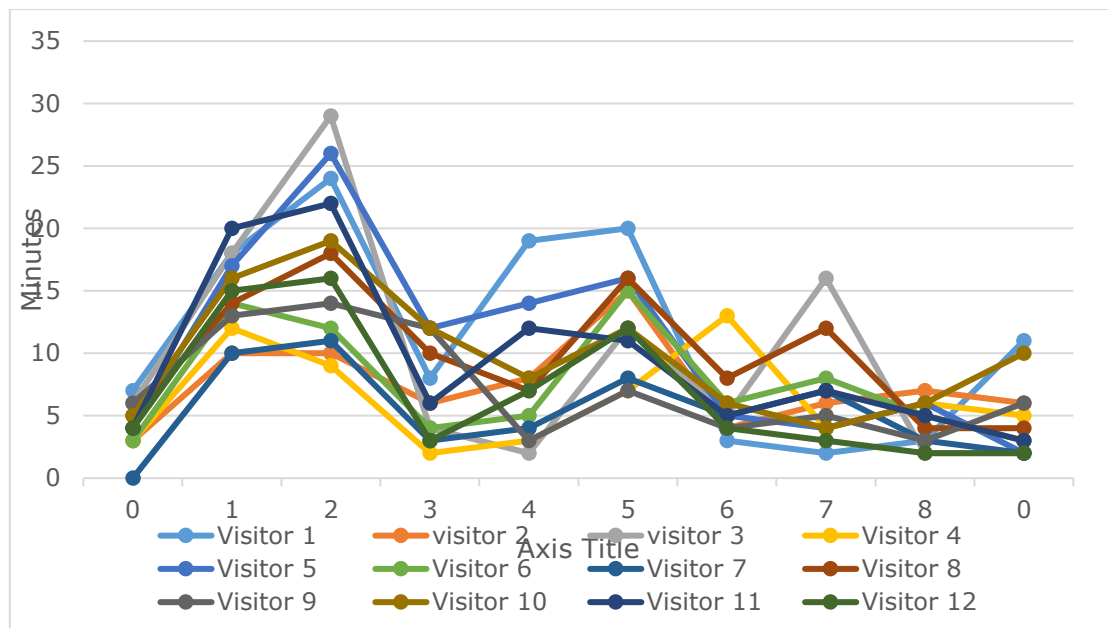


Figure 5-10 the average time spent at each exhibition. (Source: The researcher)

To evaluate and clarify visitor behaviour and the relevance of the content, the distribution of time at specific exhibitions is provided in the following table and chart. The x-axis represents the number of stops, and the y-axis represents the eight exhibitions, including information regarding entrance and the exit. Overall, a greater number of stops were recorded in the first three exhibitions. On the other hand, the last four exhibitions attracted the lowest number of stops at specific displays. More interestingly, the grey coloured line in the chart representing Visitor 3 clarifies how visitor curiosity may be engaged by particular objects or displays (see Figure 5-11).

Table 11 Distribution for time spent at a specific exhibition

Number of stops at specific exhibitions										
	0	1	2	3	4	5	6	7	8	0
Visitor 1	0	5	10	2	7	4	1	0	1	0
Visitor 2	0	2	6	3	5	4	2	1	3	0
Visitor 3	0	16	17	1	1	2	4	0	1	0
Visitor 4	0	1	0	0	1	2	6	4	3	0
Visitor 5	0	6	12	5	4	5	2	1	2	0
Visitor 6	0	4	5	0	1	3	3	2	3	0
Visitor 7	0	3	4	1	1	2	2	1	1	0
Visitor 8	0	4	8	4	2	3	2	1	1	0
Visitor 9	0	5	6	5	1	3	1	0	0	0
Visitor 10	0	8	6	2	4	4	2	1	3	0
Visitor 11	0	10	12	6	5	5	3	0	2	0
Visitor 12	0	5	8	0	2	5	1	1	0	0

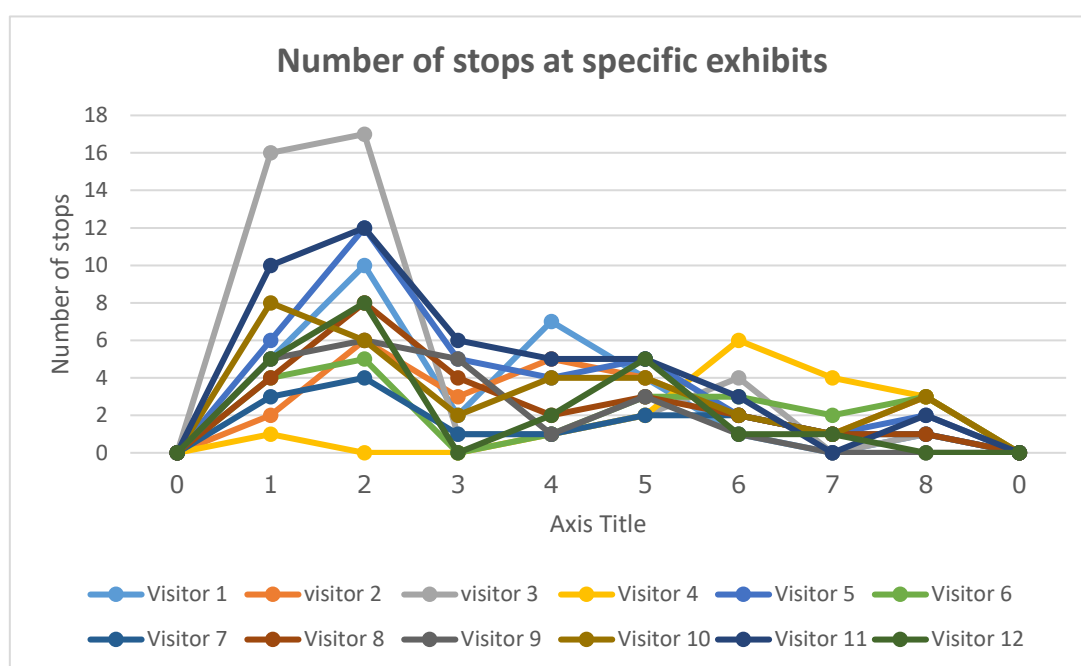


Figure 5-11 Distribution for time spent at specific exhibitions.
(Source: The researcher)

Overall, the total duration of visitor journeys were recorded. As evident from the following table and chart, total journey times vary. Two visitors recorded a journey time of approximately 120 minutes, and four journeys were recorded between 95 and 98 minutes, while the figures for the other six visitors was between 60 and 80 minutes (see Figure 5-12).

5.8.2. Total duration of visitor journey

Table 12 Total duration of visitor journey

Visitor 1	115
visitor 2	75
visitor 3	96
Visitor 4	64
Visitor 5	106
Visitor 6	75
Visitor 7	53
Visitor 8	98
Visitor 9	73
Visitor 10	98
Visitor 11	95
Visitor 12	68



Figure 5-12 Total time for visitor journey. (Source: The researcher)

Analysing visitors' behaviours at the SNM exhibitions through variables such as holding power (the time spent at a single room) and attracting power (the relative number of people who stopped at an exhibition during their overall journey), mainly consider whether any additional meaningful associations have been formed as a result of the entire museum experience.

Despite the fact that communication is the transmission of a message from a sender to a receiver via a medium (or channel) of transmission (Kolter and Kolter, 1998), it is clear that "communication is the transmission of a message from a sender to a receiver via a medium (or channel) of transmission" (Schiffman et al., 2013). For example, in the survey analysis, the soundtrack as a connotative element at the Prophet exhibition was one of the evocative objects emphasised by several survey participants as affecting the impression of the Islamic religion. Also, some survey participants also observed that the usage of a cinema screen added an essential additional

connotative aspect to the depiction of the story of Saudi Arabia's formation. Meanwhile, the other participants indicated some denotative elements and explicit presentations of narrative content and physically represented the display of special materials, such as clothing, stamps, iconic notes from the King, and information about the creation of the Saudi state.

The main conclusion derived from the data is that the museum's communication process with regard to the topic of national identity could be constructed via the encoder (e.g., architects or designers) who articulate the intended message (Dernie, 2006, p.6) via the platform of narrative and medium, such as sound or videos. In addition, the message was decoded by those museum visitors who focused on visitors' interactions with the exhibits involving two measures - attraction power and holding power; both of which are often used in museum studies (Bollo, 2005, Hooper Greenhill, 2006 and Serrell, 1997). As both variables could be associated with the broader theoretical frameworks of this study, especially using the explanation of communicative distinction between the designer and its role to guide the message of meaning-making (the encoder) for those museum' visitors (the decoder) who receive, engage and interact during their visit.

Together these variables effectively capture how visitors engaged with an exhibit in the SNM:

- Holding power measures the highest average time spent in front of a single exhibition in the Arab Kingdom exhibition. It is calculated by calculating the time a visitor spent in front of a

specific exhibit. A number of stops were captured in the corridor that participants pass through to enter the Arab kingdom exhibition, and other stops were recorded at exhibits. This measure provides us with an initial idea of the power of an exhibit to hold visitors' interest (see Figure 5-14 and 5-16).

- Attraction power indicates the relative number of people who stopped at an exhibition during their SNM journey. It is calculated by dividing the number of people who stopped, by the total number of people who have visited the museum. This measure provides us with an initial idea of the power of attraction of each exhibit. The 2nd exhibition (room 2), which is the Arab Kingdom has the highest attraction power, as the majority of participants decided to spend longer in this exhibition than other SNM exhibitions (see Figure 5-15).

The interpretations of tracking can provide different behaviours according to different scales. The Arab kingdom exhibition (room 2) explained both attraction and holding measures. These measures played a decisive analytical role, since they served as preconditions for learning and non-learning situations. They identify important areas in the museum in which the production of meaning takes place (Bollo, 2005).

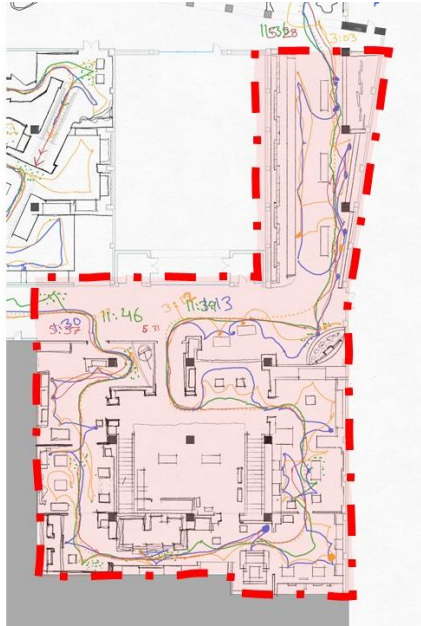


Figure 5-14 Tracking sheet of Room 2 (Arabs Kingdom exhibition)

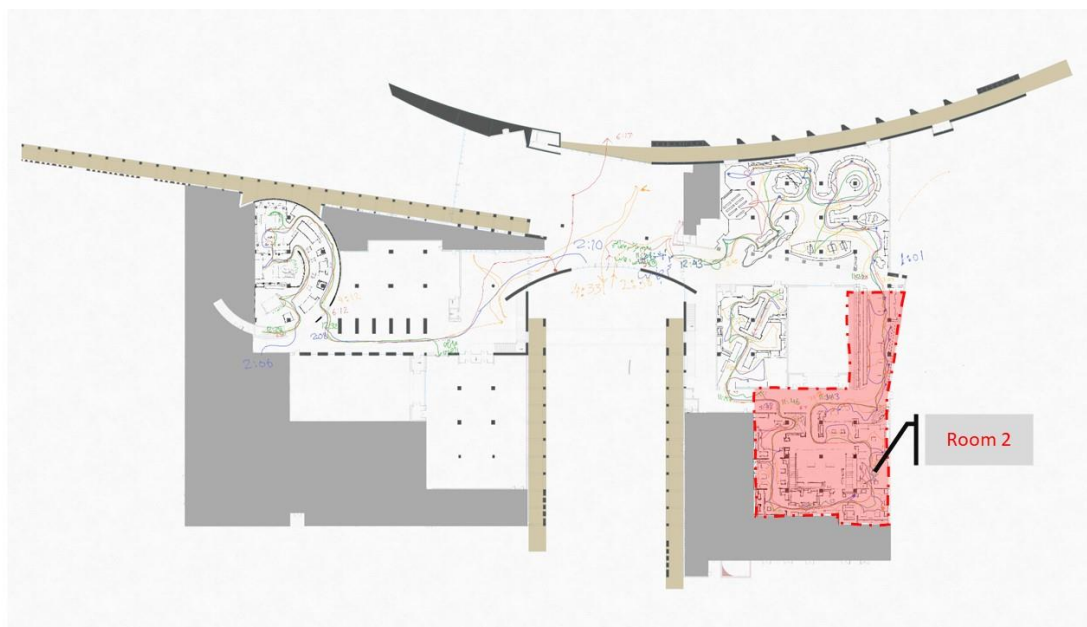


Figure 5-15 Tracking sheet of room 2 of 8 SNM exhibitions

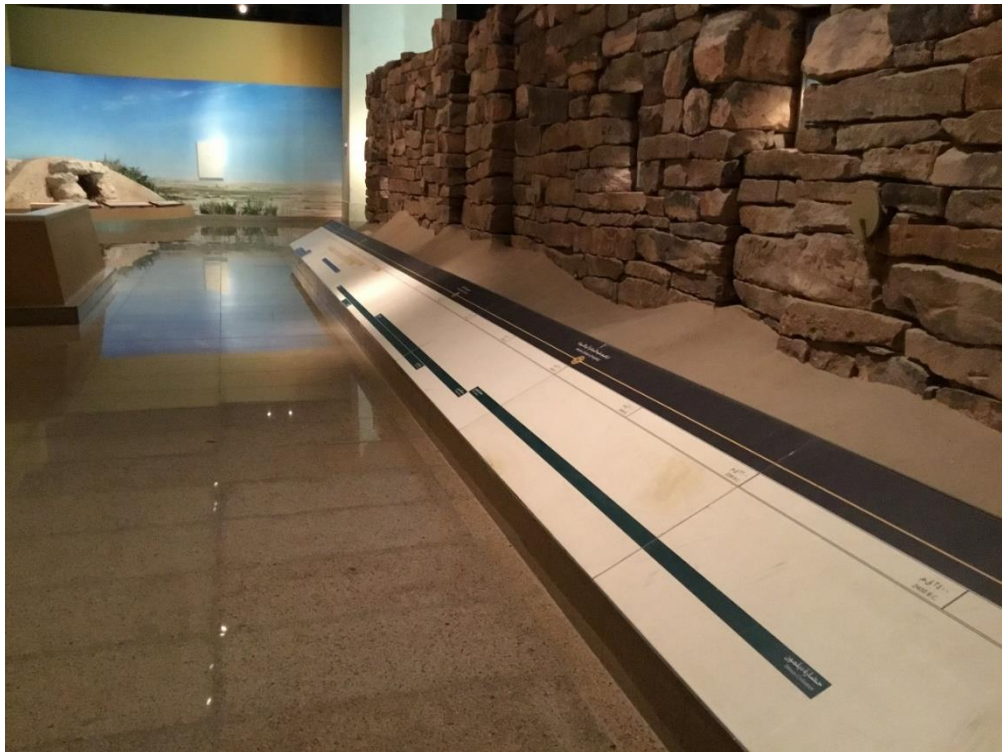


Figure 5-16 The corridor of Arab Kingdom exhibition (room 2).
Source: by the Researcher

5.8.3. Conclusion

Examination of the survey data from the 240 participants who completed the Museum Journeys survey, has identified three key variables Visitor Satisfaction (VS), Meaning Construction (ME) and Museum' Environment and Atmosphere (MEA) form the basis upon which to develop the principal dimensions to characterise visitor engagement and perceptions of their actual experience. Adequate findings regarding the VS variable identified subsets of visitors, emphasising the importance of studying the SNM from the perspectives of local and overseas' perceptions across the eight narrative exhibitions. Moreover, MC and MEA data recognised the significant perceptions of bridge effects and valuable percentages of agreements that explicitly stated that exhibition environment and atmosphere would be confounded when tracking different visitors. Furthermore, an open-ended approach was employed to address visitors' feelings concerning their strong sense of Saudi national identity or Islamic identity, and their overall experience in terms of positive or negative experience. This was decided to gain insights into the various aspects that need to be considered when exploring the physical experience of internal SNM spaces. Interestingly, one of the main findings was that verbal and visual SNM materials, represented by different categories of media such as sound, images, cinema video, artefacts and antiquities, were appealing to visitors, for example, the representation of the intended Prophet message in the Prophet exhibition. A further key component emphasised the physical materials represented in the SNM displays, such as clothing, iconic stamps and notes from the King and regarding the creation of the Saudi state in the Unification exhibition.

Additionally, tracking and timing interpretations were visualised to evaluate visitors' behaviour in the museum. This was through the received narrative and the spatial view of what individual visitor routes could be perceived and engaged with across the different exhibitions. Models for attraction and holding attention emerged from stage 2 of the tracking study during initial testing of stage 1; especially focusing on the significance of exhibit labelling to generate a deeper level of engagement.

The next chapter will integrate the results from the qualitative and quantitative stages of the research, relating them to the empirical and numerical research to validate the final research outcomes.

Chapter 6. Integration of the empirical and numerical findings of the SNM case study

6.1. Introduction

This chapter illuminates the contributions of architectural design, and the role of architecture in enhancing national identity through the overall visitor journey. This integrated approach involves the development of distinct bottom-up and top-down approaches/models, an overall visitor journey, and a triangulation conducted at the SNM that identified the role of the SNM's exhibition design in communicating the country's national identity via visitor interaction, exhibition space and environment, and the emotions they inspire. Specifically, the exhibition design and its effect on the eight narrative exhibition spaces concerned is explored, together with how museum visitors expressed their views of the conveyance of national identity, and how the SNM journey is constructed.

This core chapter of the thesis explores the role of museum architecture in communicating national identity, specifically in terms of the transmission between the producer's encoding and the receiver's decoding. The aim is being to address the key research question regarding the effectiveness of the design of the museum and its exhibitions in communicating Saudi national identity, through the use of spatial narrative and interpretive spatial design. The findings are discussed in the context of the Islamic symbolism of Saudi national identity, the links between Islamic identity and Saudi national identity, and in terms of the architectural discourse, and the

relationship between exhibition space and visitor experience regarding identity, particularly the extent to which the Saudi national identity is influenced by the Islamic religion. Then, according to the key themes of the thesis regarding identity, architecture, exhibitions, and the SNM journey, the empirical and numerical findings are combined to demonstrate the ways in which a museum might construct a sense of national identity.

6.2. The Islamic symbolism of Saudi national identity

The case study found that for the architects of the SNM (based on the empirical exploration of national identity expressions in Chapter 4), identity was a product, not a goal. The architects defined themselves as cultural producers who reflected the nation's heritage in two aspects. First, they produced architectural products that enhanced the national identity, representing local and cultural features, with design as a key factor informing the building of the national museum. The second aspect involved all the members of the community and its institutions collaborating to address local issues effectively, thus constructing and preserving identity for future generations. In the case of Saudi Arabia, a Muslim country, it is important that the national identity is strengthened, and this was one of the ten goals recently identified by the Saudi Council of Economic Affairs and Development that are necessary for achieving the Saudi Vision 2030. Namely, as highlighted in the interview findings by many of the architects such as Alsabbagh (2018), Alhathloul (2018), Alshaabi (2018) and Alnaaim (2018) in Appendices C, the need to enhance individuals' sense of national identity, based on Islamic values. The SNM is no more than a highly serviced two-story box that

allows maximum flexibility in its interior. Its eight exhibition halls are arranged in chronological sequence from the earliest time to the current era. In them, visitors can learn about the origin of the universe and solar system and the natural factors that have contributed to the world's development for millions of years. The Ancient Arab Kingdoms Gallery immerses visitors in civilisations that existed from the fourth millennium BC to the second century AD. The religious and social patterns of life before Islam are revealed in the Pre-Islamic Era Gallery, and the Prophet's Mission Gallery describes the life of the Prophet (PBUH) from the revelation through the hijrah to Madinah. Visitors can watch a documentary on the history of the unification of Saudi Arabia in the Kingdom Unification Gallery, while the Hajj and Two Holy Mosques Gallery reveals the urban development of both mosques.

In relation to the research case study, one of the key aspects of Saudi Vision 2030 indicates the importance of facilitating the hosting of more Umrah visitors, providing easy access to the holy mosques, improving the quality of services at the holy mosques, and enriching the spiritual and cultural experience of Hajj and Umrah visitors. In addition, it should enhance the sense of national identity by instilling national values and strengthening the sense of national belonging, conserving and promoting Islam, Arabism, and the national heritage of the Kingdom, together with upholding the Arabic language.

These improvements seek to enhance the lifestyle of the country's citizens and residents by establishing an environment that supports all cultural, entertainment, and sporting activities that contribute to improving citizens' quality of life, creating jobs, diversifying economic

activity, and strengthening Saudi cities' status in the ranking of the world's best cities.

The Saudi Vision 2030 also aims to enhance the personal and psychological characteristics that contribute to motivating individuals to seek success and be optimistic, and to produce an informed generation. Moreover, the Kingdom plans to work to protect individuals from religious, social, and cultural threats. These goals seek to contribute to altering the perception of the Kingdom's image abroad, and constitute a major factor in strengthening Islamic values and the national identity that lie at the heart of the Vision 2030 (see Figure 6-1).

Strengthen Islamic values & national identity



Figure 6-1 Snapshot of one of the strategic objectives of the Saudi Vision 2030 (Source: <https://mep.gov.sa/ar/AdditionalDocuments/Vision%20Realization%20Programs%20Overview.pdf>).

At the time of writing, the Saudi Vision 2030 was already having a major impact on the Saudi culture sector; as stated in vision 2030,

“culture is indispensable to our quality of life ... the Kingdom must increase both the quality and quantity of its cultural activity ... Saudi culture will remain an essential part of our lives” (Saudi Vision, 2030). For example, since the Saudi Vision 2030 stated that the country should be proud of its rich cultural heritage, and that a collaborative approach should be adopted within the Saudi creative sector, the Ministry of Culture was established in 2018, undergoing several iterations to reach its current structure. The Ministry was formed to champion cultural causes across the sector, and to address the need to develop an environment that supports and nurtures creativity, thereby facilitating new forms of identity value and expression. According to the Vision, the support of culture is an essential part of the national transformation, specifically since the Saudi culture possesses a rich heritage and diverse traditions across the 13 Saudi regions. It is envisioned that this cultural diversity will enable growth to preserve identity, while avoiding being frozen in time, a matter that was of particular importance for the present study’s exploration of identity. Since ‘culture’ is a broad term, the Ministry of Culture identified 16 priority sub-sectors that form its focus: heritage, museums, archaeological and cultural landscapes, theatre and performing arts, cultural festivals and events, books and publications, architecture and design, natural heritage, films, fashion, language and translation, culinary arts, literature, libraries, visual arts, and music (Saudi Vision, 2030).

In this context of change, the government’s vision and direction seek to realise the cultural sector’s potential, bringing all aspects of the Kingdom’s rich cultural heritage into the daily lives of Saudi citizens, thereby enriching the lives of the people of Saudi Arabia. In terms of

cultivating, organising, and promoting the Saudi cultural sector, the Ministry will also create 11 new bodies, reporting to the Ministry, by supporting professionals and developing initiatives across all the 16 sub-sectors listed above.

6.3. Links between Islamic identity and Saudi national identity

Arguably, in order to reflect it in a positive way, the Saudi enhancement of its identity requires a process of education and preparation that involves community awareness and interaction, since it is necessary to consider all expressions of Saudi and Islamic identity in the conveyance of the national identity. As Yahaya (2012) explained, identity incorporates two important features: continuity and contrast. The term 'continuity' concerns the fact that the expression of individual identity should be the same tomorrow as it is today; while individuals change, the core aspects of social identity, such as gender, surname, language, and ethnicity, remain relatively stable. Meanwhile, 'contrast' denotes the fact that an individual's social identity is what differentiates them from others; an identity is what makes a person unique in the eyes of other people. Moreover, identity can also have a global expression, which is why the Saudi national identity can be enhanced as a direct result of the Islamic elements in people's daily lives, such as mosques, that reflect one of the elements of identity in a society that adheres to Islamic values. Nevertheless, an understanding such as *Imagined Community* by (Anderson, 1983) could involve numerous assumptions and misconceptions with regard to national identity, many of which are limited in their scope, and do not lend sufficient prominence to

disciplines such as architecture, which is central to identity expression.

Anderson's concept of the nation as an imagined community, developed for the purpose of analysing nationalism, has strongly influenced the existing literature. The emphasis he places on print media, on the other hand, presents a reductive vision of culture. Meanwhile the historical significance of print is significant. It is further confounding that no mention is made of the various ways in which the nation is imagined in music halls and theatres, popular music, festivities, architecture, fashion, congregational spaces, and a plethora of embodied habits and performances, not to mention additional parallel cultural forms such as television, film, radio, and information technology.

Anderson's emphasis on the textual reproduction and the representation of the country tends to obscure spatial, material, and embodied constructions of communal identity. This concept was refined here to address assumptions and misconceptions with regard to national identity, but the concept does not give sufficient prominence to disciplines such as architecture, which is central to identity expression. Thus, this discussion further refines the disciplinary content.

6.4. Architectural discourse

This study explored a range of matters under the umbrella of architectural discourse, including the SNM building and exhibition environment, the architects and designers involved in its creation,

and Saudi and Islamic identity. The use of this lens facilitated comprehension of the process involved in the establishment of the SNM, and ascribed value to all elements of these aspects.

Architecture and design always involve large and influential societal and environmental issues. It is through design that behavioural changes can be achieved that improve a community and address its problems. The findings of the present study (see section 4.4.1), indicated that design solutions could improve societal justice in an urban environment, as well as addressing numerous other issues. Furthermore, the architects and designers involved in the study noted that identity expression from a local viewpoint was a key determinant of their decision to highlight this perspective when designing the SNM. The design sought to enhance the interaction of the buildings with the local environment, physically integrating the architectural to effectively express identity. Its physical characteristics derive from an architectural pattern for developing the museum suggested by the Arabic architect Rasem Badran and inspired by a local architectural vocabulary known as *Tarma*.

The vocabulary of Tarma, the local architectural style of buildings in Najid, thus inspired the design proposal of the SNM. In tarma, the window traditionally overlooks the entrance to the building, so the design nucleus was centred on the main entrance of the museum, which features a glass ceiling and three spaces designed across underground floors. The design concept of Tarma was reinterpreted to arouse visitors' curiosity to visit the museum through introductory exhibitions alongside cafés and restaurants. It was anticipated that this approach would increase interest and attract more visitors to the

SNM. Specifically, the local architectural vocabulary (Tarma) was employed as the design concept in the use of Najid architectural buildings reinterpreted in the design of the SNM to inspire Saudis to visit the museum's exhibitions and other public facilities, such as the restaurants and cafes.

6.4.1. Bottom up and top-down process

The field of architecture incorporates numerous elements, including cultural, intellectual, technical, social, and economic, and most of this study's interview participants agreed that the SNM, specifically the KAHC, had a special role in preserving and enhancing the national identity, although their views differed in terms of the expression of this identity, and its reflection in the architecture. Some of the interviewees considered identity to be associated with the architectural forms that inspired them, while others viewed it as the materials used in the building's construction. Moreover, while some of the architects focused on the construction and sustainable aspects of the building, certain more human aspects, such as beauty and individual experience are also meaningful. The technical aspects of building construction are an integral part of the process, but are not the heart of the architectural form; indeed, the executive officer of the Architecture and Design Commission believed that individuals fail to perceive meaning in architecture because they are not involved in their creation, explaining that we are not lacking an identity, but we are unable to express it; so the fact that we do not allow architecture to represent us does not mean that we generally lack the entity, but rather what it means is that we are incapable of expression. We just miss the vocabulary that gets us on the right path (Alsolaiman, 2020).

The Architecture and Design Commission in Saudi Arabia is a Saudi government agency, established in February 2020 and based in the capital, Riyadh. Its role is to oversee the architecture and design sector, and to support the practitioners employed within it, supporting and representing Saudi architects, including those involved in disagreements regarding the aims expressed above, often due to the fact that the importance of architecture in Saudi Arabia is sometimes buried beneath the needs of civil engineers and construction engineers. Indeed, the term 'architect' is often misused in the country, and practitioners are not distinguished as a profession; although architecture is a key form of artistic expression, it is often viewed as simply another type of engineering (Alnaaim, 2018).

Architects possess differing views regarding the expression of identity and its multi-level nature, including the bottom-up and the top-down approach, employing architectural discourse as a shared system to form the identity created. Previous studies in the field included considerable discussion of the meaning of these two different approaches to identity construction, namely bottom-up, which refers to the individual level, and top-down, which concerns the various levels nested within groups, organisations, or nations.

A number of architectural aspects were associated with national identity by the interviewees, such as Alsabbagh (2018), Alhathloul (2018), Alshaabi (2018), and Alnaaim (2018) (see Appendix C). The context of SNM as a historical site was highlighted, as its thoughtful urban design, which attempts to bridge the present and the past (as represented in existing vernacular forms), enables communication

between experts (architects, designers, and landscape and urban designers). This reflects the belief that the relationship between architecture and urban context is manifested by two broad initiatives. The first gives priority to cultural continuity with the existing locality and its history. It is achieved through a process, which links urban identity and local memory. The second is concerned with the morphological continuity of an existing locality and its historical stratification. It is an urban system which seeks links with physical features, the geographic site, topographic characteristics and existing physical and morphological patterns, in other words, with the form and structure of the locality.

Using the walls of old Riyadh and the city's traditional mud houses as architectural elements of the SNM was the idea of the museum's Canadian architect, who was inspired by the Arabic architect Rasem Badran, the designer of the mosque and library located in the same quarter. The intent was that all these characteristics would harmonise with the urban design of the entire area (the KAHC).

The use of the multi-level model proposed by Klein and Kozlowski (2000) in the present study, as shown in Figure 6-2, aided in explaining the nature of culture developed via the top-down and bottom-up processes. The macro level of the top-down process influences a national culture, which in turn affects organisations and groups, which then affects individual identity and cultural self-representation. Meanwhile, the bottom-up process explains the emergence of identity from the individual level, through to the group and organisational levels when the majority of the organisations' members share the new cultural norms indicated, therefore the

modified organisational culture becomes a meso-level construct. When the new culture is shared by all the organisations in a region, it becomes a national-level culture (Klein and Kozlowski, 2000).

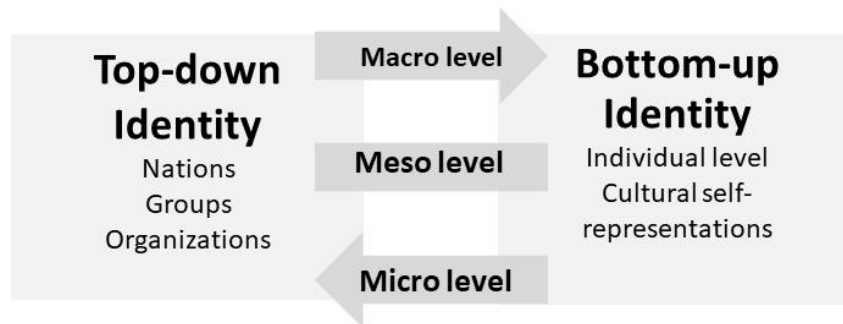


Figure 6-2 Top-down and bottom-up identity construction (Source: Klein and Kozlowski, 2000, p.).

As MacLeod et al. (2012, p.105) explained

Top-down approaches are where ready-made narratives are laid out and presented through an arrangement of objects, and bottom-up describes the process where stories are seen to emerge from the experience of found space, artefacts and landscapes. The idea of unconscious narrative that can be read from the human traces that these things often carry, reminds us of the silent role of narrative in structuring our basic sense of space, our sense of time, and ultimately our sense of self.

The top-down approach employed in the design of the SNM enabled the identification of the characteristics of the various levels of influence nested within the related organisations, such as the Saudi Commission for Tourism and National Heritage, the Museums and

Antiquities Agency, and the administration of the SNM itself. The use of the top-down approach in this case was employed to influence the goals and behaviour involved in the complex negotiations of identity formation. Both the empirical and numerical findings of this study confirmed the use of religion to consolidate the performance of national identity, in order that the Saudi national identity was manifested in terms of the relationship between the state and the Islamic religion. This was enhanced by the majority of the participants through their profound expression of Saudi national identity. This reflects the fact that the history of Saudi Arabia is an extension of Islamic history on the Arabian Peninsula and of the history of Makkah and Medina, not separate from it. Saudi Arabia is the servant of the two holy mosques and always represents the contemporary expression of the history of Islam on the peninsula. This top-down approach, originating at the national and group level promoted the formation of a sense of national identity that positively impacted the behaviour embodied in the perception of the ready-made narrative present in the chronologically presented displays of the SNM. The top-down approach concretely impacts visitor perceptions through design strategies reflected in the arrangement of objects in the SNM, whereas the bottom-up approach derives from the process whereby stories emerge from visitors' experiences of space, artefacts, and landscapes. This calls to mind the point explained earlier: that the notion of an unconscious narrative can be read in the human traces that these elements often carry, reminding us of the silent role of narrative in structuring our basic sense of space, our sense of time, and, ultimately, our sense of self.

Here, it should be noted that these responses to the study's background question regarding Saudi national identity informed the overall existence of the SNM as such and shaped the briefs that were created by the client and provided to the architectural and curatorial exhibition designers.

As Klein and Kozlowski (2000) explain, collective phenomena can emerge in various ways under different contextual constraints and patterns of interaction. This model was examined as a part of the researcher's observations to provide possible explanations. The interpretation of the emergent phenomena of identity, architecture, exhibitions, and the SNM journey was based on patterns of social and cultural interaction, such as the visitor journey and behaviour tracking, so even small changes in individual behaviours or interactions could engender significant changes and could affect the interplay between the characteristics of the emergent phenomena. Moreover, the relationship between the top-down and bottom-up processes strongly suggests that the macro level of identity formation and architectural concerns in Saudi Arabia affects the micro level of individual self-concept and identity, as the exhibitions and visitor journey of the SNM influence and affect individual identity and cultural self-representation.

6.4.2. The relationship between exhibition space and visitor experience

Due to the lack of previous studies of exhibition design in the Saudi context, the present study investigated the SNM as one of the most important, recommended, and most-visited museums in Riyadh (Dar Al Omran, 2017). A number of previous studies discussed the social

nature of the museum experience, proposing that “mutual or public visibility” is an important feature of a museum (Macdonald, 2007, p.156). Specifically, the SNM exhibition spaces and visitor experience demonstrated this nature in terms of the use of the exhibition space to enhance national identity. This suggested that the architecture of the SNM contributed in various ways to the visitor experience and to visitors’ understanding of national identity, demonstrating that the exhibition space was a place for interaction, as well as for public and cultural involvement, and should therefore possess a degree of attractiveness, in order to encourage people to visit.

The SNM visitor data showed that the Prophet Mission Exhibition and the Unification Exhibition produced the greatest range of responses in terms of mapping the whole visitor experience. Visitors to the Prophet Exhibition were impressed by the spiritual conveyance in the representation of the Quran and the supplication (see Figure 6-3) via the bridge linking the pre-Islam period and the post-Islam period, as well as in the informative presentation of the exhibition contents and layout, and the soundtrack of a particular song of the Prophet that was heard on entering the exhibition. Meanwhile, in the Unification Exhibition, the visitors were impressed by the artefacts belonging to the king, and the simple explanation of how the Kingdom was unified. Other impressions cited were the successful conveyance of King Abdul-Aziz’s personality, and the detailed understanding obtained of specific items from the Kingdom that reflected the Saudi national identity (see Figure 6-4). Moreover, several participants highlighted the use of sound that aided in conveying a sense of the Islamic religion, while others mentioned the clear layout used to guide the visitor journey through the linear, sequential exhibition displays. In

addition, the use of a cinema screen was reported to be another important element in successfully presenting the history of the Saudi nation's formation.

Arguably, there were two specific components of the notion of the designers' "encoding" and the visitors' "decoding" involved in the successful SNM visitor experience: verbal and visual, each of which utilised different forms of media in the visitors' journey through the exhibition, such as sound, images, video, artefacts, and antiquities. These components all contributed to delivering the intended message both explicitly and implicitly. The conditions, procedures, and practices that comprise the communication circuit have been discussed above, and can be clarified using Hall's encoding/decoding model of communication. Codes, according to Hall, are used to fix the meanings of signs at both a denotative and connotative level. These codes are tools of world categorization, which combine to form patterns of "dominant or preferred meanings" (Hall, 1973/1992. p.123).

It must be articulated here that the design, exhibition layout, and display interacted to affect the overall visitor experience throughout the SNM. A further evaluation of the causes of the degrees of narrativity makes it appropriate to discuss the verbal and visual materials in these exhibitions in terms of both denotative and connotative communication. The reasons for choosing the Prophet's Mission exhibition include its clear layout and its characteristics of providing an impression, nurturing a feeling of belonging, and creating pride in the Islamic religion. Particular mention was made of the ambient music heard upon entering the exhibition, a

memorable song from the Prophet. This was one of the evocative elements that several participants stressed as affecting the impression of the Islamic religion.

In addition, some participants mentioned navigation, citing the consistency of the linear spatial arrangements and the sequential design and layouts of the exhibition, which proved very important in their journey of navigating the routes through the exhibition.

The Unification exhibition was selected because it most effectively communicated national identity, including through its demonstration of the strong personality of King Abdul-Aziz and its detailed presentation of specific items from the kingdom's history that reflect Saudi national identity. The participants noted that the use of a cinema screen also contributed an important connotative element to the depiction of the story of Saudi Arabia's formation.

These various aspects must be considered when evaluating the physical experience of exploring the SNM's internal spaces (see section 5.7.1). Among the chief elements contributing to the significance of the results were the verbal and visual SNM materials in diverse media—such as sound, images, video, artefacts, and antiquities—that more strongly supported connotatively communicated meanings than denotatively communicated ones. The participants highlighted the use of sound in delivering the Prophet's intended message.

Other participants emphasised additional key components that comprised denotative elements and explicit presentations of

narrative content by physically displaying special materials, such as clothing, stamps, iconic notes from the king, and information about creating the Saudi state (see Figure 5-5). Of further interest, the visitors' emotions and feelings were considered when evaluating their behaviours, such as behaviours in response to the exhibitions' power to attract and hold their attention, in order to describe a meaningful visitor experience. These behaviours are examined against two scales through a tracking analysis described in the upcoming section. These categories demonstrate the overall importance of narrative and the various roles of the connotative elements, such as sound, architectural elements, and layout, in developing a feeling of belonging and creating pride in the Islamic religion in support of the denotative materials represented in displays, clothes, iconic notes, and stamps from the former Saudi states.

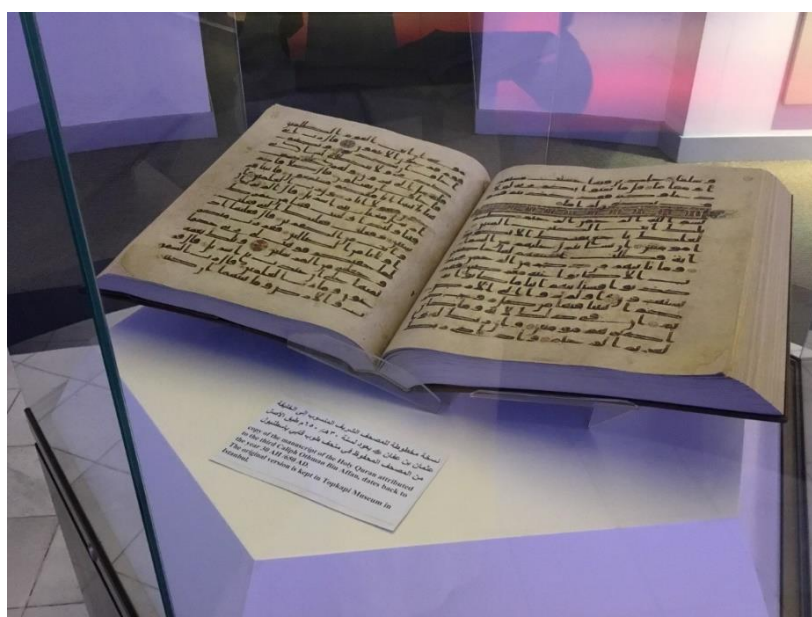


Figure 6-3 The Quran in the Prophet Mission Exhibition (Source: The researcher).



Figure 6-4 Panoramic scenes of the Unification Exhibition (Source: The researcher).

The architects interviewed for this study explained the importance of considering the experience of visitors to the museum, and the need to update most of the SNM exhibits, since they were first opened in 1999, and since the Saudi Vision 2030 introduced requirements for promoting the national identity, community, and culture. This reflected the findings of the study conducted by the Saudi Commission for Tourism and National Heritage (SCTA) (2017) that evaluated the SNM development and expansion project, gathered input from stakeholders and visitors, and recommended a series of strategic changes to help the museum achieve its goals, and to serve the needs of modern visitors who have high expectations. The study reported low museum attendance, noting that fewer than half the

population of the country visited museums more than once a year, and made four recommendations regarding necessary changes to the SNM. First, the museum should be positioned as a location for family outings, since there was a significant opportunity to attract visitors of all ages, from six years upwards. As a family attraction, the museum should be enjoyable and entertaining for a family audience. Second, since the SCTA study found that one of the reasons for visiting leisure venues was to enjoy open spaces, and that visitors to the SNM appreciated the landscaping and park around the museum, they proposed that this space should be used to attract visitors to the museum. Third, it proposed that a comprehensive marketing and communication plan should be developed, to design and implement marketing/advertising other awareness-raising activities that would be converted into positive word of mouth by visitors. For instance, the potential audience might be attracted via television advertising and online marketing, and by placing adverts on different social media channels. Additionally, the report recommended that adverts and brochures might be placed at Riyadh airport and bus stations to attract visitors. Finally, the study concluded that open area markets (bazars), a shopping area, restaurants, cafés, and a quality accommodation facility near the SNM should be developed, that would not only attract residents and visitors already in Riyadh, but would also draw tourists planning to travel intercity for leisure purposes on special occasions, such as Eid holidays or school holidays.

6.4.3. Overall visitor journey

The analysis of this study's findings demonstrated that the perception of the design aspects of the SNM successfully promoted a sense of

national identity among the visitors (see sections 5.7,5.7.1 &5.7.2). The survey finding shows that the Prophet's Mission exhibition and Unification exhibition attracted the greatest variety of participants' responses. A further evaluation of the reasons given for the degrees of narrativity makes it appropriate to discuss the verbal and visual materials in these exhibitions in terms of both denotative and connotative communication.

The results of the survey showed that this was especially the case among the visitors who reported the attractive use of the bridge in the museum exhibition to denote the turning point from the pre-Islam to the post-Islam period. Moreover, these design aspects were found to encourage the museum visitors to stay longer in the spaces concerned, and helped them to engage with the activities and displays. The time spent in these spaces times were corresponded in the tracking results with the level of overall satisfaction with these design aspects, therefore the design of exhibition spaces should be considered carefully.

During the interviews with the architects, all of the participants emphasised the role that their design skills played in guiding and framing the story to be conveyed by the museum exhibitions, and they believed that architecture played a part in shaping the national identity conveyed, by telling stories, entrenching memories, and by helping the visitor community to interpret and understand the nation's history. In addition, they argued that Saudi architecture should contribute to the expression of national identity through the expression of contemporary ideas. For example, the KAHC urban and architecture features were inspired by the architectural heritage of

Najd, combining the historical characteristics of the traditional features of old buildings with a sense of modernity, while also considering the natural aspects of the site (Dar Al Omram, 2020).

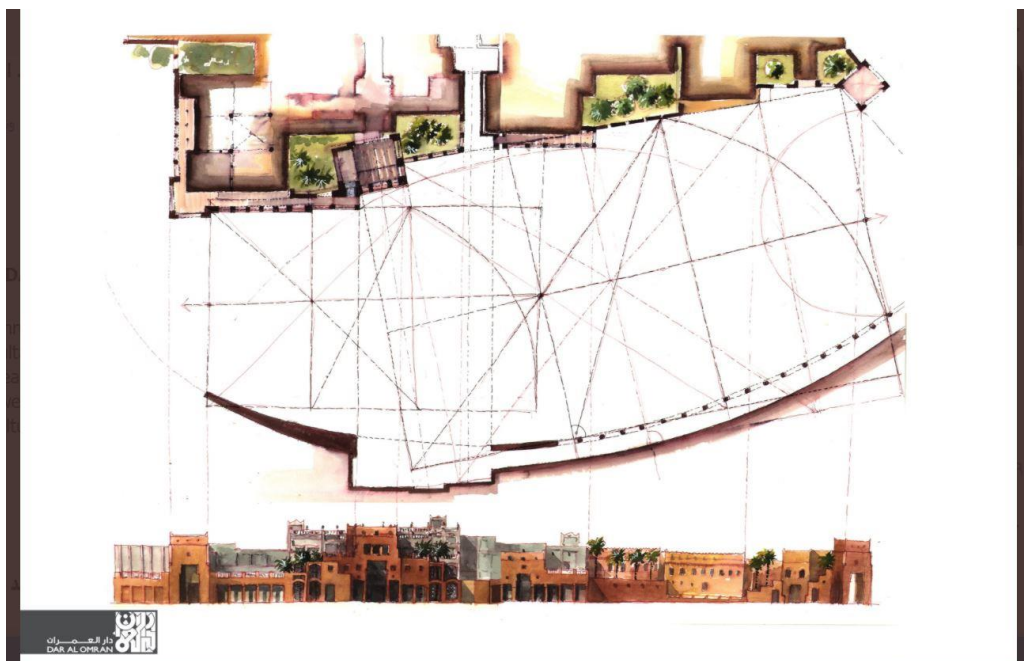




Figure 6-5 The combination of the historical characteristics and the traditional features of the old building of the KAHC (Source: Dar Al Omram, 2020).

Meanwhile, the interviewees also discussed the transportation, electricity, and technology incorporated in the construction of al-Murabba palace that sought to retain many elements of the traditional urban design of the central Arabian region of Najd, such as solid masses, covered roadways, and the inclusion of courtyards (Al-Hathloul, 1996). The palace was constructed using local Najdi building techniques and materials; the walls were built using clay and sun-dried mud bricks, while the roofs were created using trunks of tamarisk trees coated with mud (CSBE, 2012). The development of the palace thereby illustrated how traditional building technologies can be adapted and applied to large-scale projects, such as the KAHC, which was far larger than any previous building project of its kind in

Riyadh. Figure 6-6 compares the Al-Murabba' palace as it appeared in the 1930s with the present. The palace was an important, iconic element of the KAHC, and its redesign had a positive impact on the urban development and growth of Riyadh city.

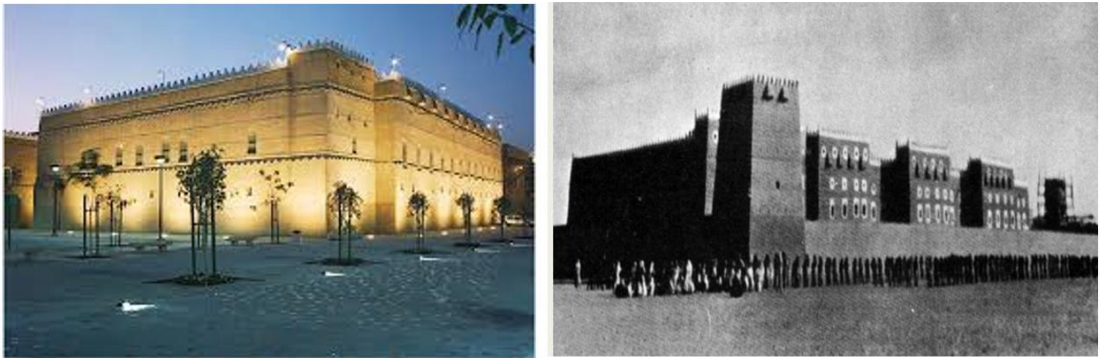


Figure 6-6 A view of the Al-Murabba palace in the 1930s (right) (Source: Al-Hathloul, 1996), and a current view of the palace as a part of the KAHC (left) (Source: <https://www.ootlah.com/ar/attractions-sarpruh-oth830-discover-the-historical-murabba-palace.html>).

Another finding related to the previous section was derived from the survey conducted for this research. Specifically, the SNM survey results demonstrated the participants' perceived importance of conveying the influence of Islamic religion on Saudi national identity through the arrangement of exhibition halls in chronological order, with most appreciating the use of the bridge between areas in the design (see section 5.7.1). In addition, the participants were positive about the museum environment and atmosphere, which were reported to create an enjoyable journey with an appropriate flow between floors, and regarding the interpretation of Islamic and Saudi history, both of which were elements that affected the visitors'

decision to spend time in that particular space. Additionally, the respondents responded positively to the overall museum design and the clear historical narration accompanying the exhibits, as well as to the helpful SNM staff and easy navigation around the museum displays.

The majority of the most positive comments (89%) were received for the five categories of rewarding experience, museum staff, visual display, museum design, and museum signage (see section 5.7.1). As noted above, the majority of the participants reported having a rewarding, rounded SNM experience that included an enjoyable museum journey with an appropriate flow between floors, and easily comprehensible interpretations of Islamic and Saudi history. In total, nine of those surveyed reported that all the SNM staff were very helpful, especially the security staff, and eight participants reported having a positive experience with the range of audio and visual displays. Meanwhile, a small number of the respondents expressed their views of the SNM design, most of which concerned the overall design and the clear historical narration of the exhibits. Meanwhile, five respondents acknowledged the helpful SNM signage, such as the yellow dots that they found easy to follow. In contrast, the negative comments received (11% of the total) concerned the lack of refreshment facilities, and the respondents reported that they would have preferred better and more up-to-date information, as well as more cinema screens. As referred to by Austin (2012), this highlighted the need to consider authorship, the story, the way of telling, and the changing audience. These elements are all considered in this study of the evolution of the national museum's narrative, alongside aspects of visitor engagement, which were addressed

further in the tracking analysis, the interpretation of which provided information regarding the different behaviours of those visitors navigating the exhibition, and the degrees to which the various exhibits attracted them and garnered their attention. For instance, the Arab Kingdom exhibition in Room 2 of the SNM both attracted visitors and held their attention successfully. The measurement of these factors was key in the analysis of visitor engagement, as they are preconditions for learning and non-learning situations, helping to identify the locations in the museum where the production of meaning occurred (Bollo, 2005). These would affirm the important role of architecture specifically, the spatial configuration of the journey and the museum's environment and atmosphere in reinforcing the underlying Saudi national identity narrative of the exhibition as expressed by the connotative objects of architecture, such as the corridor in room 2 that supported denotative elements and explicit presentations of narrative content that physically represented the display of special materials, such as clothing, stamps, iconic notes from the King and information about the emergence of Saudi state.

6.5. SNM triangulation

As Silverman (2006, p.290) explained, triangulation "refers to combining multiple theories, methods, observers, and empirical materials to produce a more accurate, comprehensive and objective representation of the object of study". This section discusses the findings regarding how the architecture and design of the SNM exhibitions communicated the national identity of Saudi Arabia, with the results triangulated using the data gathered regarding the

visitors' interaction, the exhibition space and environment, and the visitors' emotions about the exhibitions. These three components constituted both qualitative and quantitative approaches to the data collection for the purpose of this study.

As discussed in detail in Chapter 5, according to experts in the field of architecture, the expression of identity in architecture and building design can be achieved in the design of SNM and through the involvement of (architects). The present study explored how different paradigms of identity, such as nationalistic, Islamic, and local identities are expressed, identifying the use of the Islamic religion to consolidate and constitute the performance of national identity in Saudi Arabia. When seeking to highlight cultural identity, the role of architects in enhancing the relationship and interaction between the environment and citizens in this context aids in informing culture, nation, and heritage. The use of elements of the main local architectural style, such as Najd architecture in the case of the SNM, can be an important element of the design of public institutions, including museums.

Additionally, the architecture of the SNM and its design, and the ways in which the building, both its interior and exterior, contributed to the experience and understanding of the exhibition narrative were considered. The design of the museum was intended to generate critical responses from designers specialising in urban design and interior museum design, and the architects concerned collaborated in designing the urban setting of the KAHC in Riyadh, as well considering the museum exhibitions themselves, and the way in which visitors would circulate among the displays. This approach aided in defining

the different design approaches employed by both the architects and exhibition designers, as the latter element was also considered part of the architectural space. As well as reinforcing beliefs about the implications of integrating frameworks that helped in interpreting the verbal and visual elements of the exhibition displays and their effect on the visitor experience, the analysis and evaluation of the visitor experience, in terms of how visitors to the museum perceived the different exhibition environments, provided a complementary framework of visitor experience.

The case study analysis of the SNM exhibition spaces was employed not only to assess the architecture and design aspects, but also to explore the modes of national identity conveyance included, such as the use of the bridge as a form of physical engagement for the visitor. The survey and tracking observation data produced two key findings: firstly, 63% of the visitors identified the architectural design as their primary motivation for engaging in the SNM journey, and secondly multiple activities were found to be undertaken by the visitors within the eight exhibition spaces studied. Some of these spaces accommodated more activities than others, and the survey revealed that overseas and local visitors accounted for more visits to the SNM. Meanwhile, the ability for visitors to interact with the Prophet and Unification exhibitions was seen as a beneficial use of these spaces.

An exhibition design, environment, and the space itself all play an important role in the visitor experience, and this is highlighted in the use of interpretive exhibitions, in which the form and content are increasingly integrated, with the design as much a mediator of the intended message as the content; “each choice makes a meaning

that is just as important to the overall meaning(s) of an exhibition as the objects on display in the space or the text panels adjacent to them” (Stenglin, 2004, p. 12).

Meanwhile, the timed evaluation of the visitors’ use of the SNM spaces analysed the time a visitor spent in a certain space, the number of stops they made at the specific exhibits, and the total duration of their journey in that area. The design of the exhibition space was evaluated using the tracking analysis in the eight spaces studied, in order to explore the effect of the design on visitor engagement, time spent in the space, and visitor satisfaction. The results demonstrated that the main attributes of the exhibition design that attracted the visitors, held their attention, and had a positive effect on their journey were the general sense of identity conveyed, and the organized and chronological presentation of the displays. As discussed previously in Chapter Five, this was due to the broad framework of Barthes, which informed the analysis of both connotation and denotation that connect the SNM building as a whole, contributing to the visitors’ experience and understanding of the exhibition narrative.

Interconnection is considered an important feature addressed in most visitor studies, as referred to in section 2.2.4. Thus, it would be valuable to replicate such studies in locations in which programmes and public activities play an important role, such as in the SNM space, whether in the form of educational institutions, lectures and seminars, or workshops, as well as in a range of displays that seek to engage a diverse audience in their conveyance of Saudi Arabia’s past and present culture. The use of this range of narrative vehicles

was one of the main focuses of the present study, which sought to explore the relationship between different exhibitions that include narrative order, sequence, and journey that seek to influence the museum experience, as well as to enhance visitors' sense of identity.

It can be argued that the integrated approach used by the SNM exhibition space that enables visitors to navigate chronologically through the exhibitions can have major implications for how visitors interact with the exhibition content. For example, it was interesting to observe whether visitors crossed the bridge element of the design quickly, or if they heeded the journey en route, which told the story of the Prophet, from the origins of the universe, through prehistoric times, to the arrival of the Prophet and Islamic civilisation, followed by the inception of the Saudi state.

As discussed previously, the findings of museum journey survey confirmed that the overall visitor experience was reported to be positive, as supported by the high satisfaction score obtained from the respondents concerning the museum environment and atmosphere. A number of aspects of the exhibition constituted forms of meaning making and communication through the use of certain services or tools provided by the SNM. Both the local and overseas visitors were found to engage successfully with the chronological exhibition sequence through the use of the bridge that took them from the pre-Islamic to the post-Islamic period. This constituted one of the main points of attraction for visitors, scoring in the middle range in the total survey results, while meaning construction, in terms of the representation of Saudi and Islamic identity in the museum, scored the lowest. The analysis of these findings identified

ways in which the SNM space might be better organised to construct an identity that enhances the visitor experience.

In total, 240 participants completed the museum journey survey, and the analysis of the results identified three key variables, namely Visitor Satisfaction (VS), Meaning Construction (ME), and Museum Environment and Atmosphere (MEA). As these were derived from the literature-based theoretical framework model of scales of narrativity and referring to semiotic elements to distinguish the communication of denotation from connotation (see section 5.5), and constitute the principal elements that characterise the visitors' engagement with, and views of their museum experience (see Chapter 6). An open-ended approach was employed to explore the visitors' emotions regarding the sense of Saudi national identity or Islamic identity conveyed by the SNM, and whether the visitors' overall experience of the museum was positive or negative, in order to gain insights into the various aspects that require consideration when exploring the physical experience of the internal museum spaces. One of the main findings was that the participants reported that the verbal and visual displays, such as the use of connotative elements sound, images, cinema video, and artefacts, all successfully contributed to delivering the intended message of the Prophet in the Prophet exhibition, while other key denotative components in message conveyance were found to be the physical materials displayed, such as clothing, stamps, and other icons of the king employed in the Unification exhibition. Meanwhile, the tracking and timing data revealed the different visitor behaviours, using actual received narrative and the spatial view of individual visitor routes around the exhibitions. Models of attraction and holding emerged for Stage 2 of the tracking, and for the initial

Stage 1 tracking, indicating the significance of exhibit labelling for encouraging a deeper level of engagement.

The evaluation of the overall visitor experience via the components of exhibition space and environment, and visitor interactions feelings and emotions regarding the exhibitions, highlighted the role of architecture in the SNM and its exhibitions, as partly supporting Austin's (2020) tripartite model of People, Environment, and Narrative. As Austin (2020) argued, without this triangulation, the individual factors of people, narrative, and environment would remain three distinct, unrelated spheres, with the narrative studied using narratology, under the aegis of literary studies; the environment studied using spatial theory, under the aegis of architecture, and the natural and ecological sciences; and people studied using social sciences, under the aegis of economics, psychology, sociology, and anthropology.

As demonstrated in the findings of the present study, the architecture and exhibition design of the SNM together communicated the national identity of Saudi Arabia in a way that was relevant to the three primary categories of the narrative environment, in the role of architecture (the spatial configuration of the SNM journey and the museum's environment and atmosphere) in reinforcing the underlying Saudi national identity narrative of the eight exhibitions, as connotatively expressed in its physical displays and denotatively supported texts in which all the elements complemented one another (see Figure 6-7).

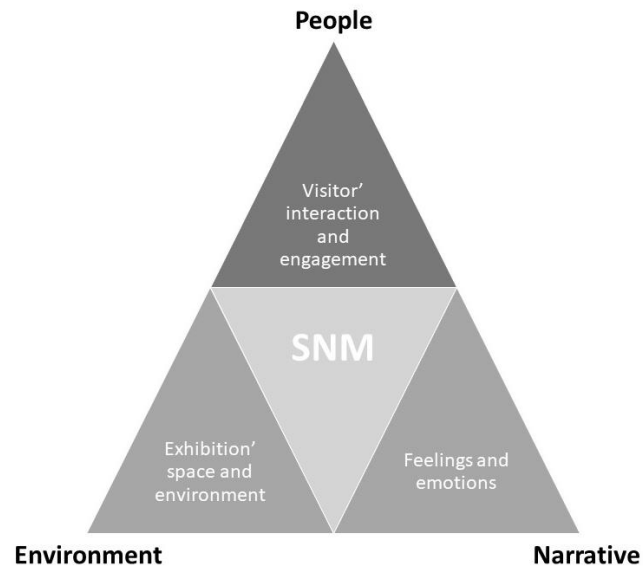


Figure 6-7 Triangulation of SNM

6.6. Conclusion

This chapter discussed the use of the empirical and numerical findings to highlight the role of architecture in expressing identity, in the context of national museum design and experience in Saudi Arabia. This integrated approach was employed to synthesise the linguistic frameworks and scales of Narrativity, and to develop a tripartite network model to explore sequentially the evolution of the SNM's top-down approach to identity formation, through the overall visitor journey, from the KAHC urban location to the individual experience of the Prophet Mission, Unification, and Room 2 Arab Kingdoms exhibitions in the SNM, in order to explore the role of architecture in expressing a Saudi national identity. This triangulation approach helped to develop the tripartite network model that employed the components of the communication elements of the SNM exhibition

design to express the national identity of Saudi Arabia via visitor interaction, exhibition space and environment, and the emotions they inspired in the visitor.

The final chapter discusses the research purposes and how the research questions were addressed, drawing conclusions and reflecting on how museum communication, and its impact on the architectural discourse, contributed to the formation of national identity in the Kingdom.

Chapter 7. Conclusion and Further work

To conclude this thesis, this final chapter summarises the responses to the research questions and offers broad recommendations for future work. It also outlines the contributions of the thesis in terms of extending knowledge about museum communication and the concept of identity in Saudi Arabia as well as the role played by the architecture of the SNM. It suggests potential questions to guide potential additional studies, as well as noting the key limitations of this work.

7.1. Reflection on Research findings

This thesis investigated the role of museum architecture in creating and presenting a sense of national identity across the eight exhibitions at the SNM. One of the more significant findings to emerge from this study is that a key element in specifying and enhancing Saudi national identity is the Islamic faith. The evidence from this research details the further contributions of architectural designs and the role of architects in improving expression and communication and enhancing national identity when designing museum buildings and exhibitions.

What do we mean by 'national identity'? and to what extent does the Islamic religion influence this identity, in the case of Saudi Arabia?

Architects, designers, museum' director and curators were contacted and interviewed to answer the above question, which was posed at the beginning of this thesis. The data collected highlighted that national identity is like other social phenomena and changes in the same way, so that each new generation identifies themselves differently to the preceding one, introducing their own novel perspectives. This does not mean that national identity will inevitably shift dramatically with the passage of time; rather, it means that, as people interact with new technologies and innovative ideas, there will be inevitable lifestyle changes and new meanings will arise and begin to be associated with the new reality being created. A sense of continuity will form as people adopt the new things that are created while continuing to hold onto former experiences. Thus, part or all the old identity endures alongside the new. Therefore, we cannot state with certainty that the old identity of local societies in Saudi Arabia has completely disappeared.

One of the broad aims of this research was to better understand the national identity associated with by different groups of people in Saudi Arabia, in order to evaluate how effective the Saudi National Museum (SNM) is at communicating and promoting it. Some of participants viewed national identity within the community as apparent from adherence to traditional customs that contradict logic and religion. At one point, the Saudi population were told that Islam was their identity, leading them to neglect both their heritage and local culture; but in fact, Islam is a religion that belongs to multiple cultures. At other times, identity has been altered by the suggestion that 'west is the best', leading young people to look outside the Kingdom to shape their identities.

Certain aspects of national identity have become entrenched, and these changes require the modification of individual psychology or personalities. It is necessary to define national identity in a multiplicity of ways, to determine its relationship to self-awareness and to reinforce the feelings of belonging associated with it. We must define and reinforce narratives of identity through healthy discussion, starting from its origins and roots. There are many questions to which the answers are present, but not clearly defined, and so we are unable to answer them fully, confidently, or in an informed way.

The role of architecture and its impact on shaping the Saudi national identity was a key component of the investigation that took place in this study. The narratives of experts, such as architects involved in designing architecture, and critics on topics like expressing identity in architecture and designing buildings were sought. The data shows that different paradigms of identity exist: national, Islamic and local identities were all mentioned, with the Islamic religion being especially central to consolidating and constituting the performance of national identity throughout the history of Saudi Arabia. The cultural identity of the city in which the museum is located was highlighted to consider the role of architects in enhancing the relationship and interactions between the environment and citizens, as well as in helping to inform culture, nation and heritage. In addition, using the elements of the main local architectural style, such as Najd architecture, could be considered an important step when designing public institutions, such as museums. We need to focus on the beautiful, diverse and local elements.

The architecture of the SNM building contributes in part (from interior and exterior) to the experience and understanding of the exhibition narrative that was explored empirically in this thesis. The design process of the SNM was intended to generate critical responses from designers who specialise in urban design and the interiors of museums, and those who collaborated in designing the urban context of the KAHC in Riyadh, as well as looking at the circulation around museum exhibitions and visitors and display scenarios. The information collected was helpful to define the SNM as a top-down approach in identity formation, and the various design approaches present in the role of the architect and exhibition designer as part of the SNM process that could be considered in the architectural space. In addition, the aim was to develop insights into the implications of integrating linguistic frameworks that help interpret verbal and visual materials within exhibitions, displays and their effect on the visitor experience. Analysing and evaluating museum visitors' experiences, and how they perceive different exhibition environments, would be an important step in providing a complementary framework of visitor experiences.

How does the architecture of the SNM manifest an expression of this identity, and how effectively does it contribute to strengthening it, through the specific configuration of the visitor journey?

Design was considered a key interpretive strategy to pave the way for sequential exploration in this study, and to determine how the museum implements architectural ideas that provide a physical experience to provoke emotional engagement in visitors. In order to

analyse the visitor experience, survey and tracking approaches were attempted to evaluate the visitor journey through the SNM. This was integrated introducing the use of linguistic theory and narrative theory in spatial narrative and interpretive spatial design (see Chapter 2.2). As the effectiveness of the design of the Saudi National Museum (SNM) and its exhibitions were explored in interview and evaluated by a survey to reinforce the SNM's triangulation process, communicating Saudi national identity facilitating the interpretation of three components of visitors' interaction and engagement, the exhibition space and environment, and feelings and emotions. Previous research showed that internal aspects, such as circulation play a comprehensive role in museums. The most successful museums in the world deal carefully with space, light and shade, and seek to express their particular philosophies. Another relevant consideration here is how the museum implements practices such as visitor journey maps.

Visitor Satisfaction (VS), Museum Environment and Atmosphere (MEA) and Meaning Construction (MC) were numerically developed as the principal dimensions to characterise visitor engagement and perceptions during the actual museum visit experience. The recognition of significant perceptions of design approaches like bridge effects and valuable percentages of agreements are explicitly stated in reference exhibition environment and atmosphere. Furthermore, visitors' feelings relate a strong sense of Saudi national identity or Islamic identity, and the overall experience in terms of positive or negative experience was captured through an open-ended approach. This was decided upon to gain insights into the various aspects that need to be considered to explore the physical experience of the

internal SNM spaces. Interestingly, one of the main elements that contributed to results was the finding that verbal and visual SNM materials assigned to different categories of media were integral. Visitors mentioned sound, images, cinema, video, artefacts and antiquities, highlighting the use of sound to deliver the Prophet's intended message in the Prophet exhibition, while other key components stressed included the physical materials represented in SNM displays, such as clothing, iconic stamps and notes showing the king and the creation of the Saudi state in the Unification exhibition.

Additionally, tracking and timing data was visualised to examine different visitors' behaviours within the museum. This was through narrative information and a spatial view of what individual visitor routes could be perceived across the different exhibitions. Models of attraction and holding emerged for stage 2 of tracking during the initial testing of stage 1 of tracking; of particular significance to note was exhibit labelling to achieve a deeper level of engagement.

However, it emerged that the architecture of the SNM building contributes to some degree to the experience and understanding of the exhibition narrative. The importance of exhibition design and its role in museums has been considered in recent visitor studies. The challenge in this research was to understand how particular exhibition forms are usually appreciated and to relate this to other aspects of visitors' practices. Additionally, programmes and public activities played an important role in engagement at the SNM, whether as educational institutions, lectures and seminars or workshops. The variety of displays that capture Saudi Arabia's past and present

culture contribute to the important aspect of attracting different types of visitors.

Interestingly, the integrated story approach implemented at the SNM enables visitors to journey through time, from the mysteries of the birth of the universe, through prehistoric times, to the time of the Prophet and the rise of Islamic civilisation, and then to the emergence of the Saudi states. This story is a method adopted to show the sequence of historical development. The diversity of narrative structures provided evidence of one of the main purposes of this research, which was to identify, describe and explore issues affecting the two periods, as connected by a bridge (Before Islam and After Islam), and to explore the relationship between different exhibition structures that include narrative order, sequencing, and journey, which are meant to influence the museum experience.

Further issues could be explored to advance theoretical interpretations regarding how the physical experience helps visitors determine where to go, and how to move through the exhibition environment. Following the suggested navigation path, visitors physically encounter and react to particular signs by objects and images. Specifically, the moment that affected the visitors most during their SNM experience was the movement from the pre-Islamic era into the era of Islam, via the bridge, following the story of the migration of the Prophet. Visitors reported that the sound effects made them feel that the Islamic religion is great and something to cherish, and they recognised that the Prophet's exhibition is the hall that influenced their journey the most both increasing and enriching their knowledge.

7.2. Thesis contributions

The research contribution of this study began by stating the significance of the field of study; examining the general contribution of the architectural design to the museum's communicative role, and then moving on to the specific interest in the museum visitor journey, and the configuration of design features as a space in which to produce implicit meaning.

The major contribution of this study is that architecture is an essential part of culture, specifically national identity, which resulted in problems with identification in this thesis. As argued in Chapter two, a limitation of the existing literature on the nature of Saudi Arabian national identity and its relationship with architecture, is that is limited to the period from the late 1930s to the present time, during which Saudi Arabia has undergone major urbanisation, alongside significant social and political changes.

The three theoretical dimensions: identity, architecture and museums with a focus on the themes of nation-building and cultural heritage offered a way of exploring the extent to which museums convey identities and information according to cultural norms (MacLeod and Fyfe, 1996). This research has also extended the concept of national identity and its impact on the architecture of Saudi Arabia. For example, since architecture is defined as a non-verbal system for conveying meaning, it is a visual, physical product that represents language that carries implicit meanings, which are conveyed to the public. Further evaluation of Gulf museums not only displays a complex relationship between architecture and identity,

but could also contribute to exploring issues affecting Gulf societies in general that have not been dealt with in depth. All these relationships together convey an understanding of the architectural value of the museum, and its role in the process of reshaping national identity.

To understand museum's communicative role in the construction of a sense of national identity in the context of Saudi Arabia, an intervention between existing theories of frameworks of linguistics and narrativity, and the development of tripartite network model, were synthesised to frame the integrated approach taken in this study. The three components of communication in the design of the SNM describe the national identity of Saudi Arabia through visitors' interactions, exhibition spaces and environment, and feelings and emotions.

Proposing and considering these theoretical tools gives additional insight into museum environments as an effective vehicle for the promotion of identity, and to build on the existing literature and emphasise the impact of architecture on the process of constructing meaning.

Secondly, although architecture is a cultural product, the data suggested that the architect and designer must first understand issues of identity and become more conscious of culture if they are to reinforce it. The question posed here was intended to fill the gap in the case of Saudi Arabia, by establishing how architecture creates the necessary, cultural and intellectual shift.

Considering this matter in reference to empirical evidence from architects and museum directors' views, supports the interpretation of the various paradigms of identity considering how the participants have translated and expressed their identities. These identities were found to comprise national identity, Islamic identity and in some cases local identity tied to the district level, with some measure of overlap or conflict between them. Typically, religion was being used to consolidate and constitute the performance of the Saudi national identity despite its mutability. It emerged that all members of society collaborate to preserve the identity that proceeds from their religion and social relations.

We have obtained accurate data showing that Saudi national identity was incorporated into several elements of the building, such as design, architecture, and exhibitions. It is posited that design, contributed in a variety of ways to defining national identity. It considers the cultural aspect as a major barrier, not perceived by people's minds and thoughts, and requiring transformation through education. Saudi Vision 2030 is also considered by all architects and museum directors as an urban vision that has established new ministries, as well as emphasising the important role of culture in clarifying the relationship between Saudi citizens and their external environment.

The third contribution of the thesis, is that it provided an evaluation of museum visitors' experiences, assisting in the understanding of the role of museum design, as well as demonstrating how different exhibition environments were experienced. Specifically, it was apparent that the architecture of the SNM building contributes to

some degree to the experience and understanding of the exhibition narrative. This suggests the value of engaging in further investigation of the implications of the exhibition design, and its role in museums, which can be applied to shed light on recent visitor studies. Understanding how particular exhibition forms are experienced, relative to other aspects of visitors' practices can also be explored to afford further insights in future studies.

When studying visitors' experience, the focus on interaction with exhibits involves two measures, attraction power and holding power, both of which are commonly drawn on in museums studies (Bollo, 2005, Hooper Greenhill, 2006 and Serrell, 1997). In this case, the tracking results demonstrated variables that effectively captured how visitors were engaged with an exhibit.

The numerical data presented in this study offers evidence to support the role of architecture in contributing to telling a story through a narrative approach and implementation of the visitor journey. Evaluating the visitor journey played a decisive analytical role, and reviewed the effectiveness of the design, including identifying important features (such as the bridge) as a space in which the production of implicit meaning occurred. This allowed the researcher to capture additional information about the visitor experience and route which emphasised and enhanced identity.

Finally, taken together, integrated empirical and numerical findings were significant when exploring the role of museum architecture as a mode of communication of national identity between the Speaker and the Listener perspectives utilising the key research question through

different disciplines, including determining what we mean by national identity in the case of Saudi Arabia, where the complexity of the process of Saudi national identity formation with regards to the impact of architecture has been proven (see Figure 7.1). As well as the dialectic between the role of architecture and the hub of the nation's culture. Architecture serves as an indicator of local culture and the process of civilisation, and can be viewed alongside its interactions with the wider environment. I believe that the findings presented here validate the importance of an architectural laboratory, part of which is a non-supportive environment for researchers and research centres, in which creativity is currently lacking, despite its economic potential.

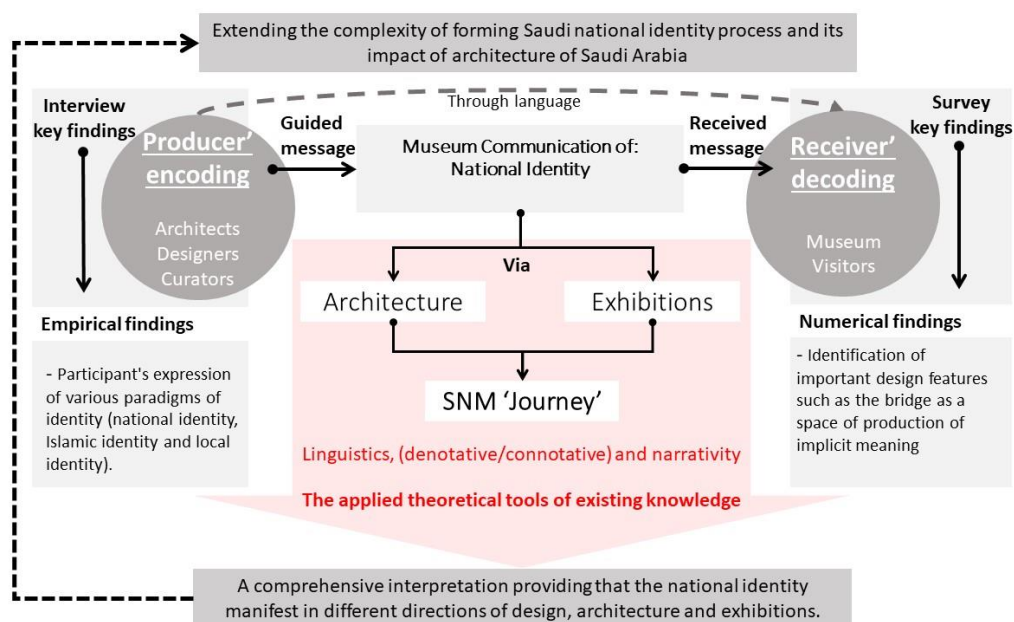


Figure 7-1 The development of figure 1.1 (as the main approach of the thesis)

7.3. Research limitations

A number of limitations need to be noted in relation to the present study. The most important limitation is linked to the scarcity of academic data regarding the KAHC, specifically the building of the SNM. As Yin (2009) confirms, using a single case study approach allows an insight into real life and people's beliefs. However, narrowing down the scope of the research was a daunting and difficult step in the research process, starting from the selection of an appropriate case study that represents national identity as well as an important site that encourages a number of multiple visitors. The KACH was chosen to explore the architecture of the SNM, and then eight exhibitions were mapped to test the satisfaction level of visitor experience. These processes helped the researcher to demonstrate reflexivity and to provide more effective analysis and interpretations.

Additionally, the majority of contemporary studies in Saudi Arabia were not specifically designed to evaluate factors related to Visitor Satisfaction (VS), Museum Environment and Atmosphere (MEA) and Meaning Construction (MC). Therefore, some of the secondary resources were limited, and it was not possible to fully explore the research questions to predict the existing situation of the SNM building. In addition, it was not easy for the researcher to receive enough information from the SNM administrative departments, who were not responsive when answering queries.

Therefore, there is an urgent need to enhance the academic research for the Tourism Ministry and Cultural Ministry, so as to be able to use this data to review significant structures such as the SNM. They

should also provide updated and comprehensive statistics regarding each site, which would help researchers and managers at the site to identify their objectives and targets and formulate appropriate strategies to develop and improve these sites.

7.4. Timeline of the government restructuring, in terms of their cultural role

The use of a case study model for a research study can strengthen the study's findings; and Yin (2018, p. 212) explained that the development of a case study design involves "starting your own case study analysis by 'playing' with the data and searching for promising patterns, insights, or concepts — the goal being to define your priorities for what to analyse and why".

It should be noted that a number of changes occurred in the development of certain institutions during the research period of this study, namely 2016 to 2020, as shown in Figure 6-8. At the outset in 2016, the SNM consisted of a typical mix of government departments, related to different sectors: the Saudi Commission for Tourism and National Heritage, the Museums and Antiquities Agency, and the administration of the SNM itself. Each of these bodies was governed by its own regulations and restrictions that impacted the initial data collection, and it was challenging to obtain the relevant approval of the research procedures from these different sectors. For example, there were limitations to conducting an internal and external assessment to understand the functioning of the SNM organisation.

In 2016 the Saudi tourism sector underwent major changes to address the negative perceptions of the Kingdom, and the tourism ministry experienced several stages of evolution before reaching its current structure as a publicly administered body, responsible for tourism and national heritage, with a focus on encouraging and supporting both local and international tourism. It was deemed important that the new openness to tourism should not prevent Saudis from adhering to their own identity, culture, values, and traditions.

In December 2017, a pilot study was conducted to identify and evaluate the potential research process and data collection design for this study. The research questions and objectives were discussed with the initial contacts, namely the SNM directors and curators, as well as the relevant managers and designers at the Saudi Commission for Tourism and National Heritage. The format of the pilot interviews was established, and the study sample and design discussed. The following year, 2018, was a key year for the Saudi Vision 2030, with several major reforms announced by King Salman, such as the opening of cinemas, and permitting women to drive, as well as to watch sporting events, in order to attract more tourists. Due to these rapid cultural and social changes, the Ministry of Culture was established in 2018, and all the 16 governmental sectors in existence at the time, including museums, were approached and requested to define 'culture'. In 2019 and 2020, during the data analysis and writing up periods for this study, these changes continued to impact the country's economic, cultural, and social growth and development. In 2020, the Saudi Commission for Tourism and National Heritage was renamed the Ministry of Tourism.

These changes impacted the research in different ways, and one positive impact was that the transfer of the administration of the SNM to the Cultural Ministry, which incorporated various cultural sectors, and made it easier to access relevant, up-to-date information. Moreover, the Saudi Vision 2030 aligned with my initial thoughts regarding culture and national identity.

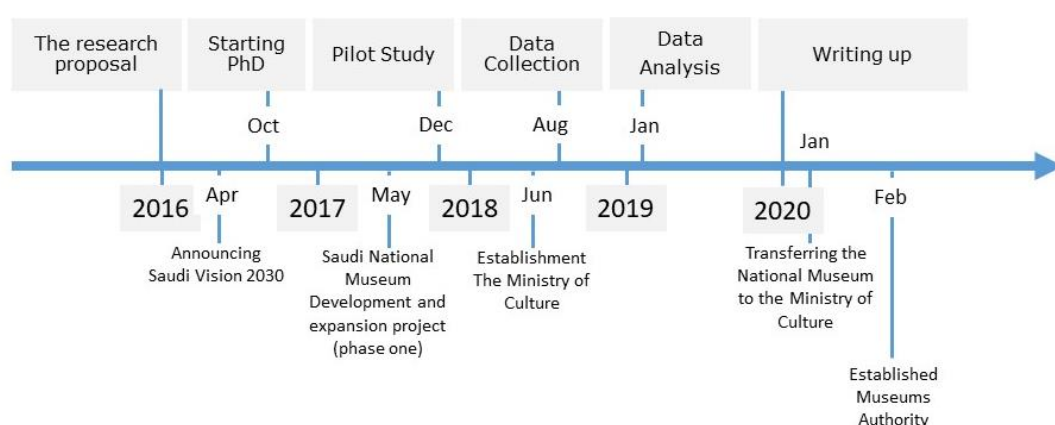


Figure 7-8 Timeline of the government restructuring while conducting this study (Source: The researcher).

7.5. New knowledge for future research

This research has demonstrated a need for the further investigation of some areas, as follows:

- 1) Firstly, an understanding of the general framework of identity is requires to define identity within its multiple meanings, and strengthen the feelings of belonging and additional aspects

associated with it. Explanations exist concerning what internal identity is, but these are often confused, particularly by young people, who use the technology and communication sites that allow cultures to overlap. However, the growing role of the media and social media in shaping identity, and their profit oriented and superficial nature, has resulted in an identity crisis.

- 2) Secondly, in the context of the SNM, there is a need to support educational organisations to provide more official data for Saudi researchers. The findings of this study have a number of important implications that could guide future strategies to increase visitor numbers to the museum building which would provide economic benefits for the SNM.
- 3) Thirdly, there must be cooperation to develop Saudi architects who understand the context of culture and who reflect appropriately before beginning the design process. This will require changes to education, architectural practice, and awareness.

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Appendices

Ethics Committee Reviewer Decision 1

This form must be completed by each reviewer. Each application will be reviewed by two members of the ethics committee. Reviews may be completed electronically and sent to the Faculty ethics administrator (Jo Deeley) from a University of Nottingham email address, or may be completed in paper form and delivered to the Faculty of Engineering Research Office.

Applicant full name Maha Alnunan

Reviewed by:

Name D12

Signature (paper based only)

Date 07/08/2018

☒

Approval awarded - no changes required

☐

Approval awarded - subject to required changes (see comments below)

☐

Approval pending - further information & resubmission required (see comments)

☐

Approval declined – reasons given below

Comments:

Please note:

1. The approval only covers the participants and trials specified on the form and further approval must be requested for any repetition or extension to the investigation.
2. The approval covers the ethical requirements for the techniques and procedures described in the protocol but does not replace a safety or risk assessment.
3. Approval is not intended to convey any judgement on the quality of the research, experimental design or techniques.
4. Normally, all queries raised by reviewers should be addressed. In the case of conflicting or incomplete views, the ethics committee chair will review the comments and relay these to the applicant via email. All email correspondence related to the application must be copied to the Faculty research ethics administrator.

Any problems which arise during the course of the investigation must be reported to the Faculty Research Ethics Committee

Ethics Committee Reviewer Decision 2

This form must be completed by each reviewer. Each application will be reviewed by two members of the ethics committee. Reviews may be completed electronically and sent to the Faculty ethics administrator (Jo Deeley) from a University of Nottingham email address, or may be completed in paper form and delivered to the Faculty of Engineering Research Office.

Applicant full name Maha Ali Alnunan
Reviewed by: **G12**
Name
Signature (paper based only)
Date 02/08/2018

- ☐ Approval awarded - no changes required
- ☒ Approval awarded - subject to required changes (see comments below)
- ☐ Approval pending - further information & resubmission required (see comments)
- ☐ Approval declined – reasons given below

Comments:

Specify on the consent form how long this data will be kept. – **data should be kept for 7 years after any publication (not “destroyed by September 2019)**

Worryingly, the above doesn't seem to have been resolved since my first review – PLEASE SORT AND OBTAIN SUPERVISOR APPROVAL BEFORE PROCEEDING.

Please note:

5. The approval only covers the participants and trials specified on the form and further approval must be requested for any repetition or extension to the investigation.
6. The approval covers the ethical requirements for the techniques and procedures described in the protocol but does not replace a safety or risk assessment.
7. Approval is not intended to convey any judgement on the quality of the research, experimental design or techniques.
8. Normally, all queries raised by reviewers should be addressed. In the case of conflicting or incomplete views, the ethics committee chair will review the comments and relay these to the applicant via email. All email correspondence related to the application must be copied to the Faculty research ethics administrator.

Any problems which arise during the course of the investigation must be reported to the Faculty Research Ethics Committee

(Appendix B of Pilot Study Transcripts)

General Directors' transcripts

-1-

Dr DLAL is a director of the women's department of the National Museum

Can you give me an overview about the National Museum of Saudi Arabia in terms of preserving history? What do you find important about preserving history?

The National Museum is managed within three departments - the King Abdul-Aziz Historical Centre, which is the National Museum Department, the Darat of King Abdul-Aziz Department and the King Abdul-Aziz Library. The National Museum relates a historical sequence from the origins of the universe to the modern era. In the first hall it presents the origin of the universe, the heavenly bodies, earthquakes and volcanoes. The second hall covers the Arab kingdoms found in the Arabian Peninsula in the ninth century AD, followed by the pre-Islamic era hall. The fourth gallery is about the Prophet's mission, everything related to the Prophet Muhammad and his journey from Mecca to Madinah. The fifth gallery is the Hall of Islam and Muslims that tells visitors about the Caliphs, the Abbasid and the Umayyad caliphs in the Islamic ages. The last three galleries, the first and second Saudi State Hall, the Hall of unification and the Hall of Hajj are intended to show the history of Saudi Arabia until now. All the museum spaces offer a reflection of Islamic identity.

Yes, of course, the National Museum has a great role in preserving the history and preserving the identity of the civilizations found in the Arabian Peninsula, from the enhancing self-confidence in history and human existence to the fact that the Kingdom has a greater cultural dimension than being an oil country only.

Is there any process in the National Museum of Saudi Arabia which constructs national identity? What are the approaches of national symbols (Saudi symbols) as a form of social interaction and communication?

I believe that all that Saudi history has strong past that will continue in the future. All the historical exhibits in the museum indicate the preservation of identity in society. For example, in the Kingdom Hall, there is a part about endeavours in medicine and the Muslims' endeavours in mathematics; so, that approach will definitely preserve the history. The Saudi Commission for Tourism and National Heritage has a strong role in terms of communication and development.

Also, there are symbols and collectibles indicating the identity of the Kingdom and the Arabian Peninsula, including a history of human settlement. This is preserved in the museum, with models showing Arabism, Arabian horses and falconry; all these are indications of human

settlement in Saudi Arabia. King Abdul Aziz's holdings of documents, armour and weapons are all a popular heritage, from 200 years ago.

What do you think is the primary challenge facing museums today? How do you feel about interactive exhibitions?

Absolutely there are challenges to the performance of the museum's mission. I will mention the most important first – a lack of qualified technical staff to operate the museum. This requires an increase in expertise to provide competencies capable of dealing with archaeological pieces. Secondly, I would mention Audiovisual Media. The use of modern technology should be increased. Third, museum services have a great impact on visitors. Lastly, the role of educational institutions from schools and universities at all levels to introduce museums and their mission will develop a positive sense of the students, encouraging them to support museums. All of these opportunities contribute to the improvement and development of museum performance.

What approach would the national museum of Saudi Arabia use to make the galleries more acceptable?

We have international exhibitions that contribute to the activities of the National Museum such as the participation of the Louvre Museum in 2010 and other exhibitions related to the arts, such as the horse show and the photography exhibition. In my view, we should develop the museum to be more interactive with the larger community.

What tools and materials do you believe are most effective for communicating in the galleries?

I think there are many tools and materials that can be effective in the galleries, for example, for the hall of unification in which the film presents the story.

Will you please describe what a narrative gallery is, and how it differs from gallery that is not necessarily described as a narrative?

As anyone can see, the architectural design is unique and also the presentation scenario in the museum is really clear, reflecting an Islamic atmosphere. The artistic design is a cooperation between professors from King Saud University and international companies.

What are the advantages of narrative galleries over galleries that are not necessarily narrative? From the point of view of audience? And from the point of view of the staff developing the galleries?

I think one of the most important points in the museum is the signing of displays, explaining the path to all galleries with arrows and building layout indicators.

To what extent would the context exert influence on the general public's understanding of the artifacts in the galleries?

Yes, of course, there are many things that affect the public's understanding of the displays by providing the hall information and the simple explanations.

On the one hand, archeologists do not have an impression of the original piece of artifacts but if the visitor is a specialist, it is possible to show him or her the complete national record of each artifact.

-2-

ABANMI is an architect and General Manager of general directorate for projects and engineering affairs at the National Tourism and Heritage Authority

I can explain to you our role in the development of museums and archeological sites in Saudi Arabia. In particular, there is a project of development and expansion of the Saudi National Museum 2017, but in the first stage the key aim is to understand the needs, wants, perceptions and attitude of residents of Riyadh towards museums. Also, I can access the documents of this study and recruit MAHER, who is a supervisor in research and archaeologist studies to offer more information about the National Museum development and expansion project.

The curators

-1-

REEM is the curator of the First and Second Saudi State Gallery.

I can give you a detailed description of this hall.

This gallery explains a transitional stage of the history of the first and second Saudi state and I can give you a detailed file of the main contents of this hall. It also attracts a large group of visitors because it contains unique elements such as the city of Al-Deraiya and Riyadh, and a film that shows the story. There are visitors from large numbers of schools.

On the one hand, my role as a curator of the gallery is to preserve the antiques, exhibits and ensure the cleanliness of the halls, the accuracy of the receipt of antiques in terms of description, the permanent traffic in the exhibition halls and the safety of antiques and reservoirs and the use of a restoration specialist in case of damage to the antiquities. The museum is equipped with a number of pieces for easy identification, in addition to helping

researchers in their research and providing them with information about antiquities, preparing a database of all existing items and registering them in the national registry. I report on the results and recommendations of scientific conferences and attend training courses.

-2-

BASSAM is the curator of Unification Gallery- Specialist Archeology and Museums

The Kingdom Unification Hall is a comprehensive hall for all regions of the Kingdom from the center of Najd to the south. It shows different architectural styles by region. For example, in the Najd region they used mud, using the pattern, taking advantage of the raw material and taking into account the environment in these buildings.

My mission as curator of the gallery is to collect information and preserve the antiquities presented and receive them, receive official visits coordinated by government agencies and offer a detailed explanation of the historical material obtained by the founder King Abdul-Aziz. In addition, there is a 20-minute film about the unification of the kingdom.

If I see any change in the hall, it is that it will lose its heritage value, but technology, if it is used, will certainly increase its heritage value in general.

Finally, all the halls of the museum complement each other because the museum tells a specific scenario from the Hall of Man and the universe, the first gallery, and its passage in the events that took place in the Arabian Peninsula from the oldest to the most recent, ending in the Hall of Hajj in the modern era and changing the models by the calculation of the expansions in the modern era.

Management of relations, activities and programs transcripts

-1-

BDRIA is a supervisor in the programmes section of the National Museum

We are focusing on the programmes that are held within the National Museum, such as the National Day programme, the Eids programme, the Reading programme, a special 10-day programme aimed at promoting reading and presenting different books that everyone can read without visiting the museum library. A book on archeology, geology and architecture in all regions of the Kingdom really attracts a large category of visitors. Therefore, I explain that such programmes aim to achieve the principle of community partnership and emphasise the role of the National Museum in offering a close relationship with the history and civilization of the Kingdom of Saudi Arabia.

I would also like to emphasise the importance of the typical school lessons that are held here in the National Museum. With the teachers and their classes in a well-equipped room, we

explain lessons related to the materials in the museum, which achieves excellent methodological integration.

-2-

ABEER is Director of Relations and Visitors at the National Museum

The National Museum attracts visitors from different nationalities because the museum offers a variety of activities for children and families in general. One of the most important features of the museum is the layout: the pieces displayed are not crowded, so that the visitor can enjoy and pay attention to them. Most official visits praise the layout.

I would add that the first and second Saudi state hall attract a class of students in the intermediate stage. Lastly, I can help you to show the total statistics for visitors whether delegations, families or schools.

Total Statistics for 2017

Type	Visitor numbers
Delegations	6526
Families	160151
Schools	22757
Total	189434

(Appendix C of Interview transcripts)

Ali Alshaihbi Transcript

Maha: *Firstly, I would like to introduce myself. I am a doctoral student and my research area is about national identity and the role of architecture in its promotion, with the Saudi National Museum as a case study, which is an important cultural place in the region. Thank you for giving me the opportunity to carry out this interview.*

Ali: It's my pleasure.

Maha: *I know you were involved in the design stage of the urban context for the project of King Abdul Aziz History Centre, could you tell me more about it?*

Ali: Well we actually started designing the Saudi National Museum before it became the King Abdul Aziz Centre. The main objective was to enhance the Saudi identity by introducing people to the heritage, history and movement that are present in this country, as well as talking about the geological ages. In the prehistoric kingdom I mean the effects of prehistory and then the history of Islam, Islamic times, the caliphate, the state and also the popular and local arts., Saudi Arabia has several regions and each region has its own features and culture, so if a visitor came from a region within Saudi Arabia it would enhance their sense of belonging.

After that came the idea for a celebration of 100 years of the opening of Riyadh.

There was a meeting for anyone who wanted to share ideas regarding design. After that, the Riyadh Development Authority at that time for this project chose the preferred site for what is now The King Abdul Aziz Historical Centre and was talking about this project. We were rejecting some of the specific conditions set by the Antiquities Authority and were insisting that the site be impressive and maintained as it is. After that Riyadh Development Authority contacted me to confirm this project as we are a well-known office in the context of urban cultural buildings and identity.

At this time, the architect Rasem Badran was involved in the work. We participated in the urban design of this project. We approved the drawing up of a contract for the architectural designer of the Saudi National Museum to work on the museum itself, and not for urban design.

There was a Canadian architect, Mariama architectural design, who used the walls of Riyadh and the traditional mud houses as inspiration, so Mariama worked with the designer Rasem Badran who designed the Darat of King Abdul-Aziz which was a similar brief. The design of Mariama was selected and approved.

The architect Rasem Badran adapted the mosque and tried to make more contemporary the design of the mosque. It was rather dated, and it has been improved and reinterpreted in a way similar to the design of the departments of King Abdul Aziz Historical Centre. The third group, named Shaibi Urban, dealt with the hall lectures and library that are located in the east

of the project. For this project and the design process, we worked in groups, but also had supervision of the project.

In the end, the concept of the museum was that it was not only a set of rooms to display the pieces. It was important that material was presented in a coherent manner commensurate with the place, environment and with a sense of theatre. It also had to be a dynamic display, with screens in each room and sufficient explanation for each person who wants to interact with this place. For example, when schools visit they are undoubtedly aware of the sense of these effects.

Maha: *Can you give me an overview about the National Museum of Saudi Arabia in terms of preserving history? What do you find important?*

Ali: In terms of history, the project is not only the national museum. For example, the Darat of King Abdul-Aziz is considered as a keeper of all the documents and historical items related to King Abdul-Aziz, but the National Museum, when it comes to archaeology, is more interested in the historical sequence, displaying items more theatrically.

Maha: *Are there any steps being taken to build the national identity of Saudi Arabia, either in the National Museum or in Saudi Arabia in general?*

Ali: Yes, there are certainly steps, but this is a global issue. We should first define the identity itself and how to link the historical identity with the modern era, and how to balance the two. The modern era in which there is progress with technology and materials needs to be linked to the historical periods to the best advantage. So, the identity is basically the interaction between the present day and the historical legacy. Therefore, this global problem has no definition. Yes, there are claims, but there is no agreement in the kingdom about what is the identity and how it should be preserved. There has been input from some regions in the kingdom. Modern contributions to preserve the artistic and aesthetic nature of the area with the change of techniques and materials have been appropriate. An example here is the urban design of the central area in the embassy district in Riyadh. We have developed regulations that facilitate the architectural designs to enhance the identity of the area and develop the historical buildings and allow for a physical structure similar to the historical structure. The reason for that is that the physical structure is constant according to the climate, while techniques can change. Policing strictly the designers will result in a boring design, so giving flexibility to the architect to move with the design that he wants is a key point here.

Maha: *What are the approaches to using national symbols (Saudi Symbols) as a form of social interaction and communication?*

Ali: Firstly, how do we define identity? For example, clothing developed in some countries has lost its identity because of colonial culture. Traditional clothing did not develop only in the Arabian Gulf but was based on different materials, sewing methods and techniques that made it suitable for the climate, which led to a sense of identity. But if you change a person's clothes, they will not lose their identity. The person's identity is their culture, not their clothes.

So as far as heritage is concerned, we can divide this into tangible and intangible material. Clothes, the person themselves and every part of human life can represent identity; eating, poetry and belonging to civilization and other traditions could add something positive, whether an acceptable or unacceptable tradition. Heritage symbolises some values, for example architecture. We have architectural patterns in each of the regions of Saudi Arabia where the characteristics are commensurate with the local materials, climate and social relations. This can be discussed individually, and how to deal with the development and enhancement of identity, as well as modern materials for architecture, still linked to its foundation of heritage and urban planning across different environments and standards found in the old society. Therefore, I see that the development of the concept of identity is not easy because it needs a generation with open minds and a broad view, to find a balance between how the community constructed identity in the past and how it was lost. The link between the two is found in the modern techniques used in the buildings, because it gives the most beautiful form and preserves the heritage at the same time, So we are now trying to find a framework for the new designs, which will be admired by the people and which will give them a sense of belonging.

Maha: *What do you think are the primary challenges facing museums today? And how do you feel about interactive exhibits? Do you see a new direction for museums?*

Ali: I think that all museums are different, but a few of them are historically focused, especially the old museums. For example, if I went to Egypt and saw the pyramids today, I would definitely not return to it, even after 20 years, because it will remain the same. So, now, museums are effective, they deal with many issues and have been interested in updating many exhibitions that are not fixed. Many exhibitions are making changes and promoting them to attract people, to connect them with a new generation. For example, if you updated an exhibition and wanted to display the bones of a dinosaur you must then renew the environment that existed for the dinosaur bones to increase their impact. I think that the key thing is not to put on too many collections. The researcher is the only person who wants to know the full details about these exhibits, but most visitors want to know only the historical context of these exhibits and the environment. The point here is only to help the museum to be successful and to link it to the community in a relaxed and interactive way, taking care about appropriate opening times that allow people to visit the museum after working hours in the same way as they would visit a restaurant, a coffee shop, or a cinema. The other challenge for museums is for them to function within the framework of their architecture. We did this in the Saudi National Museum by

choosing its location within the King Abdul-Aziz Historical Centre so that the children could play in the gardens around the museum and it could be part of the concept of the city.

Maha: *How do the aspects of circulation or lighting and other design factors contribute to communicating meanings and generating an immediate experience of the displays of the museum?*

Ali: Museums of course have two types objects to offer. The first is objects that can be damaged, and second type is the objects that are sturdier. For example, if you have rock and put in the sun it will last, even after 100 years, whereas if you put clothes with coloured drawings in the sun they will be damaged after a month.

The important role of the architect here is keeping the artificial atmosphere where the objects are supposed to be in their normal position. This is the main responsibility and role of the architectural designer – to be aware of the relationship between open spaces and closed spaces through which he can deliver his message. For example, Charles Correa designed the exhibition of Mahatma Gandhi in the city of Ahmadabad and the building is formed of open square boxes and there are no walls or windows. All exhibits were appropriately located according to the shadow and movement of the sun, so the sensitive exhibits are in the closed space. So in general, this project has successful interaction with the environment and the architect has demonstrated this ability and skill, including the need for security for valuable items.

Maha: *Are there any differences between the public understanding of replicas and original artefacts?*

Ali: It is supposed to be integrated, so it is important for the exhibition designer to be fully aware of the community and environment that needs to be represented in the exhibitions. For example, the Riyadh exhibition involved a large number of specialists in archaeology and history, most of them from the University of King Saud. A group was selected to complete the appropriate picture of the exhibits, which was based on their understanding and on that of the community. The presentation of traditional heritage was also that the responsibility of people who had full knowledge.

In the case of Saudi National Museum, Moryama was the architectural designer but the story, scenario and the coordination of the exhibits were by other groups. So the process here is iteration between exhibition designers on how to show exhibits that fit with the architectural space and then make the modifications that the architect wants to achieve his goal in an appropriate space. So, the architect will create the stage for the story while the exhibition designer will create the action.

Maha: Now I have a question regarding the National Museum of Saudi Arabia design idea, which consists of two sections, before and after Islam, connected through the Bridge in the Prophet exhibition. This means that the architect has studied the historical sequence, how was this idea developed?

Ali: In the beginning, this was not the main design idea. The design had been modified and developed into two sections, pre-Islam and post-Islam, after the architect showed his idea, and the bridge was used to develop this idea.

Maha: So, do you think of the National Museum of Saudi Arabia sufficiently reflects the national identity?

Ali: Yes, I think it is one of the best museums in terms of national identity.

Maha: How do you define the awareness and barriers for visitors to the Saudi National Museum, whether residents or nationals?

Ali: The community reflects a number of different cultures and ages. Most visitors to the Saudi National Museum are in fact overseas visitors, because they want to know and learn more about the culture of this country. Saudis probably visit this museum and enjoy it but a few of them come from outside Riyadh to visit the Saudi National Museum and the motivation here is our culture, not the idea of visiting a museum. Most Saudis prefer to visit a restaurant that serves traditional dishes rather than visiting a museum. So there is a culture issue has not been established and I believe that it is a global issue of increasing the cultural awareness of different visitors.

Maha: How do you compare the National Museum with other museums in Saudi Arabia?

Ali: I do not know. I only know the local museums of each city in Saudi Arabia which are museums that reflect a specific region only, or personal museums which are just a set of collections and do not have specific theme.

Maha: What are the special moments affecting the visitor at the National Museum?

Ali: Certainly the historical sequences and the main entrance of the Plaza are important moments. The main principle of the museum design is the flexibility in moving from exhibitions to facilitate the movement of the visitor. One visitor may only have only two hours to stay in the museum and another visitor is interested to stay longer, so the design of exhibitions must

meet these differing needs. **Maha:** *Which of the exhibitions of the Saudi National Museum reflecting the Saudi national identity the most?*

Ali: I think that the traditional heritage is the most popular aspect that shows our identity, with historical items that reflecting your link to the country. But identity becomes clear in in the traditional heritage such as the exhibition of the unification of the Kingdom and the Exhibition of First and Second Saudi State. Therefore, the presentation of popular objects increases the sense of belonging to this country. The displayed items from the north or south and east or west of Saudi Arabia show multiple manifestations of identity and not one identity.

Maha: *Can you give positive or negative points about the National Museum?*

Ali: My contribution to the design of the museum suggested putting the courtyard as a part of the museum to enlarge the spaces of the exhibits. The negative point is I hope that the courtyard and transitional spaces are becoming a part of the museum in our architectural culture.

Maha: *What is your opinion regarding to the relationship between the exhibitions, special architectural moments, visual effects and peoples and how does the Saudi National Museum combine multiple environments?*

Ali: I think that it is one of the best museums in this segment, in terms of sensory, vocal and other visual effects, particularly the bridge that explains how Islam has transferred our culture from bad to good culture. It is the detailed and symbolic symbol that definitely has an affect in the museum. Also, the flexibility in video playback is important - all these effects make it easier for the visitor to choose.

Maha: *In most national projects in Saudi Arabia international designers are involved. In your opinion, are there any Saudi architects capable of managing these projects?*

Ali: We have problems with this, in that firstly, we have not established the appropriate organizations whether business institutions or education. Secondly, the international designers with a strong portfolio understand the requirements better in areas such as structural solidity and other issues linked to the local area. Also, the Ministry of Finance requires quick responses and is not necessarily good at selecting the most appropriate company.

To sum up this part, I would say that it is necessary to know the culture of the place and the varying local environments, but this should not exclude the use of Saudi companies for executing large projects.

Maha: *Saudi Arabia is moving towards a new transitional stage by 2030, especially in the field of national discourse, what are the public roles and functions of museums?*

Ali: I think our problem is who is responsible. We do not have people who are capable of finding the balance between the visions for 2030. There appear to be contradictory views: the first is to preserve the identity and promote the national heritage and the other is entertainment and modernisation. I hope we can find the balance to highlight the role of public and society in this project.

Maha: *Finally, can you summarise the Saudi identity in a few points?*

Ali: I think that identity is a product and not a goal. If all members of the society and its institutions are working sincerely to face their local issues properly, it will result in preserving this identity and its continuation for future generations. Anyone who comes to Saudi Arabia knows it is different, but we are inside the box and do not have this feeling until when we go outside the box of Saudi Arabia. Of course we have some disagreements in the form of basic buildings and activities, but in general we have an existing identity. It is a Muslim country and the members of this society are the ones who preserve this identity that came from their religion and social relations, but our Saudi identity is considered to be a clear and real identity compared to other countries such as Yemen or Indonesia, who are starting to lose their identity.

Consequently, identity is a global issue, but at least we have many positive points. When you enter any city in Saudi Arabia, you will find mosques and this reflects one of the elements of the identity in a society that preserve Islamic values.

Maha: *Can you give me an overview about the National Museum of Saudi Arabia in terms of preserving history? What do you find important about preserving history?*

Meshaal: The National Museum is the only museum that contains the full details of the models of different patterns and the sequence of events in the eight multi-halls and each hall has a name linked to all the others. On the one hand, it has a role in preserving history, but the content needs to be developed. The topics and the themes are very impressive and influential, and contain a lot of details. Of course, thanks to my work for the Saudi Commission for Tourism & National Heritage, the museum is undergoing a transitional phase of refurbishment. One of the most important areas we are trying to develop is the development of the museum displays, the buildings and all services and sectors.

Maha: *Is there any process in the National Museum of Saudi Arabia that helps in constructing national identity?*

Meshaal: Yes, there is clear guidance by the Saudi government, and some foundations have already been built. I work now at the second phase of the development of the museum, that contains recommendations from the first phase. It is divided into three sections - investment, development and development of the museum scenario. In the development stage, the consultant Rasem Badran and I were selected as a project manager and my role is to guide the consultant. I suggested that we should pay attention to the concept of identity in the Saudi National Museum and to find an important element that could be represented in the architectural style. Rasem Badran was inspired by the local architectural vocabulary - an excellent idea, Tramh, which has an architectural philosophy, is the window that overlooks the entrance of the building in the architecture of Najd. The design nucleus is in the main entrance of the museum with a glass ceiling and three spaces designed on underground floors, and that concept will raise curiosity to come to the National Museum. Also adding new halls represents the Kingdom of Saudi Arabia, the Muslim destination, and the Saudi Arabia's nest hall which will explain the cultural, environmental and social differences that will enhance the subject of national identity. In addition, building a hotel and restaurant completed the development and this is a very important aspect, how to mix between the presentation of the scenario in the museum and the services like hotels and restaurants. Most museums in the world are keen on this point - when building the museum they considering a site that contains activities, movement and takes account of the behaviour of the user.

Maha: *What are the approaches of national symbols (Saudi symbols) as a form of social interaction and communication?*

Meshaal: In the National Museum, I see the most important symbol is the difference of urban fabric, for example, the Saudi kitchen displays different regions and different architectural models of the Kingdom, and also other aspects according to the environment of the mountain region and others.

Maha: *What do you think is the primary challenge facing museums today?*

Meshaal: The most important challenge for the museums of Saudi Arabia is avoiding repetition of topics, for example, we have a museum in the northern region in Saudi Arabia that contains 8 exhibitions are in similar topics to a museum in Dammam which is the eastern region. This is a mistake in my view - each area must have a special character, for example the Dammam Museum, according to its location on the Arabian Gulf, it must cover the port and ships and what happens in the port. Another important challenge today is the content creation and the preparation of museum texts.

Maha: *How do you feel about interactive exhibitions?*

Meshaal: Interactive exhibitions are a weak point in our museums and we need an increased interaction between exhibits and visitors. So the solution to this problem, as happened in the Louvre Museum, when the number of visitors decreased they develop the exhibits and increase interaction between them and the visitor. That development always increases the chance of attracting visitors. And also in the development which happened in the British Museum in London, when the designer added the dome and created new spaces of the museum to re-open the space to public and offer other educational facilities. Therefore, our national museum lacks in interaction and has not developed from 20 years ago.

Maha: *How does the architectural design contribute in communicating meanings and generating an immediate experience of the displays?*

Meshaal: The most important aspect during designing the museum is knowing the museum scenario at the same time. There must be contact between the architect who is creating the architectural text and the exhibition designer to achieve the goal that needs to be delivered. The issue here is that during the design of the museum they should collaborating as a team of architectural designer and exhibition designer, as well as sounds and lighting at the same time. All these aspects affect the visitor's response, interaction and experience. The National Museum, I think, has encapsulated a beautiful meaning and offers a rich experience for visitors, in particular the bridge which increases the enrichment of knowledge.

Maha: *Are there any differences between the public's understanding of replicas and original artefacts?*

Meshaal: Yes, there is a large gap between the exhibits. Some are displayed with the name of the exhibit, for example - the visitor cannot know the name of fossil, because only the archaeologist will know that. So I think that the choice of knowledgeable terminology in a straightforward style will surely simplify understanding the artefacts. Also, it is possible for

museums to work with replica factories for some important pieces such as spears or swords that are difficult to allow visitors to touch. This is a new technical knowledge that enriches the experience. They are smart solutions that reduce the traditional idea of showcase. That idea preserves materials and improves the consideration of museums from another perspective and creativity about obtaining information.

Maha: *What kind of storytelling contributes to facilitating visitors' understanding of artefacts according to different spatial arrangements? Would that influence the public's understanding of the artefacts?*

Meshaal: Usually the best museums in the world take the real story and develop it. We miss this feature and we need to enrich the stories in our museums by adding to it. I do not mean counterfeiting here but only developing enrichment. The National Museum has a feature that is the historical sequence that generates an immediate experience after you leave the museum, it is your ability to move from one exhibition to another. But in my opinion the National Museum is lacking in providing a unique feature that attracts people to the museum. If you ask me what is the major things which attract me in the National Museum I would say the lobby and the landscapes.

Maha: *Why in most national projects of Saudi Arabia are international designers involved?*

Meshaal: The reason is our technical weakness. For example, in The Drarat King Abdul Aziz there is a library that contains material about Saudi Arabia and King Abdul-Aziz, so at the stage of writing the stories and designing the museum's scenario it is essential for the designer to understand all the information, analyse and identify the main lines for the museum. The recruitment of an international designer is a key point for designing exhibitions of local museums in Saudi Arabia, which are the eight museums for each city. At this stage we have a big problem, when we are writing stories and museum narrative, everyone has a version, and there is no confirmation of the story. So the recruitment of the designer for the museum is important and he must have a background and be aware of the history and background of the region.

Maha: *In your opinion, which aspects of national identity have been covered in Saudi Arabia?*

Meshaal: I think that the identities that have been most featured are clothing and eating, and the difference for each region in the Kingdom. Also the difference in the urban fabric of each region, such as the mountainous region. For example, our schools and their attention to cultural details is absolutely beautiful for society, the green flag and the national anthem are all the most important things embodied in our children, their belonging to Saudi Arabia and the most important elements of national identity. Events and multiple dialogues for national events such as the national day, these are all things have been recently addressed to promote identity.

Maha: *Saudi Arabia is moving towards a new transitional stage through 2030 Vision, especially in national discourse. What parts of the public role and function of the museum socially, politically, economically and culturally will change? Do you notice any of the original roles of the museums authority that have changed?*

Meshaal: The most important role I think in this transition stage is to work to attract people with multiple methods and events that educate the community. The development of the National Museum is a big part of achieving the goal of the 2030 Vision as well as other projects like local museums.

Maha: *Let's take the Saudi National Museum as an example, do you think that the Islamic narratives could guide the national imagination or the construction of a future community?*

Meshaal: I do not think so. The embodiment of stories in an attractive way is actually what we lack. For example, we have a museum project which tells the stories of the Prophet and tells the existing pure scenario of the Quran. We hope that will be one of the largest museums, especially for the Muslim, when the verses of the Quran are recited and the story is actually physically displayed.

Maha: *What is your opinion of the architectural design of the National Museum?*

Meshaal: Excellent, but the problem is that we focused only on architectural design but neglected the outline and design of exhibitions and displays. But if you recall, for example, the Louvre museum you cannot remember the arrangement of the halls. You will only remember the glass pyramid. So I know that the architectural element of the museum is a very important aspect, but you have to pay attention to the content also. Another example of the Saudi National Museum is that I can now remember the exact outline of exhibitions. I can only remember the lobby and the landscapes of the museum and the reason is the poor content.

Maha: *Could you tell me more about the current development of the Saudi National Museum and how you select the consultants?*

Meshaal: The consultant Rasem Badran was selected to develop the museum based on his previous experience. He was part of the team that participated in the design of the National Museum and Raiken Birch for the museum scenario, so we adopted a local consultant, Rasem Badran and an international consultant Riken Birch and there is an academic committee to showcase the project. Then we moved to the stage of the Museums & Antiquities Authority and they added their texts and comments to the work of the consultants so that we are working with an integrated system.

Maha: *How do you feel about the balance between Islamic belonging to wider Islamic community and how they feel about having a Saudi national identity?*

Meshaal: There is an important link and overlap between these two identities and the most important elements of social foundations are all based on the religious foundations. So our

national Saudi identity is originated on the basis of religion. At the design process, the specialists of archaeology ask for a space and then they determine the contents. This generates the weakness in the design process and this is the big gap. So I think that the study of the details and dimensions of the exhibitions must be between the architect and exhibition designer to successfully arrive at the final product. The professional architect must know the content and the full details such as subjects of study, the corridors and circulation routes. This is what happened in the Heritage Centre by Zoha Hadid, where they asked us to hand over a list of all exhibits and collaborate with the consultant for museum displays.

Maha: *In your opinion are there any Saudi architects capable to managing these projects?*

Meshaal: Yes, there are Saudi architects, but so far no architect has designed a national project, they are only designing residential project or towers. I think the reason is that they do not have the courage and experience to design this kind of project. Another indicator is, in the architectural competitions we just find international architects more than Saudi architects and this indicates their lack of courage.

Maha: *Could you offer your view and thoughts of Saudi identity in a few comments?*

Meshaal: I think that the Saudi national identity is very rich, but we need to use it to highlight the heritage as a template that attracts people and embodies the identity of the Kingdom of Saudi Arabia.

Meshary Alnaaim Transcript

Maha: *Thank you for the opportunity to meet you.*

Meshary: I am very happy to help and hope you find it useful.

Maha: *At the beginning I would like to introduce you to the case study of this project which will be about the National Museum in Riyadh, and the research focus is the role of architecture in promoting the national identity. Have you visited the National Museum? Can you give me an overview about the National Museum of Saudi Arabia in terms of preserving history? What do you find important about preserving history?*

Meshary: Yes, I have visited the museum several times. At first I can talk about the National Museum from an architectural point of view as well the contents. The architect who designed the museum is Mariama, a Canadian architect of Japanese origin. I think he is very well suited to reflect the contemporary heritage elements of the museum. Any one visiting King Abdulaziz Historical Center feels that the National Museum is linked to the city of Riyadh and linked to the Kingdom of Saudi Arabia, but it is not a historical building as such. This building has special characteristics and values, such as the curved wall of course, as Mariama said, he tried to express the sand dunes by this wall and part of it feels like the desert dunes of sand. On the other hand, it reflects the old, traditional walls of the old Riyadh area, which are characterized by simple openings and stylized to show light and shade. Therefore, in the overall context of the museum as a building, I think it is very successful in expressing the heritage and historical depth of the city of Riyadh and the Kingdom of Saudi Arabia. But the content of the National Museum remains historical, obviously it reflects the Kingdom and its history, but the Kingdom contains and possesses much more impressive treasures than what is exhibited in the National Museum. The exhibits of the National Museum are twenty years old and the content has not developed so now I find a great opportunity to think about its development, especially to express extensions, especially archaeological discoveries made during the past 15 years by the Tourism Authority. We have discovered large sites such as the headquarters site, and many other studies have been carried out, like the re-examination of ancient historical sites on the World Heritage List as well as to the travelling exhibition, Roads of Arabia, which holds many of the archaeological treasures of the Kingdom and expresses its history but has never been seen. In addition, the museum must be an interactive museum. For example, the educational part of the museum for children, which introduces them to the history of their country and what it means to be Saudi Arabian, what is its history and its extended civilization. So all that is difficult to curate without specialists who have an understanding of history and museum content.

Maha: *Is there any part of the National Museum of Saudi Arabia that constructs national identity? What are the approaches of national symbols (Saudi symbols) as a form of social interaction and communication?*

Meshary: Let me tell you something, museums are not the ones who build the national identity, the national identity is built by understanding the elements of this identity and trying to turn it into a pedagogical practice that generations have nurtured and lived on. I believe without a doubt that history is very important and represents an element of national identity as echoed by Prince Sultan “The dimension of civilization is the fourth count of the Kingdom of Saudi Arabia, a fourth dimension which means that the Kingdom has a strong economic and strong political and religious strength, but the Prince has years talking about the fourth dimension, which is a civilized force has an extension in history”. For example, the Egyptian people always belong to the Pharaohs and are aware of their Islamic era and know the history, while in Saudi Arabia we not only have the holy places but it is a great cultural dimension and we cherish it as the most important element of our national identity. We also have historical extensions when humans were crossing from Africa to the world. We are the country where the first civilizations were formed and the country of the prophets, all these historical aspects which I did not know and were not explained enough. I believe that is the problem.

On the one hand, the role of architecture in the national identity is undoubtedly the national identity and its multiple elements are starting from the ethics, values, behaviour and personal character of the Saudi citizen and ends with simple material elements such as cooking, clothing and others. They are all part of the elements of national identity and for this very large framework it is difficult to limit it to a specific field. So if we talked about the architecture and its role in the national identity, I think architecture is very important and so far the Saudi architecture did not contribute to the expression of national identity. We do not have what we can call a Saudi contemporary architecture expressing the identity of the Kingdom of Saudi Arabia. I have written several articles on the idea of contemporary Saudi architecture, which I think does not exist. We do not have the practice architects of contemporary architecture who express what the Saudi identity means, or move it beyond a local architecture. It is a disjointed architecture because every area of the Kingdom has its pattern. There are many architectural efforts like the appearance of the contemporary Mexican architecture led by Luis Burakan for example, and his students such as Lokarita and others are hiding all sense of the architecture in Mexico and developing an architectural initiative that reflects, expresses ideas about and forms contemporary Mexican architecture. This has contributed to the expression of the Mexican national identity. When I saw these buildings, they directly say that they are Mexican, so we really want to say that this is Saudi architecture. So we need great intellectual contributions and opportunities to build a contemporary architecture much deeper than what is currently offered. The local architecture and its understanding, unfortunately, in our architectural education is very far from these ideas that I have talked about. Therefore, I see the historical aspects are not taken as final products but should always take as products that must be disjointed and understood. Access must be given to the initial elements and then we must rebuild them again in a contemporary manner, but this has not happened in the Kingdom so far.

Maha: *The Saudi Commission for Tourism and National Heritage has an initiative to build 11 museums for all regions of the kingdom. What do you think is the primary challenge facing museums today and how do you feel about interactive exhibitions?*

Meshary: The first challenge is the lack of specialists for museum displays and management of the curators. Specialist museums must be very knowledgeable in the history of the region and its literature, and know their social, archaeological and linguistic aspects, these are not all available to us. The second challenge is that local universities are not concerned with civilizational work and civilizational studies. Therefore, there is no educational cultural movement that supports these museums. It is not just about building the museum itself, but also about what to exhibit and how to manage this museum.

Maha: *How do aspects of architectural design like circulation, space layout or lighting contribute to communicating meanings and generating an immediate experience of the displays?*

Meshary: The design of the museum itself is very important indeed. Techniques are also important, to make the exhibits distinctive and to allow people to interact and ask about the details of the exhibits and their history. So for most of the modern exhibits, there is no need to read the text. So the museum should be active and of course natural lighting is important, but it depends on the display positions. For example, there is a painting museum in France and the design of natural lighting was beautifully positioned so that the lighting was everywhere, so you feel that the lighting is all embracing. The other point is that lighting should not affect the exhibits and the paintings, which means that the design should address technical and scientific aspects and at the same time the psychological aspects that make the visitor part of this cultural environment, which provides information and ideas about these exhibits.

Maha: *Are there any differences between the public's understanding of replicas and the original artefacts?*

Meshary: I expect surveys can answer this question, but in general there is not a culture of visiting museums in the Kingdom. To confirm that there is no link between the community and the information about exhibits a survey would be required, which would give you an important indication. The subject needs to be associated with educational programmes on the basis of teaching people that the purpose of going to museums is not only to visit but also to learn and build a new knowledge of other civilizations and other peoples and mentally enjoy it. That's why a minority of Saudi people visit museums, not because they do not want to visit a museum but they are not used to visiting and learning from them. So I emphasize that educational initiatives and programmes should make some cultural contributions to the community.

Maha: *How do you define the awareness and barriers for visiting Saudi National Museum whether residents or nationals?*

Meshary: I think both of them have the same purpose, which is to identify the culture and civilization displayed in the museum. The local needs to recognize the civilization of his country with which he is supposed to be familiar, and the foreigner also to know about this region – that it is not only the region of camels and oil but to learn more about the region and its previous civilizations.

Maha: *Do you think the location for Saudi National Museum is a main barrier?*

Meshary: I think the location is very difficult and not open to the city. It is known that most museums in the world are situated in very important sites in the city - the Louvre Museum in France, the Metropolitan Museum and the British Museum are all located in the most important areas, streets and squares in the city.

I see that the location of the Saudi National Museum is difficult to reach, located at the King Abdul-Aziz Historical Centre. You feel that you are in a closed governmental institution that is not open to the city, and this does not enhance the visit.

Maha: *In a cultural context, do you think that The Saudi National Museum has enough expression, projection and reflection of national identity?*

Meshary: I think that all eight halls reflect the Saudi identity and we need eight more halls to reflect the cultural depth of the Kingdom of Saudi Arabia. We cannot express our historical identity of the kingdom through history and through these halls. I do not think it is possible to express the identity of the Kingdom even in one gallery.

Maha: *There is a development of the museum with the architect Rasem Badran, in your opinion what are the important points that need to be developed?*

Meshary: I personally do not agree with the development of the museum and I am not convinced about adding new buildings to the museum. I think that the existing building is a masterpiece. It is an architectural gem, so adding a hotel will reduce its architectural value and its architectural effect. I think we need to renew the exhibits much more than adding new buildings. So we need to think about how to show these exhibits, how to attract visitors and how to make the museum a cultural centre in the centre of Riyadh, so we are only good at constructing buildings, not at managing them. So the problem here I think is how to manage this museum.

Maha: *How do you feel about the balance between Islamic belonging to wider Islamic community compared with how they feel about having a Saudi national identity?*

Meshary: There are many views on this subject, I see that the history of Saudi Arabia is an extension of the Islamic history in the Arabian Peninsula so is not separate from it and the extension of the history of Makkah and Medina, Saudi Arabia is the servant of the two holy mosques and did their utmost through preservation to show and maintain them in an appropriate form. There is no comparison to me between these two identities in the National

Museum. So the difference is only the chronological order that the Museum should express scientifically and presenting the story accurately and authentically. Finally, Saudi Arabia represents the contemporary side of the history of Islam in the Arabian Peninsula.

Maha: *What is your opinion regarding the relationship between the exhibitions, special architectural moments, visual effects and peoples and how the Saudi National Museum combines multiple environments?*

Meshary: I think all techniques are old to some extent, but there are modern techniques. But the idea of the bridge and moving from one journey to another from darkness to light is all beautiful. For me personally, it expresses the transition from pre-Islamic to the Arabian Peninsula, a great work to reflect the story of the Prophet. The change and the impact that occurred after the emergence of Islam is certainly a great transfer not only for the Arabian Peninsula. So I guess it expressed this in a great way, and it is still good; but I think now is the time to renew, develop and change the content and introduce new content to national history instead of building new halls or other development.

Maha: *Please can we talk about the process of the design of the Saudi National Museum? How can an individual or personal identity, let's say of a Canadian architect be transformed into a collective national identity via the museum's narrative?*

Meshary: Foreign designers outnumber us and are better than us because they follow the correct scientific approach. They have always been neutral and have the ability to discover the facts, because they look at history from outside the box which can help them to discover all the details and express it with a skill which we do not have. Unfortunately, we are always inside the box and see parts of the truth only and not all the truth.

Maha: *In most national projects of Saudi Arabia international designers are involved, in your opinion are there any Saudi architects capable of managing these projects?*

Meshary: Unfortunately, there are no capable Saudi architects, but if each global designer works with a Saudi architectural team we can build the trust of the Saudi architects and work with the foreign architects to make it a realistic national programme and be focusing on a generation of Saudi architects, especially working with foreign architects in massive projects. In addition, we need to change the philosophy of architectural education in the Kingdom because we are now only a bureaucracy which is far from creative. Finally, we need an integrated approach to solve the problem from its roots and not only focus on the top of the problem.

Maha: *Could you offer your view and thoughts of Saudi identity in a few comments?*

Meshary: Have a look to some of my articles, but as I told you the subject of identity is a very broad topic and we cannot manufacture it. Identity is constantly changeable so it is a consequence and not a goal that is the result of different interactions. It is certainly possible

to direct and prepare the community to embrace its identity positively, so I always distinguish between the relative identity which is the changeable identity that renews the tools, techniques, people and conditions and the normative identity which is how we define ourselves, believe that our history is our identity. That does not belong to identity meaning at all.

Saleh al-Hathloul Transcript

Maha: *Can you give me an overview about the National Museum of Saudi Arabia in terms of preserving history? What do you find important about preserving history?*

Saleh: Yes, I have visited the Saudi National Museum many times.

Usually nations choose from their past and this choice makes us always return to our past, or a strengthened modern version of it. We can change our orientation and vision as a nation and go back to our past, highlighting some things and leaving others. So it is possible to change or show and highlight our visions today and sometimes forget others. For example, in Egypt during the era of Nasser, Arabism was the most important orientation of the people and therefore the theme for them was from the entry of Islam and beyond. They do not recognize the Pharaohs and ancient Egypt, although it was a great civilization of Egypt, the Pharaonic civilization, but the official discourse was at that time the Arab affiliation of Egypt. Islam was implied, but not the main focus which was on Arabism, by virtue of political orientations in the era of Nasser and the revolution which was trying to lead the Arab world in this direction. Then came the era of Sadat where the main orientation was towards Pharaonic Egypt. The point here is that nations choose from the past to strengthen or particularly emphasise their orientation in the present.

As for the National Museum, it covers Islam first and then the Saudi state, but there is 1200 years between the emergence of Islam and the Saudi state, and it does show what happened in this period. So what happened in the museum was that they chose to reflect the Saudi state, and based on Islamic religion and it achieving this goal was very conscious.

Maha: *Is there any process in the National Museum of Saudi Arabia that helps construct national identity?*

Saleh: Yes, in the museum certainly there is a process emphasising national identity in a clear form, especially in the last three exhibitions in the museum which focus on the Saudi state. That obviously gives the impression to the visitor that yes, we are firstly Muslims and then Saudis.

In terms of any steps of constructing national identity in the Kingdom, in fact the core of 2030 Vision is basically concerned with the national identity. It seems to be an economic restructuring vision but it is actually about community composition, restructuring and belonging.

For example, the Muslim Brotherhood is a terrorist organization and here I am neutral, but the Muslim Brotherhood was working for Islam and they do not represent a nation. They just want an Islamic state like the time of the Ottomans from the Atlantic Ocean to Central China and from Central Europe to Central Africa, so they are still in that frame of mind and strongly believe

in that. So that's why I think that the idea of 2030 Vision has an essential message of enhancing yes, we are Muslims but we are Saudis also. We have a nation, and I can never be a Muslim and destroy my identity and nation.

So there are great efforts in structuring public opinion and emphasising identity in the 2030 Vision.

Maha: *From these changes what is your view of the future of architecture?*

Saleh: We believe that as architects, we are producers of culture, heritage, and nations. Some of us produce architectural products without any objective, taking inspiration only from magazines or through tourism in China or Manhattan, copying it blindly without any thought of the implications on society.

My answer to this question is explained in my article, Towards a Definition of Islamic Architecture. It identifies two cases, each suggesting a different approach, but producing the same product that enhances our identity and our local environment.

Maha: *What are the approaches of national symbols (Saudi symbols) as a form of social interaction and communication?*

Saleh: For me, there are many national symbols, for example I distinguish the Saudi outfit for men and women, and the palm is also a symbol of Saudi Arabia and also Mashrabiya which is a building pattern, which gave me a sense of buildings in Makkah and Madinah. Also, stone castles remind me of the area of the courtyard of the south region of Saudi Arabia, and if I see the mud buildings I remember Najd and the central region. So I have many symbols that are mentally linked in my mind and visually I can associate with them. If I were in the airport of China and saw the black abaya, which is a dress for Saudi women, it directly sends me a message that is Saudi.

Maha: *What do you think is the primary challenge facing museums today? How do you feel about interactive exhibitions?*

Saleh: I think recently people are more active than they used to be, and get bored quickly because they are getting what they need quickly. Attention span has been decreased, because in the past it was hard to get the information while today it is very easy to find what you need from the internet. So I think the museums need to be an interactive and attractive environment where people can communicate with the museum. This is a major challenge for museums which have to display a new attitude and habits to communicate with their visitors.

Maha: *How does the aspect of material of the architectural design contribute to communicating meanings and generating an immediate experience of the displays?*

Saleh: Architectural design certainly has a very big role. It is possible to erect steel structures within a day and the designer can come to design this space as he wants, and it is also possible as an architect to cooperate with the exhibition designer and develop the scenario after the architect confirmed the materials that will be used. So the architect will usually be able to provide spaces that achieve the basic objective and will be developed to produce firstly an architectural space that achieves the goal of the scenario and to achieve the goal that the architect believes is appropriate space, and secondly the exhibition designer thinks is functionally appropriate to achieve their primary purpose. So the ability of the architect is in providing all these things such as internals, lighting and so on, that meet the primary objective.

Maha: *What kind of storytelling contributes to facilitating visitors' understanding of artefacts according to different spatial arrangements? Would that influence the public's understanding of the artefacts?*

Saleh: The story is generally rooted in the understanding of a human to understand an initial idea, so we used to sit with our parents and listen to their conversations, a large part of them being the stories that establish principles of ethics and so on. So certainly, contributing stories as a method to consolidate concepts, and of course today's stories have been changed from the past. They now come through cartoon animation and other media, but are still basically creating a story that leads your imagination to a certain object or event.

Maha: *How do you define the awareness and barriers for visiting Saudi National Museum whether residents or nationals?*

Saleh: Often, any foreign visitor wanting to know the history of the nation will go to the National Museum and not to the specialised museum for a specific subject. When I visit any National Museum for a few hours I know the national history much better than reading several books over several days or months, so I think foreign visitors have this basic objective. This contrasts with the Saudi visitors, especially younger generations. We aim to lead them to specific goals such as identity and belonging and make them through the museum more part of, more familiar with, their nation, giving them a sense of this country, its history, its achievements and how it developed over years until it reached this place. Consequently, the awareness and barriers vary from visitor to visitor, according to their specific goal and whether they are foreign or local.

Maha: *How do you compare the Saudi National Museum to other museums in Riyadh?*

Saleh: If I compare the Darat King Abdul Aziz which located in the same place of Saudi National Museum, it is specialized for King Abdul Aziz. Otherwise I cannot compare it with other museums, because the other museums are mostly specialised with a specific narrative.

Maha: *Do you think the location for Saudi National Museum a barrier?*

Saleh: Certainly, yes, it is linked to the establishment of the Kingdom of Saudi Arabia and being in the place of the Al Murabaa palace which is the royal palace of King Abdul Aziz, it is a great symbol of Saudi Arabia and is undoubtedly being psychologically linked to this entity strengthens this aspect.

Maha: *How does the aspect of material of the architectural design such as circulation, lighting and space layout contribute to communicating meanings and generate an immediate experience of the displays and architectural design together?*

Saleh: I think the most influential moment in the museum is the bridge for me, it puts you automatically in the place of a Muslim visitor and brings you back to the story of the Prophet and his arrival in the Madinah. It makes you part of this event that occurred 1400 years ago.

Maha: *Do you have any negative or positive points on the Saudi National Museum?*

Saleh: My evaluation of the design is that it is one of the best museums in Saudi Arabia, but it is not interactive enough. If I rank it 1 to 10, I would give 8.

Maha: *Concerning the Islamic narrative of the eight exhibition halls, do you think designers have undertaken a specific approach to present the Islamic narrative? Furthermore, what is the balance between Saudi history displays and Islam history displays? How do they work in two different strong narratives?*

Saleh: I think I answered this question earlier on when discussing the gap that I mentioned. The Saudi National Museum relates Islam first and then the Saudi state, but there is 1200 years between the emergence of Islam and the Saudi state and the museum does not show what happened in this period.

Maha: *How can the individual or personal identity of a Canadian architect be transformed into a collective national identity via the museum's narrative?*

Saleh: I think that the architect who is technically competent and is known in museums in general can understand the local element of the identity. Obviously the architect will be assisted by local consultants and will discuss his ideas with them and then they will help to develop the design. Therefore, most architectural competitions generate ideas but do not use them all, because the architects do not have the time to implement them. So the development of local ideas is one of the most important steps of study and translation of identity and others for the architect.

Maha: *What is your opinion regarding to the relationship between the exhibitions, special architectural moments, visual effects and visitors and how the Saudi National Museum combines multiple environments?*

Saleh: I think the interaction with audio visuals is definitely influencing things because is not static and can adapt quickly.

Maha: *In most national projects of Saudi Arabia international designers are involved. In your opinion are there any Saudi architects capable of managing these projects?*

Saleh: Unfortunately, it seems to me that we don't have confidence in our local capabilities. Foreign architects do not necessarily have to be qualified, this is a weakness in the clients who deal with these national projects and their lack of knowledge of the qualifications of Saudi architects. Many government officials do not know the real qualifications of some good Saudi architects. So knowing our local qualifications is problematic, but we have similar qualifications for foreigners. On the contrary, I really support collaboration with global companies and their systems, so that we can work with them in the implementation sector, mechanical or otherwise, thus enhancing our local capabilities and raising our level of expertise if we work together with efficient foreigners.

Maha: *Saudi Arabia has been moving towards a new transitional stage through 2030 Vision, especially in national discourse. What is the public role and function of the museum socially, politically, economically and culturally and will this change? Do you notice any original roles of museums authority that have been changed?*

Saleh: The role of the community is the main one, but it must be understood that this requires transitional change. It is not possible for society to change until they buy into these trends. Therefore, it is required to understand the role of the public in realising Vision 2030. The process of change is difficult and the most difficult thing is to lead the nation and encourage discussion so that they can accept this orientation.

Maha: *Could you talk about Saudi national identity in general? How do you feel about the balance between the Islamic belonging to wider Islamic community compared with how they feel about having a Saudi national identity?*

Saleh: I think we are originally Muslims and we do not feel in our minds only partly Islam, we are Muslims. I do not find any difference between them in terms of my feelings, so Islam is not an identity because my identity is Saudi. I am automatically Muslim, I have no doubt about this and I cannot distinguish or differentiate between the Islam or Saudi identity. This is exactly the problem with the Muslim Brotherhood, they do not represent Saudis, Egyptians or Turks, they are only Muslims and they want an Islamic state. They do not belong to any country or nation.

Sami Al Sabbagh transcript

Maha: *Thank you for giving me the opportunity to meet you.*

Sami: You are welcome, and I hope you find it useful.

Maha: *To begin, could you tell me about any participation or contributions you have had in national projects that related to national Saudi Identity?*

Sami: I think we have a problem in the identity of culture because we have an ancient heritage and there has been a conflict between our understanding of this heritage and contemporary identity. This has led to industrial development and the transition of technology has allows a human to keep up with all this cultural diversity, but has led to the loss of the basic identity of our countries. But after the leaders who were keen on this cultural identity, such as King Salman bin Abdul Aziz, at the beginning of his journey with the establishment of the Authority for the development of the city of Riyadh, he was trying to highlight the cultural identity of the city. He began his journey with the royal palace and the the architect Rasem Badran was able to create an architectural idea with a specific identity that is not repeating the past but extracting vocabulary from it, putting it in a contemporary context. After that, he then moved on to the King Abdul-Aziz Historical Centre and its relationship to the environment. Here there is interaction between the citizen and this context, to feel that it is linked to his cultural identity while at the same time giving him rest and quiet away from the his living space. I think we were successful with that.

And then we started recently to develop Al-Bajairi and the Ministry of Culture buildings where we created a space of communication that connects between the present and future. The site attracts a large number of citizens and residents in the region because it returned to the spirit of nature, the architectural identity and civil identity that we are looking for. Therefore, we are addressing an architecture that respects the human and at the same time preserves your original identity, because the most beautiful thing that a person can receive is a proud identity.

Maha: *What was your involvement in the Saudi National Museum project?*

Sami: Yes, I participated with my partner Rasem Badran in the project for the National Museum when it was an international competition under the supervision of the Authority for the development of Riyadh and there was participation in this competition by a group of international architects. Then came the architects Rasem Badran and Ali Shuaibi who were mandated from the Commission to give their vision for this project. They presented their architectural ideas for this project, so we have worked here at the office of Dar Al Omran under the leadership of Rasem Badran on the part of King Abdul-Aziz Historical Centre and selected the part that contains the King Abdul Aziz Palace and Almurabba Palace square and the opposite side that was selected by Moriyama. So, at that stage the project had a problem to define the abstracted modern architecture against the building that we are working on in the King Abdul-Aziz Centre which symbolises the ancient walls of city of Riyadh. Here was the

controversy between the modern architecture (the National Museum) and the traditional architecture but with a contemporary concept (The Darat King Abdul-Aziz).

Moriyama was promoting the wall as a timeless wall, that recognized all internal parts inside the museum, and we assured the designer that the direction of wall has to be shown to all in the external context of the museum, and that it will surely show the relationship with the context space, which will increase the sense of the person that this interactive space is enriched.

Maha: *What are the reasons for developing the Saudi National Museum?*

Sami: There are many reasons. Firstly, the museum did not work on updating the exhibits. Secondly, the entrance of the museum has become just a corridor to move from one side to the other. Thirdly, the people have been coming to the museum and interacting with the urban context more than interacting with the items inside the museum. There was a lack of publicity. So we found a clear landmark in the metaphorical muds of the Najd architecture and put the Najd materials in the arena. These effects placed on the outside will let the person to see in and understand, and be attracted to, the interior. Several activities were added to complete the attractive path to the museum, these were the general ideas of development.

Maha: *Can you tell me more about the National Museum of Saudi Arabia in terms of preserving history? And what do you find important about preserving history?*

Sami: Yes, I think it is about preserving history, but we always need to activate it, especially with the development of physical materials. The museum was established about 20 years ago, so all the interactive materials are 20 years old. If we compare it with other world museums, the museum needs an interactive unit that keeps the journey enjoyable for adults and children and keeps the museum alive.

Maha: *Is there any process in the National Museum of Saudi Arabia that constructs national identity?*

Sami: Of course, there is in many areas, not only in the tourism but in many aspects of Vision 2030 and its desire to highlight our architectural, cultural and national identity, and this must be emphasised everywhere, because I believe that a human without identity is missing something important.

Maha: *What are the approaches of national symbols (Saudi symbols) as a form of social interaction and communication?*

Sami: The identity has several elements. First, identity always come from culture, whether what to wear or how to behave or from teachings, so the Islamic religion comes in here, which calls for the good behaviour of people within their community. This needs to be expressed as an identity for us through our Islamic religion and our relationship with our environment. As for the national symbols of the kingdom, our cities are certainly different from what exists, for example, in Europe. Even here in Saudi Arabia, there is the identity of Riyadh which is the Najd identity, and is different from the identity of Jeddah. Each region has a different identity, but we have a common denominator that combines them, and that is the culture and religion represented in the Quran and Sunnah, and the task is to preserve this identity.

Maha: *The Saudi Commission for Tourism and National Heritage has an initiative to build 11 museums for all regions of the kingdom, what do you think is the primary challenge facing museums today and how do you feel about interactive exhibitions?*

Sami: The challenge is how to create something that attracts people to the museum, makes them informed and has multiple activities, and not just to look at the artefacts. The other challenge is how to make the museum a gathering space and revival of activities, celebrations and events because the museum is not considered as a profitable institution unless it invests in the other activities to keep it alive.

Maha: *How do you feel about interactive exhibitions?*

Sami: The interactive exhibits are very effective because they open the mind and throw a light on modern technology. They are a tool for learning and quickly discovering things without the need for the visitor to go into research, reading, etc.

Maha: *How do the aspects of material of the architectural design like circulation, space layout or lighting contribute to communicating meanings and generating an immediate experience of the displays?*

Sami: The architect can design the building to make a museum space, such as what we designed for the Darat King Abdul-Aziz. The hall exhibiting his cars was in the museum space itself, then any exhibits introduced into this space affected it. Of course there are two trends in this field. The first is the black box into which one puts the exhibits and then we think about it whether they are good or not. That approach is, I think, far from creative.

And in terms of other internal aspects like lighting and circulation, they certainly have an impact. In the most beautiful museums in the world they are dealing with the space of lighting or shade and shadow and they succeeded in laying the foundations of these philosophies. Unfortunately, in Arab culture there is very little achievement of contemporary architecture by Arab architects. For example, we are working on a museum in Madinah and we are working hard to mix this concept with its expansion. Another example is what we tried in the Saudi

National, such as providing natural lighting inside the museum that will format the interaction between the internal space and external space, to let the person's see this space as interdependence and not just as a black box.

Maha: *In a cultural context, do you think that the Saudi National Museum has enough expression, projection and reflection of national identity?*

Sami: Yes, there is a difference, unfortunately because the culture of our communities are mostly superficial, the exhibits always have a historical aspect and their values must be educated through these exhibits. It is also very important for the exhibits in museums to carry a particular theme or a certain idea, and not only a view of history. But it has to be linked to the idea of moving the memory of the person to the past and how people were living at that time through these exhibits.

Maha: *Are there any differences between the public's understanding of replicas and original artefacts?*

Sami: Yes, there is in some respects, but we still need to update with new technologies in a different way to be more attractive to the visitor. For example, if we talked about history in the Kingdom and its multiple areas we can put a wall panel that lets you touch each area and gives you information about this area and history, all these tools I think increase interaction within the museum more than put a map filled with written information which you will pass in front of without absorbing it or even looking at it.

Maha: *What kind of stories and stories can the visitor know about the exhibits?*

Sami: Each stage of history has a link to a particular event. If this specific event were to cause the person to interact and comprehend it, it must be linked to these events or the story of this history in a simplified and uncomplicated manner, and be explained from the beginning to the end so that the person can understand history correctly.

Maha: *How do you define the awareness and barriers for visiting Saudi National Museum whether residents or nationals?*

Sami: The main barriers are, I think, to learn more about the history, culture of the Saudi identity and the composition of the Kingdom to the present time. When the visitor enters and passes the era of Jahiliyah through the various historical periods to the emergence of Islam and then later Saudi Arabia and its origin to the present time, this is an enjoyable journey and has a scenario that is written in a very beautiful way, so I think when the visitor to the National Museum finishes the journey they obviously come out with the concept of how humans have developed.

Another issue here is that I think that the culture of the person itself determines the extent or awareness of the journey and the amount of knowledge that he wants to acquire during this

journey. This will be different from one person to another, for example, the international visitors come to this museum to look at the history and civilization, while the Saudi visitors certainly know their civilization and history. That's why the movement of Saudi visitors in the museum is faster than an international visitor, who moves slowly and spends much longer.

Maha: *How do you compare the National Museum with other museums in Riyadh?*

Sami: Museums in Riyadh are many but not as feeder museums as the National Museum. The National Museums is as a comprehensive museum, while other museums may complement it.

Maha: *Do you think the location for Saudi National Museum a main barrier?*

Sami: Yes, certainly, because while there is a very beautiful urban context which attracts people to visit, it lacks some services such as train or hotels, which would increase visitor numbers.

Maha: *What is your opinion regarding the relationship between the exhibitions, special architectural moments, visual effects and visitors and how the Saudi National Museum combines multiple environment?*

Sami: In my experience the moment which affected me most was my movement from the pre-Islamic era into the era of Islam through the bridge, or the migration path of the Prophet story. The sound effects all suggested that the Islamic religion is great and we have something fantastic to cherish. So I would say that the Prophet's exhibition is the hall that influenced my journey the most.

Maha: *Which of the exhibitions do you think reflect Saudi national identity?*

Sami: In fact I found the unification exhibition reflects and explains the different identity of the Saudi cities as multiple identity best, and how King Abdul-Aziz united these cities and was able to unify the regions under one banner as the Kingdom of Saudi Arabia.

Maha: *What is your negative or positive comments about the Saudi National Museum?*

Sami: The positive comment is that the museum has a particular architectural theme and idea. The negative point is that it needs to develop an upgrade and marketing plan as well as an integrated programme, to introduce citizens to the importance of this site and the benefits from visiting it.

Maha: *What is your evaluation of the architectural design and exhibitions design of the Saudi National Museum?*

Sami: The project was a black box that has a sequence of exhibits, the design I think could be better, and the walk through the exhibitions could have benefited from more natural lighting, but in general it is an undoubtedly beautiful museum space.

Maha: Please can we talk about the process of the design of the Saudi National Museum? How can an individual or personal identity let's say a Canadian architect be transformed into a collective national identity via the museum's narrative?

Sami: Certainly he understood the identity from a middle eastern point of view on the one hand, but on the other hand, the Riyadh City Development Commission was conscious of this subject, and therefore it was constantly discussing and interacting with the designer to highlight the idea.

Maha: What tools and materials do you believe are most effective for communicating the galleries?

Sami: Certainly interactive sounds, images and visuals are all important.

Maha: Do you think that the Islamic narratives could guide the national imagination or the construction of a future community?

Sami: I think that the narration of Islam in the museum does not construct society. It is actually an integrated system of science, customs and traditions, but Islam combines all these things, so the museum gives you a brief and quick picture of the value of this civilization, but does not construct the community. It is not limited to being in a building like a museum.

Maha: In most national projects of Saudi Arabia international designers are involved. What are the reasons, do you think?

Sami: Unfortunately there are few successful architects in our Arab countries, but most international companies in Saudi Arabia produce the final, technically excellent product, but not only in the design and the architectural identity. When a foreigner comes to understand our identity and culture he expresses the identity superficially, but some Arab architects like Rasem Badran can express idea, architectural identity, creativity, privacy of the region and cultural understanding, and have a better understanding of the region than the international architect. Anyway I think the collaboration between the local architect and the international architect must be intensified.

Maha: Could you tell me more about the new development of the Saudi National Museum?

Sami: This development will be a big improvement because it will enrich the project, especially with adding the natural lighting and reviving the museum.

Maha: How did the idea of new development come about? How was your office selected for this development?

Sami: It was a tender and we presented our ideas to the Commission for Tourism and National Heritage and we were chosen because we have an architectural idea by Rasem Badran, as well as experience and qualifications. We collaborated with other teams who did a qualitative and quantitative study and identified the strengths and weaknesses, so our team was integrated.

Maha: *In your opinion are there any Saudi architects capable of managing these projects?*

Sami: There are potential Saudi architects I respect, like Basem Al Shehabi who has an architectural balance and has maintained excellence in his performance, thought and product. I think that the Saudi architect should deal with architecture as a culture of dealing with a place or dealing with a space that focuses on how to transform our cities into a place where I can live with its spaces and surroundings. This requires the Saudi architect to rethink the style of living, and to move from enclosed houses to open spaces that carry a yard that is more comfortable, and a source of light according to this quote: “My town is my little house and my little house is my city.”

Maha: *Saudi Arabia has been moving towards a new transitional stage by 2030 Vision especially in national discourse. What is the public role and functions of the museum socially, politically, economically and culturally will these change? Do you notice any original roles of museums authority that have been changed?*

Sami: The 2030 Vision has developed a good plan to develop Saudi Arabian identity and culture. So, changing is always difficult but achievable, society must understand the plans for change and interact and accept the plans, as well as preserving the Kingdom’s basics and religious principles. I would say that Islam offers legislation for any time and place and is not limited to a particular environment, so the person has to change to develop and interact with different civilizations.

Maha: *In your opinion, what national identity has been created in Saudi Arabia? How has this been constructed?*

Sami: Architecture is always expressing the identity of culture, clothing, coexistence and ethics. Architecture is also representing the people. For example, if you imagine yourself as a Saudi interacting with a space that expresses your identity, culture and dress in a contemporary space or if you imagine yourself as a Saudi interacting in a space representing European identity, what do you feel? That leads to an important point about the prestige of heritage, culture and identity of the person.

Maha: *Concerning the Islamic narrative of the eight exhibition halls, do you think the designers’ specific approach presents the Islamic narrative? Furthermore, what is the balance between Saudi history displays and Islam history displays? How do they work in two different, strong narratives?*

Sami: There is certainly one identity and there is no difference between Islamic identity and Saudi identity, because the common denominator of the Arab world is the Islam identity. This combines identities. Egypt, Saudi Arabia, Iraq and Jordan are all like one country, but colonialism is what divided us geographically. If you see the division of Europe it is based on mountains or valleys and not lines, while in Arab countries, unfortunately, colonialism came to separate us from each other. But Islam is permanent and brings us together.

Islam Transcript

Maha: *Can you tell me what your job is?*

Islam: We are an engineering consultancy business, Tariq Ali Reda. I am a project manager and am responsible for stakeholder co-ordination. We deal with some of the largest museum-related projects, including seven new museums developments with the Tourism and National Heritage Authority. We are also involved in museum exhibitions.

Maha: *What is your opinion about the National Museum's role in history preservation?*

Islam: I think it has an important role in highlighting and consolidating national identity. I would say that any national museum, in whatever country, has that role. In Saudi Arabia, the National Museum highlights important milestones in the development of the Kingdom, but it is now almost twenty years old and no content has been renewed in it. It offers a perspective of the history of the Kingdom and the civilisations that preceded it, but it is not currently being updated.

Maha: *What are the steps in building national identity?*

Islam: Of course, there are regional museums in all parts of the Kingdom, which explain local history and explore the distinguishing features of the area as well as its role in unifying the Kingdom, building the Saudi state or otherwise contributing to its culture. Besides these projects, the main step is to develop and update the displays and content of the Saudi National Museum.

Maha: *What do you think are the primary challenges facing museums today, and how do you feel about interactive exhibitions?*

Islam: The main challenge here in the Kingdom is ideological, dealing sensitively with the religious and political dimensions of the museum exhibits. For example, during some of the highlighted periods, the Jewish people had a presence here, but that is difficult to present. Interactive exhibitions have undergone a boom recently, and I believe they have an important role. Personally, I attended some such exhibitions in the city of Jeddah. These were one-off exhibitions to convey a specific message.

Maha: *How do aspects of architectural design like circulation, layout and lighting contribute to the communication of meaning and generation of immediate experience?*

Islam: I think the main role of architectural design is in communicating the identity of the museum or the region that it represents. The Saudi National Museum, for instance, is concerned with the history of the Kingdom, so the design must reflect something of this history or of the urban history of the area around it. On the other hand, if we consider a regional museum, one of the most important aspects is the building reflects and highlights the architectural heritage of the region. Defining the identity of either a region, or a whole nation, is very important. For example, if you see the Louvre Museum in Abu Dhabi, the concept is of a large umbrella, which reflects the fact that it contains many and different elements, not just those particular to the UAE. The purpose of a museum experience for the visitor is to convey messages. If you want to talk about the emergence of the Islamic religion, for example, then the idea of moving from darkness to light can be conveyed with lighting as well as with sounds. Consequently, all the interior elements – sound, light, graphic design – as well as the exhibits displayed are all important in achieving the aim of conveying the message in a clear way to the visitor while at the same time being interesting and enjoyable.

Maha: *Are there any differences between the public's understanding of replicas and original artefacts?*

Islam: No, it is assumed that there is no difference. The National Museum reflects national culture, so the local culture from the city of Riyadh cannot be mirrored. Also, the chronology of some themes or topics is very important because it enhances the visitor's knowledge of the exhibits.

Maha: *What kind of storytelling contributes to facilitating visitors' understanding of artefacts in different spatial arrangements? Would that influence public understanding of the artefacts?*

Islam: The interactive stories presented in the National Museum are important to attract visitor attention, because some of the static exhibits are not displayed in an interesting or eye-catching way. The only means of catching visitors' attention is through interactive stories. Many pieces on display in the museum are not particularly interesting. The most important presentation in the National Museum is the one about the emergence of Islam, because it contains interactive elements which are presented

in a chronological sequence, beginning with the origins of Islam and the Messenger's journey. There is a specific chronology and the story is told in an interesting way.

Maha: *Please can we talk about the process of the design of the Saudi National Museum?*

Islam: Certainly. I cannot comprehend how the Canadian architect understood the identity and culture of the region, but I can explain the methodology that we are working on for other museums in Saudi Arabia. The most important aim for us is to establish museums that are up to international standards. We do work with some American companies. As a whole team, we undertake street-based market research, interacting with people to elicit their views about how the museum can best express itself. We had a good response from the people of each region – this was our means of understanding their desires within our set framework. We resort to international designers because the field of museums science has in the past had no specialised schools in the Kingdom. Architectural design courses exist, but there is no study of the relationship between museum content and presentation that we call museography. It is a missing link for us and we have no local expertise. We therefore turn to a foreign designer.

Maha: *What is this identity that has been presented?*

Islam: Based on my work on the seven regional museums in the Kingdom, I think that the emergence of the Saudi state and the unification of the Kingdom is the most important aspect of identity and the most important message to put across. In all of the seven regional museums, there is a hall called Saudi History. The Kingdom is undergoing changes, and museums may be the most important means of conveying this change at the moment, because of the need for changing the mentality of certain people. By directing them through the museum, the past can be defined and this can put a message in the mind of the recipient as to how the future will be. This is the main goal of a museum. Just visiting a museum can change ideas.

Maha: *Have you seen any new decisions in this area?*

Islam: Yes, of course. The most important one is the introduction of modern technology in museums and modern methods of presentation to communicate information. And even a change in museum departments with the engagement of

international companies to manage museums and deal with the museum as a full institutional process.

Maha: *Could you talk about Saudi national identity in general?*

Islam: By virtue of the fact that I am not a Saudi, I cannot talk about it. But the Saudi national identity is a rich one, in the sense that it influenced by many different regions, customs and traditions, which differ between the north and south of the Kingdom. This is a problem in all Arab countries.

Maha: *How do you feel about the balance between belonging to a wider Islamic community and having a Saudi national identity?*

Islam: The Islamic identity is an identity that has nothing to do with any country, whether Egyptian, Iraqi or any other. It is a given that Islamic identity is a constant for every Muslim and cannot be altered by changing a place – it is not linked to a place or country. As for the national identity of a specific country, it refers to some customs and traditions which do not affect your religion. In this sense, I cannot impose on you a certain way of speaking, eating or dressing that distinguishes you as having a particular national identity.

Maha: *Do you think that Islamic narratives could guide the national imagination or the construction of a future society?*

Islam: Of course, the displays in the National Museum are only informational, but it misses how a visitor can benefit from this information. In the new museums, we are working on how to promote the Messenger as a role model and to emphasise the building of the state during the era of the Prophet. In general, I think the National Museum has a positive effect in changing people's conception of the state and its culture.

Maha: *What is your evaluation of the architectural and exhibition design of the Saudi National Museum?*

Islam: The architectural design is wonderful. The exhibition halls are very dated and not suitable for the present. They were wonderful twenty years ago.

Maha: *Could you tell me more about what new developments there should be at the Saudi National Museum?*

Islam: The most important thing is update of the content and displays. In the last 20 years there have been many significant discoveries which need to be explained.

Maha: *Do you think the designers set an agenda?*

Islam: Yes. There is a hall dedicated to Islam and a hall which precedes it that is pre-Islamic. There is certainly an agenda to privatise Islam.

Maha: *How can an individual or personal identity – let's say that of a Canadian architect – be transformed into a collective national identity via the museum's narrative?*

Islam: At the level of architectural design they have the ability to do this with a distinctive vision, but not the interior design of the exhibition halls.

Maha: *What kind of stories can the visitor learn from the exhibits?*

Islam: All these aspects are complementary, but sound, light and interactive activities, not limited to multimedia or touch screens, are the most important elements in communicating information.

Maha: *What would you say is the purpose of visiting the Saudi National Museum, as a resident or as a foreigner?*

Islam: Visiting the museum, whether as a Saudi national or as a foreigner, is to get to know the place where I live. It is the most important way to get to know any region of the world, because the first impression of a country is through its national museum. It is the first message that is given to anyone visiting the country.

Maha: *Do you think the location for the Saudi National Museum is a disincentive to visit?*

Islam: No, I don't think it is that remote and the area is well populated. But the plan to develop the area and add entertainment areas will make it more attractive.

(Appendix D of Interview analysis)

D.1 The number of coding references and coded items that mention the main themes

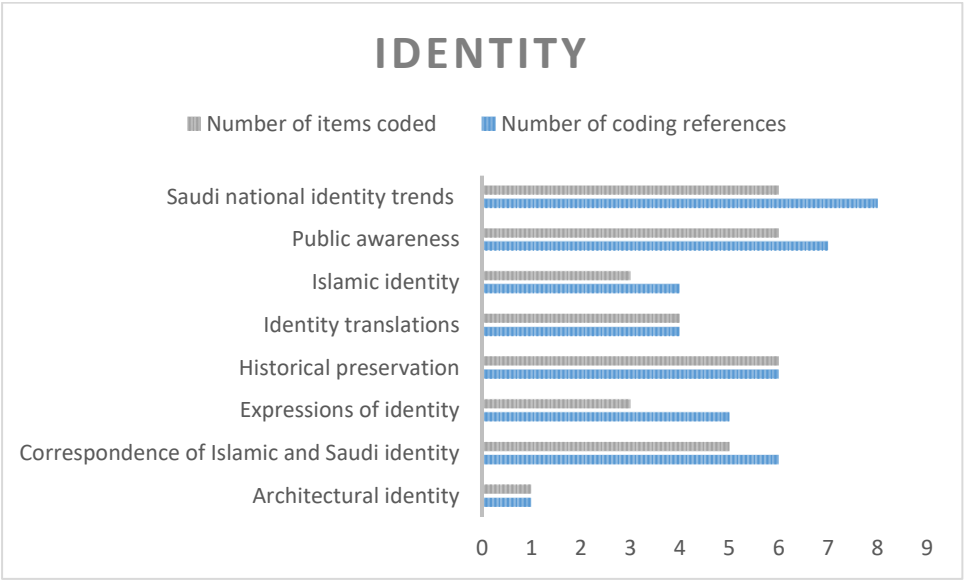


Figure 9.3.1 The number of codes in the identity theme

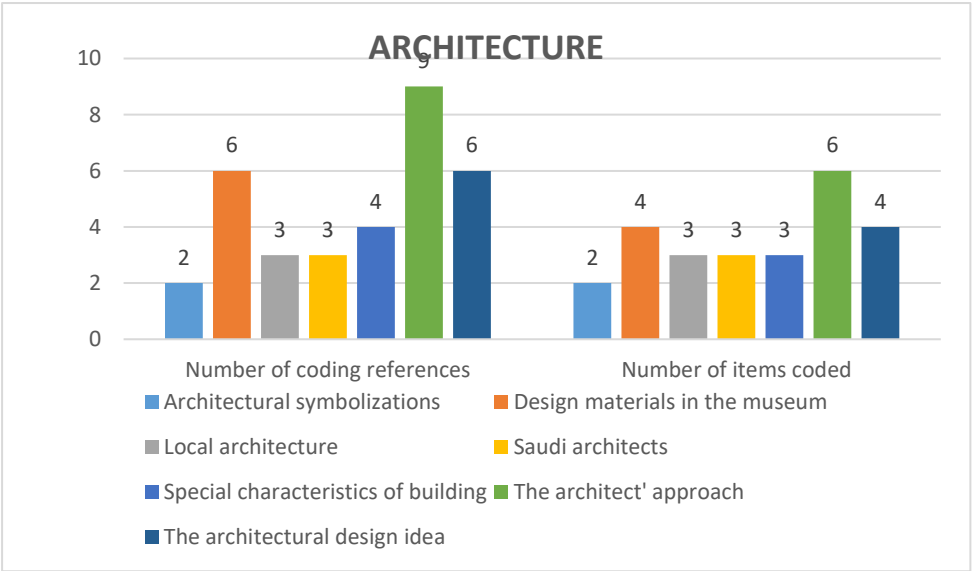


Figure 9.3.2 The number of codes in the architecture theme.

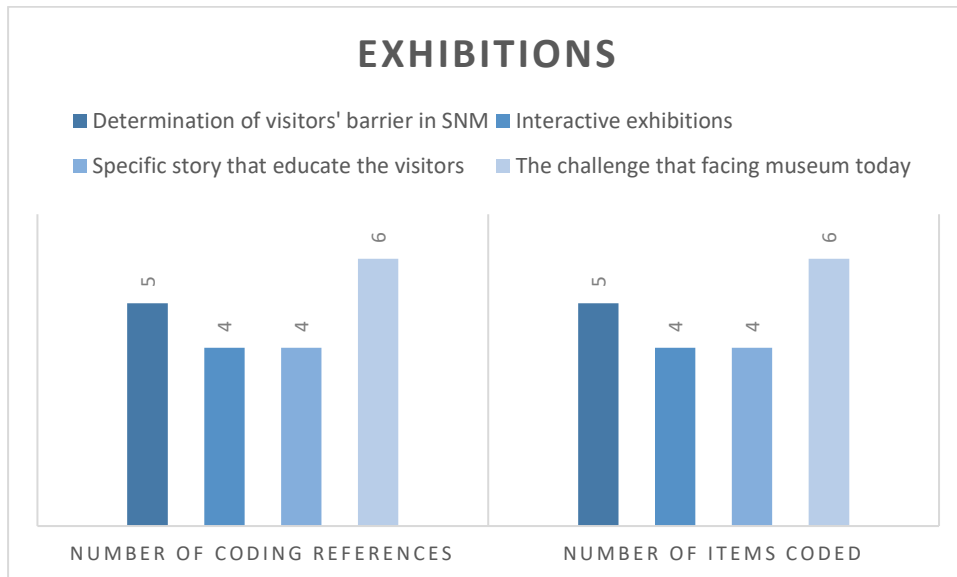


Figure 9.3.3 The number of codes in the exhibitions theme.

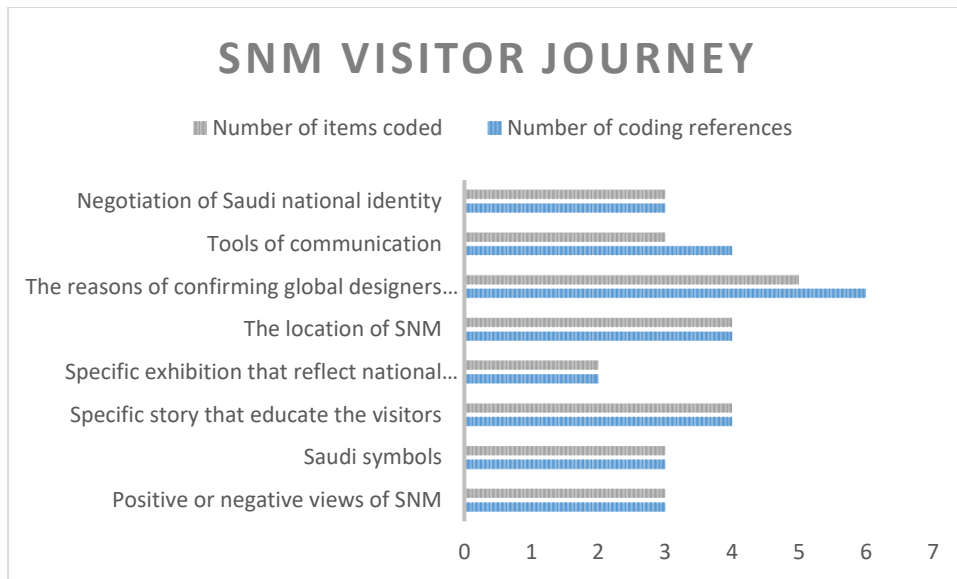


Figure 9.3.4 The number of codes in the SNM visitor journey theme.

D.2 Matrix coding query of all themes

Theme 1

Architecture



	Architectural symbolizations	Design materials in the museum	Local architecture	Special characteristics of building	The architect' approach	The architectural design idea
Alshaabi	1	0	0	2	2	2
Islam	0	1	0	1	1	2
I Alfheid	0	0	1	0	1	1
Alnaaim	0	2	1	0	2	0
Alhathloul	0	2	0	0	2	0
Al Sabbagh	1	1	1	1	1	1

Figure 9.3.5 Matrix coding of Architecture theme

[illegible]

Figure 9.3.6 Matrix coding of Exhibition theme

identity

Figure 9.3.7 Matrix coding of Identity theme

Theme 4
Saudi National Museum



	Positive or negative views of SNM	Reasons of development	Saudi architects	Saudi symbols	Specific exhibition that reflect national identity in SNM	The location of SNM	The reasons of confirming global designers in KSA	Treated Saudi national identity
Alshaabi	1	0	0	0	1	0	2	0
Islam	0	0	0	0	0	1	1	1
Alfhaid	0	2	1	1	0	0	1	1
Alnaaim	0	1	1	0	0	1	0	0
Alhathloul	1	0	0	1	0	1	1	0
Al Sabbagh	1	3	1	1	1	1	1	1

Figure 9.3.8 Matrix coding of SNM Journey theme

(Appendix F of Factor Analysis)

E.1 Descriptive Statistics

	Mean	Std. Deviation	Analysis N
awareness	1.9208	1.29611	240
nationality	2.9125	1.07688	240
frequency_1	3.3542	1.04079	240
frequency_2	2.9083	1.16788	240
AD1	1.5500	.60472	240
AD2	4.5417	2.07957	240
AD3	1.7125	.79529	240
AD4	1.7500	.77352	240
AD5	1.8708	1.04500	240
AD6	4.4083	1.98528	240
AD7	1.6833	.83324	240
AD8	2.3125	1.43122	240
AD9	2.4083	1.47217	240
AD10	4.4792	2.08391	240
AD11	1.7667	.84073	240
AD12	1.5792	.72174	240
AD13	1.6458	.75683	240
motivations	1.4125	.66017	240

E.2 Correlation Matrix

	awareness	nationality	frequency_1	frequency_2	AD1	AD2	AD3	AD4	AD5	AD6	AD7	AD8	AD9	AD10	AD11	AD12	AD13	AD14	motivations
awareness	1.000	.687	.443	.667	.792	.702	.818	.802	.823	.705	.833	.913	.920	.694	.785	.827	.816	.909	
nationality	.687	1.000	.890	.925	.710	.903	.689	.712	.648	.909	.664	.740	.770	.914	.680	.663	.675	.634	
frequency_1	.443	.890	1.000	.887	.567	.874	.558	.604	.519	.873	.511	.571	.593	.880	.568	.500	.532	.389	
frequency_2	.667	.925	.887	1.000	.794	.956	.742	.767	.679	.967	.714	.743	.754	.960	.728	.728	.735	.587	
AD1	.792	.710	.567	.794	1.000	.823	.887	.859	.854	.844	.920	.845	.842	.829	.871	.935	.930	.760	
AD2	.702	.903	.874	.956	.823	1.000	.823	.847	.768	.987	.780	.795	.801	.988	.810	.752	.798	.635	
AD3	.818	.689	.558	.742	.887	.823	1.000	.964	.937	.827	.961	.888	.883	.821	.951	.904	.949	.809	
AD4	.802	.712	.604	.767	.859	.847	.964	1.000	.949	.843	.928	.895	.887	.848	.965	.875	.920	.793	
AD5	.823	.648	.519	.679	.854	.768	.937	.949	1.000	.764	.928	.920	.902	.761	.956	.898	.915	.824	
AD6	.705	.909	.873	.967	.844	.987	.827	.843	.764	1.000	.792	.800	.812	.984	.817	.789	.818	.656	
AD7	.833	.664	.511	.714	.920	.780	.961	.928	.928	.792	1.000	.890	.887	.784	.933	.932	.969	.832	
AD8	.913	.740	.571	.743	.845	.795	.888	.895	.920	.800	.890	1.000	.980	.791	.909	.877	.883	.930	
AD9	.920	.770	.593	.754	.842	.801	.883	.887	.902	.812	.887	.980	1.000	.803	.899	.875	.885	.928	
AD10	.694	.914	.880	.960	.829	.988	.821	.848	.761	.984	.784	.791	.803	1.000	.812	.758	.798	.634	
AD11	.785	.680	.568	.728	.871	.810	.951	.965	.956	.817	.933	.909	.899	.812	1.000	.886	.922	.815	

AD12	.827	.663	.500	.728	.935	.752	.904	.875	.898	.789	.932	.877	.875	.758	.886	1.000	.944	.822
AD13	.816	.675	.532	.735	.930	.798	.949	.920	.915	.818	.969	.883	.885	.798	.922	.944	1.000	.830
motivations	.909	.634	.389	.587	.760	.635	.809	.793	.824	.656	.832	.930	.928	.634	.815	.822	.830	1.000
awareness		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
nationality	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
frequency_1	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
frequency_2	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
AD1	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
AD2	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
AD3	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
AD4	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
AD5	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000
AD6	.000	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000
AD7	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000
AD8	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000
AD9	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000
AD10	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000
AD11	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000
AD12	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000
AD13	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000		.000
motivations	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	

a. Determinant = 3.15E-021

E.3 KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.941
Bartlett's Test of Sphericity	Approx. Chi-Square	10959.597
	df	153
	Sig.	.000

E.4 Communalities

	Initial	Extraction
awareness	1.000	.820
nationality	1.000	.901
frequency_1	1.000	.942
frequency_2	1.000	.958
AD1	1.000	.865
AD2	1.000	.972
AD3	1.000	.929
AD4	1.000	.916
AD5	1.000	.921
AD6	1.000	.980
AD7	1.000	.940
AD8	1.000	.926
AD9	1.000	.921
AD10	1.000	.979
AD11	1.000	.917
AD12	1.000	.899
AD13	1.000	.930

motivations	1.000	.844

Extraction Method: Principal Component Analysis.

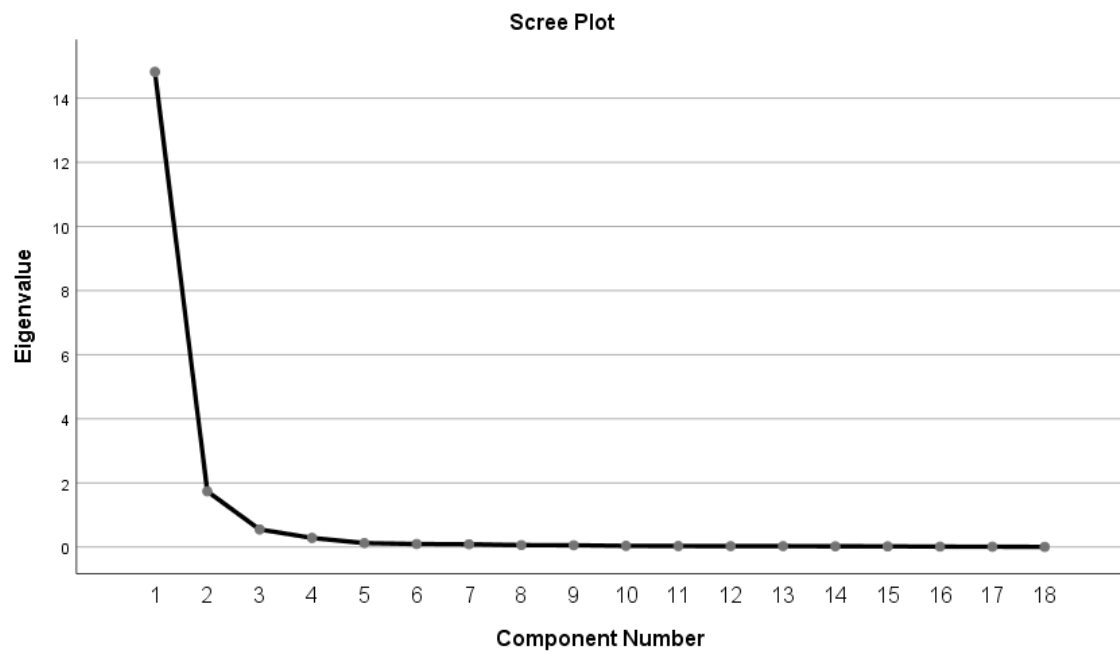
E.5 Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings ^a
	Total	% Variance	Cumulative %	Total	% Variance	Cumulative %	Total
1	14.821	82.338	82.338	14.821	82.338	82.338	14.031
2	1.738	9.657	91.994	1.738	9.657	91.994	11.584
3	.547	3.037	95.031				
4	.284	1.577	96.608				
5	.123	.685	97.293				
6	.094	.523	97.816				
7	.086	.477	98.292				
8	.059	.328	98.621				
9	.055	.307	98.928				
10	.036	.199	99.127				
11	.031	.174	99.301				
12	.028	.156	99.457				
13	.027	.149	99.606				
14	.023	.126	99.733				
15	.021	.116	99.849				
16	.013	.072	99.921				

17	.009	.051	99.972				
18	.005	.028	100.000				

Extraction Method: Principal Component Analysis.

a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.



Component Matrix ^a		
	Component	
	1	2
Awareness	.869	-.254
Nationality	.841	.440
frequency_1	.713	.659

frequency_2	.874	.440
AD1	.926	-.087
AD2	.919	.358
AD3	.948	-.172
AD4	.951	-.113
AD5	.926	-.250
AD6	.928	.345
AD7	.940	-.238
AD8	.944	-.185
AD9	.947	-.155
AD10	.920	.364
AD11	.942	-.173
AD12	.921	-.224
AD13	.943	-.203
motivations	.848	-.353

Extraction Method: Principal Component Analysis.^a

a. 2 components extracted.

Pattern Matrix ^a		
	Component	
	1	2
Awareness	.939	-.048
Nationality	.052	.911
frequency_1	-.312	1.170

frequency_2	.076	.923
AD1	.771	.206
AD2	.211	.823
AD3	.893	.096
AD4	.821	.179
AD5	.974	-.021
AD6	.234	.808
AD7	.969	.001
AD8	.906	.076
AD9	.871	.118
AD10	.204	.833
AD11	.890	.091
AD12	.939	.013
AD13	.928	.050
motivations	1.047	-.192

Extraction Method: Principal Component Analysis.

Rotation Method: Promax with Kaiser Normalization.^a

a. Rotation converged in 3 iterations.

Structure Matrix		
	Component	
	1	2
Awareness	.905	.627

Nationality	.707	.948
frequency_1	.529	.946
frequency_2	.739	.977
AD1	.919	.760
AD2	.803	.975
AD3	.961	.737
AD4	.949	.769
AD5	.959	.680
AD6	.815	.976
AD7	.969	.697
AD8	.961	.727
AD9	.956	.744
AD10	.802	.979
AD11	.956	.731
AD12	.948	.688
AD13	.964	.717
motivations	.909	.560

Extraction Method: Principal Component Analysis.

Rotation Method: Promax with Kaiser Normalization.

Component Correlation Matrix		
Component	1	2
1	1.000	.719

2	.719	1.000

Extraction Method: Principal Component Analysis.

Rotation Method: Promax with Kaiser Normalization.

Appendix E of Museum Journeys Survey																		
1-Which of the following statements best describes the main purpose and awareness of your visit to the Saudi National Museum:									√									
• To see particular artefacts that I am interested in																		
• To take time out from the stress of daily life																		
• A great way to visit all surrounding area																		
• To make me smarter by engaging and educating the community																		
• Because it is one of the main attractions in Riyadh city																		
• To take time with my kids																		
• Others (.....)																		
Please indicate your age range			18-24		25-34		55-64		65+									
Please indicate your gender			Male			Female												
Are you		National visitor		Regional visitor		Local visitor		Overseas visitor										
When was the last time you visited the Saudi National Museum?																		
Within the past year		Within the past five years			More than five years			Have never visited										
How often do you visit museums?																		
At least two or three times a year		About every year or so		About every 2-3 years		Have not visited any in the past three years or more												
2- Now consider the following statements. Indicate how much you agree with each of them by choosing the appropriate answers						Disagree strongly	Disagree	Disagree slightly	Neither agree or disagree	Agree slightly	Agree	Agree strongly						
						It is enjoyable to spend time in this environment												
						When looking around exhibitions, I am not sure where to start or where to go next												
						This exhibition's design helps spark my interest												
						This environment engages all my senses												
						This exhibition's design and layout help me make sense of what the exhibitions are about												
						It's difficult to focus on particular displays												
						I had a worthwhile experience in the Saudi National Museum												
						My attention was focused while in the bridge												
						The bridge has a special meaning to me through moving												
						I do not pay attention to the exhibitions environment- I just like to look at the objects												
						Saudi National Museum definition represents clearly Islam identity												
						Saudi National Museum definition represents clearly Saudi identity												
						This museum where I recognised in belong to understanding Saudi national identity												
						Which is the particular moments that was most affected you as a visitor									√			
Architecture design																		
Exhibits																		
Enjoyable atmosphere																		
Educational environment for different segments																		
Halls arrangement in a historical succession																		
Others.....																		

Where in museum exhibition did you feel the strongest sense of Saudi national identity? And why?		
Exhibition	V (Numbers)	Why?
 Hall of Man & Universe		
 Arabian Kingdoms		
 Jahiliyah (Pre-Islamic)		
 Prophetic Missions		
 Islam & the Arabia		
 The First & Second Saudi States		
 Unification of Saudi Arabia		
 Haj and the two Holy Mosques		

- **What is your personal view of visiting the Saudi National Museum?** Please write negative or positive comments

(Appendix G of Comparison of positive and negative responses)

Positive aspects category N=103	Negative aspects category N=13
Beautiful experience N=76 1. Wonderful 2. Both floors are well organized and beautiful 3. All floors are very wonderful 4. very good 5. very good 6. Very good 7. No comment 8. positive 9. Interesting 10. Really positive 11. All good 12. Very positive comment 13. All my comment is positive 14. All good 15. I do not have any negative comment 16. Both floors are wonderful 17. Really beautiful 18. The journey was very enjoyable and interested with my kids 19. In general, it is very excellent 20. the 1st floor is better 21. Really hope to develop more in the 1st floor 22. All good 23. It is a good place to visit and to gain information Islam + Saudi Arabia 24. have seen all positive to know easily 25. The first floor great and the second floor loved the bridge good 26. good	1. The 1st floor was more organized. and I really hope to provide coffee and setting for visitors 2. In my personal view all information in the museum halls need to be updated Also provide place to rest and drink 3. Gift shop must open at all time. 4. It is better if there more cinema screens 5. Negative comment regarding to getting in the museum from outside 6. I have negative comment that between each hall it should be provide rest and refresh to drink and eat specially for old people and kids 7. The fact that the museum is in a geographical area made the museum a difficult place to reach, so I hope to see it in the nicest place 8. Future comments then would be ENGLISH sub-title in every film showing

27. Same as the guide line it is very helpful 28. Both floor very good coming the museum value and educating Saudi culture and history 29. all nice 30. Good and excellent 31. I liked the museum and loved the view 32. All very good and nice 33. All beautiful 34. All excellent and needs to advertise this museum and must visit for every Saudi and children of the kingdom 35. were enjoyed 36. All good 37. All liked it 38. All floors are wonderful and harmonic 39. All I liked it 40. All beautiful 41. Beautiful 42. 1st floor It was good visiting that 2nd floor it was interesting visit this place 43. very positive very good positive 44. positive 45. Very good 46. Excellent 47. Both first floor and second floor was good. Very well explained. 48. OK very good 49. 2nd floor is all about Islam and I like it. 50. Both floors are good and well representable. 51. OK very good 52. it was very interesting and fun	for the foreigners to understand 9. Only negative comment is I wish there were rest stops with snacks because my kids got really tired and hungry. 10. It is better if you do not ask for tickets so that poor can also visit. 11. Good floors and should provide water for visitors 12. It would be helpful if there are signs / directions

53. positive comment 54. positive experience 55. good 56. Excellent 57. very good 58. very good 59. very good 60. It is very good 61. Good 62. it is good for me to visit 63. The 1st floor more fun and suspense 64. because I learn some historic about Saudi Arabia 65. 2nd floor is the better 66. positive feeling 67. Enjoyed the information and educational 68. Good 69. very good 70. Respectable 71. It was enjoyable moment with family 72. Museum was wonderful I learned a lot and have great respect for the Saudi State as a foreigner. 73. Magnificence 74. very good very good 75. all floor good and knowledgeable 76. OK, very good	
Museum staff N=9 1. The museum is amazing and all staff are helpful and I will defiantly visit again 2. Very clean and good maintenance I want to appreciate security men. 3. Positive comment that we all proud of it and	

thank everyone who based on them 4. All floors are amazing 5. Really nice and beautiful efforts we appreciate it 6. Positive points: the place is organized, the security men are very helpful, all displays are provided very clear, calmness, nice area capacity and the smoothness of mobility 7. Securities are very good; they are take caring very well. 8. Overall it is a very good experience for whole family Very good, clean, staff is very good. 9. Thanks for your work we appreciate it	
Visual displays N=8 1. The diversity of displays 2. I liked the arrangement, audio and video materials 3. Loved the tradition forms 4. Liked the diversity of antiquities and visual displays 5. Overall a fantastic museum, easy to get around and excellent displays 6. I loved everything about the museum the videos, the displays, the artefacts...etc. 7. Really good arrangement and enjoyed the cinema in the 1st floor and hope for new and modern displays	

8. 1st floor focuses on natural history and the 2nd floor on human antiquities

Museum' design N=7

1. Amazing design
2. All museum' design with all facilities are beautiful
3. The nice, easy and clear historical narration of the all halls.
4. Modern, clear and advanced design
5. All halls are organised and well-appointed
6. Thoroughly enjoyed the Museum very well planned and informative well done
7. Good job in the first floor good views and in the second floor great architecture

Museum' signs N=5

1. I do not remember my journey

2. Helpful, yellow dots, good co-operation and staff
3. Followed the dots.
4. I followed the arrows
5. Followed the yellow circles

(Appendix H of The overall SNM journey tracking sheets)



Figure 9.7.1 Entrance and exhibition 1



Figure 9.7.2 The 2nd and 3rd exhibitions

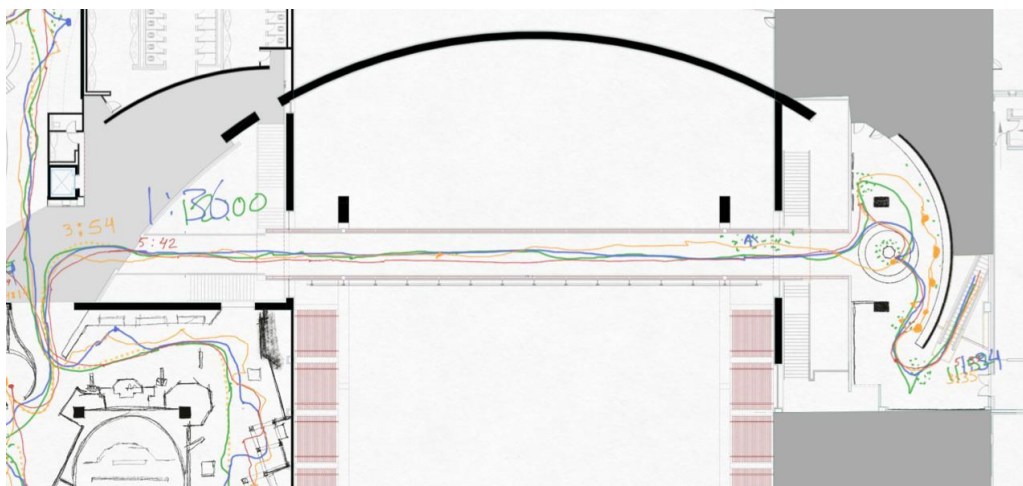


Figure 9.7.3 The 4th exhibition (the bridge)



Figure 9.7.4 The 5th exhibition

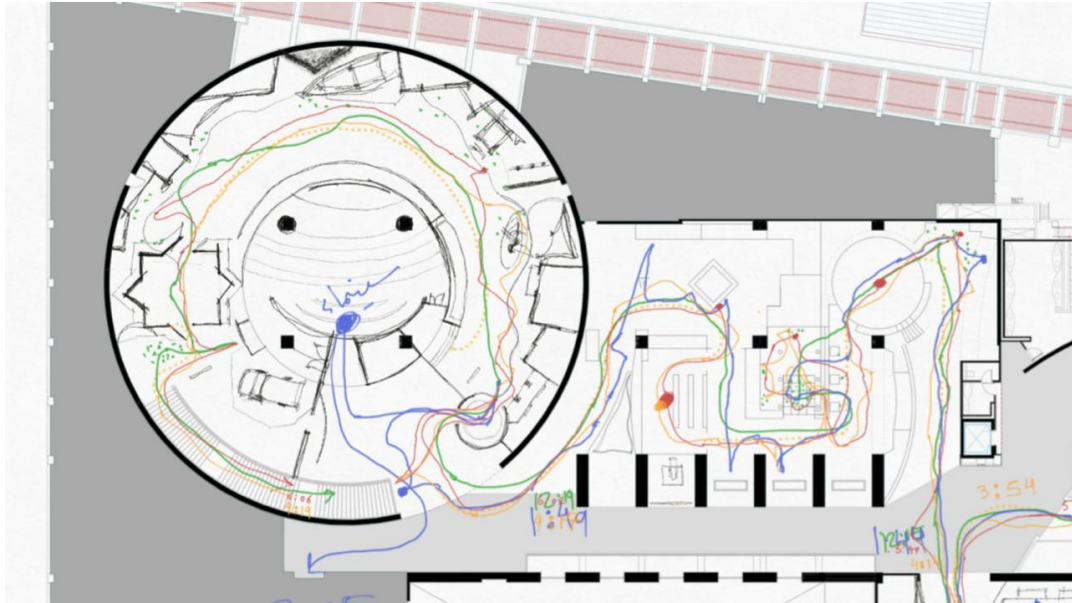


Figure 9.7.5 the 6th and 7th exhibitions

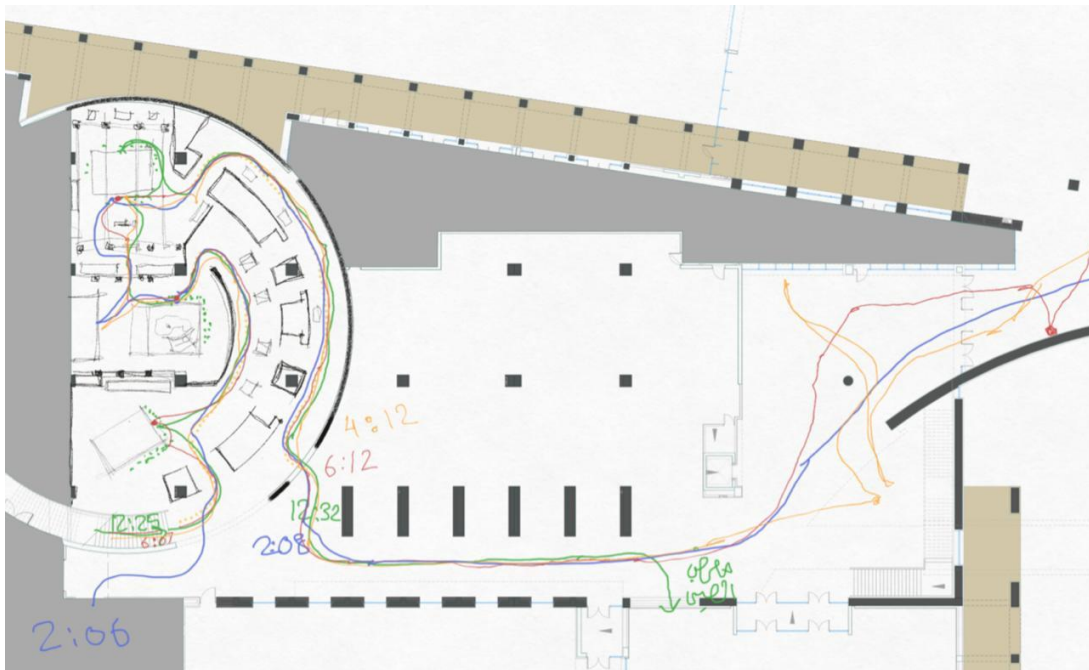


Figure 9.7.6 The 8th exhibition and exit

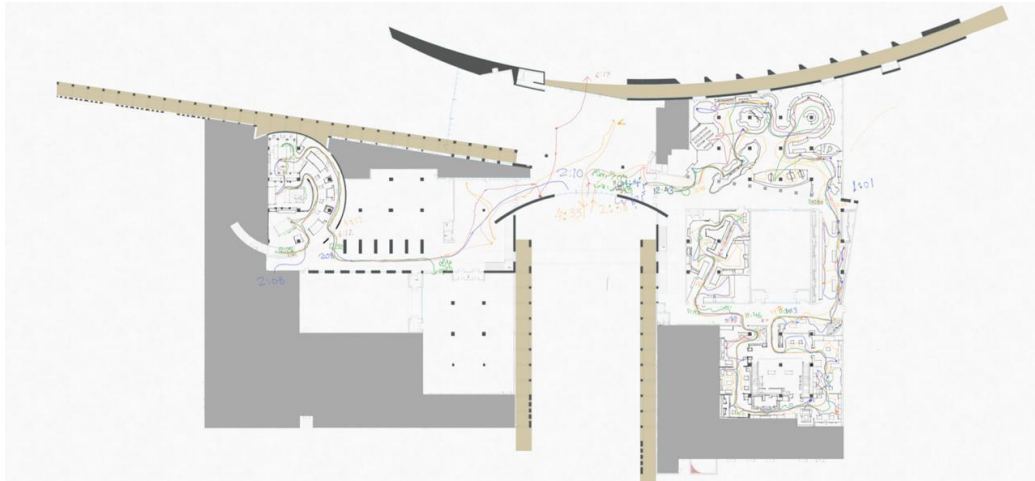


Figure 7-2.7.7 The 1st floor of tracking sheet

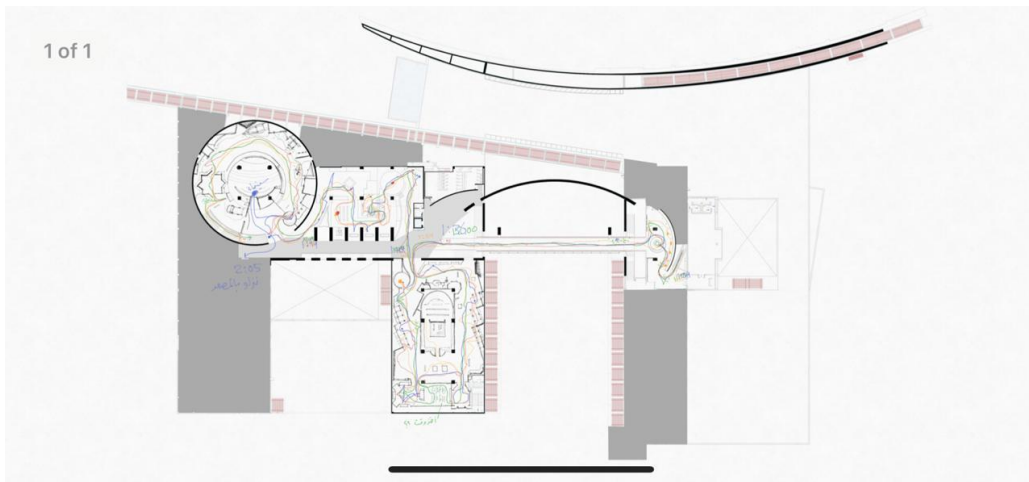


Figure 9.7.8 The 2nd floor of tracking sheet